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**RAISING ECONOMIC PERFORMANCE BY FOSTERING PRODUCT MARKET COMPETITION IN GERMANY**

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## ABSTRACT/RESUMÉ

**Raising economic performance by fostering product market competition in Germany**

Much scope remains to make regulation of product markets more conducive to competition – notwithstanding progress in recent years – with substantial benefits for consumer welfare, productivity and employment. While the general competition legislation and enforcement framework is mostly effective, measures need to be taken to reduce administrative burdens on entrepreneurship and reduce the involvement of the government in business sector activities, notably through accelerated privatisation. Policies favouring small enterprises need to be revised, with a view to fully exposing them to competition and avoiding disincentives for small firms to grow. Substantial regulatory challenges exist in specific sectors, notably in the energy and railway industries where non-discriminatory access of market entrants to networks needs to be improved. Environmental objectives in energy market regulation could be achieved at lower cost. In the telecommunications industry, competition in the local loop can be strengthened. Regulation of the liberal professions is among the most restrictive in the OECD. Entry barriers need to be eliminated in crafts, and restrictions on large-scale retailing development could be eased.

This paper relates to the 2006 *Economic Survey of Germany* ([www.oecd.org/eco/surveys/germany](http://www.oecd.org/eco/surveys/germany)).

JEL classification K21, K 23, L16, L40, L43, L51, L53, O52, Q3

Keywords: Germany, competition, productivity and growth, competition law, regulatory policies, network industries, privatisation

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**Améliorer la performance économique en stimulant la concurrence  
sur les marchés de produits en Allemagne**

En dépit des progrès accomplis ces dernières années, beaucoup reste à faire pour rendre la réglementation des marchés de produits plus propice à la concurrence, ce qui induira de substantiels avantages en termes de bien-être du consommateur, de productivité et d'emploi. Le droit commun de la concurrence et son cadre d'application sont dans l'ensemble efficaces, mais il faut alléger les charges administratives qui pèsent sur l'entrepreneuriat et réduire l'intervention de l'État dans les activités du secteur des entreprises, notamment par une privatisation accélérée. Il convient de réviser les dispositifs favorables aux petites entreprises, pour les exposer pleinement à la concurrence et éviter de les décourager de croître. De sérieux problèmes de réglementation persistent dans certains secteurs, notamment l'énergie et les chemins de fer, où l'accès non discriminatoire des entrants aux réseaux demande à être amélioré. Les objectifs environnementaux de la réglementation des marchés de l'énergie pourraient être réalisés à moindre coût. Dans l'industrie des télécommunications, la concurrence sur la boucle locale peut être renforcée. La réglementation des professions libérales est parmi les plus restrictives de la zone OCDE. Dans le secteur de l'artisanat, les obstacles à l'entrée doivent être supprimés, et il convient d'assouplir les restrictions qui limitent le développement des magasins de grande surface.

Ce Document de travail se rapporte à *l'Étude économique de l'OCDE de l'Allemagne 2006* ([www.oecd.org/eco/etudes/allemande](http://www.oecd.org/eco/etudes/allemande)).

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Mots clés: Allemagne, concurrence, productivité et croissance, droit de la concurrence, politiques de réglementation, industries de réseaux, privatisation

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## RAISING ECONOMIC PERFORMANCE BY FOSTERING PRODUCT MARKET COMPETITION IN GERMANY

Andrés Fuentes, Eckhard Wurzel and Andreas Reindl<sup>1</sup>

*Much scope remains to make regulation of product markets more conducive to competition – notwithstanding progress in recent years – with substantial benefits for consumer welfare, productivity and employment. While the general competition legislation and enforcement framework is mostly effective, measures need to be taken to reduce administrative burdens on entrepreneurship and reduce the involvement of the government in business sector activities, notably through accelerated privatisation. Policies favouring small enterprises need to be revised, with a view to fully exposing them to competition and avoiding disincentives for small firms to grow. Substantial regulatory challenges exist in specific sectors, notably in the energy and railways industries, where non-discriminatory access of market entrants to networks needs to be improved. In the telecommunications industry, competition in the local loop can be strengthened. Regulation of the liberal professions is among the most restrictive in the OECD. Entry barriers need to be eliminated in the crafts, and restrictions on large-scale retailing development could be eased.*

1. Over the past decade, Germany has taken considerable steps to open product markets to competition. Germany moved early in allowing consumers to choose their suppliers in network industries, notably in the electricity and gas industries, and steps have also been taken to lower entry barriers in other sectors, notably in the handicraft sector. Many of these measures produced a noticeable impact on performance in the sectors concerned, reducing prices and raising productivity. However, despite success of opening markets to competition in some areas, such as in telecommunications, the regulatory framework in which many network industries operate has not yet been appropriately adjusted to generate sustained competition. Also, public ownership of enterprises, notably in the network industries, remains pervasive. In other sectors, considerable scope remains to remove regulations that effectively protect incumbents and hold back consumer welfare, employment and productivity growth by removing sector-specific barriers to entry and reducing costs associated with red tape, such as in retailing and the liberal professions. While the competition law enforcement framework is effective, the emphasis on the protection of small and medium-sized firms may not always benefit consumers. Indeed, there is a well-identified empirical connection

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1. This paper was originally prepared for the OECD's 2006 *Economic Survey of Germany* under the responsibility of the Economic and Development Review Committee. The authors are grateful for the valuable comments received on earlier drafts of this text from Michael Feiner, Andreas Wörgötter, Maria Maher, Jens Høj in the Economics Department of the OECD as well as Sally van Sclen, Sean Ennis, both from the Directorate for Financial and Enterprise Affairs, and Stephen Perkins from the European Conference of Transport Ministers in the OECD. They also thank Johannes Hoffmann from the *Deutsche Bundesbank* as well as officials from the German government who discussed competition issues with them. Special thanks go to Margaret Morgan of the OECD Economics Department for technical assistance. The opinions expressed in the paper are those of the authors and do not necessarily reflect the views of the OECD or its member states.

between the intensity of competition in product markets and economic performance (Box 1).<sup>2</sup> In addition, empirical evidence indicates that countries with more competition-friendly regulation absorb adverse shocks to the economy more easily – experiencing smaller output and employment losses – than countries where regulation impedes competition. The benefits of strengthening the capacity of the economy to weather economic shocks are likely to be particularly big for euro-area countries, such as Germany, where country-specific economic shocks cannot be weathered through changes in the nominal exchange rate.

#### Box 1. Benefits of regulatory reform in Germany

Regulatory reforms boost economic performance through various channels. A more competitive environment tends to increase output, investment, raises consumer welfare, boosting the purchasing power, and – through a reduction in scope for rent-seeking – employment. Regulatory reform in favour of product market competition also stimulates productivity growth by fostering innovation, giving firms stronger incentives to adopt best practice. Reform of regulation on goods and services used as intermediate products – such as professional services – boosts productivity performance throughout the economy, fostering more efficient use of intermediate goods.<sup>1</sup>

Strong productivity growth in the communications services as well as in gas and electricity over the past 10 years suggests that regulatory reform has spurred performance. At the same time, estimated average mark-ups of prices over average cost in both industries over the same period appear to have been relatively high (see Figure 1), although these estimates would not fully reflect any recent changes. In telecommunications services, in particular, prices have fallen significantly in recent years.

Table 1. Labour productivity growth 1993-2002<sup>1</sup>

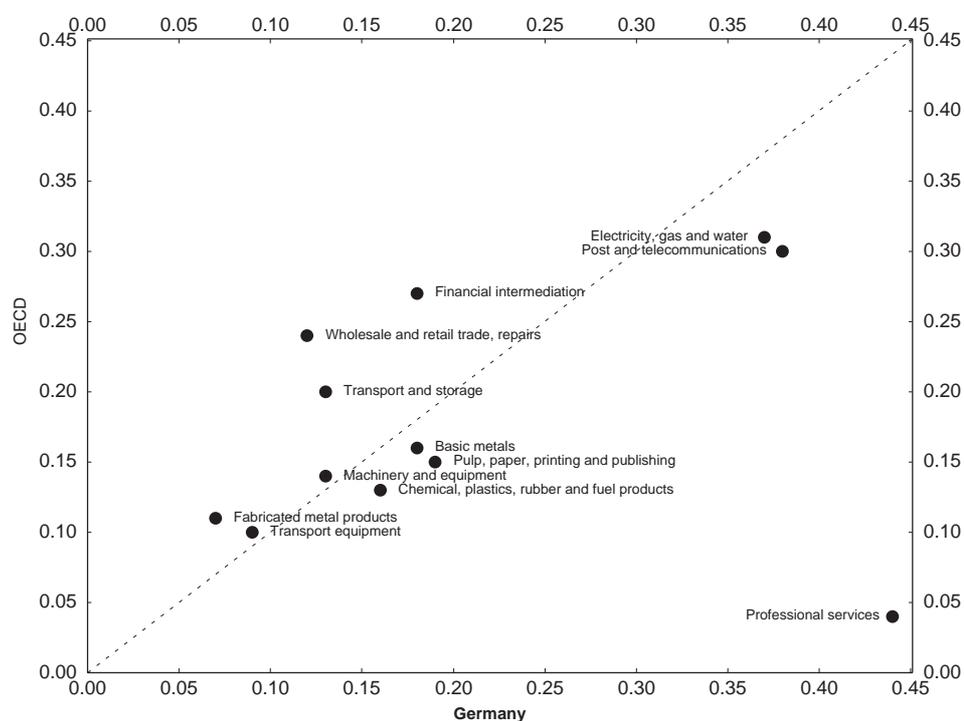
	CAN	DEU	DNK	FRA	GBR	ITA	JPN	NLD	SWE	US
Total manufacturing	3.0	<b>2.4</b>	3.6	3.8	2.1	1.6	3.5	2.9	7.0	5.1
Machinery and equipment	3.0	<b>2.8</b>	4.2	7.1	2.9	1.7	6.8	2.0	14.1	14.7
Office, accounting and computing machinery	17.8	<b>11.4</b>	25.6	17.1	11.6	1.9	nd	nd	5.4	nd
Radio, television and communication equipment	0.0	<b>6.8</b>	3.9	19.1	6.7	nd	nd	nd	41.3	nd
Electricity, gas and water supply	1.9	<b>4.2</b>	2.4	2.4	6.9	6.2	3.2	3.2	1.4	3.2
Business sector services	1.9	<b>1.3</b>	1.4	0.0	2.1	0.6	1.8	0.9	1.4	2.2
Retail trade excl. motor vehicles, repair of household goods	nd	<b>0.2</b>	-0.4	1.2	2.2	0.9	nd	0.8	nd	nd
Transport and storage	2.6	<b>3.1</b>	5.5	1.5	3.0	1.1	-2.1	1.3	1.9	1.5
Post and telecommunications	3.8	<b>13.5</b>	6.4	4.4	7.7	9.4	12.5	8.3	6.3	3.7
Financial intermediation	3.1	<b>3.5</b>	2.5	-0.8	2.3	1.7	4.6	0.1	1.9	3.7

1. Real value added per number of employed. Period is 1993-2002 or nearest available year.

Source: OECD.

Mark-ups over the past 10 years also appear to have been high in professional services, in which regulation is among the most restrictive in the OECD. Mark-ups have been low, by contrast, in financial intermediation as well as in retailing and wholesaling, which are both characterised by relatively low levels of concentration, as well as in transport. In the latter sector low mark-ups may in part be accounted for by regulation of the airline industry that is more competitive than in other European countries, although price-cost margins in transport may also be influenced by the preponderance of local-government provision in public transport services. Conditions for competition within the railways sector need to develop further, as is the case in most countries.

2. OECD (2002a).

Figure 1. Industry-level mark-ups in Germany and other OECD countries<sup>1</sup>

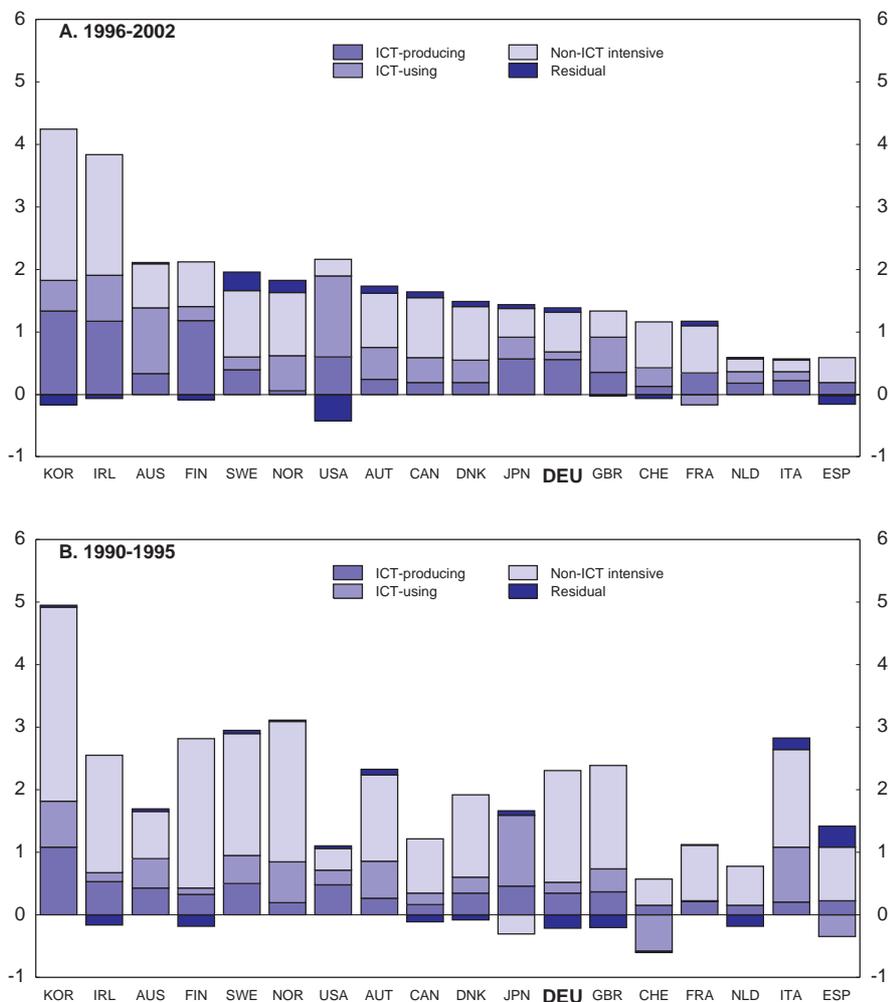
1. The units are in excess mark-up over one, *i.e.* 0.28 means that the ratio of price over cost is 1.28. The period changes for each sector and country. The time span for estimated mark-ups in Germany is 1993-2002. The maximum span in other countries is 1975-2002. The mark-up is an average for the whole period. OECD results are the average of 17 member countries.

Source: OECD - STAN database and Secretariat calculations.

Regulatory reform could, for example, strengthen innovation performance in R&D-intensive technologies, such as biotechnology and ICT, in which innovative performance in Germany appears to be less strong than in many other OECD countries (see 2004 *Economic Survey*). Indeed, while ICT producing service and manufacturing sectors have recorded high productivity growth rates, the sectors are smaller relative to the size of the economy than in other OECD countries. Enterprise start-ups play a particularly important role in carrying out innovation in these fields. However, enterprise creation has remained subdued in Germany in recent years. While administrative barriers to firm creation are likely to exercise a direct impact, cross-country evidence suggests that the degree of anti-competitive regulation more generally explains part of cross-country differences in firm entry rates.<sup>2</sup>

Regulatory reform could also strengthen the contribution of ICT equipment investment to productivity growth. Empirical analysis shows that both educational attainment and product market competition are closely linked to ICT use, and that the detrimental effect of anti-competitive regulation on productivity growth is the largest in sectors that use ICT intensively.<sup>3</sup> The contribution of ICT use to productivity growth appears to be relatively modest in Germany (see also the 2004 *Economic Survey*), with no evidence of recent catch-up. The proportion of ICT investment in total equipment investment remains relatively small, and ICT-using services have made little contribution to productivity growth (see Figure 2). Productivity growth in wholesale and retail trade, one of the sectors with the most intensive use of ICT technology, in particular, has been weak, even though investment in ICT in the German wholesale and retail trade industry appears to be higher than in other European countries.<sup>4</sup> Indeed, regulation of the retailing industry may well have contributed to relatively low productivity growth, as considered below.<sup>5</sup>

Figure 2. Sectoral contributions to labour productivity growth<sup>1</sup>  
Per cent



1. Countries are ranked by total labour productivity growth 1996-2002. Labour productivity is computed as value added per person engaged.

Source: OECD Secretariat calculations.

1. OECD (2005c) provides empirical evidence on the impact of sectoral reform throughout the economy through the use of intermediate goods.
2. Nicoletti, G. and S. Scarpetta (2005), "Regulation and Economic Performance: Product Market Reforms and Productivity in the OECD", *Economics Department Working Papers*, No. 460, OECD, Paris.
3. Nicoletti, G. and S. Scarpetta (2005), "Regulation and Economic Performance: Product Market Reforms and Productivity in the OECD", *Economics Department Working Papers*, No. 460, OECD, Paris.
4. ifo (2005) *Stand und Perspektiven der "New Economy" in ausgewählten Mitgliedsstaaten der EU aus deutscher Sicht* compares the level of ICT investment in 4 ICT-use intensive industries, namely banking, retail and wholesale trade, car manufacturing and machinery manufacturing, across France, Germany, Italy, the Netherlands, Sweden and the UK. In these industries ICT investment does not appear to be lower than in the other countries.
5. Comparisons across countries are however biased by changes in hours worked over time, as productivity is measured per worker.

## The relationship between product market competition and economic performance is robust

### *While product market indicators show progress...*

2. The OECD aggregate indicator of product market regulation shows that, as in other OECD countries, substantial progress has been made over the past five years in making the regulatory framework more conducive to competition, placing Germany in a middle position with regard to the pro-competitive stance of its regulatory policies. As a strongly export-oriented economy, Germany maintains open outward policies, with relatively few regulations applying to FDI flows, although some restrictions apply to specific firms, such as on the country's largest automobile manufacturer and the largest electricity and gas supplier.<sup>3</sup> Nonetheless, inward FDI flows have generally remained modest relative to inflows experienced by other large European economies, despite some increase in recent years as changes in corporate governance and capital taxation rules have made foreign ownership of German firms easier.<sup>4</sup> The scale of activities of subsidiaries of foreign enterprises is also relatively small.<sup>5</sup> This suggests that factors other than regulations on FDI may reduce activity of foreign-owned enterprises in Germany.

3. With regard to domestic regulation, Germany scores less well in international comparison (Figure 3). Barriers to entrepreneurship are relatively high, in part on account of a relatively heavy administrative burden on enterprises. Owing to their sunk cost characteristic, administrative burdens are likely to favour incumbents over entrants and may be particularly costly for potential foreign entrants. Progress in privatisation in recent years has also been slower than in other OECD countries.

### *... gains from further regulatory reform would be large*

4. On the basis of synthetic indicators of regulatory stance, which are included in regressions of labour productivity, a rough idea can be obtained as to the impact of regulatory reform on economic performance. Estimates should, however, be seen as an illustration of the possible order of magnitude of performance effects, as they depend on a number of modelling assumptions and are subject to statistical uncertainty. Moreover, they do not take into account regulatory reform undertaken since 2003. Bearing these caveats in mind, the aggregate labour productivity level could rise by about 5% after 20 years as a result of moving to best-practice regulation in seven network industries. Employment gains could also be substantial.<sup>6</sup> In addition, moving sector-specific regulation in professional services and retailing to best practice is estimated to raise aggregate productivity levels by more than 3%, 10 years after moving regulation to best practice.<sup>7</sup>

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3. No shareholder is allowed to own a larger stake of *Volkswagen* than the state of *Niedersachsen*. Restrictions apply to foreign acquisitions of stakes in the electricity and gas provider *eon*.

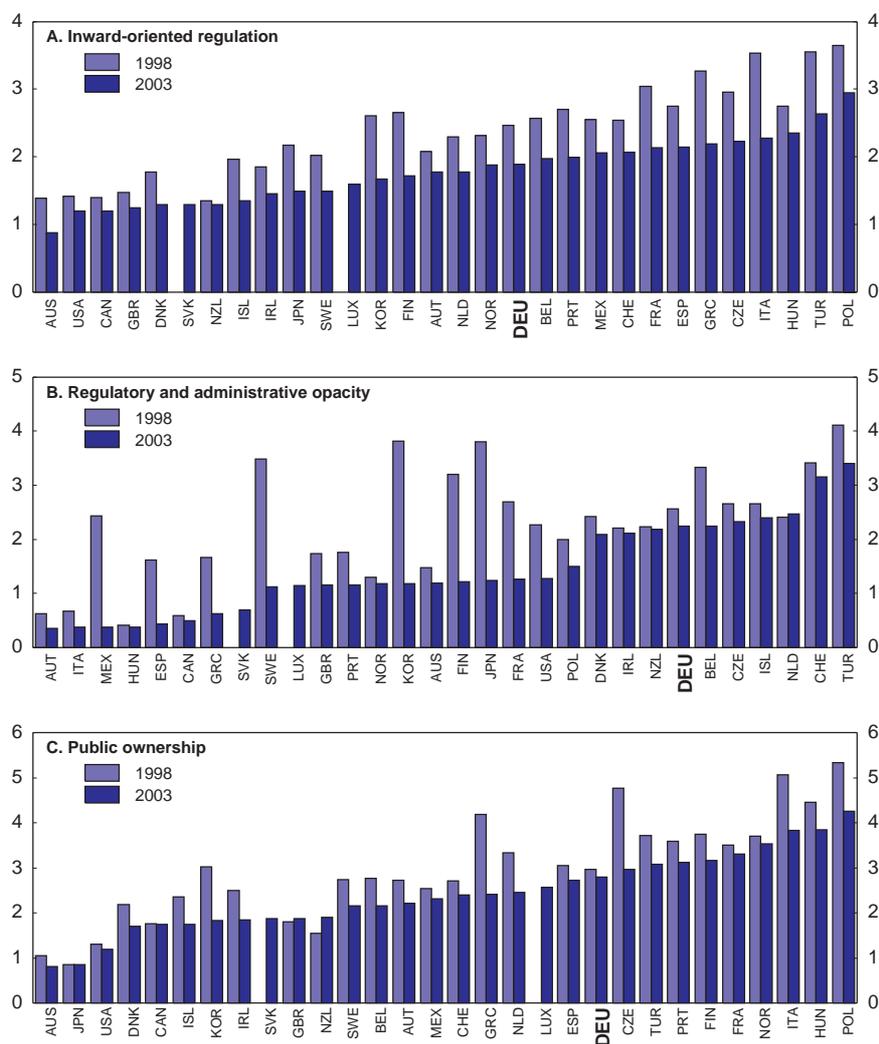
4. A very large takeover of a German telecommunications firm in 2000 has led to exceptionally large inflows in Germany in that year.

5. Nicoletti *et al.* (2003).

6. Nicoletti and Scarpetta (2005a). For evidence on the substantial effects of competition-friendly product market regulation on employment, see Nicoletti and Scarpetta (2005b). Best-practice regulation is defined as the most-competition-friendly regulation among OECD countries for which data are available in each of the 7 following industries: electricity, gas, rail, telecommunications, post, road freight and airlines.

7. The effects of regulatory reform in the professional services and retailing are estimated assuming that only reforms in the respective sector are carried out. See Nicoletti and Scarpetta (2005a).

Figure 3. **Changes in product market regulation**  
Indicator range 0 to 6, least to most restrictive



Source: Conway, P., V. Janod, and G. Nicoletti (2005), "Product Market Regulation in OECD Countries, 1998 to 2003", *Economics Department Working Papers*, No. 419, OECD, Paris.

### General competition law and institutions are effective

5. Germany's general competition regime is well-developed, with well-understood rules and stable enforcement practices. The Cartel Office is a strong and experienced enforcement agency, characterised by its independent institutional culture. Germany was one of the first countries in Europe to adopt and apply vigorous merger control, and it has one of the most effective anti-cartel programs.

6. The Act Against Restraints on Competition (ARC) was amended significantly in 2005, introducing many changes inspired by recent changes in the EU competition law. These include a new analytical framework for the assessment of restrictive agreements, new enforcement powers for the Cartel Office, and increased incentives for private actions. In the area of abuse of dominance, however, German law maintains a "fair relationship" tradition that views competition law as a tool to protect small and medium-sized firms against aggressive competition by larger firms. Germany, in contrast to an increasing

number of other OECD jurisdictions, has resisted moving to a more economics-based approach that would focus more on assessing whether or not conduct of market participants has harmful effects on competition and consumer welfare.

### *Institutions are strong*

7. The principal enforcement institution is the Federal Cartel Office.<sup>8</sup> The Cartel Office's reputation as an independent authority that takes decision free of political influence and without consideration of non-competition policies is the result of long-standing consistent practice and of the statutory framework. The Minister of Economy and Technology has the statutory authority to issue only general instructions about decisions, but this authority has been used exceedingly rarely. Independence from political influence is further ensured by the organisation of the Cartel Office where decisions are adopted by independent "decision divisions." The Cartel Office's President, who is appointed by the Minister, cannot influence the content of decisions.<sup>9</sup> The Minister also has the authority to overturn negative decisions by the Cartel Office in merger proceedings where it considers whether restraints of competition are outweighed by the advantages to the economy as a whole. These interventions, which have been rare, have generated controversy and publicity. Germany currently has no federal consumer protection agency, but is required under EU law to create one for cross-boarder consumer disputes. The Cartel Office would be a natural choice to house this new federal agency. Experience in other OECD countries suggests that combining competition policy and law enforcement and consumer protection within the same agency can create significant synergies. Hence, the consumer protection agency should be installed under the roof of the Federal Cartel Office.

8. The Cartel Office's size has remained about the same during the last decade, taking new responsibilities as public procurement tribunal into account. Recognising the difficulty to compare with other competition authorities, the Cartel Office staff is smaller than in several other OECD countries (Canada, France, Netherlands), and about the same size as the UK's Office of Fair Trading (OFT). Especially the increase in enforcement activities following EU modernisation and the creation of the European Competition Network (ECN) might demand a larger staff. Unlike an increasing number of competition authorities in other OECD member countries, the Cartel Office has not created a separate economic unit. Many competition authorities have found that concentrating industrial organisation economic expertise in a separate economic unit under the supervision of a "chief economist" can raise the profile and strengthen the quality of economic analysis in competition law enforcement. Hence, the Cartel Offices' capacity for economic analysis should be strengthened. For this end, a separate economic analysis unit should be installed within the Cartel Office. Moreover, consideration should be given to increase the staff of the Office so as to be better able to deal with new demands of enforcement and analysis.

9. The Cartel Office's role is largely confined to law enforcement. It has no formal mandate to review proposed legislation for its impact on competition, which may limit its effectiveness in competition advocacy, although it advises the government in legislative proposals. In addition, public consultations and formal written contributions have traditionally played an important role in legislation. Since the 2005 reforms the Cartel Office is entitled to undertake sector investigations which could provide new

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8. Cartel offices in the German Länder also enforce the ARC. Although overall they play a less important role, they have some influence on the setting of enforcement priorities in their territories. In addition to competition enforcement, the Federal Cartel Office also acts as tribunal in appeals against public procurement decisions.

9. While this arrangement provides an additional guarantee of independent decision making, it also limits the ability of the Cartel Office's President to set priorities in terms of case selection and development of enforcement policies.

opportunities for competition advocacy. Policy matters generally are under the responsibility of the Minister, with an important advisory role for the Monopolies Commission.

***New legislation is inspired by recent changes in EU competition law***

*Rules on restrictive agreements have been brought into line with EU law*

10. Agreements between otherwise independent firms can harm competition. Typically, “restrictive agreements” either restrict horizontal rivalry between competitors (including, for example, “hard core cartels”) or they control vertical aspects of distribution. The 2005 amendments to the ARC introduced a new framework for restrictive agreements, to parallel the new approach of the European Commission. Legal standards governing restrictive agreements now apply directly, without a process of notification and approval. Although the previous system<sup>10</sup> was based on sound economic principles, pragmatic reasons justified the decision to follow the European model, in particular in light of the 2004 reforms in EC competition law which decentralised enforcement and aimed at greater consistency between national and European competition laws.<sup>11</sup> Using an identical framework should limit jurisdictional disputes.

*Abuse of dominance is still concerned with protecting small and medium-sized enterprises (SMEs)*

11. The prohibition against abusive conduct applies not only to firms considered to hold a “dominant” position in the market, with statutory presumptions of dominance based on relatively low thresholds.<sup>12</sup> In addition, prohibitions against price discrimination and “unfair hindrance” without objective justification, apply also where smaller firms are in a situation of “economic dependence.”<sup>13</sup> The ARC also defines frequent below cost pricing as abuse, if it unfairly hinders SMEs and there is no acceptable justification.

12. As a result of statutory framework and policy goals, competition law is sometimes viewed as a tool to protect small and medium-sized firms against aggressive competition by larger firms.<sup>14</sup> An abuse can be found where there is concern that conduct might harm the position of smaller competitors, even where the conduct would be considered efficient and consumer welfare enhancing. This can result in decisions that cannot be rationalised on consumer welfare grounds since no explicit finding is required that a certain conduct (likely) will harm consumer welfare.<sup>15</sup> This approach distinguishes Germany from many other OECD countries, where an increasing number of competition authorities focus on harmful effects on consumer welfare, recognising that overly expansive enforcement runs the risk of deterring aggressive, yet

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10. Horizontal agreements were generally prohibited unless authorised by the Cartel Office or characterised as “unopposed” by the statute. Restrictions in vertical agreements were treated more leniently, and most restrictions were authorised unless found to be unlawful and prohibited for the future. OECD (2004a).

11. The changes were not uniformly greeted with enthusiasm. In addition to defending the soundness of the traditional model which treated vertical restraints more leniently, concerns were raised that abolishing the notification system would reduce the ability of competition authorities to intervene against anticompetitive agreements. Monopolkommission (2003) 7-9.

12. Section 19(3) ARC (establishing market dominance presumptions for one firm (one third of the market); three firms or fewer (50% market share); and five firms or fewer (two thirds of the market).

13. See section 20(2) ARC. Factors to assess whether certain conduct can be deemed abusive include the ARC's overriding goals of ensuring “freedom to compete” and protecting competitive market structures. In addition, the ARC defines below cost pricing as abuse where it unfairly hinders small and medium firms, and occurs on more than an occasional basis and without objective justification.

14. OECD (2004a).

15. OECD (2005c).

legitimate competition that can benefit consumers, and of protecting instead less efficient competitors.<sup>16</sup> The *WalMart* decision of the Cartel Office illustrates the concern that a policy focused on protecting smaller independent firms could ultimately harm consumers (Box 2). The Cartel Office should strengthen the analysis of the likely economic effects of conduct, without emphasising the protection of small firms on grounds of them being small.

#### Box 2. The Walmart case

In *WalMart*, the Cartel Office relied on the prohibition against sales below cost to prohibit three large discounters (WalMart, Aldi, Lidl) from selling certain basic food products below cost, expressing concerns over the three firms' superior market power over independent grocery stores. The Cartel Office was not required to establish that the conduct in question could *harm* competition, and the Supreme Court, in upholding much of the Cartel Office's decision, confirmed that the finding of an infringement did not depend on a determination of a harmful effect. The Cartel Office has justified the decision on the ground that the three discounters' conduct benefited consumers only in the short run (in the form of lower prices), but their conduct likely would have harmed consumers in the long run as independent grocers would have ultimately exited the market, and the three discounters would ultimately have been able to raise their prices after independent stores exited the market. On the other hand, the OECD<sup>1</sup> has elsewhere expressed concerns that economic analysis would not have resulted in a prohibition decision since the three discounters' conduct actually *benefited* consumers (in the form of lower prices), and there was no credible evidence that their conduct likely would harm consumers in the long run: it was neither established that independent grocers would ultimately exit the market, nor would it appear plausible that any of the three discounters would ultimately be able to raise their prices after independent stores and rival discounters exited the market.

1. OECD (2005c).

#### *Effective merger control procedures have been retained*

13. Germany has a well-established system of merger control, based on efficient procedures and a clear substantive test. The Cartel Office can prohibit mergers that “create or strengthen a dominant position.” The standard of review remained unchanged during the 2005 reform of the ARC. As a result, merger analysis continues to focus more on structural changes resulting from a merger, and to a lesser degree on economic criteria to assess the merger's likely competitive effects. Even if a merger creates a dominant position, the Cartel Office can authorise it if the parties show that it will improve competitive conditions in another market, and that the improvements will outweigh the effects of dominance.

#### *Enforcement practice could be made more efficient*

14. The investigation and prosecution of hard core cartels is a top enforcement priority, and the Cartel Office has developed one of the most effective anti-cartel programmes in OECD member countries. A separate Cartel Unit is responsible for cartel investigations. Sanctions imposed on cartel participants can be substantial. For example, total fines exceeded € 700 million in a cement cartel case, and more recently reached approximately € 150 million in a case against insurance companies. Criminal enforcement is possible only in the case of bid rigging. In these cases, prosecutors have brought a number of cases and

16. For example, the European Commission is reviewing its case law the abuse of a dominant position and developing guidelines which are expected to emphasis to a greater extent the need to engage in economic analysis. The Economic Advisory Group for Competition Policy (an advisory group to DG Comp's Chief Economist) recently advocated a more economics-based analysis. A recent OECD peer review of the European Commission made similar recommendations. See OECD (2005).

even obtained jail sentences. The significant risk of substantial penalties gives credibility to the Cartel Office's leniency program which has been in place since 2000.

15. The 2005 amendments strengthened the Cartel Office's investigatory and enforcement powers, in many respects making adjustments required under the new EU regulations. The method of computing fines also was changed. Under the new system, fines can be up to 10% of a firm's annual revenues. The previous method, where fines could be up to three times the unlawful gains obtained as a result of the unlawful conduct, was more consistent with economic theory of deterrence. However, establishing the size of unlawful gains has proven to be difficult in the past, and the new method ensures greater consistency with the practice of most other competition authorities across Europe. Still, the current procedures, which focus on the imposition of fines on individuals rather than corporate fines, tend to lead to complicated, lengthy procedures. Public prosecutors must be involved if parties bring their case before a court, and it can take several years before a court confirms the imposition of a fine. Fining procedures need to be made more efficient.

16. Private action in competition cases already plays a more important role in Germany than elsewhere in Europe. For example, since 2002, private parties were involved in more than 900 competition cases, the bulk of which focused on injunctive relief against abuse of dominance. The 2005 amendments sought to facilitate private actions for damages. Among the measures introduced in 2005 are: a wider definition of the group that is entitled to bring an action; measures that ease the plaintiff's burden of proof in certain respects; and a greater role of consumer organisations in civil actions which were given the right to obtain disgorgement of unlawful gains. A significant novelty is the recognition before German courts of decisions of the European Commission, as well as member state court and competition authorities finding an infringement of EU competition law. Two issues that were not addressed in the 2005 amendments which could create significant additional incentives for more private litigation are rules concerning the gathering of evidence ("pre-trial discovery") and multiple damage awards. However, the ability to introduce further reforms in this direction might to some extent be limited by German constitutional law.

### **Public ownership of and support for industry is still substantial**

17. Government ownership of enterprises remains considerable (Box 3) and is particularly concentrated in the network industries, giving rise to concerns over conflict of interest (see further below). State aid to business has also been generous in international comparison, with high levels of support for manufacturing and coal mining.<sup>17</sup> Most support for manufacturing has been given to foster regional development, in particular in Eastern Germany. About a third of total aid has been given to individual firms, rather than being available for firms in a particular region or sector, such as for rescue and restructuring purposes, which is likely to be particularly harmful in reducing competition and incentives for firms to become more efficient.

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17. See OECD (2004d) and European Commission (2005c), which reports data for 2003. Coal production subsidies in the form of transfers absorb about 0.2% of GDP, which is supplemented by tax exemptions. With coal covering only a small share of primary energy demand, and imported coal being available from a large range of countries, domestic production has been considered unnecessary by the International Energy Agency (IEA) for securing energy supply in Germany. See IEA (2002).

### Box 3. Government ownership in the business sector

The federal government owns – in part through the fully government-owned bank *Kreditanstalt für Wiederaufbau* – 41.7% of the postal services provider incumbent, *Deutsche Post AG (DPAG)*, which in turn owns a majority stake in a major retail bank (*Postbank*), as well as 38% of the telecoms incumbent, *Deutsche Telekom AG (DTAG)*, respectively. It fully owns the railways operator *Deutsche Bahn AG (DBAG)*. Through the increasingly international activities of the postal service and railway operators, the government has indirectly also acquired stakes in commercial activities abroad.

In the energy sector, municipality-owned utilities control most of the electricity and gas distribution network, although some of these utilities have been privatised. The utilities are also often involved in the provision of other services, such as leisure services (for example, swimming pools), local transport, and, in some cases, telecommunication services. States and municipalities also own significant shares in the large vertically integrated electricity transmission and gas companies (RWE, EON). Sub-national governments also own significant stakes in banking, in which state-owned banks and municipality-owned banks play an important role. All three layers of government have stakes in airport and port operators, as well as a few participations in manufacturing industries.

18. Many government support programmes are targeted to SMEs (*Mittelstand*), numbering about 800, according to a government listing.<sup>18</sup> Support includes more favourable depreciation rates, subsidised loan and credit guarantee programmes and innovation subsidies, which is often conditioned on firm size thresholds.<sup>19</sup> For example, a programme targeting co-operation of SMEs with research institutions is available for enterprises with at most 250 employees or € 50 million turnover. Such size limits may however have the unintended effect of reducing incentives of firms to grow. At the same time, they may distort competition between firms which qualify for the subsidies and those which do not. Large information costs may deter take-up of the schemes, which is likely to favour incumbent firms familiar with the schemes over market entrants. State aid to enterprises should be phased out, except where there is evidence that the aid can offset efficiency losses resulting from market failure. Firm size limits for support should only be maintained where there is evidence for market distortions to the disadvantage for small firms.

### Administration burdens on doing business are excessive

19. The Federal government has made significant efforts to reduce administrative costs weighing on enterprises and individuals.<sup>20</sup> Nonetheless, new firms and small enterprises are still subject to the adverse consequences of high administrative burdens. The establishment of a limited liability company has been found to be relatively burdensome by international comparison, as reflected in above-average numbers of required procedures and elapsed time until the start of the business.<sup>21</sup> More generally, the fact that total administrative costs faced by enterprises are to a large extent independent of enterprise size implies that, relative to the resources available, administrative regulations are particularly burdensome for small enterprises. According to a survey among small and medium-sized enterprises, the time spent per employee to fulfil bureaucratic tasks is more than 11 times higher for companies with up to 11 employees than for companies with a workforce of 500 employees or more. Moreover, the share of companies

18. Quoted in Hommel and Schneider (2003), pp. 52-90.

19. BMWA (2005).

20. See e.g. OECD (2004b, 2004d).

21. World Bank (2005).

denoting the level of administrative burdens as high or very high increased from some 48% in 1994 to 70% in 2003.<sup>22</sup> Enterprises with 20 employees or less have been estimated to account for some 90% of all German companies<sup>23</sup>, and the share of value added generated by SMEs appears large by international comparison. Against this background the impact of administrative deregulation on economic activity is likely to be large. The government is planning to introduce further measures to reduce administrative overheads. In particular the government is preparing legislation to further raise the size threshold for enterprises above which full accounting obligations apply, to shorten the amount of time taken to issue permits, lower statistical reporting duties, streamline auditing procedures and reduce the extent to which private enterprise personnel have to take on duties in the context of enforcing legislation.

20. Companies consider the assessment of tax liabilities and the passing on of taxes and social charges to fiscal authorities to be associated with high administrative costs. Indeed, German income and profit taxation is subject to a multitude of special provisions and tax exemptions, laid down in laws, ordinances and court rulings, implying a degree of complexity that is difficult to manage even for tax professionals.

21. In several respects, such as technical requirements for equipment or the design of work places, restaurants and shops on grounds of safety or environmental reasons, regulation impacting on the conduct of business is detailed and input-oriented. In the Work Place Act the modes of air circulation, heating temperature and lightening as well as the properties of the grounds, walls, windows and doors were until recently subject to detailed provisions. The same is true for the endowment of different types of rooms such as toilets, sanitary rooms, work-break rooms and work rooms. Admissible room dimensions are defined relative to the number of employees, daily work time, and endowment of the interiors. Technical requirements for inputs tend to prevent enterprises from searching for solutions that produce satisfactory outcomes in the most efficient way. This tends to increase costs and reduce product or process innovation. Moreover, there may be different provisions regulating similar characteristics in different or even contradictory ways.<sup>24</sup> Hence, attempts should be made to replace regulation defining inputs by regulation that sets output targets to be achieved. The implementation of a revised Work Place Act in autumn 2004 is a first step in this direction. Input-oriented provisions were streamlined somewhat, and a commission was established whose task it is to design new technical guidelines for securing the safety standards defined in the new act. This exercise should be utilised as an opportunity to move further towards output oriented targets. For example, detailed specification of the properties of rooms might be replaced by general provisions that work places need to be arranged such that they satisfy current safety, hygienic, ergonomic and other relevant standards. Responsibility of how to meet these standards in the most efficient way would be left to enterprises, while external auditing would be required to secure that provisions are being met. Setting general standards might well produce better safety and health conditions than specifying every fine detail on the input side, as employers are likely to build in a margin of security in meeting the standards. Moreover, areas should be identified where the requirement to seek approval for installations can be dropped and conformity with regulations be left to auditing.

22. Dispersed responsibilities across different auditors, for example with respect to technical properties of equipment, add to administrative burdens. While the municipal trade supervisory authorities (*Gewerbeaufsichtsämter*) are generally in charge of auditing safety regulations, other authorities or licensed enterprises commissioned by public sector authorities are in charge of supplementary auditing relating to specific conditions, e.g. for safety regulations relating to food processing or the operation of restaurants or the operation of elevators. In addition, professional associations (*Berufsgenossenschaften*)

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22. See Institut für Mittelstandsforschung Bonn (2004).

23. Daten aus Mittelstandsdefinition des Institutes fuer Mittelstandsforschung.

24. For examples see Bayerische Staatsregierung Deregulierungskommission (2003).

providing insurance against work accidents are auditing compliance with their accident prevention regulations. This dispersion in responsibilities implies that auditing for similar purposes is wide spread, weighing on firms' resources. Hence, auditing competencies for similar objects of examination should be bundled within one agency only. This could be a private sector company with technical expertise that is commissioned and licensed by public authorities. Care should also be taken that auditing requirements are adequate with respect to the different degrees of risk associated with the operation of equipment in firms of different types and scales, so as to avoid excessive auditing.

23. Administrative inefficiency is also generated by the fact that the provision of certain services is in itself subject to excessive regulation and lacking market testing. Professional associations (*Berufsgenossenschaften*) have the monopoly, under public law, to provide insurance against work-related accidents and occupation-related sickness. They are endowed with the authority to issue accident prevention regulation and audit the firms' compliance with the regulation. They are governed according to the co-operation principle (*Selbstverwaltung*), with parity representation of employers and employees in their governing committees. This administrative approach provides few incentives to contain the administrative burden for enterprises associated with accident prevention. Indeed the present organisation is seen by firms to add to the burden already imposed by administrative opacity.<sup>25</sup> Regulatory and auditing competences on the one hand and insurance of work-related accidents and sickness on the other hand should be separated.

24. More generally, reducing the administrative burden for enterprises in a durable way requires establishing regulatory impact analysis that assesses the cost to business and potential benefits of new and existing regulation. Some countries, like Denmark and the Netherlands, set targets to reduce bureaucratic burdens for business, and shape their legislation accordingly. The federal government has established a task force for the purpose of identifying regulatory burdens that warrant reconsideration. While this initiative has already triggered legislative action, in the past initiatives of this type have had the character of sporadic exercises. Regarding the states, Hesse and Bavaria stand as examples where commissions assess bureaucratic costs associated with new legislation, and there are also plans to screen existing regulation for the purpose of simplification. Expert groups to assess the regulatory burden for enterprises and households of existing regulation should be established at all layers of government. Moreover, mandatory regulatory impact analysis that assesses the costs and benefits of new legislation should be incorporated into the legislative process, both at the level of the federation as well as the states.

### **Regulatory challenges in network industries are significant**

25. Germany moved relatively early in opening network industries to competition, notably in the railways industry, which was opened to entry of transport service providers in 1994, and the energy sector, in which all consumers were given the right to freely choose the supplier in 1998. However, the regulatory framework and ownership structure in these industries have not resulted in sustained competition. Swift liberalisation was at first accompanied by relatively small changes in the regulatory framework, leaving the determination of network access conditions to self-regulation rather than to a sector regulator and introducing only limited requirements for the separation of network access provision from potentially competitive activities. This contrasts with the approach taken in most other OECD countries, such as the UK, which have opened energy markets more gradually, accompanied by more far-reaching regulatory reforms, including the introduction of a sector-specific regulator and ownership separation of vertically integrated companies. In the telecommunications industry, where a sector-specific regulator was introduced in Germany in 1998, competition has been more firmly established, although the strong position of the incumbent in the local loop is still holding back competition. The government has recognised the weaknesses in the regulatory framework in the energy industry and responded with new legislation. This

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25 Bayerische Staatsregierung Deregulierungskommission (2003).

section of the paper considers important aspects of regulatory reform in network industries, with special emphasis on the energy sector.

26. The government introduced an independent sector regulator for the electricity and gas sectors in 2004, as required by EU legislation. The task of regulating the energy sector was assigned to the Regulator for Telecommunications and Post (RegTP) which was renamed Federal Network Agency (*Bundesnetzagentur*, FNA). The government also extended the FNA's powers to regulating access to the railway network in 2006, thus placing all major network industries under the regulatory oversight of one agency. The choice of a single regulator in charge of all network industries could offer advantages over the introduction of separate agencies for each sector. In particular, conflict over demarcation of competencies across sectoral agencies and distortions through inconsistent regulatory approaches in different sectors can be avoided. The creation of a single network regulator may also reduce risks of regulatory capture by the interests of the firms operating in the sector, which could reduce the effectiveness of a regulator's pro-competitive policy stance. For example, a single regulator could facilitate redeployment of staff to the different sectors for which the agency is responsible,<sup>26</sup> reducing exposure of staff to a single sector and diversifying career prospects.

27. While the FNA is formally separated from the government, its institutional structure weakens its independence in some respects. The government can issue orders to the FNA to take specific decisions. While decisions on individual price regulations can only be overturned by a court decision and are taken by staff who are not subject to political appointments, decisions about which specific telecommunications market segments should be subjected to *ex ante* regulation are taken by the "presidential chamber" of the FNA, which includes the president and his deputies, who are political appointments, and the government has considerable discretion to dismiss them. In addition, their initial term of office can be renewed by the government. The independence of the regulator should be strengthened by reducing the degree of discretion the government has in dismissing the chairperson and deputy chairpersons, lengthening their term of office and removing the option of reappointment. The regulator should not be subject to orders by the federal government.

28. Public ownership in network industries persists, which can impede competition. Access to the networks, which are often natural monopolies, needs to be regulated by the government, while access of private sector enterprises to the network may reduce profits of the state-owned incumbent, posing conflicts of interest which can result in reductions in the scope for competition. Indeed, the high profits of the postal services incumbent, *Deutsche Post AG (DPAG)* from services offered under its exclusivity license suggest that DPAG has not been forced to lower prices sufficiently, notwithstanding reductions of prices imposed by the regulator.<sup>27</sup> Most recently, prices were lowered in January 2006 and prices may fall further, notably for business customers, after the expiration of DPAG's exclusive licence on 1 January 2008. Earlier interventions on price regulation by the government with the Regulator for Telecommunications and Post (RegTP), shortly before the privatisation of part of the incumbent postal services operator, may have aggravated perceptions of conflicts of interest. Privatising remaining government stakes in network operators would reduce potential conflicts of interest between the role of the government as the owner of incumbent operators and its role in promoting competition.

29. Moreover, as publicly-owned enterprises are likely to be less guided by profit than privately owned enterprises, the former may be willing to use profits from monopoly business to provide services in competitive market segments below cost, resulting in distorted prices in both the monopoly and competitive market segments. Publicly-owned incumbents – such as the railways or the postal services

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26. OECD (1999).

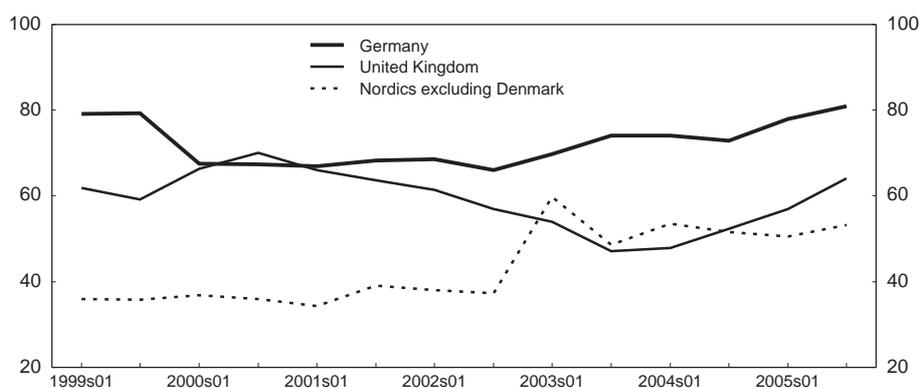
27. Monopolkommission (2003) and Monopolkommission (2005a).

operator – have been transformed into enterprises of private law, which has given them much more freedom in their commercial activities than they used to have as administrative entities of the government. This, in turn, has widened the scope for such cross-subsidisation to new business areas. Indeed, the post and railway incumbent operators have both become major players in the provision of logistics services. In expanding their activities, state-owned enterprises may also benefit from lower financing costs than privately-owned competitors, distorting competition and shifting risks associated to these activities to the government. Local utilities are also likely to have considerable scope for cross-subsidisation. In addition, incentives of publicly-owned local utilities to compete with the gas and electricity retailing business of other local utilities are likely to be lower than if they were privately-owned. The government should accelerate privatisation of its remaining stakes in enterprises, notably the incumbents in the post and telecommunications services. Sub-national governments should be encouraged to privatise the electricity and gas business of local utilities. Privatisation of the railway incumbent needs to be placed within a coherent framework ensuring functioning competition (see also further below).

### *Sustained competition is absent in energy markets*

30. Liberalisation of energy markets in 1998 did not result in sustained reductions in prices. While electricity prices fell in the first two years following liberalisation, notably for large business customers, prices rose again soon after (Figure 4). Gas prices responded less markedly to liberalisation, as the industry was highly concentrated at the wholesale level when liberalisation was introduced (Box 5). While the carbon tax, introduced in 1999, and more recently the increasing cost of oil and carbon dioxide emission permits contributed to rising electricity prices, these factors appear to account for only a fraction of the increase, while lack of competition appears to have played an important role, driven by increasing market concentration (Box 4).<sup>28</sup> Pre-tax retail prices for gas and electricity are among the highest in EU countries, notably for small customers (Figure 5).

Figure 4. **Evolution of electricity prices for large industrial consumers**  
Euros/megawatt hour<sup>1</sup>



*Note:* All prices exclude all taxes and are for Eurostat category 1e. 2005s1 refers to the first half of 2005.  
*Source:* Eurostat, New Cronos.

28. Kuhlmann and Vogelsang (2005).

#### Box 4. The electricity market

Full liberalisation of the electricity market was followed by a wave of mergers. Nine vertically integrated electricity suppliers (*Verbundunternehmen*), owning the country's electricity transmission network as well as the bulk of its generation, merged to four, which control about 80% of generation capacity. With much of the remaining 20% of capacity supplied by plants for which electricity is a by-product (combined heat and power plants) or guaranteed preferential access to the transmission grid (renewable energy), the share of price-setting power plants controlled by the four *Verbundunternehmen* is even larger.<sup>1</sup> There has been no significant entry of new firms into the generation business since liberalisation, although foreign firms acquired stakes in the *Verbundunternehmen*, and suppliers of subsidised renewable energy emerged. In other countries, entry mostly occurred through gas-powered plants. Attempts to enter the generation business with such plants failed in Germany, with the potential competitors citing, *inter alia*, problems with gas supply contracts and high gas prices as the reasons for their withdrawal. Also, wholesale prices have been relatively low, reducing the profitability of entry in the electricity generation business.<sup>2</sup>

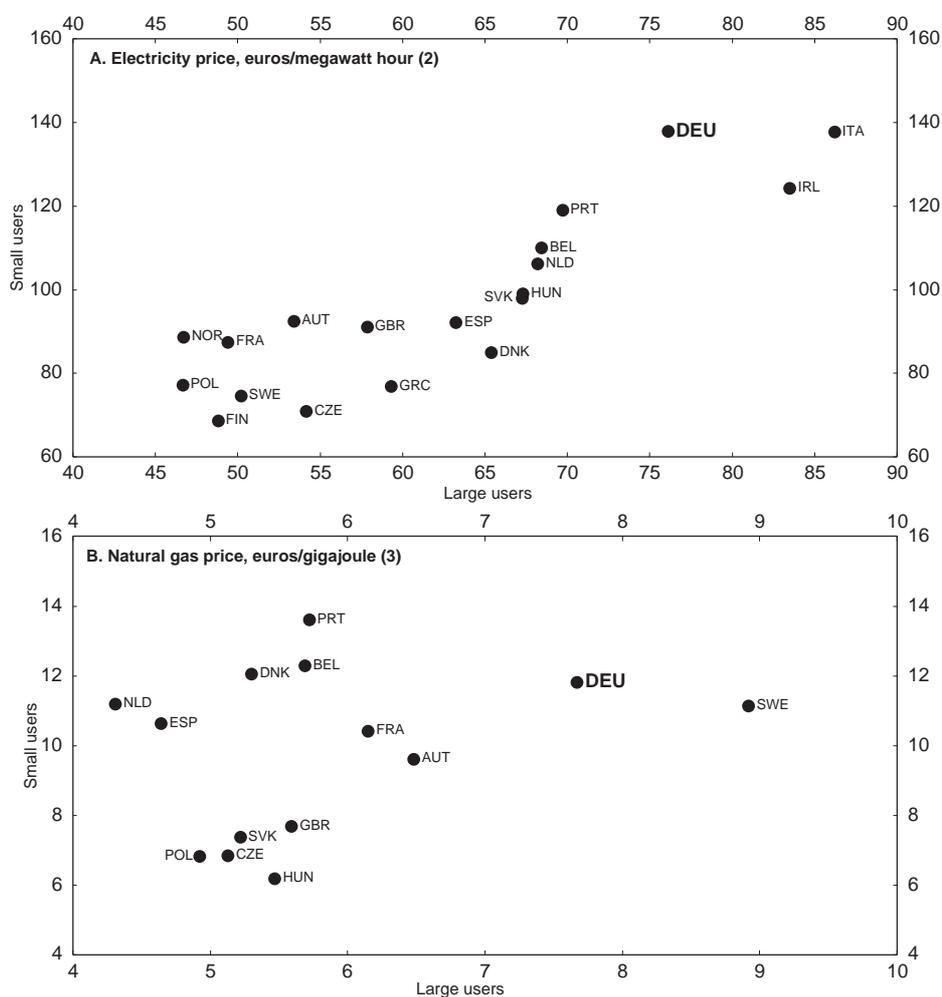
The distribution network is locally fragmented, consisting of about 950 small mostly municipality-owned local utilities (*Stadtwerke*), considerably more than in any other European Union country.<sup>3</sup> The *Stadtwerke* integrate both distribution and retailing services. They also provide gas distribution and retailing services, heat, water supply, waste collection and public transport. The degree of vertical integration has been increasing, with the large four *Verbundunternehmen* acquiring shares in the *Stadtwerke*. For example, the two largest electricity generation and transmission network owners, RWE Energie and E.on, acquired stakes in about 40 local utilities between 2000 and 2002.<sup>4</sup> Vertical integration is further strengthened through municipality ownership in the *Verbundunternehmen*, notably in RWE.

New firms entered the electricity retailing business following liberalisation, although many initially successful firms have since gone out of business. Margins in retailing appear to be low, with 40% of the household retailing market estimated to be subject to margins below the cost of retailing in 2004.<sup>5</sup> The share of small customers who have switched retailer since liberalisation is 5%, considerably less than in the UK, where more than 50% switched. Switching was more widespread among customers with high consumption, but still fell short of levels observed in the Nordic countries and the UK.

Interconnection capacity across the borders to several countries is low, limiting the degree of competition that can originate from foreign electricity generators. Moreover, potential competition from French imports is limited by the substantial stake EdF, the dominant vertically integrated electricity supplier in France, owns in *Energie Baden Württemberg* (EnBW), the *Verbundunternehmen* operating in the south western region of Germany.

1. OECD (2005a), *OECD Economic Surveys: France*, OECD, Paris.
2. Recently, wholesale prices have increased significantly, which may reflect higher prices for pollution permits.
3. Brunekreeft, G. and S. Tweleemann (2005), "Regulation, Competition and Investment in the German Electricity Market: RegTP or REGTP", *Energy Journal*, Vol. 26, special issue and European Commission (2005b).
4. Kuhlmann, A. and I. Vogelsang (2005), "The German Electricity Sector – Finally on the Move?" *CESifo DICE Report* 2/2005.
5. Müller, C. and W. Wienken (2004), "Measuring the Degree of Economic Opening in the German Electricity Market", *Utilities Policy*, Vol. 12.

Figure 5. Retail energy prices<sup>1</sup>  
2005, second half



1. All prices exclude all taxes.

2. The price for large users is the average of prices for larger industrial consumers (Eurostat categories Ie and Ig); that for small users is the average of prices for small industrial and medium household consumers (Ib, Dc and Dd). Prices for Germany include municipal charges for rights of way.

3. The price for large users is the average of prices for larger industrial consumers (categories I3 and I4); that for small users is the average of prices for small industrial and medium household consumers (I1, D2 and D3).

Source: Eurostat, New Cronos.

31. Network access prices in the electricity and gas sectors are some of the highest among EU countries.<sup>29</sup> Wide disparities in the access prices of local distribution networks within Germany also suggest that considerable scope to achieve price reductions has remained unused.<sup>30</sup> High network access prices have reduced scope for competition to exert downward pressure on retail prices, allowing vertically integrated companies to cross-subsidise their activities in potentially competitive markets (retail and

29. OECD (2004b).

30. See e.g. Müller and Wienken (2004), pp. 283-290.

wholesale trading of gas and electricity, as well as electricity generation), squeezing the price-cost margins of potential competitors.

#### Box. 5. The gas market

Most German gas is imported, with about 18% originating from domestic production. Concentration in wholesale supply of gas, from domestic and imported sources, was already strong before 1998. Since then *Ruhrgas* has retained control over 50% of wholesale gas supply.<sup>1</sup> *Ruhrgas* also controls more than a third of transmission pipelines and a large share of storage facilities. Wholesale gas suppliers have also strengthened their position through long-term supply contracts with their customers, making market entry of competitors difficult. In response to high network access costs, *Wingas*, a joint venture of BASF, a large industrial consumer of gas, and of *Gazprom*, a Russian gas producer, has built its own pipeline network, which in part runs parallel to a fraction of the *Ruhrgas* network.

As in the electricity sector, vertical integration has grown significantly following liberalisation. The owners of transmission pipelines (such as *Ruhrgas*) increasingly purchased shares in the *Stadtwerke*, which dominate the geographically fragmented distribution and retailing sectors, with about 730 distribution networks owners operating in the market. *Ruhrgas*, for example, owns stakes in 8 regional and 15 local distribution companies. Moreover, the gas and the electricity industries are closely intertwined, with two of the electricity *Verbundunternehmen* being major gas wholesale suppliers and owning substantial proportions of the gas transmission network. Ownership across the two sectors increased considerably when *Ruhrgas* and *EON* merged in 2002, following a decision of the Economics Ministry to overrule the Federal Competition authority's disapproval of the merger. The merger also increased vertical integration within the gas industry, combining *Ruhrgas* position as the leading wholesale supplier and owner of a large part of the gas transmission and storage network with *EON*'s gas distribution activities. Few gas customers have switched suppliers, and switching has been virtually absent among small customers.

1. European Commission (2005b).

*The new regulatory authority needs to be firmly established...*

32. The regulatory framework proved inadequate to bring network access prices down to internationally comparable levels. The terms of access to the networks were largely determined by self-regulation through “*Association Agreements*” (*Verbändevereinbarungen*), in which associations of suppliers and consumers in the electricity and gas markets were represented. Network access prices were subject to *ex post* control by the Federal Cartel Office on the basis of general competition law, notably the requirement to provide non-discriminatory access to the networks and the prohibition of abuse of market power. Requirements to separate network services from the potentially competitive retailing and generation activities were at first limited to accounting separation, with the exception of electricity transmission, where legal and managerial unbundling was required, in line with EU legislation,<sup>31</sup> while no measures were taken to limit vertical ownership integration in the industry.

33. Several features of the regulatory framework contributed to the unsatisfactory outcome: By allowing incumbent suppliers to collectively negotiate network access conditions with customers' associations, the interests of incumbent suppliers (as opposed to those of potential market entrants, who were not represented) were likely to play a substantial role in the negotiated outcomes. Indeed, small customers were underrepresented in the *Association Agreements*.<sup>32</sup> In addition, the powers of the FCO proved to be too limited to ensure non-discriminatory access to the networks and information on costs available to the FCO were unsatisfactory. For example, the FCO could only formally request information

31. See OECD (2003a) and OECD (2004b) for more details.

32. OECD (2004b).

on costs from network operators which were suspected to breach competition law, which hampered cost comparisons across network providers.<sup>33</sup> In addition, although a special unit of the FCO was devoted to cases in the electricity industry, staffing was limited.

34. Against this background, the government has put the FNA in charge of regulating the terms of access to most of the electricity and gas network grids, with regulation of small, local networks<sup>34</sup> assigned to state regulatory authorities. Indeed, an independent sector regulator can potentially offer more scope to foster competitive market conditions, acting to raise consumer welfare, leaving less room for the vested interests of incumbent suppliers, than the Association Agreements. Assigning some distribution network operators to regulation by the state authorities and others to regulation by the FNA may, however, lead to an uneven playing field among, for example, companies using electricity as an input. Regulation at the level of the states could also raise concerns about conflicts of interest, given that the states may be close to the interests of the local governments within their respective territories, which own most of the electricity distribution network operators. While a committee (*Länderausschuss*) has been installed at the FNA to harmonise regulation, the need to harmonise the regulatory stance may be associated with higher regulatory costs. Regulation of all electricity and gas network operators should be assigned to the FNA.

... while effective ex-ante regulation is needed...

35. New legislation setting the rules for the regulation of network access in the electricity and gas industries was introduced in July 2005. In a transitory phase expected to last for a year, the FNA and state regulators are approving all network access prices in the gas and electricity industries on the basis of average cost benchmarks for groups of network operators with similar cost characteristics (such as population density). The regulators are subsequently expected to move to price-cap regulation,<sup>35</sup> although this move will require further legislation. Moreover, the powers of the new regulators have been strengthened, for example, with respect to obtaining cost information from network operators. The new regulators also have more staff at their disposal than the FCO used to have and the burden of proof in court cases has been shifted to network operators.<sup>36</sup> The move to benchmark and price cap regulation, backed up by stronger powers of the regulator, generates scope for lowering network access prices while preserving incentives for operators to reduce operation costs. Indeed, experience in other countries shows that price cap regulation has resulted in substantial cost reductions in network transport costs.<sup>37</sup> In the UK, for example, network access prices have fallen by 50% since introduction of price cap regulation.

36. However, the new regulatory framework for the determination of network access prices leaves some issues unresolved. The detailed cost-based rules draw to a large extent on the cost accounting rules of the *Associations Agreements*,<sup>38</sup> which have not proven effective in ensuring low network access prices and may leave too little room for the Federal Network Agency to develop best practice on the basis of its own

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33. In addition, the FCO's rulings were not generally enforceable pending an appeal (this was reversed in 2005) and the FCO's decisions were often overturned in court (see Böge, 2004).

34. These are networks which cover not more than one state and have fewer than 100 000 customers. In the gas industry, these networks cover about 20% of the market, in the electricity industry they cover 10% of the market.

35. Network operators whose access prices exceed the average of costs of a group of network operators with similar structural characteristics (e.g. population density) will be required to reduce network access prices.

36. Schmitt (2005), pp. 93-100.

37. IEA (2001).

38. However, in the gas industry, the legislation introduces improved access rules on which stakeholders failed to agree in the last attempt to improve the *Association Agreement* for the gas industry.

regulatory experience. For example, the regulatory rates of return on capital for network operators in the electricity and gas industries that the FNA has been prescribed to calculate cost-based regulated prices, have been kept at 6.5 and 7.3%, respectively until the onset of price-cap regulation, which are likely to be excessively high, in view of the relatively low risk involved in operating the networks.<sup>39</sup> The government plans to review the regulated returns on capital. Indeed, excessively high prices set in the cost benchmarking exercise may lead to excessively high prices in the longer term, as they will serve as starting point in price cap regulation. Moreover, different depreciation rules apply to capital which is already installed and new capital, introducing the risk of an un-level playing field between incumbents and potential market entrants. Some observers have voiced the concern that cost benchmarks for regulated network access prices might be based on average costs of network providers rather than the costs of the most efficient provider.<sup>40</sup> Notwithstanding greater powers for the FNA to obtain cost data from operators, data on cost continue to be based on commercial law accounting rules, which may not best serve regulatory purposes.

37. The FNA is empowered to develop a coherent model for the forthcoming price-cap regulation framework. Within this framework, the FNA should be given more room for deviating from the cost accounting rules, increasing the scope for the regulator to draw from its own experience in regulating the industries in the future. It should be carefully monitored whether network access prices in the energy sector are determined according to the costs of the most efficient providers. The regulatory rates of return on capital which enter the calculation of regulatory price caps should be brought into line with the return on investments with similar risk characteristics. A level playing field between incumbents and entrants should be ensured and the quality of cost information be raised.

*... and widespread vertical market integration requires a policy response*

38. The high degree of vertical integration in the electricity and gas industries has generated incentives for incumbent companies to discriminate against market entrants in competitive market segments, such as electricity generation. With the regulation of network access prices likely to become more effective, incentives on the part of vertically integrated network operators to engage in non-price discrimination are likely to become stronger.<sup>41</sup> While rules against abuse of dominant market power apply, the powers of the FNA to prevent non-price discrimination could be stronger. For example, vertically integrated electricity network operators can terminate contracts with competitors, *e.g.* in the retailing business, at any time for an important reason, leaving room for the operator to exercise discretion in such decision subject to subsequent judicial review, with the energy regulator exercising no specific control as to whether such practices would be discriminatory.<sup>42</sup> The powers of the FNA to prevent non-price discrimination should be strengthened.

39. Vertical integration of generation and transmission in incumbent electricity companies (*Verbundunternehmen*), in particular, has created scope for incumbents to exploit information advantages over competitors. For example, the procurement of *balancing energy*, which is needed to keep electricity supplied and demanded on the transmission network equal at all times, has been a source of discrimination of competing generation companies (see Box 6). Indeed the costs of *balancing energy* in Germany are

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39. OECD (2004b).

40. In the forthcoming price-cap regulation regime, the regulator plans to use the costs of the most efficient network provider as a benchmark. If the costs of a network access provider are above the average of costs, the burden of proof that the provider is nonetheless efficient lies with the provider. If costs are below the average but above the costs of the most efficient provider the burden of proof lies with the FNA.

41. Kuhlmann and Vogelsang (2005) and Brunekreeft and Tweleemann (2005).

42. Kuhlmann and Vogelsang (2005).

considerably higher than in other European countries.<sup>43</sup> In the electricity industry, an independent systems operator should be introduced for the transmissions network, with no ownership links to the electricity generation industry.

40. The degree of vertical integration has further risen following liberalisation of energy markets. Ongoing acquisitions of shares in the local utilities (*Stadtwerke*) by the *Verbundunternehmen*, in particular, have been widening scope for incumbents to discriminate against potential competitors. In addition, the acquisitions have been reducing the degree to which local utilities can act as independent purchasers of wholesale electricity and gas. With the high degree of horizontal concentration in electricity generation and wholesale suppliers of gas and the limited scope for retail customers to exert competitive pressure on suppliers, independence of purchasers and sellers in wholesale markets is crucial to ensure that the large incumbent wholesale suppliers are exposed to competitive forces. While the Federal Competition Authority has successively reduced the participation threshold above which it investigates such acquisitions under merger control procedures to 10%, the *Verbundunternehmen* have continued to acquire stakes below the threshold. While unbundling requirements have been raised in the new regulatory framework, with legal and operational unbundling applying to transmission network operators with immediate effect, implementation of this requirement has been deferred until 2007 for the distribution networks, the latest admissible date under EU legislation. Electricity generation companies and wholesale gas suppliers should, as a minimum, be prevented from acquiring further stakes in distribution networks. Divestment of stakes in distribution networks held by electricity generators would be preferable. Operational and legal unbundling for distribution networks should be introduced as soon as possible.

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43. European Commission (2005b) and Monopolkommission (2004).

**Box. 6. Discrimination of competitors in electricity generation: the case of balancing energy**

In Germany procurement of balancing energy from generation plants is the responsibility of the four owners of the transmission network, the *Verbundunternehmen*. The market for *balancing energy* is split into four regions which correspond to the geographic coverage of the transmission network of each of the four *Verbundunternehmen*. Since the *Verbundunternehmen* own most of generation capacity, they operate both on the demand side and supply side of the balancing energy market, generating incentives to procure balancing energy from their own power plants at a high price, discriminating against potential competitors in the generation market. Scope to discriminate arises from information advantages of the *Verbundunternehmen* over competing generation companies.<sup>1</sup> For example, technical standards which have to be met by suppliers of *balancing energy*, can be set such as to discourage competitors.

While each of the large four *Verbundunternehmen* can, in principle, supply *balancing energy* in regions covered by other transmission network owners, this does not appear to happen in practice.<sup>2</sup> Persistent price differentials between the price of balancing energy and the spot price on the power exchange suggest that the balancing market is not competitive, as market participants do not appear to take advantage of the opportunity to arbitrage by shifting supply from the spot market towards the balancing market. Rising costs of *balancing energy* have contributed substantially to rising access charges to the high-voltage transmission network.

The need to actively manage the transmission network to balance electricity supply and demand makes discrimination of competing generation companies by vertically integrated companies owning both transmission and generation particularly difficult to detect and regulate. Indeed, international experience shows that the operator<sup>3</sup> which carries out balancing energy operations, needs to be fully independent from generation companies.<sup>4</sup> One option is to separate ownership of the transmission network from generation and let transmission owners carry out balancing energy operations. Indeed, ownership separation of generation and transmission has been successfully practiced in many countries, such as the UK and the Nordic countries. Alternatively, an independent systems operator with no ownership ties to the *Verbundunternehmen* could be introduced. Such independent system operators have, for example, been put in place in some states of the US.<sup>5</sup>

Of these two options, ownership separation of transmission from generation is, in principle, preferable. Introducing an independent systems operator while leaving transmission and generation in the ownership of the *Verbundunternehmen* would entail separation of transmission asset ownership from transmission asset management, which may result in inefficiencies. However, in the case of Germany, transmission and generation are privately owned, so ownership separation of transmission from generation may be difficult to achieve.

1. Brunekreeft, G. and S. Tweleemann (2005), "Regulation, Competition and Investment in the German Electricity Market: RegTP or REGTP", *Energy Journal*, Vol. 26, special issue.

2. Monopolkommission (2004), *Sondergutachten der Monopolkommission*.

3. This is referred to as "systems operator", who is in charge of ensuring that services for the efficient operation of the transmission network are provided ("ancillary services"), including balancing energy.

4. See, e.g.: OECD (2005c); Hunt, S. (2002), *Making Competition Work in Electricity*, John Wiley and Sons, New York; IEA (2001), *Competition in Electricity Markets*.

5. See, e.g. Hunt, S. (2002) *Making Competition Work in Electricity*, John Wiley and Sons, New York.

41. The adverse consequences of the high degree of horizontal concentration are aggravated, in the electricity generation industry, by low interconnection with neighbouring countries, as well as the geographic segmentation of the *balancing energy* market (see Box 6). Therefore, interconnection of the transmission grid with neighbouring countries should be strengthened. Segmentation of the market for balancing energy should be overcome to allow for more competition in the market for electricity generation if it is consistent with energy security objectives.

*Environmental objectives in energy market regulation could be achieved at lower cost*

42. Environmental objectives play an important role in energy market regulation in Germany. In particular, the government is committed to reaching the Kyoto target for greenhouse gas emissions. Raising renewable energy production and increasing the efficiency of energy consumption play an important role in achieving this objective since the government is also committed to decommissioning every nuclear power plant after 32 years of use.

43. Most renewable energy production benefits from direct and indirect subsidies for electricity produced from these energy sources. The indirect subsidies result from guaranteed feed-in tariffs, which network operators have to pay to the producers of renewable energy.<sup>44</sup> All feed-in prices are digressive over time and are guaranteed for 20 years. These subsidies are difficult to justify with regard to their impact on reducing emissions of greenhouse gases, as the marginal cost of reducing carbon-dioxide emissions on the basis of these subsidies is considerably higher than the marginal cost of reducing greenhouse-gas emissions through a reduction in the consumption of electricity – for example, *via* energy saving measures – from fossil-fuel powered generation plants. Indeed, the costs of abating carbon dioxide emission through expansion of photovoltaic electricity generation are about 25 times higher and for wind energy about five times higher than the abatement cost resulting from reducing consumption of electricity produced in, say, gas-fired power plants, taking both the carbon tax and the price of carbon dioxide emission certificates into account.<sup>45</sup> Moreover, the IEA has estimated that the programmed reduction in the feed-in tariffs is smaller than likely efficiency gains in the production of renewable energy in the future. Subsidies to renewable energy should be reduced more quickly over time. While the overall costs of the indirect subsidy inherent in the preferential feed-in tariffs are published by the federal government, the transparency of the overall level of the subsidies could be improved by channelling all subsidies through the government budget, rather than through guaranteed feed-in tariffs.

44. Subsidies for improved insulation of dwellings also form part of the government's strategy for greenhouse-gas emission reductions. These subsidies are likely not to be the most cost-effective means to achieve greenhouse gas emissions reductions. Since insulation subsidies reduce heating costs, they provide incentives for households to increase ambient temperature in their homes, offsetting part of the emission-reducing effect of the subsidies. In addition the subsidy programmes are likely to entail higher administrative costs. Thus, relying on incentives provided by energy prices to reduce heating energy consumption, for example by raising taxation of carbon dioxide emissions, would be more cost effective, provided potential tenants of dwellings have sufficient information concerning the heating cost efficiency of different dwellings. Indeed, minimum standards concerning information that has to be available on heating efficiency of dwellings have recently been introduced. Subsidies for improving the insulation of dwellings should be abandoned in favour of more reliance on prices to provide incentives for greenhouse gas emission reductions. Adverse consequences on the real income of poor households should be dealt with through the tax and transfer system.

***Telecommunications customers can benefit from more competition in the local loop and from alternative cable networking***

45. Unlike in the energy sector, liberalisation in the telecommunication sector in 1998 was accompanied by the introduction of a sector regulator and of a regulatory framework requiring *ex ante*

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44. Kuhlmann and Vogelsang (2005).

45. According to OECD (2004f), abatement costs implied by photovoltaic and wind energy subsidies amounted to € 1 217 and € 167 per tonne. Carbon taxes applying to gas-powered plants amount to about € 17 per tonne, to which the price of carbon dioxide emission certificates of about € 25 per tonne should be added.

price regulation, based on the telecommunications act (amended in 2004, see the 2004 *Economic Survey*). Competition in the telecommunication sector has evolved more favourably than in the energy sector. The number of operators in fixed telephony, for example, has increased significantly.<sup>46</sup> Prices for fixed line telephony are lower than in a majority of OECD countries, and Germany's position compares more favourably than in 2002.<sup>47</sup> Fixed line telephony competitors of the incumbent provider DTAG have increased their market shares, although they remain below competitors' market shares in some other European countries, such as the UK, Austria, the Netherlands and Scandinavian countries.<sup>48</sup>

46. Introduction of call-by-call and preselection<sup>49</sup> of competing operators have contributed to opening the markets to competitors.<sup>50</sup> Indeed, in the year following extension of call-by-call selection and provider pre-selection to local calls in 2003, prices for local calls fell by 7% on average.<sup>51</sup> However call-by-call and pre-selection of alternative providers for local calls were introduced considerably later than in other European countries, on the grounds that DTAG did not judge the technical conditions to be met for call-by-call selection and preselection at an earlier date, delaying entry of competitors. Delays have in part been caused by systematic appeals against the regulator's decisions by DTAG.<sup>52</sup> Delays in the implementation of decisions by the network regulator should be monitored and further delays prevented. The appeals process has recently been streamlined by reducing the levels of appeal courts to two, which marks progress in this regard.

47. Take-up of broadband access to the internet in Germany is low and Germany has been falling further behind with respect to broadband penetration in international comparison.<sup>53</sup> Unlike in other OECD countries, cable TV networks or other technological platforms provide little competition to DSL lines, even though cable TV networks are more widely available than in other countries, with 70% of households connected. Moreover, most DSL lines are provided by the incumbent.

48. Competition between different technological platforms for broadband, notably through cable TV networks, can provide considerable scope for raising broadband utilisation (Figure 6). Fragmentation of cable TV network ownership and ownership of part of the cable TV network by the telecoms incumbent has in the past played a role in slowing investment to upgrade cable TV networks for broadband use. With fragmentation diminishing and the telecoms incumbent having divested its stake in the cable TV network, upgrading investment has risen to some extent recently. A study commissioned by the government has also identified state regulations requiring TV cable network owners to provide certain TV programmes through their networks as one factor limiting the attractiveness of investment to upgrade cable TV networks for broadband use.<sup>54</sup> State regulation on TV cable network content should be reviewed.

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46. European Commission (2005a).

47. See OECD (2003a).

48. European Commission (2005a).

49. Call-by-call refers to allowing consumers to change operator for individual calls, preselection refers to allowing consumers to change operator for all calls following the change.

50. Introduction of call-by-call and preselection for local calls were required by the European Commission already in 2004.

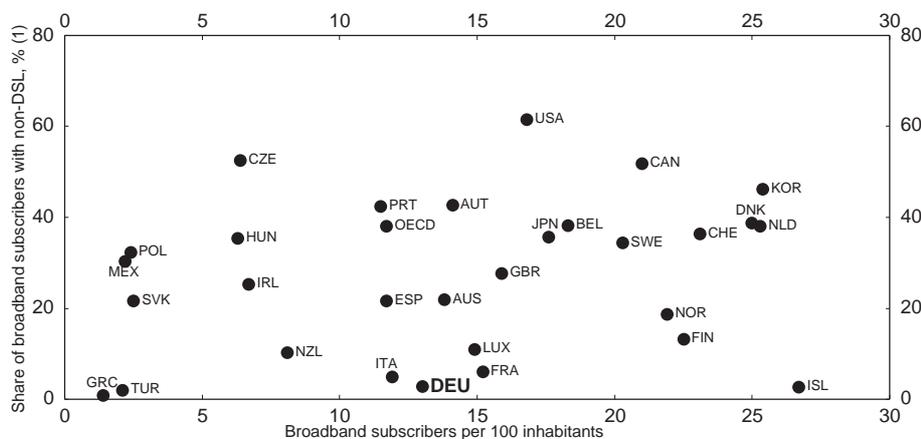
51. Hempell *et al.* (2005).

52. OECD (2004b).

53. Growth of broadband connections has been below the average of OECD countries in 2004. See OECD (2004c).

54. Büllingen *et al.* (2002). Study for the Ministry of Economy.

Figure 6. Broadband access and technology, June 2005



1. DSL refers to digital subscriber lines.

Source: OECD, Broadband Statistics.

49. The incumbent continues to have a dominating position in the provision of access to the local loop<sup>55</sup> and this could potentially limit competition for high-speed internet access through DSL, as competitors need access to the local loop to provide competing services.<sup>56</sup> Indeed, ensuring competition in access to the local loop is essential for full exploitation of the economic potential of the fixed line telephone network, including broadband access to the internet.<sup>57</sup>

50. Resale of local loop connections<sup>58</sup> has become the major means of obtaining access to the local loop, including access to DSL lines, for competitors in many OECD countries. Resale has developed more slowly in Germany than in other European countries, although resale has increased considerably recently after the incumbent introduced resale of DSL lines on a voluntary basis.<sup>59</sup> The Telecommunications Act excludes the option of introducing compulsory resale of unbundled local loops to competitors until 2008.<sup>60</sup> Introduction of compulsory resale of unbundled local loop connections should be accelerated. Moreover, in many cases the incumbent does not provide physical access to local loop connections (collocation) to

55. The local loop is the cable linking a household or company to the telephone network.

56. In France, for example, competitors have reached a market share of about 50% and broadband penetration doubled in 2004. See OECD (2005a) and European Commission (2005a).

57. OECD (2004e).

58. Resale of local loop connections refers to the sale of local loop connections purchased by competitors from the incumbent to third parties, allowing the buyer to obtain access to the local loop without being able to modify the services provided through the local loop, whereas various forms of local loop unbundling allow the buyer to make own investments to upgrade services.

59. In the UK, for example, where competitors of the incumbent own a 60% market share in providing DSL services, 50% of DSL lines are provided through resale, and in France 25%, in the second quarter of 2004. See ZEW (2005). In Germany the share was 3.5% in the second quarter of 2004 and 9% in the second quarter of 2005.

60. Before 2008, the Telecommunications Act only allows the regulator to introduce the compulsory resale of local loop connections which are bundled with connection services. (See, e.g., Monopolkommission, 2005) Bundling of access to the local loop puts those competitors at a disadvantage which have built up their own telephone networks, as these competitors need not purchase communication services with the access to the local loop.

competitors, further limiting the scope for competition.<sup>61</sup> It should be ensured that the incumbent operator gives competitors access to all of the incumbent's local loop infrastructure.

51. Legal conditions for *ex ante* price regulation for access to wholesale services by the incumbent are relatively demanding, as, unlike in other European Union countries, the Telecommunications Act stipulates that market dominance on both the wholesale and the related retail market need to be present for the FNA to be obliged to apply *ex ante* regulation in the wholesale market. If market dominance is only present in the wholesale market the FNA has some discretion as to whether it applies *ex ante* regulation or not. This might prevent regulation of wholesale access to the local loop for the provision of DSL from being subject to ex-ante regulation in the future, once competitors have obtained a larger market share in the retail market.<sup>62</sup> Discretion of the regulator in determining whether *ex ante* regulation should apply may interact with concerns over the independence of the presidential chamber of the FNA from political interference, strengthening the case for improving the credibility of the independence of the regulator. Ex-ante regulation of network access prices should not be limited to cases in which the supplier also has market power in the end-user market.

### ***Railways reform has raised efficiency but more needs to be done to strengthen competition***

52. Structural reform of the railway sector in Germany began relatively early, in 1994, with the transformation of the railways into a private limited company (*Deutsche Bahn AG*, DBAG), increasing the autonomy of management and subjecting DBAG to private accounting and company laws, although DBAG has remained government-owned. At the same time, the railway network was opened to competing freight and passenger transport providers and a railway regulator was put in charge of ensuring non-discriminatory network access of market entrants to the railway network.

53. These reforms appear to have contributed to a marked improvement in productivity relative to other European railway systems in the second half of the 1990s.<sup>63</sup> Government subsidies have declined slightly in real terms although they remain higher than in some European countries – such as France – relative to the amount of freight and passenger transport supplied. Further reform steps that were taken included the creation of several subsidiaries of the railways incumbent, which separated transport services from network services. However, the companies continued to be fully owned by the holding company, DBAG. DBAG was granted a large degree of discretion in developing its organisation, leaving the subsidiaries only limited autonomy.<sup>64</sup> Legislation introduced in 2005 to implement EU directives has strengthened managerial separation to some extent, but the holding company DBAG has retained a considerable degree of discretion. For example, the new legislation requires DBAG to set up its corporate governance in such a way that personnel involved in determining network access conditions in the network subsidiary are independent in their decisions from any influence from the holding company and its transport service subsidiaries. However, members of the supervisory board (*Aufsichtsrat*) of DBAG's network subsidiary can at the same time be a member in the executive board of its transport service

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61. Monopolkommission (2005b).

62. European Commission (2005a). See also Monopolkommission (2004).

63. See Friebel *et al.* (2004), Efficiency is measured in terms of the weighted average of passenger and freight kilometers. This is controlled for the impact of network size, personnel, long-term country specific productivity trends and the average impact organisational reforms have had in the 11 European countries studied.

64. Lodge (2003).

subsidiary and members of the executive board of the network subsidiary can be members in the executive board of DBAG.<sup>65</sup>

54. Despite the relatively large number of licensed companies providing rail transport services, competition in railway services has developed slowly, with competitors to the federal government-owned railway operator increasing their market share to close to 10% in 2005.<sup>66</sup> Competitors have been particularly active in commuting passenger services, where competition is limited to the tendering of monopoly service by the states, linked to the payment of subsidies to the operator for the provision of a set service volume and prices.<sup>67</sup> In this market segment, new entrants captured 41% of services tendered by state governments. However, while tendered services have reportedly led to cost reductions between 20 and 40%, only 19% of the volume of the contracts for commuting services are commissioned through competitive tendering, reducing scope for competition.<sup>68</sup> Use of competitive tendering for all contracts would facilitate the benchmarking of tenders to most efficient provision. Competitive tendering of commuting rail service contracts should be made compulsory.

55. There have been some cases where discrimination against competitors accessing DBAG's railway network has become apparent. For example, quantity discounts for network access charges as well as for the price of electricity supplied by DBAG's electricity subsidiary were judged to be discriminatory and were therefore reversed by the FCO and the courts, on the grounds that only DBAG's own railway transport operating company was eligible for the discounts. Network access charges, notably for passenger trains, are among the highest in European countries, which may to some extent be explained by the legal requirement that access charges reflect average costs net of subsidies. However, this access charging rule is also likely to reduce incentives to achieve cost reductions. While the government has assigned the responsibility for regulating railway network access to the FNA since January 2006, network access prices continue to be determined by the network services subsidiary of DBAG, subject to subsequent approval by the FNA. The combination of weak managerial separation, as noted above, and assignment of access-pricing to the network services subsidiary is unlikely to result in satisfactory non-discriminatory access. Ex-ante regulation of network access prices would give more scope to prevent discrimination and – through price cap regulation – provide stronger incentives to generate cost savings in network access provision. Ex-ante regulation of network access prices in the railways should be introduced. Further reforms should aim at achieving a more effective vertical separation of the network operator from competitive transport services, for example by moving the network operator out of the holding structure.

56. The federal government is currently considering options for privatisation of DBAG. In particular, consideration is being given whether the integrated holding company should be privatised as a whole or whether ownership separation should be introduced between the railways network and transport services, while privatising only the latter. Careful consideration should be given in weighing efficiency costs and benefits of ownership separation between network services and transport services in the railways.<sup>69</sup> Ownership separation would offer the advantage that, under existing constitutional constraints, full privatisation of the transport services of the incumbent would be possible.<sup>70</sup>

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65. See Booz-Allen-Hamilton (2006) for more details.

66. See Booz-Allen-Hamilton (2006).

67. Since governments provide subsidies for the provision of such services, entry outside contracts offered by state governments does not arise.

68. Gleeve (2003) and Booz-Allen-Hamilton (2006).

69. OECD (2006).

70. If the integrated concern is privatised as a whole, constitutional constraints would only allow privatisation of less than 50% of the railways incumbent.

57. Denial of access to rolling stock by DBAG also is a potential source of discrimination of competitors. Competitors have claimed that DBAG does not make surplus rolling stock available to them. Indeed access to the incumbent's rolling stock is not part of the regulators' responsibilities and there is no legal obligation on the part of the railways incumbent to make rolling stock available to competitors.<sup>71</sup> Experience from other OECD countries suggests that non-discriminatory access to rolling stock is important, as incumbents have an effective monopoly over rolling stock.<sup>72</sup> The railways regulator should oblige the incumbent operator to rent out rolling stock at non-discriminatory conditions.

58. There has also been some concern that investment decisions in the railway network may be biased to the disadvantage of those parts of the network which are mainly used by competitors, particularly in commuting networks in which competitors have gained state government contracts. With the new legislation implementing EU directives, competing railway transport operators have been given the opportunity to propose investment projects to the federal government, which were previously only proposed by the incumbent railways operator and state governments, in formal investment planning procedures, helping to overcome discrimination of competitors in the choice of investment projects.

### **The service sector needs to be more open**

59. Despite some progress in reducing entry barriers, competition in several sectors is held back by sector-specific entry regulation. In the crafts, legislation lowered qualification-related entry requirements (see the 2004 *Economic Survey of Germany*), but most existing businesses remain tied to the requirement of qualification (master) certificates or a track record of professional experience, and in some crafts the traditional master certificate remains compulsory, generating considerable entry costs, which are born by government grants and subsidised loans to some extent. Firm creation in the crafts has risen substantially since the partial deregulation, particularly in those crafts which were deregulated relatively strongly, suggesting that the deregulation has had a substantial impact, although the subsidised self-employment scheme for the long-term unemployed (see Chapter 4 in the 2006 *Economic Survey of Germany*) is also likely to have played a significant role.

60. The remaining entry requirements have been justified on the basis of consumer safety concerns as well as the contribution of these crafts to the supply of traineeships. However, by keeping prices of services relatively high, the master requirement may well reduce the demand for labour, including skilled labour. The qualification requirements have also prevented enterprises from combining services across different crafts. Qualification-related entry requirements in the crafts sector should be abolished.

61. Entry barriers remain high in public procurement, where the complexity of rules and the participation of business associations in the setting of the rules give an advantage to incumbents over potential market entrants, notably from abroad. While large contracts have to be tendered according to EU rules, procurement contracts are frequently split up in Germany to facilitate participation by SMEs, so that German rules apply. Differences across states in procurement rules further increase administrative costs, reducing market access for foreign market entrants, and thus competition. Some states maintain legislation linking construction procurement to local pay conditions, further limiting competition (see also the 2004 *Economic Survey*).

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71. According to the description of the regulator's responsibilities. See Eisenbahn-Bundesamt (2004).

72. Competing service providers are faced with short-term contracts and therefore have limited incentives to invest in rolling stock themselves. Moreover different security standards across countries prevent supply of rolling stock by foreign companies. See OECD (2005d).

*Efficiency in retailing can be raised further...*

62. While the concentration and price-cost margins in the distribution sector are low in international comparison,<sup>73</sup> productivity growth appears to have been weak (see Table 1 and Figure 1) and employment growth has been modest.<sup>74</sup> Part of weak observed productivity growth – which is measured in terms of output per worker – may be explained by increasing take-up of part-time employment contracts in the retailing industry, which may have expanded more quickly in Germany than in other OECD countries. According to estimates based on the national accounts, hourly productivity growth in retailing in Germany could amount to between 1.5 and 2% per year on average. Weak private consumption growth in recent years may also have contributed, by generating overcapacity, which is also likely to have contributed to low price-cost margins.

63. Actual productivity growth rates are thus difficult to interpret, and the retailing sector in Germany has, as in other countries, undergone substantial change, with less efficient retail chains being driven from the market, and intensified use of information and communication technology. Nonetheless, structural factors can affect productivity growth. In particular, zoning regulation could potentially hold back further productivity gains in retailing, preventing the entry of large surface outlets. Zoning rules are set in federal and state legislation, and these rules have to be followed by municipalities in their planning decisions. Restrictions on the setting-up large scale retailing outlets in Germany aim at securing the development of city centres. In addition they aim at minimising adverse effects such outlets could have on the availability of retailing outlets in local neighbourhoods and on the environment, for example through an increase in traffic. One of the criteria used in practice to determine whether large retailing outlets can be permitted by municipalities can include, under certain conditions, the effect of the outlet in question on turnover in neighbouring municipalities.<sup>75</sup> This could have the unintended effect of protecting incumbent retailers, reducing competition. Federal legislation limits development of large surface retailing outlets above a surface of, as a rule, 700 square meters<sup>76</sup> to locations within urban centres or especially designated areas. In regions bordering countries with more liberal regulation on large retailing, such as the Czech Republic and part of Austria, retailers in Germany appear to have difficulty in competing with large-scale retailers across the border, suggesting that the demand for services of large-scale retailers is not adequately met within Germany.

64. Evidence from other OECD countries suggests that large surface retailers have boosted the industry's productivity performance, exploiting returns to scale, in part through the use of ICT, raising consumer welfare through lower prices.<sup>77</sup> Indeed, large-surface retailing has contributed to superior retailing industry productivity performance in the US, which in turn has been estimated to account for two thirds of the economy-wide productivity growth gap between the United States and the European Union.<sup>78</sup>

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73. See OECD (2005d) on international comparisons of concentration indicators in retailing, which however provides data only for 1999.

74. OECD (2005b).

75. If incumbents in neighbouring municipalities can be expected to lose more than 20% of turnover as a result of the construction of a new large retailing outlet permission for the retail outlet to be set up might not be granted in practice. See Bundesamt für Bauordnung und Raumordnung (2000). If a planned large-scale retailing outlet is expected to have a significant impact of retail turnover in a neighbouring municipality, zoning planning needs to be conducted in co-operation with the neighbouring municipality whose retailers would suffer the reduction in turnover.

76. In some cases, the limitations may apply to outlets with a surface of more than 800 square meters.

77. OECD (2003b).

78. OECD (2005d).

The experience in a number of other OECD countries, such as Japan and the Netherlands, also demonstrates the positive effects of less restrictive regulation of the retailing industry on sector performance.<sup>79</sup> Deregulation of large scale retailing outlets in recent years has also noticeably lowered average consumer prices in the Czech Republic.

65. While zoning regulation aims at striking a balance between urban development and environmental concerns on the one hand and economic concerns on the other hand, easing of zoning restrictions on large-scale retailing could have substantial economic benefits. Consideration should be given to easing restrictions concerning the setting-up of large retail outlets. Adverse effects on the turnover of incumbent retailers should not play a role in decisions to set up large scale retailing outlets.

66. Prohibitions of pricing below cost may also reduce the degree to which large retail chains may take advantage of scale economies and exert competitive pressure on less efficient competitors in the retailing industry (see above).<sup>80</sup> Indeed, evidence from other OECD countries indicates that rising concentration in the retail industry has been driven by cost advantages of large retail chains, so that rising concentration has boosted productivity growth. Relatively high levels of concentration appear to be consistent with competition owing to relatively low costs of entry in retailing.<sup>81</sup> In the UK the competition authority has reached the conclusion that imposing prohibitions on pricing below cost would on balance not raise consumer welfare.

67. Shop opening hours have been liberalised in recent years, raising the maximum number of shop opening hours per week to 84. Opening hours are still more restrictive than in other European countries, which in some cases set no limits at all, such as the Netherlands, Sweden and the UK. Indeed, experience from countries which have liberalised shop opening hours shows that longer shop opening hours raise employment in the industry as well as consumer welfare, as evidenced in changed shopping patterns.<sup>82</sup> Current plans for constitutional reform foresee that the legislative powers on shop opening will be transferred to the states, most of which have announced plans to give up restrictions on shop opening hours except on Sundays. The states are encouraged to do so.

***...while hurdles to competition in professional services need to be lowered***

68. In several OECD countries, including Germany, services that are used as intermediate products by enterprises – notably accounting and legal advice, engineering services and services provided by architects – have experienced fast growth and play an important role in reshaping the organisation of business and helping to generate productivity gains. Sectoral regulation indicators compiled by the OECD show that regulation of professions providing enterprise-near services is among the tightest in the OECD (Figure 7). Entry regulations appear to be relatively strict for accountants, tax advisors, architects and engineers, and the latter are subject to price regulation. Germany also ranks above the average in the OECD with respect to the number of exclusive tasks assigned to these professions.<sup>83</sup> Conduct regulation also appears quite stringent, with advertisement being prohibited for some professions. Membership in professional associations is compulsory. The fact that professional associations are also involved in conduct regulation poses the risk of strengthening the power of incumbents at the disadvantage of new entries. In order to ensure fully market determined price setting, legally-set price schedules should be

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79. OECD (2002b).

80. See Monopolkommission (2004), notes that a German retailing chain was prevented from pricing below cost (*Rossmann*) because of the adverse impact of its pricing on smaller retailing chains.

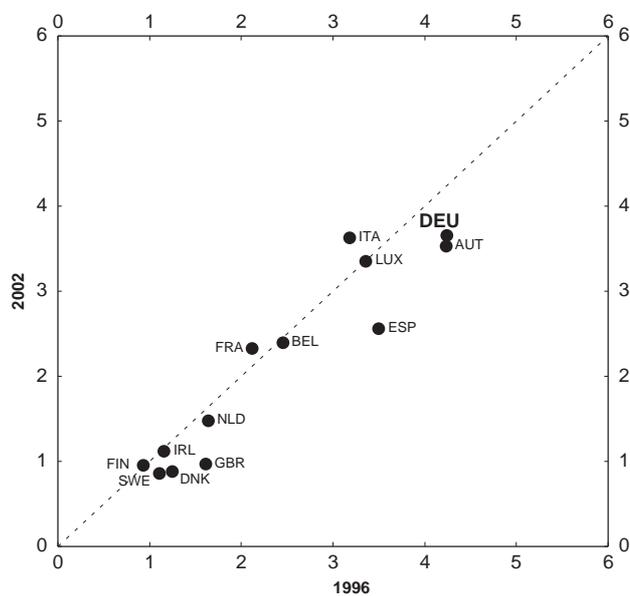
81. OECD (2005d).

82. OECD (2005d).

83. See also Paterson *et al.* (2003).

phased out as soon as possible and should not be replaced by recommended fee schedules. Conduct regulation needs to be reconsidered.

Figure 7. **Sectoral regulation of professional services**<sup>1</sup>  
Index 0 to 6, least to most restrictive regulation



1. Accounting, law, engineering and architecture.

Source: OECD (2005), *Economic Policy Reforms: Going for Growth*.

**Box 7. Recommendations for making regulation more competition friendly**

**The effectiveness of competition law and competition law enforcement should be raised.**

- A consumer protection agency should be installed under the roof of the Federal Cartel Office.
- The Cartel Offices' capacity for economic analysis should be strengthened and consideration should be given to increase its staff. The Cartel Office should strengthen the analysis of the likely economic effects of conduct, without emphasising the protection of small firms on grounds of them being small. Fining procedures need to be made more efficient.
- The independence of the Federal Network Agency (FNA) should be strengthened by reducing the degree of discretion the government has in dismissing the chairperson and deputy chairpersons and removing the option of reappointment. The regulator should not be subject to orders by the federal government.

**The role of the state in business sector activities should be scaled down further.**

- The government should accelerate privatisation of its remaining stakes in enterprises, notably the incumbents in the post and telecommunications services. Sub-national governments should be encouraged to privatise the electricity and gas business of local utilities.
- State aid to enterprises should be phased out, except where there is evidence that the aid can offset efficiency losses resulting from market failure.

**Administrative opacity should be reduced.**

- Auditing competencies for the enforcement of safety regulation should be bundled within one agency only.
- Expert groups to assess the regulatory burden for enterprises and households of existing regulation should be established at all layers of government. Mandatory regulatory impact analysis that assesses the costs and benefits of new legislation should be incorporated into the legislative process, both at the level of the federation as well as the states.
- Insurance of work-related accidents and sickness risks should be left to the market.

**The effectiveness of the regulation of energy markets needs to be raised further.**

- Regulation of all electricity and gas network operators should be assigned to the FNA. The FNA should be given more room for deviating from legislated cost accounting rules, increasing the scope for the regulator to draw from its own experience. More room should be created for lowering regulated network access prices, bringing regulatory rates of return on capital into line with the return on investments with similar risk characteristics and improving the quality of cost information. It should be carefully monitored whether network access prices in the energy sector are determined according to the costs of the most efficient providers. The powers of the FNA to prevent non-price discrimination of competing suppliers by vertically integrated enterprises should be strengthened.
- Network access services should be more strictly separated from potentially competitive activities. In particular, an independent systems operator for the electricity transmissions network should be introduced, with no ownership links to electricity generation companies. Operational and legal unbundling of distribution networks should be required as soon as possible and wholesale gas suppliers and electricity generation companies should be prevented from acquiring further stakes in distribution networks.

- Interconnection of the transmission grid with neighbouring countries should be strengthened.
- Segmentation of the market for balancing energy should be overcome to allow for more competition in the market for electricity generation, if consistent with energy security.

**The costs of achieving environmental targets should be reduced.**

- Subsidies to renewable energy should be reduced more quickly over time. To improve the transparency of the overall level of the subsidies, the government should consider to channel all subsidies through the government budget, rather than through guaranteed feed-in tariffs.
- Subsidies for improving the insulation of dwellings should be abandoned in favour of more reliance on prices to provide incentives for greenhouse gas emission reductions.

**Competition in telecommunications services should be further encouraged.**

- Delays in the implementation of decisions by the network regulator should be monitored and further delays prevented if necessary.
- State regulation on TV cable network content should be reviewed.
- Introduction of resale of unbundled access to the local loop should be accelerated. The incumbent operator should give competitors access to all of the incumbent's local loop infrastructure.
- Ex-ante regulation of network access prices should be applied to cases in which the supplier has market power in the wholesale market but not in the retail market.

**The conditions for competition in railway services need to be improved.**

- Competitive tendering of regional rail service contracts should be made compulsory.
- Network access prices should be more effectively regulated, introducing ex-ante regulation of railway network access charges.
- The incumbent operator should be obliged to rent out rolling stock at non-discriminatory conditions.
- Network services should be more effectively separated from competitive transport services.

**Regulation of the liberal professions and crafts needs to be liberalised further.**

- Legally-set price schedules in the liberal professions should be phased out as soon as possible and should not be replaced by recommended fee schedules. Conduct regulation needs to be reconsidered.
- Qualification-related entry requirements in the crafts sector should be abolished.

**Regulatory hurdles hampering consumer welfare improvements in retailing services should be overcome.**

- Adverse effects of new large-scale retail outlets on the turnover of incumbent retailers should not play a role in decisions to allow development of new large-scale outlets. Consideration should be given to ease restrictions concerning the setting-up of large retail outlets.
- Shop opening hours should be liberalised further.

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