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INCENTIVE BIDDING FOR MOBILE INVESTMENT : ECONOMIC CONSEQUENCES AND POTENTIAL RESPONSES

by

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PREFACE

Globalisation poses numerous governance challenges for developing countries. One such challenge, which OECD countries also face, stems from the remarkable growth of competition among governments to attract FDI that has emerged in recent years. Such competition can lead governments to engage in fierce bidding-wars with each other in their attempts to attract FDI by offering major fiscal and financial incentives to potential investors. The challenge for policy makers is to limit or reduce the costs and market distortions that can be caused by such competition while at the same time retaining the possible societal benefits from such competition.

This paper builds on the Development Centre's 2000 study *Policy Competition for Foreign Direct Investment: A Study of Competition among Governments to Attract FDI.* The paper examines the national and international welfare effects of incentives competition, and proposes appropriate policy responses. Among the latter, its focus is on the potential value of transparency-enhancing measures and of co-operation among jurisdictions.

The paper, written during the author's visit to the Development Centre in the summer of 2002, constitutes another example of co-operation with the Directorate for Financial, Fiscal and Enterprise Affairs on a subject of considerable importance for both developed and developing countries.

Jorge Braga de Macedo
President
OECD Development Centre
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RÉSUMÉ

La concurrence que se font les pouvoirs publics pour attirer les investissements directs étrangers (IDE) s'est nettement intensifiée. Ce Document évalue dans quelle mesure l'ampleur des faveurs accordées aux investisseurs par les pouvoirs publics dépend des pressions concurrentielles exercées pour attirer des projets d'investissement mobiles. Il en ressort que, dans bien des cas, cette concurrence détermine largement la nature et l'étendue des avantages consentis.

La concurrence peut avoir des effets à la fois positifs et négatifs sur le bien-être au niveau national et international. Les effets négatifs se manifestent lorsque les pouvoirs publics concèdent à l'investisseur des avantages supérieurs aux bénéfices reçus par l'économie hôte, ou lorsqu'ils ont recours à des incitations inefficientes.

Ces résultats négatifs sur le bien-être seraient grandement réduits par des mesures visant à améliorer la transparence. Une comptabilité adéquate des incitations contribuerait à garantir que les dépenses correspondent bien aux objectifs poursuivis ; elle réduirait les marges de corruption et renforcerait l'efficacité des négociations. Pour améliorer la diffusion des informations, une coordination internationale est sans doute nécessaire car aucun gouvernement n'a intérêt à révéler de manière unilatérale les détails des avantages accordés aux investisseurs, si les autres ne font pas de même au même moment. L'auteur examine plusieurs possibilités de coopération en ce sens.

SUMMARY

Competition among governments to attract foreign direct investment (FDI) has grown significantly. This paper investigates the extent to which the size of incentive packages offered to investors by governments is driven by competitive pressure to attract mobile investment projects. It finds that such competition is in many cases a significant determinant of the size and nature of investment incentives.

Competition can have both positive and negative effects on domestic and international welfare. Negative outcomes typically occur when governments offer attraction packages that are larger than the value of the benefits to the host economy, or when governments resort to inefficient incentive instruments.

Increased transparency would significantly reduce the scope for negative welfare outcomes. Proper accounting for incentives helps to ensure that expenditure is aligned with policy goals, reduces the potential for corruption and improves the efficiency of the negotiation process. Improved disclosure would benefit from international co-ordination since no individual government has an incentive to unilaterally reveal the details of their incentive packages unless others do so simultaneously. Further options for co-operation between jurisdictions are discussed.

I. INTRODUCTION

Since the mid-1980s, the efforts of national and sub-national levels of government to attract direct investment to their jurisdictions have, according to most sources, increased considerably. A large body of academic research has been triggered by several well-publicised cases of incentive competition, in which governments have been bidding against each other to attract mobile capital. The debate among scholars has been vivid. Proponents of incentives subscribe to the "positive-sum game hypothesis", believing either that incentives are the efficient manifestations of competitive markets, or that they are "second-best" government interventions designed to achieve legitimate industry policy objectives. Opponents of incentives believe that competition for investment is a negative-sum game, which causes a "race to the bottom", diverts public funds away from necessary government activities and introduces market distortions.

This paper addresses both the positive and the negative aspects of incentives competition. Section I proposes some definitions and surveys the literature on the various welfare effects of incentive competition. Section II presents case studies from a range of contexts, which provide evidence of the extent to which incentives are influenced by competitive forces. The case studies offer real examples of the potential welfare consequences of incentive competition. Section III lists some of the options for reducing inefficiencies that are available for policy makers.

In this paper, incentives are treated as a global issue. While the main focus is on competition among governments in developing countries, evidence is also presented from OECD countries. The experience of OECD countries offers valuable lessons for developing nations. Not only are the dynamics of investment competition similar in these two contexts, but also competitive practices that develop in one region are often transferred to the other. The study of some of the specific welfare effects of investment competition is also more fruitful in OECD countries where higher quality data on incentive packages is available.

For the purpose of this paper, investment incentives are defined to include only those instruments which provide direct economic benefits to investors and are reasonably proximate to the investment decision. FDI incentives can be formally described as: government financial benefits, primarily offered to foreign investors rather than less mobile domestic investors, for the purpose of influencing the size, nature or location of an investment project[1].

This definition does not include economy-wide measures to encourage investment, such as low corporate tax rates or general R&D support, which affect the broader enabling environment for investment and are available equally to domestic enterprises.

Common investment incentive instruments include cash grants, corporate tax reductions, property tax abatements, sales tax exemptions, loans, loan guarantees, assistance with firm-specific job training funds and infrastructure subsidies.

I.1. Domestic Investment Incentives

Even in the absence of competition with other jurisdictions, governments may wish to offer incentives to keep mobile investors. The two main *domestic* reasons for offering incentives are to correct "market failures" and to promote industrial or regional development policy objectives. The investment literature has documented several types of market failure.

The most obvious market failure justifying investment incentives derives from the presence of externalities ("spill-over" benefits) from foreign direct investment such as technology gains and new or enhanced trade flows. The presence of these externalities suggests that without government assistance the level of privately provided investment may be below the social optimum.

Incentives might also be used to mitigate the effects of risk and uncertainty. There may be "stickiness" or delay in the investment process (Dixit and Pindyck, 1994). Incentives may have a role in overcoming uncertainty by signalling characteristics about the investment climate in a particular location, or alternatively by increasing the payoff of a project to meet a higher required rate of return.

Foreign investment patterns show evidence of "clustering" and "follow the leader" behaviour. These have been explained partly by agglomeration effects and partly by the inappropriability of "first mover risk". This means that firms dislike being the first to invest in an uncertain new location, preferring instead to watch the progress of other firms[2]. Incentives might help to overcome this agglomeration pattern and lead to a more efficient distribution of investment[3].

Industrial policy objectives are also commonly cited as justifications for investment incentives.

Incentives are widely used to promote investment in underdeveloped regions. For example, within the European Union, large parts of Spain, Portugal, Ireland, Greece and East Germany are classified as less developed and are subject to favourable treatment with regards to State Aids.

Incentives are often popularly justified as mechanisms to create or retain jobs.

At the sub-national levels, incentives are often seen as a means of industrial transformation, capable of bringing high-skilled employment, research capability and technology into new geographic areas.

I.2. The International Dimension

What are the global welfare consequences when many governments adopt individually rational attraction policies? In the international context, governments are required to design incentives which are optimal not only from the point of view of domestic objectives, but also take into account the strategic imperative to compete with other states for the benefits of investment.

The process of offering competitive incentives is often termed a “bidding war”. This describes a situation in which it is individually rational for governments to increase their offer of incentives to firms, but the collective effect of this competition may produce unintended consequences.

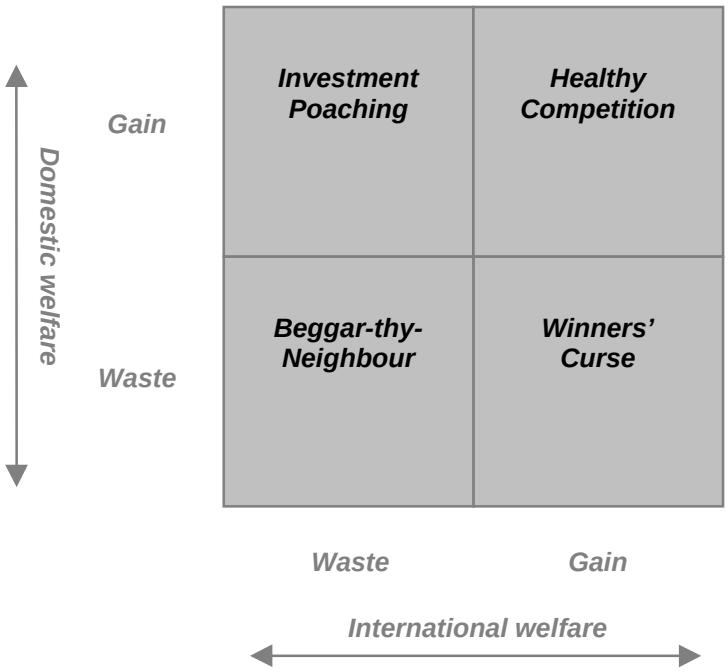
The consequences of competition can produce both positive and negative welfare effects. This paper draws a distinction between domestic and international welfare. As described above, *domestic* welfare is affected when competition changes the *level* of incentives on offer. If competition causes governments to increase the quality and volume of their FDI inflow through more effective and cost-efficient incentives, then the domestic effects are positive. On the other hand, in some circumstances competition may exacerbate poor incentive policies, potentially leading officials to use inefficient incentive instruments or to offer incentives that are greater than the net benefits of the investment project to the host country. In such a scenario the government will have “over-subsidised” the investment project and competition may lead to a misallocation of resources and negative domestic welfare consequences.

International welfare is affected when incentives cause the spatial *distribution* of investment to change. If competition improves the distribution — allocating investment projects to the location in which they are most profitable — then welfare is increased. If competition leads to unnecessary shifting of investments or distorts the allocation of projects then competition might be wasteful and welfare will be reduced.

The negative scenario is a classic “prisoner’s dilemma” situation. States are better off collectively if they limit the size of incentives offered to firms, but this co-operation is unstable because any individual state knows that it would be better off if it deviated from the coalition and lured firms by itself.

Using the international and domestic dimension, the range of possible welfare outcomes produced by competitive incentive bidding for investment can be presented in a matrix form.

Matrix of welfare outcomes from the use of investment incentives



The four outcomes may be categorised thus:

Investment poaching. This occurs when incentives operate to enhance the efficiency of the domestic economy but have negative effects on global efficiency. This is for instance the case where one government lures an investment project from a location in which it was naturally more efficient. In such a scenario, there may also be no net employment creation and the investment could be less profitable (net of incentives) after the move. Another example relates to the case where incentives are effective in attracting firms to a particular location, but have the unintended consequence of changing the behaviour of investors. Firms could respond to greater incentives by becoming more "footloose", moving between locations more frequently and engaging in "incentive shopping" or rent-seeking activities.

Healthy competition. In this win-win scenario, incentives produce domestic efficiency, in the sense that they improve the flow of investment projects. Competition for investment also delivers international efficiency, ensuring that investment projects are matched to the locations in which their value is greatest. Incentives instruments are carefully chosen to have minimum distortion and their size is calculated to produce the maximum benefit for total welfare. In particular, this will be the case where incentives are picked to closely reflect the eventual spillover benefits to the host country from foreign corporate presence. In this case, the country bidding the highest will *ceteris paribus* be the one where the potential efficiency gains are the largest.

Beggar-thy-neighbour. Beggar-thy-neighbour outcomes are the most potentially harmful consequences of bidding wars. They occur when the use of incentives produces both the negative international efficiency effect described above, and additional domestic inefficiencies. Domestic inefficiencies can result from poor incentive policies,

implementation problems or errors in the estimation of the potential benefits from an investment project. For example, a government might create inefficiencies by attracting a firm which is not suited to the nation's capabilities and natural resources. Alternatively, domestic inefficiencies can occur when the potential benefits from an investment project are overestimated, leading to overbidding and a net loss to the government.

Winners' curse. This problem of systematic overbidding is a common feature in any auction of an object with an uncertain value. Even if the bidding process is internationally efficient, in the sense that the project was "won" by the location in which its value is greatest, the bidding government may lose if it has paid too much for the investment. This scenario involves international efficiency, but domestic inefficiency.

I.3. Reviewing the Economic Effects of Incentive Competition: Costs and Benefits

Investment incentive competition has the potential to produce any of these welfare outcomes in varying degrees. The actual net result from any incentive instrument depends on the economic context, the type of incentive and the circumstances of its use. In this sense, competition for investment has neither an absolute positive nor an absolute negative effect on global welfare. Competition does however make the policy game more risky, increasing the scope for both gains and losses. For example in the presence of competition, the potential losses to an individual government from unsuccessful investment attraction policies are increased.

Positive Effects of Incentive Competition

Incentive competition has been praised for encouraging the creation of business-friendly environments and facilitating the efficient allocation of investment. Indeed, in recent years there has been considerable "revisionist" research on the positive effects of aggressively competitive industrial development programmes.

The basic argument for why competition between states for mobile capital is good goes back to the Tiebout Hypothesis (1956)[4] which shows how competition among governments may ensure that taxes are efficient. Efficiency in this sense means that taxes are driven to a point at which they reflect the cost of providing public inputs, like infrastructure and trained labour, to the marginal firm[5].

In the conclusions of so-called "Leviathan models", tax competition also improves welfare because it forces government officials to reduce wasteful expenditure. Brennan and Buchanan (1980) argue that tax competition improves welfare, because the size of government would be excessive in the absence of this competition. Wilson (2001) notes that when governments spend more on incentives, they have smaller budgets for redistribution purposes, perhaps resulting in less utilisation of the political process by interest groups engaged in potentially wasteful rent-seeking.

Incentives may also be welfare enhancing if they lead to a more efficient spatial distribution of capital. Indeed incentives are widely used in practice for the purpose of attracting investment to underdeveloped regions[6]. Bartik (1991) argues that even if incentives just shift jobs from one location to another, they are beneficial to the extent that they result in a concentration in relatively low-growth or high-unemployment regions.

This is because the benefits of jobs created in distressed areas will exceed the benefits foregone in lower unemployment areas. The benefits of this transfer were described in Wood's (1994) and Williamson's (1997) hypothesis of the beneficial effects of international trade and movement of capital in developing countries. Fisher and Peters (1996) find mixed evidence on this issue[7].

Negative Effects of Incentive Competition

Criticism of incentive competition can be roughly separated into two categories: basic concerns about the transfer of resources from governments to firms through incentives; and efforts at documenting the inefficiencies that can be created by them. This paper focuses on inefficiencies rather than distributional concerns.

One of the main themes of academic literature is that investment incentives may lead to fiscal haemorrhaging and hence lower government spending on public goods below efficient levels[8]. Oxfam (2000) estimates that developing countries lose $35 billion per year due to a competitive pressure to reduce corporate tax rates combined with the transfer of profits out of developing countries to low-tax environments[9]. The simplest paradigm of incentive competition is summed up by Oates (1972): "The result of tax competition may well be a tendency towards less than efficient levels of … local services. In an attempt to keep taxes low to attract business investment, local officials may hold spending below [optimal] levels". Oates concludes that in a world where every government offers incentives, the game is zero-sum from the point of view of global welfare and negative-sum from the point of view of governments. All governments would be better off having used their resources to fund efficient public investment.

A second argument against incentive competition is that it might cause governments to pay too much for investment projects (i.e. the "winner's curse" and "beggar-thy-neighbour" scenarios mentioned above) leading to inefficiently high subsidisation of international firms at the expense of the domestic economy. The risk of such outcomes is compounded by the fact that valuations of the benefits of investment projects depend on identifying and quantifying "positive spillovers", which is notoriously difficult. Political pressure on governments to be seen as job winners, to send signals or to attract "landmark" investments also mitigate in favour of overbidding[10]. The public pressure to preserve and create jobs pushes policy makers to "play the game" (Wolkoff, 1992). In a similar vein, studies in Ireland have indicated that the contributions of foreign companies to Irish GDP, export and employment growth may have been exaggerated in public debate[11]. Competitive investment incentives support industries for political rather than economic reasons. For example they tend to be offered to the most mobile producers and not to "captive" producers. This may lead to a relative over production of goods made by mobile producers. It also tends to operate as a subsidy to foreign firms.

Incentive competition might also lead to excessive firm turnover. In the presence of incentive competition, firms may be inclined to reduce the "depth" of their investment in any one location, enabling them to move more easily, and capitalise more frequently on incentive offers[12].

II. RECENT EXAMPLES OF COMPETITIVE BIDDING

The extent to which current incentive packages are influenced by competition is notoriously difficult to assess because the motivation of policy makers is not easily observable. Some studies have attempted to analyse the influence of competition by looking at the spatial distribution of incentive packages[13]. They find some evidence to suggest that incentives are larger in areas where one may expect competition to be more intense. Oman (2000) finds that often the most intense bidding wars occur between similar countries or even regional governments within states, which indicates that competition at least plays a role in driving incentives deals. An alternative approach looks at how incentive packages have changed through time and specifically whether there is evidence to suggest that incentives have grown in response to more intense competition.

The five subsections below survey a body of evidence from a range of competitive contexts. Importantly, these include examples from both developing and developed nations. Not only is the phenomenon of competition similar in both spheres, but in some cases developed and developing regions are competing for the same projects. For similar reasons, it is also important to incorporate sub-national governments into the competitive framework. In federal nations and large countries with decentralised administration it is often sub-national governments that deliver incentive packages and contribute most to both intra-national and international competition[14].

II.1. Inter-Regional Competition in Brazil

In developing countries an apparent intensification of the competition for FDI can be attributed to several factors.

— An increasing number of developing nations are opening their doors to FDI. Policy changes to remove restriction on FDI as well as infrastructure and human capital improvements have given foreign firms a wider location choice.

— Evidenced by the expansion in the volume of trade, goods and capital are moving more easily within developing countries and between developing and developed countries making foreign investment more mobile or “footloose”.

— The future prosperity of each region is increasingly perceived to be dependent on its capacity to attract mobile FDI. Through FDI many nations expect to acquire a ready-made growth strategy complete with employment opportunities, technological spillovers and export expansion[15].

Brazil is an interesting case study because it shows competition at several levels of government; regional, state and federal. The typical incentive package for a large investment includes both financial and fiscal incentives and is contributed to by both

state and municipal governments[16]. Financial incentives include infrastructure grants[17] and the provision of land at highly discounted prices. Other common incentives include loans by the state at fixed rates well below those of the Brazilian credit market and any number of other benefits ranging from training assistance to free public transport for workers. Fiscal incentives, which typically make up the bulk of the value of incentive packages, include state and local tax holidays for as long as ten years, as well as tax breaks on imported materials and capital.

Case studies of the Brazilian automobile sector are particularly illustrative — although it should be noted that this sector is unlikely to be representative of regional assistance in other industrial sectors[18]. However, it is one of the most important sectors of the Brazilian economy (12.1 per cent of industrial GDP in 1997) and certainly the most important in terms of large FDI projects. The Brazilian automotive market has been among the fastest growing in the world for several years. It almost tripled from 1990 to 2000, as a result of which Brazil jumped from 12th to 5th in the ranking of the world's largest carmakers. The question whether FDI incentive packages have had an impact on this growth has attracted considerable interest among researchers[19]. However, the scope of the present paper is the degree to which the increase in incentives may have been driven by competition between states and regions. The examples that follow highlight how, in Brazil like elsewhere, bidding wars appear to have become the norm in the motor industry.

One of the first big auto deals occurred in 1995/96 when the state of Paraná and the municipality of São José dos Pinhais attracted an investment by Renault involving 1 500 new jobs. In return for the deal, Renault was offered a massive incentive package including a capital contribution of up to $300 million, interest free loans and a series of local tax breaks. The government contribution also included the donation of a 2.5 million square meter site, provision of all the necessary infrastructure and utilities at the site. Renault was also to receive electricity at prices 25 per cent below market value. The Renault deal created the benchmark for regional attraction policies, while sending a clear signal to carmakers. Local politicians wishing to present themselves as job creators — and fearing a public backlash, should their region be left behind — began to use incentives in what came to be known as "the fiscal war" among the states in Brazil[20].

The next deal was between Mercedes-Benz and the city of Juiz de Fora in Minas Gerais. In exchange for undertaking investment of a similar size as Renault, Mercedes-Benz secured from the state and the city an equally impressive catalogue of incentives. As well as land, grants and tax breaks, the local authorities were willing to conduct extensive infrastructure development, including the construction of access roads and rail links to the plant and the development of utilities and sanitation (with lower water costs for ten years).

In 1997, the state of Rio Grande entered the fray. The authorities privatised the local port and phone company and allocated the proceeds to pay for investment incentives earmarked for attracting car plants. Both General Motors and Ford signed deals to build new factories near Porto Alegre. According to the terms of the agreements, General Motors will pay no state sales tax for 15 years. Moreover, the state government is spending around $67 million to prepare the factory's site, and it also lent the carmaker 254 million *reais* at 6 per cent interest rate (the market rate was above 35 per cent at the

time). Ford reportedly obtained similar terms. The generosity of these terms gave rise to considerable political controversy within the state, and it is widely asserted that this was among the factors that subsequently brought down the local government.

There are signs of a cooling in the public and political attitude towards incentives. For instance, Brazil's president vetoed a measure to offer 700 million *reais* a year in tax credits that had been offered to Ford in return for building a new factory in Bahia. Instead, the carmaker accepted a lesser, though still attractive, deal involving an annual subsidy estimated at around 180 million *reais*[21].

II.2. International Competition among ASEAN Countries

Competition for FDI in the ASEAN countries has been a key factor contributing to the growth of investment incentives in the region. By the mid-1980s, all ASEAN countries except Indonesia had wide-ranging investment incentive programmes.

Both Malaysia and Singapore introduced tax holidays for firms investing in "Pioneer Industries" in the late 1950s. Since then Singapore has been the regional leader, increasing both the range and sophistication of its incentive instruments and forcing its ASEAN neighbours to follow suit[22].

In 1967, Singapore introduced the Economic Expansion Incentives Act, which allowed for a 90 per cent tax concession on profits from export activities and tax deductions for export-related expenses. In the same year, the Philippines responded by creating a class of "preferred enterprises" which benefited from accelerated depreciation, import tax exemptions and tax credits for domestic capital investment[23] and three years later introduced an Export Incentives Act of its own[24]. Malaysia's answer was the 1968 Investment Incentive Act, which offered a raft of incentives to labour-intensive and export- oriented industries. Thailand followed its neighbours in 1972, with its own range of incentives in the Promotion of Industrial Investment Act.

In the 1970s and 80s, incentives were progressively ratcheted up throughout the region. In 1975 Singapore extended its tax holiday to ten years and offered a tax credit scheme for 10-50 per cent of the value of investment. Thailand[25] and Malaysia[26] matched the extended tax holidays and introduced further measures.

Despite the intensifying competition, FDI inflows to ASEAN countries increased steadily in the 1970s and 80s, particularly from the USA and Japan[27]. But, in the 1990s, South East Asia faced a powerful new competitor: China.

China introduced a wide range of investment incentives for foreign enterprises in 1991[28]. Since then its investment attraction policies have expanded[29] and China has established a phenomenal dominance in foreign investment attraction. China now absorbs roughly 80 per cent of all investments in Asia, leaving the other countries in the region to fight for the remaining 20 per cent[30].

A Malaysian newspaper recently complained of "all the attention being given to China as the centre of the universe in terms of trade, industry, consumption, and everything else that has to do with making money, such that it appears we're only getting foreign investment left-overs"[31].

In 1999, the Philippines Board of Investments recorded its worst FDI inflow figures for five years. The Philippines appeared to be losing out to China and its ASEAN neighbours[32]. The poor performance was attributed partly to the "pulling power" of China and partly to the generous incentives granted by neighbouring countries[33]. The Philippines found that their problems were not easy to solve. After decades of investment, the budgetary cost from incentives was already close to $2.5 billion[34]. But according to Philippine Trade Secretary, Manuel Roxas, the country's incentives were "not that excessive and were in fact lagging behind other countries that were more developed."

Examples from across the region suggest that the climate of increased competitiveness has had an effect on the level of incentives.

In 1996, General Motors announced it wanted to build a $500 million car plant in Asia. The two locations that fought most fiercely for it were Thailand and the Philippines. Both countries sent in high-level negotiators. Philippines President Fidel Ramos wrote to GM chairman John Smith, citing the country's economic reform record and affirming Manila's interest in hosting the GM facility. He also pitched a generous package of tax breaks and other incentives including an eight-year tax holiday followed by a 5 per cent levy *in lieu* of all other taxes. Ramos also offered duty-free import of machinery and equipment and government subsidies for training 5 000 car workers. At the time, a high-ranking government official was quoted as saying "this is a flagship investment opportunity and we want to get it." However, Thailand won the contest by matching the Philippines' package and, in addition, offering a 100 per cent refund on raw materials for car exports and a $15 million grant towards setting up a GM training institute[35].

In 2001, New York based Canon Inc was set to create 300 new jobs in the Philippines through a multimillion dollar investment in a new regional production facility. The investment deal was "90 per cent done" when Vietnam offered a substantially bigger incentive package than would have been allowed under Philippine law, including a ten-year tax holiday. A Department of Trade and Industry (DTI) official said, "We could only offer up to eight years under existing laws. We need incentives to compete"[36]. In response, the DTI pushed for changes to the Omnibus Investments Code, which would include a 5 per cent gross corporate income tax and an income tax holiday for up to 12 years.

In the East Asian region, incentive competition is most fierce in high-tech sectors that offer high skill jobs and technology transfer. "Computer chips, not potato chips" has been a mantra of East Asian development.

In 1996, Malaysia launched a Multimedia Supercorridor (MSC) intended to promote investment in the information and communication industries. The MSC policy includes a full five-year tax holiday as well as a 100 per cent investment tax allowance (ITA).

In the following year, Indonesia introduced specific tax concessions for microchip manufacturers[37].

Chinese Taipei is also engaged in an incentives race to model itself as a "silicon island". The Hsinchu Science-Based Industry Park has been the backbone of the national semiconductor industry. Its Third Phase expansion, begun at the end of 1995,

will provide tangible benefits to firms such as access to cheap land, cheap services and utilities as well as direct incentives including tax breaks and R&D incentives.

At the same time, China has been attempting to lure established electronics manufacturers away from its neighbours. Beijing late last year introduced additional incentives targeted at attracting chip entrepreneurs from Chinese Taipei. Chief among them is a series of tax discounts for substantial investments, including five tax-free years and five more at 50 per cent of the full rate. Another scheme reduces value-added tax for semiconductors sold domestically from 17 per cent to 6 per cent. In addition to central government initiatives, local governments add sweeteners. Shanghai has offered not to tax the year-end bonuses of semiconductor employees — in Chinese Taipei these can run as high as 24 months' salary[38].

The upward trend of incentive packages is exacerbated by the tendency of firms to increase their expectations over time. Once a generous package of incentives has been settled between a firm and a host government, other investors demand similar treatment[39]. When Ford came back to the Philippines in 1998, after a fifteen-year absence, it lobbied successfully for an unprecedented package of incentives, including a 5 per cent gross income tax in lieu of all national income taxes, and the exemption from VAT payments on all its imported machinery and equipment and an additional tax reduction on labour training[40]. Soon after, General Motors and Chrysler made it clear that they were also interested in returning to the Philippines — but only if they were offered an equally generous package.

At the IMF's Conference of Foreign Direct Investment held in Vietnam in August 2002, the delegates heard that because incentives for FDI are typical in the region, many countries feel that they cannot go it alone and avoid them. Instead it was argued that the focus should be on streamlining incentives and designing incentive packages so as to limit the drain on the budget and the potential for corruption[41].

II.3. Inter-Regional Competition in China

Foreign direct investment plays a major role in China's "reform and open door" policy strategy. As described briefly above, China's national incentives policies — as well as its natural attractiveness as an investment location — have enabled it to compete successfully with its neighbours for mobile investment. However China has also used incentives policy in an attempt to increase the effectiveness of FDI within its borders and achieve domestic industrial development goals.

China's experience of intra-national incentive competition differs markedly from that of other large nations. In China, competition is heavily regulated by central government guidelines, and regional incentive packages are subject to central government approval. This co-ordination reduces the intensity of competition and has avoided many of the wasteful incentive practices seen in countries like Brazil. China's policies in its western provinces offer an example of how inter-governmental co-ordination can reduce the potential negative welfare effects of investment competition without thwarting regional industry policy.

In the 1980s and 90s, China's foreign investment strategy was characterised by a twin policy of decentralisation (giving regions control over FDI attraction) and liberalisation to reduce the central government restrictions on foreign investment activity (Oman, 2000). One of China's major development goals for the new century is to extend its prosperity into regional areas. Realising that foreign investment would be a key driver of regional development, the central government has created a framework of incentive competition between provinces and municipalities.

The "Go West" campaign launched as part of China's Tenth Five-Year Plan lists priority industries and a series of preferential policies available to foreign investors in western regions. The "Go West" regulations give local governments in regional China greater flexibility to use fiscal incentives to compete for new investment projects. Several local authorities in western areas are now using incentives as an instrument of regional development.

In Xi'an, production-oriented foreign investors will be exempt from local income tax, urban real estate tax and vessel tax for the first 60 per cent of the operating term.

In Chengdu, production-oriented foreign investors will be exempt from local income tax and non-production oriented firms with an operating term over ten years will be exempt from local income tax for five years from the first profitable year.

In Chongqing, production-oriented foreign companies with an operating term over 15 years will enjoy an eight-year tax exemption and a seven-year 50 per cent reduction from local income tax from the first profitable year.

China is already reporting some progress in the western regions as a result of the new initiatives. Western provinces seem able to use incentives (in combination with other location advantages such as low factor costs) to attract large projects away from the east, although it is still too early to assess the overall success of the scheme. Already, about 80 global giants of the Fortune top 500 have invested into the western hinterland bringing significant potential for economic growth to its 300 million people.

II.4. Inter-Regional Competition in the United States

In the United States, FDI incentives and competition with other jurisdictions are almost unheard of at the federal level. However, anecdotal evidence abounds that "smokestack-chasing" has become increasingly prevalent at the state and regional levels. By now, virtually every state offers both financial assistance and tax incentives to attract new firms.

There is no "authorised" quantitative information on location incentives, and hence no way to accurately trace an increase or decrease over time. Nonetheless, a burgeoning quantity of informal data does seem to indicate an intensification of competition among states. Donohue (1997) reports from a Council of State Governments Survey conducted in the mid-1970s and again in the mid-1990s on the use of 11 types of tax incentives and 9 types of financial incentives. Over the 20-year period, there was an increase in the use of almost every instrument. For example, the number of states offering research and development tax incentives went from nine in 1977 to 36 in 1996; property tax exemptions were offered by 23 states in 1977 and by 37 in 1996;

construction finance assistance rose from 19 to 42; equipment and machinery loans from 13 to 43. Indeed, of the 20 forms of business incentives, none was offered by fewer states in the 1990s than the 1970s. The average number of incentive programmes offered by an individual state rose from 11 to 24 over the same period[42]. A hundred and fifty new business tax incentive programmes were introduced in the USA in the year 1995 alone.

Another survey of 203 tax or finance executives at large American firms found that 73 per cent perceived incentives to be more widely available in 1995 than five years earlier and 40 per cent saw an increase over the previous year[43]. Indeed, 79 per cent of those firms surveyed indicated that they were receiving location incentives.

Fisher and Peters (1999) found more evidence in a study of 20 states for the period 1990-98. Fourteen of the 20 states adopted new general incentive programmes or made existing programmes more attractive; eight states adopted new targeted programmes (such as enterprise zones) or made existing programmes more generous[45]. By contrast, only six states increased any basic tax rates and in three of these the increases were offset by other tax reductions. Only three states tightened or scaled back general incentive programmes; another three discontinued incentive programmes but replaced them with others, typically more generous. Attempting to quantify these tax changes by measuring their effect on the overall state-local tax rate on new investment[46], the study found that the median basic tax rate among these 20 states was reduced from 8.5 per cent in 1990 to 7.9 per cent in 1998. Moreover, there was an even larger reduction in the median effective tax rate when incentives were included (6.3 per cent to 4.9 per cent)[47]. By 1998, there were cases of “negative taxes” (i.e. incentives exceeding new plants’ tax liability) in certain sectors in 11 states, up from three in 1990.

The question is whether the rise in incentives can be properly attributed to competition between states. The emerging consensus view is that this is most likely the case. There is considerable anecdotal evidence in favour of such a view:

North Carolina introduced a range of new fiscal incentives in 1996. This was widely seen to be a reaction to movement of several local businesses to states offering incentive packages. The state’s Commerce Department mailed footballs to major corporations and site-selection consultants inscribed with the slogan “We’re back in the game”[48].

In 1995, Massachusetts manufacturing firm Raytheon made public its desire to investigate lower cost locations. Nebraska had recently passed legislation reducing taxes, which Massachusetts quickly followed with a similar tax change that would benefit manufacturers like Raytheon but cost more than $100 million in foregone revenue. When Rhode Island subsequently passed tax legislation benefiting financial services firms, the Massachusetts legislature extended their tax cuts to financial firms, costing another $45 million[49].

In the late 1980s, New Jersey was offering incentives to New York firms to relocate. In 1987, J.C. Penney and Mobil Corporation announced that they were moving out of Manhattan. When NBC also announced its intent to move, city officials offered NBC $100 million in tax breaks and other concessions. Drexel Burnham Lambert threatened to move the next year, and received $85 million as its reward for not doing so.

Citicorp received $97 million for staying put. Chase Manhattan Bank was perhaps the largest recipient, with $235 million to avert its threatened move to New Jersey. ABC and CBS followed NBC's lead, receiving $26 million and $50 million, respectively. Later the authorities offered the New York Mercantile Exchange over $180 million not to leave[50]. One "conservative estimate" puts New York City's incentive costs at $2 billion over a ten-year period, mostly for firms that stayed where they were[51].

Pfizer announced in December 2001 a $600 million, 600-job expansion in Ann Arbor, Michigan. The state of Michigan has committed $84.2 million of incentives on the Pfizer project. The incentives include a 20-year credit on the Single Business Tax worth an estimated $25.8 million; a 12-year abatement of State Education Tax, valued at $10.7 million; and a 12-year abatement on Ann Arbor's property tax, valued at $47.7 million.

There is also evidence of investment competition among cities within states. The city of Amarillo in Texas was the developer of perhaps the most creative approach to economic development incentives. In 1993, Amarillo officials sent 1 300 cheques for $8 million to companies around the country. All that a company had to do to cash it was commit to "creating" at least 700 new jobs in Amarillo[52].

As with many other countries, the automobile industry in the United States has been at the centre of particularly intense bidding wars. Mercedes-Benz began looking for investment site options in 1991. More than 20 states were interested in the investment when the news became public. Three states — North Carolina, South Carolina, and Alabama — were the finalists in the high-stakes contest. North Carolina, the presumed frontrunner, had overcome its traditional reluctance toward incentives and offered an unprecedented $100 million, including specially crafted legislation tailored to Mercedes. South Carolina offered a similar figure. In October 1993, Mercedes made the stunning announcement that its new plant, now trimmed down to a mere $300 million, would be built in the rural Alabama (Vance, population 480). In all, the incentive package amounted to $153 million. The cost, depending on the method of calculation, was put between $153 000 and $220 000 per job[53].

There is some evidence however that the intensity of investment competition has reached its peak in the United States, or at least that there is now a more widespread political will to de-escalate the intensity of competitive bidding. Several recent state initiatives are worth noting.

The Ohio Legislature debated and unanimously passed Ohio Senate Resolution No. 21 last year, which calls upon the federal government to identify and eliminate the federal programmes which turn states against states in incentive wars.

The Texas Senate recently passed Senate Bill No. 1557 that will, if enacted, prohibit school districts from granting new property tax abatements for economic development or new tax increment financing plans after 1 September 1997. The legislation grew out of a committee study released last autumn that showed that the majority of school districts that grant tax abatements experience both short-term and long-term financial losses. The study reported that such abatements cost school districts nearly $500 000 in property tax revenue over the ten years ending in 1995[54].

In Indiana, Senate Bill No. 467 creates an interstate business protection compact. It provides that the purpose of the compact is to assist in the reduction or elimination of unnecessary interstate relocation of existing business; to encourage programmes for the protection of business from unnecessary interstate relocation.

However despite the promise of such initiatives, the track record of incentive limiting incentives is not encouraging[55].

II.5. International Competition in Europe

Many European economies have recently increased the sophistication of their investment attraction policies. In Western Europe, grants are the most common elements of regional incentive packages. They are perhaps preferred because they are highly visible to investors, transparent, flexible and easy to administer (Allen *et al*., 1979). Apart from Denmark, all the major western European nations offer grants to encourage investment projects.

There is considerable evidence of investment competition in Western Europe, although it must be conceded that much of this is anecdotal and related to the highly publicised bidding wars for large “landmark investments”. For example:

In 2001, BMW decided to locate their plant in Leipzig in Germany. This $860 million project involved some 5 500 jobs. More than 250 locations in Europe competed for 12 months for the BMW plant. Leipzig beat out the four other short-listed sites: Arras, France; Rolin, Czech Republic; and two other German cities, Augsburg and Schwerin. As part of the final deal, BMW got a 495-acre site for just $2.23 million as well as an estimated $244 million from the European Union for locating the plant in an economically disadvantaged region. Additional assistance is reportedly on offer from municipal authorities for hiring and training workers.

In a highly publicised announcement in 2000, Nissan Motors threatened to move the production of the Micra model out of its Sunderland plant in the United Kingdom. Nissan claimed the cost of business was too high in Sunderland. In 2001, after receiving a $58.5 million grant, the company agreed to stay.

In 1991, Portugal paid a $680 million grant to Ford and Volkswagen to encourage a $3.1 billion investment in Setubal. As well as the sizeable incentives, Portugal clinched the deal with government support including infrastructure improvements, upgrades to its port rail link, improved local highways and a dedicated water-treatment plant.

Incentives (and, by most measures, incentive competition) are also strong in the high-tech chip industry. Regional governments are reportedly offering incentives of up to 40 per cent of the total production costs in the early years of large projects. While much of the early evidence of proactive policies to attract these industries comes from the United Kingdom and Ireland, there are indications of increasing competition across Western Europe.

Advanced Micro Devices (AMD) set up a chip plant in the former East Germany city of Dresden, with about $550 million in government incentives for a total of $1.9 billion in investments over a ten-year period. When AMD first began looking at sites to locate its first foreign wafer plant, Dresden was not on the original list of potential locations. Senior

vice president of operations, Gene Conner, said “we were approached by people representing Dresden … so we added them to the list”. AMD began negotiating with government officials and area banks to strike what ended up as one of Europe’s biggest incentive packages for a new chip plant. “The financial assistance package we got was a big factor” recalled Connor[56].

In 1996, the UK government gave Hyundai an estimated $190 000 per job[57] to establish a $5.7 billion semiconductor investment in Scotland.

Belgium has embarked on a strategy of attracting chip production plants, reportedly in response to incentives offered elsewhere. In 1997, the regional government of Flanders launched an initiative, earmarking more than $300 million in incentives to attract chip makers to the north-western parts of the country.

In several cases, incentives seem to be primarily offered for competitive reasons. Some countries even have schemes that target particularly mobile FDI. For example, the Netherlands has an incentive scheme called the Investment Premium, which is limited to projects whose economic activities are considered to be “footloose” or otherwise prone to relocation. Similarly in the United Kingdom, the Regional Selective Assistance programme has an “additionality” criteria which enables the authorities to raise the level of incentives if that is necessary to attract a project.

Ireland is perhaps the principal European example of a proactive use of incentives. Over the last 20 years, the country has successfully employed inward direct investment as a main driver of new employment, export growth and innovation. For much of the period, the incentives package on offer regularly included a considerable lowering of corporate taxes. Ireland also offers a wide range of incentives to select firms including grants, infrastructure and assistance. It has been particularly successful attracting large investment projects in target industries such as financial services for which it has developed a special purpose “International Financial Services Centre” in Dublin (The Economist, 1996).

There is also some evidence of incentive competition in Central and Eastern Europe. In contrast to the grants offered in Western Europe, in the East investment incentives are mainly made up of tax concessions and customs incentives (Stanovsky, 1995). Tax concessions are offered in all Visegrad countries[58]. The Czech government initially had a hostile view of tax breaks for foreigners[59] but reversed its objections when it found itself struggling to compete with countries offering incentives and falling behind its neighbour, Hungary, in FDI attraction and when it was seeking to attract an investment by Intel in 1997[60]. In 1998, the Czech government approved a package of incentives including corporate tax relief for ten years (newly-established companies) or partial corporate tax discount for five years (already existing companies), job creation grants, training grants, the provision of industrial property at low prices and infrastructure support. “Up until now, the Czech Republic has been competing with Poland, Hungary and Western European countries at a disadvantage,” said Jan Amos Havelka, CEO of CzechInvest. “This new package will enable the Czech Republic to compete on equal terms”.

The Czech change in policy was widely seen as a response to the introduction in Poland in 1995-97 of special economic zones in which investors enjoy tax holidays of ten years, with a further period of up to ten years at half the normal corporate income tax rate. There are currently almost 20 Special Economic Zones (SEZs) operating or being established in Poland. As well as corporate tax incentives, investors in these zones are offered accelerated depreciation and exemption from some import excises. Isuzu of Japan recently wished to locate a diesel engine plant in Europe involving a total investment of $240 million and around 650 jobs. The company reportedly chose Poland in preference to the West Midlands in the United Kingdom. According to Robert Hayman-Collins, director of West Midlands Development Agency, the Poles won because they "put a lot of money on the table — the UK does not do that very much in spite of impressions of the country".

However there is recent evidence of a decline in incentive competition across Europe, precipitating a fall in the volume of incentives. The eastern states of Germany have introduced capped limits on industry support, and some countries have seen the number of areas that are eligible for higher level areas of state aids under EU regulation reduced.

In some countries, the desire to join the EU has caused governments to align their state aid regulations with EU standards. For instance, Hungary has announced it will end individual investment incentives to multinationals and Poland has taken steps to curtail its Special Economic Zones/SEZs.

However, in countries with weaker economic fundamentals, incentives apparently often play a critical role. One recent example relates to Romania, where the tyre producer Continental pinned the future of a $50.4 million project on whether the government agreed to a large incentive package that was first offered, then withdrawn. A company representative expressed the situation thus: "To go on, we need back the facilities we had when we started the project. This is not an ultimatum, but the Romania plant is not a real project…" [without the incentives]. Daewoo also announced that the future of its Romanian operations depends on whether the government reinstates tax breaks to all foreign investors (and opposed to presently one specific West European company).

II.6. Summing up

Following the case studies, some tentative conclusions about the nature of incentive competition suggest themselves:

Competition is endemic. An analysis of the context in which deals are done and new incentive schemes are developed reveals considerable evidence of the influence of competition. Much anecdotal evidence points to a ratchet effect, whereby an increase in incentives by one government puts pressure on the others to match the deal.

The intensity of competition varies. Competition is strongest between close neighbours with similar economic conditions and factor endowments. Competition is strong among sub-national governments, which often compete more fiercely with each other than with overseas locations. Competition is strongest in high-skill and high-tech

industries, particularly for firms producing export goods. Carmakers, silicon chip producers, pharmaceutical firms are among the most sought after investors.

Investment poaching occurs. There is a clear indication of negative international efficiency effects where incentive packages merely transfer investment from one location to another without creating new jobs or improving productivity[61]. In the case of Brazil, the consensus view among researchers is that heavily indebted states have been granting huge tax breaks to car companies to build factories, which they had intended to build somewhere in Brazil anyway[62].

Beggar-thy-neighbour scenarios are possible. There is evidence that some incentive deals may reduce both domestic and international efficiency. There are examples of apparent overbidding, together with several cases in which the incentive packages appear to be a poor use of the host location's resources. For example, in 1991, Minnesota offered Northwest Airlines a financial package roughly worth $700 million — with about half the money tied to Northwest building maintenance facilities in Duluth and Hibbing. But as it turned out that locating such facilities to a cold climate was a poor business proposition, the investor decided to scale back its investment[63]. Other examples include investments in the north-east of Brazil and the Amazonas, that have been largely tax-exempt since the 1960s.

Competition can also be credited with efficiency gains. Investment incentives have played a significant role in attracting investment to undeveloped regions, for instance in Portugal and Ireland. In the case of Brazil, Rodríguez-Pose and Arbix (2001) present some evidence that incentives competition reduced regional inequalities in Brazil, since FDI is increasingly located outside the traditional industrial locations[64]. In combination with the labour cost differential, incentives provided the economic rationale for the direction of FDI in the car industry away from the traditional industrial core around São Paulo, towards other states, thereby returning to the decentralisation trend of the 1970s and early 1980s (Cano, 1993). The intensity of competition has also forced governments to reform many areas of economic policy with a view to creating a friendlier business climate.

The complex outcomes of incentive schemes suggest that the views for and against incentives that are occasionally aired in public debate (e.g. proposals to either entirely ban incentives, or to unreservedly sanction their use) are too simplistic. Instead, it would appear that the challenge for policy makers, whether acting individually or collectively, is to optimise the use of incentives, maximising their benefits while minimising their costs.

III. POLICY OPTIONS

The goal for policy makers is to develop a workable policy approach which will reduce the negative effects of bidding wars without prohibiting national or sub-national governments from pursuing legitimate industrial policy goals, such as regional development or sectoral promotion. However, in practice this often involves balancing a trade-off between conflicting policy requirements. In the language of this paper, authorities will certainly wish to take steps towards avoiding domestically wasteful strategies thereby preventing beggar-thy-neighbour outcomes.

In addition, a case can also be made for minimising the negative effects of "competitive" incentives — but great caution would be needed, since this involves a careful tuning of policies in order not to impinge on the efficiency-enhancing role of incentive competition.

If authorities were to embark on cross-country (or cross-jurisdiction) policy action, there are essentially three options, representing three levels of ambition with regards to the objectives being pursued. In ascending order these are: *i)* transparency-enhancing measures; *ii)* co-operation between jurisdictions; and *iii)* the putting in place of enforceable international rules. The present paper only addresses the first two of these categories.

III.1. Transparency

It has been argued that "the most effective reform would be informing citizens and policy makers what the costs and the benefits are"[65]. Currently, most citizens and, apparently, many policy makers do not know what is actually spent (on and off budget) on investment incentives. Very few nations have thorough accounting practices, which quantify and consolidate all channels of business assistance. The multitude of government agencies and independent and private agencies that are involved arguably compound the opacity.

Potential Benefits of Increased Transparency

To some extent, it is understandable that states have been traditionally reluctant to divulge information about their incentive packages. Governments seek to avoid the public backlash from some parts of the electorate which might be hostile to incentives, and also to avoid setting a precedent which future investing firms could use to ratchet up their incentive demands.

Even though these considerations are to some degree legitimate, there are significant benefits available to nations that are willing to increase the transparency and accountability of their incentive payments.

At a minimum, proper accounting for incentives should give a clear picture of the true level of state resources being spent on economic development, assisting governments with planning and ensuring they effectively align expenditure with policy goals.

Further, increased transparency across jurisdictions would increase the bargaining power of governments in incentive negotiations. Where incentive offers are opaque, the investing firm has an advantage over the bidding governments who do not know the size of each other's bids.

Firms may succeed in capitalising on the opacity of the negotiating processes. Anecdotal evidence suggests that the bidding process for some auto plants in particular has involved veritable cloak-and-dagger techniques. In some cases, this allowed investors to play governments off against one another by selectively disclosing the best elements of the packages offered by each one.

Transparency measures may also operate to reduce the scope for corruption. Oman (2000) highlights the potential that investment competition has, particularly in developing countries, to generate graft, corruption and other rent-seeking behaviour. Greater accountability and less discretion on the part of government officials reduce the opportunity for corrupt activities.

In these ways, increased transparency in incentive packages has the potential to minimise the disadvantages of incentive competition described in the previous sections, whilst not greatly impinging on its positive aspects. There are several reasons to suggest that an *international* policy approach would be the optimal way to introduce transparency. Whereas no state receives an individual benefit from unilaterally disclosing the extent of their incentive packages to other states, there is a clear dividend from co-operation if all governments simultaneously take this step. If states have full information about each other's incentive packages then they are less likely to be taken advantage of by firms playing several governments off against each other. Indeed, international co-ordination has the potential to offer additional benefits:

— centralised standards provide a roadmap for governments seeking the best way to introduce accountability;

— commonly adopted international standards would make comparison between nations easier;

— mutually agreed disclosure levels reduce the risk for any government that it might reveal more information than a competing nation and thereby put itself at a bargaining disadvantage.

However, the downside of broad incentive disclosure should not be ignored. First, good reporting is costly. Proper assessments are a significant administrative burden and may also antagonise or discourage investing firms.

Proper evaluations are difficult and subject to considerable uncertainty. Ascertaining the cost-effectiveness of incentive programmes often depends critically on

whether a firm would have invested without such incentives or whether another opportunity would have arisen in its absence. These are inherently speculative questions.

Evaluation errors can be costly. Negative evaluations may be used to terminate schemes, and positive assessments might be discounted by opponents of incentives.

III.2. Co-operation between Jurisdictions

The introduction of comprehensive and transparent accounting practices for incentives has the potential to increase significantly the effectiveness of incentives and reduce wasteful expenditure. However, waste due to poor information is only one of the negative effects of bidding wars described in the previous sections. To the extent that strategic competition creates a "prisoner's dilemma" in which it is *individually optimal* for nations to offer incentives exceeding the efficient level, then no extra information will encourage governments to bring their incentive bids down. The potential effect of the prisoner's dilemma provides a rationale for co-operation between jurisdictions.

Unfortunately, the nature of the prisoner's dilemma makes co-ordination notoriously difficult to sustain. Attempts by nations, and regions within nations, to form investment alliances or reduce competition have often been unsuccessful[66]. In 1991, New York, New Jersey and Connecticut signed an agreement to stop offering incentives to businesses relocating from one state to another. However, New Jersey broke this compact by establishing an economic recovery fund that helped to lure First Chicago Corporation, and its 1 500 jobs, away from New York City with a $50 million subsidy package. This prompted New York City to give its existing businesses attractive subsidy packages to entice them to stay. The agreement had lasted just four days.

In 1993, the US National Governors' Association adopted non-binding "guidelines for the de-escalation of interstate bidding wars", but his has yet to be broadly successful[67].

The latent prisoners' dilemma problem in connection with bidding wars is made particularly intractable by a couple of additional factors. First, agreements between governments to limit incentives use are difficult to monitor because of the difficulty in accurately estimating the true size of deals offered to investors. The precise details of incentive agreements are often not made public and governments have shown a strong desire to hide or understate the actual incentives deal. Even when all the details are revealed, the actual benefit to the firm may be quite difficult to determine. They depend critically on the value attributed to the constituent elements. For example, the value of tax holidays depends on assumptions about the future profits of the firm. Similarly, the value of free or discounted land can be subjective, and benefits such as training subsidies or loan guarantees are extremely difficult to quantify. Even more difficult are calculations attributing general expenditure to specific investments. The value of setting incentive limits is diminished if it is almost impossible to determine accurately whether those limits are being adhered to.

Second, another concern is that business incentives come in a wide variety of different forms. (For example, Singapore has 11 types of tax incentives alone[68]. In the Czech Republic there are five formal categories of investment incentives including corporate tax relief, job-creation grants, training and re-training grants, the provision of industrial infrastructure, and discounts on state owned land[69]). Moreover, in some countries processes are informal and government agencies have considerable discretion to create *ad hoc* incentives as part of the bargaining process. With such a multiplicity of available instruments through which to confer benefits on firms, most agreements can be easily circumvented.

These factors make co-operation between jurisdictions inherently difficult. If any agreement is too strict then it denies the legitimate policy goals of states and will not be adhered to. If it is too weak then it will collapse under the weight of the prisoners' dilemma, since the incentive to deviate from the agreement is strong and the cost of not deviating when others do is large.

Examples of Approaches to Co-ordination

The difficulties in limiting incentive competition are reflected in the few existing attempts to co-ordinate policy in this area. Three alternative frameworks regulate incentives with reference to either their *i) size* (capping the total financial benefit available); *ii) use* (e.g. specifying geographical areas or sectors in which they are allowed/prohibited); and *iii) instrument* (proscribing instruments perceived to be particularly harmful).

Limiting the *size* of incentives seems to be the most obvious approach, although in practice this method is hampered by the difficulties in quantifying the value of many of the financial benefits included in most incentive packages. The European Union provides a good example of this approach to policy co-ordination. The EU has been operating state aid guidelines now for several decades. Although grants to foreign direct investment are not explicitly targeted by Commission policy, in practice they are one of the main forms of state aid regulated by it[70].

The EU takes the general view that state aid is incompatible with the common market[71]. The definition of state aid clearly encompasses traditional instruments of investment attraction. Indeed the European Commission classifies state aid as including *i)* grants to firms; *ii)* loans and guarantees; *iii)* tax exemptions; and *iv)* infrastructure projects benefiting identifiable end-users. The European Commission claims some success in reducing subsidies in the EU[72]. There is evidence that the Commission has used its guidelines to effectively restrict incentives in some areas. For example, before the introduction of guidelines for the support of SMEs, it was not rare to find state-aid grants of as much as 20 per cent of an investment project. Under the new framework, the fixed maximums are 7.5 per cent (medium-sized enterprises) and 15 per cent (small enterprises)[73]. An example from the Czech Republic provides an illustration of how the Commission uses its power in practice. The Czech Republic planned to offer subsidies to the Volkswagen unit Skoda for an engine plant at Mlada Boleslav. After a year of negotiations with the EU, the government agreed to slash tax breaks and grants that if was offering to Skoda from $120 million to $22 million[74].

However, in practice the EU does not completely ban these forms of state aid. Instead, attempts are made to control their *use* through regulations covering the geographic area in which the investment project would be located and the size of the incentives relative to the size of the investment.

As regards efforts to ban certain incentive *instruments*, the rational for such an approach derives from the fact that some instruments have a larger negative welfare effect than others. Some incentives are more likely to distort economic decisions (or contribute to outright corruption), or have greater potential to escalate bidding war among competing regions. For example, economists generally criticise "opaque" subsidies that are difficult to value accurately and can be very costly to large and unpredictable revenue losses. Also, an international consensus has been building that regulatory derogations are not an appropriate tool for attracting investment, on account of their tendency to lower generally accepted standards.

The WTO Agreement on Subsidies and Countervailing Measures (SCM) provides an example of this "instrument prohibition" approach, as applied mainly to the area of export. The SCM divides subsidies into those which are "prohibited" and those which are "actionable"[75]. *Prohibited* subsidies in this agreement are deemed to be those which are most damaging to trade. They cover aid that is tied to export performance and to import substitution or domestic content requirements. Other subsidies are *actionable* if they can be shown to cause adverse trade effects. One of the adverse effects triggering actionability under Part III is: "serious prejudice to the interests of another member", which might cover the traditional tools of investment attraction[76].

OECD countries adopted the spirit of "instrument prohibition" approach in their efforts to reduce "harmful tax competition". While the OECD's mandate here covers mainly general tax rates rather than specific incentives, the criteria used to determine "harmful" tax policies is instructive for investment incentives. Two of the criteria cover transparency and discrimination between foreign and domestic firms[77]. The European Commission's 1999 "Code of Conduct (Business Taxation)" has taken a similar approach. Similar to the OECD, the report describes how the EU identifies harmful taxes and uses "moral suasion" to encourage member countries to accede[78].

Benefits and Caveats

Co-operation between jurisdictions has the potential to yield positive welfare outcomes, some of which are already evident from existing agreements. These include:

Better use of incentives. International co-operation might encourage governments to use incentives, which are less harmful to themselves and each other. For example, the EC's guidelines encourage members to spend more money on "horizontal aid", such as assistance for unemployment, R&D and training. General financial aid in the form of transfers to specific firms is discouraged.

Increased transparency. International co-ordination would have a positive effect on transparency. The creation and enforcement of collective policies should lead to improved reporting standards and reduce the informational disadvantage that governments have in negotiations with investor firms.

Critics of international incentive co-ordination point to the competing forces preventing success in this area. On the one hand, international agreements that are too stringent limit legitimate industrial policy actions by sovereign states. On the other hand, weak agreements will be ineffective.

EU regulations may serve as an illustration. They are often thought to be too weak because the Commission can only address state aids subject to Article 92. Although it has broad powers in respect of measures that fall under the definition of state aid, the Member States retain sovereignty over other incentive instruments, such as taxes, which fall outside the Commission's authority. Thus it is not difficult for member states to comply with the Commission by limiting direct subsidies, while still offering large incentives through other channels.

The problems faced by the EU perhaps explain why little progress has been made in taking access against wasteful business incentives. However the EU experience does suggest that international co-ordination may be beneficial. In particular, it has demonstrated that greater transparency is possible and that international agreements can positively affect the types of incentives used. Finally, the EU experience can be taken to indicate that international agreements can be effective, at least somewhat, in reducing the overall pervasiveness of investment incentives.

IV. CONCLUSION

Is competition for investment causing a “race to the bottom”, or is it just facilitating the efficient allocation of resources? This paper presents no single answer to that question, arguing instead that the welfare effects of investment competition depend on the context in which competition occurs and the nature of the incentive deal struck. It examines competition in developing countries, the main focus of the paper, but also in OECD countries, both because the use of incentives has become truly global and because knowledge of the experience of OECD countries is important for developing countries.

Evidence from the case studies in Section II suggests that competitive pressure is in many cases a significant determinant of the size of investment incentive packages. As other studies have shown, competition is more intense between similar and proximate countries (or regions within countries). Incentive competition is also stronger in some industries, particularly automobile manufacturers and technology firms.

The potential negative consequences of investment competition are particularly acute in developing nations. The risk of “overbidding” is exacerbated by institutional weaknesses, poor cost-benefit analysis and in some cases, corruption. Moreover, the potential consequences of excessively generous incentives might be increased in those developing nations whose fiscal positions are already weak.

The focus of international policy action should be to reduce the negative effects of bidding wars without prohibiting governments from pursuing legitimate industry, technology or regional-development policy objectives. Efforts to increase the transparency of incentive deals offer promising results. At a national level, proper accounting should reduce rent-seeking behaviour and assist governments to ensure that incentive expenditure is proportionate to the benefits of projects attracted by it. Internationally, greater information sharing across jurisdictions would increase the bargaining power of governments in incentive negotiations.

Attempts at co-operation between jurisdictions to limit the scope of investment incentives have often met with mixed success. Nonetheless, there is scope for co-operation to reduce the most harmful practices in investment competition. Agreements to phase out the most detrimental incentive instruments offer considerable promise.

NOTES

1. See OECD (2002).
2. For example, when Sri Lankan Board of Investment President Thilan Wijesinghe unveiled his new firm-targeted incentives programme, he said, “For example, if we attract an industry leader, like Motorola, to Sri Lanka, at least a dozen other companies would automatically follow Motorola” (Sunday Times, 1996).
3. This process, labelled the “bandwagon effect” by Knickerbocker (1973) makes it easier for governments to attract investment if they have existing investors. Incentives may be an effective instrument with which governments can encourage initial firms to move first. In Malaysia, the Promotion of Investment Act (PIA) 1986 offers specific incentives to firms which qualify for “Pioneer status” in a particular industry, entitling them to 100 per cent tax holiday for five years.
4. See Tiebout (1956). Tiebout’s Hypothesis relies on many strict assumptions, including the full availability of information and perfect foresight of governments, which would be unlikely to hold in practical circumstances
5. Tiebout’s initial hypothesis related to general tax competition for mobile households. However it can also be applied to mobile firms. See White (1975).
6. See Bartik (1991).
7. After analysing the returns for 16 hypothetical firms in 112 cities across 24 states, the study finds only weak support for either of these hypotheses. It concludes that “after at least a decade and a half of intense competition for investment and jobs, and the widespread adoption of pro-development tax policies and development programmes, states and cities have produced a system of taxes and incentives that provides no clear inducement for firms to invest in higher-unemployment places”.
8. The cost per job, expended in the form of direct and indirect incentives can exceed $100 000. Indeed the Mercedes investment in Minas Gerais in Brazil involved a cost of incentives per direct job of about $340 000, of which 92 per cent are fiscal incentives (Oman, 2000).
9. This estimate combines the cost of tax incentives and other tax measures (Oxfam, 2000).
10. Biglaiser and Mezzetti (1997) investigate a model in which attracting mobile firms provides a state governor with the opportunity to engage in activities that imperfectly signal his ability to voters. They show that competition in this framework can lead to overbidding and even inefficient location.
11. See PACEC (1995).
12. Wilson (1996) builds a model in which excessive turnover is generated by the use of initial subsidies such as tax holidays, and Bond (1981) found empirical evidence pointing in this direction.
13. See, for example, Raines (1996).
14. See Oman (2000).
15. See Sachs and Warner (1995).

16. See Oman (2000).
17. This usually includes road infrastructure and utilities, but in some cases it goes as far as rail links and the development of port terminals.
18. This section draws heavily on research by Rodríguez-Pose and Arbix (2001).
19. For a discussion of the success of incentives in attracting investment to Brazil, see Rodríguez-Pose and Arbix (2001).
20. See Da Motta Viega and Iglesias (1988), originally cited in Oman, C. (2000).
21. See The Economist (1999).
22. The tit-for-tat development of incentives programmes in South East Asia is chronicled in Chia and Whalley (1995).
23. Investment Incentive Act (RA 5186).
24. Tax and duty free importation of capital equipment (1970 RA 6135).
25. Thailand introduced its Investment Promotion Act (BE 2520) in 1977 which offered a 90 per cent five-year tax holiday with a further 50 per cent reduction for the following five years.
26. Malaysia's 1986 Promotion of Investments Act entitled Pioneer companies to a five-year tax holiday with a possible five-year extension.
27. See Shah (1995).
28. See Wei (1994).
29. However, China's policy towards investment incentives has tended to shift back and forth. In 1996, the government changed its policy and dramatically reduced the available tax privileges on foreign investment. This was partly because the extraordinary growth rates in the previous five years had led authorities to believe that incentives were no longer necessary, partly because of China's desire to enter the WTO. But within a few months the level of new FDI had dropped in comparison to some of its neighbours, which was ascribed to the absence of incentives. China also found that it was able to exert less control over the location and nature of its inward FDI. By the end of 1997, most of the old incentives had been replaced by new initiatives. See Easson (2001).
30. See Cabacungan (2002).
31. See Wong (2002).
32. The Japanese external Trade Organisation (JETRO) revealed that Thailand and Indonesia were both receiving more than three times the Japanese investment than the Philippines.
33. See Easson (2001).
34. An estimate for 2001 by Easson (2001).
35. See Fletcher (1996).
36. See Baetong and Villamor (2001).
37. See Easson (2001).
38. See Cheng (2000).
39. See Easson (2001).
40. See Chipongian (2002).
41. See IMF (2002).

42. From Chi and Leatherby (1997).

43. See KPMG Peat Marwick LLP, Business Incentives Group (1995), originally quoted in Donahue (1997).

44. See Fisher and Peters (1999).

45. In addition, fifteen of the twenty enacted reductions in the basic corporate income or business sales tax system.

46. Measured as the reduction in cash flow caused by taxes divided by the pre-tax income generated by the new plant.

47. Assuming an average local tax system for each state.

48. See Donohue (1997). Original article: Gepfert (1996).

49. See Donohue (1997). Original articles: Ackerman (1995 and 1996).

50. See Buchholz (2000*a*).

51. See Guskind (1990).

52. See Reed (1996). A degree of scepticism about the net job creation from investment projects receiving incentives is arguably called for. As John Hood of the John Locke Foundation in North Carolina once claimed, "[C]reating jobs is not the goal of these programmes. The goals of these programmes are to create job announcements." Andrew Cline agrees. "To date," writes Cline, "not one incentives proponent has been able to demonstrate that government incentives create a net benefit for the general public. It's just robbing Peter to pay Paul."

53. See Buchholz (2000*b*).

54. The sponsor, Senator David Sibley (R) said in a press release, "It is not right for a business to demand an educated work force, yet also demand tax breaks that create a hardship on the local school district".

55. Previous such as the 1991 compact between New York, New Jersey and Connecticut and the Governors' association agreement were unsuccessful.

56. See Lineback (1997).

57. Although the actual figure has not been released by the UK government.

58. Hungary, the Czech Republic, Slovakia and Poland.

59. In January 1993, it ended tax incentives for foreigners.

60. In 1997, the Czech Republic was in competition with Egypt and Portugal for a $500 million investment by Intel in a plant for microprocessor assembly that might provide thousands of jobs. Intel was reportedly seeking tax breaks and training assistance. In response, the government reversed its position on incentives and offered an undisclosed incentive package.

61. For example, Rodríguez-Pose and Arbix (2001) conclude that the massive investment in Brazil by car makers would have occurred with or without incentives.

62. See Rodríguez-Pose and Arbix (2001).

63. See Farrel (1996).

64. David S. Kraybill, regional economist at Ohio State University.

65. On efforts to forge investment alliances among developing nations, see Kindleberger (1969).

66. See Parrish (2001).

67. Singapore Economic Development Board.

68. The Czech investment incentives' scheme (Decree No. 298/98).

69. See Wishlade (1999).

70. Formerly Articles 92-94 of the Treaty of Rome.

71. See CEC (1992).

72. See Kobia (1996).

73. "No other candidate country has negotiated incentives in such a sensitive sector as car-making," said Pavel Telicka, the chief Czech EU negotiator. "It will serve as an example for the other candidate countries." (Business Eastern Europe, 1999, "Eastern Europe: Icing On The Cake").

74. Theoretically all subsidies are either prohibited or actionable since the demise at the end of 1999 of the "green light" provisions which were protected forms of subsidies. All programmes can now in theory be challenged.

75. This last provision, "serious prejudice" is rebuttably presumed to exist if: *i)* the total *ad valorem* subsidisation of a product exceeds 5 per cent of the recipient's annual sales of that product; *ii)* subsidies cover operating losses of an industry or an enterprise, unless they are one-offs; *iii)* Governments provide direct debt forgiveness or grants for debt repayment.

76. See OECD (1998).

77. See European Commission (1999).

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