



OECD Journal

Competition Law and Policy

OECD Journal: Competition Law and Policy

Volume 2009/1

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ISSN 1560-7771 (print)
ISSN 1609-7521 (online)

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Foreword

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ENERGY SECURITY AND COMPETITION POLICY

The OECD Competition Committee debated energy security and competition policy in February 2007.

This roundtable examined the links between competition policy and energy security, with a focus on natural gas. The discussion began by addressing the questions of the meaning and importance of energy security; and the determinants of energy security, particularly as they relate to competition policy.

It continued in dealing with gas supply, transportation, and distribution, addressing five aspects that relate to different aspects of energy security: (1) the role of substitutes for natural gas in fostering competitive gas supply; the role of regulation in promoting or inhibiting infrastructure investment; (2) how to promote an adequate level of infrastructure investment; (3) the role of unbundling in fostering competition and promoting energy security; (4) the role of storage capacity in system efficiency and buyer bargaining position; (5) and the determinants of entry into merchant sales of natural gas.

ENERGY SECURITY AND COMPETITION POLICY

1. SYNTHESIS BY THE SECRETARIAT

SYNTHESIS

by the Secretariat

Considering the discussion at the roundtable, the delegates' submissions and the background paper, several key points emerge

- (1) *Nations differ in how they define energy security. All participants appear to include unanticipated disruptions in energy production or importation as threats to energy security, especially if they result in cutoffs of retail customers. Natural disasters, disruptions from terrorism or other forms of political unrest and political boycotts by suppliers are all sources of vulnerability to disruptions. For many nations, price stability and continuation of historical price levels are components of energy security as well.*

Every nation faces some energy security risk. For nations that consume substantial quantities of natural gas, the sources of supply risk vary greatly. Nations with sufficient domestic supply to meet domestic consumption focus on disruptions of internal production or of transportation facilities. For nations with few domestic sources of supply, additional sources of risk include the foreign policies or internal political instability of supplying nations.

To some extent, the meaning of energy security depends on what a nation is accustomed to. When a nation is accustomed to low or stable prices, events or circumstances that result in high or volatile prices are viewed as threats to energy security. This may be because changes in fuel prices can impose costs on customers who have invested in equipment or structures that are optimal with continuation of past energy price patterns. If demand is highly inelastic, higher or volatile energy prices can force consumers to cut back other forms of consumption in order to meet budget constraints.

- (2) *There are fairly spectacular examples demonstrating that well-established markets can successfully prevent short-term wholesale supply disruptions from becoming retail customer cutoffs. Demand response to price signals has been shown to be robust in a wide variety of circumstances. Nations that do not facilitate demand response increase their vulnerability to retail customer cutoffs.*

Nations with well-established markets that convey accurate price signals to final consumers report consistent success in avoiding retail cutoffs when wholesale supply disruptions occur. The response of customers in such markets to higher prices reduces aggregate consumption when wholesale supply disruptions occur. Price signals also prompt owners of inventories to release these inventories. Inventory releases also help to alleviate supply disruptions.

If regulations prevent accurate price signals from being passed on, consumers have no incentive to reduce consumption and holders of inventories have not incentives to release supplies. Effectively, such regulations subsidise customers at the very moment when the

social costs of consumption are the greatest. The result is commonly a cut off of retail customers or financial distress for suppliers with an obligation to serve.

- (3) *Strong evidence is also available that profit incentives in well-established competitive wholesale and retail markets can be relied upon to elicit substantial and sufficient levels of investment in energy infrastructure. Where regulation is well designed to support market mechanisms, it can enhance demand response and investments that promote energy security.*

Nations with well-established markets that convey efficient price signals also report that the price signals prompt long-term investments that promote energy security. Long-term contracts with fixed prices may or may not be important to investors in these situations. Prior and expected price patterns contribute to determining if investors seek long term contracts before investing. When efficient price signals are not available or allowed, investors lack the information necessary to choose among potential investments.

In some markets characterised by natural monopoly conditions, regulation may be justified in order to prevent market power and avoid inefficient investment. A major challenge in these markets is to provide efficient investment incentives while at the same time curtailing the exercise of market power. Another challenge is to foster efficient price signals in those parts of industry that do not have natural monopoly characteristics.

- (4) *Diversification of supply sources and interconnection of national transmission systems are key techniques for increasing energy security. Well-established competitive wholesale and retail markets can provide strong incentives to diversify sources of supply if customers value this source of energy security. Interconnecting distribution networks can reduce the risk that a given amount of supply disruption in one area will be so severe that it results in retail cut offs.*

Nations with well-developed energy markets report that firms have incentive to diversify sources of supply and commonly do so. Sometimes the diversity of supply stems from different firms picking different sources and sometime the diversity stems from many suppliers picking multiple supply sources. The interest in diversification by wholesalers stems from the diverse risk preferences of customers in well-developed markets. The willingness of retail customers to pay a premium for more secure energy sources creates the incentives for wholesale suppliers to diversify, hold inventories, and to take other steps necessary to match customer preferences. In the absence of market price signals about risk preferences, suppliers or regulators are prone to pick a one-size-fits-all level of energy security. This can cause large costs to customers who prefer higher levels of energy security, but are forced to accept the monopolist's or regulators judgments about energy security risks.

- (5) *Where transmission and other infrastructure necessary for effective entry are controlled by a downstream or upstream seller, diversification and interconnection incentives can be stifled. The owner of an isolated transmission network can have incentives to discriminate against independent energy merchants and to avoid interconnection because either can increase competition and decrease the profits of the affiliates of the network owner. More nations are becoming convinced that additional unbundling is necessary to prevent anticompetitive discrimination and cross-subsidisation. Behavioural remedies appear to be of limited effectiveness in stemming discrimination and cross-subsidisation or in prompting interconnections between distribution networks.*

In order to achieve competitive markets, several structural, legal, or regulatory conditions may have to be met. Many nations report frustration that behaviour rules against discrimination and cross-subsidisation are not sufficient to end these practices. Many nations report increased interest in deep unbundling --- unbundling leading to independent operators of transmission systems --- as a pre-requisite to having a competitive market with significant connections between national transmission and distribution systems. Other nations are unconvinced about the virtues of deeper unbundling because they are concerned about loss of economies of vertical integration and about loss of potential buyer power in bargaining with energy supplying countries.

- (6) *Considerable disagreement exists regarding the benefits and costs of long-term gas supply contracts. Some nations believe that long-term supply contracts are crucial in obtaining new sources of supply and preventing supply disruptions. Others believe that shorter term contracts and price signals from spot markets are sufficient for attracting supply investments in many, if not all, situations.*

Nations with a history of long-term gas supply contracts that have been part of deals to develop new foreign energy supply sources tend to be convinced that long-term fixed price supply contracts are vital for energy security. They believe that it is worth paying a premium for level prices and assured quantities. Other nations have found that a variety of contract provisions are consistent with long-term energy supply investments. According to these nations, the importance of long-term contracts depends on whether investors expect prices to rise or fall. When prices are expected to rise, investors tend to be less interested in long term contracts because they see upside potential for higher profits without the contracts. Conversely, when prices are expected to decline, investors want the reassurance of long-term contracts so that they can obtain at least a normal rate of return on their investments.

- (7) *In the case of natural gas, storage facilities and facilities to accept LNG imports can play an important role in security of supply. Storage can be drawn down to avoid retail disruptions and arbitrage activities using stored gas can reduce price volatility. LNG imports can fill in other energy sources are interrupted assuming that LNG facilities and LNG supplies are available. LNG is unique in its transoceanic deliverability.*

Nations report a variety of types of storage and a variety of incentives to hold inventories. For example, storage in salt domes provides an ability to bring supply to market quickly in response to even short-term price fluctuations. Other forms of storage are more suitable to slow injections and withdrawals and are often associated with programs to meet seasonal variations in consumption. LNG can function like storage in the sense that LNG imports can quickly supplement supplies in response to price fluctuations if LNG is available outside of long-term contracts. There are increasing signs that LNG allows arbitrage when regional price disparities occur. For example, LNG cargoes can be diverted from low price regions to high price regions. Some nations report increased congruence between regional prices as a result of arbitrage based on diversion of LNG shipments.

- (8) *Competition law enforcement involving vertical mergers and long-term supply contracts can be complex because these matters can involve questions of countervailing power (monopsony) and international relations that are outside the realm of the issues usually faced by competition agencies. Vertical mergers are a particularly unsettled aspect of competition law enforcement in the energy sector. The primary concern about allowing a vertical merger can be increased foreclosure of entry by new energy suppliers who would increase energy security by diversifying energy sources. A primary concern about*

forbidding a vertical merger can be the loss of potential buyer power in bargaining with energy suppliers who are often sovereign entities exempt from competition laws. Forgoing economies of vertical integration is another concern in blocking vertical merger proposals.

Some nations report that competition agencies' challenges to vertical mergers have been overruled by governments based on the potential gain in bargaining power from such transactions. By and large, competition agencies remain convinced that these reversals are not justified. They believe that benefits of many vertical mergers do not materialise while the predicted costs of these transactions have often due occur in the form of impediments to entry of new energy suppliers.

- (9) *Abuse of dominance (monopolisation) cases can enhance energy security by increasing access to essential transmission facilities and preventing gaming of market rules.*

Nations report that owners of essential transmission facilities continue to impede entry by limiting use of transmission facilities and charging discriminatory prices to competitors of the network owners upstream or downstream affiliates. Abuse of dominance cases are one method to challenge such behaviour. Abuse of dominance concepts can also be used to challenge gaming of market rules by incumbent firms. For example, some incumbent firms seek to obtain monopoly prices for supplies that are necessary to maintain system reliability.

- (10) *Horizontal merger proposals in the energy sector present fewer unique issues that argue for sector-specific theories of competitive harm or remedies.*

Energy security in the form of competitive prices can be threatened by horizontal mergers. These cases present fewer conceptual difficulties than vertical mergers. One potential challenge is accurately identifying the relevant market when technological advances result in distant demand substitutes becoming closer demand substitutes over time.

ENERGY SECURITY AND COMPETITION POLICY

2. BACKGROUND NOTE

BACKGROUND NOTE*

Introduction

Energy security—where geology meets geopolitics—is back at the top of the policy agenda. Competition policy is influenced by this broader policy environment. For example, anticompetitive mergers are sometimes waved through on the grounds that they improve energy security. This paper examines the links between competition policy and energy security, using the example of natural gas to help focus the discussion.

The key question for energy security is: Which combinations of energy markets and government intervention provide acceptable prices and allocations, both in equilibrium and when the unexpected occurs?

The main questions to be examined in this paper are:

- What is energy security?
- Do markets and the corporate incentives of gas producers result in “the right amount” of energy security?
- What can be done to increase energy security?
- Do competition in markets and competition policy promote energy security?

For competition policy makers, two features of the natural gas sector are notable: time scale and the corporate governance. The time scales over which energy security and competition policy operate are very different. As an observer puts it, “The global energy supply system is a vast, inertia-ridden complex of large, fixed capital assets that take years to plan, sanction and construct, and they tend to be in place for decades.” [Skinner 2006, p. 2] As a result, substantial changes in energy infrastructure or shifts in primary energy mixes take decades. At the other end of the time scale, an unexpected energy supply disruption lasting just a few days causes anxiety and sometimes hardship. Competition enforcement, by contrast, is concerned with a term intermediate between these. E.g., a two year threshold defines “timely” entry in merger reviews, but year-to-year changes in market shares are characterised as mere “fluctuations” for long-lived, lumpy products. Structural changes in energy markets are relatively glacial from the perspective of competition policymakers.

The corporate governance of much of the gas and oil sectors implies that governments rather than profit-driven economic actors make many of the economic decisions. National oil and gas companies are the main exploiters of oil and gas in the Middle East, Latin America and Russia, where the overwhelming majority of reserves are located. With few exceptions, their corporate governance is tightly bound up in the political structures of their respective countries. Without either masses of arm’s length profit-seeking owners or a solid political consensus for commercial conduct, one can expect broader political objectives to play a role in economic decision making. “Some countries...increasingly tend to see the trade in political terms, or at least through a state-to-state lens with linkages not found in normal commercial arrangements.” [Skinner 2006, p. 6] However, some limit on the pursuit of non-economic objectives is imposed by the

* This note was drafted as a background note by Sally Van Siclen, a former member of the OECD Competition Division.

major role of gas and oil in total government revenues and in GDP in the relevant countries, though this may be of little comfort to relatively small groups of consumers.

On the demand side, many OECD countries have traditionally had state-owned national companies to buy oil and gas. Many of these have been corporatised and at least partly privatised, and other OECD countries have always had private oil and gas companies. Nevertheless, on both sides of the market, oil and gas companies as denizens of the commanding heights of the economy probably see eye-to-eye with the pinnacles of power.

In short, decisions regarding investment, sales, and purchases are more closely related to political considerations from time to time in energy markets than in most other markets. As a result, energy security involves an unusual blend of economic and political factors. In many instances, the economic considerations centre around how best to react to or prepare for volatility that stems from political considerations.

Gas infrastructure changes at glacial speed. Pipelines, storage, LNG terminals take years to plan, receive permission, and build.

LNG will not provide supply diversity or resilience in the short term. Only 7% of gas is transported as LNG, though this fraction is expected to increase. LNG can make a significant difference in the longer term, for example if it serves to close a gap between projected growth in demand relative to existing supply sources.

The LNG market is highly illiquid, mostly sold under long term contracts; even the few transactions called “spot” are usually not spot transactions in the usual sense. The capacity at LNG regasification terminals is, at least in Europe, concentrated and mostly tied up in long term contracts.

Gas intermediaries who would compete with incumbents require access to infrastructure—pipelines, storage—that is owned and operated by the incumbents. Hence, entry conditions are highly dependent on infrastructure access rules that are a component of competition policy.

1. What is Energy Security?

Energy security is about vulnerability to disruption. Political turmoil, armed conflict, terrorism, piracy, natural disasters, nationalism and geopolitical rivalry threaten, to varying degrees, to interrupt the everyday trade in oil, natural gas, coal and electricity.

Energy security means different things to different people at different times. For decades, energy security was concerned with the physical supply of oil. It now encompasses natural gas and electricity and extends along the supply chain. The concept now includes the price and not just the physical availability of these fuels. Energy exporters concentrate on security of demand, that is, on stable revenues, and energy resources and export facilities are often under political control. Energy users seek reliable supplies at “affordable prices,” with developing countries also concerned about the balance of payments effects of energy price changes. Countries’ specific foci reflect their specific situations. For example, Japan has very few domestic energy resources so it focuses on diversification, trade and investment. European countries’ debates centre on their reliance on imported natural gas. The United States focuses on its increasing reliance on imported oil and the market effects of increased LNG imports.

To understand the concerns about energy security, it is helpful to review where natural gas and oil come from and how it gets to consumers.

1.1 *Background: The physical supply chain*

The main sources of primary energy consumed in the OECD area are oil, gas, coal and uranium. Different countries and different sectors use substantially different mixes. For example, transport uses a much higher proportion of oil products than do most other sectors.

As for gas, the main countries with gas deposits are Russia (30,5% of the world total gas reserves), Iran (14,8%), Qatar (9,2%), Saudi Arabia (4,1%), United Arab Emirates (3,9%), United States (3,4%), Algeria (2,9%), Venezuela (2,7%) with the remaining 28,5% split among a number of countries.¹

These numbers do not tell the whole story. Iran is now a net gas importer and the economic value of gas used for oil production (reinjecting gas can increase oil production) far exceeds its value as an exported fuel. Qatar has an unofficial moratorium on new LNG projects. Saudi Arabia's oil minister has said that it will not consider exporting gas until its gas production exceeds a particular level, a level not expected to be exceeded until 2020-2025. [Stern 2006, pp. 14, 13, 11]

Gas and oil reserves are distant from most consumers, thus giving rise to transport costs and risks. Transport costs help to limit the geographic scope of markets. Transporting gas by ship in the form of liquefied natural gas (LNG) costs far more than transporting oil by ship,² or transporting gas by pipeline. Thus, currently there is in general a worldwide oil market but regional gas markets.

- Transport risks exist along the supply chain. Once shipping bottlenecks have been navigated, the facilities to receive, store and further transport by pipeline are subject to risk. As noted below, only a small fraction of gas is transported as LNG by ship. But the IEA's reference scenario for 2030 has 4% of world gas production shipped as LNG through the Straits of Hormuz at the mouth of the Persian Gulf. Obviously, the share of LNG is far larger.³

Natural gas is predominantly transported by pipelines; less than 7% is transported as LNG in ships. For gas to be transported as LNG it must be cooled to its liquid state, transported on specialized ships, and off-loaded into a regasification terminal which then feeds the gas into the gas transport network. LNG projects have long lead times, long contract terms and are costly.⁴ Examples from Qatar, where the private sector is involved in gas projects, illustrate the point. First deliveries are made five to six years after signing the deal. Contract terms are usually 25 years. Project costs range from USD 5 billion to USD 12 billion.⁵ The number of LNG carrying ships is small, 151 in 2003 and the IEA predicts at least 326 such ships by 2010. [EIA 2003 and IEA 2006c, p. 55 respectively]

The IEA predicts that, by 2010, 30% of gas imports into OECD countries will be supplied from non-OECD countries via LNG. Dependence on imports from non-OECD countries in 2010 will vary between regions, from less than 10% in North America to 48% in Europe and 63% for Asia-Pacific. [IEA 2006c, p. 13]

LNG regasification terminals are themselves under relatively concentrated ownership and access is tied up in long term contracts. Europe provides an example. There are 14 LNG regasification terminals in Europe and six new ones under construction. Five are in Spain, two each in Turkey and France, and one each in Italy, Greece, Portugal, the United Kingdom, and Belgium. Like the remainder of the LNG supply system, the capacities of these terminals are commonly contracted for long periods. One issue for regulators has been to determine whether a certain share of capacity should be reserved for non-owners. An Italian Law (Law 23 August 2004, n. 239), for example, has determined that 20% of the capacity of new terminals should be reserved for third parties. The table below is based on King & Spalding's publication *LNG in Europe*. [King & Spalding (2006)]

Table 1. LNG Regasification Terminals in Europe

Terminal	Existing or Under Construction?	Owner / Operator	Send out Capacity in bcm/year	Reserved Capacity
Zeebrugge, Belgium	Existing	Fluxys LNG (Suez subsidiary)	4,5 expanding to 9	50% Qatar Petroleum/Exxon Mobil for 20 years 28% Distrigas for 20 years (Suez subsidiary) 22% Tractebel Global LNG for 20 years (Suez subsidiary)
Fos-sur-Mer, France	Existing	GdF	5,5	2007: 100% GdF From 2008, 20% of the total capacity is available Available capacities from 2007 to 2014 are published on GdF's web site http://www.grandesinfrastructures.gazdefrance.com/sicsFront/fr/offre_terminaux/telechargements/DGI_publications_Tonkin25jan2007.pdf
Montoir de Bretagne, France	Existing	GdF	10,2	2007: 84% GdF - 11 % third parties - 5% of the total capacity is available 2008: 64% GdF - 8% third parties - 28% of the total capacity is available Available capacities from 2007 to 2021 are published on GdF's web site www.grandesinfrastructures.gazdefrance.com/sicsFront/fr/offre_terminaux/telechargements/DGI_publications_Montoir25jan2007.pdf
Fos Cavaou, France	Under Construction	GdF	8,25	63% GdF 27% Total 10% of the total capacity available for third parties
Revithoussa, Greece	Existing	DEPA	2,26 expanding to 6,5	100% DEPA
La Spezia (Panigaglia), Italy	Existing	GNL Italia (ENI subsidiary by way of Snam Rete Gas)	3,5	Most used by ENI, third party capacity rarely available
Isola di Porto Levante (Rovigo – North Adriatic), Italy	Under Construction	GNL Adriatico, formerly Edison LNG (owners Qatar Petroleum 45%, ExxonMobil 45%, Edison Gas 10%)	8	80% to Edison for 25 years 20% to regulated third-party access
Brindisi, Italy	Under Construction	Brindisi LNG (BG Group subsidiary by way of BG Italia)	8 but 16 in phase 2	80% to BG for 20 years 20% to regulated third-party access
Sines – Galp Atlantico, Portugal	Existing	Galp Energia, ultimate owners: Portuguese Government 17,711%,	5,2	100% Galp Energia

Terminal	Existing or Under Construction?	Owner / Operator	Send out Capacity in bcm/year	Reserved Capacity
		Parpublica – Participacoes Publicas (SEPS) 12,293%, REN – Rede Electrica Nacional 18,3%, Eni Portugal Investment 33,34%, Amarin Energia 13,312%, Iberdrola 4%, Others 1,04%		
Huelva, Spain	Existing	Enagas, owners include Gas Natural 9,2%	7,9 expanding to 11,8	Gas Natural and others
Cartagena, Spain	Existing	Enagas	7,9 expanding to 9,2	Gas Natural and others
Barcelona, Spain	Existing	Enagas	10,5 expanding to 14,5	Gas Natural and others
Bilbao Bahia de Bizkaia, Spain	Existing	Bahia de Bizkaia Gas, owners BP 25%, Iberdrola 25%, Repsol 25%, Ente Vasco de la Energia 25%	7 expanding to 10,5	48% Bahia de Bizkaia Electricidad 38% Gas d'Euskadi 14% others
Sagunto (Valencia), Spain	Existing	Planta de Regasificación de Sagunto, owners Union Fenosa Gas 42,5%, Iberdrola 30%, Endesa 20%, Oman Oil Company 7,5%	6,6 expanding to 11,4	Union Fenosa and others
Ed Ferrol LNG (Mugardos – Galicia), Spain	Under Construction	Regasificadora del Noroeste, owners Union Fenosa 21%, Endesa 21%, Tojeiro Group 18%, Sonatrack 10%, Others 30%	3,6	Union Fenosa and others
Marmara Ereglisi, Turkey	Existing	Botas Petroleum, owner Turkish Petroleum Company	5,2	100% Botas, but under a Parliamentary Act in 2001 Botas must release capacity
Aliaga (Izmir), Turkey	Existing	Egegas LNG, owner Colagoglu Group	6	Own use terminal
Grain LNG, United Kingdom	Existing	National Grid	4,6 expanding to 9,3	100% BP/Sonatrach for 20 years from 2005, but phase 2 is Centrica, GdF and Sonatrack for 20 years from 2008
Dragon LNG, United Kingdom	Under Construction	Owners Petroplus 20%, BG 50%, Petronas 30%	6	50% BG 50% Petronas
South Hook LNG, United Kingdom	Under Construction	Owners ExxonMobil 30% Qatar Petroleum 70%	10,5 expanding to 21	100% of Phase 1 to an ExxonMobil/Qatar Petroleum joint venture for 25 years; developing secondary capacity trading

Russia, the world's largest gas exporter and reserves holder, exports exclusively via pipelines. Eighty percent of Russian gas exports to Europe transit Ukraine. Indonesia was the largest exporter of LNG before 2006, but Qatar now is. The vast majority of LNG goes to Japan and Korea (Indonesia supplies a quarter of Japanese and Korean demand). Spain, with two-thirds of demand satisfied by LNG, is the third largest LNG importer. [IEA 2006c, pp. 13, 14]

Heterogeneous technical characteristics of gas restrict gas flow among consumers. [EC 2006a, p. 29]

Storage is a vital link in the gas supply chain. Demand flows can be several times higher in winter than summer. Storage near users buffers the generally smooth production. (The output of some gas fields can be varied but others' cannot.) Gas is stored in disused gas fields, aquifers, and salt caverns. In Europe, Germany (with 30% of European capacity), Italy (20%) and France (17%) have the largest storage capacity. Storage near LNG regasification terminals accounts for only 2% of European gas storage. In 2004, the working volume of European gas storage was equal to about 48 days of average consumption. But, technical constraints mean that gas cannot be quickly withdrawn from storage to replace normal deliveries during a supply disruption. [IEA 2006c, p. 128]

Gas and oil storage are not comparable. Gas costs up to ten times more to transport and store than oil, and the costs depend much more on local geology. Gas pipelines are not normally built to flow both ways. The IEA does not mandate strategic gas storage for its members, as it does for oil. However, some countries do maintain strategic gas storage and others are building it. [IEA 2006c, pp. 127-128]

Ultimate gas consumers are industrial, commercial and residential/household users. (The proportions vary from region to region. See Figure 12 of the IEA Gas Market Review.) Industrial users use gas for heating, melting, and for on-site electricity generation. Some industrial users can switch fuels. Commercial and residential users use gas for heating, cooking, hot water and cooling. Commercial and residential demand can be several times higher in winter than in summer. These users usually cannot switch fuels in the short run but may do so over the long run as they replace worn equipment. Commercial and residential consumers are generally not exposed to short term changes in market prices. In some countries, industrial users are exposed to short term changes in market prices and are therefore able to vary quantity consumed in reaction to those changes; in other countries industrial users, too, are insulated from price changes. [IEA 2006c, p. 21]. In some countries, industrial users may be offered lower prices if they agree to be interruptible customers.

Electricity generation accounts for 60% of recent gas demand growth. Gas-fired generation is expected to continue to grow. Gas is seen as cleaner than, e.g., coal, and far faster and easier to get approved and built than other types of generation. This growth has itself reduced the flexibility of gas demand for electricity generation since the increasing share of gas generators in the generation portfolio makes it increasingly difficult to make short-term switches to other fuels. [IEA 2006c, p. 33]

Having examined the main physical features of the supply chain from production through transport and storage to use, we now examine the incentives on producers of gas to provide reliable supplies.

1.2 The political economy of gas producers

The producers of gas and oil tend to be national oil companies that tend to be integrated into the political leadership of their respective countries. Oil and gas exports tend to be very important in the respective economies. Thus, suppliers may not have entirely commercial objectives, but they also prefer reliable revenues.

A significant feature of the gas and oil markets is that supply tends to be in government hands and demand in private hands. One observer estimates that 75% of hydrocarbon resources are under state ownership and control, even if there is some minority private sector participation. [Skinner (2006), p. 6] To the extent that national oil companies are under government control—as distinct from having commercial objectives and management—this contrasts with intermediaries in OECD countries that have been corporatised or even privatised, or were always privately owned, and are expected to have commercial objectives and management. One observer notes that “Some countries on the producer side...increasingly tend to see the trade in political terms, or at least through a state-to-state lens often with linkages not found in normal commercial arrangements.” [Skinner (2006) p. 6]

It is difficult to draw a straight connection between composition of boards of directors, ownership structure and corporate conduct without at the same time considering all the circumstances including how the ownership function of the state is organised and exercised. But the governance arrangements of some key suppliers may nevertheless point to the potential role of political and non-economic factors in the conduct of these companies.

- In **Russia**, though partially privatised, Gazprom’s board of directors consists overwhelmingly of Russian political personalities. Of the eleven members, the Chairman is the First Deputy Prime Minister and the members are two current ministers, two former ministers, the special representative of the president on international energy cooperation, a former deputy minister, and a member from E.ON Ruhrgas (which owns a stake in Gazprom). The remaining three board members are not listed in the annual report as having held political jobs in the preceding six years. [Gazprom 2006] However, board members are subject to the “instruction system” and cannot take decisions at board meetings without first receiving orders from the government. [www.oecd.org] Roskneft even noted in the prospectus for its recent flotation in London that it cannot guarantee that the board (in which the state has a similarly dominant position) would not take decisions not in the interest of, or detrimental to, shareholders.
- In **Iran** “The oil and gas sector is controlled by the state-owned National Iranian Oil Company.” “Currently, overall responsibility for the Iranian energy sector lies with the Supreme Energy Council....The Ministry of Petroleum controls the activities of all state-owned oil and gas companies from upstream to petrochemicals.” [IEA 2005, pp. 336, 341-2]
- In **Qatar** “State-owned Qatar Petroleum (QP) was established in 1974 and is responsible for all aspects of the oil and gas industry in Qatar.” [IEA 2005, p. 460] Foreign investment in gas is through Qatargas, 65% owned by QP. [http://www.qatargas.com/media-room/Marhaba%20wirte-up.htm]
- In **Saudi Arabia** “Large state corporations, including Saudi Aramco, which has a monopoly on Saudi upstream oil development...still dominate the Saudi economy. But there has been some private investment in petrochemicals, the refining sector and gas exploration.” [IEA 2005, p. 489]
- In **Algeria**, “Up to now, Sonatrach has effectively acted as an arm of the Algerian government, negotiating licences and contracts with foreign companies and monitoring the performance of each production-sharing contract. This role will now be performed by a new entity...Alnaft...which will report to the energy ministry. Alnaft will also be responsible for promoting investment in exploration.” (IEA 2005, p. 292). In 2004, Sonatrach’s Conseil d’administration (Board of Directors) was presided over by the president of the Administrative Council and the members consisted of representatives from the Finance

Ministry, the Hydrocarbons Ministry, the national union, the Bank of Algeria, one technical appointee, and three or four from the company itself. [Sonatrach 2004]

- In **Kuwait**, “By virtue of Kuwait’s constitution, the state now owns and controls all oil resources.... though several majors, including BP, Shell and Chevron, continue to work in the country under limited service contracts....[T]he Supreme Petroleum Council (SPC) was formed to set the general policies of the oil sector....The Kuwait Ministry of Energy exercises policy-making powers in conjunction with the SPC and supervises all public institutions involved in the oil sector....At an operational level, the major player in the Kuwaiti oil sector is the [state-owned] Kuwait Petroleum Corporation (KPC).” [IEA 2005, p. 413]
- In **Norway**, Statoil (70.9% state-owned) has neither political figures nor civil servants on its board of directors. Rather, seven directors are drawn from the Norwegian and, to a lesser extent, foreign business elite and three are employee representatives. [Statoil website] This country maintains a clear distinction between the state as owner and the state as policymaker. Transparency and accountability of the company is emphasised by the state as owner.
- In **Mexico**, PEMEX has a monopoly on much of the oil and gas market and is fully owned by the state. The eleven member board comprises six ministers as well as five members from the highly politicised workers union.

Many oil and gas producing countries are highly dependent on revenues from the sale of oil and gas:

- **Algeria**: “Oil and gas combined accounted for more than 36% of GDP in 2004 and 98% of export earnings.” [IEA 2005, p. 282] “The hydrocarbons sector is the backbone of the economy, accounting for roughly 60% of budget revenues, 30% of GDP, and over 95% of export earnings.” [CIA World Fact Book]
- **Saudi Arabia**: “Oil contributed 40% of GDP, around 90% of total export earnings and three-quarters of the central government budget in 2004.” [IEA 2005, p. 487]
- **Kuwait**: “Petroleum accounts for nearly half of GDP, 95% of export revenues, and 80% of government income.” [CIA] “In 2004, oil accounted for around 50% of Kuwait’s GDP, over 80% of government revenue and around 95% of export earnings.” [IEA 2005, p. 412]
- **UAE**: “Reflecting [a shift toward other sectors], the share of the hydrocarbon sector in GDP declined from around 60% in 1980 to around 20% in 2003, and that in total exports declined from nearly 90% to less than 50%.” [IEA 2005, p. 533]
- **Qatar**: “The oil and gas sectors will account for nearly two-thirds of GDP in 2030.” [IEA 2005, p. 463]
- **Iran**: “The hydrocarbons sector currently accounts for 22% of GDP [and] export revenues were...80% of total export earnings.” [IEA 2005, p. 339]

In light of the composition of the boards of the national gas and oil companies described here, with the exception of Norway it appears that the companies would be subject to significant political control. At the same time, revenues from the sale of gas and oil are important to the national economies and government coffers of these exporting countries. Taken together, these would suggest

that the companies would have significant political objectives, but with limits on the scope for non-commercial conduct in general, including unreliable supply, but might not constrain such behaviour with respect to small proportion of buyers or circumstances in which political stakes are high.

Having examined the main physical features of the supply chain from production through transport and storage to use, as well as the incentives on producers of gas to provide reliable supplies, we now turn to the question, What is energy security?

1.3 *Various definitions of energy security*

Risk and uncertainty form the basis for any definition of energy security. Supply disruptions, either at production or during the course of transport or storage, are the main sources of risk. Price spikes can result from supply disruptions. Beyond that, there is no consensus on whether the price level during non-emergency periods is relevant for energy security. Third, there is likely a psychological aspect to energy security. Energy security may prove to be impossible to define precisely.

Supply disruptions are the classic energy security concern. Physical disruption is translated into a price spike where markets can flexibly operate to re-allocate physical fuels. (Consumers who are exposed to price spikes reduce their consumption, thus reallocating fuels toward those consumers who value it more highly.) But where energy markets are unable to flexibly re-allocate fuels the shortfall is allocated by some other, nonprice mechanism such as an emergency plan agreed with the relevant regulator. Energy consumers and downstream firms and ultimate consumers bear the costs of adjusting either to high prices or, for some users, to no availability. No availability can result in power blackouts and the economy grinding to a halt.

If energy security is about the risk and uncertainty of supply disruptions, then producers and consumers have similar interests. Producing countries are often heavily dependent on revenues from the sale of gas and oil for their state budgets and indeed for their broader economies, as shown in the section above. Lower revenues than projected can have important social and political impacts. Reduced revenue volatility aids in the predictable provision of government services where capital markets do not provide this smoothing function. Consumers, too, express preferences for non-volatile physical supply and prices, especially if energy purchases account for a substantial portion of disposable income.

Support for a supply disruption risk-based definition is provided by the European Commission's recent Green Paper on Energy. The Green Paper refers to "risks from natural catastrophe and terrorist threat, as well as security against political risks including interruption of supply..." [European Commission 2006, part 2.2 (i)] Later, in reference to oil and gas stocks, it refers to "potential supply disruptions." [*ibid.*, part 2.2 (ii)] This type of definition is also supported by the oil market events of 1973 (see below).

If energy security is about the level of price during non-emergency periods, then producers and consumers have different interests. Below the monopoly price level, producers prefer higher prices and consumers lower prices. Where there is price discrimination, different consumers have different interests since all wish to be among the buyers being charged the lowest price. If consumers are all charged the same price, then some consumers will be charged a higher price than if there were price discrimination. These differences of interest would suggest that any international consensus to reduce non-emergency prices would be difficult to reach.

Support for a definition that includes the level of price during non-emergency periods comes from the IEA's most recent *World Energy Outlook*. While energy security is not directly defined, the *Outlook* refers to "consuming countries' vulnerability to a severe supply disruption and resulting price shock," dependence on imports, and the increasing market dominance and ability to impose higher prices of a small number of countries. [IEA 2006, pp. 38-39] Later, the *Outlook* refers to "the perceived risk of disruption and the risk that some countries might seek to use their dominant market position to force up prices," as oil and gas production become more concentrated in fewer countries. Decreased imports are seen as mitigating these risks. [*ibid.*, p. 186] The inflexibility of demand for oil for transport is seen as increasing the importing countries' vulnerability. [*ibid.*, p. 187] Heightened energy insecurity has been the principal driver for improved energy efficiency, more indigenous production of fossil fuels, renewable energy sources, and, in some cases, nuclear power. [*ibid.*, p. 50] These quotations from the *Outlook* support the notion that some observers consider the level of price during non-emergency periods to be part of the definition of energy security.

A third possible element in a definition of energy security is psychology. One observer makes this explicit: "The phrase, 'security of supply' embraces a hard and a soft concept: the economic fact of a *quantity* of a *good* or *service* delivered at a *price* and the psychological notion of security, which is a *feeling*...Supply quantity and the degree of dependence can remain unchanged, yet the feeling of security can increase or decrease with time. It becomes clear that the particular political relationship between the trading parties defines the sense of security of that trade." [Skinner 2006, p. 6; emphasis his]⁶

Perhaps the most economically literate discussion of energy security is Bohi and Toman's *The Economics of Energy Security*. They applied the principles of welfare economics to define energy security as "the loss of economic welfare that may occur as a result of a change in the price or availability [footnote] of energy. Footnote: Changes in availability may not be captured in changes in the price because of institutional price rigidities that are common in energy sectors such as electricity, natural gas and, before 1980, oil." [Bohi and Toman, p. 1] Bohi and Toman sought to evaluate which arguments for government interventions on the basis of energy security stood up to economic scrutiny. [*ibid.*, p. 1] Applying a welfare standard, they assumed that only externalities justified government intervention in markets, so they screened for energy security externalities [*ibid.*, p. 2] but included the effects of the exercise of market power as an externality [*ibid.*, p. 11]. They went on to screen for externalities where beneficial government intervention would be feasible and cost-effective. [*ibid.*, p. 2] They noted that their analysis was specific to the United States at the time of writing since the arguments would not necessarily apply elsewhere or at another time. [*ibid.*, p. 2] But government intervention in gas and oil markets is pervasive. The government intervention takes the form of oil and gas company corporate governance blending into political governance in many countries, exploitation licensing regimes, transit regimes, taxes, tying energy policy to seemingly unrelated policies like foreign aid, and even intervention in contract negotiations (or military action). Given this government intervention not aimed at internalising externalities, there is no *a priori* reason to expect that internalising externalities would increase total economic welfare. Thus, while an externalities screen for government intervention may be sensible where market conduct is pervasive, the welfare arguments on which it is based do not follow when government is already heavily involved.

Thus, we have three potential parts to a definition: risk and uncertainty of supply disruptions and their resulting price spikes (or shortages), the non-emergency level of prices, and the psychological feeling of riskness of imports.

Box 1. Energy Security Episodes in 1973 and 2006

The events of 1973 have had an important impact on views related to energy security. These were somewhat modified after the events of early 2006. These episodes are briefly reviewed here. (The account of the 1973 events follows that in Daniel Yergin's *The Prize*.)

The 1973 "Arab Oil Embargo" had two parts, a series of production reductions and a total ban on sales to, initially, the United States and the Netherlands. Available Arab oil in early October (before the embargo) was 20.8 mbd (million barrels a day) and in December (at the nadir) was 15.8 mbd. Production increases elsewhere meant that oil available in the "free world" was down about 4.4 mbd as compared with a total of 50.8 mbd in October. This 9% reduction had a severe effect. "America's spare capacity had proved to be the single most important element in the energy security margin in the Western world, not only in every postwar energy crisis but also in World War II. And now that margin was gone." [Yergin, p. 614] The effect of the cuts was made worse by the recent demand growth of 7.5% per year, poor information at the time about how much oil was available, as well as uncertainty about future cuts and embargoes. Panic buying increased demand and thus prices. "The embargo was a political act that took advantage of economic circumstances...." [*ibid.*, p. 626]

Various tensions among countries were engendered. These were exacerbated by the differential treatment of consuming countries and by their different degrees of (pre-embargo) dependence on oil from the Middle East. "Even as its traditional allies gave way to Arab demands, the United States tried to promote a coordinated response among the industrial countries. Washington feared that a resort to bilateralism—state-to-state barter deals—would result in a much more rigid, permanently politicised oil market." [Yergin, p. 629] A conference was called in February 1974 "to assuage fears about competition over supplies, heal the deep rifts in the alliance, and ensure that oil did not become a lasting source of division in the Western alliance." [*ibid.*, p. 629] Agreement was reached to develop consensus on international energy matters, establish an emergency sharing programme and to establish the International Energy Agency as a vehicle. [*ibid.*, p. 630]

In 2005, Russia/Gazprom supplied over a quarter of gas demand to Western Europe. On 1 January 2006, following a lengthy commercial dispute, Gazprom markedly reduced gas supplies to Ukraine. This reduced deliveries to many Western European countries as well, for about 1,5 days. In OECD Europe, the shortfall was made up relatively easily because the duration of the interruption was short. "The dispute and consequent interruptions did cause serious concerns over security of supply and gas dependence on Russia in many European countries. A number of measures were discussed in the aftermath of the dispute, including increased strategic gas stocks, diversification of the fuel mix (with higher dependence on coal and nuclear being the most prominent options), diversification of gas supply by calling on other pipeline gas suppliers, increased fuel-switching capacities, and energy efficiency. Discussions also focused on additional LNG terminals, including in Poland, Germany, the Netherlands and the Adriatic, or at least the acceleration of existing proposals." (IEA 2006 pp. 25-26)

2. The Keys to Energy Security

Diversification is a key to energy security, however defined. First Lord of the Admiralty Winston Churchill, explaining how he proposed to maintain a secure supply of oil after switching British warships to insecure Persian oil from safe Welsh coal, said "Safety and certainty in oil lie in variety and variety alone."

More recently the IEA has said:

"Reducing dependence on oil and gas through diversification of fuels and their geographic sources and more efficient use of energy must be central to long term policies aimed at enhancing energy security....It is not the proportionate dependence on any one fuel type which counts, but the extent of alternative sources of that fuel and the practicability of switching fuels in a crisis. In that respect, the prospects for consumers are worsening." (IEA 2005, pp. 267-8)

Investment to develop energy sources and to increase capacity of transport is the second key to energy security. Government is involved, both directly through national oil companies (in some countries) and indirectly in providing an appropriate framework for private investment. The competition policy stance toward sharing of infrastructure, vertical separation of natural monopoly from potentially competitive activities, and more generally reducing barriers to entry into these markets are particularly relevant. But other policy areas such as economic regulation, taxation, and the more general “investment climate” are also relevant.

Whether the needed investment will be forthcoming is uncertain. The IEA states that “it is far from certain that all the investment needed [for gas-supply capacity additions] *beyond 2010* will in fact occur.” It cites environmental policies and not-in-my-backyard resistance,⁷ as well as the fewness of countries from which the bulk of the increase is expected to come, the large investments needed by Russia simply to maintain levels of production, and concern that oil exporters may agree to limit capacity increases to maintain higher prices. [IEA 2006, pp. 121-123] Highlighting that causality between investment and security can go both directions, the EC in reference to production and transport of gas in Russia to Europe, notes that security and predictability on both the consuming and producing sides would promote long-term investments in new capacity. [EC 2006 2.6(ii)(a)]⁸

In the European Commission’s 2006 Energy Green Paper, the security of supply objective would be met by “tackling the EU’s rising dependence on imported energy through (i) an integrated approach – reducing demand, diversifying the EU’s energy mix with greater use of competitive indigenous and renewable energy, and diversifying sources and routes of supply of imported energy, (ii) creating the framework which will stimulate adequate investments to meet growing energy demand, (iii) better equipping the EU to cope with emergencies, (iv) improving the conditions for European companies seeking access to global resources, and (v) making sure that all citizens and business have access to energy.” [EC 2006, part 3]

The energy security literature provides four standard responses for increasing energy security:

- increase diversification of supply;
- increase resilience, e.g., through spare capacity and emergency stocks;
- recognise interdependence, e.g., that there is only one oil market and that the few regional gas markets may be melding into one;
- ensure timely information exchange, so that hoarding does not exacerbate shortages.

These are examined in turn below.

2.1 Increased diversity of supply

Diversity of supply traditionally refers both to diversity of primary fuel types and diversity of sources of a given fuel. Given the importance of transport, it should also refer to diversity of transport infrastructure.

Diversity of primary fuel types, given the focus of this note on natural gas, implies increasing the use of fuels whose risks are not highly correlated with those of gas and making those fuels closer substitutes, e.g., by investing in more fuel switching capacity.

Electricity generation is another mechanism for diversifying fuel types. Electricity generated by coal or nuclear or wind or falling water is usually a perfect substitute for electricity generated by gas.⁹ However, as noted above, the increased share of gas generation in the generation portfolio has diminished the possibility to switch generation to alternative fuels in the event of a gas supply disruption.

Better integration of electricity systems, e.g., across European borders, helps to diversify fuel types. If, for example, gas deliveries to generators in one country are interrupted, then other generators fuelled by uranium or coal or other gas suppliers can replace at least some of the missing electric power if the transmission systems are robust to such transfers.

Such an insurance mechanism requires the appropriate transmission design, capacity and use, and the spare generation capacity that is not fuelled by natural gas. Returns to induce the appropriate investments must exceed the returns of alternative actions. Price spikes increase the returns to investments; limiting them reduces returns although can relieve consumers in the short run. Also, returns to incumbent generators/transmission owners may be higher if they retain market power made possible *inter alia* by transmission design and generation capacity that limits the flow of electricity across traditional service areas, rather than investing in transmission that increases flow across borders. One question is how the regulatory environment can encourage appropriate investments. Recently, the European Commission DG-Competition has addressed this in its Energy Sector Enquiry and finds that the investment for cross-border electricity transmission has been inadequate. Relevant questions include: Can price spikes alone provide the impetus for the needed investments, even when there is market power that would be eroded by such investments? Does there need to be regulatory intervention, such as mandating investments—whether by the incumbents or merchant providers—and charging users via a fee to cover the cost?

Diversity of sources of gas is necessarily linked to gas transport infrastructure. For example, gas from multiple sources delivered by the same pipeline is subject to correlated risks associated with transport. The same is true for gas delivered through the same LNG regasification terminal or stored in the same storage facility.

The DTI, in its review of security of gas and electricity supply find that commercial buyers of gas have the appropriate incentives to reduce the risk of supply interruption. “The sourcing of gas supplies from overseas is a matter for market participants. Commercial operators have every incentive to make their own assessment of the merits of supplies from different countries and thereby to ensure diverse sources of gas, supply routes and entry points so as to reduce the risks arising from supply interruption from any one source. [DTI 2006, para. 4.10]

It is often implicitly assumed that domestic sources are more secure than foreign sources. But some informed observers argue that domestic sources provide no greater security than foreign sources. A survey of gas security incidents in Europe since 1980 concludes that there have not been many and those that did occur were divided among three main causes, source, transit and facility. “[I]t is difficult to think of any historical incident involving political instability which has prevented gas from being delivered to Europe.” “[N]o empirical experience would lead to the conclusion that a country with substantial dependence on imported gas supplies is necessarily less secure, in other words, more prone to disruption, than one which is self-sufficient.”[Stern 2006, p. 18]¹⁰

Various strategies may be available to diversify sources and infrastructure:

- Larger storage capacity near users can provide some insurance against short term disruptions in production and long distance transport. But gas reserves are expensive, and licensing is

time-consuming and difficult. Most existing gas reserves buffer the seasonal swings in demand and are not designed as strategic gas reserves.

- Higher capacity interconnections among users may help diversify sources, but their value depends on different consumers having different sources with uncorrelated supply difficulties, and those sources having some spare production capacity available within the relevant time frame.
- Higher capacity of pipelines and LNG regasification terminals can also increase diversity, but like the larger interconnections strategy this presupposes spare production capacity and spare LNG liquefaction capacity, all of which can ramp up production within the relevant time frame.
- Developing gas fields and linking them to consumers via pipelines or LNG, especially where these are subject to risks uncorrelated with the risks to which other fields and pipelines are subject.

Many of these points are taken up in the European Commission's 2006 Green Paper. In this paper, in a paragraph on diversification of energy supply, the Commission suggests that a strategic EU energy review

“could propose clearly identified priorities for the upgrading and construction of new infrastructure necessary for the security of EU energy supplies, notably new gas and oil pipelines and liquefied natural gas (LNG) terminals as well as the application of transit and third party access to existing pipelines. Examples include independent gas pipeline supplies from the Caspian region, North Africa and the Middle East into the heart of the EU, new LNG terminals serving markets that are presently characterised by a lack of competition between gas suppliers, and Central European oil pipelines aiming at facilitating Caspian oil supplies to the EU through Ukraine, Romania and Bulgaria. In addition, the Review could acknowledge the concrete political, financial and regulatory measures needed to actively support the undertaking of such projects by business. The new EU-Africa Strategy, envisaging interconnections of energy systems as a priority area, could also help Europe to diversify its oil and gas supply sources.” [EC 2006, 2.4 (i)]

Worldwide, LNG is one way to increase diversity of sources and, from the producers' point of view, diversity of revenues. To state the obvious, LNG allows consumers to be located further away than pipelines do, though both must have access, which may be via pipeline, to the sea. However, the LNG market is small in comparison with gas delivered via pipeline. Also, the LNG market is illiquid. (See below). This suggests that LNG's role in supply diversity is, at least in the short run, limited.

2.2 *Increased resilience*

The second standard response to increase energy security is to increase resilience, e.g., through spare capacity, surge capacity and emergency stocks. But increasing the responsiveness of price to market conditions and increasing the price responsiveness of demand would also increase resilience. Indeed, competitive markets naturally increase resilience in the sense of inducing other producers to increase output and consumers to cut back during a shortage. But a regulatory requirement for a certain degree of resilience, universal service obligations, needs to be altered when a sector is switched from legal monopoly to competition.

Spare capacity and emergency stocks—or their absence—have played an important role in the oil market. Yergin’s account of the 1973 Arab Oil Embargo points to the disappearance of spare oil production capacity in the United States as a key reason the embargo was so effective. Skinner points out that the historical reliability of oil supplies from the Middle East depended on spare capacity in Saudi Arabia, which the country is actively restoring. [Skinner 2006, p. 6] Emergency stocks of oil are required to be held by members of the International Energy Agency. Under the 1974 Agreement on an International Energy Program (IEP), members must “hold oil stocks equivalent to at least 90 days of net oil imports and [agree] to release stocks, restrain demand, switch to other fuels, increase domestic production and share available oil, if necessary, in the event of a major oil supply disruption.” [“About the IEA,” on iea.org] Thus, spare capacity and emergency stocks have been important in oil supply security. Skinner, in remarks before the Finance Deputies of the G20 in 2006, says his “core recommendation to governments is that strategic stocks should be increased.” [Skinner, p. 10]

Part of the loss of resilience over the past few years has been the secular increase in demand from the growing economies of China and India. Their increased demand raises capacity utilisation along with price, all else being equal.

But as noted above, spare capacity in gas presents greater challenges. The production at many but not all gas sources cannot be varied according to demand. Gas storage is expensive and is somewhat limited by local geology. Finally, there are technical limitations on how fast gas can be withdrawn from a storage facility so even if there is enough gas in storage it cannot be drawn down at a rate to match the rate of normal usage.

Regarding gas, the European Commission is questioning “whether Europe’s gas stocks can meet the challenge of shorter term supply disruptions.” [EC 2006, 2.2(ii)] European Union member states vary in their interest in maintaining strategic gas storage, and many states with such storage facilities are “reluctant to open them to other member states in times of emergency. The EU believes this issue of ‘solidarity’ is critical to the overall energy security of all member states and has insisted that available supplies be shared within the Union when needed. Any future EU-led energy security strategy would have to include a minimum level of oil and gas stocks to meet any type of disruption, an agreed upon plan for member state contributions to the storage requirements and an emergency withdrawal and distribution scheme.” [CRS 2006, p. 26]

Increased secondary trading and capacity for secondary trading can also increase resilience to some disruptions. Where there is secondary trading and a capacity to support it, e.g., spare transport capacity¹¹ and trade in capacity, local disruptions can be addressed by diversion of supplies from neighbouring areas. In principle, a local disruption would result in a price spike; traders would rush to buy gas where it is cheaper and arrange capacity to transport the gas to the high-priced location. But incumbents may have limited incentives to expand secondary trading and gas transport capacity, particularly capacity that facilitates rival supply.

Box 2. The Role of Spare Capacity: A Cautionary Tale

Uranium provides a recent example of how an absence of a safety margin increases price variability. In 2005, global demand outstripped global supply (180m pounds versus 108m pounds) and demand continues to grow. Prices had more than tripled between the end of 2003 and November 2006. On October 23, 2006, a new mine, Cigar Lake, expected to supply about 15% of the global mine supply, experienced technical difficulties that delayed its expected opening. The news increased spot prices to the highest level in the market’s 38 years. “There is almost a perfect storm forming with supply delays.” [*Financial Times*, “Uranium prices set for further increases,” 6 November 2006, p. 15]

Resilience would also be increased if LNG markets were more liquid and, therefore, better able to respond to local supply disruptions. But LNG is an illiquid market. Overwhelmingly, LNG is sold under long-term take-or-pay contracts. The few “spot” market transactions very often are cargoes diverted on the agreement of the contractual buyer and seller where they split the resulting profit. The share of such “spot” transactions is expected to grow to 20% over the coming years. [IEA 2006c, pp. 55, 57] This suggests that LNG does not provide the resilience that, say, trade in oil provides in the oil market. Traditionally, long-term take-or-pay contracts are signed before ground is broken on LNG facilities. This raises the question of whether financial innovations and the development of markets for short-term transactions and true spot transactions could increase the liquidity of LNG markets.

Turning from the supply to the demand side, increasing the price responsiveness of demand would improve resilience of gas markets. The argument is as follows. If there is a supply disruption, then cutting off those users who value the gas the least is the least costly way to allocate the shortfall. There are two ways to identify those low-value users. First, offer users contracts in which the users can be cut-off in times of high demand. Those users who can afford to be cut-off will select these contracts. Second, raise the price of gas charged users. Low value users will reduce or eliminate their demand.

Many gas markets do not allow prices to change freely to equilibrate supply and demand. Rather, some markets have an independent regulator who sets prices to prevent the exercise of market power. Slow adjustment of allowed prices can mean that prices do not adjust to reflect a supply disruption. There may also be reluctance on the part of politicians to pass on price spikes to consumers. In other markets, the practice of gas suppliers is to set price in reference to the price of oil averaged over a period of some months. While this sort of limit pricing to the closest substitute fuel may be sensible to influence fuel switching by customers over the long term, it does not in the short term allocate shortfalls in a supply disruption to the lowest value users. (If there is a liberalised secondary market and adequate transport infrastructure, and contracts allow for secondary trading, then the shortfalls can be reallocated.)

Note that the price responsiveness of demand affects other consumers. That is, if some consumers are insulated from supply shortfalls by constant prices, then other consumers face larger price spikes than if all consumers were exposed to higher prices.

The price responsiveness of demand is also increased when it is easier to substitute other fuels or other sources of the same fuel.

Universal service obligations often included a responsibility to ensure reliable supplies. Legal monopolists thus were compelled to invest in capacity that was excess under normal conditions but which would be available to be used during emergencies. Regulators ensured that they were compensated for these investments in the revenues monopolists received from users. But where competition rather than regulation determines prices and suppliers are profit seeking, suppliers who do not invest in excess capacity can offer lower prices and enjoy higher profits. Further, it may be difficult for a regulator to assign responsibility for supply shortfalls on any particular supplier. Hence, under competition, regulators must design an explicit means of paying for capacity to be used during emergencies and an explicit obligation to provide it. This traditional regulatory requirement for a certain degree of resilience needs to be altered when the regulation of a sector is switched from legal monopoly to competition.

If investments to increase supply security are provided under regulation, outside of market incentives, then the question arises of how much to buy and at what price. The concept of the value of

lost load from the electricity sector may be useful to identify how much investment at what price would be economic. The idea is that users have a value for uninterrupted electricity supply. Investments that increase reliability sufficiently below a certain cost should be undertaken; others should not. Estimating the value of lost load is difficult. Surveys of customers are often used to form an estimate. One type of survey asks users what mitigating actions they would take to avoid interruption. The cost of the mitigation is taken as the cost of the interruption. Another type of survey provides customers with a menu of prices and reliability and asks which choice they prefer. For industrial or commercial customers, observing the cost of investments actually undertaken by users to improve reliability, e.g., for electricity, the cost of installing emergency generators, could be useful. Not all investments to improve energy security are worth undertaking and determining a value of a given improvement in energy security will help to identify economic investments.

The timing of investments in production and infrastructure can create capacity issues. Investment in energy infrastructure is lumpy. If demand increases are relatively smooth, this implies that there are periods with little spare capacity and other periods when there is a lot. This increases price volatility. Where investment decisions are made on a commercial basis and where rules are reasonably predictable over the economic lifetime of an investment, then investment will be forthcoming provided the predicted future prices make the project profitable. But the interim prices needed to induce investment may not suit everybody. On the other hand, investment may be slowed when less investment means more market power, e.g., where more investment would mean that competitors can better supply a company's usual customers, or when there is greater uncertainty about future rules, or the company has non-commercial objectives and is therefore less responsive to price signals.

2.3 *Recognise interdependence*

There is only one gas market in each region, and these will begin to influence each other. This implies that a disruption in another country, whether producing or consuming, has repercussions on other participants in the market, whether or not they are counterparties to the disrupted participant.

International trade in a commodity transmits price volatility or level from abroad to the domestic market, if that market is not subject to economic regulation. The "world price" is the opportunity cost for domestic sales of domestically produced oil or gas or electricity. (To rephrase, a profit-maximising domestic producer unrestricted by price regulation would give up getting the world price on the last unit of a commodity if it sold that commodity domestically.) If the world price rises, then domestic producers will raise their prices to domestic buyers, if not constrained by regulation.

An example of international trade transmitting prices is predicted by the IEA. As both the Atlantic (North America and Europe) and Pacific (Japan and Korea) LNG markets are predicted to be supplied *inter alia* by common Middle East LNG sources, the prices in those markets are expected to become linked. [IEA 2006c]

Where the domestic market is subject to binding price ceilings, the volatility or high price will be manifested in a number of ways, depending on what is feasible for the domestic suppliers. One possibility is for the gas to be unavailable or in very short supply through legal channels. If supply at below-market prices can be compelled, then another possibility is for investment for domestic supply to suffer, so the bottleneck appears to be in transport rather than in supply. The world or regional market can be affected in two ways. First, consumers who do not face market prices will consume more, shifting out world demand and increasing world prices. Second, if transport is shared between below-market and market-based customers, capacity will be lower than it would be without sharing. (The decision whether to increase capacity depends on expected profits of so doing. If increased capacity implies increased sales to loss-inducing consumers, this reduces returns from expansion.)

In Europe, interdependence is being recognised across energy markets. In particular, it is recognised that one country's increasing use of natural gas to generate electricity combined with greater interconnection between electricity grids increases the exposure of consumers in the second country to gas supply disruptions. Similarly, one country's increasing use of nuclear power generation combined with greater interconnection between electricity grids reduces the exposure of consumers in the second country to gas supply disruptions. [EC 2006, 2.3]

The conclusion is that policies in one market affect other markets (convergence). Where the effect is sufficiently large, coordination of policies will make the objectives easier to achieve. For more than a quarter century, the IEA has also been involved in governments and regulators coordinating over cross-border energy issues. The EC's Energy Sector Enquiry finds one fundamental deficiency in the electricity and gas markets to be "a persistent regulatory gap particularly for cross-border issues" and recommends "[r]einforced coordination between national energy regulators, with a stronger role for Community oversight to ensure the Internal Market interests." [EC 2007, p. 14, 15]

2.4 *Timely information exchange*

Information changes the effectiveness of markets. Consumers who are confident that they can buy tomorrow do not need to hoard today. Information about future market conditions can help potential investors make economically rational decisions. But, information can also help competitors reach an understanding or even to form an anticompetitive cartel.

During the 1973 oil embargo, shortages were exacerbated by panic buying—oil users taking independently rational actions to buy available oil beyond their immediate needs in the fear that oil would not be available later. It is thought that accurate, timely information provided to the broader market may be able to reduce such conduct.

The International Energy Agency provides a forum for the regular exchange of information among governments of energy consuming countries. This helps to develop coordinated energy policies and responses in energy emergencies. During an energy emergency, the IEA is a forum for real-time exchange of information. National governments, too, publish information on energy production, trade and consumption.

Companies involved in the energy markets can probably make more rapid and useful adjustments to a supply disruption if they can exchange information. During non-emergency periods, companies can make more efficient investments when better information can feed into modelling of future market conditions.

However, competition authorities could become concerned that information can help support possible cartels or other antitrust offences. Recognising the importance of coordination during a supply emergency, a limited antitrust exemption under United States law has been granted in 42 USC 6271, et seq. that allows energy industry participants to voluntarily coordinate their activities, with monitoring, participation, and supervision by the antitrust agencies, as part of the U.S. response to an international energy emergency. However, the US government can stop transfers of information to the IEA if it would lead to anticompetitive effects or antitrust violations.

To conclude this section, diversity of supply and sufficient investment are the keys to energy security. Diversity includes not only alternative sources but also means of transport. Investment provides the elements for resilience, i.e., spare capacity, surge capacity and emergency stocks. Secondary trading can provide incentives for some spare and surge capacity, as well as provide

liquidity with which to respond to local disruptions. The other two standard responses for increasing energy security are to recognise interdependence and to ensure timely information exchange.

3. Does applying competition policy to energy markets harm or help energy security?

Competition policy can have some bearing on aspects of the four major energy security responses—diversity, resilience, recognition of interdependence and information. The major tools of competition policy are law enforcement with respect to mergers, cartels, and abuses of dominance and the soft tool of advocacy for more competitive regulation.

One prominent commentator suggests that competition in a market with broad geographic scope will deliver energy security.

“This is not a challenge than can be dealt with effectively by 27 independent micro-markets. It has to be met by European companies big enough to negotiate with large suppliers, but must also be met by a united voice. Europe is the world’s second largest energy consumer—the benefits of negotiating with a single voice are obvious.

“Scale counts in ensuring future energy security, but so does source diversity.

.....

“It is also plain that existing legislation has failed to create a competitive market...Current legislation has allowed many incumbents to maintain dominant positions, often justified by appealing to the need for security of supply. This is short-sighted and wrong-headed. Competition and security of supply are not mutually exclusive. In fact, it is only full competition across a unified market that will deliver the efficiencies and investment to keep energy secure, affordable and sustainable.” [Conti 2006]

The European Commission’s Energy Sector Enquiry supports this: “[T]he creation of a competitive internal market will allow the Union’s energy companies to operate in a market of a larger dimension, which will improve their ability to contribute to security of supply.” [EC 2007, p. 5]

3.1 Mergers

Two types of arguments for horizontal mergers are examined here. One argument is that they might increase diversity of supply and the second is that they might increase bargaining power against a monopolist supplier. Vertical mergers are also discussed, especially where potentially competitive activities are vertically integrated with essential facilities and non-discriminatory access to essential facilities is not guaranteed.

3.1.1 Horizontal mergers

Mergers among intermediaries could increase diversity of supply in some circumstances. The intermediaries will continue to be bound by their long term supply contracts, so they will not in general change their sources of supply. Diversity is not changed in the short- to medium term. But longer term, a merger may create sufficient economies of scale for a new source of supply to become feasible, e.g., to enter into new contracts with other producers and to make investments for pipelines or LNG facilities. But the standard merger evaluation would only consider those efficiencies specific to a merger to be relevant. Thus, if the two parties could have formed a joint venture for such sourcing without engaging in a full-scale merger then these would not be taken into account in the merger evaluation. A second question is whether reducing the number of management teams from two to one

due to a merger would change the corporate strategy in a way that increases or decreases diversity of sources. The answer is unclear.

It is sometimes argued that mergers among intermediaries will increase their “bargaining power” vis-à-vis gas producers. Two points can be made in this regard.

First, gas intermediaries only have a derived demand, derived from the demand of consumers in the territories where they resell gas. In Europe, “incumbents [gas intermediaries] remain dominant on their traditional markets, by largely controlling upstream gas imports and/or gas production.” [EC 2006a, p. 4] Thus, a gas intermediary’s demand is the sum of the demand of end-users on its territory. A merger among gas intermediaries serving different territories thus extends the summation of end-user demand across the two territories. Where could the increased bargaining power come from? Will the merged intermediary be more patient in negotiating a deal? Will it be bolder in taking a chance on negotiations breaking-down? Will it have different beliefs about the environment in which it is negotiating? (These questions come from the economic theory of bargaining, see box 4.)

One possibility is that a merger among gas intermediaries changes the pattern of price discrimination. A reseller, in order to estimate whether it would get a better price if it merges, must determine whether it is marginal or inframarginal in the post-merger entity. If marginal, then it does better to stay separate and negotiate a separate deal. But changing the pattern of price discrimination does not change economic efficiency in a predictable way. (The economic model would be different and yield different outcomes if resellers competed with each other downstream.)

Box 4: The Economics of Bargaining

The economics literature on bargaining yields few robust results. Obviously, the value of what the parties can get if negotiations break down constrains what agreement, if any, can eventually be reached. Essentially, the parties are negotiating over how to split the surplus created by an agreement. The Nash bargaining solution (NBS) from cooperative game theory satisfies plausible axioms, but the theory does not explain how parties would reach that solution. Various non-cooperative game theory-based models have been developed (see e.g., Binmore, Rubenstein and Wolinsky 1986 and Rubinstein, Safra and Thomson 1992) and they yield the results that, under complete information—the bargaining parties know the other’s valuation—risk-averse or impatient bargainers get a worse deal, and outside options—alternatives—can preclude a deal or improve the deal for one party. If the bargaining parties do not know the other’s valuation—the case of incomplete information—then the outcome is inefficient. I.e., both parties would like to engage in more trading, but do not. Institutional change may improve efficiency. (See Fudenberg and Tirole, Ch. 10.) Since a monopolist and monopsonist can be expected to be able to make a binding contract to get to an improved outcome, the outcomes from the naïve monopolist-monopsonist game are seen as unrealistic. [Friedman 1989]

Second, if gas intermediaries are regulated in such a way that they pass through to end-users changes in their costs of gas, how does a merger increase their incentives to become tougher negotiators? On the other hand, if a merger increases their efficiency and the regulator requires at least some of these gains to be passed through, then this would benefit consumers.

In sum, the economic theory of bargaining suggests that the outcome of bargaining is not related to size in a simple way.

3.1.2 *Vertical mergers*

Vertical mergers—electricity generators and gas suppliers, gas producers and gas networks, gas networks and local gas distributors/suppliers, and gas networks and LNG regasification plants—could affect energy security.

Where a merger involves vertical integration between an essential facility such as storage, pipeline and regasification facilities and a potentially competitive activity such as production or supply, and where competitors' access to the essential facility is discriminatory, then diversity could be reduced as non-integrated rivals are discouraged. Consider a potential non-integrated rival. If it must have access to the essential facility such as a pipeline, but expects to face discrimination or excessive access fees, then the potential rival will make fewer investments than if it had "reasonable access." Indeed, perhaps the potential rival is discouraged from entering the relevant market and makes no relevant investment. Where the potential rival could produce gas, then this reduces diversity of sources.

For example, arguments are made that the access conditions imposed by Gazprom by virtue of its monopoly on gas pipelines and gas exports from Russia discourage oil companies with associated gas (gas that is found along with oil) operating in Russia from producing that gas. Instead, they flare gas that is excess to their own needs at the site because the alternative, transporting it via Gazprom's pipelines to consumers, is uneconomic. (See below on access to essential facilities.)

Norway provides an interesting contrast, where the subsea hydrocarbon transport networks are jointly owned by the oil companies that are exploiting the relevant field. This ensures "reasonable access" terms and encourages exploration and production in the area.

Where a merger involves vertical integration of two essential facilities, then the effect depends on details of regulation and efficiency gains. Standard economic models tell us that vertical integration of successive unregulated profit-maximising monopolists increases economic efficiency, but these models may be less relevant in practice: Pipelines and storage are increasingly regulated in Europe, and long term successive monopolists may well have devised pricing strategies that are more efficient than those posited in standard economic models. Diversity is obviously not an issue given the assumption of monopoly, but perhaps better operations made possible by merger increases resilience.

A merger between an electricity generator and its upstream gas supplier, besides being potentially anticompetitive in the electricity and gas markets, may also reduce source diversity as the electricity generator tends to source more gas from its upstream division rather than shop around for gas.

One example of such a merger involved companies in Detroit in the United States. The Federal Trade Commission reviewed a 1999 merger between the sole electric company and the sole gas company operating in the same area. The merger was between DTE Energy Company ("DTE") the local electric generation, transmission, distribution, and retailer, and MCN Energy Group Inc. ("MCN"), the local gas producer to distributor, in Detroit and surrounding areas. While the FTC did not directly assess the effect on reliability—it reviews mergers under a competition standard—one comment does relate to diversity of supplies. In particular, the FTC found that the merger would eliminate competition to supply those consumers who can choose either natural gas or electricity for specific energy needs.¹²

A second example, the 2002 E.ON/Ruhrgas merger in Germany, demonstrated the importance of defining energy security, particularly when energy security is traded off against other policy objectives such as those of competition laws. The merger integrated a major electricity generator-transmitter-

supplier with the dominant supplier of natural gas in Germany. The E.ON/Ruhrgas merger received Ministerial Authorisation, subject to some commitments, despite the opposition of the Bundeskartellamt and against the recommendation of the Monopolies Commission.

The Ministerial Authorisation was granted on the basis of energy security and increasing competitiveness of German firms. In particular, the Ministry for the Economy and Technology indicated that there was a need for investment in order to ensure supply from Russia and the Central Asian republics, and that these investments were unlikely to be forthcoming without massive involvement by companies from the consuming countries. [Federal Ministry for Economy and Technology, Germany (“BMW”) 2002, para. 125] The Ministry found that the combination of E.ON and Ruhrgas expanded the possibilities to invest directly in gas fields [BMW 2002, para. 128] and to take a strategic stake in Gazprom that would entitle Ruhrgas to a seat on the board of directors, which in turn would allow Ruhrgas to influence pricing and investment decisions. [BMW 2002, para. 129] In its discussion on competitiveness, the Ministry said that the mere increase in financial means was not, in itself, sufficient for approval. Rather, only an energy company would have the incentives to make appropriate investments in the energy sector. [BMW 2002, para. 112]

The German Monopolies Commission wrote, in its Biennial Review, “In the E.ON/Ruhrgas case, the concept of security of supply was presented as a public-interest concern without there being any direct connection with either of the merging parties.” [Monopolies Commission, Germany 2003, para. 80*, English translation]

The Ministry’s argument relies on: (1) upstream investments in gas infrastructure in Russia being important to increase energy security in Germany; (2) Gazprom—as distinct from other gas producers, a regulator, or the government—making decisions regarding upstream investments in gas infrastructure in Russia; (3) the merger substantially increasing E.ON/Ruhrgas’s *ability* to influence Gazprom’s upstream investment decisions; (4) the E.ON/Ruhrgas merger being better than alternative ways to influence upstream investment, such as increasing the profitability of investment or increasing the cost of not investing, such as larger penalties for non-supply. Given the corporate governance and ownership of Gazprom, with government ministers dominating the board of directors and majority state ownership, it is not clear why assumptions 2, 3 or 4 would be met. Additionally, if the board seat allowed Ruhrgas to receive a lower transfer price than otherwise, if Ruhrgas passed on at least some of the lower price, and if low non-emergency prices are considered to be part of the definition of energy security, then the deal would have increased energy security for Ruhrgas’s customers.

Note, however, that Gazprom has announced a broader strategy of vertical integration. The company has written that, in the interest of consolidating its position in the European natural gas market and improving reliability and flexibility of gas supplies, Gazprom intends to expand the use of underground gas storage facilities in Europe and increase its shareholding in the companies engaged in the sale of gas and electric power to ultimate consumers. [Gazprom 2005, p. 16]

In sum, mergers do not seem to promote diversity of sources or resilience. To the extent that competitive markets promote diversity and resilience, then anticompetitive mergers would harm these elements of energy security.

3.2 *Abuse of Dominance*

Abuse of dominance, here limited to exclusionary single firm conduct, could also affect energy security. One prominent means is through discriminatory access or denial of access to infrastructure such as pipelines, storage, and LNG regasification terminals. Other potential abuses are related to long term contracts, impeding secondary trading, and pricing.

3.2.1 Access to essential facilities

Denial of access to essential facilities can harm competition in downstream markets. Thus, such denial can be considered a violation of competition law as an abuse of dominance. In gas, pipelines, storage, and LNG regasification terminals have been considered to be essential facilities. But, mandating access can discourage investment. For this reason, many regulatory regimes seek a balance between incentives for investment and promotion of downstream competition.

Downstream competition can be harmed by denial of access to essential facilities. Potential downstream competitors can be discouraged from entering if they expect to be charged “high” prices or to face discrimination in other terms such as timeliness and quality of access. Even when access is granted, the terms may mean that actual competitors have higher costs than the vertically-integrated rival or are unable to offer higher quality services to their customers. The result is that access oversight is a main task of energy regulators.

But on the other hand, granting or mandating access to costly infrastructure can discourage building the infrastructure in the first place. Profit maximising enterprises may choose not to build infrastructure, or not to build larger capacity infrastructure, if they expect that they will later be required to provide access at a “low” price. They may be unwilling to run the commercial risk of failure if they do not also get the upside risk of high profit from a successful monopoly. A predictable access regime that provides for risk reflective pricing will be less discouraging of these investments. There are other alternatives such as club ownership, where two or more owners build the facility together, bearing the risk but also enjoying access. (See the relevant OECD Best Practice Competition Roundtables.)

Non-discriminatory access to infrastructure is easier to ensure when the owner has neither the incentives nor the ability to discriminate. Common ownership with a company active in a potentially competitive vertically-related market can provide incentives for discrimination. While some argue for operational separation between the monopoly and potentially competitive activities to reduce the ability to discriminate, ownership separation eliminates both the incentive and ability to discriminate.

The European Commission finds that new entrants in gas markets often lack access to networks, storage and LNG terminals. The infrastructure operators are suspected of discrimination, including making operational and investment decisions in the interest of the vertically-integrated company. “This is highly damaging to security of supply.” [EC 2007, pp. 7-8] The EC finds that ensuring that network owner/operators do not have incentives that are distorted by supply interests is crucial, and particularly important when large investments for security of supply and market integration are needed. Decisive reinforcement of the current inadequate level of unbundling is needed to achieve this. [*ibid.*, p. 14]

Further upstream, access to gas pipelines is part of the European Commission’s plans to increase energy security. “[A true partnership between the EU and Russia] would also mean fair and reciprocal access to markets and infrastructure including in particular third party access to pipelines.” [EC 2006 2.6(ii)(a)]

Access to upstream gas pipelines would aid security of supply in terms of diversity of supply. Non-Gazprom companies hold just under a third of Russia’s gas reserves. [IEA, 2006b, p. 32] But significant quantities of gas associated with oil extraction are being flared because non-Gazprom producers do not have reliable and transparent access to the gas transport network and gas-processing capacity controlled by Gazprom. The Russian Energy Strategy, approved in August 2003, projects non-Gazprom production accounting for 20% of total Russian production in 2020. [*ibid.*, p. 16] “In the

past Gazprom used the lack of spare capacity as justification to deny third party access to its transmission system.” [ibid., p. 32] By 2004, 99,9 bcm of natural gas not produced by Gazprom had gained access to Gazprom’s pipelines, mostly Turkmen gas transiting to Ukraine and purchases by Gazprom from independent producers under long term contracts. [ibid., p. 32]

Access to upstream gas pipelines would aid security of supply also in terms of increasing investment. Some independent producers would have incentives to increase the capacity of the pipelines as it would be more profitable to transport and sell the gas than to flare it.¹³ These incentives are dulled, of course, if they receive a lower price. In general, selling directly to consumers would yield a higher price than selling to a monopsonist intermediary, even if the monopsonist has downstream market power.

Access to storage and to LNG regasification facilities present similar economic issues to those for pipelines, but the technical characteristics differ. As a result, what access is feasible and what is discriminatory also differs. With respect to LNG facilities, the large proportion of new facilities under construction and in earlier stages of consideration brings to the fore the need to balance downstream competition with incentives to invest in these facilities. In Europe, many new LNG regasification terminals have not had to grant access to rivals, whereas in Italy 20% of the new capacity has been reserved to competitors of the facility owner.

In sum, essential facilities such as pipelines, storage, and LNG regasification terminals can constrain downstream competition. Incumbents may have market power that derives in part from control over these facilities and that is enhanced by limiting their capacity. The essential facilities can limit the quantities the incumbent and rivals can sell in the downstream market. Increasing the capacity of the essential facilities may erode the first source of market power—after expanding capacity the incumbent will have incentives to expand its usage—and expanding the capacity combined with granting access to rivals erodes the second source of market power.

While there is precedent for mandating access to rivals’, there is little for mandating expanding capacity. Regulatory interventions to do so would be quite complex.¹⁴ However, competition to provide additional capacity may be feasible, if the regulator can determine how much expansion is desirable and at what price. In the United States, for example, regulators require interstate pipeline applicants to offer an “open season” in which pipeline customers can contract for capacity rights above and beyond the capacity initially proposed by the applicant. The applicant is obliged to expand the capacity of the project accordingly. Once the project is completed, customers who have rights to a portion of the capacity can trade these rights. The settlement in the DTE/MichCon merger case (previously discussed) gave the new entrant the right to have the incumbent expand the local distribution system or the right to expand facilities on its own initiative.

3.2.2 Longterm Contracts

Another means of abusing dominance is to for incumbents to enter into long term contracts in a way that excludes new entrants. The idea is that, depending exactly on what is contracted—receiving gas, selling gas to final users, access to infrastructure—new entrants would have no access to gas, customers or to infrastructure. New entrants may bring with them efficiency-enhancing innovations, which in turn put pressure on incumbents and increases overall efficiency.

The vast majority of gas bought by gas intermediaries is bought under long-term contracts. Many of these contracts were entered when the intermediaries were national monopolies [EC 2006a, p. 30] and they are often extended when the contract is still far from expiry. [EC 2007, p. 48]¹⁵

Long term contracts can facilitate investment. Often, funding for large, sunk investments cannot be found unless long term contracts have already been signed with buyers. Examples are LNG investments and pipeline investments, where the long term contracts ensure a long term stream of revenues to pay for the investment. According to the EC, long term gas supply contracts were often linked with infrastructure investment such as a pipeline or gas-fired power station. [EC 2007, p. 39]

Different market participants have different views on long term supply contracts. Gazprom says, with respect to its European market, “The fundamental principle of the export strategy is to maintain “a single-channel” export system. These objectives are planned to be achieved through developing relationships with traditional customers on a long-term contractual basis and using new forms of trade based on long-term and medium-term sales, as well as gas exchange transactions.” [Gazprom, p. 16] And, indeed, over the past several months many European gas intermediaries have entered into or extended long term gas agreements with Gazprom.

The restrictions on resale and the flexibility of volumes taken in these long term supply contracts reduce liquidity in the secondary gas market. And this limits the entry of new gas resellers because they cannot provide reliable supplies to their customers. But one can argue that upstream gas producers have a choice as to whom they deal with, including with whom they enter into long term supply contracts, unless they are found to be dominant.

Regarding the main reason provided for long term contracts, one question is why financial innovation, which has been so prominent in many markets, has not developed a substitute for long term supply contracts? As gas markets become more liquid—recall that only a very small fraction of LNG is sold in a true “spot market” and only a fraction of gas in Europe is not sold under long term contracts—perhaps financial instruments will be developed.

There are also long term contracts between gas resellers and gas consumers. In some cases, these facilitate the building of, e.g., gas-fired power generators. The long term contracts provide some guarantee as to supply terms over several years, reducing some of the project risk. But in other cases there does not appear to be a related infrastructure. Such long term contracts exclude new gas resellers. They do so because gas resellers have economies of scale and the long term contracts remove, usually large, customers from the market for several years. The result is that the scale economies are less likely to be realised and entry is more likely to be uneconomic. This exclusion of entrants extends dominance into a period when competition was envisaged.

Longterm contracts can, conversely, facilitate entry. For example, long term contracts for access to essential facilities combined with secondary market liquidity can make entry economic.

Longterm contracts, however, do not guarantee supply. First, during the term of the contract governments may change the rules on which contract terms are acceptable, including the term of the contract. Second, parties to the contracts may negotiate their way out of the contracts when it suits them. Third, even when gas supply has uninterrupted, as supply from Russia to Western Europe during the Cold War, this was not necessarily due to the long term nature of the contract. [Skinner, pp. 7-8] Rather, if security of supply rests on diversity, resilience, recognition of interdependence and timely information, then long term contracts facilitate security only if they increase diversity of supply or if they facilitate investments that promote resiliency.

3.2.3 *Secondary Trading*

Impeding secondary trading can also be seen as abusive of dominance. The European Commission has brought cases on gas destination clauses in sales agreements that impede secondary trading.

Secondary markets have competition roles. First, liquidity in the secondary market can help the entry of new gas resellers, as noted above. But, second, they can limit the extent of feasible price discrimination among consumers.

In terms of security of supply, secondary markets provide part of the resilience during a supply emergency. In the short run, secondary markets help to reduce price spikes and problems of non-availability. But over the longer term, the regular practice of secondary trading helps to fund spare capacity in transport network in and among consuming countries.

3.2.4 *Pricing*

A notable aspect of the gas markets in Europe and in the Pacific is the link of gas prices to oil prices. In contracts, gas prices are indexed on oil prices, smoothed over some months. Oil price indexation is widespread in the gas market. The IEA estimates the global share at “probably one-third and maybe as much as half of gas that is traded,” “almost all” of long-term gas contracts in continental Europe and “virtually all” long-term LNG contracts. But, in North America and the United Kingdom, most gas is priced against spot or forward gas-price indices. [IEA 2006, p. 63]

Generally, one expects gas prices to be constrained by oil prices since oil products are substitutes to gas in the long run. Where there is competition among gas suppliers, maximum and minimum market prices are constrained by the prices of substitute fuels—one for summer (alternative fuel for electricity generation for cooling) and another for winter (alternative fuel for heating).

Oil price-indexed pricing makes gas consumption less responsive to supply in the gas market. In a market where price is responsive to demand and supply conditions in that market, then price changes signal to users and to producers whether to increase or decrease their consumption or production. But in gas, price does not perform that function. If there is a supply disruption, price will not give incentives to consumers to cut back.

In other words, oil-index pricing reduces security of supply. First, the shortfall resulting from a supply disruption will not be borne by those consumers most able to cut back but by other consumers. This follows the same reasoning as provided in the discussion on increasing price-responsiveness of demand. Second, during non-emergency periods when gas demand follows a seasonal pattern, the price of gas does rise and fall with demand. This reduces incentives to invest in gas storage, which itself reduces resilience and hence security of supply.

One argument made in favour of oil price-indexed gas prices is that it smoothes gas prices. But, financial instruments could also do so, and the premium for such risk-reduction in highly competitive financial markets is likely to be lower than in the relatively concentrated gas market.¹⁶

In sum, oil-price indexing reduces demand responsiveness to supply disruptions and reduces incentives to invest in seasonal storage. There is not yet sufficient evidence as to its effects on competition.

3.3 *Cartelisation*

As noted in the above discussion on information exchange, information can also help competitors reach an understanding or even to form an anticompetitive cartel. One jurisdiction that has weighed the benefits of international policy coordination via the IEA during a supply emergency has granted a limited antitrust exemption, but the government can stop transfers of information to the IEA if it would lead to anticompetitive effects or antitrust violations.

Cartelisation by governments or by entities acting under the direction of governments is addressed in the section below on limits to what competition law can do.

3.4 *Improving the competitive environment*

Competition and security of supply are complementary policies, a finding in the EC's Energy Sector Enquiry. Thus improving the competitive environment can help supply security. The earlier sections on vertical and horizontal mergers dealt with many competitive environment issues. But barriers to entry has been scattered in a number of discussions and is brought together here. In addition, demand responsiveness improves the competitive environment.

There are significant barriers to entry in the downstream gas sector. Essential facilities are often in the hands of rivals and independent regulators may be unable to ensure fair and non-discriminatory access. It is time consuming and costly to build infrastructure. In part this is due to neighbours blocking proposed infrastructure despite its value to all gas users.¹⁷ Much gas is sold under long term contract to incumbent intermediaries. One result, depending on the terms of those contracts, is that markets in some locations, such as continental Europe, are illiquid. This makes it significantly more difficult for small scale suppliers—which entrants often are—to deal with varying demand than for large suppliers. Longterm contracts with large users can foreclose, for a significant time, significant fractions of total demand.

Barriers to entry upstream were mentioned above in connection with the gas producers needing fair and non-discriminatory access to pipelines.

Increased price responsiveness of demand promotes competition. More responsive demand makes raising price less profitable, or unprofitable. This gives suppliers incentives to compete more strongly. Promoting the use of interruptible contracts for large users and the use of market-clearing pricing would help to increase responsiveness of demand. Gas meters with real-time prices could also encourage consumption cutbacks during high price periods like supply emergencies, or indeed promote fuel switching when new investments are made. The political difficulty of gas price spikes can perhaps be examined more closely: Given the short duration of spikes (by definition), perhaps only the poorest members of society need to be shielded. If there is sufficient demand from users to reduce exposure to price risk, financial instruments may well emerge that transfer price risk as they have in other markets.

In general increasing competition increases energy security by diversifying supply.

4. **Limits on what competition law can do**

The involvement of states in the gas and oil industries may restrict the application of competition law. States can engage in two types of behaviour that might ordinarily offend competition laws. First, states can take actions and make agreements that harm competition. Second, states can direct enterprises to take actions and make agreements that harm competition. Because the actions of many

national gas and oil companies are bound up in the governance of their respective states, it can be difficult to distinguish these two types of behaviour. The important point is that state involvement of either type may trigger defences that shield the conduct in question from competition laws. When non-economic factors prevail in determining supply conditions, there may still be an important role for competition and markets in minimising the adverse effects in both the short- and long-terms.

The applicability of US antitrust law, for example, against foreign sovereigns is governed by the Foreign Sovereign Immunities Act (FSIA). Foreign sovereigns are presumptively immune to American laws unless a specified exception to immunity applies. One of the exceptions is that the foreign sovereign is engaged in a commercial activity having a certain nexus to the US. Whether an activity is commercial is determined by its nature, rather than its purpose. The Supreme Court held in *Republic of Argentina v. Weltover, Inc.* that “[T]he issue is whether the particular actions that the foreign state performs (whatever the motive behind them) are the *type* of actions by which a private party engages in ‘trade and traffic or commerce.’” [504 U.S. 607, 614 (1992) (emphasis in original); for additional exemptions, see ABA, II Antitrust Law Developments (Fifth) (hereafter “ALD”) 1136-1144 (2002).]

Does foreign sovereign immunity extend to intermediate subsidiaries of foreign states? US courts are divided. The factors they use to determine whether the FSIA applies include: “(1) whether the foreign state created the entity for a national purpose; (2) whether the foreign state actively supervises the entity; (3) whether the foreign state requires the hiring of public employees and compensates them; (4) whether the entity holds exclusive rights in the country; and (5) whether the entity is treated as a part of the government under the laws of the foreign state.” [ALD 1143 n.171.]

Another defence to antitrust liability that is available to foreign states is the “act of state” doctrine. Unlike foreign sovereign immunity, which exempts the sovereign itself from liability, the act of state doctrine exempts particular acts by sovereigns. Specifically, it exempts acts of foreign sovereigns that were taken within their own jurisdictions. [ALD 1144.]

Finally, if a private party is compelled by a foreign sovereign to engage in conduct that would violate the antitrust law, then generally the acts “become effectively acts of the sovereign” and courts do not impose antitrust liability. But if the compelled conduct takes place in the United States, then the US antitrust enforcement agencies will not recognise either the foreign sovereign compulsion defence or the act of state doctrine. [ALD 1156.]

In contrast to the United States, the EC does not have an explicit legislative act dealing with the immunity of foreign sovereigns. However, a sovereign immunity defence in antitrust cases was implicitly recognised by the European Commission in *Aluminium Imports* of 1984 [Commission case IV/26.870, OJ 1985 L 92/1] even though the defence was ultimately unsuccessful in that case. It concerned restrictive agreements between western European aluminium producers on the one hand and foreign trade organisations dealing with aluminium in the ex-socialist states of Poland, Hungary, Czechoslovakia, the German Democratic Republic and the USSR on the other. The agreements restricted the sales of primary aluminium by these foreign trade organisations to the involved group of Western producers, who undertook not to sell the product to other prospective purchasers in the western world. The foreign trade organisations had argued that they could not be qualified as “undertakings” within the meaning of Art. 81 EC due to the international law doctrine of sovereign immunity, as under socialist law they had no separate status from the State. The Commission recognised that such a defence may defeat the applicability of Art. 81 EC. However, it held that claims of sovereign immunity “are properly confined to acts which are those of government and not of trade.” [Decision section 9.2.] The Commission argued that each of the foreign trade organisations had been specifically established for and was engaged in selling aluminium. “Entities which engage in the

activity of trade are to be regarded as undertakings for the purposes of Article [81], whatever their precise status may be under domestic law and even where they are given no separate status from the State Even if the foreign trade organisations were indistinguishable under Socialist law from the State, no sovereign immunity would attach to their participation in the . . . agreements since this was an exclusively commercial activity.” [Decision section 9.2.] The Commission further relied on the fact that the governments of the States were not signatories to the agreements nor did they oblige the undertakings to enter into the agreements in order to reject the argument that the agreements were acts of the undertakings’ governments. The enforcement action in this case was limited to declaring that the relevant parts of the agreements infringed Art. 81 (1) EC and rejecting an exemption under Art. 81(3).

Aluminium Imports suggests a rather narrow application of the sovereign immunity defence. This question arose in several other cases concerning EU entities in which the European Court of Justice recognised that a distinction has to be drawn “between a situation where the State acts in the exercise of official authority and that where it carries on economic activities of an industrial or commercial nature by offering goods or services on the market.” [Case C-343/95 *Diego Cali*, [1997] ECR I-547, para. 16]. To qualify as the former and consequently fall outside the scope of the competition rules, the Court required that the activity in question “forms part of the essential functions of the State” and that “by its nature, aim and the rules to which it is subject it is typically that of a public authority.” [Case *Diego Cali*, para. 23; Case C-364/92 *Eurocontrol*, [1994] ECR I-43, para.30]. This “state act defence” so far has been applied by the courts to areas outside the energy sector (anti-pollution services, control of air space).

EC law establishes state liability for genuine state acts restricting competition. Art. 86 EC requires the states to refrain from measures contrary to the Treaty’s competition rules in the case of public undertakings and undertakings to which they grant special or exclusive rights, and submits undertakings entrusted with the operation of services of general economic interest or having the character of a revenue-producing monopoly to the competition Articles. In addition, the European Courts established that a state is liable under the Competition Articles if it requires or favours the adoption of acts contrary to the competition rules, reinforces their effects or deprives its own legislation of its official character by delegating to private traders responsibility for taking economic decisions affecting the economic sphere. [Case 267/86 *Van Eycke v ASPA* [1988] ECR 4769, para.16; case C-2/91 *Meng*, [1993] ECR I-5797, para.14]. However, these obligations are binding on EC Member States only, given that they are derived from provisions of the EC Treaty. Consequently, any such acts performed by non-Member States fall outside EU antitrust liability.

Anti-competitive acts by undertakings having an “immediate, substantial and foreseeable” effect in the Community are subject to antitrust liability, even if the undertakings are situated and the acts have been committed outside the EU territory [Case T-102/96 *Gencor v Commission*, [1999] ECR-II 753, para.90; C-89/85 *Woodpulp* [1988] ECR 5193, para.16, 17]. But as in US law, the EC legal system recognises a “state compulsion defence” in cases where the anti-competitive act in question cannot be qualified as an autonomous decision by the undertaking. The Commission and courts defined a rather narrow scope of application of this defence and require that the conduct has been made compulsory in a legal provision by the state and that there remains no latitude for individual choice for the undertakings as to the implementation of the state policy; mere support or encouragement by the government is not sufficient to trigger the exemption. [Commission case IV/32.450 *French-West African shipowners’ committees*, OJ 1992 L 134/1 para.38; ECJ case 240/82 *SSI v Commission* [1985] ECR 3831 para.38].

In conclusion, many obstacles exist in both Europe and the U.S. that hamper the full application of competition law in the energy sector in cases of state involvement.

5. Concluding remarks

Main points

Energy security is about vulnerability to disruption. It means different things to different people at different times. The risk of supply disruptions and associated price spikes are surely part of the definition, but there is no consensus on whether the price level during non-emergency periods is relevant, and there is also likely a psychological aspect. Energy security may prove to be impossible to define precisely.

The corporate governance of many national gas and oil companies and the role of gas and oil sales in national GDP may mean that these companies may not have entirely commercial objectives, but at the same time they prefer reliable revenues which are associated with reliable supplies.

The keys to energy security, however defined, are diversity of supply and investment. Investment can provide increase resilience, e.g., through spare capacity, surge capacity and emergency stocks. Other keys are to recognise the interdependence of markets and market participants and ensure timely information exchange.

Regarding the application of competition policy, horizontal mergers do not in general increase energy security, though they may in some instances where a merger is the only way to be able to enter contracts with other producers or invest in new infrastructure. Horizontal mergers of gas intermediaries, given their current low level of competition, are unlikely to increase bargaining power vis-à-vis gas producers. Vertical mergers that integrate potentially competitive activities with essential facilities can hinder non-discriminatory access to essential facilities, which may harm resilience and thus energy security. To the extent that competitive markets promote diversity and resilience, anticompetitive mergers would harm these elements of energy security.

Various types of abuses of dominance can discourage investment that increases spare capacity or surge capacity and thus resilience. Further, denial of access to pipelines can discourage diversity of supply by discouraging small gas producers from participating in the market. However, it may be complex and difficult to require incumbents to build larger capacity infrastructure, but competition to provide such expansion may be feasible if the regulator can determine how much at what price and impose a scheme for payment by consumers. Longterm contracts can facilitate infrastructure investment, which promotes security, but can also exclude entrants, and do not obviously directly promote security of supply.

In general, improving the competitive environment improves energy security by diversifying supply sources. The principle that multiple suppliers make it more difficult for any single firm to exercise market power or induce enough others to withhold output in order to exercise market power, applies equally well to markets supplied by firms or by governments.

But there are limits to what competition law can do. State involvement either by directly taking actions and making agreements that harm competition, or by directing enterprises to take actions and make agreements that harm competition, may trigger defences that shield the conduct in question from competition laws.

Notes

1. Oil reserves are slightly less concentrated: Saudi Arabia (21,6% of total world oil reserves), Canada (14,8%), Iraq (9,3%), United Arab Emirates (8,1%), Kuwait (8,0%), Iran (7,4%), Venezuela (6,4%), Russia (4,9%), with the remaining 19,5% shared among other countries. Coal and uranium present fewer concerns and are not further discussed here.
2. For example, the average cost to transport oil to the United States is about USD 2 per barrel. (Economic Report of the President, 2006, p. 233)
3. The statistics for shipping bottlenecks for oil from Middle Eastern producing countries are available and suggest the risks for LNG originating in the same region. Most oil and LNG from Middle Eastern producing countries is transported by one of three routes:
 - The Straits of Hormuz at the mouth of the Persian Gulf. The straits comprise two 3-km-wide inbound and outbound lanes. The IEA estimates that, in 2004, about 17 mb/d, or 21% of the world's total oil supply, was carried this way. Of this, about 13 mb/d is subsequently carried through the Malacca Straits between Indonesia, Malaysia and Singapore, where oil shipments have occasionally been disrupted by accidents and piracy.
 - The Bab el-Mandab passage, which connects the Gulf of Aden with the Red Sea. In 2004, around 3.5 mb/d was shipped through this passage en route to the Suez Canal and Sumed Pipeline. Both the Suez Canal and Sumed Pipeline connect the Red Sea to the Mediterranean, from whence oil is shipped to Europe and the United States. The canal's and pipeline's capacities are, respectively, about 1.4 mb/d and 2.5 mb/d. This route takes oil from ports on the Persian Gulf and the Red Sea.
 - The alternate route is around the Cape of Good Hope at the southern tip of Africa. [IEA 2005, pp. 262-4]
4. The rough trade-off between quantity of gas and distance to market is as follows. Small quantities are basically uneconomic to transport. At somewhat higher quantities and shorter distances, gas transformed into high voltage direct current electricity is economic. And at higher quantities, pipelines are more economic over medium distances and LNG over. [Precise figures are in Figure 25 in IEA 2006b, p. 144, reproduced from SINTEF]
5. Greater details on the Qatargas projects are as follows. Qatar 1 mainly supplies eight Japanese gas and power companies by 10 purpose-built LNG vessels under 25-year contracts. The project also supplies Spain's Gas Natural, partly under a contract extended to 2012 and partly under a 20-year contract. Qatargas 1 also supplies Turkey, Italy, the US, France, Korea and the UK under medium-term contracts. Qatargas 2 will supply the United Kingdom by the winter of 2007-8 for 25 years. This follows from a Heads of Agreement signed in June 2002 and a deal signed with ExxonMobil in December 2004. The total cost is estimated at USD 12bn. The deal for Qatargas 3 was signed in July 2003; plant start-up is anticipated in 2009. Cost is estimated at USD 5bn. The deal for Qatargas 4, the deal was signed in February 2005 and deliveries are anticipated to begin around 2010. The expected cost is USD 6 to 7bn. [<http://www.qatargas.com/media-room/Marhaba%20wirte-up.htm>]
6. Another possibility is that energy security is about the threat of using the price or quantity of energy to cause changes in non-energy policies. In principle, consumers could threaten a boycott of particular suppliers or suppliers could threaten a boycott of particular consumers. A boycott is more credible when it is less costly, holding constant the benefit of success, which would be the case if substitute counterparties to those being boycotted are almost as profitable to supply. A boycott is more credible, for example, if a producer threatens to withdraw a special low price or a consumer paying an above-market price threatens to take its custom elsewhere. If psychology is as important as economics in this context, then perhaps even a threat that, upon examination, is not credible would have a political effect.

7. A technological response to the NIMBY (not in my back yard) resistance has been the development of offshore regasification terminals. Being offshore and over the horizon, they do not seem to attract the same resistance. See http://www.excelerateenergy.com/energy_bridge.php.
8. The IEA also expresses concern. "Current IEA projections suggest that Gazprom could face a gradually increasing supply shortfall against its existing contracts beginning in the next few years if timely investment in new fields is not made [excluding any Russian exports to Asia]." [IEA 2006b, pp. 32-33]
9. They differ in marginal costs and in their capability to be used to balance the system, so they are not always perfect substitutes.
10. Note that the level of imports does not affect price spikes or price levels. International trade transmits price shocks and price levels, regardless of the proportion of demand satisfied by imports. In the event that domestic and foreign prices were different, taking into account taxes and transport costs, they would be rapidly arbitrated away. Import quotas and autarky do not insulate a domestic market; they just transform price increases into shortages and regulatory evasion. Thus, reduced import dependence does not reduce importing countries' exposure to price shocks or high international price levels.
 "Green" energy and energy security are often conflated in policy discussions. "Green" energy sources are often coincident with domestic energy sources in many countries, especially in those that are poor in natural resources. The Energy Sector Enquiry finds that security of supply and [environmental] sustainability are complementary, along with competitiveness. However, clarity of discussion is promoted by distinguishing between security and environmental sustainability.
11. Note that pipelines are often built for the gas to flow in one direction only. Bi-directional pipelines usually have different capacities in the two directions.
12. The FTC's complaint alleged that the merger would reduce competition in the local distribution of electricity and the local distribution of natural gas in the area where both firms operated in three ways. First, since natural gas is the fuel of choice for new electricity generation in the area and MCN had been distributing gas to self-generators, the merger would eliminate competition between the firms in electricity distribution and in the distribution of natural gas used for the self-generation of electricity. Second, the merger would facilitate raising the costs of a local competitor in electricity generation. Third, the merger would eliminate competition to supply those consumers who can choose either natural gas or electricity for specific energy needs. [See <http://www.ftc.gov/os/2001/03/dteanalysis.htm>]
13. "[T]he overall efficiency of the gas sector in Russia is impeded in part by its monopolistic structure limiting upstream gas investments by independent gas producers and oil companies. More transparent and reliable third party access to both domestic and export markets would prove a major step forward. The Russian government's current attempts to promote this through various legislative initiatives and through efforts by the Anti-monopoly Service are welcome signs of an awareness. Unfortunately, this Service is grossly under-resourced." [IEA 2006b, p. 41]
 "The IEA considers that large volumes of gas produced by oil companies are still being flared because Gazprom declines to buy it, or because the terms of access to processing plants and the transmission network are uneconomic. [IEA 2004b] This is consistent with the assessments made by the GGFR in their Russia-related work (GGFR13 2003)." [IEA 2006b, p. 145]
14. But regulatory intervention is not impossible. The Italian competition authority adopted a decision on 15 February 2006 (Case No. A358) which found that ENI had abused its dominant position by discontinuing works, which had been started by the network branch in view of increased gas capacity requirements, to expand an import pipeline. The discontinuance decision was taken by the parent company after complaints by the supply branch, and after several ship-or-pay contracts had been signed with independent shippers. [EC 2007, pp. 58-9]
15. An example is one contract that, in 2006, was extended from 2020 to 2035. [EC 2007, p. 48 footnote 78]

16. Interestingly, the EC writes, “We suspect that, on a volume-weighted basis, there was not clear commercial advantage either way [oil-indexed versus gas-indexed price contracts],” but notes that the period examined was short relative to the contract durations so the situation may have changed. [EC 2007, p. 108]
17. The NIMBY attitude is rational, as neighbours of proposed facilities will bear most of the risk of accidents, however small. But many more gas users will benefit from the gain in energy security. In principle, monetary transfers can be used to internalise the externalities, but it can be difficult to set the level of compensation as neighbours have incentives to exaggerate their cost.

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Note on terminology:

GTL (gas to liquids) is completely different from LNG. Natural gas is converted to hydrocarbon liquids using a chemical process. These liquids are lube basestocks, diesel fuel and chemical feedstocks, which are entirely different from the markets supplied by LNG. GTL is usually used to get stranded natural gas to market using pipelines, tankers, etc.

LNG refers to natural gas that has been cooled to its liquid state. It is restored to ambient temperature in a regasification terminal.

ENERGY SECURITY AND COMPETITION POLICY

3. SUMMARY OF DISCUSSION

SUMMARY OF DISCUSSION

Chairman Jenny opened the roundtable by introducing the panellists participating in the roundtable discussion: Mr. Donald Santa, formerly a member of the Federal Energy Regulatory Commission in the US and now President of the Interstate Natural Gas Association of America; Mr. de Ladoucette who is le Président de la Commission de Régulation de l’Energie de la France; Mr. Smith, member of OFGem in the UK; Professor Nambu from Japan’s Nagakushu University; Professor von Hirschhausen, Chair of the Energy Economics and Public Sector Management Department at Dresden University in Germany; Professor Francois Lévêque from Ecole des Mines de Paris¹; Mr. Cronshaw, Head of the Energy Diversification Division in the Office of Long-term Cooperation and Policy Analysis of the International Energy Agency; and Mr. Khayat, manager of gas and power strategy at Total Company. The Chairman also thanked Sally Van Sclen for writing the background paper and John Hilke, Consultant to the OECD Secretariat, for helping to organise the scenario for the roundtable discussion.

The roundtable discussion was organised around three sessions: 1) The meaning, sources and price of energy security (ES) and the challenges of developing or maintaining an efficient distribution of natural gas from a supply not necessarily in the country of use, 2) Promoting large investments required for the natural gas supply chain (transportation and distribution) and 3) the role of competition policy and case examples as they relate to energy security.

Session I

Session 1 included two subtopics: the meaning of energy security and the determinants of energy security and how these relate to competition policy. The Chair invited the delegations from Brazil, Lithuania, Switzerland, and Czech Republic to define energy security in their contexts using examples.

Brazil defines energy security as “assuring an equilibrium between supply and demand at all times.” Even though Brazil uses mostly hydro-generated electricity, natural gas is important to energy security, as it helps to avoid supply crises. To address the issue that 90% of Brazil’s gas supply is dependent on Bolivia, , Brazil is building two re-gasification terminals to allow LNG imports. It has also signed a declaration with Venezuela to construct a pipeline connecting Venezuela, Brazil, Argentina, and Uruguay. Finally, to encourage private investment in the natural gas sector, a bill has been drafted to establish a new regulatory framework of the sector including pipeline access rules.

Lithuania defines energy security as “a reliable and diversified energy supply at reasonable or market prices”, although no market prices exist presently. The EU’s emphasis on interconnectivity as a means of enhancing energy security is Lithuania’s top priority, in order both to mitigate the risks associated with a single provider (Russia) and to protect Lithuania from the risk of having energy being used as a political tool. Lithuania depends heavily on Russian gas since Gazprom, a state controlled, vertically-integrated gas monopoly, is the only supplier and owns the pipeline. On the other hand, the two companies that own the Lithuanian gas company (Gazprom and Eon) are not interested in diversifying. Therefore, government intervention is needed to secure another gas source, in particular from Poland. Lithuania also calls on Europe to invest in renewable and nuclear energy

¹ See: <http://www.cerna.ensmp.fr/Documents/FL-ElectricityJournal-June06.pdf>

sources, which will improve energy efficiency and access for all countries while reducing political risks associated with limited fossil fuel supplies.

The Chairman asked Switzerland to clarify two apparently conflicting statements in its contribution, as follows. On the one hand, the statement is made: “If conceived as a public good, the market will not normally fix a correct price for energy security”; and, on the other hand, it is also stated: “the Swiss delegation considers energy security as being primarily the responsibility of the market, whereby the government only intervenes if the market fails.” So, if the market does not give the good price for energy security and if the government does not intervene, what are the ways to find the proper price for energy security?

Switzerland places its approach within a theoretical framework which distinguishes four classical market failures, which are the only circumstances in which the state must intervene: 1) Public goods or public services; 2) Natural Monopolies; 3) Externalities not being internalised through market mechanisms; and 4) Information asymmetry. If energy security is a public good, government intervention is appropriate. However, to limit State intervention to what is really necessary, definition of a “public good” is limited to non-rivalry and non-exclusivity. The “contradiction” mentioned by the Chairman stems from the fact that the State itself does not provide for security of supply, but leaves this task to specialised agencies which are encouraged to operate freely as far as possible. However, for gas, this system is not yet available, as it is for electricity and oil. Switzerland’s security of supply philosophy holds that in the event of a market disruption, price changes should be passed on to consumers. Meaningful prices should follow market trends and have little volatility; there is no instrument with which to realise these two objectives. In case the government does not want to bear the cost of long-term subsidies as a result of governmental price stabilisation and inaccurate market forecasts.

Chairman Jenny next turned to Mr. Lévêque.

Francois Lévêque emphasised the importance of separating resource adequacy from the definition of security, and the role government should play in each. Security is a collective public good because it deals with the reliability of the distribution network. Resource adequacy deals with supply meeting future demand and the role investments play in maintaining sufficient capacity. He pointed out that this makes resource adequacy a private good and that it is important not to mix these two definitions. He then proceeded to inform the roundtable that market failures and the existence of a public good comprise a necessary condition for intervention, but not a sufficient condition, because both government and markets are imperfect. Thus the requirement for intervention should be based on which alternative is less imperfect: markets or government. Mr. Lévêque asserts that ‘public good’ does not mean that government intervention is always required.

Chairman Jenny then gave the floor to the Czech Republic.

Czech Republic began their presentation by describing some of the challenges of supply in natural gas in the Czech Republic with 70% coming from Russia and 30% from Norway. Supply from Norway has already been maximised and, therefore, their dependence on Russia is likely to increase. Czech Republic produces less than 1% of its own natural gas, hence security is a significant concern. One major problem in the CR results from the government’s selling of its distribution system and storage capacity to one owner, just before the unbundling of the Czech energy markets in 1999, effectively creating little competition and contributing to greater security risks in the gas market. This single owner controls reserves, and it profits from arbitraging seasonal pricing fluctuations. This creates low summer reserves that are not in the interest of the state because the firm does not maintain any strategic reserves.

However, the CR is a transit state, with three times more gas passing through the state than is consumed. 98% of electricity is produced domestically (uranium or coal). The electricity market works very well, further contributing to the opening of the market and the increase of exports.

Drawing from the lessons of experience, the Czech delegate made some recommendations to prevent crisis: the main pipeline should not be sold to the company that owns the distribution system; the maximum level of independence must be kept and domestic energy sources should be used as much as possible; strategic reserves should be maintained in government hands.

Chairman Jenny moved onto the second sub-topic of whether competition facilitates energy security or is detrimental to it. The chairman identified two groups, one arguing that competition contributes to energy security, and the other that too much downstream competition dilutes buying power and increases insecurity of supply.

The UK first focused on short-term supply and the role demand-side response played in helping get through the 2005-2006 winter with lower than normal supplies due to an accident with one of its offshore storage facilities. UK gas demand roughly breaks down 1/3 each among power generation, industrial, and domestic load. In response to higher natural gas prices, electric power generators switched to coal or to back-up distillate fuels, thereby reducing gas consumption by 40 million cubic meters/day, or 10% of typical peak UK winter consumption. Industrial customers responded by reducing or shutting down production or by switching to back-up fuels, thereby releasing 16 million cubic meters/day or roughly 5% of typical peak winter consumption. Residential and small industrial sector consumption was down 8%, adjusted for year-on-year temperatures. The delegate speculated that this was due to increased sensitivity to market prices, causing users to lower thermostat settings.

In essence, all three demand sectors responded to constrained supplies as a result of the liquid, transparent, and competitive spot market. So the different players could see what was occurring and respond to the rising spot prices accordingly, compelling lower consumption through economic incentives. It was the very presence of that market that gave UK consumers the tools and understanding of the supply difficulties on particular days and provided them with the economic incentive to actually sell their gas back into the spot market. Real and immediate price signals encouraged rapid response on the demand side, and overall the market adjusted effectively.

Chairman Jenny asked the EU to state its position about whether competition can contribute to energy security and how it proposes to solve the paradox of more competition and less buying power, which leads, therefore, to more instability and insecurity of supply.

The EU began by stating that it is intuitively easy to understand the need for bigger firms with more buying power that can establish more favourable conditions in the face of big suppliers at the global level. However, two points challenge this argument.

- First, security of supply is about disruptions of supply to the end consumer. It is not enough to have a global demand in the EU being equal to the global supply of the big firms that buy gas on the international market, but it is, rather, essential to have such technical and economic conditions that gas or electricity is supplied to the end consumer efficiently and reliably. Long-term contracts for large gas purchases from big countries and suppliers at the global level cannot avoid blackouts in large geographical areas.
- Secondly, buying power does not depend entirely on size; indeed, one supplier can actually weaken the buying power of different players. Therefore, diversification of the sources is essential to assuring security. Creating big firms within national boundaries does not assure

secure supply to the end consumer, despite the possibility for higher margins. The potential for higher profits does not necessarily improve the security of supply and conditions to the final citizen. Increasing interconnection capacities creates an internal European market with greater access to more customers, instead of focusing within national boundaries. Downstream competition is conducive to better pricing and service to the final consumer

Chairman Jenny recognised Italy next.

Italy directed a two part question at the UK delegation regarding the liquidity of their gas markets in contrast to Lithuania's absence of market pricing. How was it possible to create the level of liquidity in the UK; and is the spot market relevant for identifying supply conditions in gas?

In response, the UK stated that the spot market is very relevant, but the conditions are partly a result of the large size of the gas market in the UK relative to the rest of Europe, roughly 20% of the combined demand of the EU. The U.K.'s large natural gas market, historical developments, and the North Sea natural gas supply contribute to their liquidity, which could well be second only to that of the US. The role of unbundling is also important to liquidity.

On Italy's follow-up questions --Would that liquidity be related to the fact that the UK is a producer of gas, like the US, for example? Also could a fully importing country like the Czech Republic or Lithuania create a spot market such as the one described by the UK?-- The UK briefly responded by referring to the size of their market and the trend that in 3 or 4 years they will become a net importer. Nonetheless, there are no signs that their liquidity will cease as they stop being a producer. The delegate recognised that smaller markets like the CR may need to combine their markets with neighbouring markets to create enough physical size to carry the cost of a spot market and encourage the requisite investment.

Chairman Jenny turned to Japan whose position is to monitor deregulation in order to strike a balance between encouraging a competitive environment and securing a stable supply.

Japan clarified that this interplay is not a trade-off; some conditions are necessary in order to strike a balance between encouraging a competitive environment and securing a stable supply. This is realised in securing energy sources at reasonable prices from reliable sources abroad, and in constructing in the domestic market a sufficient amount of spare capacity to supply sufficient amounts of gas energy for consumers. Japan must import more than 96% of its gas in the form of LNG since Japan is an island and no pipelines connect it to suppliers. This requires a large initial investment from suppliers in order to construct the necessary equipment, and in turn requires a long-term demand commitment from Japanese industry. A liberalised market will encourage demand accumulation and generate conditions conducive to persuading suppliers to invest. However, with its aging population, the estimation of energy demand decreasing and its geographical specificities, Japan must explore appropriate regulatory reform suitable for these conditions.

Chairman Jenny turned to Norway to explain the relationship between its demand driven market response and security of supply.

Norway's hydro-based system experiences large price variations between seasons and years, due generally to supply fluctuations, since consumption is fairly stable. Lack of power stems from two main causes: 1) a problem with one or more of the hydro power plants and/or, 2) a problem in the transmission system that creates an imbalance. The balancing mechanism that encourages demand-side response in such situations is a real-time market that sets prices hour by hour, which is the main tool to secure power reserves during operating hours. Market participants on the demand side can make bids

to balance the market through demand reductions on an hourly basis for the following day. With respect to lack of energy, typically occurring because of hydro inflow reductions, price increases is the primary mechanism to rebalance consumption with supply. Most consumers have contracts where the energy price is dependent on the spot market price for electricity. Since most consumers use electricity for heating, they can use wood or oil as a substitute when electricity prices are high. In a situation with lack of energy, the market is split in price areas, resulting in higher prices and lower demand in the area where energy is scarce. Power-intensive industry provides additional demand-side flexibility, to the extent that even in really dry years it has not been necessary to use rationing as a balancing tool. There is also a reserves option market for energy, which secures additional energy reserves. Market participants may guarantee specific volumes of energy reserves in the form of demand reductions. These bids must have a minimum duration of one week.

Before the establishment of a reserves option market in 2000, the Norwegian Competition Authority was approached by industry representatives wishing to cooperate on providing reserves for the TSO (Transmission System Operator). They were advised that if cooperation was necessary for energy security reasons, they could apply for an exemption from the competition rules. Such an application never came, and reserves are provided according to market mechanisms.

The Norwegian delegation provided an example from the winter of 2002-2003 when prices rose to their highest levels to date. Using the tools aforementioned, this resulted in large reductions in consumption, and authorities did not have to intervene. In situations with lack of energy in a region, the TSO sets up a separate spot market area. Typically, the price in the constrained area will be higher than in neighbouring areas, reflecting the lack of energy generation the region is experiencing. This leads to reduced consumption of electricity. Last year, a new market for energy options on demand reductions was introduced. The TSO has entered into agreements with industrial customers that entail reductions in consumption for a number of weeks during the winter months in case of a critical supply situation. The TSO pays for the right to decide if and when demand reductions will be activated when buying an option, and has to pay an additional sum if an option is exercised. These options are only to be exercised in situations where there is a very high probability of rationing. Additional demand-side flexibility could be provided by introducing mandatory hourly metering of household and other house consumers. This has so far not been considered economically profitable in Norway.

Chairman Jenny looked to Sweden to provide an alternative viewpoint centered on the assigning of responsibility for reserves to the grid operator during peak demand periods.

Sweden's delegate explained that after the 1996 deregulation, excess capacity was phased out to improve efficiency, but with less reserve during extreme peak demands. Subsequently, Sweden created a temporary (2003 to 2008), market-based solution to allow the TSO (Transmission System Operator) to procure peak load reserves of up to 2000 megawatts to be available during winter months. 75% of the peak load reserve is in standby capacity and some 25% is demand reduction among the large industrial consumers. Two problems arise from this:

- The reserve in itself means that the incentives for keeping certain types of capacity are being continually lowered, so this reserve may need to be increased over time, and the incentives to invest in certain types of capacity are taken away from the market.
- How to price this reserve in the market without distorting the market functionality?

Sweden looks to a market-based solution that places responsibility on the companies to maintain security of supply. All measures taken have been national in scope and recognise the importance of demand-side flexibility among smaller users. However, the delegate stated that because the energy

system is a Nordic-wide system, a more regional solution may provide the best alternative to state-managed emergency reserves.

At the invitation of Chairman Jenny, Professor Nambu described the Japanese gas industry with an emphasis on long-term contracts and the issue of security policy from a broader perspective. In Japan there are about twenty city gas providers, but the major companies, Tokyo gas, Osaka gas and Toho gas, account for 75% of the total production. Eight gas companies import LNG. There is no gas distribution network in Japan equivalent to the EU network. Further, about 50% of national gas supply is associated with liquid propane gas providers.

Professor Nambu highlighted some of Japan's characteristics, including the fact that it is a remote island; it has very little domestic energy production and its demand for energy is very large. As a result, liquefied gas is transported by ship, then it is put through a regasification process before it is supplied to gas and electric companies. Among LNG imports, electricity companies account for 66%, the city gas companies under 3%, and roughly 30% of the production is accounted for by other uses of LNG. Consequently, electricity and gas companies cooperate to import LNG from abroad and energy imports are diversified by country, including: Indonesia 30%, Malaysia 22%, and Australia 15%. The demand in Asian countries is high and Japan accounts for roughly 50% of imports by Asian countries.

The major concerns regarding security in Japan are price stability in emergency or normal periods, and the potential for import disruptions. As a result, Japan has been depending on long-term contracts and cooperation in developing new LNG sources.

Professor Nambu discussed the difference between oil prices and gas prices, stating that oil prices fluctuate day by day, year by year, but with LNG, Japan depends upon long-term contracts, so the import price of LNG is very stable. Tokyo Gas has a contract with Darwin to develop new LNG projects. Tokyo Gas is a buyer/investor in LNG projects. Several examples reveal how Japan's contract structure for gas procurement leads to stable prices and bolsters security of gas supply.

One future concern for Japan is the prospective linkage between oil and natural gas prices that may arise due to the speculation of hedge funds and other powerful organisations. Another concern is the pricing of fuel emission rights, which will fluctuate in the future and will affect LNG prices.

Central to Professor Nambu's discussion is the increased competition between gas and electricity companies since the deregulation in Japan began in 2000. Should a scenario of competition between the two industries compromise the buyer coordination they now practice, Japan's buying power could be adversely affected. This theory could be realised since electricity companies can purchase LNG for less than gas companies can, which would "raise the rival cost" of gas companies. For this reason, Professor Nambu does not share the view that that competition and security are compatible. According to Professor Nambu, an increase in the number of gas intermediaries or new comers in an LNG market does not assure security, because these companies will act opportunistically to avoid risks. Companies exiting a market could create serious supply security problems. Concerning the 30% reservation of LNG gasification terminals for new entrants, uncertainty due to technological innovation and international markets may cause some companies to exit. This means that reserving a portion of the market for new comers moving in and out of that market could be a waste of resources. Limits on diversification between gas and electric companies seemed arbitrary and unnecessary since the final product from either industry is the utility produced, making them homogenous products. So, in the end, there is the same level of services in the electricity and gas markets.

Chairman Jenny briefly discussed the issues raised by Professor Nambu, including how long-term contracts can contribute to security of supply, or at least to averaging of the price. He pointed to the

questions the Professor raised in regards to the contribution competition has on security, and hoped that delegates would address these. He then moved onto Spain's contribution as it pertains to long-term contracts in the procurement of LNG and to security of supply.

Spain began with a review of its LNG market in order to address the role long-term contracts play. Considering that LNG accounts for 2/3 of the gas imports, Spain has the highest rate in the EU. Due in part to the demand from electricity generators and more so to regasification plants, LNG has allowed for a liberalisation process within the Spanish gas market. In the late 1990s, liberalisation began, and two key liberalisation measures were introduced: i) the ownership unbundling of the transport system operators and ii) the release for the long-term contract of the incumbent operator, which allowed new comers to seek for new contracts.

Thanks to these measures, Spain's gas market expanded from a single pipeline and 3 LNG regasification plants to 5 LNG plants, two more under construction and another pipeline being constructed by a consortium of private companies. Spain's LNG infrastructure has been developed by a mixture of both private initiative and government intervention. Intervention is in the form of regulating when new LNG plants are needed based on the demand versus capacity gap in the basic system. However, the 5 or 7 existing plants were developed through private initiatives, although they are still included in the basic system. This has some consequences in terms of income they will receive. Though a mixture of tariffs and private prices apply, typically they might recover all their fixed costs through transit tariffs. But the more crucial question is that they are subject to third-party access rules, so they are subject to higher information or transparency requirements. 25% of the total capacity must be reserved for short-term contracts, and no company may hold more than 50% of this percentage. The rest is for long-term contracts. Under a 'first-come-first-served' rule (which might be changed to comply with EU directives), there are some other safeguards in order to guarantee fair access for third parties. There are some obligations in terms of guarantees, penalties and severe "use it or lose it" rules. To conclude, the delegate highlighted four points: i) Long-term contracts in this case are allowed, but they are subject to some rules so they contribute to energy security; ii) Regulation has created incentives because all LNG plants are owned either by the transport operator, which is totally independent from gas suppliers, or by new comers. The incumbent operator just accounts for 35% of the total import capacity of these plants, which makes or creates contestability in the market; iii) Regulation has also created incentives for LNG security by allowing a reasonable margin of excess capacity in the import system; iv) Competition policy has played its role. The competition authority imposed a sanction on the gas incumbent for reserving a large proportion of the gas import capacity, and this case also led to a change in regulation and new regulations are being prepared in order to create a capacity market.

Although the Spanish delegation is uncertain whether LNG will help form the long-term energy security perspective, it definitely has helped in liberalising the gas market in Spain.

Chairman Jenny acknowledged the importance of competition, but also recognised, through Spain's contribution, that intervention has a role as well, which complicates the concern that when intervention is used it may have adverse affects on competition policy or the free market. He remarked that UK may be able to provide a dissenting view. Before the roundtable moved on to the second session of issues, the Chairman asked if any of the delegates had questions on the first session of issues.

In response to Italy, Professor Nambu explained why Japan's import prices for LNG are so stable when Italy has experienced price fluctuations with oil prices. Japan's relationship with supplying countries is very strong due to their participation in the development of new LNG technologies with these countries. However, the separation of gas price from oil price in Japan is at risk in the future due

to the development of the financial markets, and oil prices are becoming more closely linked to gas prices.

In response to Australia's question: what was done to promote the demand response of the energy market so that it can play a significant role in securing energy?, the UK explained that suppliers developed a whole range of new contract structures, designed to help industrial customer realise significant savings during peak load times. In addition, competition drove innovation in services and provided industrial consumers many new benefits, including information dissemination (i.e. notification of pricing when it reaches certain levels).

To the Australian's follow-up question: We have seen some success in actually targeting industry demand, but what about the actual residential consumers? The UK's response was that residential customers simply adjusted to prices. Nonetheless, there are examples of innovation here as well. One of the domestic suppliers has just introduced a new contract that links domestic prices to the wholesale prices.

Prof. von Hirschhausen explained the role of relative charges in gas prices and constructed this explanation using the Henry Hub spot price. The Henry Hub is a short-term price that has come down recently to \$4 - 4.50. Conversely, Japan's LNG import price, pursuant to the Japanese crude cocktail, will rise to about \$8 - \$9 in the future. So there will be a price difference, the US at \$4 and Japan at \$9. In addition, the long-term prices imported into Japan are, on average, 1 dollar more expensive than those imported into Europe, which is the premium paid by Japan for this form of supply security. Mr. von Hirschhausen further explained that the future prices in the world market for gas will be determined at the Henry Hub; therefore, the price link between gas and oil should strengthen, even in the cases of Korea and Japan.

Germany asked Professor Nambu how CO2 emission certificate trading will affect LNG prices, because Germany has initiated abuse proceedings against companies regarding misuse of CO2 certificates.

Professor Nambu reasserted his position that developing financial markets connect CO2 emission rights and oil prices with LNG prices. He stated that some financial instruments treat these pricing structures equally, so pricing in the emission rights market could affect LNG pricing. He mentioned again that powerful organisations may be important in determining emission rights prices, resulting in a close relationship between LNG prices and those of other commodities.

The US emphasised the importance of two main points, better price signals during peak load periods and supply network flexibility in dealing with the physical security of assets themselves during natural or man-made catastrophes. On the first point, in order to achieve better price signals, the delegate explained that more advanced metering technology is important to inform end-users, and this would lead to greater usage sensitivity. As an example, the major electricity suppliers in California have roughly 5 to 6 billion dollars invested to handle the single hottest hour of the year, therefore with smarter metering technology customers can adjust their consumption behaviour accordingly. Regarding the second point, catastrophic events that might cause significant capacity reductions can be handled if the supply network has enough flexibility to adjust.

Session II.

Chairman Jenny began the second session by outlining the conditions that must be met in order to achieve efficient demand response and greater security of supply in a competitive environment:

- The viable existence of substitutes to natural gas and whether LNG or other sources can, in the short term, easily replace natural gas
- Whether demand response and market-oriented directions will lead to an adequate level of infrastructure investment, given the size and the importance of those investments.
- The structure of the industry, given a competitive market, and the issue realised through unbundling at various stages, specifically whether unbundling is helpful or results in efficiency losses.
- To what extent can storage capacities exist; primarily their influence on a working market, on buying power, and how they are generated by the system?

Chairman Jenny asked Portugal to elaborate on how a competitive supply of sources of energy contributes to security of supply, based on its experience.

Portugal's natural gas sector is relatively new, introduced in the mid 1990's. This large investment was facilitated through a contract between two major co-generation electrical plants and the gas company, insuring the investment would break even. The objective to diversify supplies and reduce pollution propelled the substitution of gas in some industrial firms, and with domestic consumers in the main metropolitan areas, covered a higher-than-anticipated amount of the demand. This is comparable to the coverage in other countries. However, these developments have raised two concerns i) the ways to decrease risk of investments, provide for excess capacity during peak load demand, and manage supply disruptions; ii) The spread of risk which can be unequal when government intervention results in shifting most of the risk to the consumer, causing 10 – 20% higher costs. Purchasing power agreements and state directed investments can reduce consumer welfare.

Portugal stated that a competitive market may be the single most important measure to improve security. Through competition, an interconnected national market, more liquidity in supply and demand, and more active spot and long-term markets, state-protected monopolies and their related problems could be largely overcome.

Chairman Jenny turned to Mr. Cronshaw for a presentation on the issue of substitution between natural gas and other energy sources. The IEA representative described how OECD gas production is decreasing while demand is increasing, diverging from the precedent that production has driven consumption. OECD gas production is dropping from one-half the global amount in the late 1990's to one-third by 2010. Complicating this scenario is the fact that consuming regions in the OECD are quickly increasing their import dependency. OECD Europe is moving from 38% dependency a few years ago to over 50% dependency as soon as 2010. The OECD Pacific, with the exception of Australia, is nearly 100% dependent on imported LNG, and the US will soon begin to import LNG with market forces creating LNG terminals to handle 160 bcm import capacity, nearly a quarter of its gas demand. As described in the Secretariat background paper, LNG supplies are projected to increase to 360 bcm by 2010. The heightened LNG activity is evident and LNG will be sold into the world market, effectively setting the price as a mainstream energy source. Mr. Cronshaw then referred to Professor Nambu's presentation and how the IEA is seeing LNG prices starting to correlate between geographic markets. For example, in the last 6 months of 2006, NBP (British price) and the Henry Hub showed some correlation that is apparently here to stay due in part to some major globalisation of the LNG industry. He used two examples to illustrate his point. Cargos in the Atlantic in 2005 and 2006 moved from one market where they had been earmarked to another market where the price was higher (i.e. North American markets consuming gas Europeans were depending on). In 2006, 40 cargoes or more moved from the Atlantic basin to the Pacific basin to meet Japanese demand, which

stemmed from rapid growth with LNG prices higher than oil prices and Indonesia unable to meet its long-term LNG supply commitments. He established the importance of understanding that the LNG market is no longer regional; it is global.

With exceptional demand growth and dropping supply levels within Europe, the gap between internal production and projected consumption only can be met in two ways – either by LNG or pipeline imports. Mr. Cronshaw postulated a scenario in which by 2015 Europe could be importing a quarter of its gas needs from LNG. He stated that specific policy items could be used to mitigate Europe's dependency on certain suppliers.

OECD gas demand growth in Europe has been driven by the power sector. Out of the total growth in power generation, $\frac{3}{4}$ came from gas, and to a lesser extent, coal, wind, and nuclear. Nuclear generation increases have occurred without any new plant construction, and the situation is almost the same for coal. Wind is the 3rd largest growth source, but wind is not that competitive in price. Hydro generation and oil-fueled generation are in relative decline in OECD countries. OECD countries are experiencing widespread growth in consumption for generating electricity --- it's not confined just to the UK or the US. The Spanish delegate mentioned the growth in Spain. 80% of its incremental power demand growth. This growth has been rapid --- Spanish power has gone from 220 to 290 terawatt-hours in the last 5 years and in this same time period, 60 out of that 70 terawatt growth has been gas-fueled generation. In addition, Mr. Cronshaw made clear that Russia is highly dependent on gas-fired electric power. Nearly half of Russian power is generated with natural gas and a very cold winter could exacerbate supply issues.

In 2005 gas prices increased in most liberalised markets as a result of supply and demand forces. He re-asserted the point that natural gas prices in non-liberalised markets are linked to oil prices. The possibility for fuel switching, primarily in liberalised markets, mitigates price pressures from gas sources, as was the case with coal. Wind offers a minimal alternative, but overall, coal is the only option for short-term alternatives in the electric power sector.

China represents an important influence in the global energy market, as Chinese power growth last year exceeded that of the entire national grid of Germany. The majority growth in electricity generation is currently coal-fired; however, this produced well in excess of 1 giga tons of CO₂. China could dramatically change the global LNG market should it become a player by generating more of its electric power from natural gas. However, there are only two LNG terminals in China and a third under construction, so China will remain a very small influence on global gas markets in the near term.

According to one of Mr. Cronshaw's slides, over a 4-month period after hurricane Katrina, the US lost 10% of its gas supply due to hurricanes. The market responded with higher prices, which rose from \$6-\$7 to about \$15. This increase was rapidly adjusted for.

Italy and the UK provide two interesting and contrasting measures related to major supply disruptions and how their markets responded. The UK's liberalised market experienced significant price increases, initially to \$20 and even up to \$40 in March 2006. Consequently, consumption adjusted, and there was no disruption in supply to retail customers. Italy's experience was markedly different, as a result of Italy's retail price being fixed to about \$8 in relation to oil. In the face of cold weather, the gas sector upgraded demand for electricity, and nearly $\frac{1}{2}$ of Italy's electricity comes from gas. With rising demand, Italy experienced a shortage that illustrates how gas security can fail in a non-liberalised, non-integrated market. Mr. Cronshaw contrasted Italy's experience with that of France and Germany, who did not experience shortages as a result of their large reserves. This indicates starkly that the European market is not one market.

As an anecdote, Mr. Cronshaw celebrated the UK's increased import infrastructure, including the construction of a new LNG terminal in just 11 months. Using this example, he stated that the long-term infrastructure and contract models are not essential when one considers that LNG terminals are being built without these contracts and sometimes to service spot markets. Rapid and realistically costly infrastructure construction is occurring and should be considered in countries' energy security strategies. Long-term contracts don't imply security. For example, Japan, whose major supplier is Indonesia, is now 10% under contract in supply.

In the US, industrial consumers, as opposed to the power sector, comprise the greater portion of consumption. This provides a good source of potential consumption reductions, and, along with lower "high" prices during a supply crunch, this differentiates the demand response in the US compared to that of the UK. However, due to the rising cost of gas, many of these industrial consumers are relocating to other countries, (e.g. methanol and other chemicals, moving to Trinidad and Tobago, Saudi Arabia and the Middle East). If prices are in the \$6-\$7 range, as expected, then these industrial companies are not competitive, and so these consumers are not going to remain in the US.

Mr. Cronshaw summarises with these key messages:

- The OECD countries are becoming more dependent and they should get used to it.
- Functions in gas markets have demonstrated that they can overcome severe supply disruptions, not without cost to consumers, but they do it quickly and easily.
- In the absence of functioning gas markets, relatively small supplier demand issues can have major impacts. My example is Italy, but I could have given some other examples from Europe, Hungary as well.
- European gas markets aren't working properly, they can't provide the security of supply or competition as they are currently structured and the EU made this clear.
- LNG trade is expanding very rapidly. It's globalising to regional markets. It can and will be a particularly important supply source for OECD markets provided countries build the infrastructures to a) build the terminals and b) link those terminals into markets in a competitive way.

Before Chairman Jenny commenced discussion of the second sub-theme of the roundtable, he observed that Mr. Cronshaw's presentation provided important sources of concern. In promoting infrastructure investment, the Chairman emphasised the concern expressed in many of the contributions about adequate levels of investments at all levels in the chain of supply. Because the requisite investments are large and long-term, there is question as to the adequacy of market forces in financing these investments.

On the one side of the spectrum, there is a more traditional model of vertically integrated and regulated monopolies that secures supply-side investment through long-term demand-side purchasing agreements. On the other side of the spectrum, there is the model of unbundled competition, in which there are numerous players at different stages of production. Regulation is primarily focused on preventing discrimination or promoting competition, even when natural monopoly conditions arise at some levels of the chain of supply. In the latter model, long-term and short-term supply contracts exist side by side, and security of supply can vary according to customers' risk aversion, depending on the terms of contracts and other forms of hedging.

The Chairman asked two questions about the adequacy of investment. Are those two forms adequate to secure long-term investments that one requires or is one model better than the other? The EU contribution states, and the Chairman quoted: “when network and supply companies are integrated, there are too few incentives to invest in networks, the major obstacle to new entry and a threat to security of supply.” What makes the EU’s Competition Commission believe that unbundling is a pre-requisite to achieve a satisfactory level of investment in infrastructure?

The EU began by addressing the concern brought up by Mr. Cronshaw that the EU energy markets are not working properly. Barriers to investment exist primarily in the vertical integration of incumbents in the different national markets involving cross-sector ownership between areas such as production and transmission networks (most notably in the gas market). The EU described how vertical integration alters incentives in, at minimum, two important ways:

- It reduces incentives to give access to critical infrastructure in a non-discriminatory fashion to third parties that would be or are its competitors upstream or downstream.
- It reduces incentives to extend the network, to do the necessary investments to expand the network, in order to cater to the need of customers that are once again actual potential competitors upstream or downstream to this incumbent vertically integrated player.

The EU focused on the second point --- the incentive is for the vertically integrated player to maintain the status quo, minimising competition to keep up supply restrictions and thus obtain higher revenues. This higher revenue is also bolstered by limiting capacity available to competitors in the market. One can observe how all of the incentives go in one direction as higher income is realised both upstream and downstream due to the reduction in competition. This stifling of competition applies whether discussing transmission networks concerning tubes or infrastructure essential facilities including interconnection capacity, storage capacity, or regasification plants.

The EU stated that one must look to reality, not just at theoretical approaches, in addressing security of supply. Although the reason for vertical integration is to assure that revenues can finance infrastructure expansion, experience reveals that vertical unbundling of the transmission system induces expansion of investment in all of the various parts of the market, while still realising sufficient profitability to finance these investments.

Chairman Jenny pointed out the similarities between the EU’s presentation and the contribution on this topic from the UK with the following quote: “provided barriers to entry are low, higher prices in energy markets will lead to investment in additional energy production facilities, leading to improved security of supply. Where arrangements are centrally planned, important information regarding customers’ preferences, including willingness to pay for energy security, is not revealed; [and] investment decisions taken under such arrangements are therefore more likely to be inefficient.”

The Chairman asked the UK to not only build on the long-term investment aspects of this topic, but also, contrary to earlier contributions, to qualify their position that low entry barriers keep investments strong.

The UK began by describing what has happened to overcome declining North Sea supplies. In short, the market has committed to investment of over 10 billion pounds in new infrastructure, which will provide 60 billion cubic meters of gas by 2010, accounting for about 50% of peak winter demand in 4 or 5 years. The market is responding in the following ways as well: a major new pipeline to Norway, doubled pipeline capacity from Belgium, the conversion of a LNG storage site to an import terminal, in under one year from conception to completion. LNG was delivered from the new terminal

at Teesside, two LNG terminals are being built in South Wales, and there is further expansion of the Eastern terminal. The Norwegians are considering the option of a new natural gas pipeline to the UK

The storage concern has been overcome through construction of a new storage site, with three more currently being built, and seven more applying for planning permits. Overall, the UK asserted that regulatory restrictions in the form of uncertainty by planning regimes and connecting infrastructure are the greatest challenges faced at this time. Nonetheless, the UK supply picture will be transformed by 2010 as is detailed above.

Markets provide for security in ways central planning has not, through diversity of both sources and pieces of infrastructure. With 7 or 8 different facilities, both supply and physical security are enhanced; and, due to the number of players, the range of supplying countries has expanded. Pipeline sources include the Netherlands, Norway, Qatar, Algeria, Trinidad, Tobago, Oman, Egypt and Russia. Clearly, the UK market is investing, and values diversity as a measure of security, which vertically integrated and centrally planned arrangements often do not do.

In summary, the UK asserted the position that, despite the challenges they have faced, the markets have invested readily and heavily in new supplies, to the extent that even risks associated with disruption and high winter demand are covered.

Chairman Jenny gave the floor to Italy.

Italy directed questions to the IEA concerning the reason why stored gas did not flow to the UK, since there was not a lack of price response, as was the case in Italy. He wanted to know why imports did not occur, if prices in the UK were high enough to generate a supply-side response from other countries. Did competition problems or antitrust concerns create barriers to such imports? He asked if the plausible explanation is that government-controlled strategic reserves are managed according to nationalistic concerns rather than market principles.

In response, the IEA stated that the current infrastructure for imports was not in existence when the UK experienced the supply disruption. Nonetheless, there was one interconnecting pipeline and one LNG terminal, but gas did not move to the UK as one would have anticipated. Despite the potential profits from the high UK prices, none of the continental suppliers was prepared to supply gas. After some interactions with the UK competition authority, the one LNG terminal increased production sharply, but this simply was not enough to cover the shortage. The market's ability to adjust to the disruption was caught slightly short by a year. Capacity has increased since this time by 50 or 60 billion cubic meters, so import capacity equivalent to ½ of market consumption is newly available. Storage weaknesses in Europe were illuminated by this example, in terms of how supplies might have been tied up and linked to the terminal issue. The delegate stated that government-controlled strategic stocks may have played a factor, but commercial stocks should have been much more responsive to rising prices, as was the case in the US after hurricane Katrina.

Chairman Jenny gave the floor to the US

The US sought clarification as to how the UK managed environmental policy in conjunction with competition policy, primarily in terms of how sites for the facilities were chosen in less than a year's time. In addition, the delegate wanted to know about the approaches taken to overcome individual consumer and residential community concerns about siting of LNG and other infrastructure.

The UK described the difficulty in accomplishing the major expansion of import capacity, and made it clear that the local and national planning components of the regime chose sites where LNG

infrastructure previously existed, or where infrastructures associated with the oil and gas industries already existed. Many of these regions have had employment issues, and these communities were much more responsive. Storage sites represent the greater concern, as underground storage has been shown to be a cause for concern. The best storage sites and pipeline routes are often in high-end residential communities, or must pass through places of exceptional beauty, respectively. Planning regime uncertainties due to such environmental issues can cause a drawn-out process that can take years to resolve.

The IEA stated that there has been an escalation in local objections to siting energy infrastructure going from NIMBY “not in my backyard” to BANANA “build absolutely nothing at all near anybody” to finally the California example of “not on planet Earth (NOPE).” These planning constraints create high costs and high risks to all OECD energy consumers and are an issue that needs attention. Nuclear and coal-fired plants are unpopular and expensive, requiring long lead times. With these facilities traditionally located away from inhabitants, as in the Gulf of Mexico for the US, other security threats arise. The delegate affirmed that UK represents one of the few best practice examples of effective planning to site energy investments within the OECD.

Chairman Jenny acknowledged that this discussion presents more difficult issues for future energy infrastructure investments. Next, he moved to the Russian Federation’s concern with bottlenecks in their transportation system, and asked the Russian delegation to address how the current ownership structure, vertical integration and lack of investment incentives in their transportation system may be contributing to energy security problems. He also asked them to address potential solutions.

Russia confirms that they have a model of a fully vertically integrated company that is connected with consumers of gas by a system of long-term contracts both within Russia and internationally. Gazprom owns the unified transportation system and as a natural monopoly, technical and regulatory problems contribute to the bottlenecks. The Russian delegate explained that gas shortages are caused by several factors, including that it is technically impossible to deliver reasonable volumes of natural gas in part due to growing consumption, and that the competition authority is hampered by discrimination and refusals to sell or transport gas to some consumers and producers.

Proposed solutions include a long-term development program, as part of Russia’s 2030 energy strategy for the transportation system, as approved by both Gazprom’s board and the government. Furthermore, violations of the competition law have led to price and access regulation with enforcement provisions for the gas transportation system. The delegate informed the roundtable that transportation system is now separated from gas production and trade. The transportation system for natural gas maintains its own organisational structure as a subsidy of Gazprom.

The primary problem is anti-competitive discrimination by the owner of the pipelines, Gazprom, towards the other producers of gas. These independent sources of gas produce 10% of the total supply in Russia, but it can be difficult for customers to access this gas. The federal anti-monopoly authority has responsibility for enforcing non-discriminatory access to monopoly-owned essential facilities, including the unified transportation system. The competition authority has made progress enforcing these regulations against Gazprom, but the government faces a daunting economic reality of trying to change up to 60 years of gas industry development. Although there are problems with Gazprom, it is in the best position to guarantee energy security to dependent Eastern European countries and Gazprom is the only company that can accomplish this. Diversification of energy in Russia is costly, long-term and risky. A risk-sharing mechanism is being used that defrays supplier investment risks through mutual participation in assets of energy companies in countries that import from Russia. Diversification of supply markets for gas and other energy resources remains a possible alternative.

The Chairman stated that many in the room support Russia's efforts to eliminate discrimination and improve access to the transportation system. Moving forward, Mr. de Ladoucette was offered the floor on the premise that France exemplifies a country that moved from a vertically integrated model to one of greater competition and unbundling, and the methods for facilitating investment when moving from one model to another.

Mr. de Ladoucette began with some history about efforts to create a single energy market in Europe, as set in motion by the directives of 1998 and 2003 in order to address concerns of security of supply. It is against this background that the question now arises as to whether the current opening of the market will help to ensure supply security. Mr. de Ladoucette stated his opinion that the gas and electricity markets are often viewed similarly. However, for two basic reasons, these two sectors can be approached in a different manner: gas can be stored, but not electricity; gas is a primary energy resource whose main sources are located outside the EU area, whereas electricity is a secondary energy resource produced within the borders of the EU from different sources.

What these characteristics show is that gas is supplied in a world, or at least a large regional, market on a price basis over which there is no control. Accordingly the two main necessary – perhaps not sufficient but at any rate necessary – conditions that must be met to guarantee supply security are transparent and non-discriminatory access to the network, and investment in infrastructure. There are three points that follow with regard to the latter:

- the need to step up investment in infrastructure;
- the need to adjust incentives to encourage investment;
- the importance of adopting a European approach to such investment, which must be based on a number of current policies and, in particular, regional initiatives.

Strengthening supply security by encouraging investment in infrastructure is regularly discussed by the European Commission, most recently in the Directive of 26 April 2004 on measures to safeguard the security of natural gas supply. Providing investment in transport infrastructure is a key link in energy security. This issue was also recalled in the summary document recently presented by the European Commission on 10 January 2007.

Opening up the natural gas market to competition has changed the context in which infrastructure managers operate. In particular, it has significantly changed their investment policy. On the one hand, in a monopolistic configuration, the gas transportation network manager attempts to match infrastructure capacity as closely as possible to the actual needs of the integrated group. Conversely, in a market configuration, in order to facilitate the arrival of as many suppliers as possible and to allow trade-offs between supply sources, network capacity must be over-sized, resulting in an infrastructure usage rate which in practice is lower. On the other hand, the decision-making apparatus is itself different in the two configurations, in that an integrated monopoly seeks to give priority to the interests of its gas supply unit, whereas an independent infrastructure manager bases his decisions on the overall interest of the market. Consequently, a competitive market should produce the necessary price signals for investment that will allow supply security to be ensured as efficiently as possible with regard to costs. Thus the creation of a competitive internal market should/will allow EU energy firms to pursue their activities in a larger market and to consider supply security at a more relevant scale than that of the domestic market. These changes in investment strategy must be encouraged through the adoption of new tools.

At the national level, the French Regulator has three main tools to permit the investment needed to ensure supply security. This is where Mr. de Ladoucette answered the Chairman's first question of how other countries can change from one model to another or how they can implement a French model in which firms are, in practice, vertically integrated. Firstly, France has an incentives system. The charge for network access takes account of payment for assets in order to encourage operators to invest. All new investments qualify for a 125 basic points bonus compared with the average weighted capital cost for transporting gas. Some investments, at the request of the operator and after a decision by the Energy Regulation Commission, may even qualify for an additional 300 basis points bonus for a period of 5 to 10 years. This decision is taken in cases where the investment makes a significant contribution to improving market operation, notably through the creation of new points of entry to the national network or by reducing congestion in the network in response to a reasoned request by the operator.

The French Regulator has the right of inspection and is the only one of his kind in Europe, apart from France's UK neighbour, to have the power to approve the investment program of the natural gas transporter. This is a recent provision in France, and was only approved by Parliament at the end of last year. The regulator will be able to use this provision for the 2008 investment program.

The power to issue orders regarding facilities constitutes the third leveraging mechanism for market liberalisation. If an operator refuses access to a natural gas facility on the grounds either of insufficient capacity, or of problems relating to the connection between the installation belonging to the party seeking access and the network, the Energy Regulation Commission can ask, or (depending on circumstances) order, the operator to provide access. This might require the operator to make the necessary improvements if the latter are economically justified or if a potential customer indicates that he is willing to pay for them. At the national level, these tools are fairly positive and efficient. For example, the investment in the transportation network for the period 2005-2015 amounts to 400 million euros a year, which is higher than the previous historical average. Furthermore, as part of the strategy of increasing overcapacities, LNG has also attracted much investment since there are plans for new methane tanker terminals with an extension to the Montoir terminal already under study. Overall, these investments should result in a genuine improvement in energy security in that, if all of these projects are successfully completed, France's gas importing capacities should increase by 40 giga m³/year by 2012, that is to say 3 times the forecast increase in consumption.

Mr. de Ladoucette also directed his presentation to Europe as a whole regarding the importance of strengthening interconnections through increased investment to achieve greater energy security. It was with this consideration in mind that the European Commission introduced a policy of regional initiatives directed at all regulators and infrastructure network operators within a given geographical area. There are three such areas for the gas sector. There are more for the electricity sector. At present, it is an initiative that is starting to have positive impacts and that will allow, through gradual improvements, all markets to be coupled through network interconnections. It is also based on transparency, the harmonisation of data published by transportation network operators, and the proper use and exploitation of hubs.

All of the progress on these initiatives can help to complete the single European market in energy. In its communication of 10 January 2007, the European Commission forcefully argued in favour of strengthening interconnections through a priority interconnection plan for natural gas and, in particular, the Nabuco gas pipeline, which will transport natural gas from the Caspian Sea to Central Europe, and the development of gas storage facilities. In both these areas, the European Commission proposes to grant greater powers to ERGEG (the European Regulators' Group for Electricity and Gas) which, if this proposal is accepted by European governments, will certainly improve the operation of

the gas market through the power that Regulators will have to intervene to ensure that interconnections are properly made at borders and, thereby, successfully create a single EU energy market.

Chairman Jenny concurred with Mr. de Ladoucette's assessment by mentioning briefly the possibly Manichean approaches to earlier discussion in thinking about market freedom, or as in the UK's example, investment centralised by the regulator. While the integrated operator is largely responsible for initiating investment, the Regulator offers special incentives aimed specifically at boosting capacities. The Chairman then gave the floor to Prof. von Hirschhausen to finish this part of the discussion. The Professor presented on a study regarding the particular relation between competition policy regulation, investment, and security of supply.

Professor von Hirschhausen began by laying the groundwork from both an academic and practically-inspired assessment of competition policy regulation and investment. Specifically, his modelling research confirmed IEA's assessment that LNG will play a major role in promoting competition. Through an econometric analysis, it was confirmed that there is a developing global gas market, and so it is important to understand what this means for competition. He referred the delegates to a distributed paper and 20 others on the website.

The Professor stated the following, "In essence, I clearly support the point of view expressed by the UK and by the US that has been summarised very clearly in the background paper by Sally Van Sicken. That is: "improving the competitive environment improves energy security." He supported this statement by expounding on three theses regarding investment, unbundling, and storage through illustrations regarding regasification terminals, pipelines and storage facilities. He focused on the downstream side of supply since there is really not a problem upstream.

He explained that price volatility should not be a topic of the roundtable as they reflect supply and demand in a market and therefore should be excluded from the supply security debate. The 2004 Boston and the UK examples show that prices will come back down when demand abates. The three theses:

- vertical unbundling enhances competition;
- adequate regulation will induce infrastructure investments just as it induces investments in other regulated sectors;
- commercial storage can substantially contribute to energy security.

Thesis #1 built on the EU delegate's points that vertical unbundling between natural gas importers, traders, and network operators enhances competition. It limits the anti-competitive behaviour of vertically integrated incumbents. The US example is that following the FERC Order 636, a competitive market surfaced in particular between the Henry Hub and the northeast of the country. However, the pipeline which goes into California is clearly a natural monopoly. But, for the rest, the experience in the US is really encouraging. In the EU, a third directive may involve forced unbundling. The question is whether it should be ISO (independent system operator) or vertical ownership unbundling. In the Professor's opinion ownership unbundling is more efficient, but ISO may be more politically feasible. For example, Germany has 19 regional zones, but a single ISO would improve efficiency. The OECD Asian countries might also benefit from this model due to the potential for competition and thus lower prices, something desired by Asian consumers. In addition to the LNG TPA, Korea and Japan could benefit from this approach.

Thesis #2 on infrastructure investment: adequate regulation will prompt forward infrastructure investment. As Mr. Ladoucette mentioned, if the incentives are correct, then people will invest. Two incentive structures, merchant investment that is subject to competition, or regulated investment with a correct return on capital needs, comprise the main alternatives. In addition to the Russian example, 95% of the pipelines are natural monopolies, with the exception of multiple lines linking Chicago to the Henry Hub. Therefore, regulation is necessary to control prices.

Concerning regulation, Professor von Hirschhausen contested the practice of exempting LNG terminals from TPA obligations as a means to promote investment. Through the following examples, he supported his position in contrast to article 22 Gas Acceleration Directive and FERC decisions to possibly remove TPA obligations. Investment continues unabated, since investment volumes are relatively modest (e.g. regasification terminals) and the large arbitrage gains can be made. The UK, NIMBY regions like CA, the Bahamas, and Canada all have LNG investments. Chenier and Accelerate Energy represent non-integrated, vertically unbundled marketers that have lucrative investments and Europe has several LNG terminals already. With the obvious financial benefits in LNG terminal investment, exempting companies from TPA obligations may potentially limit investments.

The Asian markets are different with Japanese demand levelling off. However, the Professor asserted that the decision to invest in new terminals should more or less be private; the more suppliers, the more income potential from leasing out related capacity.

When he explained Thesis #3 on commercial storage, the Professor differentiated commercial storage from traditional storage practices that are based on seasonal demands where reserves grow in the summer and in the winter they are used up. He referred to the new natural gas history that generally has 3 to 5 cycles, as exemplified in the US and their use of salt caverns, where commercial storage increases. For example, Falcon Storage and Eastern Gas Storage are merchant enterprises that invest in storage making a return on the arbitrage. Europe has some merchant investments as a large commercial storage project in Germany reveals. The Professor concluded this section by stating that Asia could likely benefit from these practices as well.

Professor Hirschhausen summarised as follows:

- competitive markets can and should support supply security;
- unbundling is a requirement to assure competitive markets, and the European history is proof that if you don't unbundle, it doesn't work;
- dequate regulation does secure investment;
- commercial storage is a key to supply security;
- and last, but not least, things that have worked in the US and the UK should also work in Europe and Asia.

Chairman Jenny moved the discussion forward on two points; whether or not unbundling is a prerequisite to promote competition, and the strategic importance of storage. He asked the UK to explain if unbundling is in fact a prerequisite and if it is efficient, based on their experience in liberalising their gas market. He offered the converse argument of Russia's experience where unbundling in the form of separation between transportation and other infrastructure has had little effect.

The UK referred to the Commission's recent sector enquiry document to explain the benefits of unbundling in overcoming the ineffective markets in Europe. In short, failure to unbundle prevents proper market function and creates an entry barrier for new gas suppliers. Incumbents with integrated supply and transportation interests practice information asymmetry, setting terms for access through pricing or by artificially restricting capacity to new entrants by claiming that the network is full or congested. Moreover, they restrict information flows to small businesses in regards to access requests for capacity and use of networks by competitors. The UK asserted that companies that have not unbundled will raise artificial barriers by imposing balancing regimes and other operational requirements on non-affiliated supplies that don't reflect costs. The lack of transparency through practices like withholding important information on supply and demand, and the system status in meeting demands, makes competitive entry difficult. Interconnection investments are withheld when it could mean supply competition and lower prices, which adversely affects the wider EU market. In the 1990's, British Gas exemplified these conditions, until shareholders, under regulator pressure, realised that it would be in their interest to break up the transportation and supply businesses.

To maintain a fair, competitive environment for suppliers, a network code covering capacity and balancing was developed. The transportation company, National Grid (NG), has also realised the incentives to invest in network infrastructure and operational efficiency, and focuses on providing as much capacity as the market needs. The company conducts auctions for existing and new network capacity. Suppliers can buy capacities on non-discriminatory terms, fixing their prices for up to 15 years in advance, or they can turn up and buy capacity either on a firm or interruptible basis on a daily basis. There are clear rules for managing congestion on the network --- the transportation company buys back capacity under a financial incentive scheme, again on non-discriminatory terms. Balancing and operational rules are clear and apply equally to all suppliers, and there has been a huge drive toward transparency. National Grid's Website, which is the company that runs the transportation network, currently has 150,000 hits a day, particularly during the winter period, with companies, industrial and commercial customers and others actually drawing down data from the website on what is going on in the market and on what's going on in the network. Through non-discriminatory and transparent, market driven practices, supplier confidence is strong, contributing to investments in the UK market.

Concerning the two unbundling models, the UK stated succinctly that full ownership unbundling is preferable to the independent system operator model. While the latter would be an improvement to what exists now, it would make little difference in countries with large dominant monopolies. The delegate concluded with the assertion that unbundling is a prerequisite to a liberalised and efficient gas market.

Chairman Jenny turned to Japan's contribution, with an emphasis on how, in over 10 years, new entrants hold an aggregated 8.1% market share, and whether or not this is considered success or failure by Japanese authorities in terms of competition. Dissecting the issue further, the Chairman sought clarity on whether this percentage represents modest, or significant, competition in the system. Specifically, the Chairman was concerned about the question of the level of unbundling in a market that has been deregulated since 1995.

Japan approached the topic on two fronts --- the current state of the Japanese gas market through competition, and the share of new entrants. Concerning the former, the delegate stated that when evaluating liberalisation's results, two new elements need to be considered: the reduction of industry costs to separate and distribute gas to consumers, and the decreasing effect on gas prices in the domestic market despite the upward phase of the LNG import price in the overall gas industry structure. Although there is no nationwide pipeline network, the new entrants share has increased gradually over the past 10 years. Furthermore, the absorption of smaller companies by larger ones will

improve efficiency in the gas market. Over the last decade, there has been a decrease of more than 10%, from 244 to 214, in the number of distribution companies. Regarding the natural gas price in Japan relative to other OECD countries, it has been declining steadily, and the level is now much closer to the level in other OECD countries. Japan considered a 8% new entry level satisfying to a certain extent. As mentioned before, the variations of the results of this liberalisation will be discussed at the next government energy policy process to consider further liberalisation next year.

Japan further illustrated how some gas suppliers are pushing for pipeline interconnectivity without unbundling, in order to increase resilience in the face of competitive pressures in a liberalised market. It appears that electricity, gas, and oil companies that can purchase natural gas in sufficient amounts, are developing a degree of pipeline networking among them. Even vertically integrated suppliers are realising the incentives to connect networks without unbundling, so Japan may follow this movement to observe how far pipeline interconnectivity will go.

Chairman Jenny gave Prof. Lévêque and Prof. Nambu one minute each before breaking for lunch.

Prof. Lévêque brought up an additional benefit to full ownership unbundling, in that mergers would be more easily facilitated amongst grid and network companies. In addition, cross-border mergers may create efficiency advantages with respect to the size of some grids.

Prof. Nambu further explained that market share is a misleading index in Japan, due to geographical considerations. New entry investments are primarily in the large and concentrated cities (e.g. Tokyo, Osaka, Nagoya) where they are profitable. This is true for many industries (telecommunications 10%, electricity 2%, and gas 8%). The most meaningful aspect of market share is whether new comers compete with dominant firms in these concentrated areas. Usually market share would be 20% (nationwide), but in telecommunication (in the concentrated urban areas) it is 50%.

In regards to unbundling, Japan has consistently compared the discrimination problems against the economies of vertical integration between power generation and transmission. Consequently, Japan has not made a decision about whether to introduce wider-scale unbundling.

Chairman Jenny recognised the Korean delegation to discuss present and future limits on competition in downstream markets in order to securely obtain natural gas imports.

Korea responded that Korea's gas industry is gradually moving from monopoly to competition. At the beginning stage of the gas industry in Korea, a monopoly was more appropriate and effective. At that time, Korea needed to implement its natural gas supply system in order to give incentives to invest in necessary facilities; to secure service provisions; and to develop wholesale and retail suppliers. But as the gas industry has developed and become equipped with the necessary facilities, introducing competition to the gas industry is needed to enhance competitiveness of the gas industry. The Korean government has tried to restructure the gas industry. In the import sector, competition has already been introduced. Since 2001, companies can directly import gas for self-consumption. Regarding the wholesale sector, it is still a monopoly, but the Korean government is considering introducing competition by way of permitting new operators into the market. For the retail sector, the Korean government has a plan to consider introducing competition when competition in the wholesale sector is ensured. The bottom line is that Korea is in the process of moving to competition.

Chairman Jenny gave the floor to Mr. Santa to discuss US experience with long-term contracts and unbundling in the natural gas sector.

According to Mr. Santa: The laws and regulations that restructured the US natural gas industry really did not speak to the issue of whether long-term gas contracts were to be discouraged or encouraged. Nonetheless, the experience of the US gas industry market participants and US regulators at the state and federal level has very much affected the attitude towards long-term contracts. With this background, delegates will better understand how experience has affected the attitudes toward long-term gas purchase contracts in the US.

The conditions that created the impetus for restructuring the gas industry were really the direct result of the dislocations that resulted when unanticipated developments in the market undermined the assumptions upon which long-term gas purchase contracts were premised. The seeds of the US restructuring were sown in the 1970's, when federal price controls on wellhead sales of natural gas into the interstate market resulted in shortages of gas being dedicated to that market. Meanwhile, price controls were not imposed on gas sold in the state-regulated intrastate markets in producing states like Texas and Louisiana. As a result, gas supply was abundant in those markets and, not surprisingly, a lot of energy intensive industries relocated to those states. To remedy this situation, the US Congress in 1978 enacted a law that eliminated the legal distinction between the interstate and intrastate markets, and initiated a phased decontrol of wellhead prices. Also, to encourage gas production, the new law put in place incentive prices for certain categories of gas that would apply until the date that category of gas was deregulated. At this time, prior to the restructuring, interstate pipelines were in the merchant function --- that is, they purchased gas from producers and resold that aggregated supply downstream to downstream customers who primarily were the local distribution companies (who are regulated by the individual state public commissions).

In response to the changes that were made by the US Congress, and to remedy the lack of supply dedicated to the interstate market, interstate pipelines entered into long-term contracts with producers to purchase natural gas. Also, in many cases, the contract prices were set at the new incentive prices authorised by the law passed by the Congress. Conditions in the US market changed shortly thereafter. The US economy entered into recession in the early 1980's, and this affected the demand for natural gas. At the very same time, the incentive for producers under the new law had the desired effect, and there was much more gas available to the market. The pipelines had contracted to purchase more gas than the market needed, and the prices ended up being far above prices in the small but growing spot market for natural gas.

During the mid-1980s, the federal regulator, the Federal Energy Regulatory Commission, initiated a restructuring of the pipeline market with a series of orders that, taken together, produced something of a grand bargain, in which the pipeline companies agreed to provide open access to transportation, and to permit their customers to shop for alternative gas supplies, in return for FERC providing the pipelines, with assurances that they could recover from their customers a certain portion of the costs incurred in renegotiating and exiting their long-term gas contracts. This was during a period of excess supply in the interstate market. The incentives put in place by the Congress worked. That over-supply situation lasted almost until the beginning of this decade. This access to deliverability greatly affected the willingness of market participants to enter into long-term supply arrangements. Given the excess supply and the low spot market prices, there was no incentive for local distribution companies and others to enter into long-term supply contracts. Furthermore, local distribution companies did not want to assume the risk that their purchasing decision would be second-guessed by the state regulators. Meanwhile, the producers had no great incentive to enter into long-term contracts that would be priced at the prevailing low spot market prices.

Finally, the restructuring of the electric power industry in the US affected the incentives for merchant power generators to enter into long-term gas supply contracts. In the bid-based wholesale power markets, gas-fired generators had no control over whether they would be dispatched.

Consequently, they did not wish to assume the economic burden of gas supply contracts that would obligate them to take the gas even if they were not dispatched. The supply-demand balance for gas in the US has gotten much tighter in the past several years, and gas prices are much higher than they were in the 1980's and 1990's. Still, there is no great interest in returning to the long-term, fixed-price gas supply contracts that characterised the market prior to restructuring. Gas purchasers have confidence that if they have access to the infrastructure, supply can be had at the prevailing market price. Similarly, gas producers and gas marketers have confidence that the gas can get to the market through this infrastructure. And even in cases where producers or marketers are willing to enter into longer term contracts, it is with the price being left to the market. To the extent that purchasers wish to hedge their risks against market volatility, this is done using financial instruments and not the pricing terms in the gas purchase contract.

In summary, the laws and regulations that restructured the US gas market did not speak to the issue of whether or not a long-term gas supply contract is desirable. The practical reality is that there is much less emphasis on long-term gas supply contracts in the restructured US natural gas market. The combination of open access to infrastructure and a vibrant natural gas commodity market have created confidence that such contracts are not necessary in order for customers to have security of supply.

Chairman Jenny continued the discussion by recognising France.

France considers storage capacities to be an essential factor in the proper operation of the natural gas market in France, particularly because most of France's natural gas imports are based on long-term contracts and underground storage facilities are used to adjust the supply of gas. Gas is received at regular intervals throughout the year, but consumption is uneven and, in particular, peaks in winter. These storage facilities are currently owned by single operators. That is to say, there are two operators who have facilities at several locations in France, namely Gaz de France and a subsidiary of Total. At present, there is no lack of natural gas storage capacity in France. There is even a slight overcapacity of around 5%, which is used to provide room to adjust to short-term, unanticipated supply and demand shifts.

Third parties can access these storage facilities, due to the process of opening the gas market to competition. Such access is even regulated by a Decree of 21 August 2006, under which each gas operator is allocated a share of total storage capacity, according to its customer portfolio. This right of access can change according to changes in operators' customer portfolios. Use of these storage capacities is semi-regulated. That is to say, the charges for using storage capacity are set by the two existing operators. However, the Energy Regulation Commission has the power to settle disputes between operators over such access to storage infrastructure. In particular, it has access to the contracts between storage operators and other gas suppliers.

While the two existing operators have several projects to build new gas storage facilities, including underground facilities, there are also a number of projects being developed by private operators who want to pursue this activity. Probably these investments are occurring because the market signals are favourable to development of this type of storage and, therefore, to the development of natural gas usage in France and the continuing integration of the European market that opens the possibility of using such capacity to sell gas to customers in neighbouring countries.

In summary, France is in a position mid-way between two extremes. Until now storage capacities have been centrally regulated, but we are now in a situation where the market can intervene, and where there is scope for private operators to develop this activity.

Chairman Jenny next recognised Mr. Santa to discuss gas storage in the US.

Mr. Santa indicated that he would provide some background regarding how much storage there is in the US, its historic uses, and the recent decision by the US Federal Energy Regulatory Commission (FERC) to provide some additional incentive for storage investment.

There are approximately 400 underground gas storage facilities in the US. It's estimated that the maximum working capacity in these fields is about 3.6 trillion cubic feet. To put that number into perspective, the US consumes approximately 23 trillion cubic feet of gas per year. The location of these storage fields depends very much on geology; therefore, the contribution of storage to meeting peak demand varies between regions depending upon the availability of gas storage. The principal owners and operators of storage in the US are interstate pipeline companies, intrastate pipeline companies, local distribution companies and independent storage service providers. Also, the performance and costs associated with storage vary based on the type of facility. The three main types of underground storage fields are depleted oil and natural gas reservoirs, aquifers and salt cavern formations. Salt cavern storage, and the ability to recycle it several times during a season, is very popular and very attractive in the current market.

Gas storage performs several functions in the US market. The primary and historic function of storage is as a seasonal source of supply and as a backup for meeting peak day demands. Also, transmission pipelines use storage for balancing the flow on their systems, maintaining pipeline pressures within designed parameters, and to support "no notice" service to their shippers. Pipeline shippers use storage in order to maintain the contractual balance between receipts and deliveries of gas into and out of a pipeline in order to avoid tariff penalties for imbalance. Producers use storage in order to level their production over periods of fluctuating contract demand. Marketers use storage for arbitrage purposes in order to purchase gas when the price is low and re-sell it when prices are higher. Storage is likely to play an even more prominent role in the US market with the increase in LNG imports and the ability to use storage to purchase natural gas during off-peak months when there may be spot cargoes of LNG available.

Interstate storage is an unbundled service that must be offered on an open-access basis at rates approved by FERC. Traditional, cost-based rates often don't provide a storage developer with the ability to recover its project costs fully, because the cost-based rates don't fully reflect the value of storage to the market.

By way of explanation, Mr. Santa observed that often customers are unwilling to enter the long-term contracts at cost-based rates that would be necessary to recover the cost of the facilities. So the cost-based rates are something of a deterrent for a storage developer when they look at developing a project. Therefore, FERC often provides authorisation to charge what are called "market-based rates," that is, if the Commission makes a finding that there is sufficient competition in the market for storage, FERC will authorise a market-based rate or what, de facto, is a deregulated rate. Typically, it's been easy to get market-based rate authority for storage projects which are located in the production area. It's been more difficult to get market-based rates in the market areas where there are fewer alternative storage facilities and, therefore, it's that much harder for an applicant to demonstrate that a competitive market will discipline prices. In order to address this situation, and hopefully encourage greater investments in new storage projects, FERC last year issued new regulations that are intended to make it easier for storage developers to qualify for market-based rates.

Acting pursuant to a new grant of authority from the US Congress, FERC articulated the rules for when it would grant market-based rates for storage even if an applicant had not demonstrated that it lacked market power. The Congress said that the Commission could permit this if it found that the storage capacity was needed, and if there were sufficient safeguards in place to mitigate against storage operators exercising market power.

FERC updated its market power test to allow applicants to attempt to demonstrate that products other than natural gas storage were good substitutes for natural gas storage, and effective substitutes should be included as part of the product market when the Commission is calculating market concentration statistics. The Commission suggested that it may be possible to demonstrate that local gas production and LNG terminals, or even certain kinds of pipeline transportation services, qualify as substitutes for storage. This would result in a less concentrated market, and make it easier for storage developers to qualify for market-based rates.

Chairman Jenny noted a contrast between the French situation and the US situation, in which storage capacity is used to arbitrage between time periods when prices differ. He asked Mr. Santa if a 5% excess of storage over consumption would be sufficient to support this type of arbitrage.

Mr. Santa replied that the key factor is that any US storage capacity can be used for such arbitrage activities if someone believes that this is the most valuable use for the capacity and invests in it.

Chairman Jenny opened the discussion of the determinants of entry into the gas business. He noted that this topic is particularly important in Germany. He invited the German delegation to discuss studies of foreclosure of entry in the merchant natural gas industry due to long-term contracts between gas transmission companies and gas distributors --- and subsequent litigation.

Germany stated its belief that an open, downstream market for gas is very important for competition and consumers, and that a long-term gas supply contract can foreclose this downstream market. Past gas supply contracts lasted 20 years and sometimes even longer. Because of this concern, the competition agency issued a prohibition decision against E.ON-Ruhrgas, the largest distributor. Under this ruling, a gas supply contract is only allowed to run for a maximum of two years if it covers 82% or more of the demand of the regional gas supplier. This might be a tough approach compared with the Swiss approach, which says that five years is OK, or what we heard from Japan, where they have those long-term gas supply contracts that last 25 years.

The question is, does this ruling conflict with the goal of energy security? First, the ruling doesn't deal with the existing import contracts between E.ON-Ruhrgas, Russia and Norway, which really do last for 25 years, so it's only at the downstream level. The argument in Germany was that the downstream market needs to mirror the long-term import contracts on the purchasing side. However, there is also a risk for traders, and that is the risk they have to take --- so there is no need to mirror those things. The demand in Germany is growing, so it's good to have gas liquidity, and this liquidity opens the possibility of downstream entry.

Another issue was: do long-term contracts lead to higher price levels? Advocates of long-term contracts say that long-term gas supply contracts are really good for the price level in the downstream market, but economic theories suggest that if you have more competition in the downstream market, then the prices will go down --- that is good for competition and consumers.

One final issue: What about liquidity in the market? The German delegation believes that the liquidity in the downstream market will improve, and that there is enough liquidity in the market because of the physical size of the German market, which is, together with the UK, the biggest market in Europe.

The German delegation concluded that the opening of the market and the shortening of the long-term gas supply contracts don't conflict with energy security. This view has been confirmed by Germany's Appeals Court in an interim decision --- but the issue is still pending before the Federal

Supreme Court. The competition agency has already received six commitments from other gas importers who will stick to a maximum of two years for gas supply contracts. This means that the downstream market for gas in Germany is open for the moment, and the competition agency will look for competition to develop.

Chairman Jenny next recognised Mr. Santa to discuss long-term contracts for natural gas before and after restructuring in the US.

Mr. Santa contrasted the conditions, including the barriers to entry, pre-restructuring and post-restructuring in the US gas market. Much of the contrast has to do with the incentives or disincentives to expand natural gas infrastructure. Under US law, the primary legal authority that FERC uses to regulate the natural gas industry is a statute called the Natural Gas Act, which is a product of the New Deal era. Under that law, in order to authorise a new pipeline to be constructed or an existing pipeline to be expanded, FERC is asked to make a finding that that facility is “in the public convenience and necessity.” In other words, it’s a determination by regulators that there is a public need for that facility. Prior to the restructuring, Mr. Santa suggested that there were two factors that limited entry and competition in the construction of gas infrastructure. At that point in time, interstate pipelines were gas merchants; that is, they purchased gas from producers, aggregated the supply and resold it to downstream customers. Therefore, unless a facility was necessary to attach new gas supply that the pipeline would be purchasing, or to maintain or expand service to an existing sales customer, there was no particular reason to build new pipeline infrastructure.

Prior to the restructuring, FERC – and before that its predecessor the Federal Power Commission – engaged in a very fact-intensive examination of the need for a new pipeline. They would look at whether there was sufficient supply on the upstream that could justify the expansion and whether there was enough growth downstream and whether there was sufficient justification for the investment. In other words, in order to fulfil what it believed to be its job in protecting the public interest, the regulator substituted its judgment for the judgment of the marketplace with respect to pipeline investment.

Restructuring changed all of this. Once the pipelines were no longer merchants, the driver of their business was transportation throughput and not whether they were selling the gas that they transported. Also, with the emergence of natural gas marketers and other intermediaries, the parties willing to sign up for natural gas transportation expanded beyond the pipeline historical distribution company customers, and that caused the pipeline to look for new opportunities to grow the business. Also, FERC abandoned its fact-intensive examination of need and substituted a market-driven test. A pipeline could establish need by demonstrating that it contracted for a significant portion of its capacity, and FERC would not second-guess the judgment of the shippers who would sign the contracts. FERC also increasingly moved to incremental pricing for pipeline expansion projects. This negated the opposition that would come from existing customers, who would complain that the rates had increased when they derived no commensurate benefit from the new pipeline capacity.

As a result of these reforms, the most labour- and time-intensive part of getting the regulator’s authorisation to construct a new pipeline is the environmental review done by FERC, and obtaining various other state and federal permits. Economic regulation is no longer an impediment to market entry in the natural gas pipeline industry. From the regulator’s point of view, the process is disciplined by the fact that pipeline companies still must charge regulated cost-of-service rates established on the basis of a long depreciation schedule, typically 20 to 30 years. Therefore, a pipeline company’s management and investors in the pipeline will not make the capital investment in a new project unless they have a high degree of confidence that their investment and the required return can be recovered,

subject to these limitations on the rates that a pipeline can charge its shippers. This creates a level of conservatism that provides safeguards against over building of the pipeline network.

Finally, one other thing that likely added to the ability to enter the gas market in the US is the fact that pipelines must offer their service not only on a firm, long-term contract basis, but also on an interruptible basis, and there is also a very vibrant *secondary* market for pipeline capacity. So, for example, a natural gas marketer could get on to the pipeline system without having to sign on a long-term contract as a shipper, or, for example, an electric generator that didn't want to make that commitment because it didn't know whether it was going to get dispatched, could access the secondary market for pipeline capacity and get its capacity that way.

In summary, there has been a turnabout in terms of the barriers to entry. And what has resulted is a pretty competitive situation on the interstate pipeline side --- that often, if there is a market opportunity, you'll have multiple pipelines competing for the ability to build that project. In the end, probably one project will get built, but it will be the project that has been validated by the market.

Chairman Jenny observed that the discussion had featured two different stories. One of them is that if you have a functioning market, then long-term contracts aren't a problem anymore, because the reality of the market has moved away from those long-term contracts. In contrast, long-term contracts take on much more importance, as they do in Germany, if the market is not well developed.

Session III.

Chairman Jenny opened the third session dealing with the activities of competition authorities in the natural gas industry. He pointed out that the written contributions fall into two groups: (1) merger cases where the merger is going to increase market power and there is concern from the competition authority about this increase in market power and (2) another set of cases where the issue is the compatibility between competition and security of supply. An example of the latter is raised in some cases where a minister overrules the competition authority on public interest grounds. The Chairman first recognised Mr. Lévêque.

Mr. Lévêque started with two basic statements:

- First, energy liberalisation has drastically changed the framework for investment, and obviously private initiative within this new framework plays a more important role. And as a result of competition, we may expect less overcapacity in comparison with the past --- that is in absence of competition or less competition --- and we also can expect a lower cost to achieve a given level of security of supply.
- Second, the specific features of the electricity and gas industries are very well known, particularly the low elasticity of demand with respect to price, and also the difficulties involved in getting evidence on the exercise of market power or the high potential for market power in these industries. Those specific features call, to some extent, for a specific treatment. Such special treatments were addressed in a recent paper issued in the *Electricity Journal* and authored by Mr. Lévêque. For example, competition authorities should be more stringent with reviewing respect to mergers in the gas and electricity sectors. The reason is very simple: the cost of type I error is very high because of the damage to consumers' surplus that occurs because the inelasticity is very high. The list of recommendations includes the setting up of market surveillance committees. The interesting point for the roundtable is that security of supply isn't on the list of elements that are unique or specialised in the electricity sector. There is no need to adopt a specific treatment for

security of supply in the electricity and gas industries. In fact, the problem may be said to be the reverse. The challenge might be to limit government intervention that interferes with competition law enforcement by using a smoke screen of security-of-supply arguments in order to achieve its energy policy goals. The right challenge is not to adjust competition laws to foster the security of supply, but rather to impede or reduce government interventions using security-of-supply and energy security arguments that can reduce, or adversely alter, competition law enforcement.

There are two examples. One example is very obvious. It is the situation in which some governments bypass their competition authority's prohibition against mergers. We have good examples, unfortunately, in Europe of this situation. Another example is the case where a competition authority may be encouraged to use competition law to speed up the liberalisation process. There is a kind of over-deterrence in the EU and this may also raise a problem.

The other question is about long-term contracts. Is it true that a kind of per se approach would be relevant? Mr. Lévêque is very cautious about saying that long-term purchasing contracts are usually anti-competitive because the pro-competitive effects of long-term contracts can counterbalance the anti-competitive effects.

Mr. Lévêque also raised a question about whether there might have to be some specific treatment with respect to competition law enforcement in nuclear generation markets because of special features of the nuclear industry.

Chairman Jenny gave the floor to Mr. Khayat, next.

Mr. Khayat focused on the EU Commission proposal for a full ownership unbundling, of vertically integrated companies --- that is, no longer allowing common ownership between logistic and merchant parts of those vertically integrated companies. This would be in addition to the accounting unbundling and legal unbundling that already are in place. Mr. Khayat's presentation discussed the consequences of this step in terms of security of supply.

According to the World Energy Outlook, which was issued in 2006 by the International Energy Agency, EU gas demand should increase between 2004 and 2030 by 145 bcm in the alternative scenario and 1 bcm more in the referent scenario. To meet this increase in consumption, Europe will have to undertake significant investments in the near future for three types of activity:

- Invest to increase delivery capacity to the end users.
- Invest to connect Europe to new sources of supply, mainly because, unfortunately, domestic resources are progressively being depleted.
- Invest to increase transit capacity within hubs, because activity at wholesale hubs in Europe will increase.

Total believes that such investments will improve security of supply mainly because they will connect Europe with new sources, and they will increase the supply diversification – investments and increasing the diversification of supply are positive elements for security of supply. Total has experience in the Southwest of France, where an interconnection between Spain and France, called Euskadour, was created. And Total is presently building a South to North trunkline in France to accommodate flow that will come from an LNG receiving terminal close to Marseille. This terminal

itself will accommodate gas coming from Egypt and the Middle East, and so we participate as a bundled TSO in these projects that improve security of supply.

If it is agreed that investments are good for the security of supply, there are two ways for looking at the investment decision-making process: either reactivity or pro-activity. A completely independent TSO --- that is, full ownership unbundling --- would be neutral when it comes to grid access, because it has no reason to favour a sister merchant company when it comes to access to its grid. But, unfortunately, when it comes to investment, a TSO will have the following feature: it will be reactive. It will wait for a market signal to decide on investments, which means that those market signals have to exist. Market signals are prices, which means that we need to have prices which exist over a sufficiently long period and that the message sent by those prices is stable over time. It is really a difficulty today in Europe because we have no wholesale prices on the continent, and even in the UK, the time horizon for the prices is too short. It is basically three years. If the message does not come through prices, it'll come through requests from potential shippers. But this means that shippers must be capable of expressing firm requests, and expressing them sufficiently in advance so that the TSO can build the necessary facilities. That's also a difficulty if you don't have wholesale prices existing over a long period. If the TSO is reactive, and if it hasn't got the proper signal, it will become shortsighted. It won't know what to do in terms of investment.

Total has noted that the EU Commission has suggested creating the Office of Energy Observation. Apparently, this office is to undertake core functions regarding European energy demand and supply. This task is formidable without notable increases in transparency regarding the future investment needs in the EU for electricity and gas infrastructure. The proposed office effectively acknowledges that fully independent TSOs are shortsighted. They have to be helped by a third party who has a long-term vision on what should be the investment. Total has concerns about this new institution because, although it will have to predict the market, it will have limited ability to do so because it is neither organising nor participating in the market.

The last point which concerns a fully independent TSO is that it will be costly. It has been mentioned for the US that when somebody invests in transmission facility, this investor wants to have an assured income stream --- meaning that this investor will ask for long-term commitments from shippers that will require a TPA exemption. But, if projects are developed with a TPA exemption, what is the advantage of full ownership unbundling? Total does not believe that there is an advantage. Further, the whole community of shippers will have to bear the investment risk.

In contrast, there is the 'pro-active way' that any company should be able to invest in transmission facilities without any type of bundling requirements. Total believes that vertically integrated companies have some advantage in this area because they have the long-term vision. What it means is that if you're a producer, you want to bring your gas to the market. You have your vision of what the midstream facility should be able to do to accomplish this vision. If you're a supplier, you want to connect your market area to the source. You have your own vision of the midstream facilities which are needed. If you're an independent TSO, you don't have those incentives.

The second point where Total thinks that vertically integrated companies bring some advantage is that they are ready to take on the investment risk because they look at this risk in synergy with their upstream or downstream activities. It's true that vertically integrated companies can cause problems in terms of access to the transmission grid. We agree on that. But Total thinks that full ownership unbundling is not the right solution --- you can implement transparency requirement in terms of information and also competition rules and that those companies can follow those rules. This scenario has been mentioned for France this morning, where the regulator is quite powerful when it comes to access to the grid. What Total also believes is that if there are mandatory investments, which have to

be done, for example, to connect grids as we've done between Spain and France, then the TSO can be depended upon to do this investment only if it is provided with stable and clear investment rules.

In conclusion, Total believes that investments are key elements for security of supply; this is unavoidable. Total is afraid that if full ownership unbundling is mandatory, it may result in low reactivity and poor decision-making processes. Total strongly favours an approach that allows any company to undertake as much investment as possible, but these companies have to be controlled both in terms of transparency and in terms of following competition rules.

Chairman Jenny noted that on the one hand there is willingness on the part of the industry to just have a good enforcement of competition law, but also a plea for integrated companies, which is a bit at odds with some of the early presentations at the roundtable. On the other hand, some presentations have expressed the view that competition law enforcement should not be overly concerned with security of supply, because competition will assist in developing security of supply.

France commented on the point raised by Professor Lévêque that electricity-intensive industries argue that because of their distinctive characteristics – they consume very large amounts of electricity continually and over long periods of time ranging from 10 to 20 years – they should be charged less than the market price. This attracts the attention of the competition authorities, and particularly the French authority, in that these below-market prices run the risk of creating price discrimination either in the domestic market or in the European market as soon as they are not offered to all consumers.

The French competition authority views these requests for discounted prices as a good example which illustrates the potential conflicts between energy security and the demand for competition. National and European competition authorities have a duty and the power to re-establish healthy competition. When confronted with this situation in France, the competition agency submitted an opinion to the French government to see how this problem could best be solved. The opinion was based on three main lines of reasoning: (1) that these long-term contracts to supply electricity to electricity-intensive industries were not intrinsically anti-competitive and that, in particular, they qualified for an exemption under Article 81, paragraph 3 of the European Treaty; (2) the amounts covered by these contracts should not be such that they restrict the market; (3) competition “for the market” may be feasible even if competition “in the market” is not feasible. The French delegate expressed the view that these three points can be used to resolve potential conflicts between competition and energy security, as the competition agency did in a recent case where the share of capacity covered in a proposed contract was large relative to the market.

Chairman Jenny shifted the discussion toward individual cases and asked the US to begin this portion of the roundtable by discussing a merger case involving natural gas storage facilities in a local area.

The US described the case as one involving remarkable salt dome natural gas storage facilities along the US Gulf coast, but the analysis itself was conventional. There were four firms with storage facilities in the area. This was a four-to-three merger with the two merging parties having approximately 70% of the relevant capacity. In the competition agency's view, the proposed merger was a very clear unilateral-effects case, simply based on the combination of the two firms. The interest in doing this and focusing on this carefully is directly linked to the interest in preserving a flexible and robust natural gas storage sector. Interest in ensuring that there is a competitive supply sector for these services is directly related to the competition agency's view that maintaining a competitive market for storage is important to preserving flexibility in the supply market.

To put the case in context, the US drew attention of the delegates to a study footnoted in the written presentation. This sector study was conducted by the US Federal Trade Commission in the wake of the hurricane damage in the Gulf Coast. It provides a detailed glimpse of the interdependence of both the electric power sector and the oil and gas production and processing sector. It highlights how damage to the electric power industry was critical in the time path for resuming production at refineries, pipelines, and natural gas processing facilities. One also sees, in a very detailed way, the exact supply response which a relatively flexible interconnected delivery system can provide. This was one of Mr. Crenshaw's points before. One sees how, from the moment of the destruction, the phone calls went out globally to ship product into the US. Now, there was necessarily a lag getting tankers to bring petroleum products from Rotterdam to the east coast of the US, but one may see in great detail the adaptability and the great responsiveness of the supply sector. The study underscores, in a very vivid way, how the fact of an interconnected flexible supply network – including this dimension of storage – can facilitate a response to crisis.

Chairman Jenny asked for clarification about the localised geographic market definition used in challenging the merger.

The US responded that there are a variety of overlapping storage regions and production facilities. Some are far more proximate to key production centres and processing centres than others, so that the cost associated with availing oneself of the most geographically practical facility is considerably less than relying on the interconnection to transport, in this case, natural gas liquid, to another facility. In many ways it's a standard geographic market definition, where transportation cost would be the key consideration.

Chairman Jenny asked Korea to describe the Dopco case, particularly the remedy.

Korea described the matters as a vertical merger between oil refining firm SK and the pipeline corporation Dopco. The KFTC had concerns because there can be anticompetitive practices, such as the denial of requests for oil transportation, imposition of limitations on the transportation volume that can be requested, discrimination in the order of transportation, and so on. To address this problem, the KFTC issued a behaviour corrective order as following: the SK Corporation must exercise its voting rights at Dopco's shareholders meeting to implement the following corrective measures. Dopco Pipeline Company must take the necessary measures for the implementation. The first one is: SK Corporation must vote to place prohibitions against anti-competitive practices in Dopco's articles of incorporation (such as denial of requests for oil transportation by pipeline operators; imposition of limitations on the transportation volume that can be requested; discrimination in the order of transportation in terms of contracts including transportation costs; and inclusion of business information; and insist that Dopco abide by them. The second one is with regard to the prohibition of anti-competitive practices. SK Corporation must establish and run a consultative meeting where those who represent Dopco oil refining companies and the public can discuss and decide matters related to the use of pipelines, and issue and stipulate the grants for the establishment of the meeting and the management of it. This approach is to be included in the articles of incorporation of Dopco.

Chairman Jenny asked Korea if compliance was being monitored and Korea answered in the affirmative. He then asked the Czech Republic to describe the RWE Transgas case.

The Czech Republic first sought to put the case in historic perspective. The Czech gas market started to be opened in the beginning of 2005. For the whole of 2005, the market was open only for the biggest customers, about 35 companies including all big gas distributor companies. There are 10 gas distributors in the CR and eight of them are members of RWE group and two are private and independent.

The competition agency started the investigation of RWE in the late summer of 2005, because RWE is not only the owner of the distribution company, but also the owner of the pipeline network. And there is only one importer of gas to the CR. The investigation found two big problems in the portfolio of contracts between RWE on one side, or companies importing on one side, and customers on the other side. The first is that RWE applied disadvantageous conditions to the two distribution companies which are independent and that distribute the gas to the south part of Bohemia and to the capital. The two independent distributors are pretty big companies with a lot of customers. The conditions were so bad that it was practically impossible to compete with the distribution companies affiliated with RWE. The second and biggest problem was that RWE in CR applied destination clauses in the contract with all distributors, not only within the RWE group, but with all of them, and with practically all customers. So the market was totally closed, because it was impossible to sell the gas to another part of the country. The explanation given by the RWE people was that these conditions are the same conditions as the ones RWE has with Gazprom.

The first step in CR's two-step process resulted in sanctions of about 12 million euros in August of last year (2006). Because RWE, since the initial sanctions, changed all the contracts according to the recommendations of the competition agency and the recommendations of the energy regulatory authority, the sanctions will be somewhat less, about 9 M euros.

Chairman Jenny recognised Spain to describe the Viesgo Generacion case.

Spain has quite a concentrated electricity market with two large players, two medium players, two small players and a fringe of new-entrant competitors. Typically, renewable energy producers and some new entrants have just one or two production units. This case refers to a small producer. But the competition authority has been pushing some investigations with respect to the rest of the players, not just to Viesgo Generacion.

A relevant feature of the Spanish electricity market is the predominance of the wholesale purchases on the spot market. At the time, the majority of the electricity, more than 90%, was sold/bought on a daily basis in this spot market. Now, long-term contracts have been encouraged but, at that time, that was the fact. That made price manipulation in the spot market have a lot of consequences for the cost of power, both in the regulated segment and in the liberalised segment.

Another feature is that there is no market splitting when there is some regional imbalance between local demand and supply. These regional restrictions (transmission congestion), when they occur, are solved under a system whereby the regulator pays the needed production unit its previous bidding price. So the basic assumption, under the system, is that the plant should make a competitive offer, and if it is not dispatched, then it makes sense to pay its cost, because, if it is not dispatched, it is because the market price doesn't cover its cost. One could say that it is an innocent or naïve approach from a regulatory point of view, but the other alternatives are: to introduce market splitting; to increase inter-grid capacity within the territory; or to introduce regulated prices for these units (and these can be slow and expensive to do).

What we discovered at the competition authority is that some companies recognised their indispensability in those regional areas and adopted a strategy whereby they voluntarily retire (withhold) their capacity by only offering it at substantial abnormally high prices. This has two effects: (1) the capacity retirements increase the price of the pool, thereby increasing electricity cost for all consumers; and (2) the company obtains supernormal profits on the withheld production units. Of course, it's a case of excessive prices, abuse of dominance, which are always very difficult. The agency had to undertake several test benchmarks to analyse the past prices of those units and took into consideration the importance of allowing supernormal prices in order to give the market signals about

where to invest and where to put new capacity. But we found that these units had abused the regulatory system. The competition authority imposed sanctions.

Chairman Jenny honoured Australia's request for the floor.

Australia posed a question related to merger rules. Prof. Lévêque stated in his presentation that he felt, certainly for mergers in this area, the government should be actually more stringent to some extent. Does that actually mean that perhaps because the market in this area is so different from other product markets that it may almost warrant different merger rules, or did he just mean "more stringent" in terms of enforcement? Australia also expressed interest in finding out whether other countries have different approaches to mergers when it comes to the energy market, or whether they just rely on their generic merger law?

Prof. Lévêque replied that he recommends that competition authorities in charge of merger control be more stringent because the cost of type 1 error is higher than in other sectors --- firstly, because of the inelasticity of demand with respect to price, and, secondly, because, in case of type 1 error, the merger is authorised --- although it's anti-competitive. In many markets, entry and competition from other suppliers can be expected to constrain anti-competitive behaviour, but in the case of electricity and gas, it will be more difficult to achieve, and the abuse of dominant position is more difficult to be proved. So this is why we can make this recommendation for this sector.

Chairman Jenny recognised Prof. Nambu for a comment.

Prof. Nambu referred to the discussion from the German delegate and Prof. Lévêque on the long-term contract problem. The relationship between "long-term contracts and competition" problem is more complicated than has been discussed, Prof. Nambu maintained. Japanese LNG imports, whether from Malaysia, Indonesia, or Australia, necessarily involve contracts that must be struck between two parties, the selling and buying parties. If the term of the contract were shortened from 15 to, for example, 2 years, what would the selling party say? They must say that because the term of the contract is shortened, we must raise the price of LNG. For example -- and that is an extreme case -- if the contract term is shortened from 15 to 2 years, the selling party may say that the price would be doubled, or more than that, because in that short period of time they must recoup the investment. So the first direct effect is the increase of LNG imported price to the buying side. In the case of Japan, we import LNG at a higher price. Of course, the objection of antitrust competition policy is that the long-term contract might be a kind of barrier to entry, so by shortening the long-term contract, competition might be invited. But, in that case, we must think how much the retail price will be reduced? How many percent will the price be decreased due to the introduction of competition? We must compare the increase of the import price and the decrease of the retail price. If the import price goes up 50%, at least the retail price must go down more than 50% if competition is the most important policy objective. Such things can happen in Japan or other countries because the price elasticity of supply is not so big. So it is not likely that the import price increase can be easily cancelled out by the decrease in retail prices. Professor Nambu thinks that policy makers should be more cautious --- especially in the case of Japan --- about applying competition policy to long-term contracts.

Chairman Jenny then recognised the Swiss delegation to present a case.

Switzerland divided its presentation into three sections. The first is the issue. The second concerns the reaction of the canton legislature. The third is the effect that the competition agency decision had.

The issue: it goes back to the early years of this decade and it concerns the refusal to transport energy. In Switzerland, we have about 900 owners of electricity networks and most of them do produce a small quantity of energy. That goes back to the late 19th century when the communes used the rivers nearby to produce electricity and distribute it. Now, of course, things have changed, but the structure is still basically the same. They needed, of course, a public authorisation to build the grid. And once they had it, they just simply used it --- there was no regulation on the use of it. The competition commission said that since public authorisation was used, the users must follow the principles of competition law; and they were told that, since they had a monopoly, they could not use that monopoly in order to prohibit transportation of energy of competitors through the grid. That was the reasoning --- it would be an abuse of a dominant position. Now they argued that since they obtained an authorisation to build the grid, they had a kind of legal right to use it as they wished. This was the issue that had to be decided by the Federal Tribunal. Eventually the Federal Tribunal upheld our point of view saying that the users do not have legal protection to use the grid as they wish --- they are subject to competition law in this respect.

The controversial reaction was from the canton legislators, not canton courts. The legislators said that since there is not a legal monopoly (but only a monopoly in fact), we will change our laws and say that we now regulate the use of the grid. We not only authorise its building but also authorise how it is used. That was done by some. It was truly unconstitutional, and the Federal Tribunal hinted at that already in its decision. More importantly, it didn't really work out as these canton legislatures wished, because the market pressure was too important. Although Switzerland does have some cantons which did regulate it, they cannot really use it this way as a matter of fact. So this is something more of an anecdote than of a real reaction.

Now what is the effect of all that? Now grids are open as a matter of principle and energy must be transported and indeed is transported, but, of course, the question now is: at what price? The price of transport is quite high compared to the end-price. In Switzerland about 2/3 of the entire price is for transportation/transmission, so it's a very important part of it. The market works more or less. We're observing it. It doesn't really work satisfactorily, but it works more or less. In this respect, we had to decide on two or three cases about long-term or short-term contracts. Our position was to say: long-term contracting is acceptable --- but when we talk about long term --- it was 5 years and under two conditions: First, the buyer must have had a real choice between a long-term and a short-term contract; and second, there must really be liquidity in the market. We should not have a situation in which an entire series of contracts blocked the market for a long period of time. Now these conditions in the cases we had to deal with were fulfilled. We're expecting federal legislation regarding regulation of the electricity sector and then we'll regulate the prices in some way or the other. If this is not done very soon, then we'll have to deal with this price issue for transportation in some other fashion.

What are the implications for the gas sector? The basic principles that were applied by the competition agency here would also apply to the gas sector, which is less important in Switzerland than in other countries. There have not been complaints until now, but the agency would start out with applying probably the same principles with one difference: storage. Gas can be stored, whereas electricity cannot be stored. All arguments that are found in electricity linking security to long-term supply contracts, are also found in the gas sector with the exception that storage is technically feasible in the gas sector.

Chairman Jenny recognised Mr. Smith before turning to Germany for a tale of conflict between competition and energy security.

Mr. Smith reacted to the previous discussion and the relationship between the features of energy markets merger policy and competition law. This is something that was grappled with in the UK and

Mr. Smith maintained that Prof. Lévêque is absolutely right --- there are specific features in the electric power industry and, particularly, the highly inelastic demand, particularly in electricity over a short period, that gives rise to some different economics. It does not necessarily lead to the idea that one should have a different set of merger tests, because the inelasticities can be so extreme that it would actually lead one to conclude that one should worry about even tiny market shares. If such a stringent approach were used, it would potentially block mergers where one could see genuine efficiency benefits of companies getting together. But, this approach does lead to a rationale for being much more vigilant, ex-post, and to the kind of ideas that have been suggested by Prof. Lévêque in terms of the needs for market surveillance --- and unfortunately that probably leads to some of the difficult cases that the Spanish delegation mentioned, which are exploitative abuse cases associated with locational market power. So, one probably does not go so far down the merger prohibition route as to block efficiency enhancing mergers, but it doesn't necessarily make life easier for competition authorities or regulators.

Germany's delegation prefaced its remarks by stating that they would state the E.ON-Ruhrgas as neutrally as possible. In 2001-2002, E.ON acquired 100% of the shares in Ruhrgas AG. To give an idea of the dimension of that merger, in 2003, the E.ON- Ruhrgas merged entity accounted for around 65% of the domestic natural gas output. The Bundeskartellamt had blocked that merger for a couple of reasons that have been presented at OECD meetings several times. One argument of the Bundeskartellamt is that the merger would cement Ruhrgas' dominant position in the gas distribution market and that it would diminish the position of other gas transmission companies in Germany.

After the Kartellamt had blocked that merger, the parties went to a federal ministry for a ministerial allowance. It's important to know that in Germany there are two possibilities if the Bundeskartellamt blocks a merger. One is to go to the Court of Appeal by saying that the Kartellamt applied the law inaccurately. Another way is to go to the ministry to get a ministerial allowance for the merger. The Ministry can overrule the decision of the Bundeskartellamt if it believes that the restraint of competition is outweighed by advantages to the economy as a whole. So if there is an override in the public interest, it's a very political decision and it's always discussed broadly in public whenever it's made. The parties, in the end, received that ministerial allowance for their merger and the Ministry followed the following arguments. The Ministry said there was an increase in demand of natural gas; that there was an increase in dependency on gas imports in Germany; that gas from Russia in the future would be the most economic alternative gas supply. But, the Ministry also said that the pre-condition for reliable supply of gas from Russia was huge investment in the gas sector. This investment could be secured only if there was a serious commitment of the consumer countries -- one of these is Germany -- and this merger should help to give the financial power to the merged entity to cover their part of the investment requirements in Russia. It is obvious, from the complexity of the arguments, that it is not very clear if this argument is at all valid.

To come back to the question that Prof. Lévêque has asked: is the German gas supply more secure after this merger? The competition authorities have never evaluated the results of the merger in these terms. One thing is certain --- a lot of the problems that are faced nowadays in the gas sector in Germany are the direct result of this merger. Whether it has helped to make gas supply more secure in Germany, nobody knows. What is known is that when it came to the development, for example, of a big gas field, it was not E.ON- Ruhrgas that was working on the project together with Russian partners. Rather it was Vingas, a much smaller entity, which undertook the investment. So it would be worthwhile to make an evaluation of this, which is, of course, very complicated and maybe not a task for the competition authority.

Chairman Jenny recognised Italy to present its natural gas investment case.

Italy began by presenting background information to put the case in the context of the Italian gas market. The consumption of natural gas in Italy is around 85 billion cubic meters/year and Italy relies heavily on imports. 86% of domestic demand is covered by imports. LNG accounts for a very marginal share of total natural gas consumption --- less than 5% --- and all the rest is natural gas coming mainly from Algeria by pipeline. In fact, Algeria is the most important source of natural gas for Italy. It accounts for 37% of imports. Other significant imports come from Russia and from Northern European countries. It comes through international pipelines that are controlled by Eni. Eni is the dominant firm in the Italian gas market. It has very dominant market shares at all of the levels of the gas sector. It owns all the international pipelines and the national network. It supplies more than 50% of imports. It controls storage facilities, as well as regasification terminals. And it has a very important market share at the retail level.

The case relates to the importation of gas from Algeria. The gas from Algeria comes to Italy through two pipelines: the Trans Tunisia pipeline, that goes from Algeria through Tunisia through the Mediterranean Sea; and then it connects to the Trans Mediterranean pipeline, that goes under the sea and reaches Italy. Both pipelines are under some form of control by Eni.

In 2002, TTPC, the company that owns transport rights on the Trans Tunisian pipeline until 2019, decided to expand capacity by 6.5 billion cubic meters, so a significant additional quantity of gas would have reached Italy by 2007. At that time, TTPC started a competitive procedure to allocate transport rights to shippers. By the beginning of 2003, it signed provisional contracts with four shippers. These were provisional because, for these contracts to come into force, some conditions had to be fulfilled --- in particular, shippers had to obtain an authorisation from the Tunisian state to transport gas through its territory and that had to sign a contract with the Trans Mediterranean company to transport gas through that pipeline. Some months were given to shippers to comply with these provisions.

In the meantime, Eni revised its Italian gas market scenario reaching the conclusion that, due to the development of another regasification terminal, the Italian market was going to be characterised by a serious oversupply condition. Eni revised its strategic plan, and the objectives of the new plans were: to maintain domestic volume of gas; to take any action necessary to comply with take-or-pay provisions in international contracts; and to adjust the investment plan to the new market scenario. This led to TTPC's revision of its investment plan, and TTPC notified Sonatrach, the Algerian supplier, that they had decided to postpone the investment from 2007 to 2013. TTPC did so a few days before the deadline assigned to shippers to comply with the conditions. So, it was obvious, that TTPC did not intend to sign a definitive contract with the shippers. In the meantime, of course, the shippers had all tried their best to comply with these provisions, but, of course, this had not been possible since they needed TTPC company cooperation to sign the contract to transport gas under the sea. TTPC, partly owned by Eni, never replied to shippers' request to sign a contract.

This set of behaviours, taken as a whole, was considered by the Italian antitrust authority to be abusive. The infringement of Article 82 was thought to consist, on one hand, of exploiting, in an artificial manner, the existence of a contract provision, in order to impede shippers from finalising their contract, and, on the other hand, not pursuing the original investment plan.

In the view of the Italian competition agency, this case highlights two important points. The first one is the importance of vertical integration. Of course, the case would not have existed if Eni had not controlled TTPC. And it shows how incentives can be distorted by vertical integration. The second point is the importance of antitrust enforcement in an important energy security situation. The presentation by Italy concluded that the case would be difficult to generalise because the antitrust

competition authority decision relies on specific conditions of the situation, in particular proving the artificial exploitation of contractual provisions.

Chairman Jenny recognised the BIAC delegation for a presentation of the views of the business community.

BIAC began by observing that ensuring predictable and competitive supply of natural gas is essential for a competitive economy. However, obtaining adequate supplies of gas is a prerequisite for competition. In particular, almost 75% of hydrocarbon resources are under state ownership or control, and that is something that the OECD needs to take into account when considering the interrelationship between competition policy and security of supply.

Industry has some concern about the application of competition law without due recognition of the fact that major resource holders are often sovereign nations to whom competition law does not apply. It means that there is a risk of, firstly, creating an unlevelled playing field between the private companies who are subject to competition law and the sovereign major resource holders; and, secondly, it could raise security-of-supply issues for nations that are largely dependent on natural gas from a single energy supplier. Some major resource holders, for example, could decide to sell LNG in particular into countries where they perceive the regulatory regime as more favourable to them. An example of this is the EC approach to profit-splitting mechanisms in gas contracts and specifically in LNG contracts. These state-owned companies are major resource holders, for example, in the Middle East, and don't necessarily understand, and don't necessarily agree with, the Commission's condemnation of profit-splitting mechanisms. It could result in a strong preference to sell the gas to markets like Japan, Korea, or the US, markets that don't take the same approach. In fact, the same effect may be true if different agencies around the world take a different approach, for example, to long-term contracts.

In relation to infrastructure, BIAC urges the OECD nations to ensure that competition policy doesn't deter investment, and BIAC is concerned that compulsory third-party access to infrastructure may not be the best method of ensuring that companies do take the risk and make investments.

Finally, BIAC obviously welcomes the application of competition law in natural gas markets, and applauds the approach of the US BIAC questions, however, whether new measures are needed, or whether the existing competition laws and regulations, if effectively applied, would suffice to ensure a competitive gas market.

Chairman Jenny asked the EU Commission to react to the UK submission. The UK submission states: "there is no requirement to limit the application of competition law in energy markets on security supply grounds. Energy suppliers owned by the public sector are likely to count as undertaking subject to EC and UK competition law. Foreign owned undertakings active in the UK market are subject to EC and UK competition law." This seems to be a very clear statement that there is nothing different about the gas market or any other energy market and that the full scope of competition law should apply to this sector. The E. U. was asked by the Chairman what kind of response --- based on this comment --- first of all what was its reaction to this comment --- and what response it might make to the possible creation of an international gas cartel between gas suppliers.

Before asking this question, the Chairman recognised UK delegation.

UK reiterated its view that there is no requirement to limit the application of competition rules on security-of-supply grounds. This conclusion is a natural corollary of the fact that a functioning market will deliver security of supply. But, there may be a distinction between those markets that have been

liberalised for some time --- because the UK market has been liberalised since the 1980's --- and those markets that have been more recently liberalised, and perhaps fear that market forces will not deliver investment to provide security of supply. The example of Norway's electricity system shows how developed markets help in adjusting to disruptions. The UK's experience shows both short-term reactions and also long-term investments. The UK has seen planned investment, as was said, of about 10 billion pounds.

But the second related point, for all competition authorities, was touched on by the American delegation and a number of others --- which is whether the markets can function properly when there are certain types of national government restrictions relating to planning or sometimes called land use. In the US, there are many plans to create new LNG facilities which are bogged down in very long-term and problematic environmental and land use cases. The UK delegation believes that both in this area, and in a number of other areas, the whole question of the operation of the planning regime is actually quite a serious issue in terms of looking at the proper functioning of the markets.

The UK also drew attention to two points in its written submission involving competition cases involving energy storage and the application of competition rules in a supply crisis situation.

The EU delegation took the floor to respond to the Chairman's earlier question about a potential gas OPEC. At this point, little is known about this plan for a Gas OPEC apart from some public statements. The EU delegation hopes that it doesn't move from there; so it's just a theoretical exercise for the time being. The truth is that Gazprom, Sonatrach and other players are already quite powerful vis-à-vis the demand side and in particular EU members. So, in principle, there doesn't seem to be any need for them to coordinate among themselves to gain market power. But it's also true that things are changing in these markets, and one of the outstanding features is one that has been discussed today, and that is the rise of LNG and the appearance of new players in these markets --- new supply players that can introduce some change in the market. Also, there is the fact that the (net) consuming countries are becoming more aware of the need to diversify supply sources and to gain buyer market power in that regard. This can maybe explain why this call for a cartel-like structure at the international level appears now.

Clearly such a supply-side cartel would not be welcomed by the EC Commission, and most people at the roundtable are likely to share this approach. Do we have instruments to tackle this sort of competition law infringement? If the structure were to be based on agreements among sovereign states outside the EU, it's doubtful that the EU competition authorities would have the jurisdiction. If it's amongst companies, whether they are public or privately owned, the EU would have jurisdiction, but it is a different issue whether the competition agencies would have the means to gain access to the information required to pursue this sort of infringement. So it would be one of the examples where international coordination among competition agencies is needed; otherwise, it is rather difficult to tackle this sort of behaviour for the time being.

The EU delegation offered additional comment on long-term contracts. The EU competition agency undertook a very wide sector enquiry which has been subject to public comments throughout the whole process, and there has been wide support for this exercise, except for the vertically integrated incumbents who don't see it as a good way to move forward. One of the issues that has been brought to our attention through this exercise is precisely the potential foreclosure created by long-term contracts. Despite this finding, the EU competition agency is not opposed to long-term contracts per se. These are very complex issues, as it's been highlighted by several delegations, because these long-term contracts can have pro-competitive effects that can be the only means for some new comers to enter the market. And such contracts can give the good signals that prompt additional investment in infrastructure. The main concern is when long-term contracts foreclose a big part of the market; when

they are in the upstream and downstream market; when they are signed with incumbents. It is not fair to say that the EU competition agency has a general policy against these sorts of contracts per se.

Chairman Jenny concluded the roundtable with the following summary observations:

- The first discussion, security of supply: very clearly two components for countries that worry about security of supply: a physical security of supply and also a concern about the price at which the supplies can be obtained.
- Second, we've had fairly spectacular examples - thanks to our British colleagues, but also to the US, Mr. Santa and also Norway – fairly convincing cases that markets can indeed, maybe not completely, meet the concern regarding security of supply, but markets certainly help by creating a demand response which is going to be sensitive to prices and, therefore, alleviate a lot of the problems that we have had. What was most striking was that it was not only possible in the short-term, but also in the case of long-run investments, that the market response is adequate.
- There was some discussion about whether regulation was still needed and incentive regulation was maybe not quite as bad as one could think, in particularly in what Mr. de Ladoucette mentioned.
- In order to get competitive markets, of course, a lot of structural conditions have to be met, or legal or regulatory conditions.
- Long discussions on unbundling occurred, and deep unbundling was seen by most of the speakers, as being a pre-requisite to having a competitive market. A certain amount of skepticism about this conclusion was expressed by the Japanese and Korean delegations. They doubt that deep unbundling is such a good idea based on the view that buyer power is important in obtaining security and better prices from energy supplying countries.
- The existence of storage facilities is potentially attractive in order to be able to hedge your bets and to provide possibility of having security against short-term supply disruptions. There is also the possibility of gaining security of supply by using long-term contracts, with the proviso that there is a sufficient number of suppliers competing in offering long-term contracts.
- Competition law enforcement in this context raises interesting questions because most of the problems are problems which are complicated for competition authorities.
- There are abuse of dominance cases, including exploitative abuse cases, and we know we are not completely at ease with such cases.
- Vertical mergers are clearly an issue of efficiency versus competition and the possibility of foreclosure.
- Long-term contracts can be of concern, but there are many qualifications about when and if such contracts are pro-competitive or anticompetitive.
- In the end, it's quite clear, interesting and maybe absolutely obvious that the countries that worry the most about security of supply are resistant to the full development of markets and are countries which are very dependent on foreign supplies. And countries like the US or UK, where there is much less concern, because there is no need to be concerned with foreign supplies, are much more at ease and much more willing to experiment with the markets and to develop them.

ENERGY SECURITY AND COMPETITION POLICY

4. COUNTRY CONTRIBUTIONS

Further information from the following jurisdictions on Energy Security and Competition Policy is available at: <http://www.oecd.org/competition> under the topic "Best Practice Roundtables".

Country contributions

Czech Republic	Spain
France	Sweden
Germany	Switzerland
Italy	United Kingdom
Japan	United States
Korea	European Commission
Netherlands	Brazil
Norway	Lithuania
Portugal	Russian Federation

COMPETITION POLICY FOR VERTICAL RELATIONS IN GASOLINE RETAILING

The OECD Competition Committee debated competition issues in vertical relations for gasoline retailing in October 2008.

Gasoline retailing has changed dramatically over the last 25 years. While refiners often still have extensive networks of gasoline retailers, there is also a large independent sector in many countries; A study of the effects of entry by large general retailers finds benefits to consumers;

There has been a vigorous debate about whether vertical separation between gasoline stations and upstream entities should be required. It appears that mandating vertical separation is linked with price increases to the ultimate consumers. On the other hand, mandated separation may promote the development of more independent stations.

Policy makers often raise concerns about vertical integration in the supply of gasoline. These concerns should be moderated in markets with large independent segments. Even in markets with small independent segments, there are reasons to believe prices will be lower with vertical integration, as this eliminates a double mark-up.

COMPETITION POLICY FOR VERTICAL RELATIONS IN GASOLINE RETAILING

1. SYNTHESIS BY THE SECRETARIAT

SYNTHESIS

by the Secretariat

Considering the discussion at the roundtable, the delegates' submissions, and the background paper, several key points emerge.

- (1) *Distribution and retailing in the gasoline industry operate under a wide variety of vertical relationships with refiners, ranging from full integration to complete vertical separation. In recent years, the structure of gasoline retailing has changed significantly in many jurisdictions.*

Vertical relationships between retailers and refiners range from full vertical integration to complete independence of gasoline retailers. In some jurisdictions, refiners continue to own a large portion of retailers or have strong, restrictive contractual relationships with most gasoline retailers. Two examples are Portugal and Italy. The jurisdictions with a preponderance of strong vertical relationships appear to be those with regulation of the location of gasoline retailers or those with continued regulation of retail gasoline prices. South Africa is an example of the latter. Government subsidies of retail gasoline prices have an important impact on vertical integration in Chinese Taipei and in Indonesia, for example. Although once common, explicit government control of retail prices and entry is now a rarity.

Often changes in the degree of vertical integration occur during a process of modernisation and consolidation of retail outlets. Many jurisdictions report dramatic declines in the number of retail outlets and in the number of outlets that offer the services of a mechanic. At the same time, many more outlets have diversified by offering convenience store items such as snacks, soft drinks, and chewing gum. Gasoline stations tend to have more pumps than in the past.

- (2) *Proponents of mandatory vertical unbundling of gasoline retailers point to opportunistic behaviour by refiners and contend that unbundling is a means to resolve recurring contract disputes.*

Relationships between refiners and retailers are reportedly contentious in many jurisdictions. One element that can create tension is incomplete contracting between retailers and refiners. Complications can arise from local market power at the retail level, long exclusive supply agreements, and contrasting interpretations of franchise agreements.

Independent gasoline retailers sometimes complain about price squeezes or about “predatory pricing” by vertically integrated retailers aimed at appropriating the investments in better service and customer relationships made by individual retailers. At times, organisations of retailers push for legislation that restricts the authority of refiners to influence the behaviour

of gasoline retailers. One form of legislation mandates divestiture of gasoline retail outlets owned by refiners. Gasoline retailers in a number of jurisdictions have requested mandated divestitures, but typically not with success. In the United States, six states have passed such legislation. Jurisdictions including Turkey and Argentina have placed restrictions on the number or proportion of retail outlets that refiners can own. Some provinces of Canada have adopted pricing restrictions in lieu of vertical unbundling. Australia previously limited downstream vertical integration by oil refineries.

Some jurisdictions place restrictions on the duration of exclusive supply contracts between retailers and refiners. The policy objective of these limitations is to facilitate entry at the refinery level.

Norway noted a potential source of competitive concern based on refinery subsidies. If retail outlet managers exaggerate the extent of local price competition that they report to refiners, refiners may provide subsidies intended for areas with intense retail competition. With the subsidies, a retailer may be able to drive out local retail competitors that do not have access to such subsidies even if these competitors are more efficient. Once the local retail competitors have been eliminated, the manager may be able to exercise local market power. Ireland investigated a refiner's special discount or price support program more generally and determined that it had the effect of discouraging retail price competition by lessening the incentives of independent retailers to offer lower prices. The refiner subsequently agreed to end such pricing support.

- (3) *Opponents of required vertical unbundling point to benefits of vertical integration such as achieving operating efficiencies and avoiding double marginalisation. They warn that mandatory unbundling will lead to higher retail price/cost margins for gasoline.*

There are few recent studies of mandatory vertical unbundling because such regulations are very rare. But those studies show that vertical integration can result in cost savings that benefit customers. Outlawing vertical integration is associated with increased retail prices.

Portugal reports that complaints from retailers often involve terms in supply contracts that support refiners' efforts to keep retail margins low. Retailers' desires to increase margins above those encouraged by refiners could reflect either locational market power at some retail gasoline outlets or double marginalisation.

- (4) *Resolving the vertical integration controversy to the satisfaction of the opposing parties is probably not possible because of their fundamentally different economic interests.*

Independent sellers of branded gasoline focus on alleged unfair practices of refiners that are believed to result in appropriation of profits by refiners that are only available because of investments, innovations, and efforts of retailers. Discriminatory pricing by refiners is alleged by retailers. Some of these prices are alleged to be predatory. In contrast, the refiners express concern about exercise of local market power by retailers and double marginalisation by retailers.

Recent research suggests that the effects of vertical integration are complex. These studies find that efficiency gains from vertical integration by refiners into retailing are more than offset by associated weakening of competition at the refining stage of production. An amicable resolution of the vertical unbundling controversy requires that (i) supporters of vertical integration address the problems of contract enforcement opportunism and (ii)

proponents of mandatory unbundling examine whether concerns about opportunism and cross-subsidisation can be addressed under the general laws against abuse of dominance and unfair competition.

- (5) *An important complicating factor in assessing the effects of banning vertical integration is the rapid expansion of large retailers into gasoline retailing.*

Many jurisdictions report major entry by large retailers into independent gasoline retailing. Australia, Great Britain, France, Canada, and the United States are examples. Japan and others report movement in the same direction, but to a lesser extent. Large retailers typically use low gasoline prices as a marketing tool to attract customers into their stores. This form of entry can put financial pressure on vertically integrated and stand-alone gasoline retailers. Traditional gasoline retailers have generally experienced initial share losses to these entrants. More recently, however, Australia, for example, reports that stand-alone gasoline retailers have slowed or reversed these share losses by adopting new modes of operation themselves. Typically, the response by pre-existing gasoline stations to large retailer entry is to carry a wide variety of snack and beverage food items that are sold at higher margins than the gasoline. Further, stand-alone gasoline retailing firms have consolidated into larger outlets. These new outlets typically emulate the operations of the large retailers by including many more pumps, on average, than in the past.

The competition authority in Australia studied the effects of entry by large retailers and found the effects to be beneficial for consumers. Gasoline prices are lower as a result and there is little evidence of compensating higher grocery prices. Other competition authorities report that retail gasoline prices offered by large retailers are lower than those of traditional outlets. Lower costs of the large, low-service gasoline operations of the large retailers contribute to these lower retail gasoline prices.

- (6) *Extensive entry of major independent retailers into the retail gasoline industry has largely displaced earlier concerns about excessive vertical integration by gasoline refiners into gasoline retailing.*

Except in jurisdictions with restrictions of retail entry, entry by larger retailers has removed much of the concern about lack of independent gasoline retailers. Residual competition concerns focus on entry conditions at the wholesale level. Particularly in Europe, entry conditions at the wholesale level also are burdened by tax policies based on production rather than sales of refined products. Production-based taxes require that refinery entrants have financial resources sufficient to cover payment of taxes before they make any sales.

Many jurisdictions report that concerns about excessive vertical integration have dissipated because major refiners have voluntarily divested substantial numbers of retail gasoline stations, reportedly because of the low profit margins at the retail level.

- (7) *Market monitoring and antitrust enforcement in the gasoline industry remain high-profile tasks for competition agencies.*

Public interest in motor fuels was galvanised by extreme price changes for these fuels during 2008. Motor fuel prices are well known to consumers. In addition, motor fuel price changes impact the prices of many other goods and services. Consumer awareness is reinforced by media coverage and highly visible posted retail gasoline prices. The combination of media

attention and consumer complaints generates political interest in motor fuel prices. These forces generate questions about whether competition works well in the gasoline industry.

Many competition agencies have been required to study gasoline price changes in depth in order to assess whether market power or contractual problems have contributed to the price increases consumers have faced from time to time. For example, the Competition Bureau in Canada completed several studies of gasoline price movements. In some instances, studies have led to investigations of alleged collusive behaviour between gasoline retailers. Australia's competition authority has prepared multiple gasoline studies. Australia has been investigating a seemingly unique weekly retail gasoline price cycle in its major metropolitan areas. In the United States, the Federal Trade Commission has an ongoing market monitoring responsibility and conducts studies of gasoline prices in specific time periods. Portugal's competition authority also has an ongoing market monitoring responsibility. Germany has examined whether regulations that require frequent updates in the public posting of retail prices contribute to retail price collusion in gasoline/diesel sales. Generally, it appears that the benefits of stronger consumer search behaviour exceed the risks of increased collusion. In general, competition authorities have not found sufficient evidence to prosecute complaints of price squeezing in retail gasoline markets.

Competition authorities have led a variety of investigations into potentially illegal behaviour. While some competition law investigations of the gasoline industry examine retail pricing behaviour, others focus on competition at the refinery level.

- Merger investigations become more serious because of increases in the minimum efficient scale of refining and lapses in previous policies that favoured small refineries.
- Other competition inquiries have focused on entry conditions at the refinery level and the limited number of efficient scale refineries that can be supported by small economies.
- Still others have investigated swap arrangements in which refineries agree to supply each other based on the physical proximity of a customer to the production facilities of the firms. Such arrangements can be efficient because they reduce transportation costs and delays, but they also can facilitate coordination by revealing competitively sensitive information about competitors' customers, quantities, and prices.
- Agencies also have been called upon to study the relative speed with which oil price increases and decreases pass through to retail prices. Retail prices tend to rapidly follow increases in oil prices but only gradually follow decreases in oil price. Various explanations have been tendered including the influence of inventories, consumer search behaviour, and anticompetitive conduct. In carrying out these studies, one role of the competition agencies is to educate consumers and legislators about fuel markets and impacts of potential regulatory steps.
- In Japan, concerns have been expressed about the reportedly widespread purchases of non-branded gasoline by branded gasoline outlets. Under the trademark license agreements, wholesalers require their affiliated agencies and affiliated stores to refrain from selling non-branded gasoline at wholesaler affiliated SSs. On the other hand, if the wholesaler exercises its trademark rights in an arbitrary and discriminative way and has a serious effect on the competitiveness of affiliated agencies treated in a

disadvantageous way, the practice could be a problem under Japanese competition law as an unfair trade practice.

- In Brazil, the competition agency observes a convergence between gasoline and ethanol retailing. This phenomenon is interesting from a competition viewpoint because the concentration level in ethanol production is much lower than in oil refining. Competitive concerns about market power in oil refining seem likely to fade as ethanol producers increase their share of the motor fuel market.

COMPETITION POLICY FOR VERTICAL RELATIONS IN GASOLINE RETAILING

2. BACKGROUND NOTE

BACKGROUND NOTE*

1. Introduction

Retail gasoline prices¹ are a frequent object of public attention. Gasoline is a substantial element in the spending of many consumers and firms. Further, gasoline is purchased frequently and prices often are prominently posted so that consumers are aware of price trends for gasoline between purchases. Price elasticity of demand is often low, and prices fluctuate significantly and rapidly.² When retail prices go up, consumers complain and legislators look into the causes. The causes might include supply disruptions due to natural disasters, armed conflicts in petroleum producing areas or other security issues, faster growth in demand than in supply either locally or internationally, inefficiencies in the supply chain and market power. Market power might appear at several stages of the industry. At the extraction stage, OPEC tries to manage a cartel. The refinery stage is often characterized by relatively few producers and severe entry impediments. At the distribution and retail stages, market power could be due to locational advantages or to anticompetitive coordination.³

Unbundling retail gasoline outlets from refineries has often been promoted as a remedy for inefficiencies and market power. The promoters of mandatory unbundling are often independent retailers, including dealer-owned seller's of branded products, and their trade associations. Several jurisdictions have followed their advice and prohibit refiners from owning or operating retail outlets. Yet empirical analysis often finds that mandatory unbundling is associated with higher retail prices.

This background paper discusses the arguments for and against mandatory unbundling, first in the context of vertical integration into gasoline retailing (Section III) and then in terms of other effects on competition and consumer welfare (Section IV). Then it reviews experiences with mandatory unbundling of retail gasoline outlets (Section V) and studies about the impact of independent retailers on price (Section VI). Section VII concludes that the long-standing controversy about unbundling is tangential to current developments affecting competition in motor fuel retailing.

Vertical unbundling in this industry raises issues about vertical integration that have also been addressed in other OECD work, such as the roundtables on access to transportation infrastructure,⁴ regulation of sales below cost,⁵ predation,⁶ and integration and restructuring in electricity⁷ and other utility services.⁸

This paper makes a number of observations:

- Distribution and retailing operate under a wide variety of vertical relationships with refiners, ranging from full integration to complete separation.
- Proponents of mandatory vertical unbundling point to opportunistic behaviour by refiners and contend that unbundling is a means to resolve recurring contract disputes.

* This background note was prepared by John C. Hilke and Marta Troya-Martinez, consultants to the Secretariat.

- Opponents of unbundling point to benefits of vertical integration such as achieving operating efficiencies and avoiding double marginalization, and warn that mandatory unbundling would lead to higher retail price/cost margins.
- Resolving the controversy between the opposing parties is difficult, in part because proponents and opponents rely on different measures of success.
- Research suggests that the effects of vertical integration here are complex. Some studies find that efficiency gains from vertical integration by refiners into retailing are more than offset by associated weakening of competition at the refining stage.
- An important complicating factor is the rapid expansion of grocery stores and mass merchants into gasoline retailing, using low gasoline prices as a marketing tool to attract customers to buy other things. This entry puts pressure from a new source on the independent dealers, while integrated firms might try to cut off this new type of competition if it threatened their own retail outlets.
- Supporters of vertical integration need to address the problems of contract enforcement resulting from opportunism. Proponents of mandatory unbundling should examine whether concerns about opportunism and cross-subsidization can be addressed under the general laws against abuse of dominance and unfair competition.

2. Production and distribution stages in the industry

In order to provide context for the discussion of vertical and horizontal effects, it is useful to identify the range of vertical and horizontal arrangements at the various stages of the industry, with a focus on retailing.

Retail motor fuel is derived mostly from petroleum, although some comes from corn or other biofuels. Once the petroleum is extracted, it is transported and refined. Motor fuel is one of several distillates that result. Gasoline typically receives additives such as detergents before it is ready for retail distribution. Additives and their associated formulations can be proprietary to individual refiners, and these differences are a major basis for differentiation between brands. Retailers of unbranded gasoline cannot legally claim to have the same proprietary additives as a particular branded gasoline, and they cannot claim that the additives in their gasoline are consistent if they buy from a variety of refiners.

Transportation to retail outlets can either be direct from the refiner or through intermediaries called jobbers.⁹ Jobbers may have detailed contracts with refiners. Supply agreements of jobbers with refiners may include restrictions on who the jobber can sell to, volume discounts for the jobber or retailer, or other terms that can change the incentives and authorizations to sell to specific retailers at specific prices. Wholesale prices often include the product as well as the transportation, and accounting between these two components of the price involves an element of discretion. The bundled pricing of transportation and product means that the wholesale prices paid by retailers differ, and the bundling can make it more difficult for retailers to determine the extent to which refiners or wholesalers are basing price differences entirely on cost differences. In some instances, refiners explicitly offer lower wholesale prices in certain areas because competition is declared to be more intense in these regions.

Retail gasoline outlets can be:

- owned and operated by refiners;

- owned by the refiner but leased to an operator;
- operated but not owned by the refiner;
- owned as an independent franchisee of the refiner; or
- owned and operated as an independent and unaffiliated business.

Some franchisees, independent operators or independent owner/operators also may be jobbers.

Retail prices are also subject to a variety of vertical arrangements. Generally, if the retail location is owned by the refiner, the refiner sets the retail price. Where the retailer determines the price, the refiner can influence the price through wholesale prices or the retail prices that it sets at nearby company-owned retail locations.

Borenstein and Bushnell's¹⁰ 2005 policy review of potential regulation of vertical relationships in the retail gasoline trade, commissioned by regulators in California, describes the tension that often flows from the complexity and variety of vertical arrangements:¹¹

The relationship between refiners and their lessee-dealers is frequently contentious. Some tension is to be expected, given the fact that both sides would prefer to keep as much of the retail margin as possible. We could not conclude whether disputes were more or less common in gasoline than in other retail franchising businesses, such as fast food.

Narrowly defined, mandatory vertical unbundling laws or regulations preclude refiners from owning and operating retail gasoline outlets. Some jurisdictions do not prohibit vertical integration completely, but instead they limit the proportion of retail outlets that refiners can own or otherwise directly control.¹² Mandatory vertical unbundling is not the only policy approach advocated by dissatisfied gasoline retailers. Other regulations against vertical restrictions maintained by refiners address the same concerns as mandatory vertical unbundling. Examples include rules against restrictions by refiners on who jobbers can sell to or rules against restrictions by refiners on the jobbers that retailers can buy from. As discussed later, laws against sales below cost, either specific to gasoline or more general, are sometimes viewed as substitutes for mandatory unbundling of retail gasoline outlets as well.¹³ In some instances, jurisdictions have explicitly switched from one approach to another approach in regulating retail gasoline outlets. The U.S. state of Florida is an example.¹⁴

3. Economic arguments about vertical integration

3.1 Retailers' arguments for mandatory unbundling

The central contention of advocates of mandatory vertical unbundling is that refiners pursue a holdup strategy against their independent-dealer and lessee-dealer gasoline retailer customers if the refiners are partially vertically integrated into retailing. Retailers contend that the holdup strategy is implemented through a price squeeze – according to some retailer groups, so deep that competition laws would treat the prices as predatory,¹⁵ as alleged by some gasoline retailer groups. Other ways to hold up a retailer could be refusing to renew a franchise agreement or demanding terms that do not allow a competitive rate of return on the investments of the retailer. A holdup in economics refers to a situation in which two parties would benefit from cooperating, but in which that cooperation is threatened by an asymmetry in their bargaining power once one party has made an investment that benefits both parties.¹⁶

Box 1. Canadian Investigation of Charges Price Squeezing

In 2006, the competition law enforcement agency of Canada, the Competition Bureau, investigated allegations by independent retailers that refinery suppliers were engaged in margin squeezing predation. These claims followed the increases in gasoline prices that in turn followed Hurricane Katrina. Here are the Bureau's conclusions, from its closing press release:

Ottawa, March 30, 2006 – The Competition Bureau has concluded its examinations of high gasoline prices following Hurricane Katrina and allegations by independent retailers of predation and margin squeezing in the Canadian gasoline industry.

“We have found no evidence of a national conspiracy to fix gasoline prices,” said Richard J. Taylor, Deputy Commissioner of Competition, Civil Matters Branch. “Severe damage to North American refining capacity caused by Hurricane Katrina forced gasoline prices to spike in September 2005. This dramatic reduction in supply forced wholesale prices to jump, resulting in higher prices at the pumps.”

While crude oil prices remained relatively stable, the Bureau found that gasoline supply was significantly reduced following Hurricane Katrina. The supply reduction caused a spike in the New York Harbour spot price for gasoline, which Canadian refiners use to determine their wholesale prices. This spike forced wholesale, and ultimately retail prices, to increase in Canada and the United States.

The Bureau also examined allegations from independent retailers of predatory pricing and margin squeezing in the gasoline industry especially in Ontario and New Brunswick. The complainants alleged that the refinery-owned retailers were reducing gasoline prices below their cost in these areas during certain periods and also charging higher wholesale prices to independent retailers who compete with their outlets at retail, causing profit margins to shrink.

The Bureau investigated these matters under section 79 of the *Competition Act* and found no evidence that pricing resulted from an attempt by a group of majors to discipline or eliminate the independent retailers in these markets, either through predation or margin squeezing.

In conducting its examination, the Bureau gathered information from publicly available resources, as well as direct contact with market participants who provided proprietary data. The Bureau also retained a consulting firm to understand the key determinants of profitability for retail gasoline stations. The independent report, *What Determines the Profitability of a Retail Gasoline Outlet? A Study for the Competition Bureau of Canada*, found that retailers are relying on higher volumes and ancillary services such as convenience stores and car washes to earn profits.

Source: Canadian Competition Bureau (2006).

Independent gasoline retailers and lessee-dealers with medium or long-term contract agreements¹⁷ with refiners often claim that refiners try to force them out of business because that will increase the profitability of the retail locations owned and operated by the refiner. Independent gasoline retailers and lessee-dealers also often contend that they build up location-specific customer loyalty through better service, a better choice of complementary services, wiser marketing investments, or facilities improvements. Once a consumer perceives that a retail location provides better service on any or all of these dimensions, the customer is more likely to return and the consumer is more likely to be willing to pay a price premium in order to obtain these services at the next fill-up. The investment in providing better service could result in abnormal returns for the retailer if other retailers do not quickly compete them away. Subsequently, refiners could have incentives to expropriate the retailer's abnormal returns from these investments by terminating the franchise and reselling it at a higher price or by charging higher wholesale prices to this retailer in order capture the supra-competitive retail margins. These arguments might have been more plausible when more

gasoline retailers commonly repaired cars or provided services such as pumping fuel, washing windshields and checking oil. As self-service takes over fuel sales, the arguments might shift to claims about services quality at the associated convenience store.

The final component of the retailers' position is that as long as refiners have their own captive retailers (the underlying cause of incentives to hold up independent gasoline retailers) or opportunities to terminate franchises without cause, enforcement of supply contracts by independent gasoline retailers is not sufficient to prevent ongoing efforts of refiners to hold up independent gasoline retailers.

The position of independent gasoline retailers is nicely summarized in a submission of the Independent Petroleum Marketers Association of Australia (PMAA) to the Senate Legal and Constitutional References Committee.¹⁸

The retail petroleum industry is unique in that it is the only industry where small business participants must directly compete with their own petroleum suppliers. ... As a result, manipulation and predatory behaviour in this unique industry is a reality. It is only within this industry that the discount prices available for retail petroleum purchases from the oil companies' chains are truly predatory to the wholesale cost prices for the same product available from the same oil companies to the independent operators.

Borenstein and Bushnell (2005)¹⁹ describe the wholesale pricing concerns of independent and leasee-owned gasoline retailers as follows:

Most of the controversy centers around the degree to which refiners can charge different prices to different retailers rather than a uniform price to all retailers whose gasoline comes from a given wholesale rack location. In other words, the degree to which wholesalers can price discriminate among their retail customers. In general, refiners are considered to be better able to price discriminate among direct supplied stations as the delivery charge can be varied down to the individual station level. Retailers have complained that these delivery charges sometimes bear little resemblance to the actual cost of taking the gasoline to the station.²⁰

Some opponents of mandatory vertical unbundling of gasoline retailing might contend that there is no economic rationale for these restrictions, however, the holdup argument is a well-recognized possibility.²¹ It could be argued that the discovery of persistent discrimination in electric power transmission services in both the United States and Europe, despite severe behavioural rules against transmission discrimination,²² should cause opponents of mandatory unbundling in gasoline markets to pause and think about the subtleties of detecting and documenting discrimination in supplying gasoline retailers as well. The argument of proponents of mandatory vertical unbundling of retail gasoline outlets is that neither enforcement of contractual terms against supply discrimination nor antitrust law enforcement actions against anticompetitive price discrimination are sufficient to protect independent gasoline retailers from hold-up strategies instituted by refiners against them.

A detailed understanding of the subtleties and costs of detecting and documenting discrimination in supplying gasoline retailers could help to resolve this assertion, but there does not appear to be a definitive literature in this regard.

In summary, retailers, both independents and lessee-dealers, are concerned about opportunism by refiners and anticompetitive terminations of supply relationships that are motivated by partial downstream vertical integration of refiners. The opportunism involves expropriation of returns (both

abnormal and normal) on the investments of retailers. This can take the form of either terminations of supply relationships (so that that the expropriation can be capitalized by the refiner in reselling or releasing the location) or discrimination in wholesale prices charged to the retailers (capturing more of the retail margin for the refiner). The retailers contend that anticompetitive terminations benefit refiners by increasing margins at owned retail outlets. They attribute increased retail margins at vertically integrated retailers to resulting reduced intra-brand competition facing refiner owned and operated retail outlets.

3.2 *Arguments against mandatory unbundling*

Opponents of mandatory vertical unbundling can support their position by appealing to the economic literature on potential gains from vertical integration. Mandatory vertical unbundling can make it impossible or at least more difficult or costly to realize economies of vertical integration, including elimination of double marginalization and curtailment of free riding.²³ Contractual substitutes for vertical integration may be imperfect. This generally applies, for example, when monitoring of compliance with the terms of a contract is costly and the retailer has incentives not to comply.²⁴ Economies of vertical integration can include such operational advantages as:

- coordination of investments between stages of production,
- realization of economies of scale when similar operations subject to economies of scale occur at both the upstream and downstream stages of production,
- realization of economies of scope when vertically separate processes have operating or investment complementarities,
- reductions in transactions costs,
- prevention of some forms of opportunism, and
- avoidance of some forms of distortion in inputs.²⁵

Double marginalization occurs when multiple stages of production have some degree of market power and the lack of coordination between stages of production results in retail prices higher than the joint profit maximizing price.²⁶ Double marginalization can cause even greater harm to consumers than monopolization because the resulting retail price exceeds even the monopoly price and this leads to larger dead weight losses as well as larger transfer effects that are contrary to the interests of consumers.

Although mandatory vertical unbundling could in theory be used to force a refiner that is fully vertically integrated to sell all of its retail gasoline outlets, in practice, political pressure for mandatory vertical unbundling occurs when some retail outlets are vertically integrated with the refiner while others are owned or operated by independent entities.²⁷ Only when some or all retailers are not vertically integrated do disputes arise between refiners and retailer outlets over the size of retail margins relative to wholesale margins.

Despite the potential benefits of vertical integration from the refiner's perspective, there is no consensus, even among refiners, about the optimum vertical structure. One explanation is that gasoline retailing can involve significant effort and investment by the retailer that is difficult to monitor by the refiner.²⁸ This argument is probably strongest when the retailer offers complementary services at the same location. Historically, car repair services were commonly offered by gasoline retailers. More recently, sale of convenience foods has become common.²⁹ If retail effort and investment are

significant elements in retail sales, making the retailer the residual claimant may be advantageous to the refiner as well as to the retailer.³⁰ A similar argument could be made regarding risk sharing. From an economic perspective, risk should generally be borne by the party best able to hedge it or respond to it effectively at the least cost.³¹ Hence, if the forms of risk applicable to gasoline retailing are best dealt with by gasoline retailers, it would be efficient for these retailers to be residual claimants. These arguments could be raised, but they are not the central focus of advocates of mandatory vertical unbundling in the gasoline industry.

4. Potential horizontal and consumer welfare effects

The discussion to this point has focused on potential efficiencies of vertical integration and of the persistence of vertical supply contract disputes in the retail gasoline business. However, the effects of regulations pertaining to vertical integration and supply contracts might not be limited to the refiners and retail gasoline outlets that are directly involved or to vertical unbundling. There are several types of concerns that extend beyond the level and division of retail margins.

4.1 *Effects of other regulations and diversified retailers*

One indirect effect of precluding mandatory vertical unbundling regulations could be adoption of other regulations as a substitute for mandatory vertical unbundling. Substitute laws and regulations would target behaviour of refiners that would be moot under a mandatory unbundling approach or under full vertical integration. Examples include laws forbidding price discrimination against independent franchisees, laws forbidding retail prices that are less than wholesale prices, laws requiring minimum mark-ups over wholesale prices, laws against predatory pricing of gasoline, laws preventing involuntary termination of franchisees, laws limiting the maximum duration of supply contracts, and laws restricting wholesale pricing zones or preventing refiners from restricting arbitrage by retailers between jobbers or between wholesale pricing zones.³² The minimum pricing provisions are intended to prevent refiner-owned stations from driving independents out of business. The open supply provisions are intended to prevent price discrimination based on geographic location.³³ The effects of these substitutes on efficiency and consumer welfare might be more or less intensive than mandatory unbundling of retail outlets and could apply to horizontal and well as vertical practices.

One of the most detailed economic defences of gasoline retailing regulations is a report for the Petroleum Marketers Association of America prepared by economist David Kamerschen.³⁴ However, Kamerschen (2001) favours laws and regulation against below-cost selling rather than mandatory unbundling of retail outlets. He observes that mandatory unbundling eliminates a segment of competitors and, thereby, is likely to reduce the diversity of retail outlets and restrict competition.

Instead, Kamerschen (2001) focuses on the long-term benefits of diversity in gasoline retail outlets. He concludes that cross-subsidization is the real concern and that cross-subsidization by mass merchandisers is just as much of a threat to the diversity of gasoline retailers as is cross-subsidization by refiners. The former is not treated at all by mandatory vertical unbundling because retailers rather than refiners are responsible for this type of cross-subsidization. Kamerschen portrays loss-leader selling by mass merchandisers as predation with simultaneous recoupment and sees prohibitions of sales below cost as the most appropriate remedy. Because simultaneous recoupment might not be reliably recognized in antitrust cases, he fears that the antitrust prohibitions against predation are not sufficient to address the cross-subsidization issue in gasoline retailing.

But the weaknesses and drawbacks of laws and regulations against retail sales “below cost” are well documented.³⁵ Reduced prices for selected items can be a lower-cost alternative to conventional media advertising for grocery stores and mass merchandisers. Loss leader pricing can be an effective

store draw because consumers are well acquainted with the quality and regular prices of this subset of items.³⁶ Gasoline can be one element of an array of effective loss leader products.³⁷ To a traditional gasoline retailer, use of discounts on gasoline as a substitute for advertising or other promotional activities looks like cross-subsidization by grocers and mass merchants. But the large retailer sees it as a one-stop shopping option that attracts customers who would then buy other products. Prohibiting its use for this purpose could force affected retailers to revert to more costly forms of promotion with resulting higher prices for their customers and less competitive pressure on other retailers.³⁸

The possibility of prohibitions against loss-leader sales raises more general questions that policy makers might wish to consider about variations in retail margins on different items. For example, are consumers harmed or deceived when low margins on some items are used to attract them to a store? Is it qualitatively different for a mass merchandiser to sell gasoline at low retail margins to attract customers who might buy something else too, than it is for a gasoline retailer to sell fuel at low retail margins and then make higher margins on selling soft drinks and coffee to the customers attracted by the low gasoline prices?³⁹

4.2 *Effects on entry conditions*

Another indirect effect of policies about vertical integration in gasoline retailing could be to change entry conditions at the retail level or the refining level. In a world where all incumbent gasoline stations are owned and operated by refiners, retail entry would require the endorsement of a refiner that agrees to supply the new retailer. Profitable coordination among refiners could centre around agreements to increase market power by reducing existing competition⁴⁰ or by eliminating entry at the retail level in support of a geographic allocation of territories, for example. Absence of unaffiliated retail outlets also could slow or discourage entry of new refiners because refinery entry would require concurrent retail entry – simultaneous entry at two stages of production rather than one.

Borenstein and Bushnell (2005)⁴¹ summarize much of the considerable economic literature on vertical integration:

Vertical control is not necessarily always in consumers' interests. From research of the last 20 years, it has become increasingly clear that vertical integration or close control can be used in some circumstances to raise barriers to entry and reduce competition. In the best known examples, which are also widely accepted in antitrust analysis, vertical control can be used to deprive a competitor of access to some critical input. If entry into gasoline retailing is difficult, for instance, a refiner might integrate downstream in order to reduce the number of outlets that competing refiners (or importers) might have through which they could sell their product. Concern has indeed been expressed by some in the California gasoline market that the low number of unbranded stations makes entry of new gasoline suppliers (through imports from other regions) more difficult.

There are also many theories of the interaction between vertical integration and collusion among producers, most suggesting that integration increases the stability of collusion. For instance, if two refiners wish to collude on price, but cannot easily monitor one another's wholesale prices, vertical integration in some situations can allow monitoring of retail prices (at much lower cost) to substitute for wholesale price monitoring. Clearly, these incentives for vertical integration or control may benefit firms, but harm consumers.⁴²

Box 2. Alliances between Supermarkets and Oil Refiners in Australia

'Shopper docket,' where grocery customers at supermarkets receive a discount voucher for petrol purchases from particular petrol retailers, commenced in Australia in mid 1990s. Woolworths, one of Australia's two leading supermarket chains, entered into petrol retailing by establishing its own Petrol Plus brand. While any customers could buy petrol from a Petrol Plus outlet, customers who purchased more than \$30 of groceries at Woolworths would also be eligible to receive a four cent per litre discount at Petrol Plus.

In October 1996, the Woolworths arrangement was cleared and welcomed by the Australian Competition and Consumer Commission (ACCC).

In May 2003, the Coles supermarket, Woolworth's largest competitor, and Shell, a major petroleum company, announced an alliance covering 584 Australian petrol stations. A key feature of the alliance was the bundling of petrol and groceries. Customers who purchased \$30 or more at Coles supermarkets would receive a four cent per litre discount on petrol purchases from Shell.

The Shell/Coles alliance differed from the Woolworths/Petrol Plus scheme in that it combined a major supermarket chain with one of the four largest petrol players in Australia. The deal did not facilitate new entry into either petrol retailing or wholesaling, unlike Petrol Plus. Further, the bundling-aspect of the Shell/Coles alliance could not be justified on the basis of complementarities between the products. While a consumer's demand for groceries might be related to their purchase of petrol, there is no particular reason to expect that a Coles supermarket customer will gain any intrinsic value by also buying petrol from Shell. In addition, unlike the United Kingdom, there was little development of co-located supermarkets and petrol outlets. While the alliance involves Coles taking over the management of Shell's retail petrol station network and establishing 'Coles Express' outlets at these stations, the discount vouchers would be provided by regular supermarkets, regardless of their proximity to a Shell retail outlet. Indeed, grocery purchases made at Coles Express located in a Shell petrol station were explicitly excluded from the discount scheme.

In August 2003, Woolworths responded to the Coles/Shell alliance by announcing plans for a joint-venture with Caltex to deliver similar bundled discounts for fuel and groceries. The Woolworths/Caltex agreement covered more than 450 retail petrol outlets across Australia.

The agreements between two of Australia's largest supermarket chains and two of the four major petrol companies created considerable consternation in their respective industries. The Service Stations Association has predicted that the bundling schemes could result in the closure of 3000 independent petrol stations. In November 2003, IGA, one of Australia's smaller supermarket chains, announced that it would be "offering customers discounts on their grocery bills for fuel bought at any service station." Although these schemes are relatively new, anecdotal evidence suggests that smaller supermarkets and petrol companies other than Shell and Caltex are suffering a loss of sales due to these shopper docket schemes. At the same time, it appears that the two schemes have largely 'canceled each other out' in terms of profit, simply leaving the unassociated supermarkets and petrol companies the losers.

One set of economists examining this type of vertical integration argue that these alliances between retail grocery chains and refiners can cause social welfare reductions through distortions in consumer behaviour as well as through reduction in long-term competition as entry barriers are raised.⁴³ However, the ACCC found that prices were lower because of the emergence of grocery retailers as gasoline retailers. The ACCC understands that the shopper docket discount schemes are considered by the supermarket chains to be promotional and marketing tools. It may be that the costs of the shopper docket discount schemes provided to petrol consumers represent a substitution of promotional expenditure by the grocery division of the supermarket chain.

Source: ACCC (2006).

Box 3. Evidence of Double Marginalisation in Economic Laboratory Gasoline Markets

Economists Cary Deck and Bart Wilson created and analyzed results for a series of experimental economics retail gasoline markets involving variations in the degree of vertical integration between retailers and refiners. The experimental setup focused on direct relationships between refiners and branded retail gasoline dealers and involved a geography for the experimental markets with two types of locations. One type of location was at the center of the territory, close to retailers with competing brands. The other type of location was a corner location in the territory where there were no other close-by retailers. There were four brands available in the markets and each brand had one station in a corner location and one station at the center.

The information conditions in the markets included access to all information on retail prices by all participants (retailers and refiners), but each retailer only knew the wholesale price offered by his or her refiner. The automated consumers had full retail price information, but no wholesale price information. Retailers could set station-specific prices in the initial scenario, but faced costs in serving each customer and in obtaining gasoline inventory to sell. Refiners obtained raw materials and processed them before selling the consumer-ready gasoline to retailers. Refiners could offer different prices to different retailers if they chose to do so. Refiners received revenues from sales to retailers that were offset by refining costs, including crude oil acquisition costs. Each consumer had the same maximum willingness to pay unless purchasing the consumer's preferred brand. In that case, the maximum willingness was slightly (about 10%) higher. There was a 20% probability that any particular consumer preferred one of the four brands and a 20% chance that the consumer had no brand preference. The maximum price included a consumer drive-time calculation. The consumers purchased from the retail outlet that provided the greatest consumer surplus.

Full vertical unbundling resulted in higher prices for consumers for nearly all transactions in the experimental markets. Average retail prices were 13.2% lower in the centre areas and 16.5% lower in the corner locations under the vertical integration scenario. The benefit to consumers from vertical integration stemmed from the elimination of double markups. The authors also found that vertical integration eliminated asymmetries in the way that retail prices respond to upward versus downward shocks in oil prices, but vertical integration increased the length of the adjustment lags.

The experimental design also examined the effects of zonal versus uniform pricing by refiners and other territorial pricing restrictions that are sometimes proposed as alternatives to mandatory vertical unbundling. In these experimental markets, zonal pricing definitely lowered retail prices in the central location, but did not appreciably change the prices for consumers in the corner locations. Further, under uniform wholesale pricing, there were lower incentives for consumers located near a corner to travel to the center to obtain lower gasoline prices. Hence, the results in these experimental markets indicated that uniform wholesale pricing is more profitable for retailers, but harmful to consumers. Zonal prices hurt the corner retailers because the refiners increase wholesale prices to capture more of the locational rents at isolated retailers.

Source: Deck and Wilson (2008) and (2004).

Full vertical integration at the retail level could also have adverse effects on the evolution of gasoline retailing itself.⁴⁴ New forms of gasoline retailing could be retarded both in terms of origination and rate of diffusion if all or nearly all refiners sell only to affiliated retail outlets. Refiners with investments at risk in retailing might find it profitable to delay retail innovation by independent retailers for this reason. Arguably, the most prominent innovations in gasoline retailing at present are from grocery and big box general retailers. These firms sometimes operate at low or even negative margins in selling gasoline because they sell very large volumes (which results in low per unit overhead costs), use low gasoline prices as a store draw or because they rely on membership fees for their profit margins on gasoline as well as on all of the products that they sell.⁴⁵ Refiners that are not part of a general merchandising conglomerate are generally not in a position to compete on this basis in retail gasoline sales. One concern about high levels of vertical integration by refiners is that it might enable them to limit or prevent low-margin gasoline retailing by supermarkets and mass merchants, to

protect the retail margins of refiner-owned retail outlets or in order to appease retailer groups with monopsony power. In many markets, gasoline retailing by grocery chains and mass merchants may be too well established for this threat to be plausible.

Critics of this form of unbundling assume that independent retailers are benefiting from either increasing retail margins or retaining a high proportion of these margins. However, the retailers claim that mandatory vertical unbundling cuts litigation costs and other costs of contract disputes (both monetary and personal) by reducing the incentives and ability of refiners to engage in opportunistic behaviour. Disputes between retailers and refiners about vertical integration have persisted for decades without clear resolution, by legislation or otherwise. By contrast, disputes in the United States between soft drink bottlers and concentrate manufacturers, which resulted in industry-specific legislation against discrimination between independent and vertically integrated bottlers, was ultimately resolved by the concentrate manufacturers buying up nearly all of the bottlers.⁴⁶ In the coal industry, where contracts between coal mines and generators have long been subjects of dispute, analysis suggests that contracting patterns are markedly different in different regions based on the vulnerability of coal mines or generators to opportunistic behaviour.⁴⁷

In summary, there are potential procompetitive and anticompetitive theories to explain mandatory vertical unbundling in gasoline retailing. Often the only available means to resolve the issue is empirical evidence from various nations or regions within nations. However, this is one instance where the use of statistical inferences from natural markets can be supplemented with results from controlled experimental markets, as discussed in Box 3.

5. Experiences with vertical integration or unbundling

5.1 Argentina

Argentina provides an interesting example of an intermediate policy on mandatory vertical unbundling. Argentina limits the proportion of retail outlets that can be vertically integrated and limits the length of supply contracts. The latter is designed to address the concern about foreclosing entry of new refiners.

In 1991, the Argentine gasoline market was deregulated and restrictions on prices, refining capacity, location and quantity of retail outlets were eliminated. The gasoline market is highly concentrated with four firms accounting for more than 85% of the market. During the 1990s, observers complained the retail gasoline prices stayed high, despite dramatic decreases in oil prices. Economic studies during this period resulted in contradictory findings.⁴⁸ In 2000, the new competition authority, the Secretariat of Consumer Affairs and Defence of Competition, made the following recommendations.

- limit the duration of contracts between oil companies and dealers that operate gasoline stations and
- establish a ceiling on vertical integration, measured as the percentage of the network of gasoline stations that an oil company (refiner) can own and operate.

These recommendations were reviewed by the President and he subsequently issued a decree that implemented them. Serebrisky (2003), reviewed the evidence developed by the agency in support of its recommendations. Because there was little evidence or experience with alternative structures and the structure of the refinery sector was highly concentrated (four-firm concentration = 85%) even after the government's privatization initiative, the agency relied to a considerable extent on international comparisons. Competitive concerns focused on the refining and retail sectors because there are several

oil producers operating in Argentina as well as many sources of imported, market-ready motor fuel. The inquiries about the effectiveness of competition at the refinery and retail levels concentrated on structural indicators (as described above, adjusted to changes in international oil prices, and entry conditions). Argentine retail gasoline prices were static compared to those in the U.S. in the 1990s and adjustments to oil prices were shallower in the early years of the new millennium. For example, diesel fuel prices in Argentina were nearly flat in the 1990s, despite fluctuations of more than 40% in the U.S. In 2001, diesel prices in the U.S. fell by approximately 35% compared to less than 5% in Argentina. Competitive concerns also arose from comparisons of market-ready gasoline import prices with retail prices. Data for the 1994 to 2001 period showed a widely varying premium for domestically produced gasoline which is difficult to explain through a product differentiation or a nationalistic demand preference amongst Argentine consumers. Seberisky concludes that this evidence indicates that Argentine retail gasoline is isolated from changes in gasoline price internationally. Serebrisky (2003) also found that until major currency disruptions in 2002, relative retail prices of different brands remained stagnant after 1995. During the 1995 to 1999 period, the average retail prices of the four major brands stayed in lockstep relationships to each other.

The investigation by the competition agency examined retail conditions because oil extraction was considered competitive and oil refining was as competitive as it was likely to become under the government's privatization efforts. The focus on retail competition led to inquiries about entry conditions, including opportunities for entry at the refinery stage of production. The agency found that entry or expansion of a small refinery likely would be difficult because, although there were many independent dealers, very few operated without very long supply contracts from the major incumbent refineries. Serebrisky (2003) suggests that the preponderance of dealer owned and operated retail gasoline outlets is due to the restrictions on refiners closely monitoring the work effort of their employees. He suggests that the principal/agent problem drives firms to use supply contracts instead of vertical integration in response to the principal/agent issues they face. The length of these relationships is, however, a separate decision. Serebrisky (2003) posited that long-term supply contracts serve the purpose of raising impediments against entry by new refineries. A refinery entrant needs access to a distribution network. The refiner could build this from scratch, but getting established retailers to switch suppliers could be faster, less risky, and less costly absent high switching costs. Long-term supply agreements with retailers can effectively preclude building distribution by getting retailers to switch.

Consistent with this concern, the competition agency found that refiners were moving decisively toward longer supply contracts in the later 1990s. In the early 1990s, supply contracts in excess of 14 years accounted for about 22% of the contracts. In the late 1990s, supply contracts in excess of 14 years accounted for about 38% of the contracts. Considering that the Argentine gasoline markets were served by the same largest firm as those in Spain, the 1999 decision of the EU to set a maximum duration for retail gasoline supply agreements spurred the decision to make a similar recommendation in Argentina. The Argentine competition agency also considered the 1998 study of the U.K. Office of Fair Trading that found that the average duration of retail gasoline supply contracts was less than three years in the U.K. and that competition is driven by the entry into gasoline retailing by supermarkets and big box stores.

Argentina decided that its higher costs of capital warranted a longer contract period and it settled on eight years instead of five. The second recommendation, to limit the proportion of outlets that can be owned and operated by the refiners, was adopted as a fencing provision to preclude refiners from all totally vertically integrating to create a barrier to future entry by a new refinery. The proportion that was adopted, 40%, may have derived from European statistics about the existing level of vertical integration, or it may have represented a compromise between retailers promoting mandatory vertical unbundling and refiners promoting unlimited vertical integration and contractual controls.

5.2 *Australia*

Australia recently removed restrictions on vertical integration of gasoline retailing, but gasoline retailers continue to be concerned about low retail margins at grocery and mass merchant gasoline outlets. The Australian gasoline markets are served by four oil refinery majors (Mobil, Shell, BP and Caltex) and a small group of competing independent retailers plus recent entrants, notably supermarket chains. For instance, as described in Box 3, the supermarket Woolworths entered Australian gasoline retailing markets in 1996 and built a national network of nearly 300 gasoline retail sites by 2003, but initially it had no alliance with a refiner. Subsequently, there have been a number of alliances between oil companies and supermarkets with gasoline retailing locations. For instance, Woolworths later partnered with Caltex, which was a response to the Coles/Shell gasoline retailing alliance strategy. The latter was initiated in 2003 and it aimed to extend a discount gasoline offer to customers nationwide at up to 450 service stations.⁴⁹ By 2006, supermarket alliances handled 40% of retail fuel sales.⁵⁰ Hundreds of supermarket shopper docket discounts were in place and consumers responded actively to these programs. With these large partnerships so widely accepted by consumers, the refiners have been less actively involved in operating their own retail outlets.⁵¹ Approximately 5% of retail outlets are directly operated by refiners compared to 64% that are independently operated. As a result of the introduction into petroleum retailing of Coles Express and the Woolworths/Caltex joint venture in 2003 and 2004, there have been lower petrol prices for consumers. The ACCC examined retail prices in the five largest metropolitan areas over similar periods before and after Coles Express began operating in those areas. Relative to an independent benchmark (i.e. the ACCC's import parity indicator, which reflects movements in the Singapore price for refined petrol and the Australian/US dollar exchange rate), petrol prices were lower after the entry of Coles Express and the Woolworths/Caltex joint venture into the retail petrol market. The extent to which prices were lower varied with cities and time. It ranged from around 0.5 cents per litre to over 3.0 cents per litre.⁵²

Independent retail outlets have expressed concern regarding these types of alliances. They are afraid that the discounts offered by the alliances, which sometimes involve retail prices that are below wholesale prices, would have the effect of forcing independents from the market, thus substantially reducing competition in the long-term. The competition authority, on the other hand, believes that the introduction of such schemes has encouraged competition and lowered prices in Australia's retail fuel markets.⁵³

The business structures currently observed in the Australian retail markets largely reflect the operation of two pieces of recently repealed legislation:

- the Petroleum Retail Marketing Sites Act 1980 (the Sites Act), which placed a quota on the number of retail sites that the refiner-marketers could operate directly or on a commission agent basis.
- the Petroleum Retail Marketing Franchise Act 1980 (the Franchise Act), which specified minimum terms and conditions for franchise arrangements.

The Acts were passed to address an imbalance in market power between the oil majors on the one hand, and their commission agents, on the other hand. The latter alleged that the majors had abused their market power. The solution was to require the majors to adopt franchises at most of the sites they owned. To do this, the Sites Act set a quota for each refinery major. The Franchise Act, in turn, contained provisions that sought to secure the positions of franchisees and thus encourage the entry of small businesses into the retail petroleum markets.

Under the Downstream Petroleum Reform Package, the Sites Act and the Franchise Act were repealed and a mandatory code (the Oilcode) under the Trade Practices Act was introduced as a

substitute. The Oilcode, among other things, provides wholesalers and fuel resellers with specific rights and obligations in relation to fuel reselling arrangements.⁵⁴

5.3 *Canada*

Canada sets no legal restrictions on vertical integration. Retail gasoline markets in Canada have been the subject of several economic studies, including studies of the effects of fringe firms on retail prices and of changes in the structure of gasoline retailing. Examinations of retail pricing have provided some indications of coordinated behaviour between retailers.

According to Sen (2005), the structure of Canadian gasoline markets fits in a framework of dominant vertically integrated firms with a competitive fringe of independent retailers. In 1991, vertically integrated firms served 65% to 97% of the markets in the eleven Canadian cities analysed in this study. Sen used monthly data on average retail gasoline prices and individual market shares across eleven Canadian cities between 1991 and 1997 to examine the effects on prices of the competitive fringe and the efficiency of retailers. The author found that although an increase in the aggregate market share of smaller firms is positively, but insignificantly, correlated with trends in retail prices (because small retailers may be less efficient relative to larger vertically integrated retailers), these effects are outweighed by lower prices resulting from a dilution in market concentration (interpreted as less market power) among vertically integrated firms – which is also a result of the increase in aggregate market share of smaller firms. Specifically, a 1% point increase in the aggregate market share of smaller firms is associated with a 1.0091 cent per litre drop in average retail prices. The author concludes that policies that strengthen or protect smaller retail firms are likely to reduce retail prices on net.

Eckert and West (2005a) examined the consolidation of gasoline retailing in Canada. In particular, the number of outlets declined from 35,703 in 1970 to 23,952 in 1980, 22,000 in 1989, and 13,250 in 2000. The authors argue that this rationalisation process could have been triggered by new market conditions. They observe that many companies converted to a network with fewer stations but higher capacity stations with no service bays. The remaining stations typically have other features such as convenience stores and car washes. At the same time, the authors find that this rationalisation process is also consistent with the alternative explanation of tacit collusion. In a separate review of retail pricing in Vancouver, Eckert and West (2005b) find that pricing patterns are consistent with tacit collusion.

Eckert and West (2004) studied retail price behaviour in two Canadian cities: Ottawa and Vancouver. In Ottawa, casual empiricism suggests that retail gasoline prices are subject to significant price dispersion and volatility. Conversely, in Vancouver, casual empiricism suggests that prices tend to greater stability and uniformity. Using station-specific retail gasoline price data, they find that these patterns are consistent with an economic theory in which firms in Vancouver are tacitly colluding while firms in Ottawa are engaged in an ongoing battle for market share.

Two findings from antitrust enforcement actions in Canada are particularly noteworthy. First, there was a case of predatory pricing in the Chatham gasoline market. An independent retailer complained that a vertically integrated company, Pioneer, was charging wholesale prices above prevailing retail prices. Using daily prices for February and March, the Canadian Competition Bureau⁵⁵ found that there was no evidence to support these allegations because wholesale prices were above retail prices only one day in the whole period. Second, in June, 2008, the Competition Bureau announced criminal collusion charges against retail gasoline station operators in several areas of Quebec and stated that the evidence suggests that the overwhelming majority of gasoline retailers in these areas participated in the retail cartel.⁵⁶

5.4 *Japan*

In Japan, the gasoline industry is highly divided between the stages in the gasoline chain of supply, so vertical integration between retailers and refiners has historically been less of a policy focus in Japan than in countries where vertical integration has been more widespread. In particular, exploration and pumping of crude oil historically has been separated from the refining and distribution stages. The origin of this structure dates back to the period after World War II, when the Petroleum Industry Law was enacted in order “to achieve a stable supply of oil by controlling downstream oil refining, effectively authorizing the separation of upstream and downstream operations.”⁵⁷ Moreover, complete vertical integration does not occur between the refining and distribution stages because the gasoline stations owned by the oil companies are often managed by special agents⁵⁸ or retail firms.⁵⁹ The end to prohibitions against self-serve retailing in 1998 resulted in rapid conversion to that format along with new retail entry. However, some partnerships have been formed between refiners and grocery retailers who sell gasoline and consolidation at the exploration and refining stages has increased since 2000.⁶⁰

5.5 *Netherlands*

The Netherlands has examined vertical integration issues in gasoline retailing, but decided not to intervene. In 2001, the competition authority suspected that the system of vertical agreements between oil companies and retail gasoline operators was undermining the incentive to compete. To address the problem, the authority considered the possibility of rescinding the European block exemption for vertical agreements. After carrying out further research and calling for the market players’ opinions on this issue, the authority decided not to intervene because there was insufficient evidence that such an intervention would result in lower retail prices. It decided instead to monitor the sector closely.⁶¹

5.6 *New Zealand*

Rationalization of the retail gasoline industry has been going on for many years in New Zealand. According to New Zealand Institute of Economic Research (2005), the number of gasoline stations declined from more than 4,000 stations prior to 1976 to approximately 1,600 stations in 2002. Most of closures were low-volume independent retailers, and the refiners have bought up most of the higher-volume locations from independent dealers. Most new retail locations are owned by refiners. Consequently, the structure of the retail markets is becoming more vertically integrated.

The New Zealand Institute of Economic Research (2005) concluded that increased vertical integration of gasoline wholesaling and retailing is unlikely to waste resources or harm consumers unless it leads to increased barriers to entry. The last two major entrants in recent years have focused primarily on newly constructed, high volume sites, rather than existing independent stations. Vertical integration by wholesalers into retailing has resulted in efficiencies in stock management and distribution, and increased price and non-price competition.

5.7 *Spain*

Spain’s retail gasoline sector has experienced a great deal of regulatory change and subsequent restructuring during the past 15 years. Recently, litigation has been used to revise terms of vertical contracting in the industry. Until 1992, the Spanish gasoline industry at the retail level was operated by a state monopoly, which was supplied by several private and public refiners. That year, the monopoly was split up and the retail network was divided among the refineries. However, the distribution activities continued to be a monopoly. In 1990, the government replaced price regulation with a system of price ceilings. They remained in force until 1998.

The restructuring of the oil sector resulted in a highly concentrated oligopoly at the retail level in Spain. Bello and Cavero summarize the structure of gasoline retailing, using contemporaneous press coverage, in this way:

In 1993, the Spanish-based refiners controlled about 85% of the 5,983 service stations: Repsol, 54.8%, Cepsa-Elf, 23.8%, and BP, 6.3%. The low density of the Spanish retail network, as compared to other European countries, and the consequent high throughput of the outlets encouraged the construction of new service stations. Since 1993, the number of service stations increased by more than 200 outlets per year to 8,155 in 2003, although the rate of growth has slowed down over the most recent period. From the early 1990s onwards, about 30 new operators entered the market, involving Petrogal, Agip, Esso, Shell, Avanti, outlets operated by large supermarkets, independent service stations, etc. Hence, between 1993 and 2003, the market share of the new operators increased from 15% to 30%. The Spanish-based refiners currently control about 70% of the service stations: Repsol-YPF, 43.8%; Cepsa-Elf, 18.7% and BP, 6.9%. Virtually all (95%) of the service stations which are not owned and managed directly by an oil company are operated through exclusive selling contracts with their suppliers, which establish prices and the fees for the stations' operators (Cinco Días, 24/2/1997). In this respect, the Spanish gasoline markets are distinctly different from those in many countries, where vertical integration is much less prevalent and where suppliers do not fully control final retail prices.

Bello and Cavero (2008) analysed the structure of the markets and the degree of brand differentiation across Spain. The authors found that the prices in independent stations are lower than in branded ones and that this difference is more prominent when the stations belong to minor brands. Furthermore, the authors find that independent non-branded retailers compete more directly with branded vertically integrated retail outlets than with branded leased retail outlets, at least in the region of Navarra. The authors view this as confirmation of a double marginalization problem and as confirmation of product differentiation between brands. They conclude that vertical differentiation means that the best choice of contractual format (from the refiner's perspective) between refiners and branded stations is one that features some degree of double marginalization as this enables refineries to weaken price competition in the retail market. Bellow and Cavero (2002) find that branded stations offer a higher number of services aimed at consumers while independent stations offer more services regarding vehicle maintenance and repair.⁶²

There have been antitrust cases in the sector regarding whether retailers are commissioned agents or independent retailers. The most prominent court decision characterized retailers as independent entities and subjects vertical supply agreements to additional vertical pricing regulations. In particular, there was an intervention by the Court for the Defense of Competition in Decision 490/00 y 501/00 REPSOL-CEPSA. The case involved two complaints against the main two national petroleum undertakings for restrictive agreements (Art.1 National Law and Art. 81 European Community Treaty) consisting of vertical fixing of prices to their retailers and for the violation of Commission Regulation 1983/84, which establishes the conditions for the categorical exemptions concerning certain exclusive purchasing agreements.

The Court for the Defence of Competition found that there was vertical fixing of prices because petrol stations are resellers rather than commissioned agents. The latter was the contention of both petroleum company defendants. The Court determined that the retailers incurred several commercial and financial risks. This determination requires that petroleum retailers be classified as independent entrepreneurs, making Articles 1 and 81 applicable. Concerning the extension of the supply contract time periods, the Court did not find that the firms committed fraudulent practices with the objective of lengthening contract terms excessively.⁶³ However, half of the members of the court in both cases

dissented in whole or in part on this aspect. The Court imposed fines against both firms, but the levels have been criticized as not large enough.⁶⁴

There was also a case pertaining to Spain's petroleum retailing markets brought by the European Commission.⁶⁵ This case resulted in a settlement under which gasoline supply contracts with retailers cannot exceed five years. The case is described in Box 4.

Box 4. EU Intervention in Spain to Limit the Duration of Retail Gasoline Supply Contracts

“The European Commission adopted a formal decision under EC Treaty competition rules which renders commitments entered into by REPSOL to open up its long term agreements with service stations legally binding. REPSOL will free hundreds of service stations from long-term exclusive supply contracts. This will bring a wider choice and scope for reduced prices to the benefit of the consumer. The Commission had been investigating whether REPSOL's supply contracts violated EC Treaty rules on restrictive business practices (Article 81) but has now closed its investigation in the light of the commitments submitted by REPSOL.” European Commission (2006a).

“According to the contracts signed with Repsol CPP, land owners granted a “right in rem” for a long period (from 25 to 40 years) to Repsol CPP on their land or on their land and building: Repsol CPP would then finance the construction/refurbishment of the station, rent the station back to the owner and, for the duration of the “right in rem” be the exclusive supplier of motor fuel to the station.” European Commission (2006b).

These contracts were a problem because of the high degree of vertical integration in the market:

“The Commission's investigation has shown that access to the market is rather difficult because of its structure and in particular the vertical integration of all operators. Exclusivity contracts signed between the operators and the remaining independent service stations tie these stations for long periods of time to the operators, thereby further hampering competition. The contracts signed by Repsol CPP, in particular the long-term contracts which were based on “rights in rem” owned by Repsol CPP (see above), particularly contribute to close off the market. This diminishes ultimately the pressure to reduce prices and improve quality, to the detriment of consumers.” European Commission (2006b).

Source: European Commission Case COMP/B-1/38348 – Repsol CCP SA.

5.8 United Kingdom

The gasoline industry is one of the most investigated industries in the UK. It has experienced in the past 20 years, three Monopolies (and Mergers) Commission (MC, 1965; MMC, 1979, 1990) industry investigations, two investigations by the House of Commons Trade and Industry Select Committee (1988 a, b), and one enquiry by the Price Commission (1979 a, b, c). In each of the investigations since 1979, the various committees have found that there is nothing evident in the industry's conduct which is against the public interest. Driffard (1999), however presents less sanguine interpretation of short-run pricing dynamics and entry conditions in the UK gasoline industry.

There is not a high degree of vertical integration in the U.K., so that there are few issues regarding potential foreclosure.⁶⁶ Cook (1997) examined vertical integration in the U.K.'s gasoline and brewing industries. His conclusions, after review and analysis of public materials and interviews, parallel the conclusions of the Monopolies and Mergers Commission. The Commission found that vertical integration in the gasoline industry was largely driven by efforts to gain efficiencies that would benefit consumers.⁶⁷ No remedies were recommended.⁶⁸

Like many countries, the entry of supermarkets as gasoline retailers is a major form of upheaval in U.K. retail gasoline markets. Between 1994 and 2007, the share of gasoline sold by supermarket gasoline retailers rose from less than 20% to over 40% in the U.K.⁶⁹ Shopper docket is common in the UK, similar to the Australian shopper docket described in Box 1.

5.9 United States

Industrial organization economists have conducted several empirical studies of retail gasoline vertical integration and vertical unbundling in the United States. This area of research has been attractive because individual states have adopted quite different policies toward vertical integration in this industry, yet many troubling variables required in international comparisons can be controlled for or have the same values across states. Many states have no laws or regulations about vertical integration aside from application of federal and state general antitrust laws. However, regulations requiring vertical unbundling of retail gasoline outlets have been in place in a few states for several years.⁷⁰ Research has focused on whether retail prices are different in the states with mandatory vertical unbundling, controlling for other factors that are likely to impact retail gasoline prices. Based on this literature, the U.S. Federal Trade Commission has filed comments opposed to mandatory vertical unbundling of retail gasoline outlets in several states.⁷¹ Indeed, FTC staff economists have contributed to the literature on this topic.⁷²

The literature on mandatory vertical unbundling of retail gasoline outlets in the United States is nearly unanimous in concluding that mandatory unbundling is associated with higher retail gasoline prices rather than lower prices. In a review of competition in petroleum refining and marketing, Moss (2007) examined four relatively recent studies of the effects of mandatory unbundling⁷³ and two studies of the effects of open supply requirements.⁷⁴ All but one of these studies employed empirical analyses. Moss concluded: “The search appears to show that forced deintegration of refiners and retailers is associated with higher costs and/or consumer prices.” The summary table from Moss is reproduced below. The coefficients on the variables representing mandatory vertical unbundling show price increases due to this policy or two to five cents per gallon, roughly two to five percent of average prices at the time of the studies. Earlier studies reached similar conclusions.⁷⁵

Table 1. Results of Studies on Divorcement and Open Supply

Study authors, year	Results
Divorcement findings	
Spears (1991)*	Divorcement laws result in subsidisation of gasoline product middlemen, at the expense of consumers.
Slade (1998)	Divorcement is associated with high retail gasoline prices.
Blass and Carlton (1999)	Vertical integration is motivated by efficiency, not predation. Costs of divorcement are high.
Vita (2000)	Divorcement policies raise retail gasoline prices.
Open supply findings	
Marvel (2003)	Enforceable open supply requirements can increase inventory holding, protect against price volatility, and reduce gasoline transportation costs.
Barron, Taylor and Umbeck (2004)	Retail stations with the most sources of supply have higher retail prices.

*Based on non-empirical analysis

Most commentators have interpreted these findings as being directly contradictory to the claims of mandatory unbundling proponents. Rather than lowering risk and lowering costs and prices, mandatory unbundling leads to higher prices according to several empirical research papers. Commentators generally conclude from this line of research that consumers are harmed by mandatory vertical unbundling laws.

There are several potential qualifications that stand between finding a price increase associated with mandatory vertical unbundling and concluding that such unbundling harms consumers in retail gasoline markets. One qualification is that the price increase could represent refiners discontinuing predatory strategies because the mandatory vertical unbundling laws preclude recouping the losses from predation. Blass and Carlton (2001) seek to address this concern by examining whether the mix of vertical integration and vertical separation in states without rules against vertical integration can be explained by characteristics of retail gasoline outlets that accord with efficiency explanations for vertical integration and separation. In particular, the authors suggest that retail outlets that provide automobile repair services and have a low volume of gasoline sales are outlets where monitoring the effort of the operator is particularly difficult. From an efficiency viewpoint, refiners should find it more profitable not to vertically integrate these retail outlets. Conversely, monitoring should be easier with retail locations that do not offer repair services and that have a high sales volume. The actual pattern of lessee versus refiner-owned retail locations corresponds to these predictions, according to Blass and Carlton. Further, refiners tended to use a lessee arrangement when establishing new locations with associated repair services and relatively low sales volume. The authors contend that if refiners were focused on forcing lessees out of business through predation, the refiners would not be expected to establish more such relationships at new locations and vertical efficiency variables should not significantly explain the pattern of actual vertical relationships.

Another important caution in examining the available literature is its predominant reliance on gasoline prices as the only relevant measure of consumer welfare. There are some major drawbacks to focusing exclusively on retail prices as a measure of consumer benefits. The principal complication is the familiar possibility that there is a significant quality-of-service dimension that is important to consumer welfare and that is not represented by the retail price. It could be, for example, that consumers prefer a bundle that consists of better service along with higher prices rather than a bundle that consists of poorer service and lower prices. Quality of service in gasoline retailing could be broader than the cleanliness of restrooms or the smile on the attendants' faces. In particular, a reduction in the population of retail outlets could increase the effective price of gasoline by increasing both drive times to refuel and fuel used to search for a retail gasoline outlet. These increases in consumer search and access costs could exceed the benefits of any lower prices at the pump that can be attributed to the consolidation of retail outlets.⁷⁶ Fewer and more dispersed retail gasoline outlets could also have indirect price effects by curbing customer search and, consequently, reducing the price elasticity of demand as described in a tourist trap model of consumer search behavior.⁷⁷ On the other hand, both Barron and Umbeck (1984) and Slade (1998) found that mandatory vertical unbundling led to fewer hours of operation by retailers rather than more hours of operation, one known measure of service quality.

6. Influence of independent retailers on prices

The economic literature on direct effects of mandatory unbundling of retail gasoline outlets generally suggests that the effect of these rules has been to raise retail prices. But other empirical work, focusing on potential indirect effects of these rules finds that retail gasoline prices in an area are appreciably lower if the market share of unbranded, independent gasoline outlets is higher. The study by Hastings (2004), for example,⁷⁸ examined the effect of differences in vertical contract types at retail gasoline outlets and found that vertical integration, at the expense of independent gasoline retail

outlets, raised prices by five cents per gallon.⁷⁹ The context of the study was the purchase of a chain of independent gasoline retail sites by ARCO (a major petroleum refiner). The purchase resulted in substantial changes in the share of the market served by independents and branded stations and allowed an effective means to control for station-level and city-level variables that are often omitted in empirical research because they are difficult to identify or quantify. Hastings (2004) concluded:

Results indicate that a decrease in the market share of independent stations has a significant positive impact on local retail price. However, a change in the market share of refiner owned and operated branded stations does not have a significant impact on local market price. These results have important implications as policy makers consider the regulation of vertical contracts as a means to increase competition in gasoline markets. The research design and detailed data also allow for inference on the underlying nature of retail gasoline competition.

The results reported by Hastings (2004) may not be the last word on these vertical effects in general or even in specific. For example, Taylor, Kreisel, and Zimmerman (2007) found much smaller effects, less than a tenth as great, while using a similar, but not identical data set, in an attempt to replicate Hastings' (2004) findings.

Borenstain and Bushnell (2005) concluded their advice to regulators in California:

In sum, previous work has demonstrated the importance of independently owned stations that are not marketed under one of the major brands. The presence of unbranded stations lowers retail margins and likely lowers wholesale margins also. The impact of independent branded owners is much less clear, as is the impact of the distribution method. Yet it is the latter effect that is most likely to be impacted by a branded-open supply proposal. ... To date, there is much more empirical evidence on the efficiency enhancing aspects of vertical controls at the retail level. But it should be noted that because of data and other factors, it is much more difficult to estimate the impact of such policies on wholesale competition than it is on the retail prices at specific stations. ... [P]roposals to regulate vertical policies could likely produce unexpected side-effects. The banning of specific pricing practices or contractual arrangements, for example, could spur a move toward greater direct vertical integration or spawn a new set of contractual arrangements that prove more damaging than the practices they are replacing.

Their conclusion about the lack of relationship between the salutary effects associated with a strong presence of independent non-branded retailers and proposals for branded-open supply regulations appears equally true of proposals for mandatory vertical unbundling. Faced with mandatory vertical unbundling, it seems unlikely that refiners would convert these outlets to unbranded independent retailers if the rise of such retailers will hurt them by intensifying competition generally.

Given the previous discussion of the potential negative relationship between vertical integration and independent, non-branded retail outlets, a potential conflict between direct and indirect effects of mandatory unbundling of retail gasoline outlets may be present. Unfortunately, the available economic literature does not appear to address this potential confounding of effects as definitively as policy makers might hope. Perhaps the closest approximations are Chouinard and Perloff (2007), Aydemir and Buehler (2003), and Sen (2005).

Chouinard and Perloff (2007) find that both retail and refinery mergers increase retail prices, but that prices are negatively related to the percent of retail outlets that are company operated and

positively related to the percent of retail outlets that are lessee-operated. Hence, this research does not resolve the opposing concerns.

In contrast, Aydemir and Buehler (2003), focus on separating efficiency from foreclosure effects of vertical integration. In their empirical model, conduct and unknown cost parameters are inferred from the responsiveness of prices to changes in demand elasticities and various known cost parameters (instrumental variables). Their results are more nuanced than other research in this area. They find both efficiency and foreclosure effects, but the relative importance of the two varies greatly based on the regional position of specific firms. The efficiency incentive predominates for refiners with relatively small market shares in regions with relatively low concentration. The foreclosure incentives predominate for refiners with relatively large market shares in regions with relatively high concentration. While this result could help to improve understanding of the relationship between vertical integration and wholesale prices of individual refiners, it does not resolve the question of overall effects of vertical integration across all refiners or the question of retail effects on average.

Sen (2005) reports countervailing effects from a larger aggregate market share of independent retailers. On one hand, independents foster increased competition at the refinery level. On the other hand, independents foster higher retail margins. The former predominates in Sen's data, but this might not be the case in other locations or in other time periods.

7. Concluding Observations

There are several conflicting propositions about the effects of mandatory vertical unbundling and vertical integration more generally in gasoline markets. On the narrow question of mandatory vertical unbundling, empirical evidence generally supports the proposition that such laws and regulations are of little or no benefit to consumers. However, the general policy issue of vertical integration in gasoline retailing is more complicated. Principally, there is evidence that the newest strong force for competition in gasoline retailing is the presence of independent retailers selling unbranded gasoline. The counterpoint to the ill effects of mandatory vertical unbundling is that entry of novel independent retailers (often grocery retailers) could be impeded and incumbent independent non-branded retailers could be forced to exit if refiners predominantly vertically integrate and sell only to branded retailers.

Laws and regulations about vertical integration in this sector are only tangentially related to relevant competitive concerns. Instead, they are focused on recurring and vigorous contractual disputes between refiners and franchisees regarding price discrimination and opportunism. Supporters of vertical integration need to address the problems of contract enforcement resulting from opportunism. Proponents of mandatory unbundling should examine whether concerns about opportunism and cross-subsidization can be addressed under the general laws against abuse of dominance and unfair competition.

Notes

1. The term "gasoline" includes motor fuels in general. Many of the empirical studies are of markets where gasoline is the principal fuel.
2. Deck and Wilson (2004) and Deck and Wilson (2008).

3. One such assessment, by staff of the U.S. FTC, is concluded that supply disruptions, not collusive withholding of supply, were responsible for a period of unusually high retail gasoline prices in the mid-western states in the Spring of 2000.. Bulow, Fischer, Creswell and Taylor (2003).
4. OECD (2006).
5. OECD (2005).
6. OECD (2004).
7. OECD, Restructuring Public Utilities for Competition (2001b), OECD (2002a) and OECD (2002b).
8. OECD (2001a) and OECD (2002b).
9. For example, see Borenstein and Bushnell (2005).
10. Borenstein and Bushnell (2005).
11. Potentially, independent retailers could vertically integrate by investing in jobbing or refining, but this does not appear to be common, and laws and regulations mandating vertical unbundling do not appear to consider the possibility of groups of retailers jointly controlling refiners rather than refiners controlling retailers. Presumably, if the retailers controlled the refiners, the retailers would not object to such integration because they would not fear actions by refiners that would involuntarily reduce retailers' profits. Upstream vertical integration of this sort by coalitions of independent retailers does exist in other sectors, such as food processing and grocery retailing. Joint ventures by small retailers to reduce their supply costs do not generally raise competition concerns. Several countries have antitrust exemptions for cooperatives or production joint ventures even if there are potential competitive concerns about joint supply activities.
12. Australia until 2007 and Argentina are examples.
13. Anderson and Johnson (1999).
14. Kamerschen (2001).
15. Standards for defining or identifying predatory pricing include prices below average costs, average variable costs, or marginal costs. These standards are adopted in an effort to distinguish when prices are so low that the intent of the price is predation rather than vigorous competition. Economic evaluation of predation typically puts great weight on potential and actual recoupment of the losses from engaging in predatory pricing. Extensive discussion is available at OECD (2005) and OECD (2004).
16. Tirole (1988), pp. 24-29. The argument is strongest when the value of the investment is sunk, so the value cannot be recovered if the investor is no longer operating the business. For a more extended treatment, see Viscusi, Harrington, and Vernon (2005) at Chapter 13. Williamson (1975) applies the term "opportunism" to such holdups. The object of the underlying concern is the vulnerability of parties who have invested in highly specific, immobile or difficult-to-measure assets. Human capital associated with building consumer loyalty to a specific gasoline retail outlet could be such an asset. Other situations or conditions making contracting difficult and making ex post hold ups more likely include specialized equipment, site-specific equipment, uncertainty about the durability of equipment, information asymmetries, network coordination issues, uncertainty about the reliability of supply sources, externalities, and regulatory risk. Carlton and Perloff (2005) at Chapter 12.

17. Absent medium- or long-term supply contracts, an independent, unbranded retailer is less subject to these concerns if there are other refiners willing and able to supply the retailer at competitive terms.
18. PMAA (2002).
19. Borenstein and Bushnell (2005).
20. Borenstein and Bushnell (2005) also observe that although direct supply allows refiners more scope for price discrimination, these practices are not limited to retail deliveries alone. Individual stations may have performance related incentives, such as discounts or penalties related to the volume of gasoline sold at the station. Further, even if the gasoline is distributed by a jobber, a refiner can still restrict the ability of the jobber to shop around for wholesale gasoline. Much of the fuel purchased by jobbers is sold under the terms of long-term contracts that could restrict the jobber's purchases to specific racks and could also include volumetric discounts in the marginal price.
21. Vita (2000), Carlton and Perloff (2005) at Chapter 12.
22. FERC (1999), Section III.
23. Concerns about free riding could include the deleterious effects on overall customer perceptions of the quality of the brand when discretion amongst retailers leads some to delay or reject improvements in the quality of service or in facilities that other retailers are undertaking to improve consumer perceptions of the brand. New Zealand Institute of Economic Research (2005).
24. Shepard (1993).
25. The latter three are discussed in Vita (2000).
26. Viscusi, Harrington, and Vernon (2005), pp. 238-241.
27. In this sense, advocates of mandatory vertical unbundling might not object to an exemption for refiners that already own and operate the stations that, in the aggregate, dispense all of the refiner's output.
28. New Zealand Institute of Economic Research (2005) reported that refiners cite this reason in explaining the variety of arrangements between refiners and gasoline retailers.
29. Some empirical research links repair services to independent outlets and vertical integration to sale of snack foods. Bello and Cavero (2008), Shepard (1993), Blass and Carlton (2001), for example. However, it could be that these patterns are a result of changes in preferred vertical relationships that coincide with shifts in preferred complementary services.
30. Blass and Carlton (2001).
31. Williamson (1975), Chapter 5, spearheaded the discussion of the fundamental concepts as they relate to vertical integration. For a more recent discussion, see Tetrel (2007).
32. Borenstein and Bushnell (2005).
33. Borenstein and Bushnell (2005).
34. Kamerschen (2001).
35. OECD (2005).

36. OECD (2005) and Hilke and Nelson (1991). Frequent purchase of these products acquaints customers with typical prices. The presence of the same brand(s) in all outlets allows customers to be assured of equivalent quality across outlets.
37. ACCC (2007).
38. OECD (2005).
39. In the U.K., for example, margins on gasoline sales in 2007 were roughly half as large at high volume gasoline retailers with a forecourt shop compared to fuel-only retailers with similar volumes of gasoline sales. "The profitability of a filling station is improved by a forecourt shop, which can help to offset lower margins on fuel." UKIPA (2008), Chart 8.6.
40. Nocke and White (2007).
41. Also see Hastings (2004).
42. Concerns about the effects of limited wholesale competition on adjustments to international oil prices at the retail level are part of this literature. For example, see Delpachitra (2002) regarding the case of New Zealand. The author concludes that retail prices do not follow changes in international oil prices because competition between refiners is weak. Entry at the refinery level would likely require government assistance in the author's view.
43. Summarized from Gans and King (2004) unless otherwise footnoted.
44. The general topic of the effects of vertical restraints on the evolution of retailing has been the focus of numerous articles by economist Robert Steiner. Steiner's work and related articles were the subject of a symposium special edition of the Antitrust Bulletin. See Harbour (2004).
45. COSTCO, a high-volume, low-price retailer, is an example. Boyle (2006)
46. Saltzman, Levy, and Hilke (1999), Table III.5.
47. Tirole (1988), pp. 24-29.
48. Serebrisky (2003).
49. Roarty and Barber (2004).
50. ACCC (2006).
51. BP is an exception because it has not partnered with any retail grocery chain.
52. ACCC (2006).
53. A less positive view of lower prices offered by supermarket gasoline retailers is presented in Gans and King (2004).
54. ACCC (2007) contains more details and updates.
55. Competition Bureau (1999).
56. Canadian Competition Bureau (2008).

57. Kikkawa (2002). Also see Masaki (2006).
58. Special agents are distribution companies that operate gasoline retail outlets and often sell to retailers.
59. Oyama (1998).
60. Masaki (2006) and Hofman (2003).
61. Netherlands Competition Authority (2002) report, 2002 (<http://www.nmanet.nl>)
62. Overall, these results are in line with the findings by Shepard (1993) and Blass and Carlton (2001).
63. Spain (2001).
64. Lloreda and Sanz (2001).
65. Case COMP/B-1/38348 – Repsol CCP SA.
66. See for instance “Competition in the supply of petrol in the UK”, A report by the Office of Fair Trading, (May 1998).
67. Also see Cook (1998).
68. In contrast, vertical integration in the brewing industry was found to be driven by market power incentives and warranted “radical” structural remedies.
69. UKPIA (2008).
70. Maryland was the first state to mandate vertical unbundling.
71. A recent example is U.S. FTC (2007). This is one of several competition advocacy comments filed on this subject.
72. Vita (2000) and Taylor, Kreisle, and Zimmerman (2007) are examples.
73. Spears (1991), Slade (1998), Blass and Carlton (1999), and Vita (2000).
74. Marvel (2003) and Barron, Taylor, and Umbeck (2004).
75. Barron and Umbeck (1984) reported increases of 1.7 cents to 5.3 cents per gallon for full-service and self-service retail gasoline outlets respectively. Shepard (1993) found prices 1.5 cents to nearly 10 cents lower per gallon at refiner-owned gasoline retail outlets.
76. The significance of this factor will depend on individual consumer driving patterns and might be expected to be the most significant in rural areas where the density of retail outlets is already lower. Note that arguments that vertical integration is being undertaken for internal efficiency reasons and will reduce prices at the pump, as suggested in the report of the New Zealand Institute of Economic Research (2002) does not necessarily mean that vertical integration and associated consolidation benefits consumers are better off.
77. Carlton and Perloff (2005), Chapter 13.
78. Similar results are reported by Moss (2007) for Adymir and Buehler (2002), Hastings and Gilbert (2005). A controversy between the Federal Trade Commission and the Government Accountability

Office in 2004 revolved around interpretation of ex post merger analyses in the retail gasoline industry. Moss (2007)

79. Gilbert and Hastings (2002) similarly report that both retail and wholesale prices rose by three cents or nearly so per gallon when the degree of vertical integration of retail outlets in an area is above the median level.

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COMPETITION POLICY FOR VERTICAL RELATIONS IN GASOLINE RETAILING

3. COUNTRY CONTRIBUTIONS

Further information from the following jurisdictions on Competition Policy for Vertical Relations in Gasoline Retail is available at: <http://www.oecd.org/competition> under the topic "Best Practice Roundtables".

Country contributions

Australia	Portugal
Canada	Spain
Germany	Turkey
Hungary	United States
Ireland	Indonesia
Italy	Israel
Japan	Russian Federation
Korea	South Africa
Norway	Chinese Taipei

THE INTERFACE BETWEEN COMPETITION AND CONSUMER POLICIES

The Global Forum of the OECD Competition Committee debated the Interface between Competition and Consumer Policies in February 2008.

The two policies share a common goal: the enhancement of consumer welfare. In this way they are highly complementary. Applied properly, they reinforce one another; Aside from their different approaches to markets, however, there are other differences between competition and consumer policies.

These differences present both opportunities and challenges. Applied consistently, each policy will make the other more effective, especially in situations of evolving markets. The challenge comes in coordinating them, and in ensuring that they do not work at cross purposes.

Institutional design is an important factor in providing effective public policy. With the increasing recognition of the importance of integrating competition policy and consumer policy, there is debate about how to design the most effective institutions for that purpose. Housing the two functions in a single agency offers several advantages, including more centralised control, operational efficiencies and cross-fertilisation between the two disciplines. There could be disadvantages as well, however.

THE INTERFACE BETWEEN COMPETITION AND CONSUMER POLICIES

1. SYNTHESIS BY THE SECRETARIAT

SYNTHESIS

by the Secretariat

In the Seventh Global Forum on Competition a roundtable discussion was held on the interaction between competition policy and consumer protection policy. There were two main topics in the discussion, one focusing on substance – how the two policies share common goals and how they complement one another – and one on procedure – institutional arrangements for enforcement of the two policies. The results are summarised below, based upon the several written submissions from delegations, the remarks of lead speakers and the discussions that followed, and the Secretariat's background note.

The substantive interaction of competition policy and consumer protection

- (1) *The two policies share a common goal: the enhancement of consumer welfare. In this way they are highly complementary. Applied properly, they reinforce one another.*

The evolution in competition policy in the past few decades has been well documented. Once, competition policy was based on diverse rationales, such as protection of small competitors against large ones, or as part of a broader industrial policy. Now it is widely understood to have a single purpose: the enhancement of consumer welfare. Thus, competition policy and consumer policy now speak the same language; they have a common, overarching goal.

The two policies address this goal from different perspectives, however. Competition policy approaches a market from the supply side; its purpose is to ensure that through competition, consumers have the widest possible range of choice of goods and services at the lowest possible prices. Thus, competition policy undertakes to prevent certain types of conduct that interfere with competition, notably restrictive agreements, especially cartels, harmful conduct by a monopolist or dominant firm and anticompetitive mergers. Consumer policy approaches markets from the demand side: to ensure that consumers are able to exercise intelligently and efficiently the choices that competition provides. Consumer policy addresses, among other things, information asymmetry as between sellers and buyers, false and misleading advertising, and contract terms that are not understandable or disproportionate.

Competition policy and consumer policy reinforce one another. In markets that are effectively competitive, producers have internal incentives to further consumer policy objectives, for example, to develop a relationship for quality or to attract customers away from rivals by providing the necessary information to minimise switching costs. At the same time, when consumers are able to exercise their choices effectively, they can act as a competitive discipline upon producers. Thus, there is a strong case to be made for the co-ordination of these two policy areas.

- (2) *Aside from their different approaches to markets, however, there are other differences between competition and consumer policies.*

Consumer policy is more diverse than competition policy. It is more than just making markets work; it includes, for example, preventing and redressing fraudulent conduct, and protecting consumers from unsafe products. Enforcement of consumer policy is typically more dispersed as well. Enforcement of competition policy tends to be concentrated in a single competition agency, though others may have some role, such as sector regulators and, in some countries, private parties through lawsuits. There also may be a single agency charged with enforcing a consumer protection law, but other government bodies – ministries of commerce or industry, sector regulators and in some countries regional and local governments – are also active. And often NGO consumer organisations are involved in forming consumer policy.

Competition cases are typically fewer in number and broader in scope, affecting entire markets. Consumer cases are more numerous and more narrowly focused, sometimes involving a specific practice by a single business. Competition and consumer agencies also have different tools at their disposal for dealing with violations of their respective laws. The instruments available to competition agencies are more blunt: fines, or prohibition of anticompetitive conduct, for example. The remedies available to consumer agencies can be more targeted and specific: measures designed to improve information flows to consumers, for example.

- (3) *These differences present both opportunities and challenges. Applied consistently, each policy will each make the other more effective, especially in situations of evolving markets. The challenge comes in co-ordinating them, and in ensuring that they do not work at cross purposes.*

Co-ordinating the two policies has obvious benefits, even at the level of a single case. Because they use different approaches, employing different tools, applying them together adds flexibility, especially in cases where market problems can be analysed before choosing which tools to deploy. The prime focus ought to be the market and what can make it work better. An equally important reason for co-ordination is to ensure that the application of one does not interfere with the other. The imposition of anticompetitive restrictions on behaviour – unnecessary restrictions on price advertising, for example – will harm competition and consumers.

There are new developments that offer opportunities for integrating the two policies. Advances in the field of behavioural economics have contributed to new understanding of how consumers react in situations of imperfect information, which has implications for both consumer and competition policies. There is a steady trend toward deregulation across countries; more sectors are being exposed to competition, notable among them the professions, financial services, retail energy and mobile telephony. In these newly competitive markets there tends to be information asymmetry as between sellers and buyers, which can be addressed most efficiently through co-ordination of competition and consumer policies. Electronic commerce is another field that offers great promise in promoting competition, but again there exists the concern that consumers, or some segment of them, will lack sufficient information to use this medium effectively.

Institutional design

- (4) *Institutional design is an important factor in providing effective public policy. With the increasing recognition of the importance of integrating competition policy and consumer policy, there is debate about how to design the most effective institutions for that purpose.*

Public policies do not operate in a vacuum; they are implemented by institutions, and the quality of institutions determines in many ways the capacity of the system to deliver good policy products to individual citizens. In the case of competition and consumer policies, the central question is whether to combine the two functions in a single agency. There are advantages and disadvantages to this approach, and countries have made different decisions on this question.

- (5) *Housing the two functions in a single agency offers several advantages, including more centralised control, operational efficiencies and cross-fertilisation between the two disciplines. There could be disadvantages as well, however.*

As noted above, co-ordination of the two policies is important, and placing them within a single agency should make it easier to do that. A few countries have gone to great lengths to integrate the two, even at the case level. A case team may include experts from both disciplines, and it may be decided whether to consider the matter as a competition case or a consumer case only after some inquiry. The full range of competition and consumer remedies is available in such an arrangement. More broadly, the consumer and competition sides may undertake a comprehensive evaluation of competition in an entire sector. Where there are deficiencies, appropriate remedies from both disciplines can be applied. Whether or not there is integration at the case level, there can be sharing of information and intelligence between the two sides, and policy making can be more coherent.

Also, consumer policy and competition policy require similar, though not identical, expertise, the supply of which is limited. Combining the two policy functions may allow this expertise to be used more efficiently. Several small economies have found these efficiency arguments important and have combined the two functions for that reason, though not all small countries have done so.

In countries where competition policy is relatively new, the public tends to be more familiar with consumer policy and to view it more favourably. Combining the two could help to transfer this good will to competition policy. Conversely, within government consumer policy sometimes has fewer supporters than competition policy, resulting in an inadequate budget for consumer policy. Again, combining them could help to remedy that problem.

But joining the two functions in one agency could also introduce problems. Competition policy and consumer policy are far from identical, after all. Although not cited by joint agencies as having occurred, in theory co-ordinating their disparate procedures, cases and objectives could be difficult. The two sides may compete for resources, with the outcome being less than optimal. Also there is the view, though perhaps a minority one, that if the two policies operating separately can be adequately co-ordinated, then two voices in unison, for example in public advocacy, can be more effective than one.

- (6) *Some countries may elect to maintain separate agencies, and the two policies probably cannot be completely integrated in a single agency in any event. It is still possible to co-ordinate them, however, in a way that benefits consumers.*

As noted above, neither competition policy nor consumer policy can be fully contained within one agency, and this is especially true for consumer policy. Co-ordination should be possible, however. In some countries this is done by means of a central commission within government, usually having advisory powers only, on which sit representatives of the various consumer constituencies, including, in some cases, NGO consumer organisations. A representative of the competition community, usually the head of the competition agency, may also be a member. In some countries the competition and consumer agencies have entered into a co-operation agreement, much like co-operation agreements between competition agencies and sector regulators, which ensure that the two agencies will consult and will share information. The two agencies might even jointly participate in a case, which has been successfully demonstrated in at least one country.

The outcome of any such co-ordination should be that their policies operate to the ultimate benefit of consumers. To this end, it would seem that policy makers should understand that market-based solutions are preferable to regulatory ones. Nevertheless, there will be instances where consumer policy intervention is necessary, especially in situations of information imperfection or switching costs. Care should be taken in these instances that the interventions do not unnecessarily restrict competition.

THE INTERFACE BETWEEN COMPETITION AND CONSUMER POLICIES

2. BACKGROUND NOTE

BACKGROUND NOTE*

1. Introduction

That consumer protection policy and competition policy are largely interdependent instruments of economic policy, both aimed at serving a common purpose of enhancing the efficiency with which markets work, has been stated on many occasions and is widely accepted. It is also widely recognised that there can be, and at times are, tensions between those policies. Moreover, as a practical matter, there are differences in how those policies work, and in the nature of the process by which decisions are taken and implemented. Recognition of these interdependencies and of the differences leads naturally to a consideration of the institutional arrangements for these policies and specifically, of how they should be coordinated.

This paper explores these themes, setting out the main issues as a basis for discussion without seeking to be comprehensive in their treatment. It makes the following main points:

- Competition policy and consumer policy generally share a common purpose while relying on differing instruments to achieve that purpose. Usually, they reinforce one another; however, it is not uncommon for them to clash, for example, when consumer policy is used in ways that unnecessarily restrict competition. Also, the introduction of competition may occur without sufficient regard to consequential consumer protection issues (section 2);
- While these issues about the balance and coordination between competition policy on the one hand and consumer policy on the other are hardly new, they have attracted increased attention in recent years for a number of reasons, including
 - Advances in behavioural economics, which have highlighted the cognitive limitations affecting consumer behaviour (section 3.1); and
 - The extension of competition to new and difficult areas (section 3.2), including the professions and markets for public utilities and services.

While these developments do not alter the appropriate role of, or respective balance between, competition policy and consumer policy, they do strengthen the case for a coordinated approach to these policy areas;

- This naturally raises the issue of how that coordination is best achieved (section 4):

* This paper was drafted as a Background Note by Henry Ergas (Regional Head, Asia Pacific, CRA International; Professor, Faculty of Business and Economics, Monash University, Australia) and Professor Allan Fels (Dean, The Australia and New Zealand School of Government – ANZSOG).

- While there can be benefits to integrating responsibility for the enforcement of competition policy and consumer policy within a single institution, the reality is that there will always be limits to the extent and effectiveness of that integration;
- Thus, the nature of these tasks associated with these policy areas differs in important respects; moreover, consumer policy inherently involves a very wide range of instruments, many of which are sector- or industry-specific, and which are not readily brought under a single umbrella;
- As a result, whatever view is taken of the appropriate degree, if any, of institutional integration of competition and consumer law enforcement, an important goal should be as a minimum to ensure that the competition policy authority has the expertise required to monitor developments in the design and administration of consumer policy and to act as an advocate for competition in the consumer policy process; similarly, consumer agencies should arguably, have the skills to monitor and assess competition issues.
- It is also likely to be important to ensure that there is within government, an entity that has “whole of government” oversight of consumer protection, and that exercises that oversight in a manner mindful of competition concerns;
- Periodic surveys of particular instruments – such as occupational licensing, or restrictions on advertising – aimed at reviewing whether they were consistent with efficient competition, may play a useful and important role in giving structure to this coordination process.

2. The Interrelation of Competition and Consumer Policy

As a general matter, competition policy aims at protecting, and where appropriate and efficient extending, the range of choices available to consumers. At the same time, consumer policy seeks to protect, and where appropriate enhance, the quality of that choice, and to ensure that consumers can exercise choice effectively and with confidence in the fairness and integrity of market processes.¹

That each of these policies largely promotes the goals of the other is readily exemplified.

Thus, as a general matter, the risk of displacement that bears on firms in effectively competitive markets creates incentives for those firms to develop and protect a reputation for being good quality suppliers, since this allows them to secure repeat business and reducing marketing costs. This reduces the burden that would otherwise fall on consumer policy in terms of enforcing product and service standards, as firms will have incentives of their own to meet and exceed customer expectations. In that sense, ensuring that a market is effectively competitive can help meet one of the central concerns of consumer policy.²

Equally, firms that operate in effectively competitive markets, and hence can hope to attract customers away from rivals, will have incentives to reduce those customers’ switching costs, both by informing them of the gains from shifting and by helping them to bear any once-off costs shifting involves. The result of firms investing in reducing the switching costs incurred by each other’s customers can be both to make competition more vigorous and to diminish the need for consumer policy interventions aimed at reducing switching costs. Here too, ensuring a competitive supply structure may be an effective way of dealing with what, in some circumstances, would otherwise be a consumer policy problem – that is, switching costs.

The same applies to many consumer policy interventions. For example, policies that ensure that advertising and product descriptions are honest and reasonably informative, that contract terms and the obligations they involve are understandable and not disproportionate, and that consumers can reasonably expect products to be safe and fit-for-purpose, will both make consumer choice a more effective discipline (thus directly strengthening competition) and will force firms to compete on the merits (rather than on the basis of fraudulent or misleading claims or of unfair contract terms).³ Equally, product standards, by facilitating comparisons between products, increasing the ease with which products from one supplier can be replaced by products from another, and concentrating competition on performance rather than on features that are inessential to it, can directly improve both consumer choice and the competitive process.

In short, each of these policy instruments can be used to advance the goals also pursued by the other: competition policy, by keeping markets effectively competitive, can reduce the work that needs to be done by consumer policy; consumer policy, by enhancing the ability of consumers to exercise choice, can help make markets more effectively competitive and force firms to compete on the merits, thereby supporting the ends of competition policy.

At the same time, each of these instruments can create challenges for the other.

For example, opening a previously highly regulated market to competition may well raise new issues for consumer protection:

- Many OECD countries faced new consumer protection issues as a result of the liberalisation of financial markets, which, however beneficial it may have been, exposed consumers to new risks and difficulties.⁴
- Equally, the introduction of competition into some public utility markets (such as electricity and telecommunications) has created challenges in terms of regulation of service quality and of issues such as the management of churn, of customer complaints and of disconnection for non-payment.⁵ It has also raised questions about the ability of consumers to understand what are often complex pricing schemes and exercise choice between them.
- Finally, liberalisation of professional services poses complex questions about balancing competitive pressures (for example, in terms of pricing and marketing, including advertising) with the protection of consumers in situations characterised by potentially large information asymmetries and substantial error costs.

Moreover, when a market becomes more exposed to competition than it was previously (say, because of the removal of trade barriers), the incentives of market participants may change in ways that raise consumer protection concerns:

- For example, incumbent firms, faced with customers that are more mobile, may seek ways of locking customers in, including by building termination penalties into customer contracts. While those arrangements can be fully reasonable in some instances, they may raise both competition and consumer protection concerns in others.
- Additionally, to the extent to which an inefficient dominant firm realises that it will lose market share and perhaps even be entirely displaced, it may have less of an incentive to invest in long-term assets such as reputation, and therefore be more willing to take advantage of any customers it has that are locked in or otherwise vulnerable.

- Moreover, where the dominant firm was previously a monopolist operating in a highly regulated environment, it may well have very little experience with consumer-oriented marketing. Especially in the initial stages of competition, where the incumbent is seeking to slow and deflect competitive entry and clear consumer protection measures have not yet been put in place, this can result in a temptation to resort to tactics that are not fully consistent with accepted business practices.
- At the same time, the liberalised market may attract “fly by night” operators, whose unscrupulous practices undermine consumer confidence in the market as a whole, reduce consumers’ willingness to rely on information firms in that market provide, and thereby erode the incentives for all firms to act honestly. Moreover, those firms that do act honestly will be forced to bear additional costs in so doing (as they seek to signal to consumers the higher quality of the information they provide), increasing prices and reducing both consumer and producer surplus.⁶

In the same way, consumer protection policies, however well-intentioned they may be, can have adverse consequences for competition, with the ultimate outcomes being contrary to the goals that both consumer and competition policy should seek. Classic cases include prohibitions on comparative advertising, mandatory product standards that exclude low-cost entrants and products, and transparency and posted price requirements that facilitate collusion.⁷

In summary, the relation between competition policy on the one hand, and consumer policy on the other, is relatively complex. In most instances, the one supports the other; but there are cases where, in practice, they are in tension or conflict.

3. Emerging Challenges

The issues associated the appropriate mix of competition and consumer policy have recently attracted increased attention partly as a result of developments in our understanding of consumer behaviour (discussed below at 3.1) and partly as a result of changes in the extent and functioning of markets (discussed at 3.2).

3.1 *Developments in understanding of consumer behaviour*

The economics of consumer protection have received a considerable boost in recent years as a result of advances in “behavioural economics”. Those advances have stressed the impact that cognitive limitations have on consumer choice. The area of behavioural economics is very large indeed, and it is not possible or desirable to survey that area at all systematically here. However, a consideration of some important aspects of the results found in the literature on behavioural economics is helpful in illustrating how competition and consumer policy considerations interact.

Thus, economists have long recognised that information is costly and imperfect, so that consumers may not be able to allocate their budgets in ways that always secure the products they prefer, at the lowest prices available and hence from the most efficient supplier. That standard model of rational choice under conditions of costly and imperfect information remains an extremely powerful tool for understanding consumer and competition policy issues, and framing appropriate policy responses. What “behavioural economics” adds, relative to that model, is an emphasis on what appear to be departures from rational decision-making, at least as that is defined in conventional decision analysis. Those deviations from “rational actor” conduct could cause consumers to take decisions that appear inconsistent with welfare maximisation even when markets are reasonably competitive and

search and information costs are not especially high. Indeed, some of these results suggest that increased competition, to the extent to which it leads to a proliferation of choices available to consumers, could yield only small, or in some instances even negative, welfare gains.⁸

While many of these findings are robust in experimental terms⁹, their interpretation is understandably controversial.¹⁰ Even more importantly, it is by no means clear that they amount to a case for a more interventionist – “paternalist” – stance in respect of consumer protection policy generally. Nor is it clear that these findings diminish the value of, or weight that should be given to, protecting (and where appropriate, promoting) competition. In effect, a move away from primary reliance on competitive markets as the means of empowering consumers and/or to a more interventionist approach to consumer policy could involve substantial costs. These include the costs of the regulatory errors that are inevitable under a paternalist approach, especially one that involves limiting consumer choice.

Moreover, those costs need to be weighed against the fact that if cognitive limitations lead to potential gains from trade not being realised, then firms themselves may have incentives to seek ways of achieving those gains. There may, in other words, be market solutions to some of the welfare losses that would otherwise arise from constraints on individual rationality. Put slightly differently, competition and market forces may themselves be important ways of addressing concerns about the efficacy with which consumers take complex choices, because firms in competitive markets have incentives to offer consumers “solutions” that allow potential gains from trade to be more fully realised.

To take but one case, where the basic difficulty lies in frailty of will – for instance, with respect to commitments to save – products can develop that seek to at least reduce that difficulty through various forms of pre-commitment. For example, a successful voluntary superannuation scheme in Australia, offered by a number of major employers to new employees, relies on the lower likelihood of consumers “opting out” from a default position than “opting in” – that is, on an endowment effect. If employees do not choose to “opt out”, the scheme commits them to paying a higher than mandatory rate of superannuation contribution.

Equally, “confusopoly” – apparently deliberate attempts by firms to offer consumers choices that are confusing, for example, in terms of having prices that are difficult to compare with other offers in the market – may well be a serious problem for some consumers. However, just as some firms can seek to gain customers by making offers difficult to analyse or compare, other may compete by cutting through the confusion and offering simple pricing that consumers find attractive. Attempts by incumbents at “muddying the waters” create incentives for one or more suppliers to differentiate themselves by introducing a price structure that is simpler and hence more attractive. Experience highlights how powerful this mechanism can be.

Thus, in many countries, the initial stages of telecommunications deregulation saw a proliferation of complex pricing plans, especially for long distance service, making it very difficult for consumers to evaluate “value for money”. More recently, however, there has been a trend to simpler, clearer pricing, with “all you can eat” schemes bundled across multiple services coming into widespread use.

Equally, in aviation, competition between traditional full service airlines involved complex price discrimination, structured around restrictions on the date, day and time of travel, including through minimum stay and Saturday night requirements. The relatively high margins this permitted created opportunities for competitive entry, with Value Based Airlines (such as SouthWest in the United States, RyanAir in Europe and Virgin Blue in Australia) introducing a far simpler pricing scheme, in which there are no minimum stay restrictions and prices are set mainly according to time of purchase.

Faced with this form of competition, full service airlines have responded by greatly simplifying their own pricing, facilitating effective consumer choice.

In retailing too, sales and other specials serve as useful forms of price discrimination, but also increase consumer search costs (indeed, that is an important part of how the price discrimination works). Walmart in the United States broke this pattern and adopted an “Everyday Low Prices” model, in which prices are set on the basis of low, but stable, mark-ups. That model has been widely taken up internationally, and studies find that those firms adopting this model have seen a significant increase in their market share and generally in their relative profitability, while competition in retailing has become more intense.¹¹

The crucial point in all of these cases is that decision-making technologies are not merely the work of consumers – they also depend on the action of firms. Profit-maximising firms have incentives to exploit otherwise foregone gains from trade, including by improving the ability of consumers to act on their preferences. These incentives are likely to be strongest for the most efficient firms, as they have more to gain by reducing search costs. As a result, these firms can and in many cases do undertake actions that “internalise”, and thereby offset, the costs (in terms of foregone gains from trade) that would otherwise arise from cognitive constraints on consumer decision-making. This aspect of competitive dynamics is typically absent both from the laboratory settings in which much behavioural economics research has been undertaken.¹²

The response of firms to cognitive limitations affecting consumers is also largely absent from models of markets characterised by “shrouded attributes” – that is, situations in which some consumers, but not others, are unaware of hidden costs associated with certain products (such as cartridges for ink-jet printers and broadband charges in hotel rooms).¹³ In these situations, it may not be profitable for producers to disclose the hidden costs, so long as sophisticated consumers have the ability to avoid them while still buying the products, which are cheaper because of the “subsidy” naïve consumers provide.

While these “shrouded attributes” models are elegant and at times suggestive,¹⁴ they rest on strong assumptions. More specifically, as well as the conventional – and demanding – individual rationality assumptions required to solve games of this type, there is the assumption that no firm would gain a significant first-mover advantage by deviating from the “hidden costs” strategy.¹⁵ This assumption seems quite inconsistent with the experience summarised above, where firms have derived significant innovators’ rents by being the first to exploit previously unrealised gains from trade.¹⁶

To suggest that market forces can, at least in part, correct some of the biases and limitations associated with consumer choice is not to say that businesses do not seek to exploit those very biases and limitations. Indeed, the opposite is likely to be case, most obviously in consumer marketing and advertising, which relies on an increasingly sophisticated understanding of how consumers choose. This makes it important for regulators to take account of those biases and limitations in assessing consumer marketing and advertising, especially in respect of products with direct consequences for health and safety. However, the point remains that to the extent to which cognitive biases and limitations prevent consumers from actually choosing in line with their preferences – whatever those preferences may be, and regardless of how well founded they are – one of the ways in which firms can seek to secure a competitive advantage (and profit from the fuller realisation of gains from trade) will be by assisting consumers to improve on the choices they make.

In short, while the results of the behavioural economics may suggest a need for a consumer policy response – in the direction of greater paternalism – it may be that at least some of the issues it

raises are best addressed through the competitive process: that is, by ensuring competitive forces are effective.

While it is important to recognise these limits of the policy inferences properly drawn from findings in behavioural economics, it would be a mistake to suggest that market incentives will cure all cognitive limitations.

This has long been recognised by economists with respect to that markets that are distorted by misrepresentation, which in its extreme forms amounts to fraud. As with all information asymmetries, misrepresentation can give rise to allocative inefficiencies (as trades will not reflect accurate valuations of the goods being traded), as well as to productive inefficiencies (because consumer search costs are increased, production may be allocated to less rather than more efficient firms, and firms may waste resources either in lying or in trying to establish a reputation for telling the truth). Of course, in the extreme (and even in conventional models of rational choice), bad information drives out good, no firm has the ability or incentive to disclose truthfully, and the market disappears.¹⁷

The same issues about the efficacy of the self-remedying properties of markets can arise, albeit likely in significantly less extreme form, in some of the cases that have been discussed in the consumer policy literature arising from behavioural economics.

For example, even when market solutions do emerge to problems such as “confusopoly” or to the pricing of “shrouded attributes”, those solutions may be directed at the more sophisticated consumers (who in any event would have likely suffered the least harm), leaving other consumers still exposed.

Indeed, it could be argued that the rise of the Internet as a marketing channel has aggravated the problem of vulnerable consumers. In effect, Internet marketing channels provide firms with considerable scope to differentiate their offers as between customer segments, and most obviously and immediately, as between consumers who are frequent and confident users of the Internet and those who are not. This reduces the extent to which sophisticated consumers “price protect” those consumers who are unsophisticated. While this problem may be merely transitory for some classes of consumers – who over time will become more adept at using the Internet and hence will benefit from the marketing features it provides – they will persist for others, such as the intellectually disabled, the very elderly and (at least in countries such as Australia) important parts of the indigenous population. The policy issue this raises is whether those more vulnerable consumers are best protected through the general instruments of consumer policy, or by more targeted interventions.

Moreover, for some of cognitive limitations highlighted in the behavioural research, market solutions may simply not emerge. “Addiction goods” are potentially a case in point, as consumers, prior to addiction, may not value “non-addictive” variants sufficiently to allow them to drive more harmful varieties out of the market.¹⁸ Here too, the greatest risks are likely to fall on vulnerable consumers, such as young people who are vulnerable to the lure of advertisements for cigarettes, alcohol and other potentially addictive goods.

That said, care needs to be taken, in protecting those consumers who are most vulnerable and/or poorly informed, not to unduly undermine the rewards to those consumers who invest in information gathering.

It is true that there are cases where the nature of information as a pure public good means that duplicated search amounts to nothing but waste¹⁹; but there are also many cases where private investment in information is socially valuable, because it helps guide the price discovery process to ever changing fundamental values. In these latter instances, efforts at improving the position of less-

informed consumers can reduce the return other consumers make by investing in information, and hence erode the quality of price discovery and welfare overall.

This trade-off has been extensively studied in the context of consumer protection issues in securities markets; suffice it to say most economists would place considerable weight on the need to ensure disclosure requirements do not eliminate incentives for costly information acquisition, while still encouraging widespread participation in the relevant markets.²⁰ This does not mean that vulnerable consumers should not be protected; rather, it means that the protection should be designed in a way that avoids unnecessary harm to the incentives that those consumers who are able to invest in information face to do so.

In short, there is a need for caution in drawing from the findings of “behavioural economics” generalised inferences about the stance of consumer and competition policies, all the more so given the fact that regulators too, suffer from cognitive limitations, imperfect information and other constraints on decision-making. Moreover, there will generally remain an issue about which instruments are most appropriate for dealing with the market imperfections arising from cognitive limitations on consumers’ ability to make complex choices.

This is important because the findings of behavioural economics do seem of obvious relevance to the *design* of consumer policy interventions, if not to the determination of the optimal extent of those interventions.²¹

Behavioural economics may, in other words, be even more valuable in helping shape *how* consumer policy agencies intervene than in determining *whether* to intervene. For example, labelling requirements need to take account of the way “information overload” can degrade the quality of consumer decision-making. Equally, an awareness of the biases associated with endowment or default positions may be useful in deciding how schemes that involve opt-outs (for example, for liability) should be structured. Similarly, framing effects may be relevant to the design of regulations affecting advertising material, for instance with respect to the fat and sugar content of foods. Finally, the reliance that research in behavioural economics places on experimental trials has resulted in significant improvements in the practice and methodology of experimental economics; given those improvements, there is considerable scope for consumer protection agencies to use experiments in the design of policy instruments (such as labelling standards) and perhaps even in examining individual cases (for example, in assessing whether a particular advertisement is indeed misleading).

3.2 *Expanding role of markets*

Bringing the insights and methods of behavioural economics to bear on the design of consumer policy interventions may be especially important in the areas that are currently at the frontier of competition policy.

The last fifteen years have seen a far-reaching process of liberalisation in both the OECD countries and in many developing countries.

A forthcoming paper, for example, finds that taking the world’s 57 largest economies from 1970 onwards, *56 out of these 57 countries have become less regulated over the period*: the only exception to the general trend is Venezuela.²² Within the 21 countries in the OECD group, the greatest decreases in market-limiting interventions occurred in Portugal, followed by New Zealand, the UK and Sweden. Among the other advanced countries, Israel stands out. As for the developing countries, countries which significantly decreased the extent of market-limiting interventions include Mexico, Egypt, Turkey, India, Brazil, Argentina, Chile and Peru. Additionally and importantly, the difference in the

extent of reliance on markets between the OECD group and the other ‘advanced economies’, on the one hand, and the developing countries and former communist countries on the other, has narrowed appreciably since 1970.

This change, which in many countries reflects a greater appreciation of the merits of competition as a means of allocating society’s resources, has also created significant new challenges for competition policy and for consumer policy. Those challenges have been most acute in areas such as the traditional public utilities, where issues include the difficulties of preventing nascent competition from being eliminated and the difficulties consumers face in exercising choice in areas which have long been monopolies. There have also been significant difficulties in liberalised finance markets, especially in protecting consumers who are taking choices that are often highly complex.

More recently, there has been discussion of the scope to introduce, and in numerous instances moves to actually introduce, greater competition in the professions and in social services (which include education, health and aged care). These are markets that are often complex for consumers to operate in, all the more so as they are relatively new or rapidly changing. Moreover, in some instances, the decisions consumers take in these markets can have very serious consequences – as is obviously true for education, retirement savings and health care – but product quality and “value for money” are difficult to observe and assess. All of these difficulties are again more acute, and potentially more laden with severe consequences, for consumers who are poorly educated or otherwise especially vulnerable, such as the elderly, the sick and the frail.

The issues this poses for the interaction of competition policy and consumer protection can be illustrated by considering two cases: occupational licensing, especially of the professions; and the introduction of competition into markets for social services.

3.2.1 Occupational licensing of the professions

The term “professions” embraces a wide range of services in the modern economy including accounting, architecture, legal, medical, paramedical, engineering, perhaps estate agents and other categories which shade into skilled occupations such as electricians, plumbers, and many others. In most if not all countries, entry into these occupations is regulated, as is the conduct of those who are licensed to engage in them.

The primary justification for these regulations lies in information imperfections.

Thus, a person purchasing goods or services needs to make an assessment of the quality of the goods or services. The consequences of making incorrect judgments (i.e. the risk) for a relatively simple good with few characteristics are likely to be small, especially when consumers can form a reasonably accurate estimate of the value of the good.

However, professional services are significantly more difficult for consumers to assess. Five key characteristics of professional services will tend to magnify the information asymmetry and its consequences. First, services are generally not observable before they are purchased as the consumer cannot inspect a service before purchase in the same direct way as can be done with most goods. Second, professional services are by their nature complex and often require considerable skill to deliver and tailor to the consumer's needs. It can therefore be difficult for the consumer to assess the quality of the service before it is purchased. Third, the quality of many professional services can be difficult to assess even *after* the service has been purchased. For example, if a person hires a lawyer to undertake litigation which is ultimately unsuccessful, it can be difficult for the consumer to know whether the legal services were poorly delivered or that the case was inherently difficult to win.

Fourth, many consumers are very infrequent consumers of professional services. Therefore, they do not have repeat purchases from which to assess quality. Fifth, the consequences of purchasing poor professional services can be significant. For example, the service may represent a large expenditure for the consumer and a defective service (e.g. a heart by-pass operation) can cause serious and irreversible harm.²³

These characteristics can be used to justify regulation aimed at quality assurance. Such schemes are intended to provide a guaranteed level of service quality to consumers and therefore reduce risks associated with purchasing professional services. To some extent these schemes substitute search and information gathering by individuals with information gathering and assessment through some regulatory mechanism. These arrangements can reduce the transactions cost for consumers and help the market to function efficiently.

However, experience also shows that these regulations often have impacts that go far beyond assuring or seeking to assure the quality of the services consumers receive. Those impacts can include:

- The *creation of a monopoly* by the exclusive reservation of work and activity to the profession. Associated with that there may be a further division of work by the exclusive reservation of work to certain categories of that profession e.g. cosmetic surgery to be done only by “cosmetic surgeons”;
- The establishment of *anticompetitive restrictions on entry* to a profession by a licensing or accreditation arrangement or by restrictions on entry by a foreigner or by a person from another region in that country;
- The imposition of *anticompetitive restrictions on behaviour* e.g. regarding prices or advertising or ethics; and
- There may also be *particular forms of anticompetitive conduct* e.g. price-fixing agreements and collective boycotts which, were they undertaken in other markets, would be in clear breach of the competition laws.

Faced with these consequences, the central challenge for policy is to find ways of addressing the legitimate concerns associated with the need for quality assurance, while creating scope for competitive forces to operate far more fully than they traditionally have. This will, by necessity, involve a tightly coordinated combination of competition policy and consumer protection tools:

- The consumer policy tools should seek approaches that are effective in protecting consumers, while not being unduly or unnecessarily restrictive of competition; while
- Competition policy should be brought to bear to ensure that subject to appropriate consumer protection safeguards being in place, competition is allowed to work where it can, including by the elimination of unjustified restrictions on entry and on competitive conduct.²⁴

3.2.2 *Competition in social services*

A similar need for close coordination between competition policy and consumer policy also arises in moves to introduce market or market-like forces into the traditional social services.

Thus, as noted above, steps are being taken in a number of OECD countries to expand consumer choice in the social services traditionally provided by governments.²⁵ Similar moves have also been

made in a number of developing economies, including Colombia (which recently ran a program that provided vouchers to students to attend private schools)²⁶, Chile²⁷ and Indonesia²⁸. Moreover, the World Bank has highlighted the contribution competition in the supply of services such as education and health can make to ensuring efficient use of the limited resources developing countries have for investment in social infrastructure.²⁹

Although these moves have great potential to improve the efficiency with which those services are provided,³⁰ they also raise very challenging issues for both competition and consumer policy.

For example, while most countries have long had non-government schools, parents' ability to exercise choice within the public system has often been limited by rules that allocate children to particular schools (usually on the basis of place of residence). At the same time, funding rules have limited the extent to which public subsidies to schools follow the flow of students, distorting competition both within the public system (to the extent to which schools that gain students do not similarly gain in funding) and between the public system and the non-government sector. Allowing greater parent choice, and making the income stream to schools more dependent on that choice, can be a powerful way of increasing the responsiveness of the education system to parental preferences.³¹

However, securing those gains, and ensuring that they are to the ultimate benefit of students and society, involves myriad issues of policy design. To the extent to which schools move into the competitive arena, difficult questions need to be addressed about information disclosure (which is vital to the exercise of choice, but may distort the incentives facing teachers and school administrators),³² about information sharing and cooperation between schools, and about how desirable information sharing can be reconciled with effective competition.³³

Similar issues arise in health care. Particularly for countries that are experiencing rapid population aging,³⁴ the issues that are central to ensuring efficient provision of health care services are changing. While the provision of care for acute conditions remains of obvious importance, there is a growing emphasis on (and allocation of resources to) the treatment of chronic conditions, such as the various impairments associated with age (for instance, dementia), as well as those associated with obesity and other "life-style" diseases.³⁵ These are forms of care where choice by consumers (or their families) can be especially important, both because the care itself can involve a *de facto* choice of living conditions (as is the case, for example, for residential aged care), and/or because patient incentives and motivation matter greatly to the efficacy of treatment (as in the treatment of life-style conditions).

However, making choice work well in these areas is no easy matter; as with schools, it involves difficult questions about information disclosure and consumer rights and obligations, as well as difficult issues about how competition between providers can be reconciled with the wider social objectives that are also being pursued. Here too, different forms of expertise – of health practitioners and specialists, of competition authorities and of experts in consumer protection – need to be brought to bear in the design of market (or "market-like") instruments.³⁶

3.3 Conclusions

In summary, issues associated with the interaction between consumer protection and competition policy have received considerable attention in recent years, with some of that increased attention coming from research findings about inherent limitations on the quality and efficacy of consumer choice. It would be premature and likely incorrect to conclude from those studies that less reliance should be placed on consumer choice in a competitive market-place as the best means for promoting efficiency and social wellbeing. However, they do have important implications for policy design, most

obviously of consumer protection measures. As competition and consumer policy are extended into new areas – such as emerging markets for the social services traditionally provided by governments – the lessons of that research need to be brought fully to bear.

4. Institutional design and institutional challenges

The discussion above has highlighted the interdependence between competition policy on the one hand, and consumer policy on the other, and the shared nature of the objectives they pursue. It has also highlighted the way they come together in policy design, most obviously when competition is being extended to new areas. This leads naturally to a consideration of the institutional arrangements for competition policy and consumer policy, including the question of whether they should be “housed” within a single institution.

There are both benefits and costs to placing competition policy and consumer policy within a single institution. We consider first the benefits and then turn to an assessment of the costs.

4.1 *Benefits of integration*

There are three major advantages to integrating the primary responsibility for competition policy and consumer policy within a single institution. These are:

- Gains from treating competition and consumer policy as instruments that can be flexibly combined and more generally managed within a single portfolio of policy instruments;
- Gains from developing and sharing expertise across these two areas; and
- Gains in terms of the wider visibility to the community, and understanding in the community, of competition and consumer issues.

4.1.1 *The portfolio of policy instruments*

By keeping markets effectively competitive, competition policy can reduce the work that needs to be done by consumer policy; equally, consumer policy, by enhancing the ability of consumers to exercise choice, can help make markets more effectively competitive and force firms to compete on the merits, thereby supporting the ends of competition policy. This interdependence is important because it means that there may be scope for substitution between these instruments. As a result, joining the instruments within a single armoury may allow both objectives to be pursued at lower net cost (or equivalently, with greater net gain), as the least cost instrument is used in each fact situation.

For example, as a general matter, competition policy, other than by prohibiting anti-competitive conduct, has relatively little scope to make markets more structurally competitive than they would otherwise be; moreover, policies that seek to “de-concentrate” oligopolistic markets, either through forced divestments or by subsidising or otherwise assisting entry, are often contentious and often seem likely to impose costs that are considerably greater than the benefits. In that sense, competition authorities may have few means to alter the supply side of markets so as to make rivalry a more effective discipline. However, in those cases, action on the demand side of the market may provide an effective alternative: for example, if better consumer information, or reduced switching costs, make the demand each firm faces more elastic, that will usually create incentives for each firm to price more aggressively for any given market structure.³⁷

The value of seeing these instruments as being within a common portfolio of tools is accentuated by the fact that consumer policy can often be tailored to the needs of particular markets in ways that would be impossible and/or inappropriate for competition policy. For example, it would not be desirable to have a specific set of competition policy instruments that applied to (say) electricity retailing; however, the particular issues associated with improving customer information in that market may well be properly dealt with through consumer policy instruments (such as information campaigns) that are specific to the market at issue. In that sense, while competition policy is by its nature a relatively blunt instrument, interventions on the demand side of markets may be capable of addressing industry specificities in a more finely honed way.

At the same time, managing these instruments within a common portfolio may be an effective way of identifying, and thus avoiding or reducing, inconsistencies in policy settings. For example, mandatory product standards can limit competition by restricting low cost, low quality producers from entering markets. That harmful consequence is more likely to be revealed, and to cause corrective action, in an institution that is also attuned to the goal of promoting competition, and whose functions lead it to undertake competition investigations across a wide range of markets, than in one that is not. More generally, by ensuring that each market and the instruments brought to bear on it are seen as a whole – in terms of the functioning of both that market’s supply side and of its demand side – the risk of one set of policies being used to undermine the other can be better controlled.

4.1.2 *Shared expertise*

Particularly but not solely in smaller economies, the stock of expertise available to the public sector for analysing complex policy issues to do with the structure and functioning of markets is likely to be very limited. As both consumer and competition policy draw on similar types of expertise, managing what expertise there is within the framework of a single institution may allow it to be used more efficiently.

At the same time, such integrated management may provide opportunities for professional development in which individuals are exposed to, and develop a detailed understanding of, to both competition policy issues and consumer protection issues. This is especially important when analyses are required that take full account of both the supply and the demand side of markets.

For example, it can be difficult to understand what (seen from the supply side) may seem to be unduly restrictive agreements without an understanding of the way the demand side of a market works. Agreements whereby insurers “steer” consumers to particular suppliers of smash repair services – by requiring consumers to only use designated repairers – are a case in point. Those agreements may seem to restrict competition for smash repair services. However, their primary justification lies in the way they limit the moral hazard problems that would otherwise arise in the market for smash repair services. Those moral hazard problems arise because consumers do not bear the full costs of the repair services, while the quality of repairs is often difficult to fully observe. By seeming to limit consumer choice, the insurer can both reduce costs and increase quality directly and provide incentives for smash repairers to compete on the basis of cost and quality, rather than by exploiting consumers and insurers. A detailed knowledge of how consumers behave in situations such as these is obviously helpful to a proper analysis of what may seem an undue restriction on competition.

Equally, an understanding of consumer policy issues and instruments can be important in assessing possible changes in market structure, such as those associated with proposed mergers. At the simplest, knowing that an industry is one in which consumers have experienced persistent problems with the terms and conditions of service may assist in examining claims about how the relevant markets have operated in the past and might operate in future. For instance, if consumers typically face

high information costs, the post-merger market structure may offer more scope for consumers to be exploited, particularly if post-merger competition would depend heavily on new entry or on the expansion of relatively small and perhaps little-known suppliers. At the same time, a close awareness of those consumer issues may help shape remedies, which could, for example, include information disclosure or product unbundling requirements.

4.1.3 *Community support and public accountability*

Finally, there may be benefits in terms of community support and public accountability.

As far as support is concerned, there is a natural appreciation in the community of the value and importance of consumer protection. By linking its competition policy activities to the consumer protection agenda, and explaining the linkages between its competition policy decisions and the promotion of the consumer interest, a competition authority can enhance public acceptance of competition policy. This may be especially important in countries where competition policy is a relatively recent development, and where there is little understanding of the importance, role and substance of competition policy. Potentially highly controversial decisions – such as those involved in opposing mergers between powerful domestic firms – may prove easier to make and sustain if they can be clearly explained as part of a broader mission aimed at protecting and promoting the interests of consumers.

At the same time, at least in some countries, consumer protection has found it difficult to obtain a high degree of political priority and indeed, of support within administrative and bureaucratic elites. This has compromised both its access to ongoing funding and its ability to attract the more ambitious elements in the public service. In contrast, having well-resourced competition policy authorities is broadly seen as an important component of sound economic management. Moreover, a stint working in a competition authority may be an attractive career move for talented young professionals. Competition authorities' resulting greater access to human and financial resources may more readily spill over to consumer protection in countries where the two areas of policy share a common home.

As well as these gains in sustainability, integrating the missions may lead to improved public accountability. Competition policy tends to be economy-wide in its reach, and the individual actions and decisions of competition policy authorities are of broad interest to the business, legal and academic communities, as they are seen as precedents that may be extended beyond the firms and industries directly at issue in those actions and decisions. As a result, the conduct of competition authorities in respect of their competition functions is subject to quite careful and effective monitoring, which helps ensure that those agencies operate to reasonable quality levels.

In contrast, consumer policy is at times highly-industry specific and additionally involves many decisions that individually, have quite low stakes in absolute, economy-wide, terms. This can lead to a situation in which relatively few social actors have the incentive or ability to carefully monitor decision-making by specialised consumer policy agencies. This absence of close monitoring can lead to regulatory failure, with the agency at issue being captured either by the ideology of consumer protection – without a proper appreciation of the costs regulation imposes – or by the regulated firms, which have an interest in using consumer protection to create barriers to the entry and expansion of new players. These risks are likely to be smaller in an entity that also has the competition policy functions, both because of the internal culture of such an entity and because of the close scrutiny that entity will naturally attract.

4.2 *Costs of integration*

Although integration of competition policy and consumer policy institutions can have benefits, it also has costs. Those costs arise from the inherent differences in the substance and implementation of these instruments, and the obstacles those differences create in practice to achieving full policy integration.

4.2.1 *Differences in substance and implementation*

Although consumer policy and competition policy share common goals, the specific instruments on which they rely differ, as does the context in which policy implementation occurs.

Thus, by and large, competition policy is implemented through the enforcement of the competition laws, which involves a mix of administrative proceedings (such as those used in merger clearance and in the authorisation (administrative approval) of agreements) and of litigation in courts and tribunals. Typically, the case load involves relatively small numbers of cases, with individual cases that are often very large in absolute terms. Additionally, direct interaction with the public is often quite limited, with much of the information flow occurring through highly formalised processes, such as information filings and document discovery. These characteristics of the work flow have a significant influence on the structure and conduct of the agencies, including in terms of the training of staff, the types of skills and career paths that make for advancement, and the allocation of the time and attention of senior personnel.

In contrast, consumer policy is inherently more varied in its instruments, form and substance. As regards the instruments, while consumer policy has a conventional enforcement element (that is most marked in respect of misleading and deceptive conduct), it also covers weights and measures, product quality and safety standards, industry codes of conduct, the regulation of behaviour in individual professions and consumer ombudsman and dispute resolution mechanisms. While there are some important instruments that are economy-wide, they are usually paralleled by an extensive assortment of sector- or market-specific instruments. These rely on a broad range of enforcement instruments and in some cases (such as information and consumer education) are very “soft” forms of regulation. Moreover, the process of policy formation and implementation tends to be itself very varied and in many respects porous, with significant direct involvement with the public, a case load that involves many individually small cases, and considerable industry input into policy design. In turn, these features map into a policy process that is far more decentralised – in terms of the range of players involved – and far more geographically localised than is the formation and enforcement of competition policy.

One result of these differences is that consumer policy, when it is integrated within an agency that also has responsibility for competition policy, may find it difficult to attract the attention it deserves. The highly varied nature of the consumer policy case load, and the fact that many consumer policy cases are relatively small and have low stakes in absolute terms (though they may be of great significance to individual consumers), can lead to consumer policy receiving less top management attention and support than it should. The fact that much of consumer policy involves decentralised interaction with other agencies and territorial levels of government can induce a tendency to delegate the work to relatively junior levels and not to give it the funding, resources and profile that competition policy – with its ongoing stream of high visibility, large scale, litigation – invariably secures.

These issues arise from differences in the nature of instruments and tasks these respective policy instruments involve. In theory, of course, that could change.

In particular, there could be gains to consolidating consumer policy, in terms of giving it a more unified statutory and institutional basis, and in that respect making it somewhat more similar to competition policy. Indeed, in a very recent review of Australian consumer policy, the Productivity Commission (which advises the Australian Government on issues that affect economic efficiency) has recommended that it would be preferable to rely on the generic law, rather than resorting to industry-specific regulation, in dealing with many consumer problems.³⁸ In effect, such reliance on generic law:

- Facilitates consistency in approach across consumers and markets;
- Allows regulators to deal with emerging problems without the need for new statutes — an especially important feature given that many consumer markets are evolving rapidly;
- Generally avoids boundary line problems and the gaps in regulatory coverage that can ensue; and
- Imposes relatively few costs on the overwhelming majority of suppliers who do the right thing by consumers.

Set against those benefits, industry-specific consumer regulation explicitly seeks to prevent certain behaviours rather than rely on the deterrent effect of the threat of prosecution for breaches of general law and possible liability for compensation. Its use, the Productivity Commission notes, is most likely to be desirable when:

- The risk of consumer detriment is high and/or the detriment suffered if things go wrong is potentially significant and possibly irremediable. (Such considerations are the primary reason why specific regulation is employed in the medical and consumer credit areas);
- The suitability and quality of services is hard to gauge before or even after purchase (the ostensible rationale for many other professional licensing regimes); and/or
- The technical nature of a product or service makes it easier for a regulator to assess breaches of appropriate behaviour against some ‘objective’ standards.

These considerations are well made and, at least as far as Australia is concerned, they do suggest gains in placing somewhat greater weight on achieving consumer protection objectives through economy-wide statutory instruments. Nonetheless, even with such a move, the major differences noted above between the nature of the tasks, skills and processes involved in competition policy on the one hand, and consumer policy on the other, seem highly likely to remain.

This, in turn, creates practical difficulties to seeking to manage both of these functions within a single agency of government. While these difficulties need not be insuperable, they limit the economies of scope between the functions and may make for their separate administration.

4.2.2 *Limits on integration in practice*

Largely as a result of the characteristics noted above, it is an inherent feature of any effective regime of consumer protection that it will involve a number of quite distinct agencies of government. Moreover, those agencies may well span separate territorial levels of administration, especially in countries with a federal structure. This multi-agency character is especially marked when consumer protection issues arise in industries that are subject to extensive industry-specific regulation, such as financial services and health care. In those instances, the industry-specific regulators naturally play a substantial role in consumer protection issues, and indeed, often bear the primary responsibility in that respect.

As a result, it is not generally feasible to centralise responsibility for consumer policy to the same extent and in the same way that occurs as regards responsibility for the enforcement of competition policy. Even when aspects of the functions are combined in a single institution (as is the case with the ACCC in Australia), many important aspects of consumer protection fall outside its remit, and will likely continue to do so.

This implies that, in practice, the degree of integration between these policy instruments will never be complete. Rather, any integration will be selective, and hence will need to focus on those aspects of the policies which are most tightly interdependent and where the economies of scope in policy design and implementation are greatest.

4.3 Conclusions on institutional design issues

Overall, there are a number of respects in which gains can be achieved by locating responsibility for both competition policy and consumer policy in a single institution. Those gains include:

- Benefits in terms of better policy coordination, and in particular, in the selection of policy instruments to meet the needs of particular fact-situations;
- A better understanding by policy-makers and enforcers in each area of the role and limitations of the other; and
- The ability to secure economies of scope in access to resources and in the efficacy of monitoring and accountability processes.

However, there are also inherent limits to the possibilities for integration:

- The nature of the tasks involved in implementing consumer policy differs greatly from those involved in the administration of competition policy, reducing the economies of scope achievable through their integration; and
- It is an inherent feature of any effective policy of consumer protection that it will involve a range of agencies, and (especially in Federal countries) span several territorial levels of administration.

These conflicting pressures can obviously be addressed through a range of quite differing approaches. In practice, what appears most important is:

- To ensure that the competition authority has in-house access to the skills involved in the formulation of consumer policy, and at the very least a watching brief with respect to consumer policy, as well as scope to intervene in consumer policy decisions that have material competition implications; and
- That there be within government, an entity that has “whole of government” oversight of consumer protection, and that exercises that oversight in a manner mindful of competition concerns.

Periodic surveys of particular instruments – such as occupational licensing, or restrictions on advertising – aimed at reviewing whether they are consistent with efficient competition, could play a useful and important role in this respect. These surveys would provide a regular opportunity to review whether the objectives pursued through whatever restrictions are imposed using these instruments could be achieved in less restrictive, or more efficient, ways. Developing a program of such reviews, starting with those instruments that are most likely to be unnecessarily restrictive, could be an effective approach to giving such a process a structure and clear time-line.

5. Conclusions

It has recently been emphasised that consumer policy can “activate” competition policy – that is, can help bring competitive processes to life, giving them the vitality they need to achieve the objective of making markets efficient and effective.³⁹

This is so even though there is also on occasions a risk that the instruments of consumer policy, rather than serving the interests of consumer, will be used to restrict otherwise desirable competition. As world markets become ever more integrated, this danger also becomes more pressing. Paternalistic justifications can be deployed for many purposes, and not all of them are socially desirable.

This is not to suggest, however, that there should be any doubt about the importance of consumer policy. Long-standing concerns about the need to protect consumers, and especially the most vulnerable among them, not only retain their validity but are even more significant as market mechanisms are introduced into ever more parts of our economies and societies. The introduction of competition into these areas needs to be closely coordinated with the development of effective consumer safeguards, which is a challenge which largely remains to be met. The imperative of policy coordination is therefore as pressing as ever.

There may, however, be no “magic bullets” that can fully meet that imperative. The reality is that competition policy and consumer policy will always differ in the range of instruments on which they rely, key features of the tasks involved in their implementation and the levels of government that they involve. This, as well as history, may limit the extent to which there can be institutional integration. As a result, what may matter most is that competition policy authorities have the expertise needed to be effective advocates in the many dimensions of the consumer policy process whilst consumer agencies likewise have competencies in competition policy; and that there is, in central government, ongoing attention to the need for consistency between these policy instruments. Periodic surveys of particular instruments – such as occupational licensing, or restrictions on advertising – aimed at reviewing whether they are consistent with efficient competition, could play a useful and important role in this respect.

Notes

1. See Muris, T. (2002), ‘The interface of competition and consumer protection’, Prepared remarks at the Fordham Corporate Law Institute’s 29th Annual Conference on International Antitrust Law and Policy; and Sylvan, L. (2004), ‘Activating competition: The consumer-competition interface’, 12 *Competition and Consumer Law Journal*.
2. OECD (2004), *Identifying and tackling dysfunctional markets*, p. 3.
3. European Commission (2004), ‘Identifying and tackling dysfunctional markets’, Note submitted to OECD for discussion at the joint meeting of the Competition Committee and the Committee on Consumer Policy, 13 October 2004, at pp. 2-3
4. These challenges are discussed by Australia’s Secretary to the Treasury at Henry. K. (2007), ‘Connecting consumers and the economy: The big picture’, Closing address to the National Consumer

Congress, at pp. 7-8, available at http://www.treasury.gov.au/ncc/content/download/Presentations/Transcripts/connecting_consumers_and_the_economy.rtf

5. Some of these problems are discussed in Waddams, C. 'Reality bites - The problems of choice' and other papers following, in OECD (2006) *Roundtable on demand-side economics for consumer policy: Summary report*.
6. In the extreme case, this results in the so-called 'lemons' problem discussed in Akerlof, G. (1970), "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism". *Quarterly Journal of Economics* 84 (3): 488-500
7. A case study of inappropriate interventions can be found in the legal services market. See OECD (2004), Identifying and tackling dysfunctional markets at pp. 6-10.
8. See Ergas, H (2007) "Policy Implications of behavioural economics: the case of consumer protection", *Productivity Commission Round Table on Behavioral Economics*, Melbourne, Australia.
9. See generally Guala, F. (2005) *The Methodology of Experimental Economics*. Cambridge University Press.
10. For example, Plott and Zeiller, "Exchange Asymmetries Incorrectly Interpreted as Evidence of Endowment Effect Theory and Prospect Theory?", *American Economic Review*, September 2007, and Plott and Zeiller, "The Willingness to Pay-Willingness to Accept Gap, the 'Endowment Effect,' Subject Misconceptions, and Experimental Procedures for Eliciting Valuation," *American Economic Review*, June 2005, suggest that results that seem consistent with behavioural models of choice may also be fully capable of being explained by conventional rational choice models.
11. Hoch, Stephen J. and Dreze, Xavier and Purk, Mary E. (Oct 1994), *EDLP, Hi-Lo, and Margin Arithmetic*, *Journal of Marketing*, 58; Lal, Rajiv and Rao, Ram (1997), *Supermarket Competition: The Case of Every Day Low Pricing*, *Marketing Science*, 16 (1); Ortmeyer, Gwen and Quelch, John A. and Salmon, Walter (Fall 1991), *Restoring Credibility to Retail Pricing*, *Sloan Management Review*, 55 (12); and Tang, Christopher S. and Bell, David R. and Ho, Teck-Hua (Winter 2001) Store Choice and Shopping Behaviour: How Price Format Works, *California Management Review*, 43 (2).
12. One of the few attempts to mimic the effects of this kind of innovation is the paper by Chu, Y. P and R. L. Chu (1990) "The Subsistence of Preference Reversals in Simplified and Market like Experimental Settings" *The American Economic Review*, vol 80, pp. 902-911. The authors introduce arbitrage into a money-pump game. Interestingly, they find that while subjects display preference reversals absent arbitrage, once they are exposed to arbitrage their preferences converge towards consistency with "rational actor" norms.
13. See Ellison, G. (2005) "A Model of Add-On Pricing" *Quarterly Journal of Economics*, vol. 120, pp. 585-638 and Gabaix, X. and D. Laibson (2006) "Shrouded Attributes, Consumer Myopia and Information Suppression in Competitive Markets" *Quarterly Journal of Economics*, vol. 121, pp. 505-540.
14. See for example, the application of such a model to residential mortgages in Campbell, J. Y. (2006) "Household Finance" *The Journal of Finance*, vol. 61, pp. 1553-1603.
15. Campbell, for example, assumes that firms have no form of intellectual property protection, or that that protection is so weak that there are no innovator's rents. Additionally, this type of model tends to be highly sensitive to the precise population shares of "sophisticated" and "naïve" consumers, to the willingness to pay of these respective groups of consumers and to search costs.

16. Interestingly, economists very often assume that firms cannot make durable unilateral gains by deviating from a coordinated pricing strategy because pricing strategies are readily copied. (This underpins the concept of a “quick response equilibrium”, such as that embodied in the kinked demand curve.) In commercial reality, however, devising and implementing pricing strategies is often extremely complicated, and involves changes in systems, in training and billing, accounting and auditing arrangements. As a result, major changes in price structures are often very difficult to copy, and especially to copy well and quickly.
17. This is the extreme case of adverse selection, in which the market collapses, so that all the potential gains from trade are lost. See Akerlof, G. (1970) “The Market for Lemons: Quality Uncertainty and the Market Mechanism”, *Quarterly Journal of Economics*, vol. 84, pp. 488-500 and Hillier, B (1997) *The Economics of Asymmetric Information*. St. Martin's Press, Inc., New York, N.Y., pp. 46-49. The other way of stating matters is to note that complete distrust is a self-enforcing equilibrium: see for example, Gambetta, D. (1998) “Concatenations of Mechanisms” in Hedstrom, P. and R. Swedberg (1998) *Social Mechanisms*, Cambridge University Press, Cambridge, UK, pp. 102-124.
18. Although for a contrary view with respect to narcotics, see O’Flaherty, Brendan (2005) *City Economics*, Harvard University Press, Cambridge, Mass., at Chapter 17.
19. See Barzel, Y. (1982) “Measurement costs and the organisation of markets” *Journal of Law and Economics*, vol. 25, pp. 27-48 discusses these instances but concludes that when the relevant conditions apply, producers will take measures to avoid wasteful duplication of search.
20. See O’Hara, M. (1995) *Market Microstructure Theory*, Blackwell Publishing and Harris, L. (2003) *Trading and Exchanges*, Oxford University Press, Oxford, UK. The need to protect the returns on investment in information, and the importance of maintaining a mix of investor types in the market, can justify limitations on disclosure requirements, such as allowing reduced transparency (i.e. somewhat reduced pre- and post-trade disclosure) for block trades.
21. See especially Mulholland, J (2007), “Behavioral Economics and the Federal Trade Commission”, *Paper for the Productivity Commission Round Table on Behavioral Economics*, Melbourne, Australia.
22. Henderson P. D. (2007) “The Uneasy Trend to Greater Economic Freedom” mimeo.
23. See Allan Fels, David Parker, Blair Comley and Vishal Beri (2001) “Occupational Regulation”, in the *Anticompetitive Impact of Regulation*, eds Guiliano Amato, Laraine L. Laudati, Edgar Elgar, pp 104 to 115.
24. The Australian experience in this respect is discussed in Allan Fels (2006) “The Australian Experience Concerning Law and the Professions” in Ehlermann (ed.) *Competition Law and the Professions*, European University Institute, Florence.
25. For an overview see Lundsgaard, J. 2002, ‘Competition and efficiency in publicly funded services’, OECD Economic Studies, available at <http://www.oecd.org/dataoecd/42/36/22027701.pdf>
26. Angrist, J. et al 2002, ‘Vouchers for private schooling in Colombia: Evidence from a randomized natural experiment’, *American Economic Review* 92(5).
27. Hsieh, Chang-Tai and Urquiola, Miguel S., "When Schools Compete, How Do They Compete? An Assessment of Chile's Nationwide School Voucher Program" (October 2003). NBER Working Paper No. W10008

28. Bedi, A. and A. Garg 2000, 'The effectiveness of private versus public schools: The case of Indonesia', *Journal of Development Economics* 61(2).
29. Hanushek, E. and L. Wolfsmann 2007, *Education quality and economic growth*, World Bank, pp. 20-21.
30. Hanushek, E. and L. Wolfsmann 2007, *Education quality and economic growth*, World Bank, pp. 20-21; M Harrison 2004, *Education Matters: Government, Markets and NZ Schools*, NZBR, Wellington; C. Hoxby 1994, 'Do Private Schools Provide Competition for Public Schools?', NBER Working Paper No. W4978. S Bradley and J. Taylor 2002, 'The Effect of the Quasi-market on the Efficiency-equity Trade-off in the Secondary School Sector', 54, *Bulletin of Economic Research* p. 295-314; E Hanushek, and S. Rivkin 2003, 'Does Public School Competition Affect Teacher Quality?', *The Economics of School Choice* ; G Holmes, J. DeSimone and N. Rupp 2003, 'Does School Choice Increase School Quality?' NBER Working Paper No. W9683 May; and P Bayer and R. McMillan 2005, 'Choice and Competition in Local Education Markets', NBER Working Paper No. W11802..
31. See Burgess, S., C. Propper and D. Wilson 2004, 'The impact of choice in education and health: a review of the economic literature', Centre for Market and Public Organisation, particularly on pp. 15-23. Such considerations are equally relevant to developing economies where as noted previously there has been a wealth of policy experiments – see for instance Patrinos, H. 2006, 'Public-Private Partnerships: Contracting Education in Latin America', World Bank; Barrera-Osorio, F. 2007, 'The Impact of Private Provision of Public Education: Empirical Evidence from Bogota's Concession Schools', World Bank; and Patrinos, H. and S. Sosale (eds) 2007, 'Mobilizing the Private Sector for Public Education : A View from the Trenches', World Bank.
32. In reviewing the economic literature, Burgess, S., C. Propper and D. Wilson 2004, 'The impact of choice in education and health: a review of the economic literature', Centre for Market and Public Organisation conclude that (p. 16): "For choice to work, the supply side must be responsive to (changes in) demand. But the form that these responses take depends on the type of performance measure used and the incentives therefore created.. If parental choice is based on the information contained in performance measures, schools have the incentive to improve measured performance. This does not necessarily mean an improvement in actual outcomes... Different performance measures may be suited to the different objectives of accountability and facilitating a choice programme.". The influence of target setting and information disclosure on providers (and the unintended consequences that can result in) are discussed in Hood, C. (2006) "Gaming in Targetworld", *Public Administration Review*, 66(4), 515.
33. This is illustrated by cases in the UK and US where private schools and colleges have come under investigation or lawsuits for alleged anti-competitive conduct because of information sharing and cooperative practices. In the UK, private schools came under investigation in late 2006 for exchanging information on future fees – see Decision of the Office of Fair Trading No. CA98/05/2006, 'Exchange of information on future fees by certain independent fee-paying schools', 20 November 2006. In the US, in 1993 the federal government successfully challenged an agreement between universities limiting competition in the distribution of financial aid through an agreement to award aid solely on the basis of need through a common formula – see *United States v Brown Univ.* 5 F.3d 658.
34. The Australian case is illustrative of the wider OECD trend. Thus, on current demographic projections, the number of Australians aged 85 and over will increase from 330,000 in 2006 to 580,000 in 2021 and then to over 1.6 million in 2051 – see generally Ergas, Henry and David Cullen (2007) *Providing and Financing Aged Care in An Aging Society*, (in press) available at www.greenwhiskers.com.au.
35. Extrapolating from similar trends in the US – see Reynolds, S. L., Y. Saito and E. M. Crimmins, 2005, 'The Impact of Obesity on Active Life Expectancy in Older American Men and Women', *The*

Gerontologist, vol. 45, pp. 438-444. See Ergas, Henry and David Cullen, *ibid*, for a discussion of trends in chronic disease and their implications for provision and choice in aged care.

36. For a good survey of the impact of consumer choice in health markets see Burgess, S., C. Propper and D. Wilson 2004, 'The impact of choice in education and health: a review of the economic literature', Centre for Market and Public Organisation, pp. 25-33.
37. This is not always the case. For example, in a market that is growing rapidly, switching costs may induce firms to bid more aggressively for customers so as to benefit from subsequent lock-in effects. Artificially lowering switching costs in such a market may attenuate price competition, at least in the growth phase. However, the reduced competition in the growth phase may be offset by more intense competition once the market size has stabilised. As a result, even in those cases, there is a trade-off between switching costs and competition.
38. Productivity Commission (2007) *Review of Australia's Consumer Policy Framework: Draft Report*, Canberra.
39. Sylvan, L. 2004, "Activating competition: The consumer – competition interface", *Competition & Consumer Law Journal*, pp. 191-206.

THE INTERFACE BETWEEN COMPETITION AND CONSUMER POLICIES

3. SUMMARY OF DISCUSSION

SUMMARY OF DISCUSSION

Chairman Frédéric Jenny introduced the opening speaker for the day's discussion, Ms. Meglena Kuneva, EU Commissioner for Consumer Protection.

Commissioner Kuneva outlined the consumer policy strategy adopted by the Commission in 2007. The strategy recognises the consumer as an essential economic agent in markets and aims to empower consumers to act in their best interest at all times. Consumers can exercise a powerful force in the greater European market, but currently that market is fragmented on the consumer side, still consisting to a significant degree of 27 national markets. Sound regulation at the European level that delivers a clear and robust framework for consumer choice is required.

The Unfair Commercial Practices Directive has put in place a harmonised framework banning practices such as misleading advertising. The legal framework on consumer contract law is currently being reviewed and studied with the same goals in mind: to introduce a single, simple set of basic rights and obligations to consumers and business. On the enforcement side, a network of consumer protection enforcement authorities similar to the European Competition Network was established in 2007 and is now co-operating against unscrupulous sellers.

The Commissioner also commented on the links between competition and consumer policy. She praised the work of the Commission in competition policy, but noted that competition policy tools are not always sufficient to address all of the problems that may reduce market efficiency and harm consumer welfare. Consumer policy is therefore central to addressing potential demand-side failures preventing consumers from exercising undistorted choice. Competition and consumer policy are therefore complementary, and the challenge is to find ways in which they can work better together.

In the Commissioner's view the main area for co-operation is upstream, at the market screening and analysis phase. In this regard the Commission has recently devised a market scoreboard for detecting possible market failures from the consumer side, which monitors five indicators of market malfunction – prices; complaints; switching; consumer satisfaction and safety. They are only indicators, however, and by themselves are not conclusive. The next step would be in-depth analysis of markets that the scoreboard highlights, employing the Commission's Single Market Review methodology.

The Commissioner briefly commented on the promises offered by recent developments in behavioural economics as helping to explain how consumers actually react in complex market situations, and she expressed the hope that the OECD would participate in developing this new tool for use by policymakers and enforcers.

The Chairman thanked Commissioner Kuneva for her remarks and for her emphasis on the complementarity between consumer and competition policies. This points up the need for more analytical work on the demand side of markets, since competition policy approaches the topic mostly from the supply side. The Chairman then introduced Mr. Michael Jenkins, Chairman of the OECD

Consumer Committee. Chairman Jenny noted that the two committees have long enjoyed a co-operative and productive working relationship.

Mr. Jenkins welcomed the opportunity for dialogue between the competition and consumer protection communities. He noted that historically consumer protection had concentrated on protecting consumers against unscrupulous business practices, but now there is emphasis on empowering consumers to make better and more informed choices in the increasingly complex marketplace. This has the effect of increasing competition as well, and thus the two policies share a common goal. Mr. Jenkins welcomed the non-Members present for the discussion, and encouraged them to offer their views in this important debate.

The roundtable discussion was chaired by Mr. William Kovacic, Commissioner of the United States Federal Trade Commission

The Chairman stated that he hoped to cover four topics:

- an exploration of common goals that link competition and consumer policy;
- a consideration of the institutional arrangements by which the two systems operate and how they can be made most effective;
- the conflicts that can arise between these two systems and how they might be resolved;
- the benefits that can be derived from considering the two systems as part of an integrated whole.

The Chairman introduced the five panellists to lead the discussion: Mr. Colin Brown, Policy Director, Office of Fair Trading, United Kingdom; Mr. Chuan Leong Lam, Chairman, Competition Commission of Singapore; Ms. Barbara Lee, Executive Director, Jamaica Fair Trading Commission; Mr. Hetham Hani Jamel Abu Karky, Legal Researcher, Competition Directorate, Jordan Ministry of Trade; and Mr. Allan Fels, Dean, Australia New Zealand School of Government. Each topic was addressed by the panellists, after which there were interventions from the floor.

Common goals of competition policy and consumer protection

Professor Fels was co-author of the background note, together with Mr. Henry Ergas, Regional Head, Asia Pacific, CRA International and Professor, Faculty of Business and Economics, Monash University, Australia. Professor Fels summarised that part of the note which deals with the relationship between these competition and consumer policies. Each largely promotes the goals of the other. Firms in a competitive market have incentives of their own to develop a reputation for quality. Likewise, consumer policy interventions that promote transparency and access to accurate information make consumer choice a more effective discipline, thus strengthening competition. Thus, a competition policy that works well can reduce the work that needs to be done by consumer policy; in the same manner, a good consumer policy, by enhancing the ability of consumers to exercise choice, can make markets more competitive and force firms to compete on the merits, thereby supporting the aims of competition policy.

At the same time, each of these instruments can create challenges for the other. The paper provides several examples of these challenges. A market that becomes newly competitive – liberalised public utility markets, for example – can expose consumers to new risks and difficulties. Likewise, consumer protection policies can sometimes have adverse consequences for competition – prohibitions on comparative advertising, for example.

The paper also briefly addresses new developments in behavioural economics – a discipline that explores departures by consumers from rational decision making models under conditions of costly and imperfect information. A principal point of this discussion is that these new findings in behavioural economics do not necessarily argue for a more interventionist, regulatory approach. Market forces themselves may offer solutions. That is, firms in competitive markets have incentives to provide remedies to consumers that allow potential gains from trade to be more fully realised. Again the background note provides several examples. In retailing, for example, where it is difficult for consumers to compare prices among supermarkets, some competitors have successfully responded by promoting the “everyday low prices” model.

Still, market incentives will not cure all cognitive limitations. Firms have incentives to exploit the situation with advertising and marketing that reinforces consumer biases. Moreover, sophisticated consumers may benefit from market-based responses, but less sophisticated ones may be left behind. Use of the Internet marketing channel is a good example of this phenomenon. Consumer policy is relevant in the design of interventions in these instances, but these interventions should not do harm to the incentives that consumers have to invest in information.

The paper also discusses the interaction of the two policies in markets new to competition. In many countries competition has been recently introduced in the professions. For several reasons consumers lack good information about how to make choices among professionals, but sometimes the reactions to this problem, for example restrictions on advertising or unnecessary restrictions on entry, are themselves harmful. In this situation competition and consumer policies require co-ordination. Likewise, in public services, such as education and health care, there are efforts to introduce competition on the supply side, providing consumers with new choices in these fields. Making choice work in these areas is difficult, however, introducing difficult questions about information disclosure and consumer rights and obligations.

According to Colin Brown, the written submissions to this roundtable show that countries acknowledge the interrelationship between competition and consumer policies, though we have still to debate its depth and its institutional implications. At the centre of this interconnection there is common ground, which can be defined by two questions: is the market working well for consumers and, if not, what can we do about it? Responses include both traditional competition policy concerns – e.g., cartels, anticompetitive mergers, high entry barriers – and consumer policy concerns – e.g., misleading advertising and information asymmetries. But in addition to this common ground, consumer policy and competition policy have their own distinct territories, and their own cultures and histories. For this reason it is Mr. Brown’s thesis, on which he will elaborate later, that there are benefits from bringing them together institutionally.

Chairman Lam noted that Singapore is a small country. Much of what it consumes is produced abroad. Thus, there is a significant international dimension in its consumer policy. Singapore exercises a light touch in this area, often relying on agencies in other countries, with whom it co-operates. International standardisation of concepts in consumer protection and competition policy is important to a small economy like Singapore.

Hetham Hani Jamel Abu Karky noted that in Jordan the overarching goal is to provide consumers with the highest quality goods and services at the lowest price. This encompasses both competition and consumer policies. The Jordanian competition law is enforced by the Competition Directorate, situated within the Ministry of Industry and Trade. The Committee for Competition Affairs is an advisory body to the Competition Directorate. There is no consumer protection body as such in the government, but the Quality and Market Control Directorate, also within the Ministry for Industry and Trade, has responsibility for monitoring sales and markets. Also, the Consumer Protection

Association, an NGO, is active in Jordan, and its president is on the Committee for Competition Affairs. Thus, competition policy and consumer protection interact in this way in Jordan.

Barbara Lee noted that the Jamaican competition law states as its purpose the provision to consumers of competitive prices and product choices. There are other references in Jamaican statutory law to providing consumers with a fair share of the benefits of commerce. In Jamaica there are both the Fair Trading Commission, which enforces the competition law, and the Consumer Affairs Commission, which serves as an advocate for consumers in various forums. Questions are sometimes raised about the need for two separate agencies, especially since there are other consumer groups operating in the country. In this respect it is important to provide citizens with better information about the activities of the two agencies, and especially how competition policy can benefit them. Elsewhere in the Caribbean, in the laws of Barbados and Trinidad there are explicit statutory links to competition policy and consumer protection.

The Chairman noted how in recent years the two policies have moved toward a more common vocabulary, especially the acceptance by the competition community of consumer welfare as the foundation for competition policy.

Mr. Asher expressed his disagreement with the discussion of behavioural economics in the paper, however, to the extent that it suggests that competitive responses can overcome certain specific problems associated with information asymmetry. He stated his view that in some markets, especially those in which entry barriers are high, the problem is growing, citing mobile telephony, financial services and energy retailing as examples. Behavioural economics, in his view, now provides an empirical basis for consumer protection measures.

Chinese Taipei's representative reiterated that the competition law, which is enforced by the Fair Trade Commission, was enacted in 1992, and includes responsibility for consumer protection. In 1994 the Consumer Protection Law was enacted, which created the Consumer Protection Commission within the Cabinet. It has responsibility for co-ordinating consumer protection efforts at all levels of government, but it does not have independent enforcement powers. The Chairman of the FTC is also a member of the CPC.

The Chinese Taipei delegate gave examples of both complementary actions and conflicts involving the two agencies. One example of the former was in the cable TV industry, which is quite concentrated. The two agencies consulted before the Consumer Protection Commission requested that the cable providers provide a basic, or no frills package of channels, which had not previously been offered. A second involved a supermarket merger, which the FTC approved. After the merger, however, the merged company refused to honour gift certificates from one of the parties. After intervention by both agencies the supermarket agreed to redeem the certificates.

Conversely, there have been conflicts regarding false advertising, over which both agencies have jurisdiction. The FTC tends to be more conservative in this area, intervening only when an advertisement might be significantly misleading, affecting many customers. The CPC, on the other hand, has tended to act on an ad hoc, case by case basis. The FTC tries to avoid such conflicts by consulting with the CPC when it concludes that a particular case is not sufficiently important for it to intervene.

The South African delegate remarked that the discussion of behavioural economics in the context of consumer protection was interesting, and he suggested that a related area of business conduct, marketing, might also be a good topic to integrate into the analysis. He commented specifically on the practice of "category management," whereby a retailer effectively cedes to a supplier the management

of entire categories of products on the retailer's shelves. The practice is justified as improving efficiency, but it could well have negative implication for consumers.

For Tunisia, the two policies have common objectives: improving the productivity of an economy and of individual producers and improving the purchasing power of consumers. But consumer policy has other objectives that are not co-terminus with those of competition policy, and the two use different instruments in enforcement. Still, government policy can and should ensure that they are not in conflict. There must be continuing dialogue between the two to that end. Implementation should also be co-ordinated. Certain actions by competition agencies could have negative short run effects on consumers, for example. Consumer agencies can both help consumers to understand these effects and take measures that would ameliorate those effects.

The Tanzanian competition representative clarified that the law contains both competition and consumer protection provisions. When it was last amended in 2003 it was recommended that the two functions be separated, but it was decided not to, because while it is sometimes difficult to generate support for competition policy in a developing country like Tanzania, the public more readily understands the need for consumer protection, and placing the two under one roof could assist in the development of competition policy in that environment. The competition law created both the Fair Competition Commission, which enforces the law, and the National Consumer Advocacy Council, which as its name indicates performs advocacy functions in its field. The FCC served as the Secretariat for the NCAC, and the latter has developed a full program of its own, successfully organising workshops on consumer rights, consumer responsibilities and the need for proper information for consumers.

The Portuguese delegate described a situation in which the Competition Authority worked together with consumer interests to provide better information about mobile telecommunication prices. Specifically, the pricing schemes in this industry were thought to be much too complex for the average consumer. The Competition Authority, the Portuguese Consumer Directorate General and the major consumer association collaborated on a recommendation, which was adopted by the mobile operators, that the operators provide to consumers simulators that would help them to determine the price plan that minimises the cost for various user profiles and also aids in producing estimates of monthly expenses for these profiles.

The Polish competition agency is named the Office for Competition and Consumer Protection, which is an indication that it is responsible for both functions. The competition act created parallel enforcement mechanisms for both, including investigation procedures, the types of decisions that can be taken and sanctions. The Office co-ordinates its competition and consumer functions; for example at the outset of a case it is decided whether it would be best handled as a competition case or a consumer case. The competition and consumer teams regularly consult and exchange information. There are practical benefits from combining the two functions, including savings in training, administration and research. At the same time, tensions between the two pillars can arise, for example over allocation of resources. Still, both parts of the Office have as a common goal the protection of consumers.

In El Salvador there is close co-operation between the competition and consumer protection agencies in El Salvador. The Constitution, created in 1893, prohibited monopolistic practices in order to ensure economic freedom and to protect consumers' interests. The first consumer law was enacted in 1992, later replaced by a 1996 law. It was not until 2004 that a competition law was enacted, creating an independent competition agency. In 2005 a new consumer protection law was enacted, creating a National System for Consumer Protection. An important part of this new system is the Consulting Council for Consumer Protection, an independent body whose purpose is to counsel the

President of the Consumer Protection Authority. Among the members of the Council is the Competition Superintendent.

Commissioner Kuneva remarked on the importance of good governance in implementing both consumer and competition policies. In the end, it is the consumer whose actions will be determinative, and the question is, what government policies will be most effective in empowering consumers? The set of rules for this purpose should be based on economic evidence, and should be directed toward promoting market outcomes that benefit consumers.

Institutional design

The Chairman noted that he has observed an ongoing commitment by Commissioner Kuneva and her colleagues to improvements in institutional design. This reflects an understanding that policies do not operate in a vacuum, that they are implemented by institutions, and that the quality of institutions determines in many ways the capacity of the system to deliver good policy products to individual citizens. This introduced the second topic of the discussion, making the institutions that administer these two policies most effective. One organisational approach is to combine the two functions in one agency. The Chairman noted that by his count there are as many as 40 jurisdictions that currently have a single agency in one form or another, and the number is growing. He turned to Professor Fels for his reaction to this point and to others that were raised in the discussion on the first topic.

Professor Fels summarised the portion of the background note that deals with institutional issues, and specifically with the question of whether to place both competition and consumer policies in one agency. The note lists three principal benefits of integration of the two enforcement bodies:

1. Gains from treating competition and consumer policy as instruments that can be flexibly combined and more generally managed within a single portfolio of policy instruments. As noted earlier the two instruments are interdependent and complementary; each can make the other more effective. There may be occasions when one can be substituted for the other with positive effects. For example, competition policy has limitations in making markets structurally more competitive on the supply side; action on the demand side, through consumer policy may be more effective.
2. Gains from developing and sharing expertise across the two areas. Expertise in either area is in limited supply, especially in small economies, and combining it in a single institution may permit it to be used more efficiently.
3. Gains in terms of wider visibility to the community, and understanding in the community, of competition and consumer issues. The public more readily understands and appreciates consumer policy, which can benefit competition policy if they are linked. At the same time, consumer protection tends to lack political support within a government, as compared to competition policy, and is often underfunded. Joining the two can benefit consumer policy in this regard.

There are also costs associated with integration, however. There are inherent limits to integration because the nature of the tasks differs between the two kinds of policies and that reduces the economies of scope achievable through integration. The two kinds of cases differ in their number and scope (competition cases being fewer, and broader in scope), and the specific instruments that are applied to them are different. Further, while there may exist an agency having principal responsibility for consumer protection, in fact a range of agencies have some aspect of consumer protection as part

of their portfolios. This usually makes it not feasible to fully integrate consumer protection to the extent that it can be done for competition policy.

These problems can be addressed by requiring, at least, that the competition agency has in-house access to the skills involved in the formulation of consumer policy, and that there exist in one agency a kind of “whole of government” oversight of consumer protection, also mindful of competition concerns.

The Chairman noted that the United Kingdom, represented by Colin Brown, has been especially innovative in integrating the two policies.

Mr. Brown made two points. First, having the two functions together provides the opportunity to approach a problem from both perspectives. The UK may analyse a market without preconceptions; it will identify the problem and apply the most effective remedy, whether from the competition or consumer side. This has been done in real estate, sales of tickets for public events, new car warranties and in credit markets. Second, on the point regarding expertise, competition and consumer experts tend to come from very different backgrounds, with different training. Thus, they tend to look at problems differently. They are, in his words, “two strong families, each of which has become inbred,” and bringing them together helps to “mix up the gene pool.”

In Singapore Chuan Leong Lam reported that the two policies are administered separately. The consumer is one of several stakeholders in Singapore, and sometimes there must be a balancing of the interests of these different groups. Notably, one must recognise that it is the producer who ultimately produces jobs, economic growth and innovation. Singapore is a small, open economy; it heavily depends of foreign investment, and its producers must be competitive in a world market. This sometimes requires a balancing between different policies.

The Chairman thanked Chairman Lam for reminding us of an important point, which is often overlooked: that individuals may have conflicting economic interests – for example as workers (preferring to work for a monopolist, where jobs are secure and income higher) and as purchasers (preferring to purchase goods and services at competitive prices). One’s position on specific issues might differ according to which role one occupies.

There are benefits, according to Hetham Hani Jamel Abu Karky, from combining the two functions in a single agency. They include cross-fertilisation – helping each enforcement body to better understand how markets work.

Jamaica is a small country said Barbara Lee; so initially it made sense from a resource standpoint to create a single agency to handle both functions. Subsequently a separate Consumer Affairs Commission was created, though the competition agency continues to have responsibility for misleading advertising. In the beginning it was helpful for competition policy for the FTC also to be working in consumer protection, which the public better understood. A drawback, however, was that most of the cases handled by the FTC in the early years were consumer cases, because the Commission had not developed expertise in competition, and consumer cases were easier to handle. Effective competition policy also required a measure of education for the public, for example on why the agency should be concerned about predatory pricing.

The UK representative stated that the Office of Fair Trading is integrating competition and consumer policies in a comprehensive way. Case work of both types has been unified in a Market Project Division; policy work is also under one roof, so that, for example, a behavioural economist may work with a competition economist in the same team; service delivery functions have also been

consolidated. Information and intelligence are also shared, and a proactive, market analysis procedure has been implemented. This has had at least two effects: a focus on broader market effects, with less emphasis on short term, specific outcomes; and an effort to employ principles from the competition side to the task of enhancing competition from the demand side.

Finally, there is the realisation that while the core set of principles on the competition side is relatively concise and finite, there is less certainty on the consumer side, and the effort is to more clearly define what consumer policy is and what consumer issues the agency should address.

In Slovakia the two policies are separately enforced reported the Slovakian representative, and on the consumer side enforcement is distributed among several agencies. This makes co-ordination difficult. The Slovakian delegate gave two examples: There is insufficient competition in the professions, but there was no one agency with which the competition agency could work on this problem. The competition agency's powers were limited and it could implement reforms only on a piecemeal basis. A second problem was in retail banking, where there were problems related to the bundling of products that could not be resolved by applying traditional competition tools. Again, co-ordination with consumer agencies was difficult, but the competition agency did work with the Central Bank in bringing about an amendment to the ethical code of the Association of Commercial Banks that addressed the tying problem.

The Japanese delegate noted that competition and consumer policy are substantially integrated in Japan, and gave one example of how the JFTC enforces a consumer protection law. The law, called the Premiums and Representations Act, gives the JFTC powers to authorise self-regulated codes of conduct adopted by industries or trade associations. To receive JFTC approval such a code must meet certain criteria specified in the Act, including (a) the code is appropriate for preventing unjust customer inducement and maintaining fair competition and (b) it is not likely to impede unreasonably the interests of general consumers and relevant entrepreneurs. Before making its decision on a proposed code the JFTC holds a public hearing and solicits public comments. Consumer groups are invited to participate in these hearings. If a proposed code is approved by the JFTC it receives an exemption from the Premiums and Representation Act and from relevant provisions of the Antimonopoly Act.

The Canadian delegate outlined some advantages and disadvantages of combining the two functions in a single agency. There are both internal and external benefits. Internally, a combined agency can address a case more comprehensively, considering both competition and consumer issues. Externally, deciding on which projects to take on from an advocacy and education standpoint benefits from having both perspectives. Canada's initiative in the professions is an example. There are also challenges presented by integration, however. Resource allocation is one. The major stakeholders tend to differ as between the two policies – the business community in competition policy, the consumer community in consumer policy.

As for future challenges, Canada sees e-commerce as one. Consumers must gain confidence in transacting business online. They must feel secure and that they are not going to be misled – a challenge for consumer policy.

The Maltese delegate approached the issue from the perspective of a small economy. In Malta the competition law and the consumer law are separate, and initially they were enforced by separate agencies, but in 2001 they were consolidated in the Consumer and Competition Division, both for resource reasons and because it was recognised that they are complementary. Still, the small size of a market like Malta's may dictate different decisions in implementing these two policies. High scale economies relative to the size of a market could result in high concentration, which might not always

be in the best interest of consumers. On the other hand, authorities must give weight to efficiency claims, which benefit consumers and make local businesses more competitive in the world market. Thus, a balancing between these possibly conflicting objectives may be required.

In Chile the two policies are administered by separate agencies. The consumer protection agency is much larger than the competition agency. The two agencies co-operate closely, however, through a co-operation agreement adopted in 2006. Both agencies lack internal enforcement mechanisms; their decisions must be enforced by courts. In this regard, the consumer agency has begun participating in competition cases in court when it is appropriate.

In its paper Chile described a case involving the merger of two supermarket chains. The competition agency approached the case from the traditional competition perspective, arguing that the merger, resulting in high concentration and high entry barriers, would enhance the power of the resulting firm to act anticompetitively in the retail market and in a related market, retail credit. The consumer agency, on the other hand, stressed traditional consumer issues, noting concerns expressed by consumers about the transaction and a history of abusive credit practices on the part of the merging firms. Very recently the Chilean Supreme Court ruled in favour of the agencies; it was, in fact, the first merger that was blocked under Chile's 2004 competition law. The court's decision made it clear that it gave significant weight to the arguments of the consumer agency, as well as to the competition issues.

The BIAC representative expressed a preference for market-based solutions to regulatory ones, and this includes consumer remedies that do not adequately take competition principles into account. Still, there may be instances, especially in the provision of information to consumers, where competition is not fully serving consumers. Such a situation requires co-ordination between the competition and consumer agencies, and if a consumer protection remedy is indicated it should be consistent with good competition policy.

The Pakistani delegate interjected a note of caution regarding the complementarity of the two policies. In his view there are significant differences between them – different disciplines, different remedial tools and different objectives. It is his position that one cannot expect the competition authority to be able fully to meet consumer protection goals and expectations.

Hungary referred briefly to the paper that it submitted for this discussion, which provided a case study of an inquiry by the competition authority into what appeared to be a lack of competition in the financial sector. The preliminary results of the inquiry indicate that the imperfect competition that has been observed is principally the result of the difficulty that consumers have in switching between providers of these products, which is in turn caused by a lack of sufficient information to permit consumers to make informed decisions. The proposed remedies for this situation were consumer protection remedies. This case is an illustration of the interaction between competition and consumer policies. What began as a competition case may be resolved through the use of consumer protection tools.

The Swiss delegate noted that consumers have varying sets of interests. They include economic, political, legal and health and safety interests. Competition policy principally addresses economic interests; consumer protection is better suited to address the others. In Switzerland the two policies are administered by separate agencies, but both are placed within the Ministry of the Economy, and they collaborate with one another. It is also true that the interests of consumers are represented in the Swiss Competition Commission.

The Korean delegate reported that in Korea there were originally separate competition and consumer agencies, but in 2006 consumer policy was brought within the responsibility of the

competition agency, the KFTC. There had been a long debate about whether to consolidate the two agencies, and ultimately it was decided that consolidation would improve efficiency and provide a better opportunity to integrate these two important policies.

The Irish delegate explained that there are separate agencies in Ireland, and historically this has not served the consumer well. A good example was the Groceries Order, which effectively made price competition in the retail sector illegal. That order has since been rescinded, however, and the national consumer agency was revamped in 2007. Going forward, it is thought that having two agencies will prove to be useful. Two voices can be more effective than one in the important task of competition advocacy.

The Russian competition agency, the Federal Antimonopoly Service (FAS), clarified that it had enforced the consumer protection law for about ten years. In 2004 that function was given to another authority, but the FAS continues to be conscious of consumer issues. An example of this occurred in a recent case involving consumer credit. It was determined that lenders were misleading consumers about the real costs of borrowing. The FAS determined that it could not efficiently apply the competition law and related laws to the situation, however, which involved hundreds of individual cases. Instead, the FAS worked with the Central Bank in developing voluntary recommendations for information disclosure by lenders, and simultaneously it engaged in vigorous competition advocacy on the subject. As a result, the Central Bank adopted rules requiring more disclosure, and most recently the Russian consumer protection law was amended to the same end.

In Gabon the two functions were placed within one agency, but because there had not been a strong history of consumer protection in that country the result was the creation of a heavy enforcement burden for the agency. Today Gabon is confronted with abuses in several sectors, including water, electricity and mobile telephony. Technical assistance for the agency and for the several embryonic consumer organisations will be required. In this regard, Gabon is benefiting from a co-operation arrangement that it has with France,

In Australia, reported the delegate, competition and consumer protection enforcement are combined. There should not be any conflict between the two. If there is, it means that the competition side is defining consumer welfare too narrowly. It should include not only the traditional concepts of efficiency, but also fairness, freedom from unnecessary risk and complexity, and having the tools to make appropriate, informed decisions. In this way the two policies are completely coherent.

Professor Fels offered a few words in summary. It is clear that the two policies are interrelated and that there are benefits from uniting them in a single agency. This is the arrangement that he favours personally, as fostering a more coherent approach. But it is also true that there are risks associated with doing so. One side could swamp the other in terms of resources or emphasis, and it is undeniable that the consumer policy portfolio is much broader than competition policy in terms of sectors and activities, all of which probably could not be consolidated into a single agency.

Professor Fels also responded to comments by Allan Asher about the background note. The note provides examples of how markets have responded to cognitive problems of consumers without the need for intervention with consumer protection remedies, but it also acknowledges that businesses may seek to exploit their advantage in some situations in a manner adverse to consumers and that markets may sometimes fall short of providing adequate solutions.

Chairman Kovacic closed the discussion by thanking all participants and he recommended the papers that were submitted for the roundtable to those who want to explore the topic further.

THE INTERFACE BETWEEN COMPETITION AND CONSUMER POLICIES

4. COUNTRY CONTRIBUTIONS

Further information from the following jurisdictions on the Interface between Competition and Consumer Policies is available at: <http://www.oecd.org/competition> under the topic "Best Practice Roundtables".

Country contributions

Argentina	Papua New Guinea
Australia	Poland
Canada	Portugal
Chile	Russian Federation
Costa Rica	Singapore
El Salvador	Slovak Republic
European Commission	Switzerland
France	Chinese Taipei
India	Tunisia
Japan	United Kingdom
Jordan	United States
Korea	Uzbekistan
Malta	

COUNTRY REVIEW: PERU

The Competition Peer Review Report of Peru is the fourth one of a non-OECD country. South Africa and Russia were reviewed at meetings of the OECD Global Forum on Competition (GFC). Chile, and now Peru, were reviewed at meetings of the Latin American Competition Forum (LACF), organised by the OECD and the Inter-American Development Bank (IDB). All four reviews confirm that the peer review process is an extremely useful means of promoting co-operation and voluntary convergence among OECD and non-OECD economies, providing both transparency and a candid discussion of what constitutes “best practice” in different situations.

EXECUTIVE SUMMARY

Peru is a developing country with a history of protectionism, “import substitution,” and substantial governmental involvement in the economy. These precluded sustained economic growth by cutting off foreign investment while wasting its own resources by subsidising inefficiency. By the late 1980s, Peru had a rapidly declining GDP and a four-digit inflation rate.

Competition law and policy was formally introduced to Peru in 1991 as part of a broad economic liberalisation programme, but the real beginning came in 1993 with the opening of a new “autonomous” government agency, the Institute for the Defence of Competition and Intellectual Property. Indecopi, as it is known, became responsible for the “free competition law”; a “market access law” against government rules that impose unwarranted barriers to entry; and a wide range of other laws with some relation to market reform. With strong Presidential support, Indecopi soon became a powerful force for reform within Peru and one of developing world’s most articulate competition advocates.

Peru’s free competition and market access laws represent the core of competition law and policy – the banning of anticompetitive conduct by enterprises and the key principle that governments should not restrict economic activity more than is necessary to achieve other social goals. The breadth of Indecopi’s mandate has helped the agency as a promoter of competitive markets in a broad sense, but many of its activities – particularly those concerning bankruptcy, the standardisation and accreditation process, and intellectual property protection – are much less closely related to core competition policy issues than many other government activities, such as creating interconnection rules or privatising state assets, over which Indecopi has no authority. Thus, even Indecopi’s broad mandate fails to include some important competition policy matters, and some of Indecopi’s functional areas contribute little to the agency’s policymaking or its operational efficiency.

During the 1990s, Indecopi’s competition-related activities consisted primarily of education, advocacy, and both voluntary and quasi-judicial resolution of disputes between firms or between one or more consumers and a firm. The agency brought a number of significant cases, but was criticised by some for not engaging in more law enforcement. Today, there appears to be increasing consensus (within and outside Indecopi) in favour of a more proactive law enforcement approach, and some view Indecopi as having already moved in this direction. Although education and advocacy continue to be vital, Indecopi should indeed be seeking to bring more *ex officio* free competition and market access cases that can demonstrate the value of its work in concrete terms.

Reform to strengthen Indecopi is also necessary, however. During the 2000-2001 transition government and the current government, several events have confirmed what some have warned for years – that the agency has insufficient safeguards of its autonomy. As a result, Indecopi’s stature as an autonomous, neutral arbiter has been undermined. It is important, therefore, for Peru to revise the law governing Indecopi to increase the actual and perceived independence of both Indecopi’s first instance decision-makers, such as the Free Competition Commission, and its second instance decision-maker, the Tribunal for the Defence of Competition and Intellectual Property.

Moreover, Indecopi no longer receives any funding from the Treasury. The agency has always been largely self-financing, and the profound incentive problems inherent in this system became more obvious and more serious when public funding stopped completely in 2003. Indecopi can now conduct its core competition work (and other non-remunerative activities) only by overcharging for its registration and other services and/or setting the level of its fines so as to cover its own costs rather than to punish and deter illegal conduct. This approach will not permit Indecopi to revive or maintain the confidence of Peruvians or the international community.

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Despite the many important demands for public funds, Peru should provide at least enough funding for the Free Competition and Market Access Commissions to handle their “denunciation” cases and devote additional resources to *ex officio* cases. Funding this casework can more than pay for itself and benefit all Peruvians by both increasing efficiency and reducing the size of Peru’s informal economy, which is 60 percent of GDP (and apparently growing). Both Commissions should continue to ground their decisions in economic efficiency while considering that some previous decisions may have relied too much on “Chicago School” concepts.

A Working Group at Indecopi is currently considering a variety of possible amendments to the Free Competition Law. There is a particular need for the introduction of some sort of merger control system and for a legislative clarification of the legal standard applicable to hard core cartels. Other amendments may also be appropriate.

In addition, in continuing the competition advocacy for which it is justifiably famous, Indecopi should place separate and increased emphasis on its Free Competition and Market Access functions, and should explain as clearly as possible how these functions can and do benefit the entire Peruvian economy, not merely the “formal complainant or other direct “victims” of particular violations. The public must learn that these cases involve important economic policy matters in which they have a stake, rather than being essentially private disputes (as may be the case in unfair competition cases).

The challenge before Indecopi and Peru is great. The official Individual Action Plan (IAP) Peru recently submitted to APEC states as follows:

“Competition and market oriented policies in Peru and the Andean Region are facing opposition from the majority of the impoverished population who do not have a clear perception of the benefits of a market economy.... The increasing opposition has stopped any attempt to implement necessary reforms and improve competition environment.”

Reform activity has not completely stopped, of course, and the IAP offers the optimistic conclusion that “there is an opportunity to change the population’s negative perception of competition and market-oriented policies.” But the IAP’s description makes it clear that market reform requires not merely a strengthened Indecopi, but increased, visible support from the government and its ministries for what the government continues to describe as its market liberalisation programme. Government officials should seek to explain the benefits of a market economy, and should strongly reject, rather than repeat, populist criticism that contributes to the public’s fears and misperceptions.

Among other possible strategies, the government should stress that market reform is improving the standard of living of most Peruvians by, for example, reducing the cost and improving the extent and quality of telephone service and of electricity. IDB-funded research showing the benefits of Indecopi’s competition work should also be publicised. Moreover, the recently proposed judicial reform programme should be explained in part as a means of improving the ability of the market to provide real benefits to the public. Both Indecopi and the rest of Peru’s government should seek every available opportunity to show that despite transitional difficulties that sometimes need separate attention, Peru’s citizens will be better off when the market – rather than opportunists, monopolists and bureaucrats – determines the price and quality of the goods and services they seek.

1. Context for and History of Competition Policy

Competition policy was introduced to Peru in the early 1990's as part of a general programme of economic liberalisation. Decades of protectionism and government involvement in the economy had led to economic collapse, but the newly elected President who introduced these policies had campaigned against such a programme. Moreover, the free competition law and other aspects of this reform programme were adopted by Presidential decrees, many of which were issued during a period when Congress had been dissolved. One result of this situation is that the laws reflect a clearer commitment to economic efficiency than those of most countries, and throughout the 1990's Peru's competition officials received strong Presidential support. On the other hand, although the reforms were successful and sometimes popular, the laws and policies did not reflect a broad consensus within the public or even among government officials. In the last few years, an obvious fall-off in Presidential support and a number of events have undermined competition policy and other aspects of economic reform.

1.1 Economic and cultural context

Analysis of the challenges involved in introducing competition law and policy to Peru must begin with the country's recent political and economic history, which in turn must be understood in terms of Peru's size and its striking diversity in matters such as topography, ethnicity, language, wealth, and custom.

Located on the west coast of South America, Peru is in geographic terms the third largest country in South America and the 20th largest country in the world. (By way of comparison, it is slightly larger than South Africa; almost twice as large as Chile; and slightly smaller than France, Germany, and Spain combined.) Peru's northernmost point sits on the equator, bordering Ecuador and Columbia. From that point Peru extends southwest to include mild coastal plains and southeast to include part of the largely impenetrable Amazon basin. These two areas are divided by the Andes mountain range, whose tropical foothills give way to frigid peaks of up to nearly 7,000 meters.

Peru's population of almost 30 million is the 5th largest in South America and the 39th largest in the world. Mestizos (with mixed Native American and European ancestry) have become the predominant group and now comprise almost 50 percent of the population. Native Americans comprise 35 percent of the population, but this group is very diverse. For example, the Amerindians of the Andes are ethnically and linguistically distinct from the diverse indigenous groups that live on the eastern side of the mountains and in tropical lowlands around the Amazon basin. The Caucasian population, which lives mainly in Lima and elsewhere on the coast, has fallen to about 10 percent of the population and has been losing its position as the political and economic elite. The ancestry of the remaining 5 percent of the population is mostly African and Asian.

In economic terms, Peru is considered by the OECD's Development Assistance Committee to be a Lower Middle-Income Country ("LMIC"). For comparison purposes, other LMIC countries from Central and South America and the Caribbean include Belize, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Paraguay, and Surinam.¹ Six Central and South American countries – Argentina, Brazil, Chile, Costa Rica, Panama, Uruguay, and Venezuela – are considered Upper Middle-Income Countries. In more concrete terms, Peru's GDP ranks fifth in Central and South America, and 47th in the world, but its *per capita* GDP ranks significantly lower – ninth in Central and South America, and 120th in the world. Approximately ten percent of Peru's GDP comes from agriculture, while industry makes up about 27 percent and services the remaining 63 percent. At least

60 percent of economic activity in Peru takes place within the informal economy, which among other things creates health and safety problems and deprives the government of tax revenue.

1.2 *Background for Peru's market reform*

Peru's political system and economic policies have also witnessed striking variations. Although a decentralisation programme is underway, Peru's government has always been highly centralised, and like many countries in the area, Peru has a strong tradition of state participation in or control of economic activity. Beginning in 1963, Peru focused particularly on an "import substitution" model of economic development that included trade and exchange rate manipulation as well as extensive regulation of price and entry. In the 1970's, Peru's military government strengthened ties to the communist world, becoming the Soviet Union's largest military client in Latin America.

A new Constitution was adopted in 1979, and in 1980 the new, democratically elected government began to seek closer relationships with its neighbours and other Western countries. After Alan Garcia was elected President in 1985, however, Peru reverted to nonalignment, economic populism, and "anti-imperialist" policies. Together with the growing violence of the Maoist-oriented "Communist Party of Peru – Shining Path" and a serious cholera epidemic, these economic policies contributed to the virtual disintegration of the economy, the political party system, and the state. The result was a presidential election in 1990 between two political novices, Alberto Fujimori and the novelist Mario Vargas Llosa² – an election that Fujimori won in part because Vargas Llosa compromised his image as an outsider by joining an established political party.

1.3 *Establishing the legal framework for a market economy*

With no obligations to any traditional party, Fujimori was able to pursue a pragmatic approach to governing. During the campaign, he had opposed the "neo-liberal" economic reforms being advocated by Vargas Llosa, but the need to control inflation soon led Fujimori to undertake just such reforms. He eliminated most subsidies, renegotiated the payment of debts that Garcia had renounced, and succeeded in getting Congress to enact a new foreign investment law that eliminated most discrimination against foreigners. In addition, all direct quantitative restrictions on imports were lifted, and tariff rates were lowered substantially. These reforms led to substantial price increases, and Fujimori's popularity plummeted for a while, but by the end of 1991 annual inflation had fallen to "only" 139 percent and Peru had begun a period of sustained economic growth.

Despite his ability to obtain Congress' approval of some reforms and to enact others by Presidential decree, Fujimori regarded Congress as an obstacle both to economic reform and to effective action against the increasing intensity of Shining Path terrorism. Moreover, he regarded the 1979 Constitution as containing some undemocratic elements and providing for continued economic planning and government participation in the marketplace. Therefore, with the support of the Armed Forces, Fujimori engaged in a "self-coup" on April 5, 1992, suspending the 1979 Constitution and dissolving Congress. Although a matter of major concern to the international community, the self-coup was apparently popular with many in Peru, particularly the military, the business community, and the urban middle and lower classes. The revised Constitution, approved in December 1993, contains a variety of democratic reforms and also introduces a provision relating to competition policy. Article 61, Section 61 states:

"The state facilitates and oversees free competition. [It must] fight every practice that limits free competition and any abuse of dominant market or monopolistic positions. No laws can be enacted to authorise or establish monopolies."

The Constitution also provides that the State may engage in economic activity only if (a) it is expressly authorized by law, (b) the private sector is unable to satisfy demand, and (c) the activity will serve the public interest and "national convenience." (This third requirement apparently means that the State should concentrate on essential functions such as national security and justice.)

Most of Peru's legal provisions regarding competition law and policy are "decree laws" (*decreto ley*) that Fujimori issued in 1991-92 as part of his initial push to lay the basis for a market economy. One of those decrees created a new agency, Indecopi (Institute for the Defence of Competition and Intellectual Property), to serve as an arbiter and promoter of market activity. He gave the agency a strikingly broad mandate that included dispute resolution and law enforcement in the following fields: (a) the competition law; (b) a "market access law" that bans government rules that impose unauthorised and unwarranted barriers to entry; (c) an "advertising and unfair competition law" to protect firms from "dishonest" practices; (d) a consumer protection law that governs not only unfair or deceptive practices, but almost all aspects of consumer activity; (e) antidumping and safeguard proceedings; (f) laws protecting copyrights, trademarks, and patents; (g) the establishment of voluntary and mandatory product standards and accreditation bodies; and (h) a "market exit law" that provides a quasi-judicial procedure for handling bankruptcies.

Although it reported for some purposes to the Ministry of Industry, Indecopi was created as an autonomous agency in order to limit interference from the traditional Ministries. Moreover, because the government wanted to provide an alternative to Peru's judiciary, which was (and is) considered slow, unpredictable, and corrupt, Indecopi was created at least as much to resolve private disputes as to engage in real law enforcement. These problems with Peru's judiciary (and more generally with accepting the rule of law) were and are significant impediments to Peru's economic development.

1.4 Economic reform and Indecopi's rise in the 1990s

Indecopi opened its doors in March 1993, and it quickly developed a reputation for transparency, efficiency, and predictability that is unusual in Peru. President Fujimori supported the agency's mission, respected its autonomy, and pushed the entire government to pursue market reform. Indecopi and Peru both experienced considerable success during the 1990s. Moreover, at least until 1998, when Peru's economy was hurt by international economic crises and "el Niño," the percentage of Peruvians living in extreme poverty fell considerably.³ The popular discontent that followed these setbacks indicated a lack of widespread understanding of, or support for, these reforms, however.

With respect to competition law and policy, unfair competition, and consumer protection, Indecopi's activities consisted primarily of advocacy, education,⁴ and both voluntary and quasi-judicial resolution of disputes between firms, or between one or more consumers and a firm. The agency was much less active in actual law enforcement, though it took a strict approach to hard core cartels (*e.g.*, the famous "Chicken Case")⁵ and in assessing whether government regulations were warranted (*e.g.*, striking down a municipal requirement that taxicabs be painted yellow). In the intellectual property area, Indecopi was again much more active in its promotional role than as a law enforcer.⁶ To some extent, Indecopi's preference for promotion over coercive action (except in striking down anticompetitive government regulations) manifested the generally accepted approach to introducing competition law and policy, but it also reflected what may sometimes have been excessive reliance on "Chicago School" theories,⁷ and some experts argued for a more proactive, law enforcement approach.⁸

In other areas, the Antidumping Commission showed unusual respect for competition considerations. The Market Exit Commission is said to have been created and assigned to Indecopi for two reasons: (i) the courts were inefficient and had no process for dealing with bankruptcy other than liquidation; and (ii) liquidations and reorganisations can affect concentration levels. Since the

competition law showed no interest in the effect of mergers or acquisitions on concentration levels, however, the latter explanation sounds dubious.

There has been a good deal written about Indecopi's activities in the 1990s; a willingness to sponsor and engage in policy debate was apparently one of its hallmarks. In reviewing such materials from a competition law and policy perspective, however, some have come away with an exaggerated view of Indecopi's "core" competition matters – the activities of the Free Competition and Market Access Commission. The problem is that many materials refer to *all* Indecopi proceedings except for those relating to intellectual property as "competition" cases simply because their appeals are heard by the Competition Tribunal. Thus, one report states that during 1993-1997 Indecopi completed 8,648 "competition" proceedings, but 51 percent were bankruptcy and 45 percent were consumer protection and unfair advertising and competition. Even combined with standards and antidumping cases, core competition matters were only 4 percent of the so-called competition proceedings.

Despite the relatively small number of core competition proceedings, by the end of the 1990s, Indecopi had developed into an institution that was respected both in Peru and internationally for its transparency, integrity, and competence with respect to core competition matters.⁹ There were already concerns, however, about what one observer call Indecopi's "institutional fragility"¹⁰ and its ability to maintain its autonomy and effectiveness, particularly since some ministries continued to resist market reform, and the courts had the power to stall Indecopi's work.¹¹

1.5 2000-2004 – Reform loses momentum and Indecopi loses power – The new challenges

Although Fujimori was re-elected to the presidency in 2000, corruption scandals (relating primarily to Fujimori's now-jailed spy chief, Vladimiro Montesinos) led him to seek sanctuary in Japan, where he remains. A transition government then operated from November 2000 until July 2001, when Alejandro Toledo took over as the democratically elected President. Both these governments have in principle continued to seek market reform, but they have been unable or unwilling to explain and successfully push for market reform agenda in the face of growing opposition. For example, electricity privatisation has brought widespread benefits, increasing the availability of electricity and thereby improving standards of living. However, the government in July 2002 found it necessary to call off two electricity privatisations because it was unable to persuade the local populace concerning these benefits and to address substantive objections, such as a lack of transparency in awarding concessions and allegedly improper tariff regulation.

The situation is serious. According to the Individual Action Plan (IAP) Peru recently submitted to APEC:

“Competition and market oriented policies in Peru and the Andean Region are facing opposition from the majority of the impoverished population who do not have a clear perception of the benefits of a market economy.... The increasing opposition has stopped any attempt to implement necessary reforms and improve competition environment.”

The IAP goes on to conclude that “there is an opportunity to change the population's negative perception of competition and market-oriented policies.” But the IAP's description makes it clear that market reform requires not merely a strengthened Indecopi, but increased, visible support from the government and its ministries for what the government continues to describe as its market liberalisation programme. At present, however, it is clear that high-level government officials are not uniform in support of such reform and are not contributing to public education concerning its benefits. For example, at a recent UNCTAD conference in Lima, Peru's Second Vice President made an introductory speech criticising market liberalisation and privatisation, complaining about abusively

high telecomm rates without mentioning that they are lower as a result of economic reforms, condemning the WTO and multinational enterprises for destroying Peru's companies, and accusing Indecopi of not doing anything to halt dumping by foreign firms.

Moreover, a number of steps taken during or by the current government have significantly undermined Indecopi's authority. About two months into the current government, all of the members of Indecopi's Antidumping Commission resigned on the same day and were replaced four days later by Commissioners whose President was an oil executive and an official in Peru's National Industries Society. Shortly thereafter, the Commission's Technical Secretariat resigned. These events are important because it is widely believed that a government ministry orchestrated the changes at the commission level, and that the Secretariat resigned rather than implement the Commission's new, allegedly more protectionist policies. As a result of a recent division of the Ministry of Industry into a Ministry of Production and a Ministry of Trade and Tourism, Indecopi now reports to the President of the Council of Ministers rather than the Ministry of Industry, but concerns about the autonomy of Indecopi's first and second instance decision-makers remains.

In addition, whereas Indecopi's first three Presidents had all possessed relevant training and experience, the current government appointed a (then) little-known presidential advisor, César Almeyda. The appointment itself fuelled speculation that the government intended to control Indecopi, perhaps to thwart rather than encourage competition. Thereafter, Almeyda himself created controversy by making public pronouncements about the merits of cases that were still pending in Indecopi's "independent" quasi-judicial units. Also, Almeyda brought about considerable turnover in the Tribunal and the Commissions during the February 2002 – February 2003 period of his presidency. One result of this turnover is that of the four sitting members of the Competition Tribunal, only its President is widely seen as having substantial knowledge about competition law and policy. The other members are said to be respected academics, but there is some concern about their relative lack of expertise on competition issues and about whether this is an indication that Indecopi is not independent from the government. The impact of all these events remains unclear, since Almeyda has been jailed on corruption charges (having nothing to do with Indecopi), and Indecopi's former general manager, Fernando Arrunátegui Martínez, has been Acting President of Indecopi for well over a year.¹²

Due at least in part to concerns about Indecopi's autonomy, competition policy is a matter of some controversy in Lima today. For example, the Competition Tribunal and Indecopi are now widely seen as taking a more "hard line" approach to antidumping than either the Ministry of Economy and Finance, or the Ministry of Trade. Moreover, some recent Tribunal decisions created controversy by reversing its previous position that gave *per se* treatment to hard core cartels, reversing its previous position on subjective comparative advertising, and appearing to imply (for the first time) that excessive pricing violates the competition law. Even the business community and defence bar that are the apparent beneficiaries of these rulings find them confusing and express concern that unpredictable rulings may reflect behind the scenes government influence. Supporters of economic reform advocate new legal protections for Indecopi's autonomy, and in the meantime its leadership faces the challenge of regaining actual and perceived independence.

Indecopi also faces serious budget issues. In 2003, the government stopped providing any public funding to Indecopi. The Treasury has never provided more than about 30 percent of Indecopi's budget. The remainder once came mostly from the fees it charges for intellectual property registrations and bankruptcy work, plus the very few premerger filings it has received in connection with acquisitions in the electricity field (the only area in which Peru has any form of merger control). At present, however, the fines Indecopi imposes make up 58 percent of its budget.

In the past, some have viewed Indecopi's self-financing as a benefit in that it could make Indecopi financially independent of the government, but it is now apparent that this system gives Indecopi an incentive to focus on (and overcharge for) its fee-based services and to impose heavy fines. There is no evidence that Indecopi has imposed or increased fines in order to finance its activities, but Indecopi's administrators of necessity seek to anticipate whether and when cases will result in fines. It is symbolic of both Indecopi's precarious financial status and the problem of self-financing from fines that the agency faces new and substantial problems because of new law that automatically suspends all fines throughout the judicial review process, which can easily last up to eight or so years.

This resource problem is exacerbated by the fact that Indecopi's Commissions were created in large part to provide an alternative to Peru's courts. Any individual or firm can begin a formal proceeding by submitting a "denunciation" and a fee. Thus, whatever resources Indecopi can find to subsidise core competition activities must be used first on cases that may have little public importance. Despite an apparent desire to engage in more *ex officio* competition law enforcement, Indecopi's dispute resolution mandate and its shortage of resources make such enforcement a very substantial challenge.

Despite the challenges it has faced in the last few years, Indecopi has had some significant successes in bringing some core competition cases; making the market more trustworthy through dispute resolution in advertising, unfair competition, and consumer protection cases; and engaging in competition advocacy. The issue today is whether Indecopi – through its own work and through increased government support for its mission – can regain the actual and perceived independence and competence it needs to carry out a programme that will demonstrate the value of competition law and policy and of market reform generally.

2. Substantive Issues: Scope and Content of Peru's Competition Laws

Peru has two laws that deal with the two core competition matters – the prevention of anticompetitive conduct by enterprises, and the elimination of anticompetitive restrictions by government entities. The Free Competition Law is Peru's more conventional competition law, applicable to all individuals and entities that undertake economic activities, as well as to all individuals who direct or represent entities that engage in illegal activity. The law has no exemptions, but by its terms it does not apply to entities that do not undertake economic activities. This excludes governmental entities acting in a purely regulatory manner. Moreover, the law does not apply to access/interconnection issues in infrastructure monopoly markets that are under the jurisdiction of sectoral regulators. There is no special treatment for small businesses and no *de minimis* rule.

In addition, like a growing number of countries, Peru does not make competition advocacy the only means of eliminating anticompetitive regulation. Peru's Market Access Law provides a means of challenging anticompetitive executive regulations when they are unauthorised by law and lack a reasonable relationship to an authorised objective.

Indecopi also enforces a variety of other laws that relate in one way or another to market reform. Since it is often claimed that Indecopi's multiple functions improve its ability to promote competition policy and market reform, this section also addresses those laws, with the amount of discussion depending on how closely they relate to core competition matters.

2.1 *The Free Competition Law*

The goal of the Free Competition Law is stated in Article 1 as being to “eliminate monopolistic practices, controls, and restrictions of free competition in the production and marketing of goods and services, so that free private enterprise can flourish for the greatest benefit of users and consumers.” The Article’s references to free competition and consumer benefits, together with the absence of any non-efficiency goals, make this provision a remarkably clear statement of intent to promote economic efficiency. This unusual lack of ambiguity may result from the law’s being a Presidential decree rather than the product of the kind of compromise that legislators often find necessary.

As noted above, the law applies to all economic sectors. Indecopi enforces the law in all sectors except telecommunications, where it is enforced by the sectoral regulator, Osiptel (*Organismo Supervisor de la Inversion Privada en Telecomunicaciones*).¹³ Osiptel’s competition enforcement and regulatory roles are discussed in Part 4, below.

Article 3 of the law bans all conduct related to economic activity that constitutes an abuse of dominance or that restrains free competition in a manner that injures the general economic welfare. Article 4 defines dominance, Article 5 describes practices that “are” an abuse of dominance, and Article 6 describes the agreements and other practices that do or may restrain free competition. Article 3 is apparently based on Argentinean law. Indecopi describes Articles 5 and 6 as equivalent to Articles 82 and 83 of the Treaty of Rome, but despite the obvious “European” flavour of Articles 5 and 6, there are potentially significant differences between these two sets of provisions. For example, the Peruvian abuse of dominance provision contains no mention of “imposing unfair purchase or selling prices or other unfair trading provisions” or to “limiting production, markets, or technical development to the detriment of consumers.” Also, the Peruvian “restrictive practices” provision does not contain Article 81(1)’s important reference to practices that have as their *object* the restriction of competition, and it has a somewhat different list of restrictive practices.

The law does not require advance notification of mergers or acquisitions, nor does it ban mergers or acquisitions that are or are likely to be anticompetitive. A separate law, also enforced by the Free Competition Commission, establishes a merger control regime solely for the electricity sector.

2.1.1 *Horizontal agreements*

Indecopi’s only *ex officio* cases under the Free Competition Law have involved hard core cartels, and for a new competition agency, it has been unusually successful in such cases. Article 6 of the Free Competition Law contains a fairly conventional list of horizontal agreements, including collusion to fix prices or other terms of trade, limit production, divide markets, or rig bids. Originally, Article 7 contained an exemption provision comparable to Article 81(3) of the Treaty of Rome, but the only way to obtain such an exemption was through prior clearance by the Free Competition Commission. In 1994, as part of what is described as an attempt to shift from a European to a United States model, Article 7 was repealed.

Indecopi’s first important cartel case was the 1996 “Bread Case”¹⁴ against wheat flour producers and their association. The association settled the case by agreeing not to make any more suggestions about the price of bread, and it therefore was not fined. However, eleven producers were found to have ended a price war through a price fixing agreement, and each was fined about USD 50,000. Private and public opponents of economic reform sought to have Indecopi abandon the case, even appealing to Fujimori, but the case went forward and helped establish Indecopi’s reputation of independence.

Box A. The Competition Law Toolkit

General competition laws usually address the problems of monopoly power in three formal settings: relationships and agreements among otherwise independent firms, actions by a single firm, and structural combinations of independent firms. The first category, **agreements**, is often subdivided for analytic purposes into two groups: “horizontal” agreements among firms that do the same things, and “vertical” agreements among firms at different stages of production or distribution. The second category is termed “**monopolisation**” in some laws, and “**abuse of dominant position**” in others; the legal systems that use different labels have developed somewhat different approaches to the problem of single-firm economic power. The third category, often called “**mergers**” or “**concentrations**,” usually includes other kinds of structural combination, such as share or asset acquisitions, joint ventures, cross-shareholdings and interlocking directorates.

Agreements may permit the group of firms acting together to achieve some of the attributes of monopoly, of raising prices, limiting output, and preventing entry or innovation. The most troublesome **horizontal** agreements are those that prevent rivalry about the fundamental dynamics of market competition, price and output. Most contemporary competition laws treat naked agreements to fix prices, limit output, rig bids, or divide markets very harshly. To enforce such agreements, competitors may also agree on tactics to prevent new competition or to discipline firms that do not go along; thus, the laws also try to prevent and punish boycotts. Horizontal co-operation on other issues, such as product standards, research, and quality, may also affect competition, but whether the effect is positive or negative can depend on market conditions. Thus, most laws deal with these other kinds of agreement by assessing a larger range of possible benefits and harms, or by trying to design more detailed rules to identify and exempt beneficial conduct.

Vertical agreements try to control aspects of supply and distribution. The reasons for concern are the same—that the agreements might lead to increased prices, lower quantity (or poorer quality), or prevention of entry and innovation. Because the competitive effects of vertical agreements can be more complex than those of horizontal agreements, the legal treatment of different kinds of vertical agreements varies even more than for horizontal agreements. One basic type of agreement is resale price maintenance: vertical agreements can control minimum, or maximum, prices. In some settings, the result can be to curb market abuses by distributors. In others, though, it can be to duplicate or enforce a horizontal cartel. Agreements granting exclusive dealing rights or territories can encourage greater effort to sell the supplier’s product, or they can protect distributors from competition or prevent entry by other suppliers. Depending on the circumstances, agreements about product combinations, such as requiring distributors to carry full lines or tying different products together, can either facilitate or discourage introduction of new products. Franchising often involves a complex of vertical agreements with potential competitive significance: a franchise agreement may contain provisions about competition within geographic territories, about exclusive dealing for supplies, and about rights to intellectual property such as trademarks.

Abuse of dominance (or monopolisation) is concerned principally with the conduct and circumstances of individual firms. A true monopoly, which faces no competition or threat of competition, will charge higher prices and produce less or lower quality output; it may also be less likely to introduce more efficient methods or innovative products. Laws against monopolisation are typically aimed at exclusionary tactics by which firms might try to obtain or protect monopoly positions. Laws against abuse of dominance address the same issues, and may also try to address the actual exercise of market power. For example under some abuse of dominance systems, charging unreasonably high prices can be a violation of the law.

Merger control tries to prevent the creation, through acquisitions or other structural combinations, of undertakings that will have the incentive and ability to exercise market power. In some cases, the test of legality is derived from the laws about dominance or restraints; in others, there is a separate test phrased in terms of likely effect on competition generally. The analytic process applied typically calls for characterising the products that compete, the firms that might offer competition, and the relative shares and strategic importance of those firms with respect to the product markets. An important factor is the likelihood of new entry and the existence of effective barriers to new entry. Most systems apply some form of market share test, either to guide further investigation or as a presumption about legality. Mergers in unusually concentrated markets, or that create firms with unusually high market shares, are thought more likely to affect competition. And most systems specify procedures for pre-notification to enforcement authorities in advance of larger, more important transactions, and special processes for expedited investigation, so problems can be identified before the restructuring is actually undertaken.

Indecopi's most impressive case is the well-known 1997 Chicken Case,¹⁵ which found that Peruvian poultry firms and their association engaged in what amounted to price fixing by agreeing to prevent new entry, exclude some existing competitors, and limit the availability of live poultry for sale in order to raise or maintain prices. Total fines were initially set at slightly over USD 5 million, but were later reduced to slightly over USD 2 million.

Unfortunately, the Chicken Case is also a good example of the serious deficiencies in Peru's judicial system. The case was appealed to the courts in 1997, and there still has been no decision. The slow nature of judicial review is not a substantial problem with respect to most of Indecopi's functions because relatively few cases are appealed, but 90 percent of the competition law enforcement cases are appealed.

Indecopi's general approach to horizontal cases

1997 was also the year in which the Competition Tribunal explained Article 6's application to horizontal restraints in a number of "precedents of mandatory compliance" (decisions that are specifically declared to be binding precedents and are published as *de facto* rules). Relying exclusively on the writings of United States Judge Robert Bork, the Tribunal held that price fixing is "per se" illegal when it is "naked," but should be judged by the "rule of reason" when it is reasonably related to a potentially procompetitive integration.¹⁶ It also said that agreements in the per se category are condemned without regard to whether (i) they have, or are even capable of having, an actual harmful effect, or (ii) may in some sense be reasonable. This approach was broadly consistent with international practice, which increasingly condemns hard core cartels as illegal on a per se or absolute basis.

In a 2003 "Automobile Insurance" case, however, the Tribunal concluded that this approach was not legally correct under the Free Competition Law.¹⁷ The case involved price fixing in the automobile insurance industry, and the Tribunal held that although cartel agreements are presumed by law to harm the general economic welfare, defendants must be given an opportunity to prove that their agreement did not have that effect. This decision is said to be compelled by Article 3 and to reconnect Peruvian practice with its European origins by giving cartel members the same opportunity they have under Article 81(3) and European Regulation 1/2003.

This decision has caused controversy in Lima's growing community of competition experts. Unless the decision portends some further change, however, it seems unlikely to have any real effect on Indecopi's cartel cases. The terminology may be more European, but the European Commission has for some time treated hard core cartel agreements as essentially "per se unexemptable." Therefore, if the Tribunal follows the European Commission's approach, the law's opportunity to provide a defence may be largely theoretical. Indeed, it's only apparent application would be in the very rare case when parties agree to fix prices but then abandon the agreement before taking any steps to implement it. Although Indecopi describes the Tribunal's decision as requiring a case-by-case, "rule-of-reason" analysis, it applied at most a "truncated" rule of reason, condemning the agreement after rejecting any justification but without enquiring into market power or the other elements of "full-blown" rule-of-reason analysis.¹⁸

Thus, it appears that cartels will continue to be condemned on a summary basis. Indeed, the Tribunal's new approach did not help the defendants in the Automobile Insurance case, who had argued in favour of this change and contended that it required reversal of the Free Competition Commission's decision. Despite its reversal of precedent, the Tribunal affirmed the Free Competition Commission's finding of illegality and fined the eight cartel members a total of approximately USD 235,000.

Some regard this sanction as low, given that the cartel consisted primarily of large firms (many affiliated with banks) that were selling to captive consumers (in the sense that the insurance is mandatory). On the other hand, the Tribunal noted that very little of the insurance whose price was being fixed had actually been sold to consumers.

As a general matter, the Tribunal has a tradition of reducing the Free Competition Commission's fines, apparently because it disagrees with the Commission's deterrence-based approach.¹⁹ In this connection, it is noteworthy that there is considerable consensus in the international community that fines in cartel cases should be large enough to deter such conduct, and that this implies that fines should be 2-3 times as large as the cartel's harm or the cartel members' illegal gain.²⁰

The "Pilots" case

Less controversial, but more clearly problematic, was Indecopi's handling of a case involving anticompetitive conduct engaged in by the 36 individuals who are licensed to pilot ships in Lima's Callao harbour – the most important harbour in Peru. The pilots had traditionally operated as individual competitors or 1-2 person firms, but market reform introduced real competition and dramatically reduced the fees pilots could charge. In January 2001, in order to increase their fees, the pilots created three corporations (fearing that a single corporation might be considered a monopoly), and decided that one firm would "hire" all 36 pilots and the others would hire one or two pilots each. All 36 pilots held themselves out as working for the first corporation, but there was no real integration of their operations; they merely charged the same price. The other two corporations existed only on paper. A few months later, a new firm decided to enter the market, and persuaded two of the pilots join its firm. The other 34 pilots and their association sought to prevent this by engaging in various forms of harassment, including making a criminal charge of inducing a breach of contract.

In February 2001, the Free Competition Commission began investigating the pilots' association and the three companies on a price fixing theory, and shortly thereafter Maersk Peru, S.A., a firm that purchases pilots' services, denounced their conduct as illegal price fixing and abuse of dominance. The Commission declined to open the case on the abuse of dominance theory, and Maersk appealed. The Tribunal initially reversed the Commission, stating that it had not adequately explained its reasoning, but in December 2001, after the Commission had clarified and reaffirmed its decision, the Competition Tribunal ruled that the Commission had been correct in rejecting the abuse of dominance theory. In June 2002, the Commission held that the pilots and their association had engaged in price fixing, and their creation of the corporations could not camouflage their illegal conduct. This ruling relied in part on the Chicken Case, in which the Tribunal had rejected the poultry firms' argument that their pricing had merely been a step towards merger. This approach to the case focuses on the conduct of the pilots when they were competitors and decided to eliminate price competition among themselves by creating the firms; it could also focus on the conduct of the three corporations.

In April 2003, however, the Tribunal overruled its previous decision and reversed the Commission. The Tribunal's new reasoning was that since the pilots had formed a corporation and were now part of a single enterprise, their conduct could not be considered price fixing. This approach does not consider the conduct that occurred while the pilots were competitors (or the conduct of the three corporations), but rather focuses on the pricing decision made by the largest corporation. In the Tribunal's view, the case should be treated as an abuse of dominance, and it had to be dismissed because the Tribunal's previous ruling had rejected the abuse of dominance approach. Currently, there is a new Free Competition Commission proceeding that is going forward on the abuse of dominance theory.

Whether the conduct of the pilots is better characterised as a cartel or an abuse of dominance is beyond the scope of this report, but the case does raise a number of questions. Why has an apparently simple case taken so long? Even if the parties were not “pushing” the case, the delay hurt Indecopi’s reputation. Moreover, the Tribunal’s quick change of mind concerning the proper legal theory also undercut its reputation with the business community and others who value predictable decision-making. Respectable arguments can be made under each theory, and they might even have been alternative grounds for a quick decision. Instead, two years of litigation reached the conclusion that a whole new case will be necessary to reach a decision concerning the pilots’ plainly anticompetitive conduct.

A recent, successful, and important price fixing case – involving road transport – was handled under the Market Access Law rather than the Free Competition Law because the price fixing had been compelled by the Ministry of Transport. (See Part 2.2, below.) Indecopi is currently considering a major case involving alleged price fixing by the four firms that manage the retirement funds of Peruvian workers. This conduct was also denounced as an abuse of dominance, and that allegation is considered below.

Box B. Other Horizontal Restraint Cases

In a 2000 case, three construction firms were found to have engaged in bid-rigging. They were ordered to cease and desist such conduct and fined USD 2,000 apiece. Resolution No. 017-00. The case exemplifies a reluctance to impose serious sanctions that has reportedly been diminishing since 2002.

Operators of urban public transportation systems agreed to stop providing services due to an increase in the price of fuel and the introduction of new motor vehicle emissions standards. The complaint against them was dismissed on the ground that the conduct was merely an expression of the operators’ liberty of expression. Resolution No. 016-00. If the agreement to stop providing service was for only a short, pre-defined period (such as a day or a few days), the Commission’s decision to treat it as “expression” is not remarkable. However, if the agreement was to use the operators’ economic power to disrupt transportation until the city responded to their demands, the agreement would be illegal in at least some jurisdictions.²¹

Taxi firms and their association were found to have agreed to increase their fares. Resolution No. 003-00. All but one firm signed an agreement to cease and desist. The firm that did not sign was fined USD 1 000.

In a 2003 case, the association of public notaries in Lima was found to have engaged in illegal price fixing by negotiating an agreement with the Urban Estate Registry that it would pay notaries a specified fee. Resolution No. 002-03. The Commission condemned the agreement on a per se basis, and the Tribunal – applying the approach announced in the Automobile Insurance case – condemned it using a truncated rule of reason.

2.1.2 Vertical agreements

Article 6’s list of “restrictive practices that affect free competition” contains only three obviously vertical practices – price discrimination, tying arrangements, and refusals to buy or sell. The list includes agreements relating to market division, quotas, and product quality, but it is unclear the Article is intended to include vertical agreements in these categories. The list also refers to “other similar practices,” but the meaning of this provision is also unclear, particularly since the list does not include the most commonly banned vertical restraint – resale price maintenance.

Interpretation of these provisions is further complicated, but also rendered less important, by the fact that Indecopi has never applied Article 6 to a vertical restraint. Until this year, the Free Competition Commission has apparently taken the position that vertical restraints never harm

competition unless one of the parties has a dominant position, and it had an unwritten but recognised policy of refusing to scrutinise vertical restraints under Article 6.²² Earlier this year, the Commission opened its first such case, apparently signalling a policy shift, but there has been no decision and thus no indication of what the Commission's approach will be.

The Commission regularly considers vertical restraints in abuse of dominance cases, however. For example, in one of the abuse of dominance cases summarised in Box C, the alleged abuse included resale price maintenance. The Commission found that the firm had a dominant position but that the practices were not abuses.

2.1.3 *Abuse of Dominance*

Most of the complaints the Free Competition Commission receives relate to abuse of dominance, and the majority of these are resolved without a final decision by the Commission on whether the conduct was illegal. In the last five years, for example, the Commission has opened 18 formal proceedings and found violations in five of them. Given the small number of cases, it is difficult to present a nuanced description of Indecopi's approach to routine abuse of dominance cases.

The Free Competition Commission and the Tribunal both seem to take an approach to market definition that is consistent with that taken, *e.g.*, by the European Union and the United States. However, unlike Osiptel, the regulator that enforces the competition law in the telecom sector, Indecopi has no guidelines or mandatory precedents concerning how it defines markets and assess market dominance.

One early and very popular case involved Lima's airport, which configured its access road in such a way that people needed to pay a parking fee even if they were going to the airport merely to make a quick drop-off or pick-up.

Another early case charged the administrator of a harbour with abusing its dominant position by forbidding other undertakings to offer towing services. The conduct was found to be an abuse.²³

A more recent case also involved charges that the public undertaking in charge of a harbour refused a firm access to the harbour's facilities and otherwise discriminated against it. The Commission declined to accept the complaint on the ground that under the Law on Access to Public Infrastructure, sectoral regulators have exclusive jurisdiction over access issues that arise within their sector.²⁴ The precise scope and importance of this exemption from the Free Competition Act are unclear.

Two recent abuse of dominance cases have been highly controversial. One of the controversies concerns whether the Free Competition Law bans "excessive" (or "monopolistic") pricing. One difference between Article 5 of the Competition Law and Article 82 of the Treaty of Rome is that the former does not list excessive pricing as an abuse. The omission is clearly deliberate, and although a 1996 amendment to the Article added a reference to "other similar cases," it seems to have been generally accepted that the law did not ban excessive pricing.

When a Congressman denounced Peru's pension funds for engaging in price fixing and excessive pricing, the Commission accepted the price fixing claim but did not admit (or explicitly reject) the excessive pricing charge. Rather, it apparently treated the complaint as if it alleged price fixing and a tying arrangement, and it rejected the tying claim that had never been made. On appeal, the Tribunal reversed the Commission's decision and sent the case back using language that most competition experts, the business community, and the public regarded as implying that the law *does* ban excessive

pricing.²⁵ The language caused a firestorm because it was seen as a reversal of precedent, a hint of the possible price controls through Indecopi, and a signal that Indecopi was being controlled by the government. The Tribunal eventually issued a clarification, stating that it merely intended to reject the Commission's failure to rule on the excessive pricing claim, but controversy continues because some see the clarification as a pretext for backing away from an unexpectedly controversial decision. Even those who are less suspicious of the Tribunal's intent are troubled by what they see as decisions that are unpredictable and not well reasoned.

On the merits, another abuse of dominance case is more questionable. The case involves a dispute between Peru's only airline and the branch of a bank located in Puerto Maldonado, an isolated town in Peru's jungle area. After concerns were expressed that the airline was involved in illegal drug trafficking, the bank asked the airline for information on the sources of its funds. Instead of complying, the airline closed its account, but two years later it produced the relevant paperwork and asked to open a new account. The bank refused; the airline filed a complaint alleging abuse of dominance; the Free Competition Commission refused to accept the complaint; and the Tribunal reversed the Commission's decision. The Tribunal referred to the bank branch as an "essential facility" and ruled that it could not simply refuse to open an account without examining the proffered documentation.²⁶

Box C. Other Abuse of Dominance Cases

A state-owned enterprise with the legal monopoly for selling coca leaves was found to have abused its dominant position by refusing to sell leaves to firms that wanted to sell ground coca leaves in infusion filter bags ("tea bags"). Resolution No. 16-94.

A more conventional case involved a complaint by the National Association of Industries alleging that Centromin Peru abused its dominant position in the market for refined lead used in preparing lead oxides. The alleged abuse was price discrimination. The Commission found that Centromin had a dominant position but that the practices were not abuses. Resolution No. 001-98.

In another case involving the same firm (but a different product), the Commission rejected a claim that Centromin had abused its dominant position when it decided to stop selling refined zinc and instead use all its zinc to manufacture refined zinc products. The Commission held that Centromin did not have a dominant position. Resolution No. 013-97.

Another case in which the alleged abuse was a refusal to sell was rejected on similar grounds. The Commission held that Minsur, a mining enterprise that was Peru's only producer of concentrated and refined tin, did not have a dominant position since it faced considerable international competition. Resolution No. 007-98.

Peru's Official Gazette, which publishes official legal documents, was denounced for refusing to publicise notices a claimant's trademarks and patents. The Commission found the refusal an abuse, but the Tribunal reversed the Commission on the ground that the refusal was reasonable. Resolution No. 007-2002.

The only rail transport operator from Cuzco to Machu Piccu and another town was denounced for abusing its dominance by providing services different from those it offered. The Commission found the claim inadmissible because it did not affect competition, but noted that the conduct could be condemned under the Consumer Protection Law. Resolution No. 046-2003.

The bank responded by opening an account, and the economic impact of the case is minor, but many have questioned how the bank branch could be considered an essential facility (or in any way dominant). In the first place, there is another bank in town (albeit a branch of the National Bank, which had much higher charges). Even if the other bank was not a realistic alternative, there was no

showing that the airline needed an account at a bank branch in that town and no explanation of the refusal's competitive effects. The decision seems to many to have more of a regulatory flavour (a ban on refusals to deal by banks) than a grounding in competition principles.

Two important abuse of dominance cases are currently pending, one at the Commission and one at the Tribunal. The case that is pending at the Tribunal involves the claim that a firm that sells construction materials has abused its dominant position by selling price discriminating between affiliated and unaffiliated firms, and by tying the sale of cement to the sale of construction materials. The Commission found that the firm has a dominant position but rejected the claim of abuse, finding that the price discrimination was justified in light of the services provided by affiliated firms and that there was no tying arrangement.²⁷

The Commission is currently considering a case involving Backus, a brewer of beer (and soft drink firm) whose acquisitions over the last few years have made it the only Peruvian brewer. One of the world's largest brewers has filed a complaint alleging that Backus' "bottle exchange programme" – under which buyers receive a credit when they return bottles and buy more – is an abuse that prevents it from being able to enter the market through investment rather than imports.

2.1.4 Mergers and acquisitions, including prenotification

As noted above, the Free Competition Law does not even apply to mergers or acquisitions, making Peru one of a diminishing number of countries with no merger control. However, Indecopi is considering a proposal to make the law apply to such transactions and create a premerger notification system. This section first reviews the debate in Peru on the desirability of such a proposal and then discusses Indecopi's experience in the one area in which Peru *does* subject mergers to competition law analysis and premerger notification.

Debate over merger control in general.

Although Indecopi has in the past opposed the creation of a merger control system in Peru, many experts inside and outside Indecopi now regard merger control as necessary. There appear to be two reasons for this increased interest in merger control.

First, the old arguments against merger control are now more widely understood to be either incorrect or exaggerated.

- One old argument was that merger control might be harmful in small, open economies in which domestic firms may need to engage in mergers in order to achieve economies of scale and compete effectively against foreign firms. This argument has been discredited, and it is generally recognised that merger control does not prevent such mergers.²⁸
- It was also argued that premerger notification systems impose high costs on governments and firms. In fact, such systems can be costly, but the cost can be minimised by setting high reporting thresholds. Moreover, some countries reduce costs even further by banning anticompetitive mergers but not establishing a premerger notification system.
- The third traditional argument against merger control in Peru was that since merger analysis is particularly complex, there is an undue risk that competition enforcers will make incorrect decisions. The premise of this argument is questionable, and the argument has lost some of the force it may have had now that Indecopi has been operating for more than ten years and has some experience in merger analysis.

- The fourth and final argument is that the complexity of merger analysis provides discretion that can be used to control the economy in ways that are inconsistent with the economic reform programme. For example, the government might block mergers it does not like on the pretext that they are likely to be anticompetitive. Given Peru's history of government control and its apparently incomplete commitment to liberal economic reform, it is understandable that Peruvian reformers are particularly sensitive to this risk. However, this risk exists in all countries, and international experience provides methods for addressing it. Political interference is generally combated by giving decision-making authority to independent quasi-judicial agencies or the judiciary, implementing transparent procedures and principled policies, and providing for judicial review of particular cases and legislative oversight of agency policies.

Second, there have been a substantial number of mergers in Peru since the late 1990s, some of which raised considerable competition concerns.

- In the last few years, the number of firms that manage retirement funds shrank from 7-8 to four, and now those firms have been being accused of engaging in price fixing. There has been no finding of price fixing, but collusion is easier with four firms than with 7-8.
- A single brewer has recently acquired all of Peru's other brewers and is now accused of abusing a dominant position in the beer market. There has been no finding of dominance or abuse, but without some of those mergers, there would be no possibility of dominance.
- Telefónica, Peru's monopoly provider of fixed telephony, recently acquired Bell South, one of Peru's major cellular firms. Peru's absence of merger control means that it has no opportunity to consider whether this acquisition will hurt Peru's consumers and the Peruvian economy as a whole.

It is noteworthy that the competition law in Argentina, which was the main Latin American model for Peru's law, did not originally apply to mergers. Argentina added merger control to its law in 1999, after a Carrefour merger with another French firm gave it 70 percent of the market in one Argentine city. Without any merger control provision, Argentina had no way to defend the interests of its citizens. The same is true for Peru.

Merger control in the electricity market

Since 1996, Peru has had a separate law applicable to mergers and acquisitions in the electricity sector.²⁹ It has been suggested that this law was enacted "because of political reasons relating to the fact that Chilean producers supply a significant portion of the electricity in Peru."³⁰ The law bans mergers that are likely to harm competition in electricity or related markets, defining "merger" in a seemingly conventional manner except for a provision that excludes all acquisitions of shares that do not result in "control" of another company.³¹ Mergers include acquisitions of state assets that are being privatised, making this the one area in which Indecopi has an important role in the privatisation process. The law contains a comprehensive and conventional list of the factors the Free Competition Commission must consider in making its decisions and authorises the Commission to forbid anticompetitive mergers or to authorise proposed mergers subject to conditions that address the Commission's competitive concerns.

The law also establishes a premerger notification system. All mergers must be notified unless (a) a horizontal merger will not result in a firm's having a market share of 15 percent or more; (b) a vertical integration merger will not result in a firm's having a market share of 5 percent or more; (c)

the merger involves the acquisition of assets valued at less than 5 percent of the acquiring firm's total assets; or (d) the merger gives the acquiring firm less than 10 percent of the shares of the acquired firm. Exclusions based on market share are often criticised, because they permit the parties to define the market and may thereby permit them to avoid notification. This may be less of a problem when dealing with regulated firms, however. The low threshold for vertical mergers apparently reflects the widespread belief in Peru that there is currently too much vertical integration in the electricity field.

The law specifies some information the parties must provide, and the Commission has prepared a questionnaire that must be completed and submitted as part of the notification. Thereafter, the Commission has five days to determine whether the notification is complete, and after this period has expired or any deficiencies are corrected, the Commission has thirty days to make its decision. An additional ten days may be taken in particularly complex cases. During this process, the Commission may compel the parties to provide additional information and require public institutions to provide studies or opinions, but the deadlines on Commission action are not extended until such information is provided. The parties are subject to fines for provide "inexact" data in their notification, and to much larger fines for merging without the Commission's authorisation or failing to fulfil conditions ordered by the Commission.

Premerger notifications must be accompanied by the payment of a fee amounting to 0.1 percent of the value of the transaction, up to a maximum of about USD 45,000. Since 1992, the Commission has received 8 notifications, and the fees (and one fine) accompanying them have been very important to Indecopi in light of its general resource problems and its largely (now completely) status as a self-financing institution.

Six of the merger notification received by Indecopi related to privatisations. One recent privatisation was cancelled because of protest by the local populace, which tends to support the left-leaning policies of the 1980's. Another notified transaction was determined to be outside Indecopi's jurisdiction. The other four acquisitions were authorised without conditions. One international expert has questioned Indecopi's conclusion that these mergers were not anticompetitive because they lowered the HHI index, noting that in light of the State's large share of the market, any privatisation would have this effect.³² The acquisitions have increased the HHI index if one considers only privately owned firms. Indecopi defends its approach, however.

The other two mergers Indecopi considered were international transactions that were not originally notified but which Indecopi eventually authorised with conditions. Additional information on some of Indecopi's merger cases is set forth in Box D.

2.2 *The Market Access Law*

Although the competition laws of most countries do not include bans on anticompetitive government regulations, taxes, or activities, such bans (of varying scope) are contained in the general competition laws of Russia, Mexico, and a number of other countries, as well as in the Treaty of Rome. In Peru, such bans are included in Legislative Decree 807, which applies to regulations and other activities, and Legislative Decree No. 776, which applies to taxes that limit access to the market. Both laws are currently enforced by Indecopi's Market Access Commission.³³ Such enforcement means that Indecopi has sometimes been able to compel the kind of procompetitive regulatory reform most competition authorities can only advocate.

The Commission was originally authorised to make administrative decisions striking down governmental barriers to market access, and its decisions were a major part of Indecopi's core competition mission, both directly (by increasing efficiency) and indirectly (by showing the business

community that competition policy can be good for business). In October 2001, however, the Commission's administrative power to ban regulations was removed. The Commission could and did continue to analyse regulations and advocate reform of those it found to be unjustified, but it began receiving fewer complaints and its recommendations were often ignored. In July 2003, a new law reinstated some of the Commission's powers. At present, the Commission may issue reports finding that municipal or regional ordinances, and certain Ministerial orders, are unjustified barriers to access to the market. The reports are sent to the responsible council – Municipal, Regional, or the Council of Ministers. If the council does not respond in 30 days, the ordinance is automatically invalidated. If the council issues a decision to retain the restriction, the Commission may bring a legal action to require its elimination.

Box D. A Sample of Indecopi's Merger Cases

Two international mergers in the late 1990s increased the level of vertical integration in Peru's electricity sector. The Commission fined the parties approximately USD 120,000 for initially failing to notify the transaction, but it authorised the mergers with two requirements intended to minimise problems the integration might cause. One requirement was that under certain conditions, one of the generation firms would need to abstain from voting in an industry association on the allocation and transfer prices of electricity. The conditions triggering this requirement have not occurred. The second requirement was that the distribution firm acquire electricity through public bidding open to all generators. Resolution No. 012-99. It appears that the regulator for the energy sector, Osinerg, monitors compliance with this requirement.

A public tender of stock in an electricity generation enterprise resulted in a vertical merger that the Commission considered unobjectionable and authorized without imposing any conditions. Resolution No. 31-2001.

A more recent acquisition of an electricity generation enterprise constituted a horizontal merger that the Commission authorized without imposing any conditions. Resolution No. 20-2002.

Even more recently, Peru privatised two important electricity transmission enterprises, one of which operated in the south, the other in the north. The firm that acquired these enterprises was already in the electricity transmission business, but the Commission authorised the transaction without conditions. Resolution No. 16-2002.

This new system appears on its face to be a constructive way of providing competition officials with powers going beyond "mere" competition advocacy but at the same time giving regulators an opportunity to defend their rules publicly and in court. Moreover, the system appears to be functioning well. Between July 2003 and March 2004, the Commission has issued 46 reports. In 44 of the cases, the report led to the elimination of the rule, almost always because of council inaction but in one instance by a rule adopted by the Council of Ministers. There were two council decisions to retain the rules, and in both of those cases the Commission has taken legal action them.

As was discussed in the peer review of Russia during the February 2004 meeting of the OECD's Global Forum on Competition, laws containing enforceable bans on anticompetitive regulations require some means of taking into account the governmental needs that the regulation was intended to meet. In Peru, there is a legislative framework for this analysis.

First, the Market Access Commission examines whether the regulation is "legal" in the sense of being within the authority of the entity that enacted it. If not, the regulation can be condemned without further analysis. For example, the Ministry of Labour charged firms a fee for processing information it required them to submit. The Market Access Commission found that the fees were not authorised,

because Peruvian law forbids government entities from charging fees except to cover the costs of services they provide for the person from whom the fee is demanded.

Second, if a regulation is within the government entity's authority, the Commission examines whether it is "rational" in the sense of being reasonably related to its proper goals. For example, the Commission struck down a requirement that cotton fibre imported into Peru be fumigated in vacuum chambers based on its finding that fumigation in atmospheric pressure was equally effective and significantly less expensive.

For obvious reasons, challenges to government regulations can raise political problems. It is therefore notable that Indecopi has been successful in challenging a number of actions by Ministries as well as municipalities. For example, it eliminated a variety of non-tariff barriers to trade imposed by the Ministry of Agriculture and other entities.³⁴ It also struck down a requirement that exporters pay a fee for having the Ministry of Industry review their receipts.³⁵ Since Indecopi was officially part of the Ministry of Industry at the time, this action illustrates the autonomy it once had. The Commission's cases have not always been so successful, however. In an *ex officio* case, the Commission ruled that the Ministry of Economy and Finance was illegally charging fees in excess of its costs for issuing and revalidating passports.³⁶ Although the legal case was successful, the result was reversed by special legislation.

The Market Access Commission is also able to deal with government actions that compel anticompetitive conduct by enterprises. In a recent, important case, the National Society of Industries filed a complaint challenging Ministry of Transport rules that in essence fixed prices in the market for road freight transport. There are significant problems in this market, partly because of "informal" firms with unlicensed drivers, unregistered and unsafe vehicles, etc., but also partly because of lax enforcement of the safety and other rules vis-à-vis the legitimate firms. As a result, the informal sector had cost advantages over legitimate firms, and the Ministry's response was to fix prices. In principle, this directive could help the legitimate truckers by increasing their fees, but it would also permit illegitimate truckers to increase their fees and to impose unnecessary and unjustified costs both on Peruvian firms that hire truckers and on Peruvian consumers generally. The Commission found the decree to be both unauthorised and irrational, and the decision was affirmed by the Tribunal.³⁷ The case illustrates the importance of Indecopi's work by revealing (i) the Ministry of Transport's failure to consider competition policy principles, and (ii) and the large scale of some of the barriers that have been eliminated.

Many of Indecopi's cases have involved smaller but clearly anticompetitive and illegal taxes on interregional trade and the use of public roads. In addition, many cases have involved attempts by municipalities to impose illegal charges on utilities for installing poles to carry electrical or telecom cable.

Indecopi has also used the Market Access Law to compel government entities to become more transparent. Peruvian law requires each government entity to have publicly available TUPAs (Texts of Administrative Procedures) – written descriptions of what a person must do to get the entity to act within its field of competence. A TUPA might, for example, list all of the information that must be submitted when applying for a license to create a new business, explain how the information is analysed, state what costs are involved, and estimate how quickly a decision can be expected. Early on, Indecopi was very active in seeking to compel government entities to create TUPAs and make publicly available, as well as in challenging anticompetitive requirements contained in TUPAs. There is a perception that Indecopi for a time backed away for this very useful form of work, but Indecopi says that the programme is now active (though the Commission's staff has been reduced to only three people).

A prominent local case arose after the municipality of Lima adopted a requirement that all buses and “combis” (minibuses that in theory run fixed but overlapping routes and will stop anywhere to pick up passengers) needed to use the municipality’s terminals. Previously, many of the companies in this business (some of them individuals who had purchased a single bus or minivan) had on their own or collectively created their own terminals, and Lima’s new rule threatened to make that investment worthless and to harm companies that owned particularly advantageous terminals. The Commission found that Peru’s law on municipalities authorised Lima to assign obligatory routes and to regulate firms’ creation of terminals through zoning and licensing procedures, but did not authorise it to mandate use of *its* terminals. Since the rule exceeded the municipality’s authority, it was illegal.³⁸

Market access cases are more complex when they involve an assessment of whether an authorised rule is reasonably related to its legitimate goal. During the 1990s, the Commission was apparently very strict in applying this part of this test, giving relatively little weight to government entities’ regulatory goals. In one well known 1997 case, for example, Indecopi struck down a municipal ordinance that required taxicabs to be painted yellow. The taxicab market is one that most countries view as having market failures that call for some regulation in order to protect consumers, and the ordinance would have provided some such protection. However, Indecopi condemned the requirement as an “irrational” barrier to market access because (a) the cost of repainting would have been prohibitive to some drivers, and (b) it would have prevented the use of family cars as part-time taxis.³⁹ Although the case has been cited as exhibiting how Indecopi’s multiple functions permit a balanced approach that recognises consumer and competition perspectives,⁴⁰ it is also criticised as exhibiting an over-simplified, anti-government approach associated with the “Chicago School” of economics. A more nuanced approach, for example, might have permitted the regulation to be phased in to reduce costs and could have exempted family cars used as part-time taxis.

More recently, the Commission is said to have taken a more balanced approach, and it is clearly being more proactive. In the period 1993-1998, the Commission handled 265 cases, 93 percent of which involved complaints and 7 percent were *ex officio*. Currently, about 50 percent of the cases are *ex officio*.

2.3 *The Unfair Advertising and Unfair Competition Laws*

Peru’s laws banning Unfair Competition⁴¹ and Unfair Advertising⁴² are both administered by Indecopi’s Unfair Competition Commission. This administration consists primarily of proceedings to resolve disputes between two or more businesses; there is very little *ex officio* enforcement of the Unfair Competition Law and only a little more of the Unfair Advertising Law. Moreover, since it costs approximately USD 180 to file a formal complaint before the Unfair Competition Commission, it is rarely used by consumers, which is significant because this Commission has exclusive jurisdiction over advertising cases. An increasing share of the Unfair Competition Commission’s work involves advertising cases, but in 2003 unfair competition cases still represented 55 percent of the Commission’s work.

The Unfair Advertising Law generally covers false or deceptive advertising claims. Unfair Competition disputes are said to fall into four main categories, three of which are related in one way or another to false or deceptive claims. One important category is “passing off” that does not involve infringement of a registered trademark. (When a registered trademark is involved, the case is handled by Indecopi’s Trademark Office.) Other forms of deception (*e.g.*, false claims of a product’s origin or contents) are a second major category. False disparagement of a firm or product is the third main category of cases. The fourth category – misusing business secrets and inducing breach of contract – does not have many cases.⁴³

As is generally the case in other countries, unfair competition and false or deceptive advertising are illegal in Peru without regard to whether the conduct has any effect on the market as a whole. Moreover, many of the Commission's cases are essentially private disputes. Nonetheless, the Commission's activities do make a valuable contribution to Peru's market reform, because they help establish "the rules of the game" and discourage forms of conduct that reduce citizens' confidence in the market.

One of the efficiencies of combining unfair competition (and consumer protection) work with core competition enforcement is that the former is a reminder that markets do not work perfectly, and the latter is a reminder that regulations intended to protect firms or individual consumers may cause more harm than good if they unnecessarily restrict firms' activities. One context in which these issues have arisen at Indecopi involves the application of the advertising law's restrictions on comparative advertising.

Indecopi's original approach was established in the 1990s in a case involving an advertisement claiming that one product was "softer" and provided "more protection" than another. The Unfair Competition Commission regarded the claims as legitimate subjective judgments that would not mislead a reasonable consumer. The Tribunal took a different approach, holding that advertisements are not comparative within the meaning of the law unless they make objective claims. Since the law's special provision on comparative advertising was inapplicable, the advertisement should be analysed as a "common" advertisement, meaning that it was lawful unless deemed misleading. The Tribunal agreed with the Commission that the advertisement was not misleading, and dismissed the case.⁴⁴ The theory underlying both of these approaches was that advertising promotes competition and should not be banned unless it is false or misleading.

Although a 1997 amendment supposedly codified such an "American" approach, a recent Tribunal case is apparently part of an attempt by the Tribunal to realign itself with a European model. The advertisement at issue showed people drinking a dark soft drink and exclaiming how good Coca Cola is, only to be told that they have in fact been drinking Peru Cola. The Tribunal found the advertisement illegal, and issued a mandatory precedent saying that subjective comparative claims are essentially illegal per se; that is, they inherently pose a risk of "confusion" and are therefore illegal without the need for evidence that they are false or misleading.⁴⁵ On its face, this decision seems consistent with the most recent European Union directive.⁴⁶

One interesting aspect of this case is that by some standards at least, the advertisement's claim was not subjective. The implicit claim of the advertisement can be seen as being that a significant number of Peruvians cannot taste the difference between Coca Cola and Peru Cola. That claim is neither subjective nor unverifiable. Peru Cola offered no survey or other evidence to back up the claim, and the claim might justifiably be condemned for being false. However, by treating the claim as subjective, the Tribunal apparently made the truth of the claim irrelevant. As it develops its approach in this area, Tribunal should consider that combining an essentially per se ban on subjective comparisons with an expansive view of what is subjective could lead to decisions that hurt competition by banning claims that are verifiable, verified, and non-deceptive.

2.4 *The Consumer Protection Law*

Peru's Consumer Protection Law⁴⁷ is applied by Indecopi's Consumer Protection Commission. Although the law does not apply to false or deceptive advertising, it is in other respects quite broad. It declares a broad range of consumers' rights – including a right to be protected from unhealthy and unsafe products – and suppliers' obligations – including the need to issue an invoice for all transactions; display prices; maintain price lists and make available to consumers on demand; warn

consumers about possible problems in promptly obtaining parts or accessories; deliver services speedily; provide sufficient information about products and services; ensure that foreign products have warranty information and warnings in Spanish; make repairs, replacements, or reimbursements for defective products; and compensate consumers for damage caused by inadequate service. It also regulates consumer credit transaction.

The Consumer Protection Commission's Secretariat spends much of its time handling informal inquiries from consumers and businesses. In addition, during 2003 it handled 4,700 disputes through informal conciliation, satisfactorily resolving about 80 percent of them. Consumers can commence formal proceedings before the Commission by filing a complaint and paying a fee of approximately USD 9, and 1,150 such complaints were filed in 2003. These 1,150 complaints plus 50 *ex officio* matters gave the Commission a total of 1,200 proceedings in 2003, of which 216 were found to be outside the Commission's jurisdiction, 300 were resolved by post-complaint conciliation, and 684 required formal resolution. The complaints were determined to be unfounded in 264 of these cases, and 420 cases resulted in findings of illegal conduct.

Among Indecopi's innovative consumer protection projects in the 1990s was a campaign against racial discrimination in Lima nightclubs.⁴⁸ Indecopi began the campaign by collecting and publishing information, and it initiated proceedings – and issued fines – only after a consumer organisation filed a complaint against firms that refused to change their policies voluntarily. The campaign was popular and successful, but for present purposes the competition policy analysis behind the campaign is most noteworthy. Obviously, inequality of opportunity to engage in business activities distorts markets and impedes efficiency, but Indecopi expanded on this and reasoned that markets and efficiency are also harmed when the value of money depends on the skin colour of its owner. In addition to the immediate harm from this inefficiency, such racial discrimination impedes the development of a competition culture because it makes people less confident that they may benefit from market reforms.

Another, more typical consumer protection initiative involved the collection and publication of information on the average amount of time consumers spent waiting in line to cash a check at banks. The result was increased consumer demand for prompt service and increased competition among banks.

As in other fields, Indecopi was initially very reluctant to engage in law enforcement. For example, it engaged in a programme in which its staff members would go to markets and offer to reweigh the meat and other products consumers had just bought. The programme helped some consumers directly and provided very beneficial publicity, but some questioned whether Indecopi's policy of not checking sellers' scales and fining "cheaters" had given up a useful added deterrent. Recently, Indecopi and the Commission have become more oriented to law enforcement, though the focus is still on dispute resolution.

It appears that the consumer movement in Peru is still at an early stage of development. One consumer organisation, ASPEC, appears to be both serious and active in working to help consumers learn about and protect their rights under a market economy, but many other so-called consumer groups combine some worthwhile activities with the pursuit of political or personal agendas. Indecopi is seen as useful but as doing too little and working too slowly, though the Consumer Protection Commission says that the average duration of its proceedings is currently only two months. Some of the concerns expressed by consumer organisations appear to reflect a desire that Indecopi protect consumers in ways that may be outside Indecopi's market-oriented mandate.

2.4 *Antidumping and Safeguard Determinations*

Indecopi's Antidumping and Safeguard Commission is, as its name suggests, responsible for making Peru's antidumping and safeguard determinations. In antidumping cases, it determines whether illegal dumping is taking place by comparing foreign firms' domestic and export prices, calculating the dumping price differential, and assessing whether and to what extent domestic firms are suffering injury caused by the dumping. If illegal dumping is found, the Commission determines a recommended additional import duty that will bring the "dumped" product's price up to its "normal value." The Commission makes such decisions pursuant to a delegation from the Ministry of Economy and Finance,⁴⁹ and although the Commission is autonomous in deciding particular cases, it must confer with the Ministry on policy matters, including the regulations it applies in those cases.

This delegation of decision-making power to Indecopi is very unusual. Competition policy officials and experts tend to oppose the antidumping process on the ground that it condemns prices that are low but not predatory, thus protecting domestic producers but injuring domestic consumers (individuals, firms, and governments). In addition, they believe that antidumping proceedings may lead to cartels in previously competitive markets. WTO rules give countries a certain amount of leeway in how they make the various calculations involved in antidumping cases, and competition policy principles seek to ensure that countries use approaches that minimise the harm antidumping proceedings have on consumers and the economy as a whole.

On its face, Peru's system provides an opportunity for competition considerations to be given some, and perhaps substantial, weight at various stages of antidumping proceedings. During the 1990s, Peru's approach to antidumping sought to minimise the anticompetitive effects of antidumping in various ways, such as declining to adopt some WTO-authorized policies and procedures, and strictly requiring complainants to prove injury and causation. There was a dramatic jump in antidumping complaints beginning in 1998, but that is not surprising given Peru's economic difficulties and China's growing presence in the global economy. The number of cases continued to grow substantially until 2003, when there was a significant decline.

It appears that Indecopi's involvement in antidumping matters continues to promote competition to some extent, but the system has experienced several ups and downs.

- As noted above, early in the current administration, all of Indecopi's Antidumping Commissioners suddenly resigned and were replaced by a new team presided over by an oil executive who held a prominent position in the National Industries Society. Shortly thereafter, the Commission's Secretariat resigned. It is widely believed that the Commissioners' resignation and replacement were the result of ministerial pressure, and that the Secretariat's resignation was a protest against the new Commissioners' policies.
- Controversy about and between the Commission and the Secretariat appears to have died down, and it is clear that the current Secretariat is inclined to give weight to competitive considerations. Moreover, ministerial pressure has apparently stopped, perhaps because Indecopi now reports to the President of the Council of Ministers rather than the Ministry of Industry.
- However, as a result of changes in its composition, the Competition Tribunal itself is now generally regarded as being more supportive of the antidumping process than the Ministry of Economy and Finance, or even the Ministry of Trade. Indeed, at Indecopi's urging, Peru has adopted rules that make more use of WTO-authorized policies and procedures that facilitate antidumping cases. There is nothing improper about Indecopi's actions, but as a policy matter competition officials generally regard the antidumping process as anticompetitive and do not seek to make it more effective.

2.5 *Technical Standards and Certification Laws*

The Technical and Regulatory Standards Commission operates as the National Standardisation Body, responsible for approving technical standards (voluntary) and regulations (mandatory) in accordance with Peruvian law and the rules of multinational bodies such as the WTO.⁵⁰ For example, the Commission seeks to ensure that the standard setting process includes representatives of producers, consumers, and public bodies, and that standards do not create entry barriers by imposing design rather than performance criteria. It also operates the national accreditation system, evaluating, authorizing, and monitoring the performance of certification bodies. In addition, it oversees compliance with WTO rules on health and safety standards that may be technical barriers to trade.

Domestic standards can promote competition by promoting consumer confidence, and internationally consistent standards can promote competition by increasing technical compatibility. On the other hand, standards can be anticompetitive, preventing market access by new or alternative products. Thus, there are some competition-related implications to the activities overseen by the Commission, but its work is basically technical and does not normally involve the application of competition policy principles.

2.6 *Intellectual Property Laws*

Peru's intellectual property laws were revised in 1991 because the government believed that sound laws and enforcement mechanisms were necessary to attract the foreign direct investment that would help create economic growth.⁵¹ Indecopi enforces these laws through three offices, which are functionally the same as its commissions except that each is headed by a single individual. The Trademark Office promotes the registration of trademarks, registers them, and resolves trademark-related disputes. The Copyright Office and Patent Office engage in similar activities in their respective fields.

Indecopi has promoted respect for intellectual property and competently held proceedings to resolve complaints filed by individuals and firms, and the result has been both more registrations and less piracy. By 2000, the piracy rate for computer software had fallen from 85 to 60 percent, and the piracy rate for motion pictures and sound recordings was 50 percent and 85 percent, respectively.⁵² As in other fields, however, Indecopi received criticism for not being a more aggressive law enforcer. One commentator's 1999 criticism of the Intellectual Property Tribunal is very similar to what others said about the Competition Tribunal:

“[It] is considered technically skilled ... but perhaps not guided enough by the deterrence-oriented approach of the courts and too steeped in the administrative culture of Indecopi.”⁵³

Piracy rates have apparently continued to fall, and Indecopi is now participating in a broad, aggressive campaign against piracy.

2.7 *The Market Exit Law*

The Market Exit Commission was created in order to provide a more efficient and less corrupt alternative to the judicial bankruptcy process.⁵⁴ In addition, the Commission was intended to and did develop a reorganisation process, whereas the judiciary could offer only liquidation. The Commission's activities have contributed to the development of a market economy, but Indecopi's day to day work in this area has little or nothing to do with competition.

3. Institutional Issues

When Peru's market reform began in the early 1990s, the reformers feared that government ministries lacked the political will and the technically proficient professionals to implement the new and in some cases complex policies. They concluded that the agencies charged with these reforms should not be subject to ministerial control, should be able exceed normal civil service pay limits in order to hire qualified staff, and should draw on private sector expertise through volunteer advisory councils.

Indecopi was one of the first of these agencies. This section begins by describing Indecopi's internal structure, the procedures it uses in resolving complaint and *ex officio* proceedings, its investigative and remedial powers, and its caseload and resources. Thereafter, it discusses the potential for private remedies under the competition law, after which it considers the advantages and disadvantages of Indecopi's extraordinarily broad mandate. It concludes with comments on other means of handling competition law cases in Peru and on international issues relating to Indecopi's competition activities.

3.1 *Indecopi's organisational structure*

Indecopi is governed by a three-person Board of Directors. Its President and one other board member are appointed by the President of the Council of Ministers, and the third member is chosen by the Minister of Economy and Finance. The Presidency is Indecopi's highest office and a full-time position, and the President is charged with overseeing the agency's day-to-day operations and the refinement and implementation of policies whose broad outlines are set by the Board. The other two board members are paid to attend four-hour meetings that take place every other week. One of their major functions is to participate in selecting the individuals who serve as Indecopi's unpaid Commissioners. Both the President and the other board members are subject to removal without cause.

In theory, the Board is overseen by a nine-member Advisory Council. It was originally contemplated that the Council – made up of distinguished lawyers, businessmen, academics, legislators, etc – would play an important role in ensuring public scrutiny and responsiveness to the public and government. In practice, however, the Council has been almost completely inactive.

Indecopi's "jurisdictional" bodies

In broad terms, Indecopi is divided into two parts, the most important of which for present purposes is the "jurisdictional" part that handles cases. The highest "jurisdictional body" is the Tribunal for the Defence of Competition and Intellectual Property. Members of the Tribunal are nominated by Indecopi's Board of Directors and appointed by the President of the Republic. Officially, the Tribunal is an independent part of Indecopi with respect to its handling of particular cases. The original law protected this independence by providing that Tribunal members were appointed for a fixed five-year term during which they could be removed only for cause, but as amended in 1994 the law permits removal without cause.⁵⁵

Until recently, the Tribunal had two chambers – an "Intellectual Property Chamber," and a "Free Competition Chamber" (the latter being commonly and in this report referred to as the "Competition Tribunal"). The Intellectual Property Chamber handles appeals from the Trademark, Patent, and Copyright Offices. The Competition Tribunal has in the past handled appeals from all of Indecopi's seven commissions – Free Competition, Market Access, Unfair Competition, Consumer Protection, Antidumping, Technical and Regulatory Standards, and Market Exit (bankruptcy). Today, however, appeals from decisions by the Market Exit Commission are heard by a new "Bankruptcy Chamber" of the Tribunal.

The Tribunal's most obvious responsibilities relate to the disposition of cases that have been appealed, but it also establishes procedural guidelines and has developed a system of issuing de facto substantive guidelines. When a case before the Tribunal raises important legal issues, the Tribunal writes a statement of how the issue should be resolved and declares this to be a special "mandatory precedent." The Tribunal is also specifically authorised to make recommendations to Indecopi's President concerning legislative or regulatory measures "needed to guarantee competition and intellectual property rights," but the President has the final say on such matters.

The presidency of the Competition Tribunal is a full-time position, and the President runs the Tribunal on a day-to-day basis. The other four positions on the Tribunal are part-time, and members are paid to attend six 2½-hour meetings per month. The position of the Tribunal President therefore tends to be very influential.

There is a complex relationship between on the one hand, the Presidents of the Tribunal's Chambers, and the other hand, the President of Indecopi. The Competition Tribunal President, for example, is nominated by the Indecopi President, is independent of the Indecopi President in handling formal proceedings, typically has greater expertise in his field than the Indecopi President, but is subordinate to the Indecopi President on policy issues (such as the desirability of amending the competition law). If the Tribunal President and the Indecopi President do not work well together, this system could make policy planning very difficult.

Like the other commissions whose appeals are heard by the Competition Tribunal, the Free Competition Commission has six positions, all of them part-time and unpaid. Commissioners' work consists of attending one three-hour meeting per week, plus whatever preparation time is involved. The Commissions are independent from the Tribunal in their handling of individual cases except that they must follow procedural guidelines and mandatory precedents. They are also nominally independent from Indecopi's President and Board, though the Board can remove Commissioners without cause at any time.

Each of Indecopi's jurisdictional commissions and offices is served by its own staff, which is headed by a person designated "Technical Secretary." The staff evaluate, investigate, and prepare proposed resolutions disposing of the complaints that have been filed. When resources permit, the staff may also conduct *ex officio* investigations and consider policy questions raised by their work. The Free Competition Commission's staff consists of a manager, three lawyers, two economists, four students, and a secretary. The Market Access Commission's staff consists of a manager and two assistants (all lawyers), four students, and one secretary.

Indecopi's departments

Outside Indecopi's jurisdictional bodies, its personnel are for the most part organised into "departments" whose missions are mostly administrative, but which also include units that co-ordinate Indecopi's international activities and implement its public education and some advocacy functions. For present purposes, the most important of these departments is the Economic Policy Department. This department has about a dozen economists and has two important functions: (i) co-ordinating strategic planning and policy analysis (for advocacy and other purposes), and (ii) providing economic expertise to jurisdictional units when complex economic issues arise (*e.g.*, defining markets in a free competition case, or calculating the dumping margin and assessing injury in a dumping case). Because its work more frequently raises complex economic issues and because it is perceived as having particularly limited resources, the Free Competition Commission is a primary client and is currently receiving assistance in 4-5 cases.

Indecopi's "decentralised" regional offices

Indecopi's official office is in Lima, but in the 1990's it began a programme of "decentralising" and even privatising many of its functions. It created Decentralised Indecopi Offices (ODIs) by entering into joint ventures with various partners, mostly local chambers of commerce but also some universities, regional authorities, and a bar association. The programme was initially based on a commercial "franchising" model, with Indecopi providing its "brand" and oversight to respected local groups. So far, none of the ODIs has been delegated Indecopi's authority to decide actual contested proceedings except in the bankruptcy area; thus, the ODIs are not used on core competition matters. As economic problems increased following the crisis of 1998, Indecopi created new decentralised offices to handle bankruptcy proceedings, though these offices have now been closed down (except for three offices in different parts of Lima).

Indecopi initially had problems ensuring that ODIs's decisions were consistent with each other and with Indecopi policies, but this situation has apparently improved.

Observers have pointed out that the decentralisation programme's structure raises significant incentive issues.⁵⁶ Like Indecopi, the ODIs have a financial incentive to focus on bankruptcy and trademark registration, which provide income, and to skimp on free education and consumer complaint services. Unlike Indecopi, however, the franchisees are generally not public authorities, and they all have other functions that they may be tempted to subsidise with the fees they charge for Indecopi-related work. Preventing such conduct is very difficult. Nonetheless, there is apparently agreement that Indecopi needed to find ways to reach beyond Lima, and it clearly lacks the resources to create offices of its own.

3.2 *Indecopi's case-handling and other procedures*

As is the case for most of Indecopi's commissions, Free Competition Commission proceedings usually begin with the filing of a complaint and the payment of a fee. (The size of the fee varies by Commission. It costs about USD 275 to begin a free competition case, USD 118 to begin a Market Access case, USD 200 to begin an unfair competition case, and USD 9 to begin a consumer protection case.) The remainder of this section focuses on the powers and procedures of the Free Competition Commission, with relevant variations noted in footnotes.

The Secretariat may also open *ex officio* proceedings, but as a matter of policy this was rarely done during the 1990s. Indecopi reportedly decided to become more proactive in 2002, but resource limitations make this difficult, and the Free Competition Commission currently has only one *ex officio* proceeding. This does not, however, mean that the Commission and staff have no ability to favour cases with real importance over purely private disputes. Formal complaints accompanied by a fee are often preceded by inquiries or informal complaints, and the staff can use this time to emphasise either the difficulties or the importance of a formal proceeding. In addition, staff resources are allocated in part on the basis of cases' relative importance, and if a complaint is filed in an important matter, the Commission can and does pursue it even if the complainant chooses not to press the case or resolves its dispute with the defendant.

When the Secretariat concludes that a formal complaint contains reasonable indications of violation, it notifies the defendant of the charges, which are a matter of public record but are not publicized. The defendant then has 15 working days to reply to the charges and present evidence, and other parties with a legitimate interest in the matter may intervene as formal parties to the proceeding. Investigations that are opened *ex officio* are not a matter of public record until the Secretariat has notified the defendant and received its reply. In either situation, this reply period is followed by an

evidentiary period that in theory consists of 30 working days. Thereafter, the Technical Secretariat prepares a proposed resolution for the Commission, which must in theory issue its ruling within five working days after receipt of the Secretariat's report.

These deadlines are frequently ignored, however, and both investigations and proceedings can take years.⁵⁷ In fact, the only common complaint about proceedings before the Free Competition Commission is that they take too long – a complaint that is consistent with the often expressed view that this Commission is particularly understaffed. Indecopi says it has taken steps to speed up the process, but complaints continue. In other respects, the Commission and its Secretariat are highly regarded. Lawyers who represent clients before the Commission (and other Indecopi commissions) describe the process as fair and the staff as professional. Business and consumer groups consider Indecopi a basically trustworthy and useful agency (though too slow and insufficiently proactive).

In one recent case, the Tribunal for the first time asserted the power to issue interim relief – orders that the parties cannot engage in particular forms of conduct during the pendency of the proceeding.

As noted previously, decisions of the Free Competition Commission may be appealed to the Competition Tribunal. Appeals must be filed with 15 days of receipt of the Commission's ruling. The Tribunal's decisions may also be challenged, first in the Administrative Chamber of the Superior Court of Lima, and secondarily in the Civil Chamber of Peru's Supreme Court. Exceptionally, there may be third-instance appeals to the Court's Constitutional and Social Chamber.

With respect to matters other than case-handling, Indecopi has general policies and procedures intended to ensure transparency and fairness. It publicizes its more important decisions, and reports those decisions and other relevant information on its web site. By law, all of the Competition Tribunal's mandatory precedents are also published in the Peru's Official Gazette.

3.3 *Indecopi's investigative and remedial powers*

All of Indecopi's commissions and offices have quite extensive investigative powers. Indecopi can summon and interrogate individual suspects and representatives of firms under investigation. It can also demand the production of documents (broadly defined to include computer records and the software necessary to access it), and it can order that documents be "immobilised" for 2-4 days. With judicial authorisation, it can also remove documents from a company facility for up to six days. Finally, Indecopi has the power to make unannounced inspections of company records, during which it can obtain copies of documents and interrogate company representatives. Indecopi can if necessary call upon the police to overcome resistance, and with judicial authorisation it can compel closed facilities to be unlocked by force. Both the police and the judiciary have sometimes proved less than co-operative during the 1990s, and it is unclear whether this continues to be a problem.

Indecopi's investigative powers are backed up by strict sanctions. Making false statements to Indecopi, destroying or failing to produce a document demanded by Indecopi, and obstructing Indecopi's investigative functions in other ways is punishable by fines not less than USD 1,000 and not more than USD 50,000.

When Indecopi finds a party has committed a violation, it is authorized to issue cease and desist orders and order the payment of fines.⁵⁸ Any firm found to have committed a violation is subject to a fine of up to 10 percent of its sales or revenues from the previous tax year. In addition, when a firm or association commits the violation, Indecopi can impose fines of up to USD 100,000 on each firm or

association representative who engaged in the illegal conduct. If the illegal conduct continues, Indecopi can double the fines and keep doubling them without limitation.

In addition to these administrative sanctions that the Commission can impose directly, it can make a criminal complaint to the public prosecutor's office. Such complaints can be made only after a person has been found to have violated the Free Competition Law, but the Peruvian Penal Code does provide for imprisonment for up to six years for violating the Free Competition Law.

In general, the Free Competition Commission and Indecopi's other quasi-jurisdictional bodies – especially the Tribunal – have been cautious in ordering fines. Two of the firms in the Chicken Case were fined USD 450,000, but in other cases cartel members have not been fined or received fines of around USD 1,000. Moreover, the Free Competition Commission has never fined an officer or other individual representative of a firm. (The Market Access Commission has fined the mayors of municipalities, however, and the Unfair Competition Commission has fined officers of firms.) The only criminal referral for a competition law violation occurred long ago and did not result in a criminal proceeding. Arguably, this cautious approach is consistent with the widely accepted view that it can be counterproductive to impose what the public sees as harsh fines for conduct that it does not regard as harmful. Some regard Indecopi as having been too cautious, however, and after ten years of enforcement, Indecopi says that it is now beginning to take a stricter approach.

3.4 *Indecopi's core competition resources and caseload*

The resources of Indecopi's core competition commissions have grown in a fairly steady manner over the years, but both commissions have always had a very small number of staff members. In 1996, the Free Competition Commission had an authorised staff of 4, which grew to 5 in 1999 and 7 in 2003. Understandably, the Commission has not handled a large number of cases. The Market Access Commission's authorized staff grew from 2 in 1996, to 3 in 1999, to 4 in 2003.

The Free Competition Commission

In 2003, the Free Competition Commission had a budget of USD 183,000 and 7 full-time staff positions. There are currently six staff members: a manager, three lawyers, and two economists. (Support personnel are covered by another budget category). There are also 6 Free Competition Commissioners, of course, but they are unpaid and work only a few hours per week. The Commission's staff is sometimes assisted by the Economic Policy Department, meaning that on average there may be 9-10 Indecopi employees doing Free Competition Commission work. Indecopi has done a good job in supplementing its resources with student interns, and the Free Competition Commission staff now has four such interns.

Given the small size of the staff and the relative complexity of competition investigations, it is not surprising that the Commission resolves only a small number of cases per year. The first four columns of Table A provide data for the 1999-2003 period on the number and kind of competition cases, as well as information on sanctions. For comparative purposes, the fifth column contains the same information for unfair competition cases.

The Free Competition Commission's relatively high number of horizontal cases reflects the previously noted policy of focusing on cartels. Indeed, as noted above, the only *ex officio* cases the Commission has began involved alleged cartels. The lack of vertical cases also reflects a previously noted policy decision to pursue such cases only as possible abuses of dominance. Otherwise, the small number of cases makes it difficult to discern trends or make generalisations.

Table A

	Horizontal Agreements	Vertical Agreements	Abuse of Dominance	Mergers	Unfair Competition
2003					
Matters opened	5	0	4	0	130
Orders or sanctions imposed	3	0	0	0	97
Total sanctions imposed	US\$ 208 590	0	0	0	US\$ 891 272
Average sanction	US\$ 69 530	-	-	-	US\$ 9 100
2002					
Matters opened	3	0	6	3	129
Orders or sanctions imposed	5	0	3	0	37
Total sanctions imposed	US\$ 793 235	0	US\$ 10 941	0	US\$ 344 395
Average sanction	US\$ 158 647	-	US\$ 3 647	-	US\$ 9 307
2001					
Matters opened	4	0	5	2	125
Orders or sanctions imposed	0	0	0	0	62
Total sanctions imposed	0	0	0	0	US\$ 270 942
Average sanction	-	-	-	-	US\$ 4 402
2000					
Matters opened	5	0	2	0	127
Orders or sanctions imposed	2	0	1	0	52
Total sanctions imposed	US\$ 5 800	0	US\$ 16 571	0	US\$ 216 080
Average sanction	US\$ 2 900	-	US\$ 16 571	-	US\$ 4 155
1999					
Matters opened	1	0	1	3	125
Orders or sanctions imposed	1	0	1	1	70
Total sanctions imposed	US\$ 2 058	0	US\$ 25 533	US\$ 82 353	US\$ 486 122
Average sanction	US\$ 2 058	-	US\$ 25 533	US\$ 82 353	US\$ 6 945

The Market Access Commission

The Market Access Commission had a (reduced) budget of only USD 147,000 (and four work-years) in 2003. It currently has a staff of three. Since the Market Access Commission's legislative authority changed in late 2001 and again in early 2003, a five-year historical presentation of the Commission's cases would be of little value. Between October 2001 and July 2003, the Commission issued 36 reports, many of which were ignored. Between July 2003 and March 2004, the Commission has issued 46 reports, all but two of which resulted in the almost immediate elimination of the anticompetitive rule.

Resource levels and sources

The two Indecopi Commissions doing core competition work had a combined budget in 2003 of USD 320,000 (11 work-years), and currently there are apparently only nine staff members assigned to these two commissions. If one attributes one-fourth of the Economic Policy Department's 12 work-

years and one-half of the Competition Tribunal's eight work-years to the core competition mission, one gets a total of 18 authorised positions. It appears that at present, 16 people are doing all of Indecopi's core competition analysis and investigation.

(Osiptel, the telecomm regulator that enforces the Free Competition Law in all cases in which a telecom firm is a party, has 5-6 people doing competition work, but they also have regulatory responsibilities. Including Indecopi and Osiptel, it appears that the number of work-years devoted to competition enforcement is about 20.)

Over the period 1999-2003, these numbers have been growing,⁵⁹ but for a country of its size – even a developing country – Peru's competition enforcement resources are very small, particularly if one focuses on the seven work-years assigned to the Free Competition Commission. As noted above, Indecopi's Economics Policy Department regards the Competition Commission as particularly understaffed.

Neither competition principles nor international experience provide any basis for estimating how much of a country's scarce resources should be devoted to competition law and policy, and since different countries have different enforcement systems, it is not possible to make precise work-year comparisons. However, a 6-7 person competition law enforcement staff is very small, and even the 20 work-year number (including Osiptel) is small compared to the allocation in other countries (such as Romania and Chile) with comparable GDP levels or even to some countries (*e.g.*, Bulgaria) with much smaller GDP levels. Because South Africa was recently the subject of an OECD peer review, there is data for a more precise comparison, and the comparison may be a good one because South Africa and Peru are considered to be at the same level of economic development. Peru's GDP is about one-third that of South Africa, but it allocates only one-sixth as many work-years to its core competition mission.⁶⁰

3.5 *Private actions for damages*

Even when Indecopi proceedings are initiated by a private party claiming that the defendant's illegal conduct has caused it injury, the Commissions are not authorized to order the payment of damages. However, if a Commission finds that a defendant has engaged in illegal conduct, the Commission's finding will be conclusive proof of the violation if a complainant files suit in civil court for damages. It is unclear whether any such cases have ever been brought.

3.6 *The breadth of Indecopi's mandate*

Although it has been claimed that Indecopi's many functions were assigned to a single agency merely because then-President Fujimori had promised to decrease the size Peru's government, the combination of functions has been seen by many as efficient and as a possible model for developing countries. Explore the nature and extent of the efficiencies is therefore important.

It is useful to begin with some idea of the absolute and relative size of Indecopi's various parts. Annex Table 1 provides detailed information on the budget and personnel allocations to each of Indecopi's commissions and offices in 2002 and 2003. Annex Table 2 provides the same information for Indecopi's Tribunal. The most meaningful measure is the allocation of personnel among the commissions and offices. The data show that close to 75 percent of these staff members are engaged in bankruptcy or intellectual property work.

- The Free Competition Commission had 7 authorised work-years, and the Market Access Commissions had four. Together, they had 7.6% of the 146 employees in this category.

- The Unfair Competition and Consumer Protections Commissions had 6 and 13 authorised positions, respectively, for a combined 11.6%.
- The Antidumping and Standards Commissions both had 6 authorised positions, for a combined 8.2%.
- The Bankruptcy Commission had 40 authorised positions (32.6% of the total).
- The Intellectual Property offices had a combined total of 76 authorised positions (45.2% of the total).

It is also important to bear in mind that discussion at the OECD Global Forum on Competition indicated that there is no single, optimal design for a competition agency, and that the structural design of a competition agency is not key to its performance. Independence from political influence of law enforcement is important, but may be achieved without structural independence. Proper funding levels and qualified personnel are crucial, as is the establishment of principles such as transparency and predictability.

Some of the most important advantages and disadvantages of Indecopi's mandate and structure stem from the realisation of economies of scale:

- Given the small size of these Commissions, making them part of any larger agency would produce efficiency benefits by holding down administrative costs.
- Placing the competition policy function in a larger agency whose mandate relates to even indirectly to economic reform presumably produces additional efficiency benefits by creating synergies in connection with the promotion of market reform in general.
- On the other hand, placing the competition policy function in a larger agency inevitably means sacrificing some degree of autonomy. Even if the independence of decision-making units is protected, which it is not in the case of Indecopi, the agency officials who may have no competition policy expertise make budget and policy decisions that can undermine competition policy.
- When Indecopi was being created, there were some who feared that an agency with such broad powers could become “a Frankensteinian thing,” though it was decided that the Advisory Council would be able to control it. In fact, the Advisory Council has been almost completely inactive, and instead of being unduly powerful, Indecopi needs strengthening in various ways.

The other potential benefits to Indecopi's structure are efficiencies that may result from combining the specific functions assigned to Indecopi.

- The Free Competition Commission and the Market Access Commission both combat anticompetitive restraints and apply core competition principles in their work. There are clear efficiency benefits in having these two Commissions in a single agency.
- Core competition analysis (assessment of market power, etc.) is relevant in antidumping and safeguard proceedings. The applicability of competition principles to such matters is limited by international treaties, but it appears that Indecopi has sometimes been able to inject some competition analysis into these proceedings. On the other hand, some of Indecopi's recent

positions in this area have apparently been less procompetitive than the positions taken by the Ministry of Economy and Finance and the Trade Ministry.

- Core competition analysis is also relevant in some intellectual property issues and in assessing some product standards, but it is not clear whether these potential efficiencies are more than theoretical. The vast majority of Indecopi's intellectual property work does not call for core competition analysis, though familiarity with basic market concepts can sometimes be helpful.
- Core competition analysis is not used in Indecopi's unfair competition or consumer protection work. Nevertheless, research conducted in connection with the OECD Global Forum on Competition reveals that competition agencies that have these functions believe that they complement each other, with competition principles serving as a reminder that government actions intended to protect consumers can instead harm them if they are unnecessarily restrictive, and the consumer protection function serving as a reminder that markets do not operate perfectly.
- Core competition analysis is much more relevant to the work of other government entities, including privatisation and the access regulation done by Peru's sectoral regulators, than it is to the work done by Indecopi's commissions and offices other than the Free Competition Commission. (For this reason, some countries combine sectoral regulation and competition policy.)
- A basic competition policy principle – that governments should not restrict competition more than necessary to achieve other goals – can be a useful tool in all of Indecopi's functional areas. However, since this principle is equally applicable to all other government regulatory functions, combining competition policy with Indecopi's other functions does not provide any specific efficiency benefits.

In sum, there are some advantages to assigning Indecopi responsibility for various fields involving market reform. Even when the fields have little substantive relationship to each other, there are advantages relating to scale economies in such things as administration and promotion of market reform in general. There are also real some efficiencies stemming from the substantive relationship of one group of functions (free competition, market access, antidumping, unfair competition, and consumer protection). Combining that group with intellectual property and standards may produce some limited efficiencies, and the inclusion of market exit adds no particular efficiencies. Moreover, the substance of Indecopi's core competition work is less closely related to Indecopi's other work than to many regulatory activities that are not part of Indecopi. The disadvantages to this structure relate primarily to the fact that as part of a larger entity, competition officials necessarily lose some budgetary and policy-making autonomy. Indeed, under the current law, even the first and second instance decision-makers have no protections of their independence. These disadvantages and recommended ways of minimising them are discussed Part 6, below.

3.6 International issues

Article 3 of the Free Competition Law bans all abuses of dominance and restrictive practices that injure the general economic interest in the national territory. Indecopi takes the position that this includes conduct that occurs outside Peru, though the matter has not been litigated. Article 9 of the law establishing merger control in the electricity sector specifically includes “acts of concentration made abroad.”

In practice, international issues have been very rare in Peru. This is partly the result of Peru's lack of merger control except in the electricity sector, and partly the result of the Free Competition Commission's small staff and caseload. International firms that have been involved in Indecopi's cases have had local subsidiaries in Peru. Substantively, Indecopi takes international competition into account when defining markets and assessing market power.

Indecopi has no bilateral co-operation agreements with competition authorities in other countries, but Peru is seeking a competition chapter in its FTAA negotiations with the United States. With Bolivia, Columbia, Ecuador, and Venezuela, Peru is a member of the Andean Community, which has established a free trade area and is seeking to develop a common market. Peru is also associated with MERCOSUR and is a member of APEC. Indeed, Peru was APEC's "convening economy" for competition policy in 1999-2001. Peru is also a member of the Iberoamerican Competition Forum.

4. Competition Policy in Regulated Sectors

The Free Competition Law does not exempt any sectors, but the role of Indecopi and the applicability of the law are not straightforward when dealing with infrastructure monopoly sectors. In the telecom sector, Indecopi does not enforce the law but the telecom regulator, Osiptel, enforces an essentially identical law whenever one of the parties to a dispute is in the telecom industry.

Indecopi enforces the Free Competition Law in other infrastructure monopoly sectors, but the Law on Access to Public Infrastructure gives sectoral regulators exclusive jurisdiction over all access issues. These regulators include: in the transportation sector, Ositran (*Organismo Supervisor de la Inversion en Infraestructura de Transport de Uso Publico*); and in the energy sector, Osinerg (*Organismo Supervisor de la Inversion en Energia*). These agencies are all administratively independent, meaning that – like Indecopi – they report to the President of the Council of Ministers rather than to any Ministry, and they are not bound by normal civil service pay scales. Except for Osiptel, none of the sectoral regulators has competition law enforcement authority.

All of these sectoral regulators are apparently charged with promoting competition in their sectors, but their ability to do so is limited by the fact that Ministries retain the power to issue licenses or concessions and make other key decisions (*e.g.*, spectrum allocation in telecom). It is not clear to what extent the Ministries seek or consider independent regulators' (or Indecopi's) views on their decisions. In any event, whereas the competition authority in Chile was able to sue the government to compel it to allocate spectrum by means of an auction, it appears that Peru provides no such method for a competition agency to compel attention to competition issues.

4.1 The Telecom Sector

In 1991, a new telecommunications law was adopted in order to bring about the progressive demonopolisation and privatisation of the telecom sector.⁶¹ A 1994 privatisation gave Telefónica a five-year monopoly in fixed telephony and domestic and international long distance, during which cross-subsidies between long distance and local telephony were to be eliminated and Telefónica was to expand and improve fixed telephony service. Competition was permitted in other services, including mobile telephony, pay-phones, beepers, and cable television.

Telefónica gave up its legal monopoly in 1998, one year before it was due to expire. Osiptel reports that there are now eight providers of fixed telephony, three mobile providers (down from four, now that Telefónica has acquired Bell South's Latin American operations), 52 long distance carriers, 24 local carriers, 126 cable television firms, and around 180 registered companies providing other services, including 72 internet service providers. Moreover, the penetration rate has greatly increased,

average waiting time has decreased from 118 months to less than two months, and the system is 90 percent digital. These are for the most part impressive numbers, but competition problems may exist even in fields where there are many providers. Examination of these various fields is beyond the scope of this report.

In 2002, Telefónica had almost a 99 percent share of the local fixed telephony market, a 31 percent share of international long distance, an 86 percent share of domestic long distance, and a 34 percent share of local mobile telephony. Its acquisition of Bell South's Latin American operations has caused great concern in Peru because Bell South had just entered the market for fixed local telephony and had an 18 percent share of local mobile telephony. A consumer group is seeking to mitigate the effects of this acquisition by arguing that under the Telecommunications law, Telefónica is not allowed to hold two licenses to provide mobile telephony, but the lack of a merger control system prevents Osiptel from directly reviewing the acquisition's impact on competition and consumers in Peru.

Osiptel's regulatory responsibilities include resolving interconnection issues, setting quality standards, establishing maximum tariffs when no effective competition exists. To help implement its law enforcement responsibilities, Osiptel has issued formal guidelines explaining its approach to free competition and unfair competition enforcement. The free competition guidelines cover some of the same subjects as the mandatory precedents issued by Indecopi's Competition Tribunal, but they also explain the criteria by which Osiptel defines markets and assesses whether a firm is dominant. Originally, Osiptel did not have as strong investigation or sanctioning powers as Indecopi, but those problems have been corrected.

Osiptel data indicate that it has issued sanctions in 20 proceedings. Nine of these were for failing to comply with investigatory demands or misconduct in the course of a proceeding, which is a commentary on the lack of maturity of the regulatory process. Of the other 11 fines, five were in free competition cases, one was in an unfair competition case, two were in interconnection cases, and three related to other regulatory matters. The fines in two of the free competition cases were revoked in second-instance appeals, and a fine of about USD 940,000 – by far the largest against a single firm – is currently pending on appeal. The two confirmed fines were for about USD 45,000 and USD 22,500.

Osiptel and Indecopi are in the same building complex, and at least two Osiptel officials have worked at Indecopi as staff or on a commission. Informal co-ordination between the two is said to be adequate but could use improvement.

4.2 *The transportation sector*

The transportation sector in Peru exhibits everything from continued government ownership and operation of infrastructure monopoly (*e.g.*, ports) to complete privatisation and deregulation in markets (*e.g.*, taxis and buses) that most countries regulate on market failure grounds. Overall policies are set by the Ministry of Transport and Telecommunication. In 1998, Peru created Ositran to review compliance with concession obligations, set tariffs where necessary, and promote competition. In 2001 Ositran adopted rules governing access to essential facilities, including ports, and new rules were adopted in November 2003.

Ports are an important infrastructure monopoly in Peru, and the government had planned to privatise them some time ago. It has expressed interest in offering concessions to operate some ports after electricity liberalisation is completed, but the prospects for this are unclear. It has been estimated that even in Lima's relatively efficient port, inefficient access and government "red-tape" add a 3-7

percent cost to the value of commodities in transit. Indecopi's Market Access Commission has previously taken some steps that reduce exporters' costs, and perhaps it could do so again.

Peru's railway company was privatised in 1999. Previously, low investment in maintenance had led to poor service and greater use of alternative modes of transportation, but World Bank financing of the concessionaire is expected to increase competition between rail and trucking, reduce transportation costs, decrease domestic prices, and increase the competitiveness of exported goods. The government owns and operates an airline that is used to provide subsidised passenger and freight service to remote areas.

Peru has one of the lowest levels of paved road density in Latin America. Public-private partnerships may provide some assistance for high volume highways, but not for rural and municipal roads. Problems with Peru's roads – together with problems in other transportation sectors – are important. A 2001 World Bank study identified the high cost of transport and business logistics as a major reason for high prices and low competitiveness.⁶² The ratio of logistics costs to total revenues in Peru was 30.7 percent, compared to 23 percent in Argentina and 8 percent for OECD countries. Such costs help explain why Peru is doing less well than one would expect in exports than one might expect in a number of areas, such as fruit; Peru's exports of fruit are USD 40 million, compared to USD 800 million for Ecuador and USD 1.3 billion for Chile.

Although this section focuses on ways in which competition law and policy are being or might be applied to benefit consumers in regulated sectors, it is noteworthy that Indecopi's invalidation of a municipal ordinance requiring taxis to be painted yellow may have given insufficient attention to the need for regulation when market failures exist.⁶³ Taxi and bus transportation in Lima and Peru's other cities is almost completely unregulated, whereas most countries regard these markets as requiring some regulation to address market failures. Peru's consumers might gain from taxi and bus (or "combi") regulation that is not more restrictive than necessary to protect riders.

4.3 *The energy sector*

Ministry of Energy and Mining sets policies and issues concessions in the energy sector. Although Peru has recently embarked on a major natural gas development programme, electricity has been and remains the focus of its energy programme.

The 1992 Energy Law sought to promote competition and efficiency in the electricity sector. The law set the stage for privatisation by requiring that except in isolated areas, the electrical industry be divided into separate generation, transmission, and distribution units operating under concessions from the Ministry. The goal was for the generation market to become competitive, whereas transmission and distribution would be regulated monopolies. At the national level, ElectroLima was divided into four distribution units and one generator, while ElectroPeru was divided into four generation units. The transmission assets of both enterprises were combined into a single transmission enterprise.

Privatisation began at a good pace in 1994, slowed down in 1999, and in 2002 two privatisations were called off due to local protests. Currently, there are a large number of companies competing in the generation market, including privatised enterprises and some new concessions. The government, however, continues to own the huge Montaro hydroelectric plant which generates 35 percent of Peru's electricity. The transmission enterprises for two Peru's two interconnected systems are both still government-owned, but there is now some private participation in the transmission market. About 50 percent of distribution is majority-owned by private interests. (The State typically retains a 30-40 percent share of the stock of privatised enterprises.)

Notably, the 1997 and 1999 acquisitions involving the Chilean and Spanish firms brought vertical integration to Peru (as it did to Chile). There is some real competition in the wholesale power market, in that generators are free to negotiate price and other terms in their contracts with large buyers. Regulation governs transfers between generators and to distribution companies. The regulated price is not permitted to vary more than 10 percent from the market price. Small residential consumers have subsidies of about 50 percent of their cost of service, but most consumers pay rates that cover the cost of service.

Osinerg was created in November of 1996 to supervise the privatization of energy firms and monitor the firms' compliance with legal requirements. In 2000, Osinerg merged with the Comisión de la Tarifas Eléctricas, which was and is responsible for setting tariffs. Recently, Osinerg has created a new Research Department that focuses policy studies and policy-making in the energy field generally. In general, Osinerg apparently does promote competition when possible, in part because even those who are not competition advocates believe that it is harder to control one huge firm. Some observers have expressed concern that Osinerg lacks real autonomy and is therefore subject to political interference. It has also been suggested that poor co-ordination between the privatisation agency ("Pro-Inversión"), Osinerg, and Indecopi has sometimes been a problem.

As discussed above, a 1996 law made electricity the only area in which Peru has merger control, and Indecopi has authorised all of the mergers it has considered. Some believe that Indecopi may have been unduly lenient in this respect.⁶⁴ Osinerg officials are divided on the desirability of such control, and the Research Department is studying the issue. The same law provided for the government's retention of a "golden share" in all privatisation, thus giving the government control of corporate decisions to shut down the company, bring in new shareholders, reduce capital, register on the stock exchange, or merge with other companies.

4.4 Other sectors

Banking and finance. The banking sector has experienced considerable concentration, largely through mergers, but there has been no opportunity to review such mergers to assess their effect on competition. Of the 25 banks operating in 1997, only 15 remain, and the largest four have 75 percent of the market. The Superintendency of Banking regulates the market, focusing mainly on solvency and other systemic considerations, but its hiring one of Indecopi's foremost former economists may signal increasing interest in competition issues. The financial sector (and some banks, indirectly) have been involved in two of Indecopi's recent price fixing cases – the automobile insurance case, in which price fixing was confirmed, and the ongoing case involving price fixing by pension fund managers. It has been suggested that the banking industry itself (including the Banking Association) merits closer scrutiny by the Free Competition Commission.

Small and medium-size enterprises account for 42 percent of GDP and employ 76 percent of the economically active population, but the capital market in Peru is such that even medium-size enterprises find it almost impossible to obtain capital. An IBD project is seeking to improve the regulatory environment, encourage a corporate governance code, and educate market participants.

Mining. Peru's minerals industry is key to its development both economically (generating more than 45 percent of Peru's export earnings) and socially (helping some of Peru's poorest regions). A World Bank report notes, however, that investment has dropped, due in part to regulatory problems. For example, the lack of a clear regulatory framework creates confusion and high transaction cost for mining firms, and Peru's environmental regulators are not seen as credible by the public. Competition policy principles would support resolution of these problems, because clear rights and duties, enforced in a transparent manner, are important to the development of healthy, competitive markets.

5. Indecopi's Competition Advocacy

As used in this report, the term "competition advocacy" refers to activity designed to promote understanding of the overall benefits of a competitive market economy, as well as the value of competition law enforcement and the importance of the core competition policy principle that government regulation should not interfere with firms' ability to respond efficiently to consumer demand except to the extent necessary to satisfy other social goals. It does not include Indecopi's legal proceedings in and of themselves, but does include the dissemination of information about such proceedings.

Competition advocacy in the broadest sense – demonstrating or explaining the benefits of a competitive market economy – has always been a major part of Indecopi's role and its activities. This broad approach to competition advocacy reflects the concept underlying Indecopi's organisation as an agency with a mandate that includes fields that are quite diverse but that all relate in one way or another to market liberalisation and the promotion of competition. Thus, Indecopi's promotion of its bankruptcy work is not what would usually be thought of as competition advocacy, but by reducing exit barriers it also encourages new entry. Similarly, Indecopi's promotion of trademark registration and respect for intellectual property informs firms about competing through product differentiation and educates the public about the risks of buying pirated goods. This kind of activity is very important in Peru, where major portions of the public and the government do not understand the benefits of a competitive market economy and in fact oppose liberal market reform.

Despite the contribution that these activities have to promoting market reform in general, this section focuses on Indecopi activities that focus more directly on competition law and policy. In this respect, Indecopi's consumer protection and unfair competition mandates have definitely complemented its advocacy of competition law and policy. For example, Indecopi's publishing information on the waiting time to cash checks at different banks stimulated competition and educated both consumers and banks. More broadly, promotion of Indecopi's consumer protection and unfair competition activities discourages opportunistic conduct by sellers and reassures buyers that they have remedies in case they are unfairly treated.

Indecopi also engages in more explicitly educational activity. First, the "Indecopi Educa" programme trains school teachers to help students become more sophisticated consumers and develop a better understanding of the benefits of competition policy and other economic reforms. Second, "Indecopi Empresa" is an education programme aimed at small and medium sized enterprises, including many that operate in the informal sector. The objective is to promote awareness of competition and intellectual property rules and the policies behind such rules.

Indecopi's conventional competition advocacy work with the government has also been important. In 1999, for example, the agency provided other Government bodies with 150 competition policy analyses on a wide range of topics. Most of the analyses were submitted to Congress. Other government agencies have generally been less likely to seek Indecopi's advice. In particular, although competition policy considerations are obviously important when a government considers the privatisation of state assets, Peru's privatisation agency has not consistently consulted with Indecopi. The consultation process Indecopi and the autonomous regulators for telecom and energy, Osiptel and Osinerg, apparently works more smoothly.

It should be recalled, however, that Indecopi is not always perceived as a competition advocate in relation to antidumping and safeguard matters. The Competition Tribunal is viewed as more supportive of antidumping actions than the Ministry of Economy and Finance or the Ministry of Trade, and Indecopi advocated the rule-changes that facilitate such actions.

Much of Indecopi's recent competition advocacy has related to the Constitutional provisions that prohibit the state from engaging in economic activity unless the activity is expressly authorized by law and is "subsidiary" to private sector activity. To ensure adherence to these and other principles, the government in 2001 created a process for reviewing the activities of all state-owned enterprises (SOEs). The National Financing Fund of State Managerial Activity (Fonafe) was placed in charge of this process.

During 2001-2002, Indecopi's Free Competition Commission prepared reports analysing 13 SOEs in a variety of sectors, including the postal service, commercial aviation, ship building, and the commercialization of coca leaves. A total of 115 separate activities were analysed, of which 24 were found not to be expressly authorized by law. Of the 91 activities that met the express authorization requirement, Indecopi concluded 41 failed to meet the subsidiarity requirement.

Indecopi's reports were both forwarded to Fonafe and publicly released. Fonafe is known to have made some decisions, but the decisions have not been made public. It is not even known when or whether the decisions will be made public. Their publication would, it appears, promote public confidence that constitutional requirements are being followed, clarify the government's interpretation of the requirements, and encourage domestic and foreign investment.

Regardless of what decisions Fonafe made and whether it makes those decisions public, Indecopi's reports received considerable public attention when they were released and thus have helped to shape public opinion respect to the proper role of the State and the private sector in the Peruvian economy.

Indecopi's reputation for performing sound economic analysis has also permitted it to be influential in other ways. For example, the parties that challenged the Ministry of Transportation's directive for price fixing in the road transport industry not only filed a complaint with the Market Access Commission, but petitioned the Constitutional Court to find the Ministry's action a violation of the State's duty to facilitate free competition. In ruling in favour of the petitioners, the Court relied in significant part on the Market Access Commission's analysis of the impact and justification for the price fixing requirement.

A project that began in 1997 with IDB funding sought to assess the impact of Indecopi's actions on the Peruvian economy.⁶⁵ The research showed that the economic benefits of Indecopi's activities during its first seven years were about USD 120 million, which is at least six times the agency's operating costs. Of all Indecopi's functional areas, the two that made the greatest relative contributions were the Free Competition Commission and the Market Access Commission. During the 1993-1994 period alone, Free Competition Commission decisions reportedly created benefits of USD 28.6 million. This kind of information could have helped explain the benefits of competition, and in particular could have supported requests for greater public funding for Indecopi's core competition mission. It is unclear whether Indecopi used the information in its general competition advocacy, however, and it presumably did not use it in seeking greater funding because Indecopi then regarded self-financing as a benefit.

6. Evaluation and Recommendations

6.1 Protect the real and perceived autonomy, credibility, and technical competence of Indecopi's quasi-judicial bodies by enacting legislation to revise the process for selecting and removing first and second instance decision-makers.

- The process for selecting Tribunal members should be transparent and include checks and balances. The establishment of specific qualifications requirements should also be seriously considered.

- The process for selecting first-instance decision-makers should also be revised, perhaps by having them selected by Tribunal members.
- All first and second instance decision-makers should be selected for fixed (and preferably staggered) terms and should be removable only for cause.

Although Indecopi is nominally an independent agency, it has no legal protection for its independent status, and the independence of its quasi-judicial units has not always been respected. Indecopi now reports to the President of the Council of Ministers, rather than any Ministry. This system may be satisfactory *vis-à-vis* Indecopi's Presidency and Board insofar as they oversee the agency's administrative, investigative, analytical, and promotional units. It is not unusual for agency officials in charge of these activities to be removable at will and thus subject to some degree of government influence.

However, Peru's current system clearly falls down in its failure to protect the independence of Indecopi's quasi-judicial positions – its Tribunal members and its Commissioners. The 1992 law establishing Indecopi provided some protection for Tribunal members, since they were given five-year appointments during which they could be removed only for cause, but that protection was removed in 1994. These protections should be re-instituted and new protections should be afforded to commissioners.

In addition to protecting the autonomy of those individuals who have been selected to serve as quasi-judicial decision-makers, Peru should introduce some transparency into the selection process, apply relevant selection criteria, and subject the process to a system of checks and balances. Currently, the system by which Indecopi's quasi-judicial positions are selected – by the President of Peru (for Tribunal members) or the Indecopi Board (for commissioners) – has none of these elements. This system contributes to general fears – and some specific rumours – of “behind-the-scenes” government intervention. It also undermines confidence in Indecopi's technical competence; the Competition Tribunal's reputation has suffered because of concern that only its President has real knowledge of competition law and policy issues. This report makes no judgment on these other members' qualifications, but the existence of the concern underscores a problem with the current, non-transparent selection process.

In this regard, it is notable that Chile, whose competition policy system was the subject of a peer review at the first meeting of the IDB-OECD Latin American Competition Forum, faced precisely the same problem and has adopted legislation to deal with it.⁶⁶ Chile's overall system is different from Peru's, but its new law's provisions provide a useful starting point for analysis. First, the law requires that all candidates for its Tribunal have expertise in competition issues. Such a requirement is not unusual in countries with new competition systems. Second, the law provides checks and balances in that the Supreme Court and the Central Bank screen all candidates on the basis of a public competition; only individuals nominated or selected on the basis of this process may become Tribunal members. This is, of course, only one way of providing checks and balances; presidential nomination and legislative confirmation is another, more common, model. Third, members of the Tribunal have terms of six years, and may be removed for only cause during their terms. Such protection is standard in many countries.

A formal, transparent system of checks and balances would be a logical approach for Peru to take with respect to its Tribunal, but might not be practical as a means of choosing and protecting the autonomy of the unpaid commissioners and office heads who are Indecopi's first instance decision-makers. One possible solution with respect to these quasi-judicial officials would be to provide that they be selected for fixed terms by the Tribunal and be removable only by the Tribunal and only for cause.

Some in Peru argue that in order to assure Indecopi's continued existence and independence, the Peruvian Constitution should be amended to provide specifically for the agency (as is now done for the Central Bank and, apparently, the Superintendency of Insurance). In considering this proposal, it is important to bear in mind that the real need is to ensure that Indecopi's quasi-judicial units are independent. Declaring Indecopi itself independent seems neither necessary nor sufficient to accomplish that goal.

6.2 *Peru's system of funding Indecopi should be changed, and more funding should be allocated to the Free Competition and Market Access Commissions.*

- Peru should eliminate or substantially reduce Indecopi's reliance on fines as a source of revenue. Fines should go to the Treasury, and public funds should be given to Indecopi.
- Peru should provide public funding for Indecopi's Free Competition and Market Access Commissions because it is an investment that can pay for itself. Indecopi should allocate more funding to core competition work, even if this means cutting back on other useful work, because core competition cases generally have a more substantial market impact.

Sources of funding

The percentage of Indecopi's budget that is represented by the fines it imposes has increased over time and is now almost 60 percent. This *highly unusual* system undermines efficient administration difficult and is certain to create domestic and international concern about the integrity of Indecopi's decisions.

More broadly, it seems highly likely that Indecopi's initial belief in self-financing contributed to underinvestment in core competition activities (see below), and the government's 2003 decision to cut off all funding for Indecopi makes it even harder to provide adequate funding for these activities. Except to the extent that it relies on the fines it imposes, Indecopi can carry out its core competition work only by charging fees that exceed the cost of its registration and other services (which is contrary to one of the laws Indecopi enforces). Although fees are preferable to fines as a funding source, this practice seems unlikely to permit Indecopi to maintain and increase respect for the integrity

Peru is a developing country with many important demands on its resources, but public funding for Indecopi's core competition commissions – at higher levels than they are allocated today – would be an investment that could be expected to pay for itself many times over.

In the next section, this report recommends that Peru at a minimum make mergers subject to the Free Competition Law. If it does so, and if it also establishes a premerger notification system along the lines of what it now has for electricity mergers, filing fees would be a legitimate though somewhat risky source of funding for the activities of at least the Free Competition Commission. Even if such a system is adopted, the government should commit to provide the necessary funding so that competition enforcement is not wholly dependent on filing fees.

Resource levels

Although unfair competition and consumer protection enforcement is beneficial in laying down rules that encourage confidence in the marketplace, the practices condemned in such cases do not necessarily have an adverse effect on Peru's economy. Free competition and market access cases are

much more likely to benefit the market as a whole. Peru is in the unusual position of having empirical evidence on this point – an IDB-sponsored research project confirming that Indecopi's free competition and market access work made larger relative contributions to Peru's economy than Indecopi's other functions.

Despite these considerations, in 2003 the Free Competition Commission and Market Access Commission received only a combined 8 percent of the money and 7.5 percent of the personnel that were allocated to Indecopi's commissions and offices. Moreover, the Economic Policy Department views the Free Competition Commission as being particularly understaffed. Finally, Peru devotes fewer resources to these missions than other developing countries with comparable and even smaller GDP levels. There is no international or other objective standard for determining appropriate resources levels for competition enforcement, but the evidence suggests that Peru would benefit by expanding its core competition work, even if that means cutting back on some other activities by Indecopi or other government agencies.

6.3 *Indecopi should (a) be more proactive in enforcing the Free Competition Law, (b) issue guidelines on market definition and assessment of dominance, and (c) bring more market access cases to eliminate the many municipal barriers to market access by entrepreneurs and small businesses.*

Ex officio free competition cases

Because it was created in part as an alternative to the judiciary, Indecopi's commissions and offices must accept all formal complaints that are accompanied by the payment of the applicable filing fee. This requirement has some benefits, but it also makes enforcement less cost-beneficial by limiting the commissions' ability to open *ex officio* investigations that focus on matters of the greatest public importance. The problem seems particularly acute for the Free Competition Commission, which brings few *ex officio* cases despite a rising consensus that it should be more proactive. At a minimum, the effect of this requirement should be considered in deciding on the appropriate funding level for the Free Competition Commission. Moreover, Indecopi should consider whether there are other means it can use to maximise its cost-effectiveness while fulfilling its responsibilities to resolve formal complaints.

In addition, Peru should push ahead vigorously in pursuing judicial reform. In the first place, an efficient, predictable, and trusted judiciary is necessary for markets to perform competitively. In the second place, the establishment of a more accessible court system would take some of the decision-making responsibility from Indecopi and make the agency better able to pursue *ex officio* cases.

Sectors that have been suggested as warranting additional competition scrutiny are cement, liquid fuels, steel, and banking.

Guidelines

The Competition Tribunal's use of mandatory precedents is a useful way of clarifying how the Free Competition Law should be interpreted, but it provides guidance only on what the Tribunal sees as the key issues in a few cases. Although many free competition cases have required the definition of product and geographic markets and the assessment of market power, there is no mandatory precedent concerning these important topics. The text of the Tribunal's resolutions that do not contain mandatory precedent may provide some guidance on its approach, but any such guidance is not authoritative and is, as a practical matter, available only to competition experts in Peru (because the resolutions are

public but unpublished). Given the importance of market definition and the assessment of market power, the Tribunal (or Indecopi) should issue guidelines on these issues.

Market access cases

The Market Access Commission has succeeded despite a very small staff in bringing a large number and high percentage (50 percent) of *ex officio* cases. Moreover, the activities of this Commission can be very important to enhancing efficiency (because anticompetitive regulation abounds, particularly at the municipal level) and to demonstrating the value of competition policy to consumers (who could see new entry and lower prices), small entrepreneurs (who remain informal because of regulatory costs), and the established business community (whose domestic and exports prices are higher than necessary because of bureaucratic red-tape). In light of the substantive and educational, “public relations” benefits of eliminating anticompetitive regulation, the Market Access Commission should, if possible, be given additional resources and should embark on a major national campaign against such regulation. At present, the utility companies make most of the complaints to the Commission, and it is good that the Commission can clear away the administrative barriers they face. But one goal of the recommended campaign would be to expand awareness and acceptance of the Commission’s powers so that small entrepreneurs, and small and medium size companies, come to regard the Commission as an important ally.

- 6.4 *The Free Competition Law should be amended to provide for merger control and to clarify the legal standard to be applied to cartels and other horizontal agreements; there is no apparent reason to amend the law to cover excessive pricing,*

Merger control

A Working Group at Indecopi is considering a number of possible proposals to amend the Free Competition Law. One proposal the Working Group is considering is that the law be amended so that it (i) provides a legal basis for challenging anticompetitive mergers and acquisitions, and (ii) establishes a premerger notification system. This proposal should be made and accepted. Peru has witnessed increasing concentration in quite a few industries. Some of the markets in which Indecopi has found or is investigating price fixing and abuse of dominance have recently become significantly more concentrated because of mergers, and it is arguable that merger control would have prevented these problems. Moreover, neither Indecopi nor Osipitel has the authority to assess the likely impact of Telefonica’s recent acquisition of Bell South. The arguments against merger control are for the most part either wrong or outdated. The argument that small, open economies do not need merger control or that such control could interfere with domestic firms’ realisation of scale economies has been thoroughly discredited. Merger analysis can be complex, but the Free Competition Commission’s ten years of experience have prepared it for the process. And the cost of merger control can be managed by giving Indecopi the authority to set thresholds for pre-merger reporting.

If Peru adopts a premerger notification system, it should give careful consideration to how it establishes its filing thresholds. Its current law on electricity mergers bases filing obligations on the parties’ market share, which may work well in a regulated market but which otherwise presents the problem that parties may manipulate the system by defining markets in ways that mean that they can avoid filing. Simple size and volume measures may be preferable, especially in a country in which data relevant to market definition may be scarce. In addition, Indecopi should consider proposing that the amendment not set a particular threshold, but rather that it authorise the Commission to establish such thresholds as it considers necessary and appropriate. This would permit the Commission to begin with very high levels as it first implements merger control and then to lower the thresholds – either selectively or across the board – based on its actual experience.

Cartels

The Working Group is also considering a proposal to clarify the legal standard applicable to hard core cartels and other restrictive practices. The current thinking appears to be that Peru should have a system that sounds something like Mexico's: cartels would be subject to an "absolute" ban, while other agreements would be subject to a "relative" ban. Clarification is definitely in order, and the contemplated system seems sensible.

Abuse of dominance

When it adopted the Free Competition Law, Peru apparently made a policy decision not to include a ban on "excessive pricing" or other means of exploiting a dominant position. Many countries do not have such bans, and many countries with such bans do not currently enforce them. The reason is not that these countries think excessive pricing or other exploitative practices are harmless or good, but that it is difficult if not impossible to enforce such bans in a manner that makes the situation better rather than worse. It is true that developing countries such as Peru cannot expect excessive pricing to stimulate entry as quickly as would be the case in developed countries. As a result, the harm from excessive pricing may be greater in developing countries. Nevertheless, competition authorities generally have no workable remedy to use against excessive pricing unless it is able to remove the entry barriers that support an enterprise's dominant position. The Market Access Commission already has that power with respect to the most important entry barriers – anticompetitive regulations. Moreover, the lack of authority to condemn excessive pricing has apparently not been a problem in the past. In these circumstances, it appears unlikely that banning excessive pricing or other exploitative conduct would benefit Peru's consumers.

6.5 *Competition advocacy should continue, with increased emphasis on clarifying that Free Competition and Market Access cases halt conduct that injures the public at large, rather than being an efficient means of resolving private disputes.*

Indecopi is well known for its competition advocacy and for using the Indecopi "brand" to promote market reform. In some ways, however, the brand may have obscured the differences in its various functional areas. Although Indecopi's work in resolving unfair competition and consumer protection complaints is useful and important in establishing the rules of the game and providing remedies to complainants, many of the cases are essentially private disputes that in and of themselves have no market impact. Indecopi brings many more of these cases than it does free competition or market access cases, and it appears that much of its advocacy treats all of these (and other activities) as "competition cases." This practice may help explain why the public does not for the most part understand that free competition and market access cases, even if they are begun in response to complaints rather than *ex officio*, are not merely private disputes but rather cases that affect the market as a whole.

In the future, Indecopi should seek in its competition advocacy to stress that its core competition cases represent Peru's commitment to consumers and the economy as a whole, not merely Indecopi's provision of an efficient means of resolving private disputes. Use of data on the impact of Indecopi's activities, such as that produced by IDB-sponsored research in the 1990's, should be useful in this regard.

6.6 *Peru's Government and its Ministries should provide increased, visible support for competition policy and economic reform.*

1. Indecopi is not the only proponent of competition policy in Peru. Policy offices within the Ministry of Economy and Finance and the Ministry of Trade and Tourism also support competitive reform – perhaps even more than the Competition Tribunal in the

antidumping area. Osipitel and at least some parts of Osinerg also support competition. Some representatives and parts of the government, however, seem not to understand the benefits of competition policy. For example, the Competition Tribunal was surely correct that ordering price fixing was “irrational” as a means of trying to address problems that legitimate truckers face from informal truckers.

2. In fact, competition policy and economic reform have brought tremendous benefits to Peru’s citizens over the last dozen years, but it is clear that the public and parts of the government do not understand how Peruvians are benefiting from this reform. Particularly in remote villages and rural areas, it is likely that the marketplace as they experience it does not show significant benefits. Even in these areas, however, those who have electricity or telephone service have in fact received enormous benefits.
3. Peru’s Government and Ministries should join with Indecopi and other competition advocates to explain that these and other benefits are the result of competition policy and market-based reform. They should also emphasise that competition policy does not interfere with social programmes, but rather helps make such programmes more efficient. Moreover, the government should take advantage of the public’s distrust of the judiciary by explaining that judicial reform will help Peruvians realise the benefits of market reform. Finally, since market reform has clearly benefited Peru’s economy overall, the government could usefully examine whether and to what extent its current tax or other policies interfere with the widespread dissemination of these benefits.

Table A – 1. Resource Allocation among Commissions and Offices

	2002		2003		2003 + 2003	
	USD	%	USD	%	FTE*	%
Free Competition	189 000	4.6	183 000	4.6	7	4.7
Market Access	186 000	4.6	137 000	3.4	4	2.7
Core CLP total	375 000	9.2	320 000	8	11	7.5
Unfair Ads Comp.	213 000	5.2	157 000	3.9	4	2.7
Consumer Pro.	248 000	6.1	270 000	6.7	13	8.9
Dishonesty total	461 000	11.3	427 000	10.7	17	11.6
Antidumping	226 000	5.5	186 000	4.6	6	4.1
Bankruptcy	1 403 000	35	1 398 000	35	40	27.3
Standards	297 000	7	254 000	6	6	4.1
Trademark Office	720 000	18	749 000	19	39	26.7
Copyright Office	171 000	4	237 000	6	7	4.7
Patent Office	409 000	10	411 000	10	20	13.6
IP combined	1 300 000	32	1 397 000	34	66	45.2
Total	4 062 000		3 982 000		146	

* FTE (full time equivalents) refers to the total number of authorised positions.

Table B – 1. Allocation of Resources among Tribunal Chambers

	2002		2003			
	USD	%	USD	%	FTE*	%
Competition Trib.	540 000	51	372 000	35	8	28
IP Tribunal	507 000	48	473 000	44	12	43
Bankruptcy Trib.	35 000	<1	231 000	21	8	28
Total	108 2000		1 076 000		28	

Notes

1. LMIC countries that have participated in the OECD Global Forum on Competition include Albania, China, Egypt, Morocco, South Africa, Thailand, and Tunisia.
2. Vargas Llosa first became politically active in August of 1987, when he protested Garcia's proposal to nationalize all financial institutions and insurance companies.
3. During 1993-1997, the percentage of people living in poverty fell from 27 to 14 percent.
4. *Indecopi-Educa* is a training programme through which the agency trains primary and secondary school teachers in how to explain free market concepts to their students.
5. See n. 14 and accompanying text.
6. See, e.g., Kwang Wook Kim, "Conflict of Interest: The Tension between Public-Private Cooperation and Multiple Principles in Peru" in *The Role of the State in Competition and Intellectual Property in Latin America*, Beatriz Boza, ed., (Indecopi 2000) (hereinafter "*The Role of the State*"), at 45. See also Ruth Lars Keppeler and Andreas Reber, "Information and Communication Technology in Peru: Building an Industry," in *The Role of the State* at 383.
7. The Tribunal relied heavily on the writings of United States Judge Robert Bork Judge, and Indecopi appears to have taken a quite hostile approach to government regulation.
8. In 1998, one expert concluded that "Indecopi now needs to prosecute major cases of market abuse so the public can see how Indecopi's regulatory interventions improve their living conditions." Geoffrey Shepherd, "The Role of Indecopi: Proposals and Perspectives," in *Peru's Experience in Market Regulatory Reform, 1993-1998*, Beatriz Boza, ed., Indecopi (1998) (hereinafter "*Peru's Experience*"), at 97. See also Mercedes Aroz Fernandez, "The Value of Formality, Investment, and Competition Policy," in *The Role of the State* at 148 (warning about the possible cost of not taking a more preventive approach); Barak Orbach, "Competition Policy in Transition: Lessons from Peru," in *The Role of the State* at 225 (expressing concern about Indecopi's narrow behavioural approach)..
9. Peru was selected in 1999 to serve a term as APEC's "convening economy" on competition law and policy matters.
10. Robert M. Sherwood, "Indecopi: The 21st Century Arrives a Little Early," in *Peru's Experience* at 140. See also Kwang Wook Kim, *supra* n.6, at 47 (referring to Indecopi's "lack of political capital"),

50 (referring to the weakness of Indecopi's legal mandate), and 57 (noting that historically in Peru, autonomous agencies have not fared well after changes in government)..

11. See, e.g., Aurora Belmore, "Indecopi in Partnership with the Inter American Development Bank," in *Peru's Experience* at 89 (expressing concern about Indecopi's ability to maintain its independence from the government and to avoid being frustrated by the courts).

12. Subsequent to the 14 June 2004 discussion of this report, Tribunal member Santiago Roco was appointed President of Indecopi.

13. Technically, Osiptel enforces Decree Law 702, whereas Indecopi enforces Decree Law 701, but the two laws are essentially the same.

14. Resolution No. 163-96.

15. Resolution No. 001-97.

16. Resolution No. 206-97. Specifically, the mandatory precedent was as follows:

"Price fixing and market division agreements shall be illegal per se when they are intended to restrict the competition, i.e. when they are pure or naked cartels. On the other hand, the price fixing and market division agreements that are ancillary or complementary to an agreed association or integration and that have been made to improve the economic activity shall be analyzed case by case to determine if they are rational or not. In case they are not considered to be rational, they shall be deemed illegal.

If, depending on the economic activity to be analyzed, it is concluded that the integration agreed among the companies is essential for that activity to be carried out, then such integration agreement, as well as the restrictions on competition that would arise therefrom in order that such activity can be carried out, shall be allowed. However, when the integration is considered to be beneficial but not essential to carry out such economic activity, then the integration agreement and the ancillary or complementary agreements that restrict the competition shall be permitted only whether they meet the following three conditions:

- i). the agreement fixing prices or dividing market is ancillary to a contract integration; that is the parties must be cooperating in an economic activity other than the elimination of rivalry, and the agreement must be capable of increasing the effectiveness of that cooperation and no broader than necessary for that purpose;
- ii). the collective market of the parties does not make the restriction of competition a realistic danger;
- iii). the parties must not have demonstrated a primary purpose or intent to restrict the competition.

When these three conditions are not met, the agreement shall be considered to be unlawful."

17. Resolution No. 224-03.

18. See *FTC v. Indiana Federation of Dentists*, 476 U.S. 447 (1986). See also *California Dental Ass'n v. FTC*, 526 U.S. 756 (1999). See generally Timothy J. Muris, *California Dental Association v. Federal Trade Commission: The Revenge of Footnote 17*, 8 Sup. Ct. Econ. Rev. 265 (2000); Timothy J. Muris, *GTE Sylvania and the Empirical Foundations of Antitrust*, 68 Antitrust L.J. 899 (2001).

19. At least in the past, the fines imposed by the Intellectual Property Chamber of the Tribunal were said to be so low that it is profitable for pirates to continue their illegal activities and treat the fines as a cost of doing business. Whereas the Offices used deterrence criteria in setting fines, the Tribunal apparently chose not to impose fines that exceeded the harm resulting from the illegal conduct. Elvia Patricia Gastelo, "Recent Developments in Peru's Response to Intellectual Property infringement," in *Peru's Experience* at 143, 162.

20. OECD, *Hard Core Cartels* (2003); OECD, *Fighting Hard Core Cartels: Harm, Effective Sanctions, and Leniency Programmes* (2002).

21. See *FTC v. Superior Court Trial Lawyers Ass'n*, 493 U.S. 411 (1990).

22. Armando E. Rodriguez and Kelly A. Hoffman, "Why is Indecopi Focused on Competition Advocacy?" A Framework for Interpretation," *Peru's Experience* at 197.

23. Resolution No. 14-93.
24. Resolution No. 15-02.
25. Resolution No. 429-04.
26. Resolution No. 870-02.
27. Resolution No. 006-03.
28. OECD, OECD GLOBAL FORUM ON COMPETITION: *Preventing Market Abuses and Promoting Economic Efficiency, Growth, and Opportunity* (2004).
29. Antimonopoly and Antiligopoly in the Electrical Sector Law, Decree Law No. 25,965 (1996).
30. Barak Y. Orbach, "Competition Policy in Transition: Lessons from Peru," *The Role of the State*, at 235 n.48.
31. The law refers to "direct or indirect" control, but does not require notification of a stock acquisition that gives the acquiring firm the ability to appoint board members who could monitor the acquired firm's activities and influence its decisions.
32. UNCTAD, *PERU: Informe sobre las necesidades y prioridades en el area de Políticas de la Competencia*, Documento preparado para el Seminario Subregional Bolivia – Perú (Lima, del 22 al 24 de marzo de 2004), at 27 *et seq.* El Informe refleja los hallazgos de la misión exploratoria realizada por Diego Petrecolla (Consultor de la UNCTAD, Ph D. Economics. University of Illinois at Urbana – Champaign. Director del Centro de Estudios Económicos de la Regulación. Universidad Argentina de la Empresa.
33. The Market Access Commission was created as a separate unit in 1996. Before then, Indecopi's powers under Decree Law 776 were exercised by the Free Competition Commission and the Consumer Protection Commission.
34. Armando Caceras, "Indecopi's First Seven Years: The Challenge of Changing the Paradigm of Succeeding in the Market, in *The Role of the State* at 108.
35. Resolution No. 02-1998.
36. Resolution No. 03-98.
37. Resolution No. 448-03.
38. Resolution No. 34-98.
39. Resolution No. 182-97.
40. Beatriz Boza, "The Role of Indecopi in Peru: The First Seven Years," in *Peru's Experience* at 3, 23.
41. Decree Law No. 26122.
42. Legislative Decree No. 691.
43. As of 1998, Indecopi had apparently not developed a system to assure trade secret protection. Robert Sherwood, Indecopi: the 21st Century Arrives a Little Early, in *Peru's Experience* at 138. It is unclear whether such a system exists today.
44. Resolution No. 163-96.
45. Resolution No. 547-03.
46. See Directive 97/55/EC of European Parliament and of the Council of 6 October 1997, Article 3a.
47. Legislative Decree No. 716.
48. Beatriz Boza and Welby Leaman, The Promotional Role of Government in Market Discrimination Cases: Lima nightclubs, self-esteem, and civil society empowerment, in *The Role of the State* at 173.

49. Supreme Decree No. 133.
50. The Commission's activities are based on Decree Law No. 668.
51. At the time Peru had some intellectual property laws and an intellectual property office, but the military government of the 1970s had used the office to prevent the import of goods that were based on intellectual property. The current laws are Copyright Law, Decree Law No. 822 (1996); Trademarks Law, Decree Law No. 823 (1996); Patents and New Technologies Law, Decree Law No. 823 (1996).
52. Michael P. Ryan, "Intellectual Property Institutions and the Public Administration of Knowledge in Developing Economies: The Case of Indecopi in Peru," in *The Role of the State* at 319.
53. *Id.* at 334.
54. The law administered by the Commission was issued by Presidential decree in 1992. Decree Law No. 26116. *See also* Decree Law No. 845 (1996) and Legislative Law No. 27146 (1999).
55. Removal without cause requires a "favourable opinion" by Indecopi's Board, its Advisory Committee, and the President of the Council of Ministers. Since the Advisory Committee is essentially non-functional, and since the Board members are all removable without cause, it seems unlikely that this requirement would provide any real protection to a Tribunal member whom the government wanted to remove.
56. *See* Frank Pasquale, "Indecopi as Brand and Holding Company: The Business Model of Governance," in *The Role of the State* at 83, 98; Ross Lipson, "Innovation in Public Sector Reform: The Decentralisation of Indecopi," in *The Role of the State* at 273, 284-87; Kwang Wook Kim, "Conflict of Interest: The Tension between Public-Private Cooperation and Multiple Principals," in *The Role of the State* at 295.
57. Understandably, the duration of proceedings varies considerably both with a given Commission and among Commissions. For example, proceedings before the Consumer Protection Commission are usually resolved in 2-3 months.
58. The Consumer Protection Commission is also authorised to order simple remedial actions such as repairing or replacing a defective product.
59. Precisely comparable historical data are not available throughout this period, but it appears that only 8 or so staffers were engaged in competition investigation and analysis in 1999.
60. South Africa's Competition Commission has 91 full-time positions, and its Tribunal has 13 full-time positions – two Tribunal members and a support staff of eleven. Since South Africa's telecomm regulator has competition law enforcement power (though not exclusive, as in Peru), South Africa's total of 103 seems most fairly comparable to Indecopi's 15 work-years.
61. Law 26285 – Law of the Progressive Demonopolisation of Public Telecommunications Services.
62. *See* World Bank, Country Assistance Strategy for the Republic of Peru, Annex C: Private Sector Strategy, para. 22 (2002).
63. *See* Part 2.2, above.
64. *See* Part 2.1.4, above.
65. Armando Caceras, *supra* n.21, at 123.
66. In Chile, the Tribunal will be an independent entity that has judicial powers but is not formally part of the judiciary. It will have five members. The President of the Tribunal, who must be a lawyer with at least ten years of experience in the competition law field, will be appointed by the President of the Republic from a list of five nominees established by the Supreme Court through a public competition. The other members (two lawyers and two economists) will be chosen as follows. One lawyer and one economist will be chosen by the President from a list of three nominees established by the Central

Bank (Council of Governors), also through a public competition. The other lawyer and economist will be appointed directly by the Central Bank from candidates selected by this same public competition. The Tribunal will also have four surrogate members, selected by the President of the Republic and the Central Bank from the same lists of nominees. All candidates are required to have expertise in competition issues. The members of the Tribunal have terms of six years, and may serve more than one term. During their terms, they can only be removed for cause. Neither public servants nor officers or employees of publicly held corporations (or their affiliates) are eligible.

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OECD PUBLISHING, 2, rue André-Pascal, 75775 PARIS CEDEX 16
PRINTED IN FRANCE
(24 2009 01 1 P) ISSN 1560-7771 – No. 57491 2010

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