

**Unclassified**

**ECO/WKP(2005)18**



Organisation de Coopération et de Développement Economiques  
Organisation for Economic Co-operation and Development

**18-May-2005**

**English - Or. English**

**ECONOMICS DEPARTMENT**

**ECO/WKP(2005)18**  
**Unclassified**

**BOOSTING GROWTH THROUGH GREATER COMPETITION  
IN DENMARK**

**ECONOMICS DEPARTMENT WORKING PAPERS No. 431**

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**JT00184312**

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## ABSTRACT/RÉSUMÉ

### **Boosting growth through greater competition in Denmark**

This paper discusses ways of strengthening the competitive environment in order to help boost productivity performance in various sectors of the Danish economy. It looks at a number of indicators of the strength of competition — including price levels, industrial concentration and product market regulation — and it discusses the appropriateness of the competition legislation framework. The paper then focuses on the large public sector, which has been slow to open up to competition, partly because of regulatory restrictions but also because some local governments are too small to handle tenders and provide an attractive market for private providers. The paper also looks at the process of liberalising network industries and at various regulations that still impede effective competition in a number of other sectors, including construction, housing, distribution and professional services.

*JEL classification:* H4, K21, L1, L32, L33, L41, L43, L44, L8, L9, O52

*Keywords:* Denmark, competition, regulation, product markets, network industries, retail distribution, construction, public sector, competitive neutrality, public procurement, privatisation.

\* \* \*

### **Dynamiser la croissance en stimulant la concurrence**

Le document de travail examine les moyens de renforcer le cadre concurrentiel pour stimuler la productivité dans divers secteurs de l'économie du Danemark. Il passe en revue un certain nombre d'indicateurs de la vigueur de la concurrence — notamment le niveau des prix, la concentration industrielle et la réglementation des marchés de produits — et évalue l'adéquation du cadre législatif de la concurrence. L'analyse se porte ensuite sur le vaste secteur public, qui a tardé à s'ouvrir à la concurrence, du fait de restrictions réglementaires mais aussi parce que certaines collectivités locales sont trop petites pour gérer des appels d'offres et offrir un marché attractif à des prestataires privés. Le document de travail examine aussi le processus de libéralisation des industries de réseau ainsi que différentes réglementations qui font encore obstacle à une concurrence efficace dans plusieurs autres secteurs, dont la construction, le logement, la distribution et les services professionnels.

*Classification JEL :* H4, K21, L1, L32, L33, L41, L43, L44, L8, L9, O52

*Mots clés :* Le Danemark, concurrence, réglementation, marchés de produits, industries de réseau, grande distribution, construction, neutralité de concurrence, marchés publics, privatisation.

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## **Boosting growth through greater competition in Denmark**

by

**Martin Jørgensen<sup>1</sup>**

There is mounting evidence that competition can be an effective way to boost productivity and encourage innovation. There are also signs that a more competitive environment can improve harder-to-measure factors, such as quality, service standards and consumer choice. Spillovers on the labour market have been detected also, with greater product market competition tending to boost employment (Nicoletti *et al.*, 2001), although the effects depend on the type of bargaining system. It is not always clear whether improved competition brings about a one-off improvement in the *level* of productivity, or whether it has ongoing dynamic effects that permanently lift an economy's growth rate (OECD, 2002a). But either way, the impact on national income is large enough that policymakers should be wary of introducing measures that reduce competition and should reconsider whether existing regulations are harming the competitive environment too much.

While Denmark has been a leader when it comes to reforming its labour market, its performance in product markets has been mixed. It was an early and aggressive deregulator in telecommunications, for example, but environmental goals hampered reform of the electricity industry. Compared with other countries, it does not have a great deal of "red tape" holding back the business sector in general, but it does have some significant anti-competitive restrictions in particular sectors. This paper reviews the overall state of competition in Denmark and looks into certain sectors in more detail. Competition in the public sector is a particular focus, as central and local governments deliver a large number of services that are provided privately in other countries, and there is considerable scope to get better quality and value for money in this area.

An increasing part of overall demand in the future will be for services for the individual that are typically provided by the government, such as elderly care, which is likely to involve a relative shift in employment towards the public sector. That could restrain productivity and GDP increases for two reasons: first, it is generally more difficult to raise productivity in these types of labour-intensive services; second, sheltered public-sector producers lack an incentive to improve efficiency because of little or no pressure from competition. These prospects emphasise the importance of continued reform in product markets and other areas of the economy with little competition.

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1. This paper draws on material originally produced for the *OECD Economic Survey of Denmark* published in February 2005 under the authority of the Economic and Development Review Committee. The section on competition legislation and enforcement was drafted by Peter Møllgaard of the Copenhagen Business School. The author is indebted to colleagues in the OECD for comments and drafting suggestions, in particular Andrew Dean, Jørgen Elmeskov, Jens Høj, Peter Jarrett, David Rae and Michael Wise. Special thanks go to Raoul Doquin St. Preux and Mee-Lan Frank for technical assistance.

## Indicators of the state of competition

Successive Danish governments have undertaken a strategy of liberalisation and deregulation over the past 10-15 years. That includes strengthening of competition legislation and enforcement, reduction of state ownership, opening-up for competition in network industries, deregulation of a number of markets and reducing “red tape”. These efforts cannot, however, be clearly detected in output growth. While Denmark remains one of the OECD countries with the highest GDP per capita, its growth performance has fallen short of the OECD average, especially from the second half of the 1990s (OECD, 2005). This is mainly attributable to a lower growth in labour productivity that is fairly broad-based across industries (Table 1). However, it is noteworthy that industries with the least impressive productivity growth relative to other countries or with the biggest declines in performance are those that are associated with competition (*e.g.* monopoly) issues, pointing to the need for further reforms. These include utilities, wholesale and retail trade, post and telecommunication and public services. In particular, productivity growth in utilities and post and telecommunication is below that in other Nordic countries, which opened up these sectors to competition earlier.

The strength of competition can be evaluated using several indicators, although these will often be imperfect measures. The Danish Competition Authority has taken a very pro-active approach, trying to gauge competition at detailed industry level; based on a weighting of judgement and 10 “hard” indicators<sup>2</sup>, it has identified 56 industries where competition is considered to be inadequate. These industries are mainly found in food, beverages and tobacco, printing and publishing, chemicals, building materials, utilities, transport and financial and non-financial services. The government has a target to almost halve this number by 2010. However, with a high turnover from one year to the next (16 industries were newcomers in 2004), the guidance provided by the list is not substantial. For instance, the construction sector is not represented at all in 2004, even though it has continuously been associated with competition problems, and five parts of the sector were included in 2003.

A second “hard” objective of the government is that the price level be no higher than in other European countries. Static inefficiency resulting from weak market forces will generally drive up prices, so the relative price level can give an indication of the state of competition. However, it is also affected by a country’s level of income and by indirect taxes, consumption patterns and the size of the public sector. Keeping these *caveats* in mind, the Danish price level (measured by purchasing power parities) appears to be on the high side, even after correcting for GDP per capita (Figure 1). The same conclusion was reached in the 1993 *Survey*, indicating that this is a long-standing feature of the economy. After correcting for differences in VAT and excise duties, the Competition Authority has found that prices in Denmark are around 5% higher than in comparable countries (Konkurrencestyrelsen, 2004a).

Price levels (excluding indirect taxes) tend to be high in sectors where there are other indicators of weak competition (Table 2). These include construction, financial services and certain non-financial services, books, newspapers and magazines and in the market for various beverages. In contrast, prices net of taxes are relatively low in telecommunication. Electricity prices are also low when compared with other countries, although prices for industrial customers are higher than in the other countries participating in the Nordic electricity market. The relatively low net price of motor vehicles is explained by an extraordinarily high level of taxation (see OECD, 2002b), which forces producers to cut wholesale prices in order to have Danes buy any new cars at all. This is counterbalanced by high prices on spare parts as producers try to recoup some of their lost margins. However, with new EU regulation allowing Danish retailers to establish sales offices in other countries (and *vice versa*) and to engage in parallel importing of original spare parts, some harmonisation of prices is likely to be seen in the coming years.

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2. These indicators are: regulation; concentration; import-corrected concentration; entry; mobility of market shares; spread in productivity; wage premia; profit rate; profit rate compared to EU9; and price levels.

Table 1. Labour productivity growth in selected industries  
Average annual percentage change

	Denmark	Norway	Sweden	Finland	Belgium	France	Germany	Italy	Nether-lands	United Kingdom	United States
<b>1990 to 2002<sup>1</sup></b>											
Agriculture and forestry <sup>2</sup>	4.8	5.4	3.4	4.9	3.8	4.1	..	4.4	2.6	3.7	2.4
Total manufacturing	2.3	1.0	5.9	4.8	2.9	3.7	..	1.6	2.2	2.7	3.9
Food products and beverages <sup>3</sup>	2.0	1.3	2.6	4.1	1.7	-1.0	0.8	1.5	3.2	..	-1.6
Printing and publishing <sup>3</sup>	-0.1	-0.9	3.3	2.5	..	0.8	1.7	..	2.4	..	-1.5
Electricity, gas and water	2.7	3.9	1.8	5.9	4.3	2.0	..	4.1	3.0	7.8	1.0
Construction	0.3	0.8	0.6	0.1	0.3	-0.4	..	-0.1	-1.0	2.2	0.2
Total services	1.3	2.0	1.5	1.3	0.9	0.3	..	0.5	0.4	1.6	1.6
Wholesale, retail trade	2.3	5.4	3.2	1.4	1.4	1.0	..	1.3	0.8	..	3.9
Post and telecommunication <sup>3</sup>	6.4	11.4	7.3	9.6	..	4.5	13.0	9.2	6.9	..	4.3
Financial services	0.0	-0.1	-0.5	0.9	0.1	-1.1	..	-1.4	-0.6	..	0.7
Community, social and personal services	0.8	0.4	0.5	0.0	0.4	0.4	..	0.0	-0.2	0.9	-0.3
<b>1997 to 2002<sup>4</sup></b>											
Agriculture and forestry <sup>2</sup>	2.6	2.1	4.4	6.0	3.8	1.7	2.0	2.2	1.8	5.8	4.7
Total manufacturing	3.1	1.0	5.8	4.5	3.2	3.8	1.8	1.0	1.4	2.5	3.5
Food products and beverages <sup>5</sup>	2.5	3.1	2.6	2.8	2.2	-1.4	-0.7	0.7	0.8	..	-4.7
Printing and publishing <sup>5</sup>	0.1	-1.2	3.3	1.5	..	1.5	1.2	0.9	2.0	..	-0.9
Electricity, gas and water	-0.0	8.3	1.6	4.1	3.8	2.6	4.6	6.4	2.8	4.7	-0.9
Construction	1.0	-2.4	-1.3	-1.5	1.6	-1.3	1.0	-0.8	-0.1	1.0	-0.3
Total services	1.1	2.0	0.9	0.9	0.1	0.5	1.0	0.3	0.7	1.7	2.4
Wholesale, retail trade	1.5	5.5	2.6	2.2	1.1	1.4	0.2	0.5	1.7	..	5.4
Post and telecommunication <sup>5</sup>	5.1	14.0	7.3	12.4	..	7.5	17.3	10.1	9.7	..	4.5
Financial services	-0.1	-0.6	-1.7	-1.1	-1.3	-2.2	-1.0	-2.2	-0.4	1.4	1.7
Community, social and personal services	-0.2	0.3	0.3	-0.2	0.8	0.8	0.0	0.5	-0.1	0.5	-0.0

1. 1992 to 2001 for the United States and Germany.

2. Including hunting and fishing.

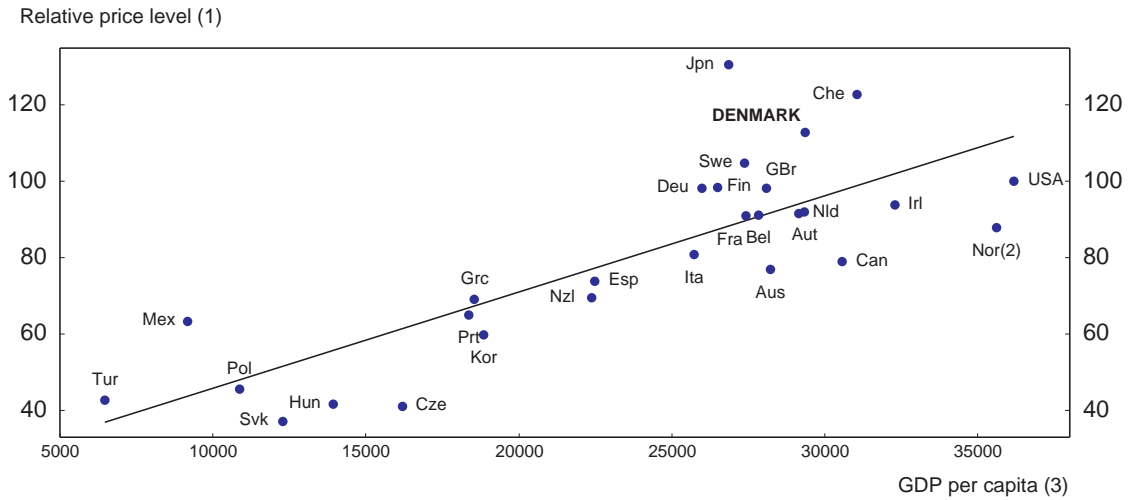
3. 1994 to 2002 for Sweden.

4. 1997-2001 for United States.

5. 1997-2001 for Germany.

Source: OECD, STAN Structural Analysis Database, 2004 Edition, June 2004.

Figure 1. **The overall price level is high**  
Relative price level, average, 1998-2002



1. Purchasing power parities divided by the exchange rate, USA = 100.
  2. 1998-2001.
  3. In USD, converted with PPPs.
- Source: OECD, Annual National Accounts Database.

Table 2. **Price differences (net of tax) vary between expenditure groups<sup>1</sup>**  
Index, EU9 = 100, 2000-02<sup>2</sup>

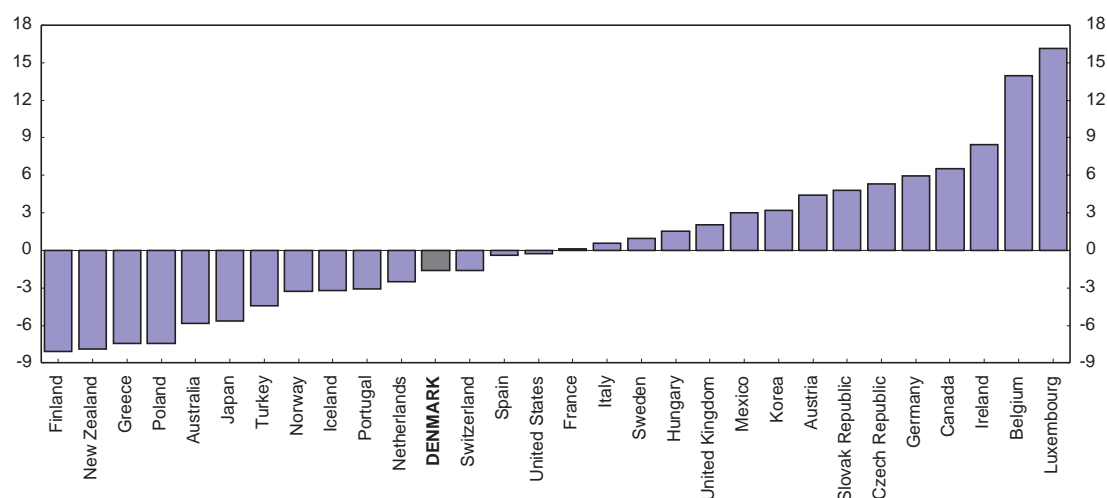
Group	Price level	Group	Price level
<b>High price items</b>		Hotels etc.	113
Auto spare parts	121	Auto diesel fuel	112
Education, child care	119	<b>Low price items</b>	
Personal services	119	Coffee and cocoa	89
Soft drinks	119	Communications	86
Insurance	119	Electricity <sup>3</sup>	84
Books, newspapers, magazines	119	Motor vehicles <sup>4</sup>	82
Oil for heating	116	Flowers etc.	80
Public transport	116	<b>High price investment items</b>	
Alcoholic beverages	115	Housing construction	135
Vegetables	115	Equipment for transport	134
Financial services	115	Other construction works	113
Travel agencies	114	Business construction	112

1. The comparison is based on Eurostat's purchasing power parities divided by exchange rates. Net prices are obtained by subtracting VAT and excise duties from Eurostat's price indices. The other eight countries are: Belgium, Finland, France, Germany, Netherlands, Italy, Sweden and the United Kingdom.
  2. See source for precise time periods for various items.
  3. Denmark compared to EU9 except Sweden.
  4. Denmark compared to EU15.
- Source: Konkurrencestyrelsen (2004a), *Konkurrenceredegørelse 2004*, June.

Industries with weak competition may also have above-average *wage premia*.<sup>3</sup> While the magnitude of these premia in Denmark does not stand out in general, they do seem relatively high in oil and gas extraction, paper production, printing and publishing, chemicals, financial and professional services and in air transport (Jean and Nicoletti, 2002; Konkurrencestyrelsen, 2004a).

3. The wage premium measures relative wages in a sector, after taking skills and other factors into account; it can be a sign of rent-sharing between firms and unions.

Figure 2. Import penetration is slightly below average after controlling for country characteristics<sup>1</sup>  
Percentage points, 1997-2002<sup>2</sup>



1. Country residuals after controlling for effects of country size, GDP per capita and transportation costs.

2. Or latest year available.

Source: OECD calculations.

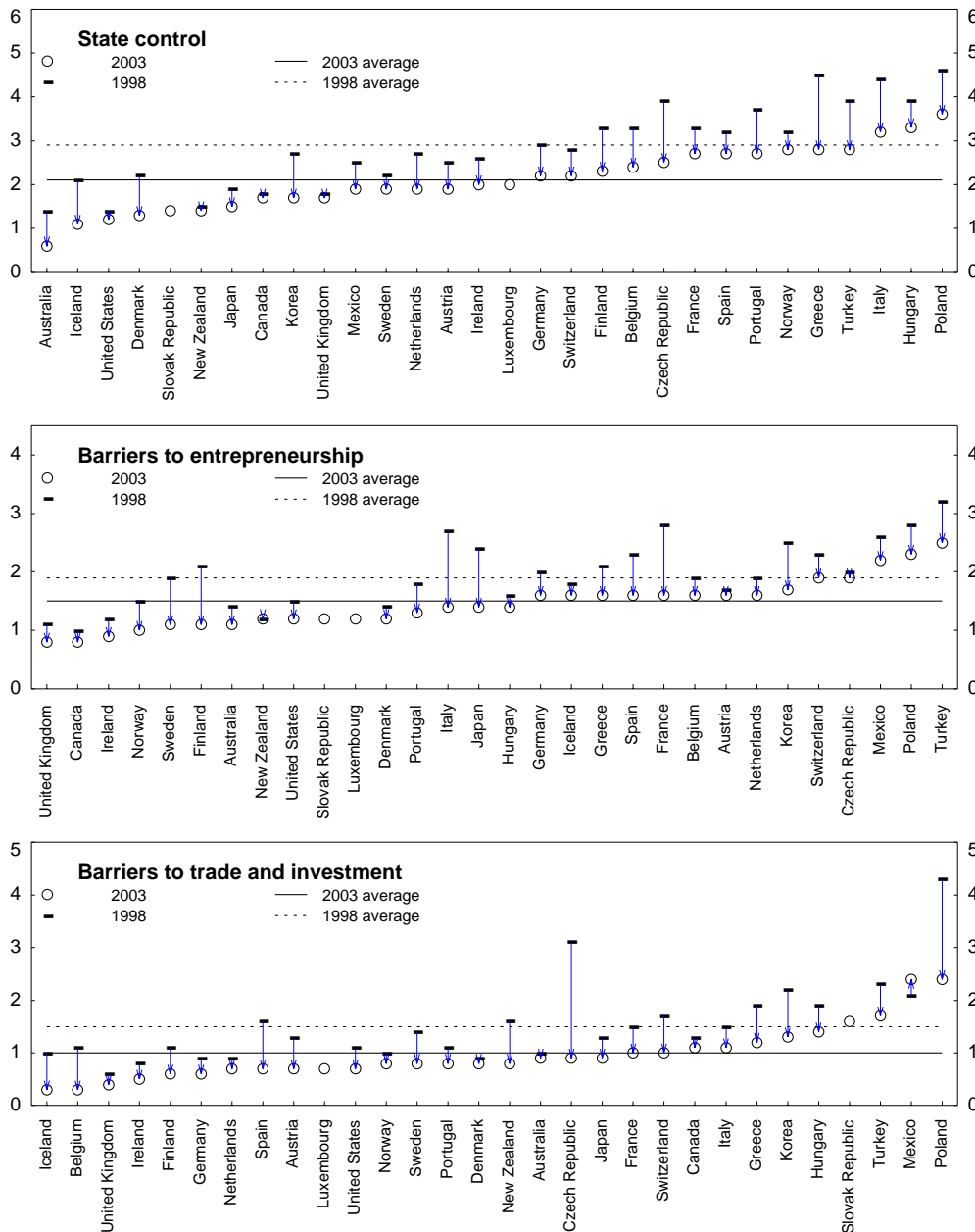
Some of these industries are also characterised by *high concentration*.<sup>4</sup> Concentration will tend to be high in a small country, but competition from abroad would normally reduce potential market power in sectors with low barriers to trade. This is the case in manufacturing of pharmaceuticals, for example, and in parts of the food, beverages and tobacco sector where four-firm concentration ratios (CR4s) are above 80% but import-corrected ratios fall below 50% (import-corrected CR4s are obtained by multiplying ordinary CR4s by one minus the share of imports). However, concentration remains high in breweries and soft drink production, suggesting that the high product prices reflect market power, and in the dairy sector where one co-operative has a near-monopoly position. Overall, concentration corrected for imports seems to have fallen during the period 1992-2002 (Konkurrencestyrelsen, 2004a).

As indicated above, competition from external trade is important to counter high concentration ratios among domestic producers. *Import penetration* (corrected for structural factors such as country size (population), GDP per capita levels and natural barriers to trade associated with transportation costs) and the flow of *foreign direct investment* (FDI) suggest that Denmark is close to the average given its characteristics (Figure 2).<sup>5</sup>

4. Concentration is found to be high (a four-firm concentration ratio greater than 80%) in oil and gas extraction, food, beverages and tobacco, chemicals, parts of the market for building materials, gas supply, air transport, banks, real estate and renting activities and a number of other services. In at least one industry — dairy products — the high concentration is associated with amalgamations before the implementation of merger control; the co-operative structure of this industry further adds to the concentration through horizontal integration.

5. In a recent study, Denmark was found to have a relatively low trade utilisation, primarily due to low imports (Økonomi- og Erhvervsministeriet, 2003a). This conclusion was fairly broad-based across sectors and industries. Denmark is among the top one-third of OECD countries in terms of inflows and outflows of foreign direct investment (FDI) as a per cent of GDP, and restrictions on FDI are generally found to be relatively low. In a comparative study of 79 countries, inflow of FDI to Denmark was found to be at a level

Figure 3. Product market regulation has been reduced



Note: Indicators can range from 0 to 6 with higher values representing stricter regulation.  
 Source: OECD, Product Market Regulation Database.

*Entry and exit of businesses*, which can be viewed as an indicator of dynamic competitive pressure, are relatively high in business services but just average in manufacturing (with the business sector appearing less dynamic when zero-employee firms are disregarded; see OECD, 2005). Entry rates are found to be particularly low in food, beverages and tobacco, building materials, pharmaceuticals

close to what could be expected, given its economic and institutional conditions (Økonomi- og Erhvervsministeriet, 2003b).

(retail), air and sea transport, professional services and other services (Konkurrencestyrelsen, 2004a). In some of these sectors, low entry is probably caused by *regulatory barriers*, especially in network utilities, transport and most professional services.

In general, Denmark is one of the OECD countries with the least product market regulation (PMR), and the pro-competition efforts in the past decade show up as a significant reduction in the OECD PMR-indicator between 1998 and 2003 (Figure 3). Progress has mostly been due to a reduction in state control, with little further abatement of the already relatively low barriers to entrepreneurship. A government working group has identified several areas where regulations could be adjusted or abolished in order to increase competition. They include, for instance, the Planning Act, which regulates the size and placement of commercial premises, restrictions on ownership of law firms and advertising of legal services, and a specific Danish approval requirement for building materials.

### Competition legislation and enforcement

The Danish government has belatedly modernised its competition law, fixing most of the major problems that were identified in the OECD's *Regulatory Reform Review*, published in 2000. Only since 2001, therefore, has competition law been harmonized with EU rules, but a stronger "competition culture" is emerging. The Danish toolbox now includes merger control, not just prohibition of restrictive agreements and abuse of dominance. The fining level has been increased and can now be based on turnover, although the courts have not yet had occasion to impose the higher fines.

While merger control now exists, it is relatively light-handed. Although the government has proposed that Denmark follow the EU in changing the dominance test used in merger control (namely, to "a significant impediment to effective competition"), thus allowing it to target mergers that do not create a dominant position but have anti-competitive effects nonetheless, the thresholds that determine whether the Competition Council has jurisdiction are much higher than in similar-sized economies. These thresholds should be reduced. The credibility of merger control also suffers because no merger has yet been rejected by the Council. The pro-competitive effects of proposed remedies and their relationship to the antitrust issues involved in the merger must be clear. To examine how well this has been done, the Competition Authority recently published an assessment of the remedies applied in merger decisions to date.

The implementation of the framework is hampered by there being too many agencies involved in the process (Box 1). Moreover, there are problems with both the Competition Council and the Appeals Tribunal:

- The Competition Council, a panel of 19 part-timers comprising competition experts and the social partners, is too big and involves too many special interest groups. It adds little value to competition policy enforcement, except in providing a sense of consultation and ownership of decisions by the social partners. Its problems as an unwieldy decision-maker are most apparent in the area of merger control. Merger cases are subject to strict deadlines and large amounts of confidential or commercially sensitive information are typically involved. Negotiations with the Authority typically continue until one to two weeks before the Council meeting. During this process, the Authority keeps in contact with the Council chair and vice chair. The members of the Council, who in principle make the final decision, typically receive the documentation only a few days before the meeting and are therefore presented with a virtual *fait accompli*. Although the Council did reject one negotiated agreement about a merger, and in some cases has tried to set out general directions about future negotiations, it is not well suited to deal with merger decisions.

**Box 1. The main players in the competition framework**

The *Competition Authority* is the central institution, with a staff of around 125, of whom about 70 concentrate on antitrust while others deal with issues such as energy, public procurement and state aid. It decides a large number of cases and works to improve competition culture in Denmark. It decides routine cases for itself but refers more complicated cases to the Competition Council and criminal cases to the Special Prosecutor when it thinks that a fine would be appropriate. It also pursues policies to increase competition in network industries, to reduce or eliminate anti-competitive effects of regulation, to improve the behaviour of the public sector in the market place and to increase the openness of Danish markets, e.g. through more standardisation.

The *Competition Council* is a 19-member body comprising a mixture of competition experts and representatives of the social partners. All members work part-time on the cases, meeting on average once every month for around five hours. It can issue "cease and desist" orders, grant and revoke individual exemptions, review mergers and certify that conduct is not anti-competitive. It has no power to impose fines.

The *Competition Appeals Tribunal* is a three (soon-to-be five) person agency that acts as a check on Council (and Authority) decisions before they get appealed to the formal court system.

The *Special Prosecutor for Serious Economic Crime* takes criminal cases directly to the court system. It investigates cases brought to it by the Authority and can decide whether to send a case to trial. The Authority decides whether to pursue a case through the Special Prosecutor or the Council. A key consideration in the Authority's decision is whether the evidence is strong enough to support a conviction. The Special Prosecutor may have a different perspective, though, about the choice of cases to pursue.

The *Courts*. Competition cases, like all business cases, go through the everyday court system. There is a specialised commercial court, but it does not decide cases involving competition law enforcement.

*Customers*. So far, very few private lawsuits for damages relating to competition offences have been concluded in the Danish courts. This may have to do with a practice of not publishing the names of the offenders if they agree to fines out of court. Another reason may be that class actions are not used in Denmark at present.

- Some of the Appeals Tribunal's rulings have been short and poorly rationalised, adding little to the understanding of the emerging jurisprudence. In a series of appeal cases involving agricultural co-operatives the Tribunal seemed less concerned with competition law than with "co-operative principles" and contract rights between industry players, even though the latter are not part of a formal set of rules. Those in favour of the Tribunal see it as a low-cost, fast decision maker that prevents long, drawn-out court cases. Those against it see it as a black box for poorly explained decisions that the Competition Council cannot get reviewed in the court system.

This raises the question of whether Denmark needs two bodies between the Authority and the courts, neither of which can impose fines. To have one separate, independent, collegial body that reviews economic and legal issues and imposes administrative fines is sensible. But the system could be improved either by streamlining the Council while disbanding the Tribunal, or by expanding the Tribunal to include more economic expertise while eliminating the Council. A specialist commercial court could also replace the Tribunal, mirroring the EU system under which Commission decisions may be appealed to the Court of First Instance. This might improve the decisions of the Authority and of the Council, both because these would understand that a higher standard of proof would be needed, and because better argued appeal decisions would add positively to the emerging practice. A second-best solution would entail retaining a (preferably slimmed down) Competition Council and strengthening the Tribunal by giving it more economic expertise. In addition, the Tribunal could benefit from rotating membership.

The major gap in the framework is that leniency instruments are not an effective part of the competition toolbox. Leniency tools are accordingly blunt. The Competition Authority, which is the principal investigating body and the first point of contact for a would-be whistle-blower, does not have the

power to make a commitment about lenient treatment. (After a matter is referred for prosecution, the Special Prosecutor can negotiate a deal with a “whistle-blowing” firm and recommend a reduction of fines by the courts. The judge may ignore this advice, but so far the courts have followed the Special Prosecutor’s recommendations and have not reduced the “rebates”.) Moreover, the typical reduction of the fine by only 10-20% is very low. International experience indicates that cartels can be busted by using leniency programmes, but certainty and very substantial reductions in the fine, to create a strong asymmetry between the “whistle-blowing” firm and the others in the cartel, are needed for this to have a significant effect.<sup>6</sup>

The coverage of the Competition Act has been extended to public regulation and state aid that distorts competition. This is a positive step, but, since it is the relevant minister who decides what is legitimate, the Competition Council’s scope of action against anti-competitive ministerial decisions is limited. The Council can point out how an official decision or regulation harms competition and propose a solution, invoking a statutory process that requires the responsible ministry or other body to respond publicly within 3 months. A clash between competition policy and the other objectives of a particular regulation might be dealt with more effectively if an independent arbitrator rather than the minister were to decide the extent to which restrictions on competition are necessary to achieve the purpose of a regulation. The prospect that parliament could change the law to overrule the competition authority is something that applies to all OECD countries, of course.

### **More competition is needed in the public sector**

The Danish public sector is one of the largest in the OECD relative to the size of the economy. This reflects the Danish model of providing equal access to a wide range of public services. But in many cases, a decision to *fund* a public service does not mean that a government body also has to *provide* it. Denmark, however, has been slower than some other countries to separate funding from provision, and local governments especially prefer to produce the services themselves. This section reviews competition in public services focussing on outsourcing, free choice, government operations in competitive markets, privatisation and state aid.

The variation across the OECD in the size and organisation of the public sector indicates that there are few limits to which publicly funded services can be produced in competitive markets. Practice is often rooted in tradition; while privately run tertiary education institutions are well accepted in the United States, they are almost non-existent in Denmark. The opposite may be true for private fire fighting companies. Thus, experience and political will are likely to be important impediments to exposing traditional public-sector activities to competition. Different services require different institutional arrangements, however. Where well-functioning private markets exist or can be expected to emerge quickly, competitive tendering may be preferred. Alternatively, users could be given a choice of supplier, thereby creating competition over quality between public institutions or between public and private suppliers using voucher systems. Benchmarking of public-sector units (for instance, local police departments) can give insight into the cost structure in production when there is no well-functioning market or when concerns for discretion or legally binding decisions for individual citizens make private involvement practically impossible. In such cases, an element of competition can be created by rewarding producers in proportion to their relative effectiveness. In any case, support functions can almost always be exposed to competition through competitive tendering and contracting.

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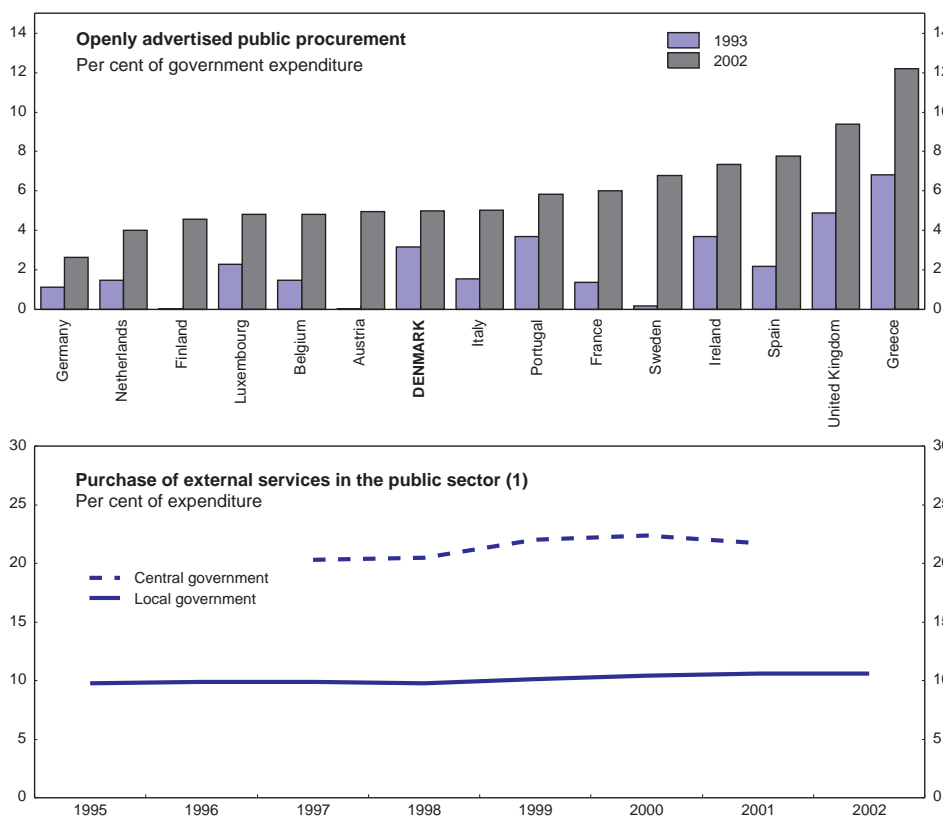
6. The electricians’ cartel is the most successful and complete antitrust case that has been prosecuted under the Competition Act. Around 360 firms were involved, and many cooperated with the investigators. Courts accepted leniency-type arguments when meting out the fines. The firms received fines up to €400 000, but so far no customer has filed for damages. Customers include big firms and municipalities, but they may have decided that the uncertain damages that might result would not justify their legal expenses.

While Denmark has been fairly quick to implement EU procurement regulations, performance is mediocre on indicators like procurement rates and the extent of free-choice arrangements. This may be linked to the existence of formal and informal barriers to competition in specific activities, such as restrictions on which services can be put to tender and specific requirements on how to organise production of such services. Furthermore, implementing a framework for contracts below EU thresholds has been slow.

***There is substantial potential for further competitive tendering and outsourcing***

Denmark is placed in the low end of the mid-segment of EU countries when it comes to openly advertised public procurement, and it is well behind countries like Sweden and the United Kingdom. Furthermore, there has been virtually no improvement over the past decade, especially by local governments (Figure 4).<sup>7</sup> The technical area, including city planning, housing, environmental arrangements, traffic and infrastructure, has the highest average share of external purchases in total expenditure, which is likely attributable to the fact that the existence of competitive private markets — and thus the highest potential gain — is found mostly in technical services (Table 3). Still, there seems to be

Figure 4. Progress in public procurement is slow



1. Services exempted from VAT are not included.

Source: Eurostat, *Structural Indicators*; Konkurrencestyrelsen (2004a), *Konkurrenceredegørelse 2004*, June.

7. It should be noted though that external purchases do not include private companies' activities in areas that are exempt from VAT, for instance health care and education. Also, it indicates only the share of services produced by private companies and not the share of activities that are actually exposed to competition.

Table 3. **Local governments' external purchases vary between service areas**  
Per cent of operating costs

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
City planning, housing and environment	43.9	44.5	47.6	47.8	47.3	47.5	47.7	49.0	50.5	35.2 <sup>1</sup>	35.7
Utilities	13.0	16.2	16.7	17.2	17.2	17.6	16.3	16.9	19.8	35.8 <sup>1</sup>	33.8
Traffic and infrastructure	38.6	40.8	41.6	42.8	41.9	38.6	39.3	38.7	38.6	32.7	31.7
Education and cultural area	5.3	5.4	5.2	5.4	5.7	5.7	5.8	5.9	6.0	5.9	5.9
Hospitals and health insurance	3.9	4.1	4.1	3.8	3.9	4.1	4.4	4.9	5.0	5.3	5.4
Social and health care	3.4	3.3	3.6	3.8	4.0	4.1	4.2	4.4	4.7	5.0	5.5
Administration	16.6	17.0	16.9	17.4	17.7	17.8	17.7	18.6	19.5	20.0	19.9
Total	8.9	9.3	9.6	9.8	9.9	9.9	9.8	10.1	10.4	10.6	10.6

Note: Includes only purchases from VAT registered providers. In areas with VAT exemption (hospital treatment, education and child and elderly care) the numbers in the table may therefore understate the real amount. Purchases from the municipalities' own production companies are included.

1. The large shifts between 2000 and 2001 are due to changes in utilities' accounting methods.

Source: Økonomi- og Erhvervsministeriet (2003c), *Vækstredøgørelse 03 - Analyser*, December.

surprisingly little outsourcing in areas where well-developed markets do exist, such as operation of canteens and maintenance of property, parks and gardens. This may illustrate a general reluctance to involve private providers in municipal activities, although there are large differences between municipalities in terms of the extent and nature of marketed purchases: for instance, within the technical area external purchases' share varies between 13 and 88% (Økonomi- og Erhvervsministeriet, 2003c).

There are several reasons for the low average and large variation in external purchases among municipalities. *First*, sectoral regulations impede opening up of public markets. For instance, operation of primary and lower-secondary schools cannot be put to tender; profit-earning companies are not allowed to operate child care centres; and requirements on the number and educational background of staff as well as the organisation of activities can in some cases be unnecessarily tight.

*Second*, private companies often face an uneven playing field when in-house teams participate in competitive tendering and contracting, because not all costs of the public production unit are fully factored in when offers are compared. VAT and other tax exemptions, depreciation charges and capital costs may not be fully corrected for, and private companies can also have less access to cheap labour from unemployed people in activation schemes.<sup>8</sup> While the Outsourcing Directive (*udbudscirkulæret*) provides a framework for public procurement below EU thresholds at the central government level and stipulates precise rules on how to calculate in-house production costs in order to prevent cross-subsidisation, a similar directive does not apply to local governments. Also, local government accounts often do not provide the necessary information to separate costs of different units, which is essential to avoid

8. For instance, private providers of certain VAT-exempt welfare services have to pay a payroll tax that is not levied on public providers. Also, private companies may be disadvantaged when competing with a public provider in areas that are VAT exempt, such as health services, because they cannot deduct VAT paid on their purchases of intermediate goods. Public providers, on the other hand, get a refund from the municipal VAT fund for VAT paid on such purchases, allowing them to deliver at lower costs than the private producer. In principle, the incentive for choosing government in-house production is countered by a special VAT-compensation if contracting the private supplier. However, the compensation is based on an estimate of the private provider's VAT-costs, which in some cases is too small to fully adjust for the VAT-induced price differences. The government was recently urged by the Outsourcing Board to enter talks with trade associations on how to handle these problems (Outsourcing Board, 2004).

cross-subsidisation, and rules on costing to ensure a credible competitive tendering process are inadequate (full-cost accounting is planned only for 2007).

*Third*, many municipalities believe that transactions costs associated with the procurement process itself are a big barrier to tendering (Økonomi- og Erhvervsministeriet, 2003c). Writing contracts, monitoring compliance and changing supplier may be too expensive for small municipalities, especially when public managers have little experience. Similarly, private firms may also be reluctant to bid if the process is deemed too costly relative to the value of the tender or if the market is too small.

*Fourth*, while ideological differences are practically unrelated to the variation in municipalities' market orientation, the presence of a strong "welfare-coalition" (public employees and people receiving public income support) may impede outsourcing (Christoffersen and Paldam, 2000). Thus, unless they are facing severe budget problems, local politicians and civil servants may have little incentive to engage in outsourcing, as this could eventually jeopardise their own positions. While this argument does not lend itself to much hard evidence, it is consistent with public scepticism towards competition in public services, even though local and international experience in general has been good (Lundsgaard, 2003) (Box 2).<sup>9</sup>

#### Box 2. Experience with outsourcing

Few Danish studies have examined the results of tendering in the public sector. An analysis from the association of local governments finds that cost savings were achieved in half of tenders (with the largest savings in cleaning and garbage disposal), while costs were the same or higher in the other half and that service levels were mostly unchanged; when changing, it was primarily to a higher level of service (Kommunernes Landsforening, 2001). Furthermore, tenders seem to have positive effects in other areas in terms of increased focus on work planning and resource control. The Economic Council has also found that outsourcing in municipalities on average has led to cost savings (Det Økonomiske Råd, 2004). While employees may find that pace of work has increased, this is often countered by more influence for the individual employee on work organisation (Økonomi- og Erhvervsministeriet, 2003c). The findings in Denmark generally mirror those in Sweden, the Scandinavian country with the most experience in putting publicly funded services to tender (OECD, 2004a).

Cost savings are often biggest in first-time tendering and in non-welfare areas (*i.e.* technical areas where a competitive private market often exists). Estimations in Det Økonomiske Råd (2004) suggest that smaller municipalities and municipalities with a low rate of external purchases gain the most from outsourcing. This is likely to be the result of some economies of scale in in-house production in larger municipalities and of a natural tendency for municipalities to initially focus on outsourcing in the areas with the highest potential (leading to diminishing returns from outsourcing). The estimations also suggest a cost-saving potential of around DKK 2 billion per annum if municipalities with below-average outsourcing raised it to the average level.

The government has launched several initiatives to speed up competitive tendering and outsourcing, including compulsory outsourcing strategies at all levels of government and setting up the *Outsourcing Board*, which advises public-sector actors on competition exposure and provides analyses and recommendations to raise efficiency and quality in the public sector. The government has also opened up for private operators in job mediation and labour market activation programmes and introduced a so-called "challenge right", allowing private firms to bid on production of publicly funded services at their own initiative. However, municipalities' service strategies are of varying quality and difficult to compare, which impedes benchmarking. Also, few firms have used the challenge right, perhaps because they fear that future co-operation may be hampered if municipal units feel intimidated or because municipalities are

9. Only around 50% of the population fully supports outsourcing of garbage disposal and operation and maintenance of public buildings even if private companies could provide the same level of service at a lower price (Økonomi- og Erhvervsministeriet, 2003b). This percentage declines for services closer to core public activity; only one-fifth support private operation of hospitals.

not obliged to accept such an offer, however favourable it may be. The Outsourcing Board has spent much time defining which activities cannot be put to tender but has recently presented a number of recommendations for strengthening competition in the provision of public welfare services.

Competitive tendering and outsourcing should receive a boost from the structural reform of local governments, which will create fewer but larger municipalities and regions that have better resources to engage in the process (OECD, 2005). Even so, the problems listed above suggest that additional efforts are indeed required. Lifting some unnecessary regulations would be a first step, for instance the ban on profit-earning companies in child care (as proposed by the government). Furthermore, it remains a problem that large parts of the public sector do not have precise knowledge of the cost of production. That calls for accounting reforms and stronger programmes for cost and quality evaluation, where Denmark seems to lag behind its Scandinavian neighbours and other OECD countries. The accounting and budget reform to be implemented in full in 2007 should help in that respect (by introducing, for instance, accrual accounting). Further reforms should aim to provide the basis for a level playing field, including making sure that VAT and other tax rules do not favour public providers. An obligation to tender in local government activities could be introduced in the annual agreements on local government finances. Alternatively, the state outsourcing directive could be turned into legislation and extended to local governments. The rules on the challenge right could also be improved by removing the possibility of refusing a challenge that makes cost savings probable (as assessed by an independent body, for instance the Outsourcing Board, thereby reducing the possibility of strategic behaviour by firms); such a challenge should either be accepted or lead to an open tender. The government is currently looking into ways of expanding public-private partnerships in areas where competitive tendering may be less appropriate; however, experience with such arrangements in OECD countries is mixed, and the long-run nature of contracts may distort competition (Box 3).

#### **Box 3. Distortion of competition must be avoided if public-private partnerships are introduced**

Competitive tendering requires that competition exists in the market and that quality can be specified and measured. It may therefore be less suitable if effective markets are unlikely to emerge or if demand in terms of quality and extent is often changed. Interactive models, such as public-private partnerships (PPPs), can be effective ways of co-operation for a number of complex tasks, for instance infrastructure, health and defence, where large-scale investments are often required and where emphasis may rather be on higher quality through innovation than on price competition. PPPs include models with more private involvement in development and management of public facilities and services, for instance by letting private investors design, build, own and operate facilities under contracts that are typically longer than under normal tenders. By transferring investment risks to the private investors (arising from, for instance, delays in construction projects) and ensuring a life-cycle perspective on costs, better cost-containment and greater efficiency may be achieved.

The Danish government has drawn up an action plan for introducing PPPs, as virtually no such arrangements have yet been carried through. However, international experience with PPP models has been mixed so far, suggesting that the government needs to proceed carefully (Journard *et al.*, 2004). While some projects have turned out to be cost-effective ways of delivering public services, others have failed because of cost overruns — and subsequent bail-outs by the government — and discussions over the interpretation of contracts. Thus, the government may ultimately be held responsible for outcomes, thereby making the supposed transfer of risks to private contractors an illusion. Furthermore, the inherent long-term character and complexity of PPP contracts risk distorting competition, as the private partner will have revenue from the co-operation without being exposed to competition for a long period.

#### ***Free-choice arrangements could be expanded***

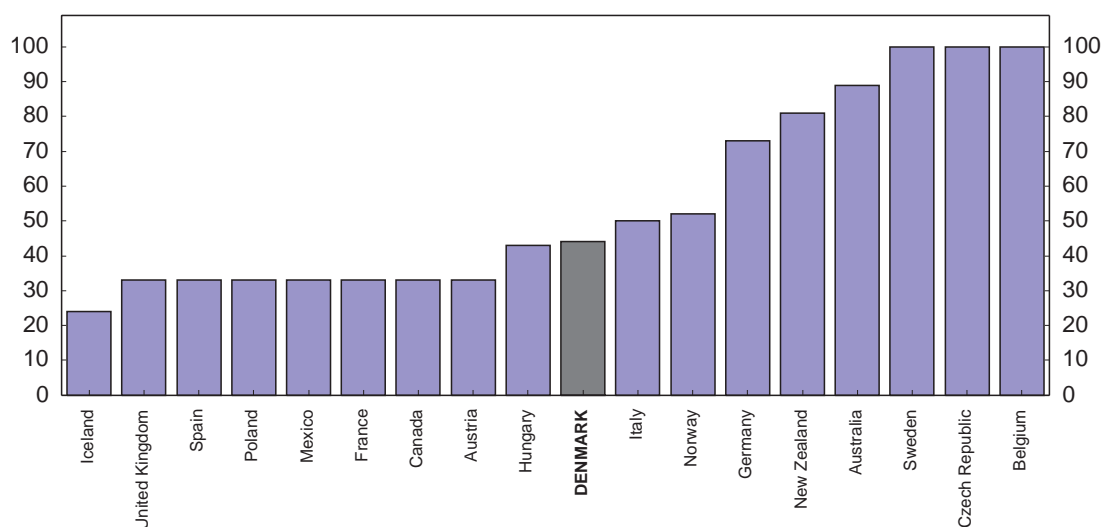
Freedom of choice is another way to introduce competition in public services, although the emphasis is on competition in the quality dimension rather than on prices; real competition will exist only if funds to the public producers depend on the activity level (*e.g.* by letting money follow the user). More

freedom of choice is likely to increase individual welfare, but it also makes public control and prioritisation of funds more difficult. Strict public management systems with clear procedures for individual need assessments are therefore required if the possible efficiency gains from these arrangements are to be reaped.

The extent of free choice in Denmark seems to be average (Figure 5). However, the government has been keen to expand it, thus allowing more free choice in elderly care and hospital treatment and planning to introduce it in child care as well. In the case of home help for the elderly, which is free of charge to citizens who are entitled to these services, municipalities can introduce free choice in two ways: either the service is put out to tender in order to choose one or more suppliers (with price being an important element) or the municipality can approve all private companies complying with its quality requirements (thus resembling a voucher system with competition in quality only). So far, few municipalities have chosen the first option, probably because of cumbersome rules concerning the minimum number of private suppliers and the extent of services put to tender. These rules have recently been lifted.

When choosing the second model, municipalities pay private suppliers a price equal to the municipality's own costs of delivering that service. However, some municipalities have — either deliberately or by negligence — favoured their own service units by setting the price lower than their actual long-term costs. It is unclear whether such practices constitute significant impediments to fair competition. However, municipalities are obliged to report their price of one hour of personal and practical help to the Ministry of Social Affairs, and these prices vary substantially, with the most expensive municipality paying 50% more than the least. This is unlikely to reflect real cost differences. Thus, there seems to be a need for better rules on how to calculate costs and — as mentioned earlier — for reforms of accounting and management information systems.

Figure 5. The extent of free choice of government financed services is around average



Note: The index shows a relative scale, where the countries with most freedom of choice have index = 100; that does not mean they have free choice for all services. The index reflects the extent of free choice in hospitals, dentists, general practitioners, nursing homes, kindergartens and home help, as reported in questionnaires by consumer authorities in the various countries.

Source: Konkurrencestyrelsen (2002), *Velfungerende Markeder – til fremme af vækst og velfærd*, [www.ks.dk](http://www.ks.dk).

### ***Government operation in competitive markets is limited but has potential damaging effects***

Government production of goods and services for competitive markets is not widespread in Denmark, but when it does take place there is a significant risk that competition is distorted. One example is when municipalities set up production companies as part of their active labour market policies, thus using labour from unemployed people in activation schemes who are paid a wage well below the market rate (Box 4). In these cases, competition legislation is subordinate to other regulations, and the Competition Authority can do nothing but recommend that guidelines for non-competition-distorting behaviour be followed. Thus, there seems to be a need for making the provisions clearer in order to ensure that private firms are not pushed out of the market through unfair competition. In general, legislation should state that government institutions should get involved in activities only where there is a clear public role (*e.g.* when market failures have been identified).

#### **Box 4. The coffee pot case**

A private firm had set up a business assembling coffee pots on contract for the Bodum group. After two years in business the firm went bankrupt in 2000 as the Bodum group switched its contract to the local municipality's factory, which used unemployed people in an activation project, paying them DKK 35 per hour — DKK 59 below the minimum wage. Finding himself out of work, one of the owners of the private firm turned to the municipality for social assistance (cash benefits), which he was awarded — on the condition that he would enter an activation scheme assembling coffee pots for Bodum at the municipal activation factory. Three regional labour-market councils (referring to activities in five other municipalities) and the Competition Authority have stated that activation factories distort competition by underbidding private companies in assembling coffee pots, and the owner of the private firm has now filed a lawsuit against eight municipalities, claiming that they have used the labour of activated people in an unlawful manner.

### ***Privatisation of government enterprises lacks momentum***

International evidence indicates that firms almost always become more efficient, more profitable, increase capital investment and become financially healthier following privatisation (Megginson and Netter, 2001). There are, therefore, good reasons to consider what government holdings could appropriately be sold off, even though public ownership outside the traditional public-sector areas and natural monopolies in network industries is fairly limited (Christoffersen and Paldam, 2004). While several privatisations took place in the 1990s, most notably the telecommunications monopoly, the last five years have seen fairly little activity, although the state's car inspection was sold very recently and preparations for privatisation of the post office (Post Danmark), the television company TV2, and the gas firm DONG are now at the final stages (Annex 1). A recent report from the Ministry of Finance indicated that the government in many cases had waited too long for companies to mature before the sell-off of central government holdings, thereby harming the development of effective markets (Finansministeriet *et al.*, 2004a). Thus, the government ought to regain momentum in its privatisation efforts, focusing on the functioning of competitive markets, rather than on maximising the proceeds of sales. This also applies to local governments, who own a large part of utilities. The incentives for local governments to sell off their holdings were strengthened in 2003 with the clarification of rules on how revenue from sales is split between local governments and the central government.<sup>10</sup> However, incentives could be improved even further as receipts from asset sales are still partly "taxed away" by the central government.

10. Previously, all net revenue (revenue less initial capital injection) from municipalities' sell-off was in principle offset by a reduction in the state block grant, although the exact application of the legislation was unclear. With the new reform, 40% of the proceeds from municipalities' sale of utilities or from distribution of dividends will be offset by a reduction of the state block grant, and proceeds will have to be deposited and released by one-tenth each year over a ten-year period. Sixty per cent of the proceeds will be offset *via* a lower block grant if municipalities do not wish to deposit their proceeds (Økonomi- og Erhvervsministeriet, 2003b).

Table 4. **State aid in EU countries in 2002<sup>1</sup>**

	Total aid, per cent of GDP <sup>2</sup>	Horizontal aid, per cent of total aid
<b>Denmark</b>	<b>0.72</b>	<b>100</b>
Germany	0.56	66
Spain	0.55	67
Portugal	0.55	39
Ireland	0.45	49
France	0.42	60
EU15	0.39	73
Italy	0.38	96
Belgium	0.37	97
Greece	0.31	100
Luxembourg	0.26	92
Austria	0.21	96
Netherlands	0.19	98
Finland	0.17	98
United Kingdom	0.17	70
Sweden	0.16	84

1. Data is flawed by differences in reporting criteria among countries and therefore not perfectly comparable.

2. Total aid less agriculture, fisheries and transport.

Source: European Commission Scoreboard 2004.

### ***Subsidies and state aid seem high but are distributed fairly neutrally***

State aid appears to be relatively high in Denmark, although data are not strictly comparable across countries. However, the government has reduced distortionary state aid in the last couple of annual budgets. Furthermore, Danish state aid is all distributed horizontally, *i.e.* on equal terms between all companies that fulfil objective criteria such as environmental efforts or research and development (Table 4). Around half of such aid is devoted to environmental initiatives and one-third to employment subsidies and other employment-related efforts.

Despite state aid being mostly horizontal in nature, there have been several cases where competition has been distorted. As mentioned earlier, wage subsidies have been used as part of active labour market policy in a manner that gave municipal companies an advantage in competition with private firms. State aid to the now liquidated bus company, Combust, helped it drive out private competitors in the mid-1990s when bus lines in the cities were put to tender. Recently, the European Commission has concluded that the television station TV2 was overcompensated for its public service obligations through various means of direct and indirect state funding in the period 1995-2002, and that an amount DKK 600 million plus interests should be repaid, a decision that the Danish government has appealed.

### **Network industries are gradually being deregulated**

The introduction of competition in network industries, which have traditionally been government-owned, has focused on opening up the parts of each industry that are not natural monopolies. The most common approach has been to unbundle the network, through either physical or notional separation, and to regulate the monopoly parts. The telecommunications network, for example, was retained by the incumbent, whereas subsequent liberalisations of other network industries have emphasised complete independence of infrastructure from competitive activities, mostly by setting up state-owned

companies to control the networks. Overall, progress has been good in telecommunications and to some extent in electricity, while competition is insufficient or totally absent in other network industries.

***The new energy reform should improve competition in electricity, but some problems remain***

Denmark was relatively late to open up the electricity sector compared to its Nordic neighbours. While the inter-Nordic electricity spot market (Nord Pool) was set up in 1996, the western part of Denmark was not connected to the grid until 1999, with the eastern part following a year later. Today, Denmark is connected to Nord Pool *via* transmission links to Norway and Sweden and to the German market *via* long-term contracts. The 1999 Energy Supply Act introduced competition in generation and retail trade, while system operation and the high- and low-voltage transmission networks remained monopolies subject to government regulations, including third-party access to the high- and low-voltage grids and revenue caps to control network access prices. Corporate separation of previous monopolies operating in all these fields was implemented to reduce the risk of cross-subsidisation, resulting in the establishment of holding companies with various subsidiaries operating in different parts of the market.<sup>11</sup> The reform also opened up the market for competition from the demand side by introducing free choice of supplier for customers.

Despite the 1999 reform, effective competition in the Danish electricity market has not been established, primarily due to widespread cross-ownership in all parts of the market (partly required by legislation), obligations to buy environmentally friendly energy before turning to the competitive market, and high concentration in generation (Box 5). Disincentives to consolidate the large number of low-voltage distribution companies have also impeded efficiency-improving restructuring in this part of the electricity sector. This is likely to be an explanatory factor of the comparatively high price for some consumer groups relative to other liberalised markets (Table 5). However, a new reform from 2004 (Annex 2) aims to resolve the remaining obstacles, including most of those identified in the OECD's *Regulatory Reform Review* from 2000.

**Box 5. Effective competition was not achieved with the 1999 electricity reform**

While constituting a first step towards liberalisation, several impediments to competition and efficiency-improving restructuring remained after the energy reform in 1999:

- Competition in generation for the competitive market has been hampered by the dominance of two big producers: Elsam and Energi E2, operating in the western and eastern part of Denmark, respectively. The two companies also own a large number of decentralised combined heat and power (CHP) plants and windmills. These produce non-marketed, so-called "prioritised" (because of environmental advantages) electricity, which purchasers are obliged to buy before turning to the competitive market. Because East and West Denmark are not inter-connected, the two companies' shares in the competitive market are practically 100% in their *local* markets. They therefore have ample potential to exercise market power and push up prices when inter-connectors are (almost) congested, which has happened quite often on some connectors (see Annex 3). The companies also heavily dominate the markets for peak-load electricity (balancing power) and reserve capacity (stand-by capacity in case of supply breakdown), as many other generators cannot, for technical reasons, vary output. In 2003, they were the only ones to supply reserve capacity, and prices for that service were substantially higher than in Sweden and Norway (Konkurrencestyrelsen, 2004b). The dominance of the two companies has been facilitated by the lack of a credible threat of entry into generation, as this requires approval by the regulatory authority and allotment of a suitable location, both of which constitute significant barriers to entry because of environmental priorities.

11. Corporate separation implies that different activities are transferred to independent companies, although these can all be owned by the same holding company. The electricity sector is by and large owned by municipalities and consumer co-operatives through their direct holdings of distribution companies (on the low-voltage grid), each of which is a monopoly within its own local area. These companies in turn own a large part of all other companies within the sector: transmission companies and system operators of the high-voltage grid (there are two system operators with monopolies in East and West Denmark, respectively), production companies, retailers and companies with public service obligations.

- Competition in the retail market for households (through free choice of supplier) is practically absent because of limited possibilities to vary price and quality. The share of the total electricity bill that households can affect through their choice of supplier only amounts to around 10% because of the large component of taxes and fixed payments for non-marketed, "prioritised" electricity. Thus, a typical household could hope for a cut in electricity expenditures by around DKK 100 (EUR 13.50) per annum by changing supplier (Konkurrencestyrelsen, 2004b). With such a small potential gain, it is not surprising that only a small fraction of households (2% in 2003) has actually switched suppliers. Companies, on the other hand, have been far keener to change suppliers as a larger part of their electricity bill is made up of marketed electricity. Entry into the retail market has been limited for the same reasons. Companies with public service obligations (PSOs), established as part of the 1999 reform to service customers that did not want to use the market, hold a near monopoly on the retail market because of ownership relations to distribution companies and large, inherited customer bases. While competitors in principle have free access to customer bases, actual transfer of information has been unduly troublesome. Another barrier to entry of foreign companies has been the requirement that consumers be able to affect decision-making, which effectively means that foreign actors would need to have holdings in a Danish distribution company (which would be owned either by municipalities or consumer groups). Other explanations for the lack of competition in the retail market could be that some PSO companies have sent out letters to their customers saying that no money could be saved by changing supplier (Konkurrencestyrelsen, 2004b) and that the prospect of receiving two bills — one for market electricity and a second for "prioritised" electricity, network tariffs and taxes — could deter some households from changing supplier.
- Efficiency-improving restructuring of the 130-odd distribution companies through sales and mergers has been restrained because of an unsettled dispute between owners of distribution companies and central authorities over ownership of tied capital. The tied capital is capital accumulated because operating surpluses and capital gains could not be distributed to owners after introduction of the "no-profit" principle in 1977 and revenue caps in 2000, but had to benefit consumers by either remaining as operating capital in the company or through a reduction of network tariffs.

Table 5. **Pre-tax electricity prices are around average in Europe**  
1 July 2003, in euro cents per kWh

	Industry			Households		
	Small consumer	Medium consumer	Large consumer	Small consumer	Medium consumer	Large consumer
<b>Denmark</b>	<b>6.5</b>	<b>6.9</b>	<b>..</b>	<b>17.0</b>	<b>8.7</b>	<b>7.2</b>
Belgium	12.2	7.3	5.0	14.8	11.2	7.1
Germany	13.7	7.4	6.4	20.4	12.5	6.6
Spain	9.5	5.3	4.7	11.2	8.7	5.7
France	8.3	5.3	..	12.6	8.9	7.1
Ireland	12.8	7.6	6.1	19.1	10.1	6.4
Italy	10.4	8.4	7.3	7.8	14.7	..
Austria	8.9	5.0	3.8	12.4	9.2	7.1
Luxembourg	12.7	6.8	4.3	21.7	11.9	7.2
Portugal	10.6	7.4	5.2	12.9	12.6	8.1
Greece	9.0	6.1	4.8	7.6	6.1	5.2
Finland	6.8	5.3	4.2	15.2	8.0	4.9
Sweden	4.6	4.1	3.7	21.8	8.6	6.9
Norway	6.9	5.1	3.4	33.2	9.6	5.6
United Kingdom	7.3	4.7	3.9	16.0	9.2	5.5
Average Europe	9.5	6.2	4.9	16.3	10.1	6.6
Average liberalised markets <sup>1</sup>	6.4	4.8	3.8	21.6	8.9	5.7

1. Average of the other Nordic countries and the United Kingdom. The very high price for small consumers in Sweden and Norway is mostly explained by temporary low water reservoirs that reduced supply from hydro-electric plants.  
Source: Eurostat, Structural Indicators Database.

*First*, there is now full ownership separation of transmission and system operation from generation and sales, as a new state-owned company has taken over the high-voltage grid and system operation from the previous owners (municipalities and consumer co-operatives *via* their ownership of

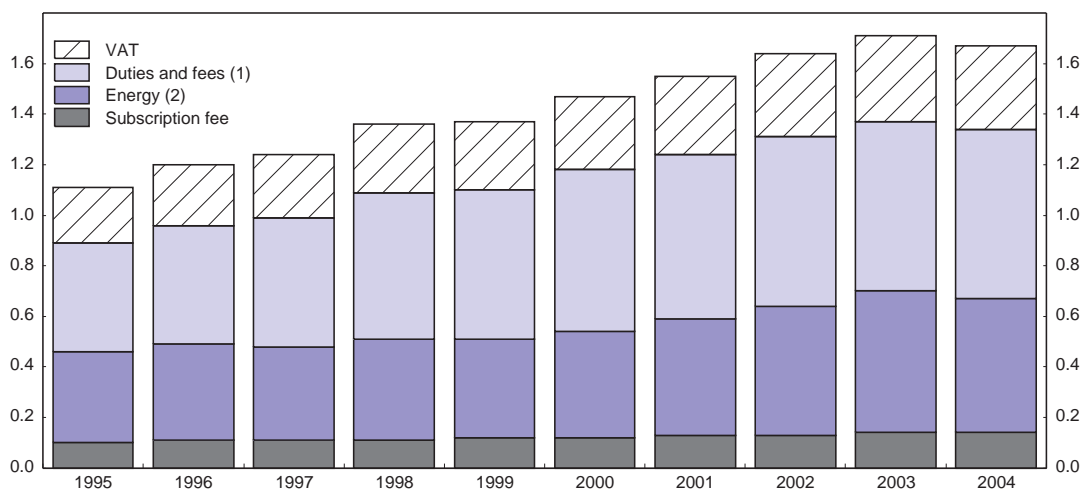
distribution companies). Along with other measures to reduce vertical integration, this should enhance efficiency in the operation and expansion of the energy infrastructure and effectively ensure open and equal access for all users of the network.

*Second*, distribution companies have got access to the tied capital in companies (accumulated capital that could not be distributed to owners, see Box 5) in return for handing over the high-voltage grid and system operation to the state. This solution ended a dispute over ownership of tied capital and was preferred to a drawn-out court case over the issue. In conjunction with new rules in 2003 on the distribution of revenue from local government sell-offs of assets, this should speed up the process of restructuring distribution companies through sales and mergers. The large cost differences that exist between distribution companies indicate significant gains from scale effects and dispersion of best practice (Danish Energy Authority, 2003).

*Third*, environmentally friendly (“prioritised”) electricity, which is produced on decentralised combined heat and power (CHP) plants and windmills, was brought into the competitive market from 1 January 2005. Previously, producers received administratively fixed prices for their production, and purchasers were obliged to buy all “prioritised” electricity before turning to the competitive market. But in line with previous OECD recommendations, end-users’ obligations to buy energy from these sources have been abolished, while subsidies have been restructured to raise incentives for producers to adjust production to price signals. Bringing “prioritised” energy to the competitive market should improve retail competition by doubling the part of the electricity bill for households that is affected by the price of electricity (to one-fifth of a typical household’s bill). However, the impact may not be large, as much of a household’s electricity bill still consist of fixed taxes and charges (Figure 6). Truly effective competition will not be established in the retail market until the price structure is redesigned so that a bigger share of the bill depends on the market price of electricity. This could be achieved, for instance, by making all taxes *ad valorem*. Competition in generation is also unlikely to be much affected by the reform. Only a minority of producers of “prioritised” energy are able to adjust production to price signals (windmills will run whenever the wind blows as marginal costs are very low), and the two dominant producers own a large part of these plants anyway. Their ability to exercise market power is therefore unlikely to diminish noticeably.

Last year’s merger between Elsam and NESA – the dominant electricity conglomerate in the eastern part of Denmark holding around 36% of the shares in Energi E2 — is likely to worsen the situation. It was approved by the Competition Council contingent on a number of remedies, including auctioning of virtual capacity. The intention of this auction is to get the same effect as physically selling some generation capacity, but without the transaction costs. This remedy has also been used by the EU Commission and the Dutch and Belgian competition authorities. The Competition Authority has further improved the remedy by not setting a minimum price on the virtual capacity to be sold on the market, thereby ensuring that the capacity is available for competitors in all circumstances. In order to significantly reduce the market power of the merged company, the new system operator should push for establishing more capacity on the connectors out of the country, in co-operation with its Nordic colleagues and German authorities. Directly connecting the local markets in the east and west and making Denmark one price area in Nord Pool would reduce price differences between the two parts of the country. However, cost-benefit analyses of establishing a connection across the Great Belt have seldom been favourable (in part because these engineering studies have not incorporated the economic impact of the changes in competition), and the merged company’s ability to exercise market power will in the end depend more on competition from abroad and thus capacity on international inter-connectors.

Figure 6. Household electricity prices consist mostly of VAT and duties  
DKK per kWh



1. Includes electricity fees, distribution fees, electricity-saving contributions, and CO<sub>2</sub> and SO<sub>2</sub> duties.
2. Includes market electricity, "prioritised" (non-marketed) electricity, PSO payments and grid charges.

Source: Dansk Energi (2003), *Dansk Elforsyning Statistik 2002*, [www.danskenergi.dk](http://www.danskenergi.dk).

### *Still a long way to effective competition in the gas sector*

The process towards competition in the gas sector is still at an early phase. The sector remains highly vertically integrated, with the 100% state-owned company DONG dominant in all activities in the sector except production. DONG's position has been weakened in the last couple of years, however, starting with the requirement of corporate separation of monopoly and competitive activities and the introduction of regulated third-party-access to the networks from 2003. Furthermore, DONG's near-monopoly on purchasing gas produced by the privately owned DUC (the main producer in the Danish part of the North Sea) was broken in 2003 when the two companies reached a settlement with Danish and European competition authorities involving the sale of 17% of DUC's gas to other companies. Finally, on 1 January 2004 operation and ownership of the transmission net was transferred to a new state-owned company, which is fully independent of DONG.

The government intends to privatise DONG, and the company is pursuing a strategy of diversification into the electricity market — urged by the government — in order to position itself as an important player in the entire energy market. However, DONG's diversification activities may raise problems of cross-subsidisation between competitive and non-competitive activities. It also implies further mixing of state ownership and regulatory responsibilities. Given the dominance of DONG, the government should ensure there are no barriers to entry for foreign suppliers, and mergers in the energy sector should be avoided until there is effective competition in both the gas and electricity markets or unless significant synergy gains are demonstrated.

As in the electricity sector, liberalisation on the demand side has been implemented in several steps, with households getting free choice of supplier from the beginning of 2004. The process has led to less price discrimination between consumer groups, as the large bulk-purchase discounts have been dismantled. But households are still disadvantaged by the tax system. Net of taxes, household and company prices are among the lowest in Europe, but high taxes on household consumption make the total price one of the highest in Europe (Munksgaard *et al.*, 2003). Nevertheless, the part of the price made up

by non-marketed items is smaller than for electricity, indicating better prospects for effective competition in the retail gas market.

***Other utilities remain to be opened up for competition***

No attempts have been made yet to introduce competition into district heating and water. Significant gains are unlikely in district heating, as companies tend to be local natural monopolies for technological reasons. The market for water supply and purification of waste water is hugely decentralised, with almost 2 800 water supply plants and 1 400 waste water treatment plants, and water prices show substantial variation between municipalities, with the top price for consumption and drainage almost four times higher than the lowest. The Competition Authority has estimated a potential gain from more efficient production of around 15% after natural reasons for cost differences are taken into account, and it recommends introducing more competition in the sector, along the lines of the process in the electricity and gas sectors (Konkurrencestyrelsen, 2003).<sup>12</sup>

***Liberalisation of telecommunication markets has come far, but improvements can be made***

Denmark was among the first countries to liberalise the market for telecommunications, and the current regulatory framework is in line with EU rules. The incumbent monopoly was privatised in 1998 when the government sold its majority stake, local loop unbundling has been implemented, and network access prices have been based on Long Run Average Incremental Costs (LRAIC) since 2003. Full number portability is to be implemented by the end of 2005.<sup>13</sup> Entry to the market has reduced the market share of the incumbent, TDC, especially in mobile telephony where it now has only one-third of the market. End-users have benefited from substantial reductions in retail prices (Table 6), and prices are on the low side in international comparisons (Figure 7). A roll-back of regulations started in 2002 and has continued in segments of the market where the stance of competition is deemed adequate; for instance, caps on per-minute prices for both domestic and international calls were abolished in 2003. Nevertheless, there are some areas where further efforts are required for consumers to benefit fully from the liberalisation of the market.

First, competition in the mobile-phone market is well established, but mobile termination fees remain well above costs, as in many other countries. In Denmark, termination fees in the mobile net are much higher than fixed-net termination fees, and it seems that price competition in the mobile market has been paid for by high prices for fixed-net subscribers when calling mobile phones, suggesting that termination fees need to be regulated (Konkurrencestyrelsen, 2004a). Also, in an ongoing case, TDC is accused of abuse of dominance (margin squeeze) on calls from fixed-net to mobile phones.

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12. The measures proposed include replacing the no-profit principle for companies with a system that has incentives to make production more efficient and introducing accounting principles that would reveal any cross-subsidisation. In water supply, third-party access to water networks and to incumbents' reserves (within a network or for networks that can be connected) should be established, with a system operator ensuring non-discrimination, along with free choice of supplier for consumers. Introduction of public-service obligations for larger suppliers would ensure supply to all citizens. In waste water treatment, better possibilities for companies and institutions to establish their own water treatment could be instituted, while fixed contract periods or a withdrawal fee would ensure that there are incentives to expand existing treatment facilities.
13. Portability for fixed-line numbers was implemented in 1999 and for mobile phone numbers in 2001. Full (or cross) portability between mobile and fixed-lines was set to be implemented by 1 April 2004 but has been postponed until end-2005 (Konkurrencestyrelsen, 2004a).

Table 6. **Relative prices for telecommunication have dropped substantially**  
 EUR, deflated by the consumer price index, 2004 prices

	1998	1999	2000	2001	2002	2003	2004	Per cent change <sup>1</sup>
Fixed-line telephony (900 minutes quarterly)	97.3	95.6	80.4	78.5	77.3	75.3	74.8	-23
Mobile telephony (450 minutes quarterly)	98.5	84.7	77.6	72.0	70.3	48.0	45.8	-54
ADSL 512/128 kbit/s (price per month)	-	-	86.1	55.4	58.8	57.7	46.7	-46
ADSL 2048/512 kbit/s (price per month)	-	-	143.0	119.0	107.5	104.7	89.9	-37

Note: Prices from August each year (2004: January).

1. For fixed-line and mobile telephony since 1998; for ADSL since 2000.

Source: Danmarks Statistik (2004), *Nøgletal om informationssamfundet – Danmark 2004*, www.dst.dk.

A second area where there may be inadequate competition is broadband internet. Although DSL is available to 95% of the population and the broadband penetration rate is one of the highest in Europe (Figure 8), broadband is expensive (OECD, 2004b). That is likely the result of inadequate competition between various platforms and between companies operating within each platform. This is illustrated by TDC's price structure: baseline cable modem services are offered at lower prices than DSL services (where TDC has a very large market share).<sup>14</sup> In Belgium for instance, where there is strong competition between DSL and cable, take-up of broadband is about the same as in Denmark, but baseline speeds of 3 Mbps are offered at prices equal to or less than the Danish price for unmetered services at 256 kbps. The telecom regulator is currently investigating the reason for the high prices in Denmark and possible means to address the issue. One reason may be that Danish households effectively pay twice (at the margin) for raw copper rental when ADSL and ordinary phone lines (PTSN) are used simultaneously. This is because TDC redistributes the extra revenue from raw copper rental in the form of a price-reduction to all subscribers, not just individual users of a shared line. Denmark is the only OECD country where this happens. A change in price regulations would avoid this. More competition pressure should arise from the increasing number of households in building associations that are sharing broadband connections *via* local access networks, thereby lowering individual access prices (OECD, 2004b), and from electricity companies establishing new broadband networks in conjunction with modernisation of the low-voltage electricity grid (NESA, 2004).

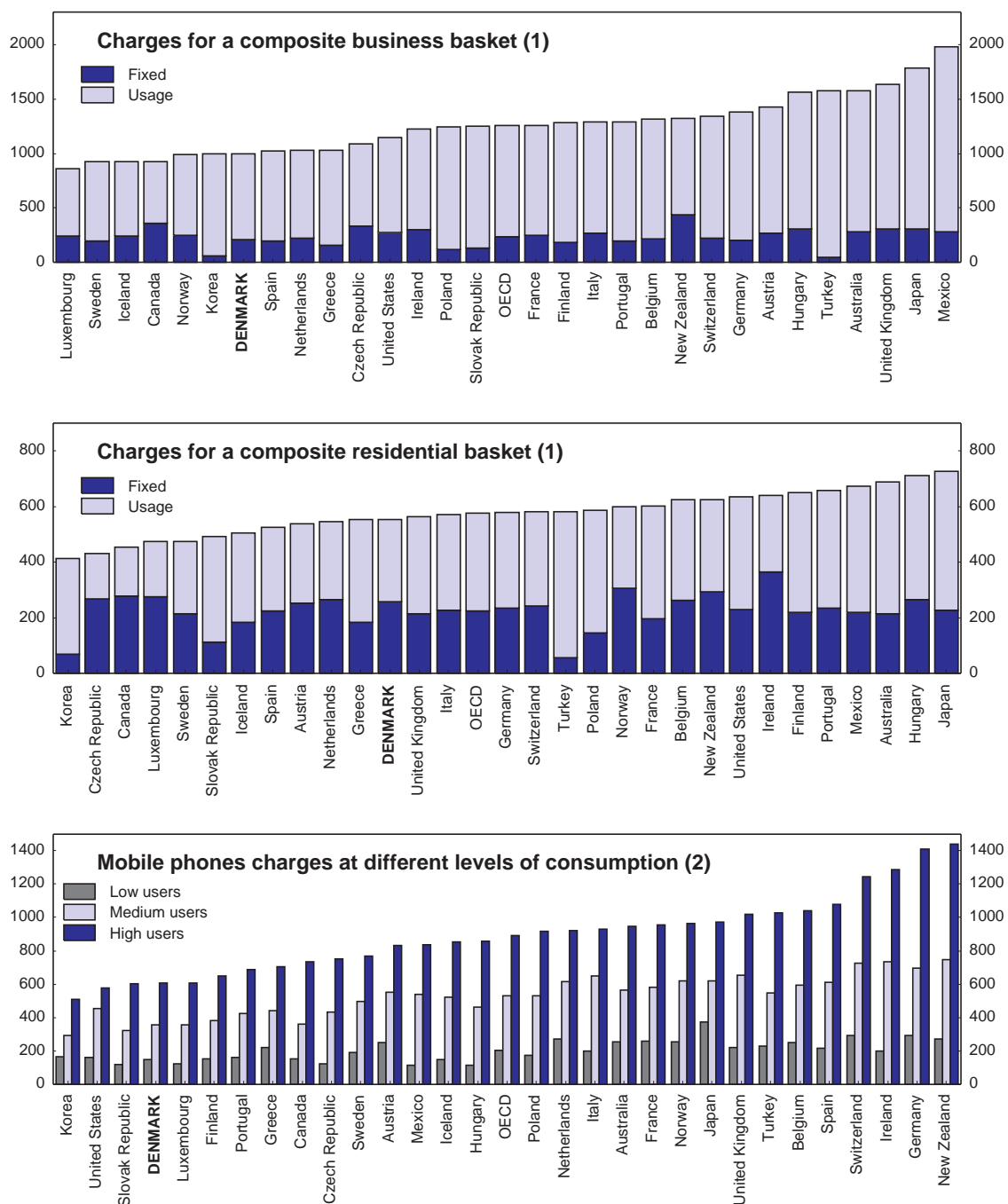
### ***Passenger rail transport needs more competition exposure***

While the market for rail freight transport is fully liberalised and the responsibility for infrastructure has been transferred to an independent state agency, the passenger rail market is only slowly being opened up for competition. The first step was taken in 2001, when 15% of traffic volume outside the cities was put to tender; the government aims to increase that share to between 30 and 45% by 2014. However, competitors to the incumbent, DSB, have been disadvantaged by stricter service requirements, for instance on punctuality, than those applied to DSB. The playing field needs to be levelled. Furthermore, the Complaints Board for Public Procurement ruled in 2003 that the ministry had mixed up its roles as owner of DSB and tender-inviting institution in the procurement process, although this was not seen to affect actual decisions. Similar situations are less likely to occur in the future, as a new agency, the

14. TDC's dominant position does not seem to have followed from unlawful behaviour. In fact, in spring 2004 the Competition Appeals Tribunal sustained the Competition Council's verdict that TDC did not squeeze margins on ADSL connections. The Competition Council ruled that TDC did not offer ADSL connections at prices below its costs and thus did not abuse its dominant position. The Competition Authority's investigation had showed that TDC carried out an aggressive price policy, but that it had covered all costs while increasing its market share. Thus, it had achieved economies of scale that its competitors were unable to match (OECD, 2004c).

National Rail Authority, was established in 2003 to manage and prepare rail tenders. But whether this provides an effective separation of the government's roles needs to be monitored carefully.

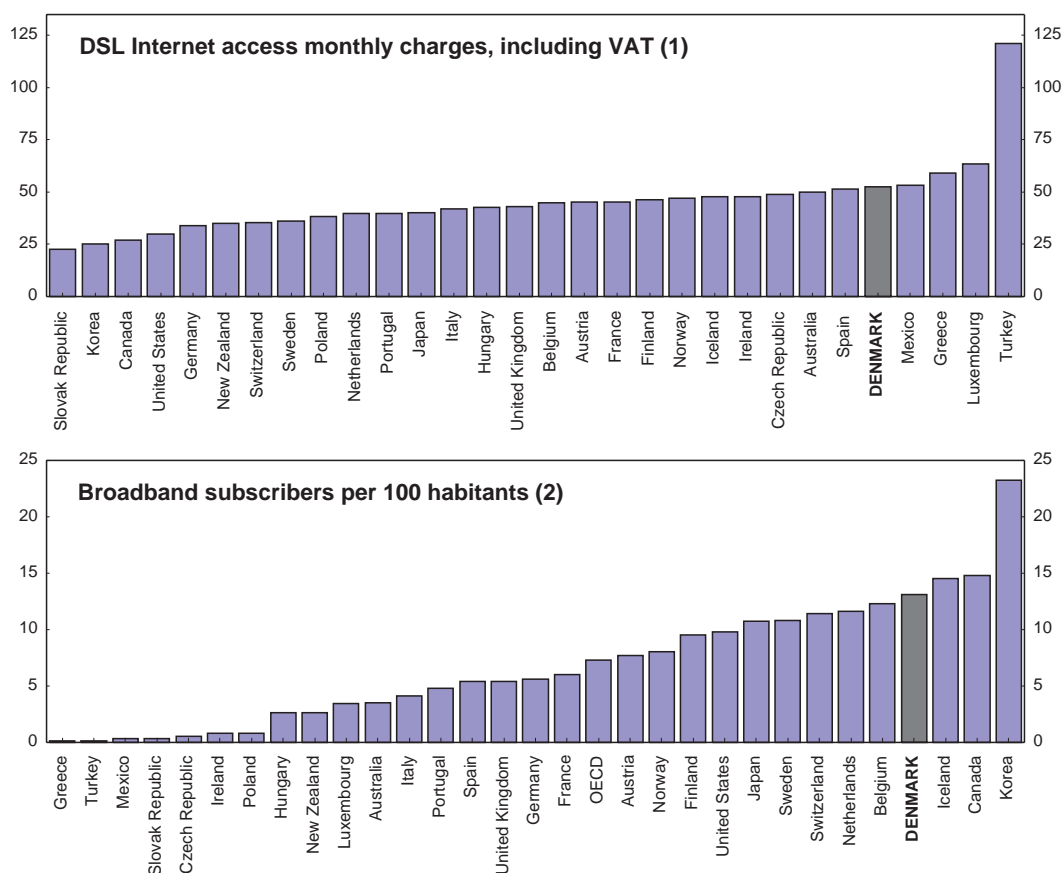
Figure 7. **Telecommunications charges are relatively low**  
US dollars, May 2004, annual rates



1. Excluding VAT.

2. Including VAT.

Source: OECD, Communications Outlook Database.

Figure 8. **Broadband is expensive but penetration is high**

1. USD per month. Modem rentals are excluded, as in most countries these can be purchased by users. October 2003.

2. December 2003.

Source: OECD, *Communications Outlook Database*.

Competition on interregional routes between different modes of transport was enhanced by the deregulation of long-distance bus services in 2002. Thus, the right to operate these bus routes is no longer awarded on the basis of need for establishing such routes. However, operators are obliged to uphold at least one return trip on four days of the week for a minimum period of six months. In addition, a level playing field *vis-à-vis* DSB's passenger rail routes has not been achieved, as private bus operators pay more for crossing the Great Belt.

### **Effective competition is absent in other sectors because of various regulations**

#### ***Competition in construction suffers from several unnecessary regulations***

Prices in construction are particularly high in Denmark. This is likely to be associated with inefficient use of inputs and relatively little R&D investment resulting from inadequate competition. From 1993 to 2002, prices for electrical work and plumbing increased around 40%, while the overall construction index rose around 30% (Finansministeriet *et al.*, 2004b). At least for electrical work, this development could partly be explained by bid-rigging: in 1998, a cartel of 360 firms was broken up, leading to several court cases that resulted in fines to the involved companies.

The market for construction is sharply segregated between trades (*e.g.* carpentry, plumbing) with tradition as well as government regulation impeding cross-trading. A ministerial working group has recommended that certain regulations be changed in order to introduce more competition between trades; for instance, other professionals than electricians and plumbers should be allowed to offer electricity and plumbing works that can in fact already be done by a private citizen.<sup>15</sup> As another competition-improving measure, all public housing projects have been put to tender since 2003.

Another reason for high prices in construction seems to be a lack of competition in the market for building materials. The market for materials is characterised by non-transparent price formation, high concentration and low imports.<sup>16</sup> Competition from abroad is limited because little progress has been made in harmonising building material standards across EU countries. The government has introduced a website for price comparisons and is working within the EU to speed up harmonisation. Furthermore, a ministerial working group has recommended that the requirement to obtain a special Danish approval of certain building materials be abolished and that approval procedures in general be simplified. A more pro-competitive measure would be to unilaterally allow the importation of products approved from countries with standards on a par with those in Denmark.

### ***Regulations make rental and co-operative housing markets highly inefficient***

As in all Nordic countries, the market for non-owner-occupied housing is malfunctioning. This is primarily a result of heavy regulation, especially of prices, which was originally implemented out of concern that everybody should be able to afford decent-quality housing. Much of the regulation was introduced during wartime (mainly WW2) and has remained in place ever since (although rent controls do not apply to property built since 1992). The result has been a disconnection between price and quality, extensive black-market activities, weak incentives for owners to improve quality, creation of ghettos, little mobility, and thus an allocation of dwellings that is far from the objectives of the regulation.

The government has taken one small step towards a more market-based rental market by allowing the rent on new rooftop apartments to be freely set. The courage to do away with rent regulation did not extend to public housing, however. Instead, a three-year pilot scheme has been introduced for tenants in public housing to buy their apartments at market prices, with the net revenue to be used for construction of new housing. The direction of the government's efforts should be applauded; however, it is still a long way from earlier OECD recommendations (see OECD, 1999) to remove all rent controls applying to private rental housing, while taxing away any induced economic rent caused by higher property prices. Social goals should instead be achieved by rent allowances, thereby making clear the costs of such policies.

Housing co-operatives are a special element of the Danish housing market. These are a sort of combination between renting and ownership, which were initially intended to combine cheap housing — favoured by government subsidies and tax rules — with joint responsibility for the premises. The result has been purchase prices far below the market, and access to this type of housing often depends on personal contacts or willingness to pay the previous holder of an apartment an excessive amount for an old carpet, for example (“key money”). Recently, it has become popular for co-operatives to dissolve

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15. Currently, a joiner setting up new kitchen cabinets is not allowed to install a new mixer tap at the same time, even though his customer is allowed to do it himself as a private person (Finansministeriet *et al.*, 2004b).

16. Producers have different price lists for different customers and individual rebate and bonus systems are common, thus making price comparisons particularly difficult. A number of sub-industries are dominated by a very small number of domestic producers, and the wholesale market is highly concentrated as well, with, for instance, three wholesale dealers/chains supplying 90% of the professional market for timber-yard products (Økonomi- og Erhvervsministeriet, 2003b).

themselves and sell the property, thereby reaping substantial capital gains. These gains ought to be taxed, and given the *de facto* breakdown of the market, it would also make more sense to adjust acquisition prices towards those on new co-operative housing or owner-occupied housing and remove the preferential tax treatment.

### ***Retail and wholesale competition is hampered by a variety of regulations***

Despite a low outlet density and relatively large shops, productivity in the retail sector is very low by European standards (Table 7). Competition is impeded by the Planning Act and the Opening Hours Act, both of which are aimed at other objectives (in particular the environment), while specific regulations restrict competition in other areas such as the book market, food retailing and pharmacies.

A change in the Planning Act in 2002 transferred certain planning competencies from counties to municipalities and raised the limit on the size of some outlets. This should lead to the establishment of more shops in the largest cities. However, the Act continues to put strict limits on the size and placement of new shops, thus impeding entry in the retail market, with approval decisions based partly on discretionary assessments of “market needs” by local or regional authorities. Needs-based regulation is particularly harmful to competition and should be abolished. The Opening Hours Act is due to be revised in 2005,

Table 7. **Key structural features of the retail sector<sup>1</sup>**

	Outlet density <sup>2</sup>	Employees per enterprise	Value added per employed person <sup>3</sup>	Value added per unit of labour costs <sup>3</sup>	Maximum weekly opening hours <sup>4</sup>
<b>Denmark</b>	<b>45.5</b>	<b>8.4</b>	<b>82.7</b>	<b>97.2</b>	<b>Variable<sup>5</sup></b>
Austria	45.6	7.6	102.2	97.1	66
Belgium	73.8	3.8	108.3	92.9	91
Finland	44.7	5.2	125.2	108.7	81
France	64.3	4.3	133.7	102.0	75
Germany	32.4	9.6	100.3	105.7	70
Ireland	45.0	8.2	95.4	99.2	No limit
Italy	128.8	2.3	97.4	78.9	78
Netherlands	53.6	8.5	87.6	116.1	No limit
Norway	67.7	6.0	92.0	104.5	-
Portugal	136.6	2.6	66.0	87.8	Variable
Spain	130.0	2.9	91.8	98.5	Variable
Sweden	63.9	4.3	104.0	85.1	No limit
Switzerland	53.3	8.6	117.7	-	Variable
United Kingdom	35.9	14.9	85.8	121.6	No limit
European Union <sup>6</sup>	69.0	6.4	100.0	100.0	-
EU excluding Italy, Portugal, Greece and Spain <sup>7</sup>	51.9	7.4	104.1	103.2	-

1. 2001 or latest available data.

2. Number of enterprises per 10 000 inhabitants.

3. Value added expressed in USD PPP terms. European Union = 100.

4. Data from 1998.

5. Closed from 17.00 on Saturday to 6.00 on Monday, except for some outlets and tourist regions.

6. Unweighted average of EU 15 excluding Greece.

7. Unweighted average.

Source: Boylaud, O. and G. Nicoletti (2001), “Regulatory Reform in Retail distribution”, *OECD Economic Studies*, N°32, 2001/1; Eurostat, *Structural Indicators Database*.

possibly involving a minor easing of the restrictions on Sunday opening. As the ultimate outcome is likely to be full liberalisation anyway, the government might as well remove restrictions on opening hours altogether, thereby aligning Denmark with neighbouring Sweden and most non-European OECD members.<sup>17</sup>

Although partially liberalised in 2001, the Danish book market still stands out in international comparison for its exclusivity rights. While publishers are no longer required to fix the price of new releases, most of them still opt to do so, and price competition therefore applies only to around 10% of bestsellers (Annex 4). Price discrimination has also been practiced by some publishing groups by requiring booksellers to sell at fixed prices, while at the same time offering cheaper paperback versions *via* their own book clubs. This calls for a complete withdrawal of publishers' right to fix prices.

While competition in food retailing may not seem particularly weak in general, the Danish market for dairy products has for a long time been associated with competition problems related to heavy concentration (due to the co-operative structure of producers), which has resulted in relatively high prices, especially on fresh milk. Two mergers within the last five years have further increased concentration, as the new Danish-Swedish co-operative, Arla, now has a near-monopoly. Some elements of Arla's contractual bindings on suppliers of raw milk to the co-operative have subsequently been deemed anti-competitive by the Competition Council, which ordered the company to cease and desist. However, these orders were overruled by the Appeals Tribunal on non-transparent and controversial grounds (Blomgren-Hansen and Møllgaard, 2004). Competition in food retailing has also been hampered by the Danish bottle-return system, which is operated by a monopoly owned by the dominant domestic producers of beer and soft drinks. While serving reasonable environmental objectives, the system has been a significant barrier to the entry of foreign and smaller beer brands with odd-size packaging and may partly explain the high prices of alcoholic beverages and soft drinks. Operation of the system should be made independent of industry interests when the company's contract ends in 2008.

The retail market for pharmaceuticals was partly liberalised in 2001 when a large range of over-the-counter drugs were allowed to be sold outside pharmacies at prices that could be set freely. This has led to significant price reductions on certain drugs (OECD, 2004*d*). However, the market for prescription drugs remains heavily restricted by government objectives of equal access to and equal prices of these drugs in all areas of the country. Both the number and location of pharmacies, profit-margins and end-user prices are fixed by the authorities. This excludes competition in end-user prices and prevents efficiency gains — for instance from the use of internet — and discounts on pharmacies' purchases from wholesalers from being passed on to consumers. Pharmacies are also subject to an aggregate cap on gross profits, set in negotiations with the Minister of Health. The pharmacies with the largest turnover (benefiting from their geographical monopoly in areas where demand is big enough for an additional pharmacy to be profitable) are required to subsidise those with the smallest through an equalisation scheme, in order for otherwise unprofitable pharmacies — typically situated in sparsely populated areas — to be able to stay in the market. Options for introducing more competition would include replacing fixed prices with maximum prices near current price levels — so that all changes would be Pareto improvements, *i.e.* no consumer would lose out — and allowing free entry subject to certain requirements on standards being met, as has been the case in Iceland since 1996. The equalisation scheme should also be modified to remove its inherent bad incentives. Services in sparsely populated areas could be guaranteed *via* tenders or block grants to pharmacists operating in these areas. Such block grants could be partly or

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17. Retail shops are generally required to be closed between 17:00 on Saturday and 06:00 on Monday. In connection with certain holidays, less restrictive rules apply. Shops are also free to open on eight Sundays a year. Smaller supermarkets and shops with special locations (typically in tourist areas) are already exempted from the current restrictions. Bakeries and a number of other types of shops are also exempted.

fully financed by fees paid by other pharmacies. The current restriction on ownership of pharmacies by pharmacists should also be lifted, as it holds no obvious merit.

### *Ownership and entry restrictions impede competition in professional and financial services*

Professional services are regulated in all OECD countries, typically to protect consumers from disadvantages related to asymmetric information and to ensure high professional standards. These regulations typically govern matters such as entry into the profession, the conduct of its members, the granting of exclusive rights to carry out certain activities, and the organisational structure of professional firms. However, such regulation can have the direct or indirect effect of restricting competition, raising prices and limiting variety and innovation.

The relative restrictiveness of government-imposed regulations in Denmark differs markedly between professions, with lawyers, pharmacists, doctors and dentists being the most regulated (Table 8). Danish regulations of architectural and engineering services are among the least restrictive in OECD countries, while they are around average in legal services and accountancy (Figure 9). Most regulations concern access, but the health sector is also subject to regulations on price setting and marketing. In dental care, where consumers pay a significant part of the cost themselves, price competition is allowed on one-quarter of services (constituting almost half of dentists' turnover), while prices for the remainder are determined in negotiations between the Dentists Association and the public health insurance system. Such prices could more appropriately be set as maximum prices — as recommended by a ministerial working group — in order to encourage price competition on these services too.

#### *Certain ownership restrictions should be lifted*

While some entry restrictions are well founded, others seem redundant. It is, for instance, prohibited for those others than lawyers to advertise their legal services (except for certain types of legal advice given in close connection with ordinary services in some other professions), and owners of law firms must also hold a law degree. Ownership restrictions exist for chartered surveyors and real estate agencies too, keeping foreign firms out of the Danish market. None of these restrictions seems necessary, as codes of conduct should be able to deal with malpractice.

Table 8. **Government imposed competition limitations in various professional services**

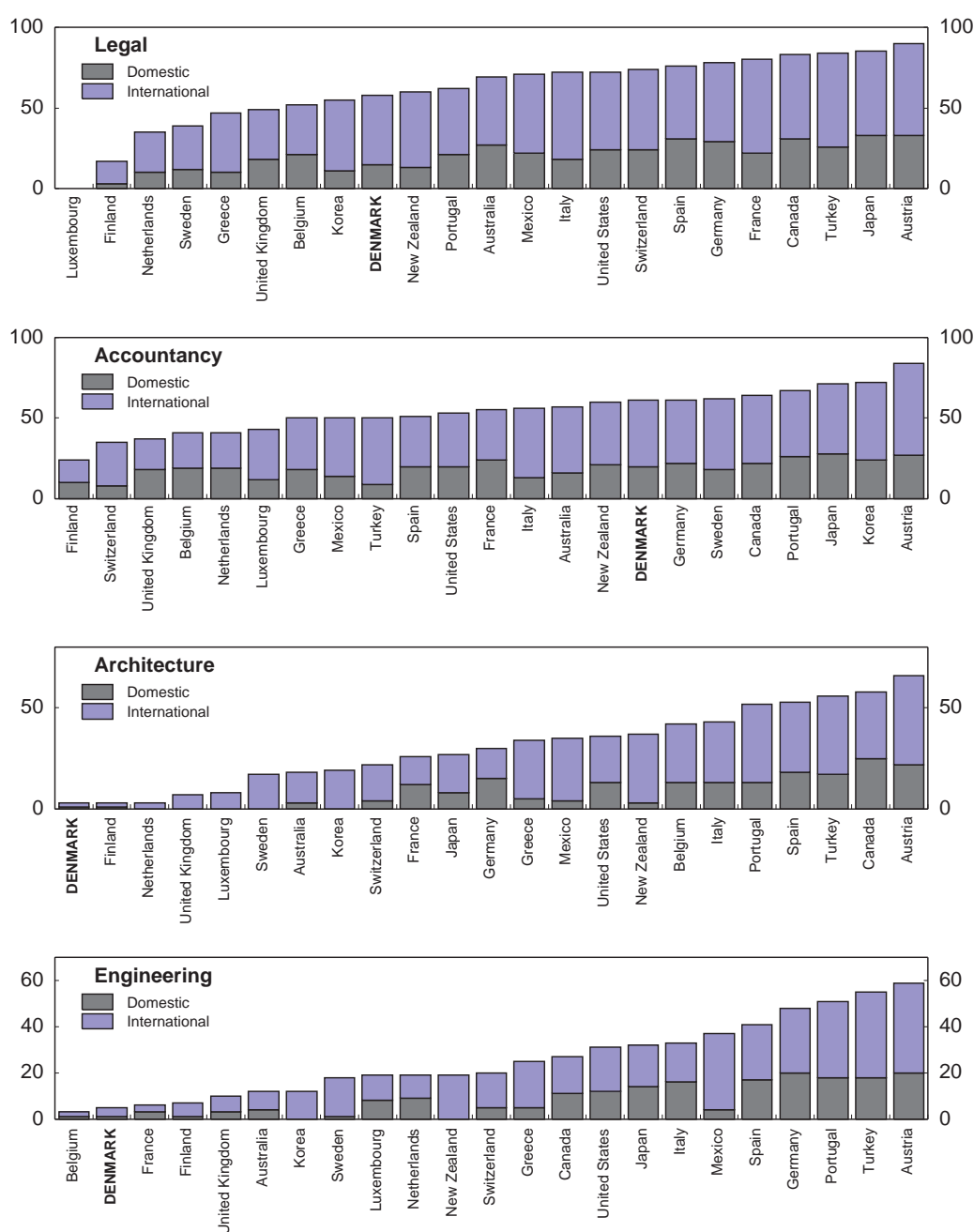
	Lawyers	Realtors	Accountants	Engineers and architects	Pharmacists	Doctors	Dentists
Authorisation	x	x	x	-	x	x	x
Education	x	x	(x)	(x)	x	x	x
Other requirements <sup>1</sup>	x	x	x	-	x	x	x
Exclusive rights	x	-	x	-	x	x	x
Membership of trade association required <sup>2</sup>	x	-	-	-	-	(x)	(x)
Number regulation	-	-	-	-	x	x	x
Type of business	x	x	x	-	x	-	-
Price regulation	(x)	-	-	-	x	x	x
Marketing	-	-	-	-	x	x	x

Note: Brackets indicate that restrictions work implicitly.

1. For instance required practical experience and requirements concerning economic solvency.

2. Lawyers must be members of the Danish Bar and Law Society, and doctors and dentists are implicitly required to be members of the organisations that negotiate with the public sickness insurance in order to offer services that are paid by this insurance.

Source: Konkurrencestyrelsen (2004a), *Konkurrenceredegørelse 2004*, June.

Figure 9. Regulations of professions: restrictiveness indices<sup>1</sup>

1. The more restrictions, the higher the index.

Source: Nguyen-Hong, D. (2000), "Restrictions on Trade in Professional Services", Productivity Commission Staff Research Paper, AusInfo, Canberra.

Realtor service provides one example of the effects of inadequate competition pressure from entry. Between 1995 and 2002 realtor fees rose 100% in the Copenhagen area (50% in the rest of the country), while the consumer price index increased by 17%, reflecting the fact that fees are typically set as a percentage of the value of the real estate (Konkurrencestyrelsen, 2004a). Such increases would be unlikely if there were efficient competition from entry into the market for these services of, for instance,

lawyers. Part of the explanation is that lawyers face a number of regulatory disadvantages; they are, for instance, not allowed to receive commissions for arranging loans or insurance or to promote such products, as opposed to realtors who are often associated with financial companies or chains. A more level playing field between the two professions is thus called for. Also, more transparency as to realtors' commissions and rebates received from business partners in the financial market would make for a more informed decision by home owners and buyers when choosing whom to engage for selling a house or providing advice on a purchase.

*The financial market suffers from various barriers to competition*

In the financial sector, the government has focused on ways of allowing individuals to choose between pension companies when paying certain compulsory pension contributions. Such freedom was granted for statutory Special Pension contributions from 2004. Most pension contributions are part of wage agreements between the social partners, which typically stipulate that contributions be made to particular pension funds (although savings can be moved if the employee changes profession). There are gains to be made by opening up the industry, as significant differences in efficiency and investment performance currently exist between the various pension administrators. The gains would, however, have to be weighed against a likely increase in administration costs. Apart from the lack of free choice of pension funds, competition in the sector is hampered by the current tax arrangements, which discriminate against savings in foreign pension funds.<sup>18</sup>

Competition in the banking sector may suffer from barriers to entry. Denmark has relatively high concentration in its banking sector, and foreign banks have only a small share of total loans on the domestic market. While there are no legislative barriers for foreign companies to establish themselves locally, administrative barriers — for instance membership in the common payment system for banks and restrictions in the Planning Act on establishing branches in city centres — constitute significant impediments for new players in the market.

*Customer-sharing arrangements and entry barriers impede competition in the taxi market*

The taxi market is heavily regulated, with virtually no price or quality competition. Maximum prices and the number of operators are determined by each municipality, and cab owners must be affiliated with a call centre where customers are distributed evenly among cab owners; the law even prohibits customers from asking for a particular company. The potential benefits to consumers from more price and quality variation would seem significant. The industry would also benefit from changing the tax advantages involved with reselling used taxis, since many operators are in the business purely to take advantage of this loophole.

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18. Contributions to foreign pension funds are — contrary to Danish funds — not tax deductible, because of fears that it will not be possible to collect revenue from taxation of investment returns and pension payments. However, pension payments may not be taxed either if a person having saved in a Danish fund moves abroad and there is no mutual tax agreement with that country. The EU Commission is currently preparing a case against Denmark on this issue.

### Box 6. Priorities for policy

#### Improving the legislative framework

Reduce merger thresholds and improve the leniency programme. Abolish either the Competition Council or the Appeals Tribunal; for example, a specialist commercial court could also replace the Tribunal, mirroring the EU system. But if they are to be retained, the Council should be slimmed down, it should hand responsibility for merger decisions to the Authority, and the Tribunal should be strengthened by giving it more economic expertise. Have an independent arbitrator (e.g. the Competition Authority) decide whether restrictions on competition are necessary to achieve the purpose of a particular regulation.

#### Moving the public sector towards competitive markets

In areas where there are well developed private markets, these should be exploited more by the public sector, for instance *via* greater tendering and free-choice arrangements. Make sure there is a level playing field for private and public providers by improving accounting and management information systems and aligning tax rules, and strengthen programmes for cost and quality evaluation.

Impose an obligation to tender on local governments (above a reasonable threshold). Improve the rules on the challenge right by removing the possibility of refusing a reasonable offer; such an offer should either be accepted or lead to an open tender.

Clarify the conditions under which government players can operate on competitive markets and ensure the playing field is always level. Restrict operations to core public-sector services. Intensify privatisation efforts, and focus more on the functioning of competitive markets than on raising revenue.

#### Competition in network industries

In *electricity*, the new system operator should push for establishing more capacity on the inter-connectors out of the country. Redesign the structure of the price system to make a larger part of households' electricity bill dependent on the market price of electricity.

In the *gas market*, make sure there are no barriers for foreign suppliers entering the market. Privatised the incumbent before letting it diversify into other sectors (diversification should be approved only if significant synergy gains can be demonstrated).

In *water supply*, open up access to networks and allow consumers to choose their supplier.

In *telecommunications*, change price regulation to ensure that users of shared lines pay only once for raw copper rental. Consider introducing price regulation for termination fees in the mobile network.

In *passenger rail*, ensure contractual requirements are the same for private and public providers.

#### Adjust or remove unnecessary regulations in other industries

In the *construction sector*, abolish the sharp division among professions, and eliminate special approval requirements on EU building materials.

In *rental and cooperative housing*, remove rent controls while taxing away any induced economic rents to landlords from higher property prices. Tax capital gains from dissolving housing co-operatives, and adjust acquisition prices to those applying to new co-operative and owner-occupied housing; the preferential tax treatment and other subsidies to co-operative housing should also be removed.

In the *retail sector*, remove the needs-based elements in the Planning Act that govern approval of establishment of shops. Liberalise shop opening hours. Withdraw the fixed-price exemption on the book market. Make the bottle-return system independent of industry interests. Replace the fixed-price system with a set of maximum prices and allow free entry into the retail market for pharmaceuticals.

In *professional and financial services*, change price regulations in dental care so the current fixed-price setting is replaced by maximum prices; remove ownership restrictions in a number of professional services; and persuade labour-market partners to allow employees to decide on who should administer their pension savings.

Open the *taxi market* to more price and quality competition.

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*Annex 1***State ownership and privatisations**

Over the last 15 years, the government has sold of a number of its company holdings, taking in around DKK 43 billion in total (3% of GDP). In most cases, shares or assets were sold off directly, but open bidding was also used in a minority of cases (Table A1.1). The most prominent of the sales was that of the previous telecommunications monopoly, TeleDanmark (now TDC), in 1998, that brought in more than DKK 30 billion.

It is the government's objective that companies owned by the state be operated in a way that makes private part-ownership possible, and it is continuously evaluating whether government ownership has any justification — if not, privatisation of the company (partly or fully) is preferred (Finansministeriet, 2004). Currently, the government is preparing the sale of (some of) its shares in Post Danmark A/S, TV2/DANMARK (the second national television broadcaster) and DONG A/S (gas company). These three companies together constitute around two-third of the value of government remaining company holdings (Table A1.2).

Table A1.1. **Privatisation of state holdings**  
1989-2005

Company	Year	Ownership share	Method	Revenue, million DKK
Junker industries (wood processing)	1989	37/0	Direct sale	52.2
Byggeeksportrådet A/S (construction export consultant)	1989	51/0	Direct sale	0.1
Byggeriets Maskinstation A/S (construction machine pool)	1990	68/0	Block sale	44.7
Statsanstalten for Livsforsikring (civil servants' life insurance)	1990	100/0	Direct sale	4 276.3
GiroBank A/S (postal bank)	1993	100/49	Open bidding	730.1
	1996	49/0	Direct sale	745.0
TeleDanmark A/S (telecommunications)	1993	94/90	–	82.0
	1994	90/*	Reorganisation	901.5
	1998	*/0	Direct sale	31 565.7
Københavns Lufthavne A/S (Copenhagen airport)	1994	100/75	Open bidding	707.8
	1996	75/51	Open bidding	1 102.6
	2000	51/34	Open bidding	983.4
EKR Kreditforsikring A/S (export credit insurance)	1995	100/75	Direct sale	74.5
	1997	–	Sale of assets	275.7
Datacentralen A/S (data processing)	1996	100/25	Direct sale	342.7
	1999	25/0	Direct sale	126.7
DEMKO (standards and testing)	1996	100/0	Direct sale	29.8
Skandinavisk Reisebüro GmbH (travel agency)	1998	100/0	Direct sale	6.7
Banestyrelsen Rådgivning (railroad consultancy service)	2001	100/0	Direct sale	74.5
Statens Bilinspektion (car inspection)	2005	100/0	Open bidding	480.0
<b>Total</b>				<b>42 601.7</b>

Source: Christoffersen and Paldam (2004), "Privatization in Denmark, 1980-2002", CESifo Working Paper No. 1127; Ministry of Transport and Energy, [www.trm.dk](http://www.trm.dk).

Table A1.2. **State company holdings**  
As at 31 December 2003

	Main activity	Ownership share	Equity, million DKK	Value of holdings
<i>State companies</i>				
AB Carl Gram	Ferry service	100	0	0
Aktieselskabet Stekua (in liquidation)	Export credit insurance	100	26	26
Dansk Jagtforsikring A/S	Hunting insurance	51	27	14
Dansk Tipstjeneste A/S	Betting services	80	197	158
Det Danske Klasselotteri A/S	Lottery	100	128	128
DONG A/S	Energy company	100	16 794	16 794
ETA-Danmark A/S	Approving building materials	100	7	7
Københavns Havn A/S	Harbour administration	100	2 113	2 113
Post Danmark A/S	Postal services	100	2 080	2 080
Statens Ejendomssalg A/S	Real estate sales	100	636	636
Statens og Kommunernes Indkøbs Service A/S	Purchasing services	55	10	6
Sund & Bælt Holding A/S	Bridge administration	100	-4 877	-4 877
TV2/DANMARK A/S	Television broadcasting	100	805	805
<i>Independent state companies</i>				
DSB	Rail transport	100	7 852	7 852
<i>Other companies with state ownership share</i>				
Air Greenland A/S	Airline services	25	228	57
Beijing Danhua Highway Consultants C., Ltd.	Road construction	13	-	-
Bella Center A/S	Conference centre	15	314	47
Dansk Bibliotekscenter A/S	Library centre	29	31	9
Danske Telecom A/S	Telecommunications services	22	65	7
Københavns Lufthavne A/S	Airport administration	34	3 136	1 066
NORDUnet A/S	Broadband network services	22	13	3
Orange Holding A/S	Telecommunications services	10	-1 830	-183
SAS AB	Airline services	14	10 773	1 508
Scandlines AG	Ferry service	50	2 891	1 446
<b>Total</b>		<b>-</b>	<b>-</b>	<b>29 702</b>

Source: Finansministeriet (2004), *Statens selskaber 2004*, June.

## *Annex 2*

### **Renewed momentum in energy market reform**

In June 2004, a new law was passed by Parliament involving a number of changes to the regulatory framework in the electricity sector, constituting the first major follow-up on the 1999 reform. The bill includes a number of measures to increase competition in the electricity sector, many of which are in line with previous OECD recommendations (OECD, 2003). The items include:

- Full ownership separation between system operation and other activities in the market. A state-owned company takes over high-voltage transmission and system operation from the two system operators in East and West Denmark, both of which are owned by low-voltage distribution companies. The new system operator will draw up a plan for development of the electricity infrastructure.
- In return for handing over high-voltage transmission and system operation to the state, distribution companies get full access to their tied capital (capital accumulated because operating surpluses and capital gains could not be distributed as return to owners after introduction of the “no-profit” principle in 1977 and revenue caps in 2000). This capital was previously required to benefit consumers by either remaining as operating capital in the company or through a reduction of network tariffs. A new revenue cap regulation will ensure that this does not lead to higher network tariffs.<sup>1</sup> In effect, this implies a transfer of these assets, worth several billion DKK, from consumers to owners. However, since owners are all municipalities or consumer co-operatives, the redistribution will be primarily within the group of consumers, and so the direction of the redistribution is to be determined by the eventual use of these funds.
- Various restrictions on ownership in the sector are lifted. Power plants no longer need to be owned by distribution companies, and production and trading companies are allowed to own more than 15% of supply companies with concessions on distribution or transmission operations. Also, owners now have the effective majority in distribution companies rather than consumers.
- Approval of extensions and restructuring of the transmission grid is now based on more than ensuring adequate supply, including the effect on competition from enhancing transmission possibilities and reducing bottlenecks.

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1. Network tariffs would increase if distribution companies and regional transmission companies were allowed to earn a return on previously tied capital. However, revenue caps will not be raised because of this change in capital assets, and a new regulation will ensure that network tariffs do not increase more than other consumer prices. That means that the capital will yield a lower return until the time (estimated to be in around five years) when efficiency improvements and price developments can form the basis for a return equal to the interest rate on long-term Danish bonds plus 1%.

- An overlap of management and board members between monopoly companies and those operating in competitive markets is no longer allowed. All monopoly companies must draw up programmes for internal surveillance to ensure that no favouritism is taking place.
- The price regulation for companies with public service obligations (PSOs) is based on the spot price of electricity plus an administratively set supplement, thereby preventing cross-subsidising between customer groups. Following this, PSO companies are allowed to offer other services and operate in other geographical areas than their current concession areas.
- The obligation to buy electricity produced by windmills and decentralised CHP plants is abolished. This output will now be sold by the system operator on the competitive market (Nord Pool). A restructuring of subsidies ensures unchanged prices for a substantial transition period for those mills and plants that are still covered by these schemes. Other new production plants receive a fixed supplement to the market spot price or have their subsidies adjusted on the basis of monthly averages of spot prices instead of hourly spot prices. In both cases, producers have an incentive to adjust production to hourly spot prices, thereby reducing the market power of the dominant generators. As time passes, more producers will thus have incentives to react to price signals from the market.
- The Minister for Economic and Business Affairs is authorised to impose rules on billing of consumers so that they would receive only one bill instead of two if they change supplier.

### *Annex 3*

## **Competition in the wholesale electricity market**

Wholesale trade is fully liberalised in the Nordic electricity market, comprising Denmark, Finland, Norway and Sweden. Denmark is connected both to the Nordic market, *via* transmission links to Norway and Sweden, and to the German market. Electricity on the wholesale market is either traded *via* bilateral agreements (Over-The-Counter or OTC) between suppliers and purchasers or at the Nordic spot market, Nord Pool.

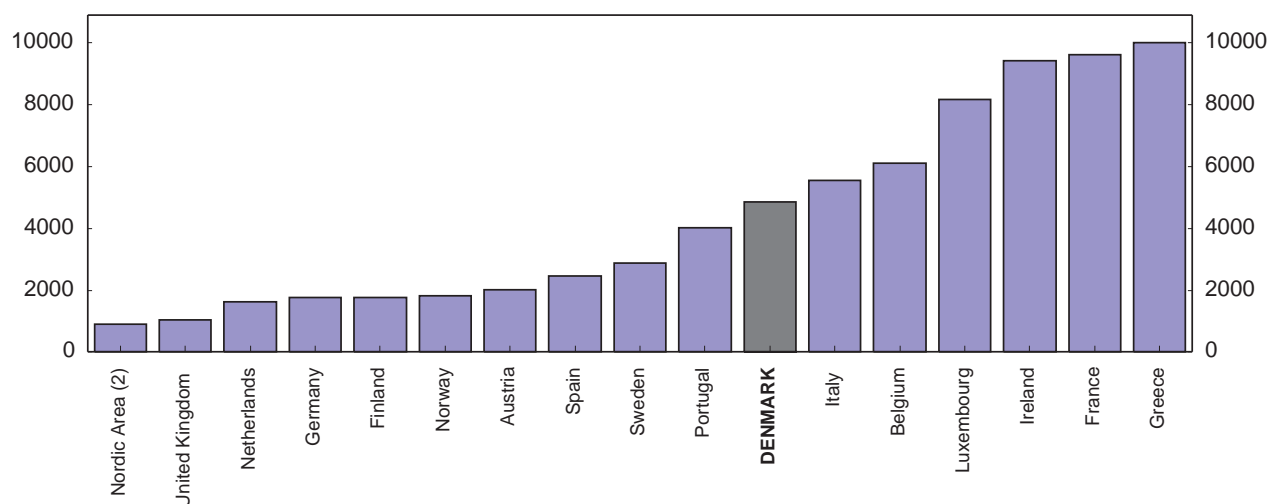
At Nord Pool, a spot price of electricity (the system price) is determined through matching of price and quantity bids on supply and purchase. Nord Pool is divided into six price areas, of which West Denmark and East Denmark are two. If there is excess supply or demand within a price area for a given system price, the area price diverges from the system price, and Nord Pool will attempt to equalise price differences between the price areas by sending electricity through the transmission lines from low-price areas to high-price areas. If transmission lines are not congested, the system price will apply in the whole area. However, if transmission lines become congested, a high price can be sustained in the importing area and a low price in the exporting area. Exporting producers will receive the low price in their price area for all their production, while the purchasers in the importing price area will pay the high price applying in their price area.

Because of the limited capacity on inter-connectors, producers with a dominant position in a price area will be in a good position to manipulate the price in the area *via* their bids on Nord Pool. In a situation where the dominant producer expects that electricity will flow out of its area, reducing supply so that inter-connectors are not fully — but almost — congested (thus preventing it becoming a low-price area) will ensure the highest price. Similarly, reducing supply so that inter-connectors become congested will ensure the highest price if the producer expects its price area to be importing electricity.

In Denmark, a major part of generation is controlled by two producer groups, and many other generators cannot, for technical reasons, vary output in response to price. Generation for the competitive market takes place at big central power plants, while non-marketed (until 1 January 2005), “prioritised” electricity is produced on decentralised combined heat and power (CHP) plants and windmills receiving administratively fixed prices for their output. Measured by a traditional Herfindahl-Hirschman Index (HHI), concentration is not among the highest in OECD countries (Figure A3.1), but since purchasers are obliged to buy all “prioritised” electricity before turning to the competitive market (until 1 January 2005), the potential for the two big producers, Elsam and Energi E2 operating in the western and eastern part of Denmark respectively, to exercise market power is greater than indicated by the index, especially when inter-connectors to the surrounding countries are congested. At present, East and West Denmark are not inter-connected, and these companies’ market shares are therefore practically 100% (HHI around 10 000) in their respective *local* markets. The high local concentration is not a problem *per se* when Elsam and Energi E2 participate in effective competition with generators in other Nord Pool price areas. But the two companies have ample incentives and potential to exercise market power when the inter-connectors to Norway and Sweden are congested. Indeed, it is a stated strategy of the companies to place bids at Nord Pool that would give them a price equal to the highest among the neighbouring areas, and the Competition Authority has identified several instances when they have succeeded in doing so

(Konkurrencestyrelsen, 2004b). In 2002 and 2003, the percentage of hours when various inter-connectors were congested varied between 0 (for the export-connector between East Denmark and Sweden) and 46 (for the export-connector between West Denmark and Norway).

Figure A3.1. **Market concentration in electricity generation**  
Herfindahl-Hirschman Index<sup>1</sup>



1. This is defined as the sum of the squares of percentage market shares of all firms in the relevant market. The more concentrated a market, the closer the index will be to its maximum of 10 000.
  2. Denmark, Finland, Norway and Sweden.
- Source: Nordic Competition Authorities (2003).

Last year's merger between Elsam and NESAs, the dominating electricity company in the eastern part of Denmark holding around 36% of the shares in Energi E2, will probably worsen the situation. While currently operating in separate price areas, Elsam and Energi E2 will have little incentive to compete in the likely future scenario where the two price areas are connected *via* a cable across the Great Belt and capacity on inter-connectors to other Nordic countries and Germany has been enhanced. The merger was approved by the Competition Council contingent on a number of remedies. Given previous identification of examples of abuse of dominant position by Elsam and Energi E2, the most obvious requirement would have been a sell-off of NESAs shares in Energi E2. But instead, negotiations between the two companies and the Competition Authority (as secretariat for the Council) resulted in Elsam committing itself to sell off some of its CHP plants<sup>1</sup> and auction off virtual capacity (auctions of options to buy electricity from a power plant, where the purchaser can decide on a daily basis how much of the purchased capacity should be put on the market). In addition, Elsam will refrain from buying new decentralised CHP plants or making agreements on operation with other CHP producers.

OTC trading is basically possible only between suppliers and purchasers within a price area, as all inter-connectors in the Nordic market are at Nord Pool's disposal. Nevertheless, it still constitutes the larger part of the wholesale market despite a declining market share. This is partly because integration into the German market does not function the same way as does Nord Pool, since there is no body trying to eliminate price differences. Therefore, most of the trade with Germany results from OTC operations with

1. Elsam owns 17% of the CHP production capacity in the western part of Denmark, while NESAs and Energi E2 together hold around half of the capacity in the eastern part (Konkurrencestyrelsen, 2004b). The companies also operate a large number of windmills.

auctions used for distribution of capacity on the transmission lines. This has the awkward effect that net flows are sometimes inversely related to short-term price differences.

Environmental concerns play a large role in almost all aspects of the energy market, and various environmentally related taxes are the reason why Danish households pay one of the highest prices for electricity among OECD countries. Environmental charges comprise CO<sub>2</sub> and SO<sub>2</sub> duties and contributions to research and other efforts to reduce electricity consumption. In addition, the price system for electricity consumption has followed from a stated policy of fostering renewable energy and CHP production through large subsidies to windmills and small CHP plants using bio fuels. According to some studies, this has been an expensive and ineffective way of reducing CO<sub>2</sub> emissions, with the bill being paid by end-users through the obligation to buy energy from these sources (see, for instance, the previous OECD *Economic Survey* and Nordic Competition Authorities, 2003).

The 1999 reform of the electricity market in principle included a rearrangement of subsidies for renewable energy production to a market-based system through awarding of tradable renewable energy certificates. The certificates were to be allocated to renewable energy producers, and consumers would be obliged to purchase certificates in proportion to their consumption. However, the introduction of this system was virtually abandoned as investment in capacity of renewable energy production shot up in reaction to the favourable subsidies, thus making for a much faster meeting of government objectives. This has left Denmark with significant spare capacity, and the country is a big net exporter to neighbouring countries.

Tradable and saveable CO<sub>2</sub> emission quotas, on the other hand, have been in place since 2000. Until now, the market has been too small for an actual CO<sub>2</sub> exchange to be established and trading has been on a bilateral basis: in 2001 and 2002, only around 1% of the allocated quotas were traded (Pedersen, 2002). However, from 2005 there will be a European trading system, which should ensure more cost-efficient CO<sub>2</sub> reductions.

## *Annex 4*

### **Competition in the book market**

Publishers and booksellers were previously allowed to trade with their respective counterparts only if these complied with trading regulations, and booksellers were obliged to sell at the price set by the publisher. The result was price levels 15-20% above those in other EU countries (OECD, 2000).

Publishers now have the right to fix the price (the fixed-price exemption from the Competition Act is maintained out of cultural policy concerns), setting a recommended retail price or giving no price indication at all. A number of restrictions apply to publishers' right to fix prices: *i*) prices can be fixed only on new books or new versions of books; *ii*) the price can be fixed only in the calendar year of the initial publication and the subsequent year; *iii*) prices cannot be fixed on imports from publishers abroad and on books that are exported; and *iv*) the price cannot be fixed on books sold to libraries, schools and other institutions.

Although the entry of a number of new outlets selling books (primarily supermarkets, toy stores and websites) may have contributed to pushing up book sales, the new players have not gained large market shares (Økonomi- og Erhvervsministeriet, 2003*b*), because many publishers have maintained some sort of price indication, thereby limiting price competition.

In 2004, the Competition Council ruled that one of the main publishing groups, Gyldendal, had abused its dominant position by requiring booksellers to sell at fixed prices while at the same time offering cheaper paperback versions *via* its own book club. As other publishers used similar methods, the Competition Council partially withdrew the fixed-price exemption (from 2005), so that the exemption will end at the time when a cheaper book-club version is offered.

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