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How Regulatory Reforms in Sweden have boosted Productivity

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By Espen Erlandsen and Jens Lundsgaard

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Abstract/ Résumé

How regulatory reforms in Sweden have boosted productivity

The economic crisis in the early 1990s prompted action on reforming the Swedish welfare state and its institutions, including deregulation of a wide range of product markets. In that way, Sweden took early action compared to other OECD countries currently struggling with how to make public finances more robust in an ageing context. The reforms that were implemented during the 1990s are now paying off in terms of productivity and GDP growth. Empirical evidence suggests that deregulation has delivered a considerable "productivity dividend". Although significant progress therefore has been made, renewed regulatory reform is needed to safeguard Sweden's ambitious public policy goals. Efforts should focus on improving enterprise formation and labour utilisation, as well as on providing better value for money in the public sector by raising its efficiency and delivering high quality services.

This paper relates to the OECD *Reviews of Regulatory Reform Sweden* and the OECD *Economic Survey of Sweden* 2007 (www.oecd.org/eco/surveys/sweden).

JEL classification: D40, E20, E60, F40, H11, H40, H50, H60, J20, L11, L50, L51, L53, O47

Key words: Regulatory reform, product market regulation, network industries, productivity dividend

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Comment les réformes réglementaires en Suède ont stimulé la productivité

La crise économique du début des années 90 a servi de catalyseur pour la réforme de l'État providence suédois, qui s'est aussi accompagnée par une vaste libéralisation de des marchés des produits. Ce faisant, la Suède a agi de manière précoce comparée à d'autres pays de l'OCDE qui peinent à trouver une solution pour assainir les finances publiques dans le contexte du vieillissement de la population. Les réformes mises en oeuvre au cours des années 90 se sont révélées payantes en termes de productivité et de croissance du PIB. Les données disponibles suggèrent que la déréglementation s'est soldée par un « dividende de productivité » considérable. Malgré d'importants progrès dans ce domaine, de nouvelles réformes réglementaires sont nécessaires afin de sauvegarder les objectifs de politique publique ambitieux de la Suède. Il faudrait se concentrer sur l'amélioration des conditions de création d'entreprise et une meilleure utilisation de la main d'oeuvre, en plus d'une meilleure valeur ajoutée dans le secteur public en augmentant son efficacité et la qualité des services fournis.

Classification : D40, E20, E60, F40, H11, H40, H50, H60, J20, L11, L50, L51, L53, O47

Mots clés : La réforme réglementaire; la réglementation du marché des produits; industries de réseau; dividende de productivité.

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HOW REGULATORY REFORMS IN SWEDEN HAVE BOOSTED PRODUCTIVITY

By

Espen Erlandsen and Jens Lundsgaard[1]

1. This working paper was originally prepared for the *OECD Reviews of Regulatory Reform Sweden* (OECD, 2007a). Because of this purpose, the paper combines material from OECD work on a wide set of topics, while adding new analysis mainly in the area of productivity developments. The paper also includes material prepared for the *OECD Economic Survey of Sweden* 2007 (OECD, 2007b).

A successful policy has helped to turn around the economy

2. For several decades, Sweden has ranked highly in most indicators of living standards, *e.g.* the UN Human Development Index (sixth place). In terms of public health, educational attainment, employment and poverty alleviation Sweden is in the top handful of OECD countries (OECD, 2005a). The backbone of the economy has traditionally been the exploitation of natural resources (forestry and mining) and the production of manufactured products (steel, paper and pulp, machinery, motor vehicles, chemicals, pharmaceuticals and telecommunication equipment) – supported by a relatively smaller service sector.[2] A characteristic feature is that a small group of large companies have dominated on the production side, while holdings of financial assets have been concentrated to a few large institutions (banks, insurance companies and investment corporations), reflecting a strong belief in economies of scale (Lindbeck, 1997).

3. Developments during the last two decades have been marked by wide-ranging changes in the Swedish economy. A combination of external shocks and policy mistakes culminated in a banking crisis, balance of payments deficits and a deep economic crisis in the early 1990s. At the same time, a large public sector imposed heavy budget deficits which contributed to a rapidly rising national debt. The main political priority in this period was therefore to redress the balance of public finances. This was achieved through a combination of tax increases and spending cuts, which helped to make the welfare state more sustainable.[3] In that way, Sweden took early action compared to other OECD countries currently struggling with how to make public finances more robust in an ageing context.

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1. The authors are grateful to colleagues at the OECD, especially Andrew Dean, Felix Hüfner, Stéphane Jacobzone and Andreas Wörgötter, besides consultant Caroline Varley, for their helpful comments. Special thanks go to Paul Conway for his assistance with simulations, to Susan Gascard and Sylvie Ricordeau for their secretarial assistance and to Béatrice Guerard for her technical assistance. The authors can be contacted at Espen.Erlandsen@fin.dep.no and jens.lundsgaard@oecd.org.

2. In international comparison, the Swedish service sector is close to OECD average in magnitude (see Kongsrud and Wanner, 2005).

3. According to the Swedish Ministry of Finance, these policy measures were possible to undertake as there was a "crisis mood" among the Swedish population. In addition, the government (in office at that time) promised to return to more generous social benefit schemes and to lower the taxes when public finances would improve.

4. The economic crisis accelerated the pace of reforming the Swedish welfare system and its institutions (Freeman *et al.*, 2006). Among major reforms undertaken was a change of the macroeconomic policy framework. This included the introduction of an inflation targeting regime and a floating exchange rate system, and a top-down budget process with multi-year expenditure ceilings and medium-term targets for the budget balance. In addition, the tax system was reformed, and measures were put forward to decentralise more of the wage bargaining process. Regulatory reform was also used as part of the measures to "turn around" the economy, including deregulation of key network sectors such as electricity and telecommunication, and strengthening of competition policy. Accession to the EU in 1995 provided a further boost for reform of the Swedish economy,[4] with the exception of the agricultural sector where liberalisation efforts in the past in fact were replaced by less competition-friendly regulations.

5. The macroeconomic and structural reforms undertaken have contributed to shape the structure of the Swedish economy. One prominent feature in this respect is the rising importance of knowledge-intensive products, such as electronic communication products (Ericsson is one of the world's leading ICT companies) – sharing features with the Finnish economy. Although the ICT sector has made a significant contribution to economic growth since the slump in the early 1990s, traditional manufacturing industries (*e.g.* motor vehicles, machinery and chemicals) are still playing an important role. In fact, over the last 15 years as a whole the size of the Swedish manufacturing sector has been remarkable stable (measured as value added as a share of the total economy), in sharp contrast to other countries which have had to meet the challenge of a decline in this sector.[5] Thus, typical transitional challenges stemming from deterioration of the manufacturing sector have *inter alia* been less pronounced in Sweden than in many other countries. Reflecting that Sweden is a small open economy equipped with large export industries, foreign trade have accounted for on average close to 46% (measured as exports as a share of GDP) over the last five years, compared to a little above 44% in the OECD.

6. Per capita incomes in Sweden are relatively high in international comparison (Figure 1). However, Sweden's ranking on this standard of living indicator has changed considerably over the past; They slipped from being at the third highest level in the OECD in 1970 to fourteenth place by the early 1990s, a long-term decline that is considered to reflect poor structural and macroeconomic policies, insufficient competition in the business sector, rigid labour markets and an overshooting in the size of government (OECD, 2005a). Since then, the macroeconomic policy framework has been improved and several product markets have been deregulated, including market elements being introduced in the public sector. Along with relatively strong R&D expenditure and more effective competition, structural changes have contributed to provide strong economic growth since the mid-1990s. Thereby, Sweden has been brought a bit closer to the group of countries with the highest per capita incomes, making it possible to sustain a high standard of living.

7. Sweden has, however, not fully regained its position relative to the leading OECD countries. At the trough of the crisis in 1993, GDP per capita was 24% below that of the United States and, despite Sweden's recovery, this gap has still been at around 22% since 2000. The remaining gap in per capita incomes *vis-à-vis* OECD peers reflects shortfalls in labour resource utilisation (measured as total hours worked per capita) and productivity per hour each accounting for about half of the gap. Sweden has progressed less than its neighbouring countries despite the similar welfare orientation in public policies. Denmark maintains a slightly higher GDP per capita, and Sweden's clear lead *vis-à-vis* Finland in earlier decades is almost gone.

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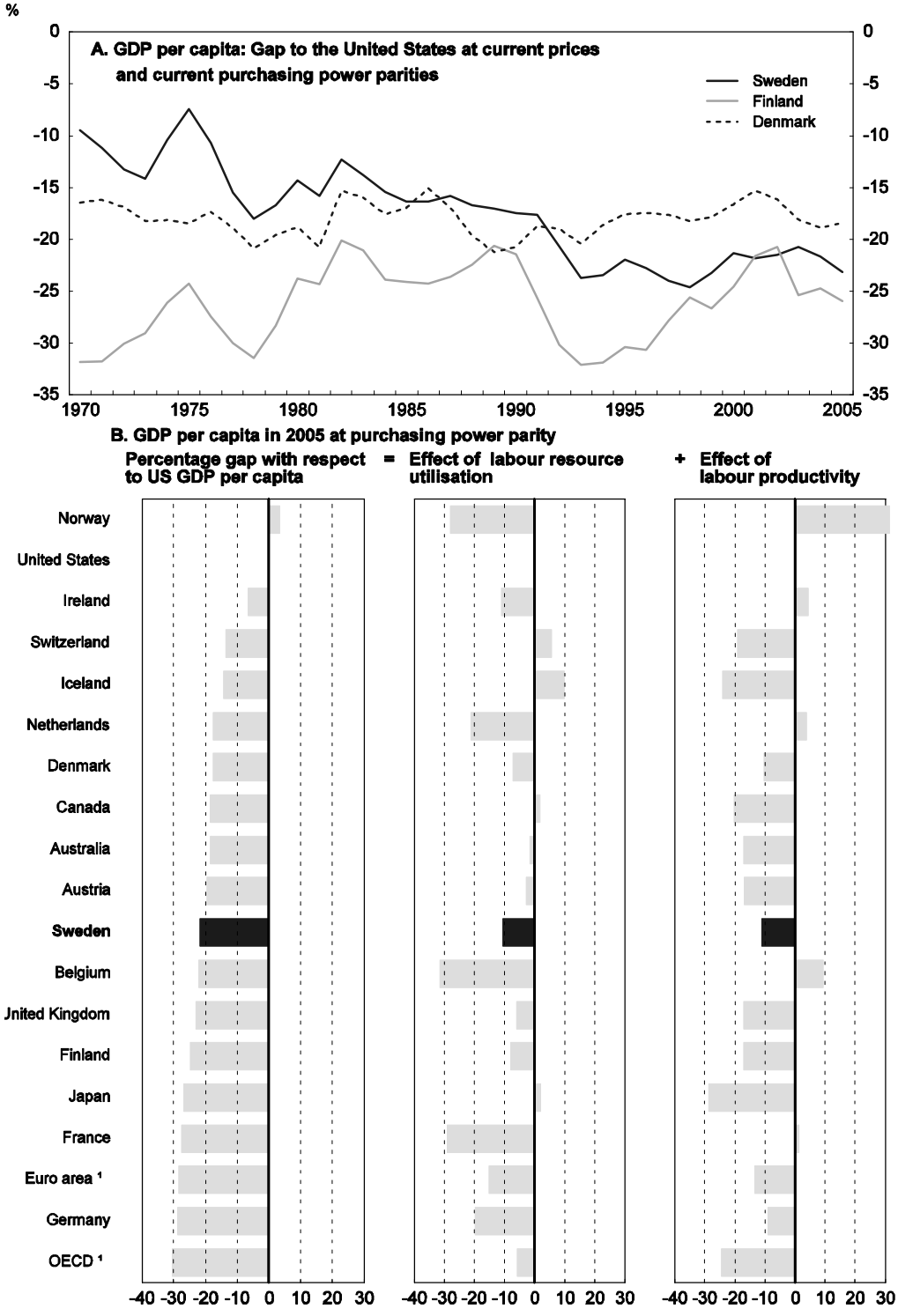
4. Although Sweden became a member of EU in 1995, this was preceded by a long period of integration with EU countries, and includes the 1972 Free Trade Agreement between Sweden and the European Community and the 1992 treaty that established the European Economic Area.

5. In 2001, value added in the manufacturing industry in Sweden, measured as a share of total value added, amounted to 20.7% (compared to 18.7% in OECD on average).

Figure 1. **GDP per capita and why it differs across countries**

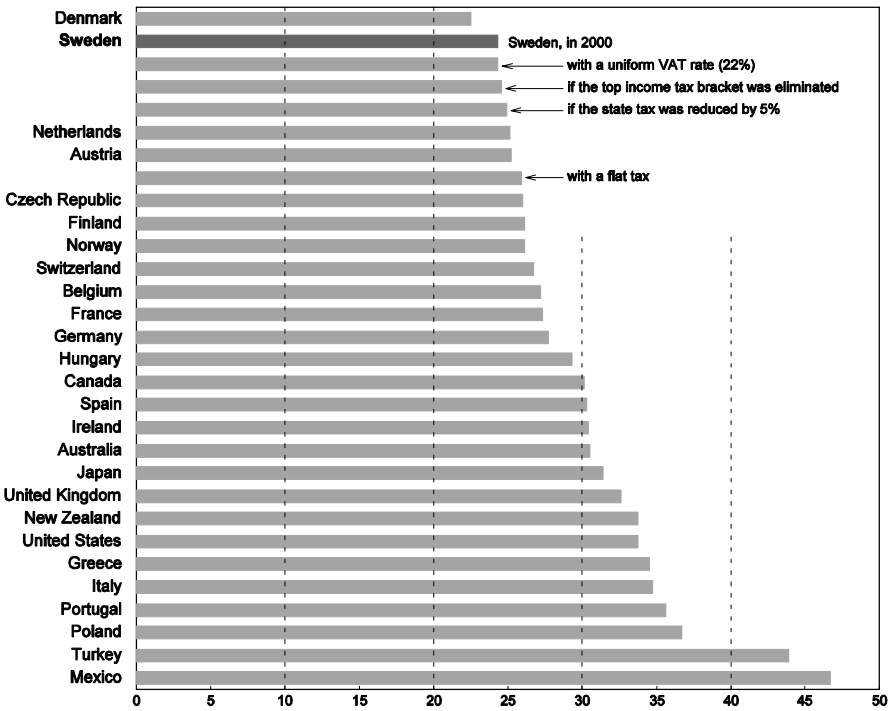


1. Excluding Luxembourg.

Source: OECD Productivity database, September 2006; OECD SNA database.

8. Like in other Nordic countries, the notion of having a welfare state plays an important role shaping the political economy of reform. Universal public services and a clear taste for equity are key components (Figure 2). Other key features of the Nordic model are comparatively high levels of trust and political consensus backed by strong democratic control, notably through high participation in elections, and a high level of transparency.[6] The challenge is to build on these strong institutions to continuously improve economic and social outcomes via regulatory reform.

Figure 2. **Swedish income distribution in international comparison**



1. A higher GINI coefficient implies greater income inequality. It can range from 0 (everyone having the same income) to 100 (one person having all the income).

Source: OECD calculations; Swedish Ministry of Finance; Förster, Michael and Marco Mira d'Ercole (2005), "Income distribution and poverty in OECD countries in the second half of the 1990s", OECD, Social, Employment and Migration Working Papers No. 22.

9. Although a successful policy has helped to turn around the Swedish economy, there is no room to rest on the laurels as major challenges will emerge in the years ahead, including the need to tackle the looming demographic burden. The first generation of regulatory reforms during the 1990s have produced significant gains in terms of productivity, but there is still scope for improvements in regulatory design. Also, some sectors are still subject to various barriers that impede competition and hence innovation. To sustain future growth and safeguard Sweden's welfare systems, the following key challenges needs therefore to be addressed:

- *Improving labour resource utilisation*. Although employment rates are fairly high, in particular for women, annual working hours for those in employment are relatively low. High absence rates

6. Sweden ranks as the sixth most transparent country in Transparency International's Corruption Perceptions Index for 2005 (see www.transperency.org).

due to various factors (holidays, sickness and parental leave) are considered to be the main reason for the shortfall in hours at work in Sweden.

- *Reducing economy-wide regulations in areas where performance so far has been weak*. Together with exposing the public sector to greater competition, this could be one way of coping with the relatively low rate of business formation and enterprise growth in Sweden.

- *Providing better value for money in the public sector*. There is a need to raise public sector efficiency, in addition to deliver high quality services. Exposing the public sector to greater competition (and associated scrutiny) and improving the interface between private and public provision of publicly funded services, could be one way to obtain this.

10. This paper is structured as follows. Section 2 presents the macroeconomic context of within regulatory reforms in Sweden have taken place. Section 3 discusses emerging regulatory challenges and reviews the policy responses to date. Section 4 proposes policy options for strengthening the foundations for future growth.

The macroeconomic context

Factors driving economic performance over the past decade

International trade has a rising influence on the Swedish economy

11. International trade and investment has a rising influence on the Swedish economy, supported by a pronounced free-trade regime. Indicators on the restrictiveness of trade barriers show that Sweden in 1998 had a higher degree of openness than in many other OECD countries, and that efforts to reduce these further have been continued (Conway *et.* al, 2005).

12. For several decades, Sweden's exports as a share of GDP were slightly lower than in OECD on average.[7] This subsequently changed in the first half of the 1990s, notably due to a significant improvement in Swedish competitiveness and a favourable composition of world demand (Figure 3, panel A).[8] In 2004, Swedish exports amounted to 48.6% of GDP, compared to 45.5% in OECD. The export upswing has, however, not been followed by an equivalent shift in the level of Swedish imports, despite a pick-up in import penetration (measured as import volumes as a share of total final expenditure). Although historically export and imports shares have been closely linked, developments since the mid-1990s appear to have altered this pattern. This development is suggestive of structural changes such as the regulatory reforms undertaken in the 1990s. In addition, export oriented industries may have benefited in particular

7. Exports as a share of GDP were higher in Sweden than in the OECD if Luxembourg is excluded.

8. From 1992 to 1993 the Swedish krona depreciated effectively by 20%. Combined with large productivity gains in the manufacturing sector, this reduced Sweden's relative unit labour costs in manufacturing by almost 30%. Swedish exporters used part of the resultant boost to competitiveness to lower their foreign-currency prices, except for in resource-intensive industries (OECD, 1995). Swedish export shares also benefited from a favourable composition of world demand, based on a relatively high content of infrequently purchased goods, such as passenger cars and household appliances, which had a high weight in Swedish exports. Recovering economies such as the United Kingdom, Norway, the United States and East Asian countries markedly increased their imports of such goods from Sweden, Furthermore, this composition of exports allowed Sweden to benefit disproportionately from emerging markets.

from technological development, while globalisation (leading to increased specialisation) may have spurred export performance in specific industries.[9]

13. Traditionally, Sweden's main trading partners have been Denmark, Finland, Germany, Norway, the United Kingdom and the United States, which together account for around 50% of total goods export. International trade with emerging economies such as China plays a growing role. Since 1998, Swedish imports and exports with China increased from 0.9% and 1.7% (measured as a proportion of total imports and exports), to 3.0% and 2.2%, respectively.

14. Having a large ICT production is a two-edged sword for an economy, as the ICT industry has been characterised not only by rapid technological progress, but also significant price declines. The benefits of ICT are thus likely to accrue more to the users than to the producers of ICT (Bayoumi and Haacker, 2002). Indeed, this distinction has been evident in the Nordic countries. The differences in the composition of exports and imports show up in considerable trend divergences in the terms of trade, in particular since the late 1990s (Figure 3, panel B). Between 1991 and 2005, Sweden's terms of trade worsened by 13%. In contrast, Denmark saw an improvement of almost 9%. Prior, the development was broadly similar in these countries (OECD, 2006b), pointing to structural changes in the trade composition over time. However, other countries with large ICT industries have seen an even larger deterioration in their terms of trade (15% for Finland and 36% for Korea).

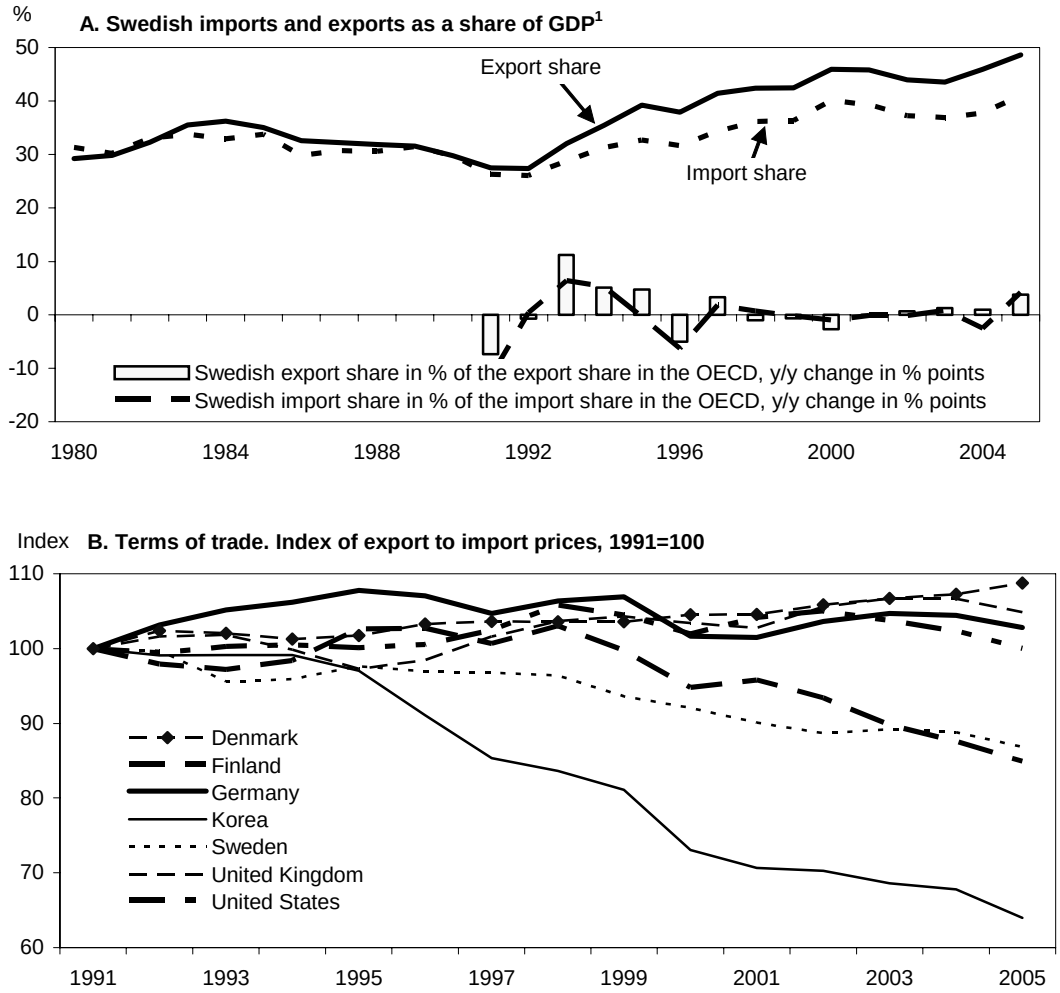
Generally high employment rates but low labour market flexibility

15. The Swedish labour market is characterised by a combination of generally high employment rates (74.7% compared to 67.4% in OECD, 2004-figures) and low average hours of work. The effect is that total labour supply is only around average (Figure 4). Part of the explanation as to why working hours are low is that the "standard" working week is around one hour shorter than the European average. Most of the shortfall, however, is caused by high absence rates, with holidays, sickness and parental leave as the most common reasons. Furthermore, high effective marginal tax rates generate incentives to reduce working hours. Taking absences into account, the "average" Swede is away from work almost 17 weeks each year, compared to the European average of 11 weeks (OECD, 2005a).

16. In international comparison, Sweden has relatively strict employment protection rules (Figure 5). The most significant rule is the last-in-first-out rule that gives a great deal of job security to people who stay with the same employer. However, this rule may be deviated from collective agreement, making it possible to take into account the employer's need to keep certain persons in the workforce. Furthermore, an employee with longer employment time only has priority over other employees if he or she has satisfactory qualifications for the continued work. Certain exemptions from the rule apply for companies with ten or fewer employees. Thus, Swedes tend to stay in the same job much longer than in other OECD countries (OECD, 2004). While this may help them gain firm-specific skills, and possibly increases the willingness of employers to contribute to continuing education of their employees, this reduced job mobility makes it harder to reallocate the scarce labour supply to those areas where it is most needed.

9. Sweden is, for example, a relatively large exporter of motor vehicles -- an industry which has been increasingly specialised in recent years.

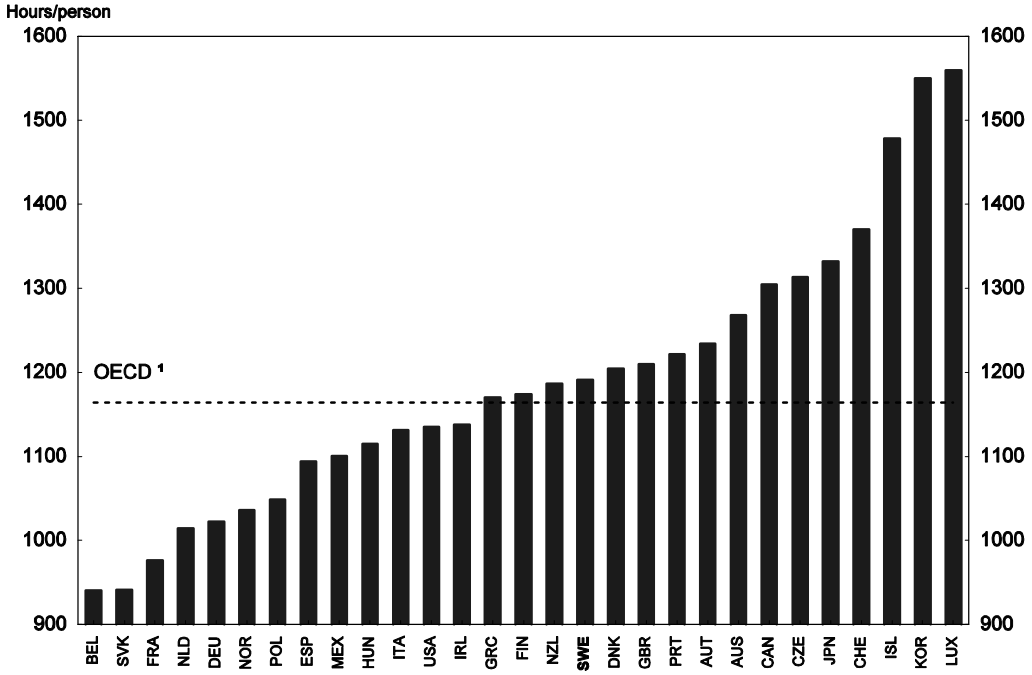
Figure 3. **Strong export performance but declining terms of trade**



1. Total goods and services.

Source: OECD Economic Outlook 79 database.

Figure 4. **Total hours worked annually per person of working age, 2005**

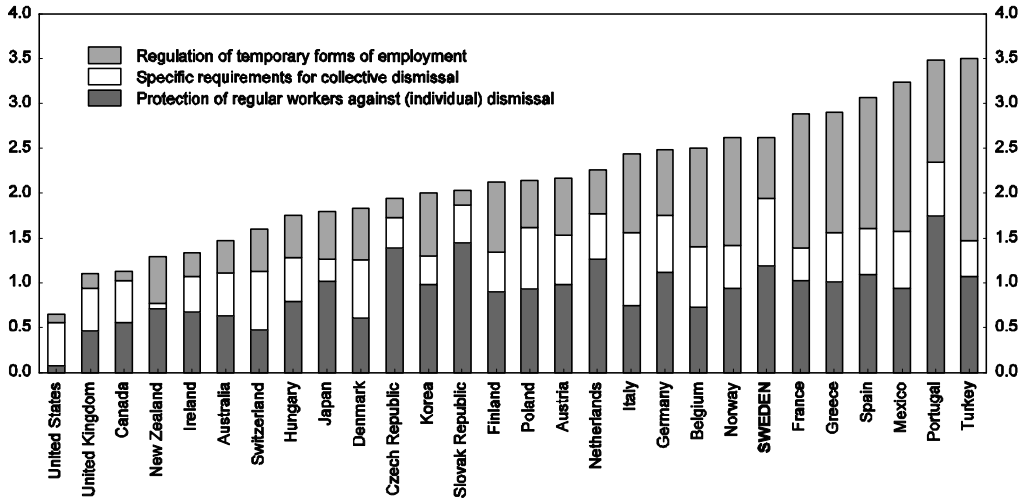


1. Considering the OECD as a whole, but excluding Turkey.

Source: OECD Economic Outlook 80 database; OECD Productivity database, September 2006.

Figure 5. **Strictness of employment protection legislation**

Index scale of 0-6, from least to most restrictive, 2003



Source: OECD *Employment Outlook* 2004.

A highly credible monetary policy

17. Sweden's present monetary policy framework of inflation targeting emerged from the currency crisis in late 1992, due to the collapse of the peg to the D-mark and the following decision to let the Swedish krona float. The monetary policy target is (according to the Riksbank's Act) to maintain price stability, and since January 1993 the central bank has defined this as keeping consumer price inflation at 2% over the medium term with a tolerance band of ±1%.

18. This monetary policy framework has served Sweden well. Sound inflation performance has strengthened the central bank's credibility, and long-run inflation expectations appear to remain firmly anchored around the central bank's desired level (OECD, 2007b). The inflation targeting regime has in recent years delivered low and stable inflation and so helped to promote economic growth. This good performance is one of the factors that are likely to explain why the spread in long term interest rates has been significantly reduced during the last decade.

A financial sector that helps to underpin the economy

19. Financial and insurance-related services play an important economic role through their impact on the technical infrastructure (payment systems, trading platforms, clearing and settlement of securities, pooling of risk) and through their direct and indirect effects on value added and employment. In Sweden, the financial sector's share in total value added is slightly less than 4% (compared to a little over 6% in the OECD), and its share of employment is slightly higher than 2% (compared to a little over 3% in the OECD). The latter share has remained more or less constant over the last decade, while the former shows a significant drop since the late 1980s, when the share was around 5% (closer to the OECD average).

20. The development of Swedish financial market over the past two decades has been characterised by deregulation of credit and currency markets, increased internationalisation and technological development. As a result, product variety is increased, but it has also added greater complexity. In recent years, a large number of new banking companies have been established in Sweden (including affiliates of foreign corporations). But holdings of financial assets are still concentrated into a few large domestic institutions (banks, insurance companies and investment corporations). According to the Competition Authority, there is currently an oligopoly-like market structure in the banking industry where the four major players' control 73% of total assets managed (Konkurrensverket, 2005). In international comparison net interest margins in the Swedish banking sector are close to the OECD average while overhead costs are slightly lower (OECD, 2006a).

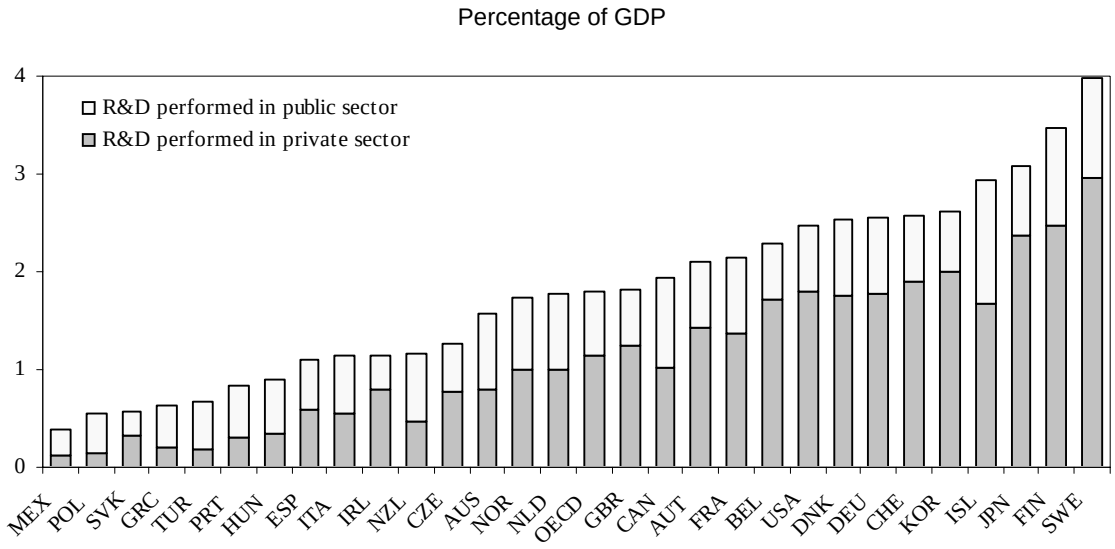
High R&D expenditure promotes innovation

21. Innovation is a key element determining long-term economic growth. In this respect, Sweden rates highly on a number of contributing factors. R&D expenditure expressed as a share of GDP is higher than any other OECD country (Figure 6). A relatively high proportion of R&D is performed by the private sector and just four large Swedish companies accounted for some 70% of all private sector R&D in the first half of the 1990s. Sweden also has a high share of researchers in the workforce, and one of the highest proportions of patent applications per head of population in the OECD (OECD, 2004). But it appears to do relatively less well in the practical translation of this effort into the market. When it comes to the number of successful innovations in manufacturing and services, Sweden is only middle ranking compared to other OECD countries (OECD, 2006a).

22. Sweden's public policies towards R&D are more neutral than those of several other OECD countries, most notably because it does not offer tax subsidies (OECD, 2006a). However, direct government funding of business R&D is relatively high. In the three years to 2003, it amounted to 0.18%

of GDP in Sweden, compared to 0.06% in OECD on average (OECD, 2006a). The main part of this is for defence purposes where the government contracts with the industry include R&D. Within the civil sector the government funding to industry R&D is relatively low.

Figure 6. **Expenditure on R&D across the OECD, 2003**[1]



1. 2002 for Australia, Austria, Portugal, Switzerland and Turkey; 2001 for Greece and Mexico.

Source: OECD (2006a), *Going for Growth* 2006.

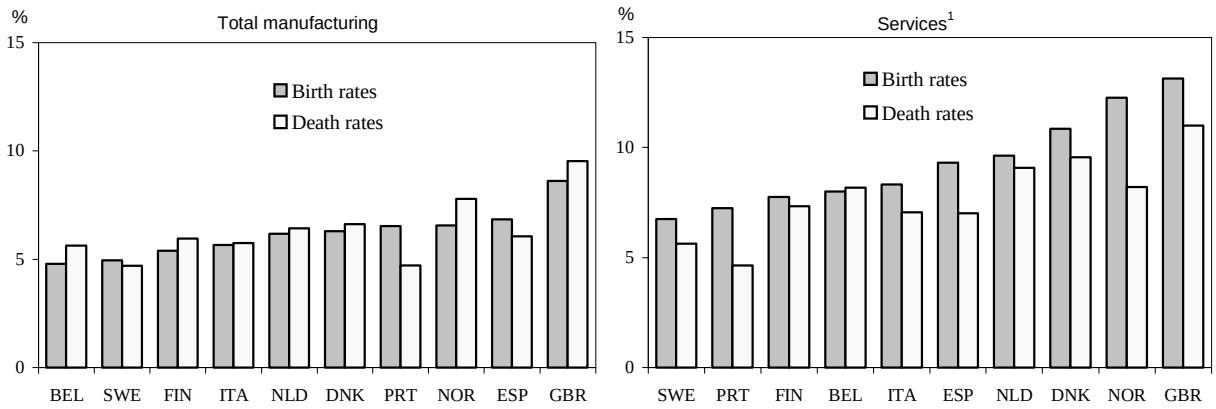
Entrepreneurship is muted

23. Entrepreneurial activity is another critical element for long-term growth. Entrepreneurship involves seeking out and identifying potentially profitable economic opportunities and taking the risk of trying them out. New firms can act as an important "bridge" for the successful application of innovative developments into the marketplace, which matters in the Swedish context because this is an area where there is still scope for improvement. As well, shifts towards outsourcing, the development of new services, and demand for more differentiated products all point to a greater role for small and new firms as engines of entrepreneurial change (Henrekson, 2005). New and expanding firms have, not least, the potential to generate jobs.

24. Despite a high overall tax pressure, Sweden is among the OECD countries taxing corporate income relatively mildly and the marginal effective tax on capital is generally considered to be fairly low in Sweden (OECD, 2006e). Furthermore, Sweden often ranks high in international comparisons of where it is attractive for firms to locate (OECD, 2007b). However, the fact that there are few start-ups in manufacturing as well as services indicates that the climate for entrepreneurship is not as good as it could be (Figure 7) – despite the fact that barriers to entrepreneurship are generally lower in Sweden than elsewhere in the OECD. All the more so because the firms that are established and survive tend to grow more slowly than in other countries (Eurostat, 2005). Relatively few people in Sweden have ever considered starting their own business, and a smaller proportion than elsewhere has experience of running a business (OECD, 2004).

Figure 7. **Birth and death rates of firms**

Average rate 1998-2003



1. Includes NACE category G to K, i.e. trade and repair, hotels and restaurants, transport and communication, financial services, real estate, renting and business activities. Education, health, social services and public administration are not included.

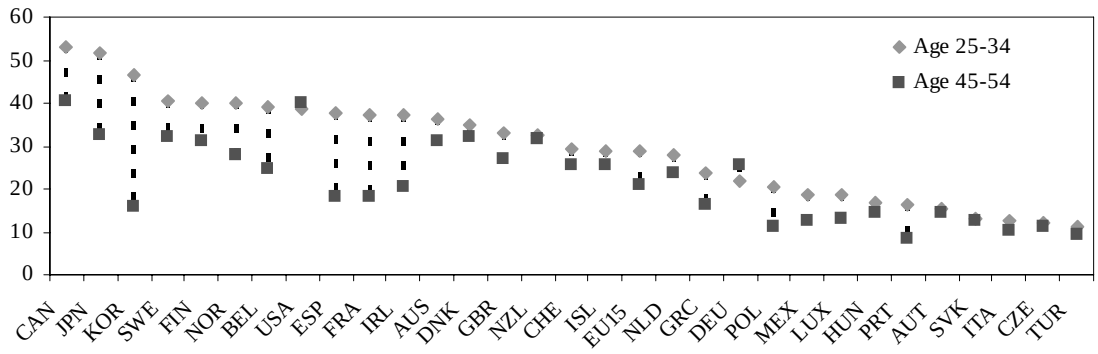
Source: Eurostat (2005).

Strong investments in human capital, albeit mediocre learning outcomes

25. Human capital formation in Sweden has been strong, with educational attainment well above the level in other OECD countries. In 2003, 82% of the labour force aged between 25 and 64 had attained at least upper secondary education, a considerably higher proportion than in the OECD (66%). Furthermore, Sweden is among a top handful of OECD countries of which a relatively large share of prime-age working cohorts having attained tertiary education (Figure 8). This applies in particular with respect to the proportion of people with higher level degrees (bachelor, masters, PhD's and similar) (OECD, 2006b).

Figure 8. **Educational attainment, 2003**

Percentage of population with tertiary education



Source: OECD, *Education at a Glance,* 2005.

26. The strong investments in human capital reflect large public outlays on the Swedish education system. In 2002, public financing of education totalled 7.6% of GDP, compared to 5.4% in the OECD. As a result, expenditure per pupil was relatively high in international comparison. However, the performance of 15 year olds, as highlighted in the last OECD PISA study, is disappointing where the outcome is only a bit above average. In mathematics and in problem solving, Sweden is in fourteenth place, far behind neighbouring Finland (which tops the ranking).

Key economic challenges

27. The Swedish economy has undergone important changes over the last two decades, recovering from a long-term decline in GDP per capita. Early steps in regulatory reform, taken in the 1990s, are paying off in terms of productivity and GDP growth. However, tensions are visible at the margin. Employment rates have not recovered to traditionally high levels, and joblessness is widespread among immigrants and youngsters. Also, disability and sickness rates are comparatively high (OECD, 2007b).

Strong and resilient economic growth since the mid-1990s

28. After the crisis, the Swedish economy came back strongly during the second half of the 1990s with GDP growth rates well above that of most other European countries (Figure 9). Since 2001, the Swedish economy has outperformed several euro area countries. The economy has proved relatively robust in the face of some major recent shocks, including a global slowdown and the burst of the telecoms bubble.

29. The sustained upswing is reflected in key macroeconomic indicators. The economy remains competitive, with Sweden's current account moving from a pre-1993 deficit to a large and growing surplus. The fiscal accounts have also improved significantly, with a surplus (more or less) over the last eight years. Consumer price inflation has been maintained at a low level since the mid-1990s, despite the cyclical upswing, reflecting among other factors productivity gains and increased global competition (not least from China and other dynamic Asian economies).[10]

A performance supported by impressive productivity growth

30. Perhaps the most striking feature of Sweden's economic performance during the last decade is the strong resurgence in labour productivity growth relative to the 1980s (where growth rates were weak by international standards). Growth in 1991-1998, measured as value added in the total economy per hour worked, averaged 2.2%, compared to 1.2% in the 1980-1990 (Figure 10). From 1999 to 2005, it increased further, to 2.5% on average.

31. The surge in productivity growth is also apparent vis-à-vis other countries. Sweden has moved from a relatively poor performance to one that puts it in a group of countries with relatively high productivity growth (Figure 11). Along with Australia, the United Kingdom and the United States, Sweden is one of a few countries having experienced accelerating productivity growth over the last 35 years.

32. For the Swedish economy as a whole, capital accumulation added about ¾ percentage point to annual labour productivity growth during 1999-2003, thereby continuing at a roughly unchanged pace from previous decades. Consequently, the residual part of output growth that cannot be ascribed to increased inputs, so-called multi-factor productivity, has accelerated. It accounted for 1¾ percentage points

10. OECD estimates that imports from China and other dynamic Asian economies, due to globalisation, have contributed to reduce inflation in the euro area in the period 2001-2005 by 0.3 percentage points (OECD, 2006c).

of annual labour productivity growth 1999-2003, compared to 0-1½ percentage points in most other countries.[11]

33. Several factors are likely to explain improved performance. These include:

- The reform of the macroeconomic policy framework in the 1990s, which helped to strengthen fiscal sustainability and increase the credibility of the monetary policy.
- The shut-down of low-productivity firms during the economic crises.
- Structural changes in the economy, including a strong expansion of the ICT industry, leading to a relatively high share of value-added produced in high growth sectors, especially in knowledge intensive services such as telecommunication services where growth has been especially strong.[12]
- Increasing specialisation and outsourcing due to globalisation.
- Better measurement of price deflators in Swedish national accounts, leading to higher measured productivity in service sectors.
- A better quality labour force (a growing share of employees have university degrees).[13]

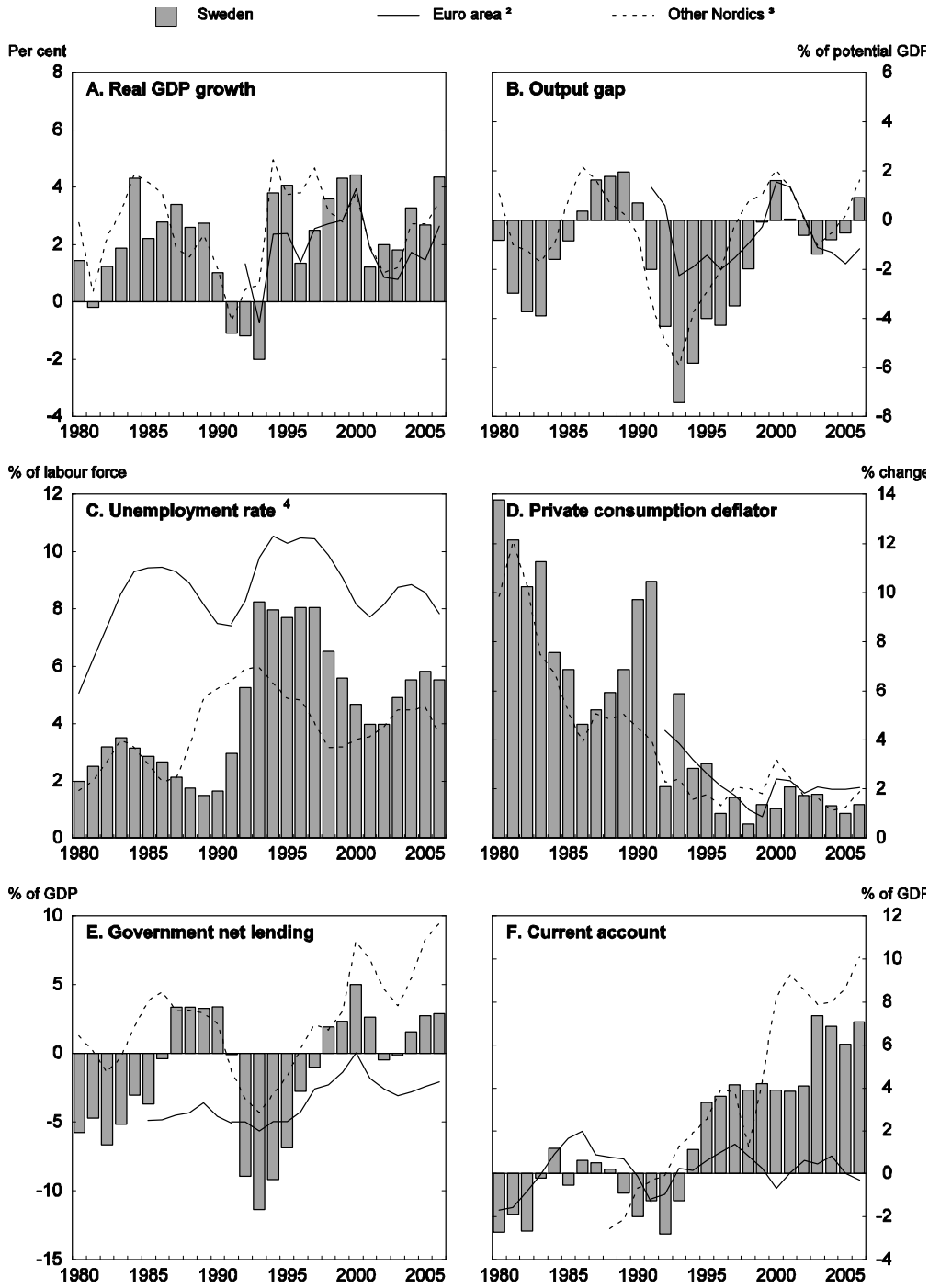
34. Regulatory reform played also an important role behind productivity improvements (Figure 10). The closure of low productivity firms in the crisis was followed by a boost to the emergence of more productive firms through deregulation, which promoted greater competition. Other positive effects included the liberalisation of the telecommunication market in the early 1990s, which helped to support structural changes through the expansion of knowledge intensive services. Strong productivity growth in telecommunications over the past ten years suggests that regulatory reform has spurred economic performance in this sector, as is the case in many other OECD countries.

11. For 1986-90, annual labour productivity of 1¼ percent was mostly explained by capital accumulation. During the crisis and subsequent recovery years 1991-98, annual labour productivity of 2¼ percent was due to capital accumulation and multi-factor productivity in roughly equal proportions.

12. In a study by Boug and Naug (2001) analysing why labour productivity growth in the manufacturing sector was significantly higher in Sweden than in Norway during the 1990s, they found that this partly could be attributed to differences in industrial composition (most of the remaining differences could be explained by some specific Norwegian industries with relatively weak performance).

13. Forsling and Lindstrom (2004) finds that a better-quality labour force, reflecting a growing share of employees with higher university degrees, has raised labour productivity growth by about 0.2 percentage points per year on average in the business sector.

Figure 9. **Key macroeconomic indicators**[1]

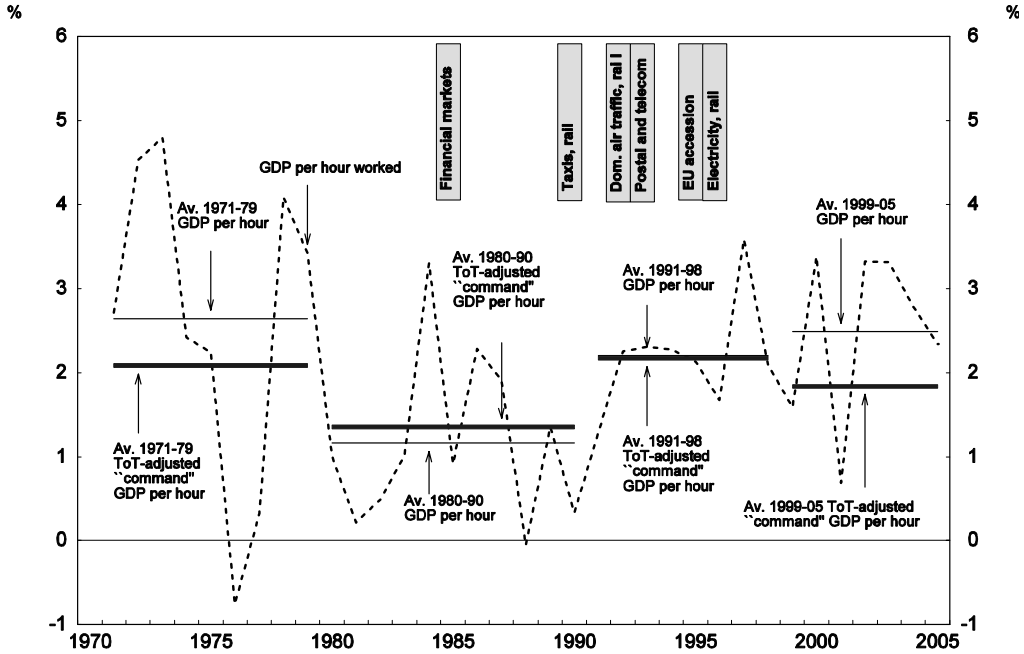


1. OECD estimates for 2006.
2. Break in series in 1991: western Germany up to 1990, total Germany thereafter.
3. Denmark, Finland and Norway.
4. Labour Force Survey, *i.e.* open unemployment not including participants in labour market programmes.

Source: OECD Economic Outlook 80 database.

Figure 10. **Productivity growth and the timing of regulatory reform**

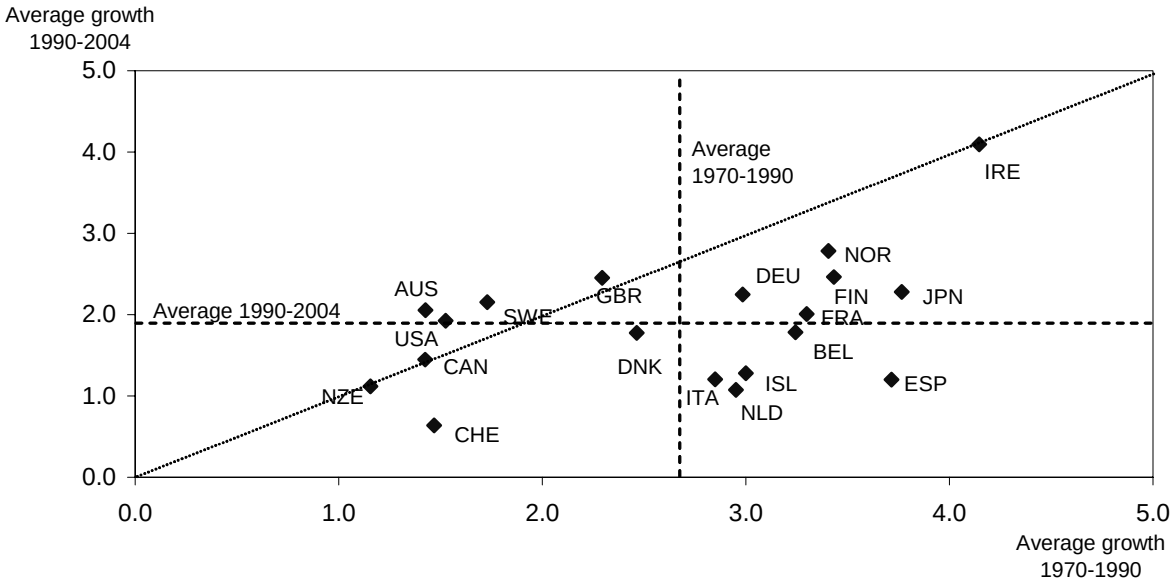
Whole economy, annual growth rate



Source: OECD Analytical Database; OECD calculations.

Figure 11. **GDP per hours worked in the OECD**

Total economy, average percentage change at annual rate



Source: OECD Productivity database.

GDP and productivity growth should be adjusted for the decline in terms of trade

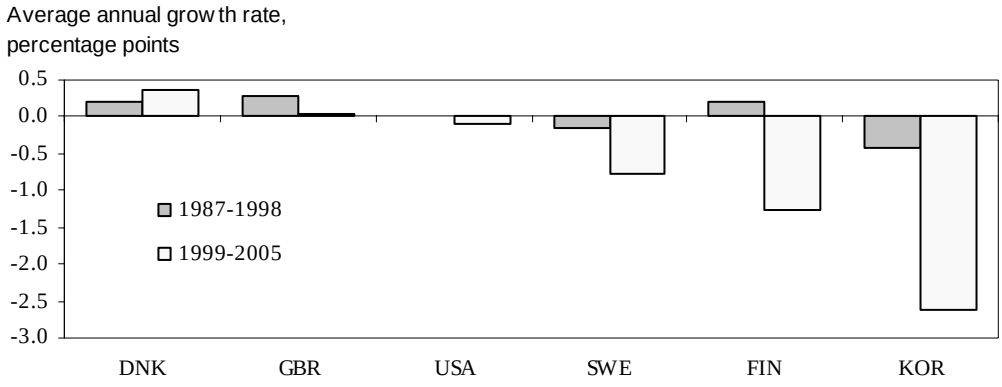
35. Although the Swedish ICT industry has made a significant contribution to GDP and productivity growth over the last decade, the long term effect on an economy of a large ICT industry is deterioration in the terms of trade as relative ICT prices typically fall over time. If Swedish GDP and productivity growth measures are adjusted to take account of this phenomenon, both measures come out a little lower than traditional measures (Box 1 and Figure 10). This puts a slightly less positive slant on Sweden's productivity performance, as well as underlining the need to sustain or even improve performance over time. For Swedish companies to sustain their competitive edge in export markets, they will need to raise productivity more quickly than competitors.

Box 1. **Adjusting GDP and productivity trend growth measures to take account of ICT**

The flipside of the coin of having a large ICT-industry is that prices of ICT goods have been falling on exports markets, thereby leading to a trend decline in terms of trade in Sweden. The terms of trade worsening has negative economic effects which need to be taken into account and put the faster productivity developments of Sweden somewhat into perspective. A decline in the terms of trade means that fewer goods can be imported with the same volume of export goods, *i.e.* the purchasing power of domestic income decreases. Traditional GDP accounting does not take such relative price changes into account as all items are expressed in terms of base year prices. To approximate effects from terms of trade changes on the purchasing power of domestic income, nominal exports can be deflated using the import price deflator, to create an indicator called "command GDP". According to such a measure of overall consumption possibilities of an economy, Sweden's yearly growth in terms of "command GDP" has on average been 0.7 percentage points lower than traditional GDP growth in the six years to 2005. This is smaller than in Finland and Korea, while in the UK and Denmark the effect works in the other direction (OECD, 2005b, 2006b, 2007b) (Figure 12).

Calculating labour productivity growth based on "command GDP" instead of traditional GDP, 0.2 percentage points of the pick-up in productivity growth from the 1980s to the 1990s vanishes (see Figure 10). This gap has been further widened in recent years, to 0.4 percentage points, reflecting worsening in the terms of trade.

Figure 12. **Difference between real GDP and terms-of-trade adjusted "command" GDP**[1]



1. Terms-of-trade adjusted Command GDP = TDDV + XGSV*(PXGS/PMGS) - MGSV, where TDDV is real domestic demand, XGSV and MGSV are, respectively, volume exports and imports, and PXGS and PMGS are the export and import deflators.

Source: OECD (2006b), *Economic Survey of Denmark* 2006.

The decline in terms-of-trade has implications for the international comparison of GDP per capita. Comparisons of GDP levels over time based on current PPPs use a sequence of benchmark PPPs to construct time series of PPP price level indices. These are then applied to GDP time series in current national prices. With such a method, the effect of terms-of-trade trends on aggregate real income is captured via its effect on nominal GDP (OECD, 2002a). By contrast, the OECD Going for Growth 2007 includes a figure for each country comparing the GDP level with that of the United States where, for consistency, all of these figures are based on constant rather than current purchasing power parities (OECD, 2007c). When using constant PPPs, the time series are derived by applying GDP volume growth rates for each country to the common-currency GDP levels of the base year. Such an approach implies that terms-of-trade trends are not taken account of, meaning that the figure in the OECD Going for Growth 2007 overstates the extent to which Sweden's gap in GDP per capita has narrowed in recent years.

Strong productivity growth in manufacturing industries, but more mediocre for services

36. The resurgence in Sweden's labour productivity growth over the last decade has been strongest in the manufacturing sector, where growth in value-added per hour worked averaged 5.9% in the period 1999-2003 (Table 1). The ICT sector, and one telecommunications company in particular (Ericsson), accounts for a significant share of growth.[14] Productivity also rose strongly in the auto, pharmaceutical and machinery industries.

37. The ICT sector (both in manufacturing and in communication services) has become a flagship for Sweden's corporate sector, but its importance and contribution to Swedish growth needs to be kept in perspective. In the late 1990s, the sector was only slightly larger than in the EU on average, and was much smaller than in Europe's "new economy stars", Finland and Ireland (OECD, 2005a). Traditional manufacturing industries still play an important role alongside ICT. In any case, productivity has improved in other manufacturing industries as well.

38. Swedish companies are considered to be leaders in their use of the Internet, and over the last decade they have invested heavily in ICT equipment (Figure 13). There are, however, few clear signs that this has led to a widespread pick-up in labour productivity growth in the service sectors that are commonly thought to benefit most from new technologies, where Sweden in fact is ranking in the middle (see Table 1). The reasons for this are not obvious, but one possible explanation is that several service industries remain still sheltered from effective competition, either because they are dominated by public provision or because they are protected by sector-specific regulations. Thus, looking further into measures to improve service sector productivity should be made a policy priority, not least as the shift from goods to services has become more pronounced over the last decade (Kongsrud and Wanner, 2005).

14. The rise in labour productivity growth in the ICT sector reflects partly a "structural adjustment" effect, *i.e.* reallocation of resources across different sectors (Lind, 2003; OECD, 2005a, 2007b).

Table 1. **Productivity growth by sector**

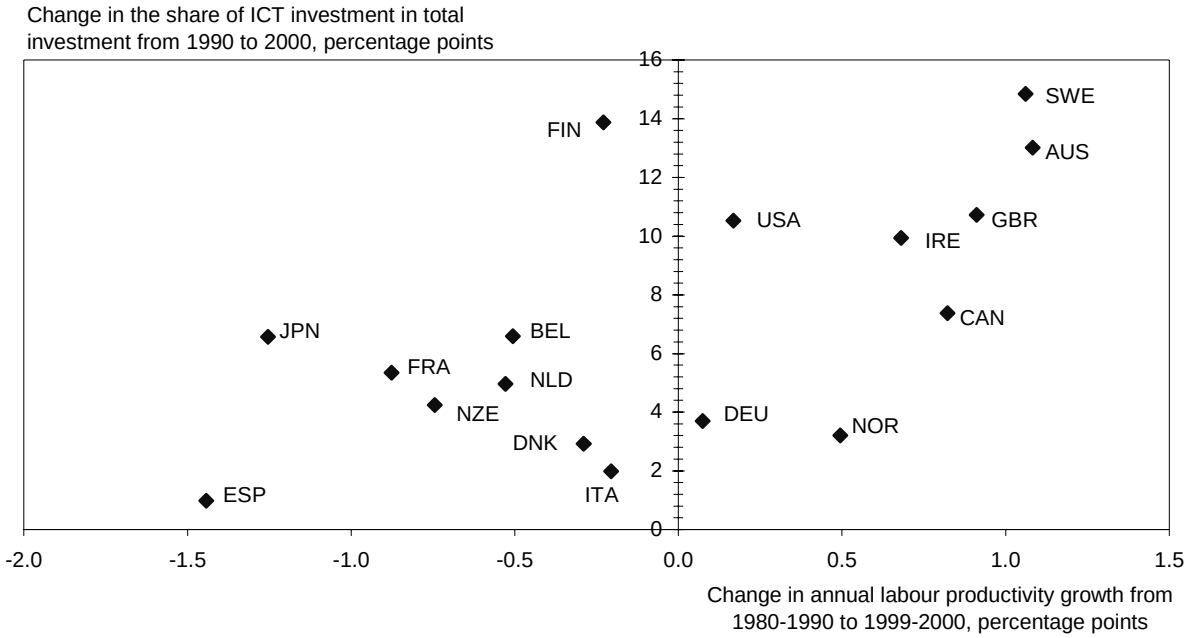
Value-added per hour worked, average annual change 1999-2003

	CAN	DEN	FIN	JPN	NLD	NOR[1]	**SWE**	*Memorandum item* Share of total Swedish value-added, %
Total [2]	**1.9**	**1.8**	**2.0**	**1.7**	**0.7**	**2.7**	**2.4**	**100.0**
Agricultural, hunting, forestry and fishing	3.4	2.0	5.6	-2.1	-0.3	4.3	4.8	1.9
Electricity, gas and water supply	-0.4	-1.4	6.6	3.5	3.8	9.5	2.9	2.6
Construction	1.1	1.1	-1.9	-0.5	0.0	-2.6	-0.3	4.3
Total of manufacturing	**2.6**	**3.4**	**4.4**	**4.5**	**1.6**	**3.0**	**5.9**	**20.9**
Food products, beverages and tobacco	2.1	3.3	3.3	0.1	1.0	5.5	1.3	1.4
Pulp, paper, printing and publishing	3.2	0.1	2.5	..	-0.1	2.1	3.5	2.6
Chemical, rubber, plastics and fuel products	3.5	2.9	1.4	..	4.5	1.0	7.8	2.5
Basic metals and fabricated metal products	2.1	3.2	1.5	-0.3	0.8	4.0	2.6	2.2
Machinery and equipment, including ICT	-0.4	4.1	8.4	8.3	0.9	1.2	9.3	3.9
Transport equipment	2.7	2.4	0.2	5.5	0.6	0.0	7.3	2.3
Total of services	**2.0**	**1.4**	**1.0**	**0.9**	**0.6**	**2.8**	**1.5**	**70.0**
Producer services								
Business and professional services	2.6	-0.7	-0.5	..	1.5	0.4	1.0	7.8
Financial intermediation	1.0	3.9	5.0	6.6	1.6	2.8	4.3	3.6
Real estate	2.7	-0.4	-0.1	3.8	-1.0	-0.6	0.4	8.6
Distributive services								
Wholesale and retail trade; repairs	3.3	2.1	2.6	..	0.8	5.0	3.1	10.5
Transportation	2.7	6.0	1.1	..	-0.8	1.6	2.0	4.5
Communication	4.3	4.6	10.1	..	9.1	11.5	6.4	2.0
Hotels and restaurants	0.4	-2.9	-1.0	..	-1.2	0.9	0.4	1.5
Community and personal services	1.1	0.2	-0.3	..	-0.4	1.4	0.6	25.1

1. 1999-2002.
2. Sub-sectors accounting for less than 1% of value-added in Sweden are not listed separately, but are included in the totals.

Source: STAN database; OECD calculations.

Figure 13. **Pick-up in labour productivity growth and investment in ICT equipment**



Source: OECD Productivity database.

Labour market performance has been less exemplary

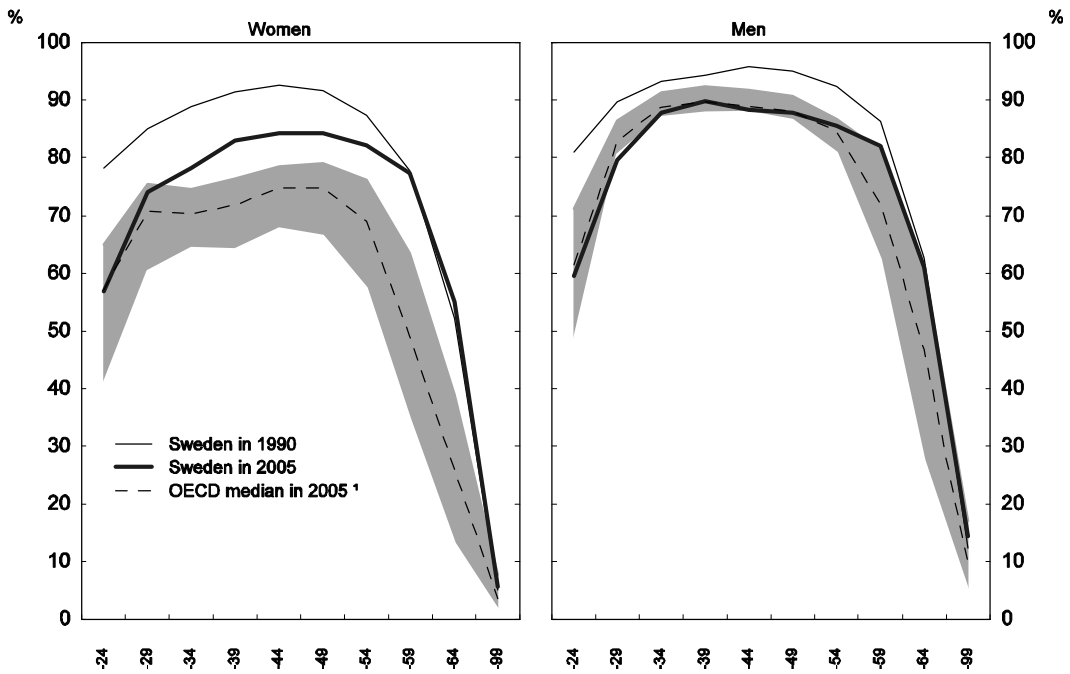
39. The Swedish labour market faces certain weaknesses despite a generally high employment rate. The employment rate is significantly higher than in most other OECD countries, but the unemployment rate is higher than in other Nordic countries. The trend increase in sick leave and disability benefits is a matter of significant policy concern. Open unemployment was around 6% (2005), but almost 9% if people on active labour market programmes are also included (Ministry of Finance, 2006). If people who could work but are currently on sick leave, on a disability pension or a related benefit, the inactivity level would be brought up close to 15% (Ljungqvist and Sargent, 2006; McKinsey Global Institute, 2006).

40. The labour market has been slow to bounce back from the economic crisis in the early 1990s despite a strong economic performance. It has taken an unusually long time for output growth to feed through to the labour market, although this may be changing. Cross-country evidence indicates that the employment response to economic growth is relatively low in Sweden (Davis and Henrekson, 2005). In countries where employment reacts more strongly on GDP growth, a larger share of total employment is found in service sectors, which make extensive use of low skilled labour to produce goods and services. Labour intensive service sectors make up a relatively small share of the Swedish economy. This may be partly related to high effective marginal tax rates or high social contribution rates on labour income as well as to other barriers to employment. Addressing general barriers to employment, as recommended in the restated OECD Jobs Strategy, would help improve the response of the services sector to the new opportunities.

41. Although the aggregate employment rate is relatively high, it differs significantly between groups. This suggests room for improvement. Overall male employment rates have not recovered to their pre-economic crisis levels, despite economic growth (Figure 14). The employment rate for prime-age men has been especially low, reflecting an increase in the number of people receiving a disability benefit combined with an increase in the number of people studying. The youth employment rate is also low, as young Swedes are spending a relatively long time in education (this in itself is an important factor in the development of human capital to underpin an R&D oriented economy). However, for older men (aged 55 and above) the employment rate is currently around its pre-economic crisis level and quite high in international comparison, probably reflecting the 1999 Swedish pension system reform which increased incentives for later retirement. The employment rate for women is also quite high in international comparison. It is also worth noting that employment rates are also relatively high for migrants.

Figure 14. **Employment rates by age**

Share of population in each age group being employed



1. The shaded area shows the middle two quartiles (*i.e.* half of the countries fall in this range).
Source: OECD Labour force statistics database.

Public finances are in relatively good shape, but attention is needed to make welfare arrangements sustainable

42. Public finances in Sweden are in fairly good shape compared with most other OECD countries. The government as a whole (central and local) is currently running a surplus, and financial assets exceed financial liabilities. The main challenge therefore lies ahead, when an ageing population will bring about a rise in public expenditure. Sweden is already well prepared for this in comparison to many other OECD countries. The 1999 reform of the pension system means that the bulk of future increases in old-age pension payments will be financed by a build up in assets over the next couple of decades. Preparing for the demographic pressures by reducing debt was one of the main reasons for introducing the 2% medium term fiscal surplus target for the general government in 1997. The importance of meeting this target has

been recognised by the government, as the top down budget process with multi-year expenditure ceilings and a medium term fiscal target have delivered a surplus close to the target since 2000, despite several years of economic weakness. For 2005, the fiscal surplus was 2.7% of GDP. Achieving the 2% surplus target is considered to go a long way towards what is needed to safeguard current service levels. However, if "no policy change" is assumed, on which current demographic and labour supply outlooks are projected, a fiscal surplus of 3% of GDP may be necessary to ensure that fiscal policy is on a sustainable track (OECD, 2005a).

43. Although the Swedish fiscal framework has been working well by international and historical standards, the government needs to maintain a strong and enduring commitment to sound public finances. This includes emphasising the need to use the surplus target as a guide for policy, ensuring that the level of the expenditure ceilings is consistent with the surplus target, and ensuring that these remain binding. The government should also ensure that there is an adequate margin for business cycle fluctuations so as to avoid spending up to the limit even in good years.

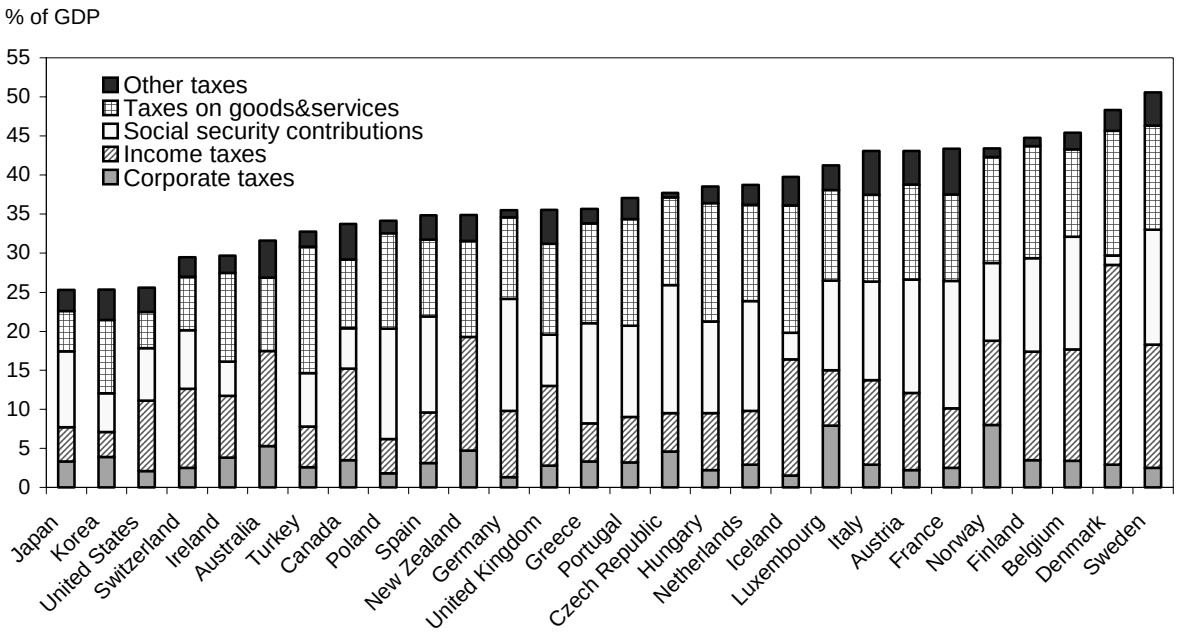
As the tax burden in Sweden is already relatively high…

44. The tax burden in Sweden is relatively high in international comparison, measured as the ratio of total tax revenues to GDP (Figure 15). In 2003, total tax revenues amounted to almost 51% of GDP, compared to slightly above 36% in the OECD. The overall high tax burden in the Nordic countries reflects among other factors extensive welfare state arrangements. From 1965 to 1990, tax revenues in Sweden increased from 35% to 53% of GDP, which was considerably more than in other OECD countries. Over the last 15 years the tax burden has been a bit reduced, albeit there have been ups and downs reflecting swings in the cyclical position of the Swedish economy (sharing features with other OECD countries). This is mainly due to consolidation of public finances as well as public expenditure trends (van den Noord and Heady, 2001).

45. A key characteristic of Swedish tax revenues is their broad composition, with a large weight attached to income taxes, social security contributions as well as consumption taxes and specific taxes on goods and services. However, relatively less weight have been given to corporate taxes, where Sweden in fact is placed among a group of countries taxing profits relatively mildly. Overall, the marginal effective tax rate on capital is considered to be fairly low in Sweden (OECD, 2006e). Thus, disincentives for companies to expand by investing in new capital are smaller than in many other countries. Furthermore, effective marginal tax rates on inward foreign direct investments (FDI) are relatively low (Yoo, 2003), thereby contributing to a higher *ex ante* rate of return on FDI.

46. Although the business climate for large corporations is comparatively good, there are also tax elements that act relatively more as a "burden". This applies especially to the system for income taxes, where marginal effective tax rates are higher than in most other countries, thereby impacting negatively on hours of work. High income taxes also discourage entrepreneurial business development in the service sector, as it induces more "do-it-yourself" work (Henrekson, 2005).

Figure 15. **Tax revenues and its composition, 2003**



Source: OECD *Revenue Statistics* 1965-2004.

…meeting future fiscal challenges requires making the public sector more efficient

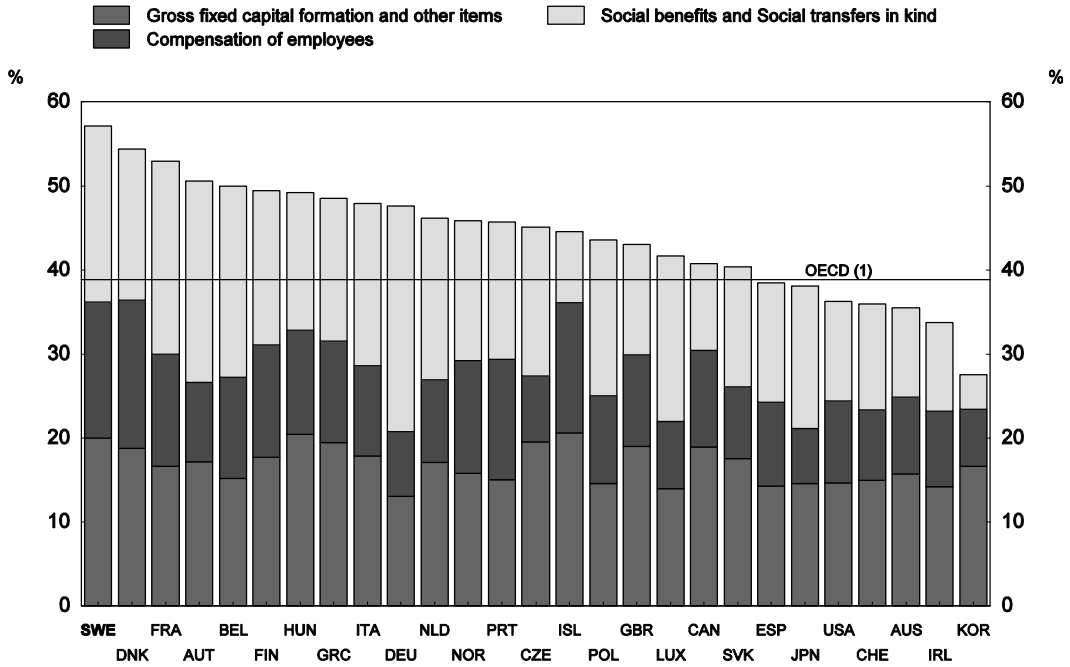
47. Total public spending in Sweden is the highest among OECD countries (Figure 16). Sweden ranks also at the top (with Denmark and Iceland) if spending on social benefits are excluded. Given its size, improving public sector efficiency could have an impact on public expenditure needs, and help to secure the sustainability of current levels of welfare.

48. Productivity gains in the provision of publicly funded services are important to curb the pressure on public expenditure. One of the more effective ways of increasing productivity is to expose the public sector to greater competition. Studies in Sweden and abroad have shown that the production and provision of public goods and services tends to become significantly more efficient when they are opened up to competition, while quality has been maintained or improved (OECD, 2005a).

49. Sweden was an early mover in allowing for private initiatives in the provision of publicly funded services such as health care, schools and elderly care. But the government's efforts to promote competition appear to have faded. Restrictions have been put in place on surpluses accruing from the provision of publicly funded health care services. There has also been a debate over whether this should apply to private sector activities in the school sector. Public financing still usually means public production or delivery, and public employees still make up nearly 90% of those providing publicly funded welfare services. Sweden is still a long way from exploiting the full potential of competition in the public sector, with a level playing field which could stimulate responsiveness and increase client satisfaction.

Figure 16. **Total public spending and its main components**

Average 2001-2005, per cent of GDP



1. Weighted average, New Zealand, Mexico and Turkey excluded.

Source: OECD economic outlook 79 database and OECD System of National Accounts database.

Regulatory reform: emerging challenges and the policy responses to date

Emerging challenges: underlying issues and trends

An ageing population will require vigilance in the management of public finances

50. Sweden already has a relatively old population, with the largest proportion of very old people (aged 80 and over) in the OECD. The impact on public finances is therefore happening sooner than in other OECD countries. Demographic projections from Statistics Sweden show that over the next 35 years, the proportion of the population aged over 65 will increase by almost 40% (Statistics Sweden, 2005). The rise in the number of old people is especially pronounced for those aged 80 or more. At the same time, the share of the working age population (the proportion of those aged 15-64 years to total population) is projected to fall by around 9%. If the current aggregate employment rate is maintained then the number of employed workers for each person aged 65 and above will drop from around 2.8 to 1.8. At this point, the old-age dependency ratio (the ratio of those over 65 to the working age population) is set to peak at around 40%. Whilst this is high, the increase in the dependency ratio is one of the lowest in OECD because Sweden is already in a mature phase of its ageing process (Gonand, 2005; OECD, 2005c).

51. Sweden has already taken action to counter the impact of its ageing population. Reforms designed to put public pensions on a robust financial basis, together with the relatively moderate increase in the dependency ratio, look set to ease future budgetary pressures, at least relative to many other OECD countries. Projections indicate that the total increase in Swedish health and long term care expenditure from 2005 to 2050 is lowest in the OECD, although this also reflects the fact that spending in these areas is

already fairly high. An important factor is the participation rate of older workers in the labour market, which is one of the highest in Europe and helps to mitigate the pressures of ageing.

52. The increase in the dependency ratio will *ceteris paribus* slow the rate of growth in GDP per capita. The direct effect on labour supply stemming from the demographic changes indicates a slowdown of average annual growth in GDP per capita to around 1½%, which is almost ¾ percentage points lower than the average over the last 40 years (OECD, 2004). Demographic changes might affect GDP per capita even more negatively if, for example, the median, or typical, immigrant continues to have a lower productivity than the native Swedish counterpart, or if there is a relative shift towards employment in the public sector.

Encouraging entrepreneurial activity is needed to maintain strong economic growth

53. Entrepreneurial activity is an important element of a dynamic economy, through its impact on economic growth, innovation and job creation (Henrekson, 2005). The main lesson from the OECD's policy guidelines for promoting entrepreneurship is the importance of an integrated institutional and economic framework which brings together a number of well conceived programmes to encourage entrepreneurship (Box 2). Without this framework, individual programmes are likely to generate weak results (OECD, 2004).

Box 2. **OECD policy guidelines for fostering entrepreneurship**

The OECD's policy guidelines for fostering entrepreneurship emphasise the importance of developing an overall institutional framework covering the development of specific programmes. Entrepreneurship programmes can improve their effectiveness by drawing on the knowledge of local governments. Main elements of the framework are:

- Ensuring that product markets are as open and accessible as possible to new entrants. This means promoting competition in all sectors of the economy where competition is feasible, including the provision of public services. Legal impediments to the entry of new firms should be removed, and barriers, which limit the incentive on enterprises to innovate and grow should be dismantled. Administrative and financial burdens on business start-ups should be reduced, via lower start-up costs and simplified administrative procedures. Encouraging more open international trade and investment in goods and services further enhances competition in product markets.

- Adapting employment protection legislation to be more flexible. This includes allowing flexible employment contracts to be negotiated, with remuneration arrangements and working conditions (including leave of absence rules) that are adapted to the needs of dynamic enterprises, and easing of employment protection measures that inhibit restructuring or discourage entrepreneurs from taking on new workers. Particular features in the tax system, which act to discourage entrepreneurs or financing of entrepreneurial activity should be mitigated, and social insurance provisions may need to be readjusted in cases where they discourage would-be entrepreneurs.

- Reshaping financial regulations to facilitate financing of entrepreneurs. Regulations governing financial institutions and/or financial markets should be shaped in a way that facilitates the availability and optimal allocation of finance for entrepreneurial activities. Personal bankruptcy legislation should provide an appropriate balance between encouraging risk-taking and protecting creditors. Financial barriers could be reduced by facilitating the development of market mechanisms for equity financing and related services, especially for start-ups.

- Encouraging networking among firms in order to foster a culture of co-operation and risk-taking. Efforts to foster the growth of clusters are generally recognised to stimulate entrepreneurship. They can be promoted by improved access to accommodation and efficient communications and transport infrastructures, as well as by facilitating university/industry linkages.

Source: OECD, 1998, 2005d, 2006d.

54. Swedish indicators for start-ups and entrepreneurial activities reflect significant gaps, despite the fact that government policies have become more favourable in recent years. Addressing this weakness calls for a wide policy strategy involving taxes, regulatory burdens for firms, bankruptcy laws, entrepreneurial education, access to finance and other factors holding back risk-taking and entrepreneurship.

55. The former government endorsed entrepreneurship as an important element of its Action Plan for Employment which was linked to the EU's Lisbon Strategy. Initiatives included plans to reduce the administrative burden for companies, provision of grants to people either unemployed or employed in regional development support who wish to start their own businesses, and courses offered in entrepreneurship and business skills. The new Government has put entrepreneurship very high in the list of its policy priorities as a way of creating new jobs and offering citizens more control and choice over their lives (Box 3).

Box 3. **Recent policy initiatives that will promote entrepreneurship**

As part of the 2007 Budget, the new government has introduced a number of policy initiatives aimed at improving the conditions for entrepreneurship:

- The wealth tax will be halved from 1.5% to 0.75% as a prelude to abolishing it later in this electoral period.
- Taxation will be simplified for closely held companies (the so-called 3:12 rules which apply for companies with a small number of owners). Pending broad review, changes will be introduced in 2007, *inter alia* making it easier to employ more staff and sell companies. More of the entrepreneur's own income will be taxed as capital income for which the rate is lower than for income from work.
- To enhance the role of women in business, a set of initiatives will be taken to enhance support and advice for women entrepreneurs as well as research on women's entrepreneurship.
- The regulatory burden for firms should be reduced by 25% over a period of four years, and a special task force has been established to achieve this.

Consideration is being given to introducing state guarantees for borrowing by small and medium-sized firms and to adjusting capital taxation in a way that would stimulate the availability of risk capital.

56. More entrepreneurship might enhance the economy's ability to venture into new business fields and also spur less tangible innovation, competition and job creation in domestically oriented sectors. Vibrant product market competition is a prerequisite to expanding entrepreneurial activity. Improving the balance between public and private providers of publicly funded services could be one place to start, as Sweden has one of the largest public sectors in the world, measured as general government employment as a share of total employment, but competition in major areas is inadequate or does not exist. Opening up a greater proportion of public services to competition would increase the opportunities available to potential entrepreneurs and stimulate innovative business ventures. International experience suggests a "snowball effect": the presence of entrepreneurs encourages others to try it too (OECD, 2004).

57. State ownership of business companies is comparatively wide in Sweden and may in some sectors hold back entrepreneurship and makes potential competitors less keen on entering (OECD, 2007b). It is therefore welcome that the government has announced plans for considerable privatisations at a volume of approximately SEK 50 billion a year. First in line are shareholdings in the financial sector (Nordea, OMX, SBAB), communication (TeliaSonera), properties (Vasakronan) and retail (Vin&Sprit). Thereafter comes areas like transport (SAS). The revenues will be used to reduce central government debt.

58. Encouragement could also take place through reviewing saving arrangements so as to reduce disincentives for entrepreneurial investments. Most entrepreneurs start out by drawing on their own savings. But the Swedish system discourages the accumulation of wealth outside of institutional savings such as pension plans. Equity financing is another issue. Growing firms can expand by seeking private equity financing from "business angels" or venture capital firms. Sweden has a relatively high proportion of venture capital aimed at early stage and expansion activities compared to other European countries, but the pool of potential "angels" is low due to the relatively small number of successful entrepreneurs.

59. Reviewing employment protection legislation and the unemployment insurance system so as to reduce the risk of shifting from secure employment to self-employment could also help foster entrepreneurship (Box 4). Currently, Swedish law requires employers to allow their workers to take up to six months leave of absence to establish a new business under certain conditions. This is helpful but at the same time, employment protection rules are based on a "first in – last out" principle: the longer the service the more secure the post. Starting an enterprise, however, is typically risky and may generate very little net income for some years. Entrepreneurs cannot be sure that they will be able to get back, and their situation is exacerbated by the high earnings-related component of the unemployment insurance system.

Box 4. **Security is lost if an experienced employee quits to start a new business**

Consider a woman entering a large or medium-sized Swedish company at the age of 25. If twenty years later, at age 45, she wishes to start a new firm on her own, she will face a difficult trade-off between uncertain business success and a very secure job. Her current employer cannot lay her off individually without first trying an internal transfer and retraining to enable her to carry out different work. If she is ultimately laid off, she must be given notice six months in advance and, should the layoff be judged as unfair, the employer must pay her a compensation equal to 32 months' salary – larger than in any other OECD country. In case of collective dismissal, the last-in-first-out rule reinforces the safe position of experienced staff. This security is lost if leaving the job. If the new business fails, she would not only go through a period of low earnings while striving to keep the business alive; when subsequently closing down, there will not be a notice period with full salary while looking for a job. Moreover, as the level of unemployment benefits is calculated on the basis of previous earnings, failing entrepreneurs are disadvantaged relative to someone laid off from a job, as pointed out by OECD in previous Economic Surveys (OECD, 2004). In some cases, large companies have circumvented these adverse effects by allowing employees a leave while starting a new business and this could be used more. But this still solves only part of the problem, as the extra job security enjoyed if having long tenure may still make it difficult for new firms to attract highly talented experienced staff.

Tough bankruptcy procedures add to the risk of starting a business – in particular if based on innovations for which it can be difficult to assess the market potential other than by trying it out in practice. In Sweden, creditors have claims on a person's assets for 10 years following a bankruptcy. Consequently, failing entrepreneurs risk not only losing their savings; they will have to live modestly for a long time to come. In most European countries, creditors' claims on a bankrupt's assets expire after less than 10 years, and regulations are fundamentally different in North America, where claims expire after just one year (United States) or even shorter time (Canada), thereby making it possible for failed entrepreneurs to use their experience to start up a new firm (OECD, 2001 and 2005f). A recent Danish poverty study revealed that the downside can be hard for entrepreneurs, as self-employed were found to be the socio-economic group most at risk of poverty – several times more at risk than for example single parents as a group (Danish Economic Council, 2006). Fluctuating income, small shops and similar factors may explain most of the poverty among self-employed, but the finding nevertheless suggests that a study of whether social security and bankruptcy rules make the downside excessively hard for Swedish entrepreneurs might be worthwhile.

Should the new business prove successful, the net income gain is limited by high marginal income taxes which set in early. Until this year, wealth tax at a rate of 1½ per cent applied already from SEK 1.5 million, or SEK 3 million for couples (for comparison, an average one-family house in greater Gothenburg, Malmö or Stockholm costs SEK 2.8 million), further limiting the upside associated with entrepreneurship. Finally, the tax rules for closely held companies have until this year been unfavourable to fast-growing firms set up by entrepreneurs, as a large part of income accruing from these firms was classified as wage income (Henrekson, 2005). The recent changes in wealth and business taxation are therefore welcome (see Box 3).

60. Although much effort has been devoted to developing policies and programmes in support of small and medium-sized enterprises (SMEs), the relative lack of entrepreneurship has historical, cultural and political origins, which reinforce each other. Entrepreneurship does not have great appeal in a country where people traditionally look to large companies and state entities for employment, and political consensus in decision making may reflect alliances among insiders in the social system, which may exclude outsiders such as SMEs or new industries. The issue has been the subject of considerable political debate in Sweden.

61. Globalisation is often pointed to as posing a number of challenges for the Swedish economy. Given the persistent and large current account surplus and the fact that Sweden has risen steadily in international rankings of business climate and competitiveness during recent years, Sweden seems relatively well placed to benefit from globalisation. Nevertheless, globalisation accentuates the importance of dealing with insider-outsider problems and the lack of entrepreneurship, so as to enhance the economy's ability to "reinvent itself" in the context of restructuring associated with international relocation of activity and to ensure that increased mobility does not produce large groups of inactive outsiders. Similarly, globalisation accentuates the importance of handling fiscal pressures in a way that does not lead to increasing taxes, as international mobility will most likely increase the distortions generated by high taxes. There is no room for complacency, and in order to get broadest possible debate on the challenges and opportunities that follow from globalisation, the Government intends to appoint a public inquiry a Globalisation Council.

Swedish reforms to date

Deregulation in the past has strengthened competition…

62. Sweden was an early mover in the use of regulatory reform to open up the economy and boost competition following countries like the United Kingdom (see Figure 17). Reforms in the 1990s across a range of sectors removed barriers to market entry, dismantled price regulations and abolished controls on the number of market players (OECD, 2007a). Stronger competition legislation was also introduced. In international comparison, Sweden's product market regulation is now relatively "light touch", and Sweden is one of the most liberalised countries in the OECD.

63. While several network sectors were liberalised in the 1990s, their speed and rate of success varies considerably (SOU, 2005). The isolated effects of specific reforms in these sectors are hard to disentangle from other factors such as technological development, globalisation and institutional changes such as accession to the EU. In some cases, notably telecommunications, the effect of reform has overall been very positive. Prices have fallen (prices for fixed telephony are among the lowest in the OECD) and the range of products as well as product volume have increased. The postal market was liberalised much earlier than in other EU and OECD countries. The success of reform in some other sectors, however, has been mixed and uncertain.

64. The taxi market offers an example of a mixed outcome of deregulation so far. Prices for taxi journeys have increased more than prices in general and also more than production costs, but waiting time has been reduced. This may well, however, reflect the preference attached by consumers to a short waiting time, which has required an increase in the number of taxis. Special measures to maintain taxi traffic in large parts of Sweden that are scarcely populated (taxis may offer transport services funded by local government) are another complicating element of the picture. Another example is the electricity market, where liberalisation has not automatically led to lower prices, either for consumers or for companies. Prices have increased faster than consumer prices in general. A number of factors appear to have contributed to this disappointing outcome. Generation capacity has fallen with the decommissioning of uneconomic plants, and the closure of two nuclear reactors, whilst demand has grown. At the same time,

Sweden depends largely on hydro power and hydrological conditions have been unfavourable. Market concentration remains an issue (SOU, 2005). Although the Swedish electricity market is less concentrated than in many other European countries, few new firms have entered the market after liberalisation, which may partly be due to difficulties in obtaining building permits. Other factors leading to higher prices are increased market integration with other European countries and the emission trading system.

…and delivered a considerable "productivity dividend"

65. Regulatory reform in favour of product market competition stimulates productivity growth by fostering innovation, giving firms stronger incentives to adopt best practice (Nicoletti and Scarpetta, 2005a). Empirical evidence suggests that the product market deregulation of the early 1990s played an important role in the recovery of the Swedish economy by boosting productivity growth (Box 5).

Box 5. **The "productivity dividend from regulatory reforms in Sweden**

The extent to which product market deregulation has increased labour productivity growth can be tested by a sector-based model which has been developed by the OECD. The model is estimated over the period 1978 to 2003 for 21 OECD countries covered by the OECD indicators of regulation in product markets. The indicators used reflect the "knock-on" effects of less competition-friendly product market regulations in non-manufacturing sectors (airlines, railways, and road freight, energy (electricity, gas), communications (post, telecoms), professional services (accounting, legal, engineering, architecture), retail trade, and banking). Productivity growth (measured as value added per worker employed) is linked to a country's regulatory and other characteristics, as well as reflecting the transfer of technology from the country with the highest level of productivity (Conway and Nicoletti, 2006).[1] The model not only tests the direct effect on productivity growth, but also the fact that product market regulation can have an indirect effect by influencing the speed with which countries catch up with the productivity leader. Barriers to market entry and to competition in a market may reduce incentives to invest and adopt leading production techniques, and so lowers a country's speed of convergence.

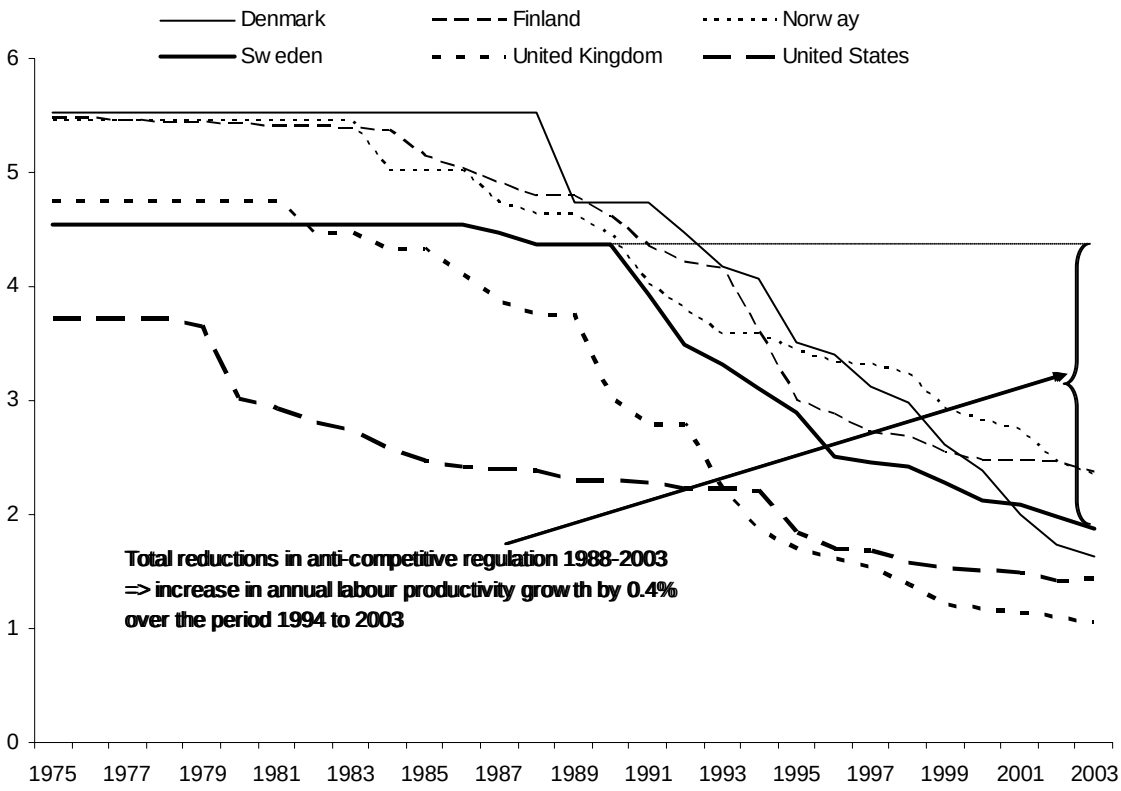
This model was used to calculate the labour productivity dividend from deregulation in Sweden since 1988 (a year taken to reflect pre-regulatory reform conditions).[2] The model's prediction for the average annual growth rate of labour productivity in Sweden over the period 1994 to 2003, assuming no change in product market regulation from 1988, was compared with the prediction for labour productivity growth based on actual reforms (Figure 17).

The results suggest that, if Sweden had kept product market regulations as they were in 1988, average annual labour productivity growth in the business sector would have been 0.4 percentage points lower than otherwise over the period 1994 to 2003. This figure reflects the (*indirect*) effect of product market regulation on the ability to keep up with productivity growth and converge towards the country with the highest level of labour productivity. More than half of this indirect effect is through non-ICT intensive sectors. In most other countries the benefits of reform are typically larger in ICT-intensive sectors, which tend to suffer from less competition-friendly regulation. A possible explanation is that Sweden is closer to the productivity frontier in ICT-intensive industries than most other countries. This implies that the productivity gains from faster catch-up are now more limited relative to countries further behind the frontier. In addition, the results suggest that product market regulation has a (*direct*) effect in ICT-intensive sectors, implying that deregulation since 1988 has added 0.45 percentage points to annual productivity growth. Both the direct and indirect effects capture the impact of product market regulation on productivity growth *within* sectors. If regulatory reform also leads to resources shifting from less to more productive sectors then the overall productivity "dividend" from reform implied by the results will be larger.

Aggregating the two effects, using value added shares in the economy as weights and a classification of ICT intensive industries established by the OECD, suggest that deregulation of key network sectors during the 1990s has lifted labour productivity growth in Sweden on an annual basis by around 0.4 percentage points.[3] It has, however, to be kept in mind that this figure is based on experiences from a large number of OECD countries, and the way that deregulation has worked through in Sweden may well have been different because of the economic crisis in the 1990s.

Figure 17. **Sweden's product market regulation performance in international comparison**

Indicator range 0 to 6, from least to most restrictive



Source: OECD Product Market Regulation database; OECD calculations

1. The estimated equation is: $\Delta lnLP=\delta(\Delta lnLP_{leader})+\sigma(ProdGap)+\gamma PMR+\alpha(PMR*ProdGap)+X'\beta+country/industry/time\ dummies+\varepsilon$, where LP denotes labour productivity, ProdGap the level of productivity in each country relative to that of the productivity leader and PMR the appropriate indicator of product market regulation. The matrix X contains various control variables such as human capital, capital formation, and a measure of border barriers. Country, time, and industry-specific fixed effects are included to account for unobserved factors affecting productivity growth.
2. An important caveat is that all the coefficients in this model are estimated OECD-wide, and may therefore not necessary be representative of the relationship in an individual country. This caveat is particularly relevant in the case of Sweden because the productivity data for most sectors only goes back to 1994, implying that Sweden has an even smaller effect on the OECD-wide regression results.
3. Adding up the direct and indirect effects to find the aggregate effect is, however, problematic as labour productivity in ICT-intensive sectors increases as the direct result of a reform and that the productivity gap to the leader country-sector becomes smaller, implying less scope for regulatory reform to operate through the indirect channel. However, for Sweden, more than half of the indirect effect is coming through non-ICT intensive sectors, whereby this factor may play a minor role.

But more could be done to reap the full benefits of liberalisation in network sectors

The telecommunications market

66. The liberalised telecommunication market has, over the past decade, played an increasingly important role in the Swedish economy through its positive impact on productivity growth and technological diffusion. Given the sector's importance to the economy and the fact that regulatory frameworks for infrastructure sectors need regular adaptation to keep up with technological developments, it would be helpful to review current arrangements with a view to fine tuning where necessary. The Regulatory Reform Commission (SOU, 2005), which has evaluated the deregulation of six Swedish network sectors, raises the issue of vertical separation of the major incumbent operator in the fixed telephony segment (Telia Sonera AB), as this may improve competition. It also recommends that the regulator (PTS) should take a stronger lead in monitoring price developments, and that the government should investigate how Sweden could achieve a more effective spectrum use through a system based on market determined allocation of spectrum rights. Other regulatory challenges are emerging in the light of technological development and the growing integration of fixed and mobile services.

The electricity market

67. The outcome of liberalisation in the electricity sector has so far been mixed, which may reflect issues with the regulatory framework. The Regulatory Reform Commission has pointed out several areas in the regulatory framework which need to be improved. These include stronger monitoring by the Competition Authority of market concentration among power generators, a stronger and clearer policy for mergers and acquisitions, tighter regulation of the grid companies including stronger supervision of regional grid companies, and strengthening of the role of consumers (SOU, 2005).

Regulatory reform: Strengthening the foundations for growth

An effective and dynamic regulatory policy as a tool for policy coherence and economic growth

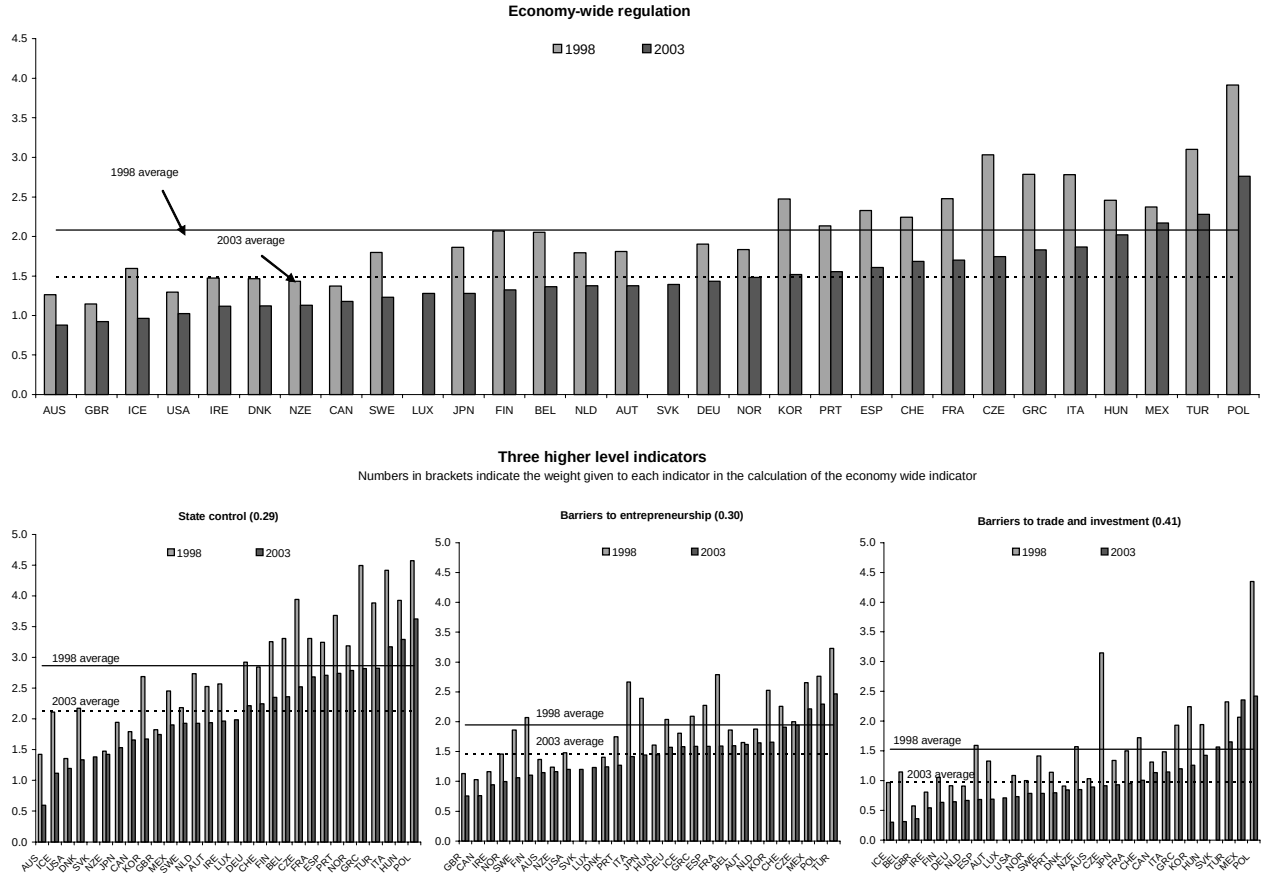
Sweden has fairly flexible product markets…

68. There is growing empirical evidence of a strong link between regulatory reform and economic growth, as evidenced by the OECD's growth study and analysis of the OECD database on Product Market Regulation (PMR) (Nicoletti and Scarpetta, 2005a and Conway and Nicoletti, 2006). The growth study seeks to establish the extent to which GDP divergences reflects differences in the effectiveness of public policies (OECD, 2006a). It develops a benchmarking system based on a set of policy indicators which are then linked to high level performance indicators (*e.g.* GDP per capita or productivity). The PMR database seeks to measure, over time, regulatory barriers to competition in product markets. Data collected in 1998 and 2003 on economy-wide regulation cover issues such as firm ownership and control, antitrust exclusions, and market access; regulatory and administrative policies; administrative requirements for business start ups; and discriminatory polices vis-à-vis foreign firms.

69. Analysis of the PMR database shows that there has been clear progress in removing regulatory barriers to competition since 1998, as countries with relatively restrictive policies move toward the regulatory environment of the more liberalised countries (Conway *et. al.*, 2005). Sweden is among the most liberalised countries. Across countries, the largest reductions are in barriers to international flows of trade and investment, where all the specific indicators show progress (Figure 18). The area which shows least progress is barriers to entrepreneurship where the only significant change is a decline in the number of licence and permit systems. Despite progress, a "hard core" of regulations persists in virtually all OECD countries.

Figure 18. **Product market regulation in 1998 and 2003**

Indicator range 0 to 6, from least to most restrictive



Source: OECD Product Market Regulation database.

…but the labour market is heavily regulated

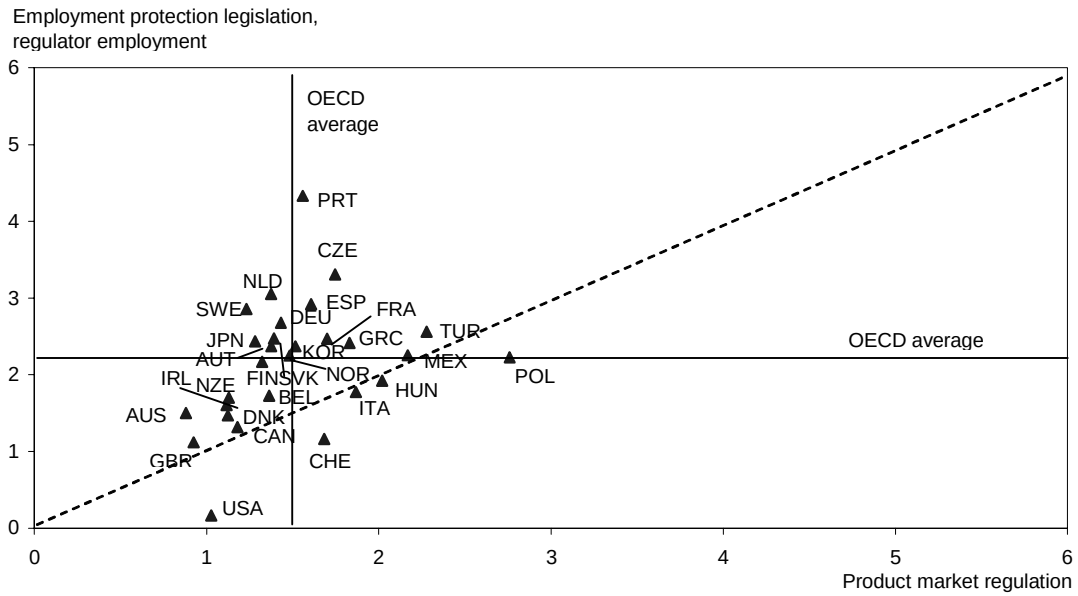
70. Labour market regulation is the other key economic factor impacting on economic performance, which has been analysed, using the OECD's data on Employment Protection Legislation (EPL). Empirical evidence suggests that relatively strict legislation will hamper labour mobility, reduce the dynamic efficiency of the economy and restrain job creation (OECD, 2006d). This may worsen job prospects of certain groups.

71. Cross-country evidence indicates a correlation between product and labour market reforms, as evidenced through the links between EPL and PMR (Nicoletti and Scarpetta, 2005b). There is an increasing connection between competition enhancing policies, regulatory reform and enhanced productivity performance. Countries that have reformed their product markets by opening these to competition have experienced an acceleration of productivity over the 1990s, compared to slowdown or stagnation elsewhere.

72. Sweden is a country with a low level of product market regulation, but a relatively high level of employment protection legislation. Its index for EPL is higher than the OECD average, and higher than for the other Nordic countries. Furthermore, no progress has been made since 1998, which puts Sweden close to the more restrictive countries (Figure 19). Reviewing labour market legislation so as to achieve greater labour market dynamism and promote entrepreneurship while providing workers with adequate protection could help to revitalise some service sector activities. Cross-country evidence indicates that flexibility in the labour market is important in facilitating growth in the service sector (Kongsrud and Wanner, 2005).

Figure 19. **Product market regulation and employment protection legislation in the OECD, 2003**

Index scale of 0-6 from least to most restrictive, 2003



Source: OECD (2006a), *Going for Growth*, 2006.

Productivity gains in Sweden from large regulatory reform of key network sectors appear to be on the low side, but…

73. As Sweden is already well positioned with respect to product market regulation, being close to current best practice countries, the productivity gains from further major deregulations are likely to be more limited than in the past. Based on the same model as described in Box 5, empirical evidence suggests that future gains from moving to current best-practice regulation in non-manufacturing sectors (passenger air transport, telecoms, electricity, gas, post, rail, road freight, and professional services, retail and banking services) are on the low side. This places Sweden in a group of countries with relatively small gains from implementing best-practice regulation, implying that other countries could learn from the deregulation process of Swedish network sectors while Sweden can still improve the effectiveness of reforms already in place.

…implementation still needs attention…

74. Although empirical evidence indicates that additional gains from regulatory reform might be on the low side, a number of modifying factors should be taken into account. Firstly, actual experience in several countries, not least Sweden, shows that productivity gains can be realised by opening up markets

for competition. But, liberalisation is also typically a learning-by-doing process, whereby the regulatory system put in place occasionally needs to be adjusted or reinvigorated. Several adjustments have already been made in this respect in Sweden, but still there appear to be scope for improvements (SOU, 2005).

…and best practise could be further developed

75. Even those countries having implemented best practice regulation could improve their systems. This would include further fine-tuning of current regulatory systems, or alternatively inventing new systems that are even more effective. Further development could help to shift the best-practice frontier outwards, which would *inter alia* increase potential gains from regulatory reform.

There are also areas not covered by the regulatory indicators, but where gains from deregulation are likely to be large

76. There are also areas which are not covered by the indicators used to calculate productivity gains from implementing best-practice regulation – but where gains nevertheless are likely to be large. The public sector is particularly relevant in this respect as regulations and actual government behaviour determines how well the public/private interface works. Improving this interface by opening up for more competition in the provision of publicly financed services may generate significant gains (Lundsgaard, 2003). This would also give incentives to undertake innovation in the provision of such services. There are also other factors that may impact on the productivity gains from implementing best practise regulation, such as the interplay between research and development activities carried out in public universities and business sector adoption.

Policy areas for further regulatory reform in Sweden

Promoting a more efficient and effective public sector

Expanding public procurement

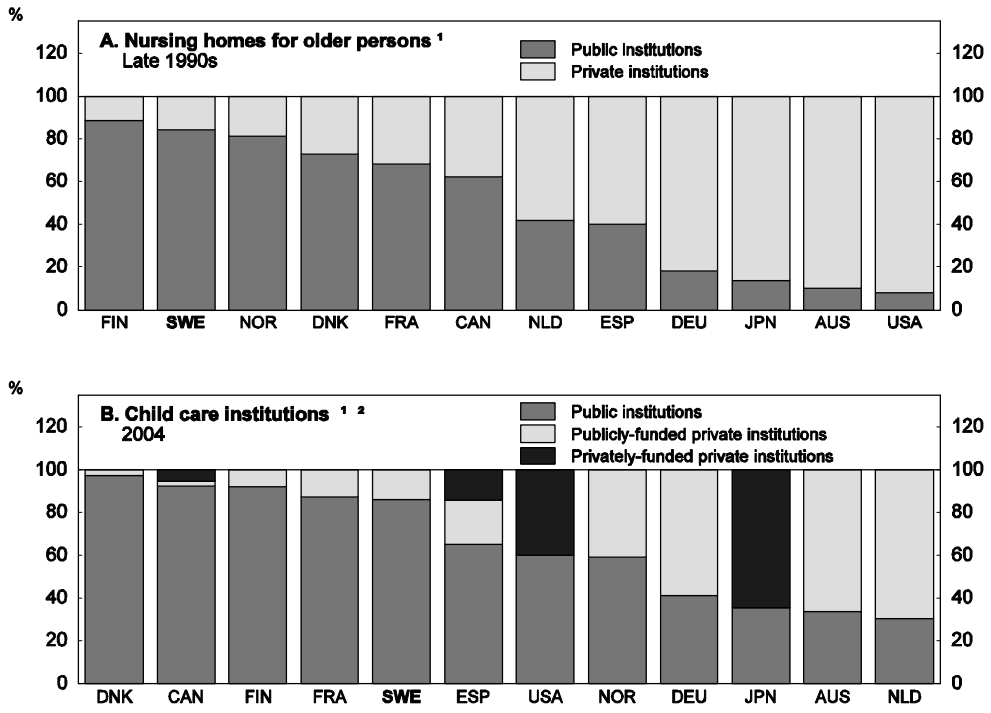
77. Regulatory reform can promote a more efficient public sector by introducing competition in the provision of public services. Involving a wider set of alternative providers is one way of nurturing innovation and competition. Sweden has adopted the EC Directive on public procurement, but it has proved difficult to ensure full compliance with their requirements, as is the case in other EU countries. Openly advertised public procurement amounted to slightly less than 5% of GDP in 2004, which was higher than the EU average. However, the total value of public procurement in Sweden is 17% of GDP, which is relatively high in international comparison. Public consumption is also higher in Sweden than in most other countries, and the scope for further openly advertised public procurement (or other forms of exposure to competition) has been estimated at 11-12% of GDP (OECD, 2004). Without changing its social model, Sweden can benefit from seeking inspiration from countries like the Netherlands, where the majority of long-term care institutions for older persons are non-profit and other private institutions, and in neighbouring Norway, where 40% of the children in day care attend private institutions that are publicly funded (Figure 20). It seems that there is significant scope for improvement in this area.

78. Aside from improvements in the services provided in Sweden, increased competition and innovation in these areas can bring gains in terms of service exports. Back in the early 1990s, Sweden carried out a wave of reforms to involve alternative private suppliers in publicly funded services. This has paved the way for a number of business successes including a Swedish company winning the largest-ever contract made by the UK National Health Service with a private provider for care.[15] The new government's

15. Capio, which started in Sweden in 1994 and listed on the Stockholm Stock Exchange in 2000, now has activities in France, Germany, Spain, the United Kingdom and a number of other European countries. In

2007 Budget stresses the importance of encouraging higher quality, greater accessibility, and increasing the diversity of provision and competition between different actors in health care and social services. The first step will be to allow more choice for users of elderly care.

Figure 20. **Who provides publicly funded services?**



1. Based on the number of users. Private institutions include both non-profit institutions and private firms.
2. Includes pre-primary education and organised centre-based programmes designed to foster learning and emotional and social development in children from 3 years to compulsory school age. For Germany and Norway, some of the private institutions may be predominantly privately funded, but the available data cannot determine the exact share of private and public funding for private institutions. Reference year 2001 for Canada and 2000 for Denmark.

Source: Lundsgaard, J. (2003), Competition and efficiency in publicly funded services OECD Economic Studies, No. 35 and OECD Education Database.

Public activities in competitive markets

79. Swedish government at all levels shows a growing tendency to operate in areas where private companies already exist. Part, but not all, of the explanation lies in state ownership of companies that were previously monopolies and now operate in liberalised markets (*e.g.* telecommunications and postal services). But at the same time, policies to even out regional differences with respect to the capacity of the private sector to operate in this market appear to be encouraging government agencies and municipalities into new ventures. Examples can be found of municipalities operating bakeries, gymnasiums, garden

2004, it won the largest health care contract awarded to a private healthcare provider by the UK National Health Service. Under the Spine chain project, Capio is running 9 clinics including the provision of health care as well as facilities operation and maintenance. Some clinics are in existing facilities, others have been build by the company.

centres, sun-bed centres and privately financed health care, either as part of the municipal administration or through municipal enterprises.

80. This practice has been reviewed and challenged in a number of reports, including from the Swedish Competition Authority, the National Audit Office, and government committees (OECD, 2004). In a number of cases it has been found that there is no legitimate reason for the government to engage in activities on competitive markets. In addition, such engagement reduces market effectiveness by distorting the competitive playing field. These activities are not well policed, state entities often have a head-start on private firms through privileged access to essential infrastructure, and they may well be large buyers in a small market. Clearer mandates for the agencies' core activities could help, as well as a clear limit on expansion beyond the core. It also needs to ensure that local governments agree and respect clear guidance on the scope of their local activities. In short, the legal framework governing the market activities of public institutions should be strengthened.

Reforming other sectors which have a broad impact on the economy

The rental housing market is heavily regulated, hindering mobility

81. A well-functioning rental housing market is important in order not to distort the basis of on which people make their choices. It improves overall mobility by making it easier for households to find housing according to changing needs. However, rent regulation can be seen as a way of meeting distributional objectives as it implies a transfer of resources from landlords to tenants. Another way of doing this is to use taxation of rental income to subsidise rent payers. It may also be seen as a protection against excessive rent increases imposed by monopolist landlords. Most countries have regulation that limits rent increases for sitting tenants, but practices differ for new tenants (OECD, 2006b). Overall, the redistributive effects of such policies across the OECD are uncertain and inconsistent (Ellingsen and Englund, 2003). It is not clear that the most needy households reap the largest benefits. Also, there are more efficient ways of achieving equity objectives (*i.e.* that citizens obtain proper housing at a reasonable price) in this area. From an efficiency point of view, letting tenants in rental housing pay rents that better reflect differences in quality, location and demand would considerably improve the functioning of the housing market, in addition to promoting the flexibility and mobility which is important to sustain economic growth.

82. The Swedish rental market, however, falls well short of this objective. A large part of the rental housing stock is subject to comprehensive rent regulation and extensive tenure rights. This means that prices cannot fulfil their role of helping the market to allocate housing efficiently and of providing signals to expand the housing stock. The result is a very segregated market and limited turnover as tenants stay with low rent apartments, even if these no longer suit their needs or preferences (OECD, 2007b).

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