

COMPETITION IN AND ECONOMIC PERFORMANCE OF THE EURO AREA SERVICES SECTOR

ARTICLES

Competition in and economic performance of the euro area services sector

This article analyses the degree of competition in the euro area services sector and its effects on labour productivity and prices in that sector compared with other sectors. The importance of the euro area services sector has increased significantly over time; it now accounts for around 70% of the euro area's total nominal value added and total employment. Labour productivity growth across the euro area services sectors appears to be characterised by a high degree of diversity, and services price increases are on average higher than aggregate inflation. Considering several proxies of market competition in the non-financial business services, the article finds that less competition in services tends to hamper labour productivity growth. Moreover, measures aimed at increasing market competition in services may have a dampening impact on price developments in some services sub-sectors.

1 INTRODUCTION

Insufficient competition in the services sector is often referred to as one of the factors hindering labour productivity growth and contributing to the gap in productivity growth between the euro area and the United States that has been recorded since the mid-1990s.¹ In addition, empirical studies conducted within the Eurosystem Inflation Persistence Network (IPN) have found that services are characterised by less frequent, but larger and mostly upward, price changes. Given the growing importance of the services sector in the euro area and its role in providing inputs for other sectors, monitoring productivity growth and price developments in this sector is important for the conduct of monetary policy.

Section 2 of this article highlights the macroeconomic importance of the euro area services sector and assesses its performance in terms of labour productivity and price developments.² Section 3 explains the main theoretical channels through which competition in the services sector affects its productivity and prices, analyses the degree of competition in the euro area and refers to some key results on the empirical link between services competition and the economic performance of the sector. The final section draws some policy conclusions.

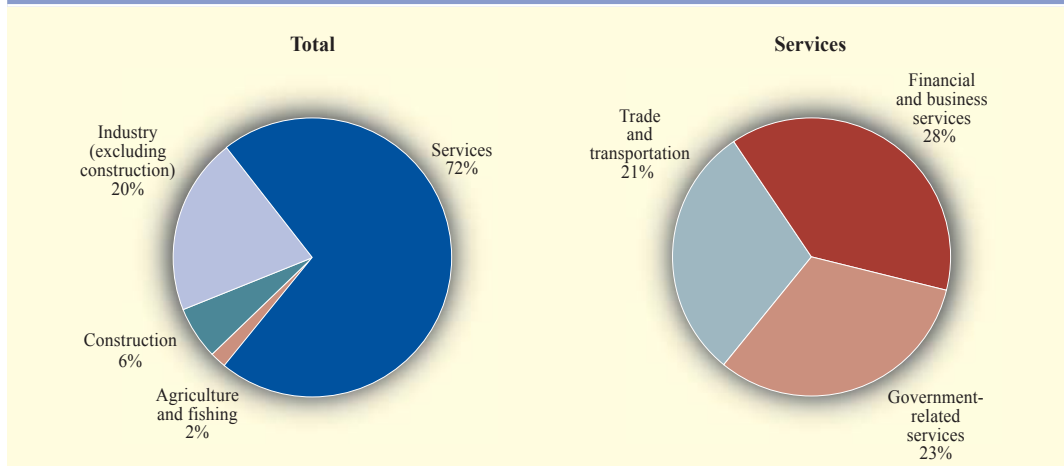
2 MACROECONOMIC IMPORTANCE AND PERFORMANCE OF THE EURO AREA SERVICES SECTOR

MAIN CHARACTERISTICS AND RELEVANCE TO CONJUNCTURAL DEVELOPMENTS

The sectoral breakdown of the euro area economy highlights the importance of the services sector in the euro area (see Charts 1 and 2).³ With a share of around 70% in terms of both nominal value added and employment, the services sector is by far the largest economic sector in the euro area. The industrial sector, which comprises mainly manufacturing, accounts for roughly 20% of euro area value added and employment. The construction and agricultural sectors are both relatively small in comparison. While there is some heterogeneity in the exact size of the services sector across euro area countries, the large and rising share of services in value added and employment represents a common feature among them (see Charts 3 and 4). This is also a characteristic of other developed economies, such as the United States, where services are even more important than they are in the euro area.

- 1 See the article entitled "Labour productivity developments in the euro area: aggregate trends and sectoral patterns" in the July 2004 issue of the Monthly Bulletin.
- 2 This article draws on previous research carried out by a Task Force of the Monetary Policy Committee of the ESCB. See "Competition, productivity and prices in the euro area services sector", ECB Occasional Paper No 44, April 2006 (referred to as ECB (2006) hereafter).
- 3 The euro area aggregate does not include Slovenia due to data limitations.

Chart 1 Breakdown of total nominal gross value added in the euro area ¹⁾

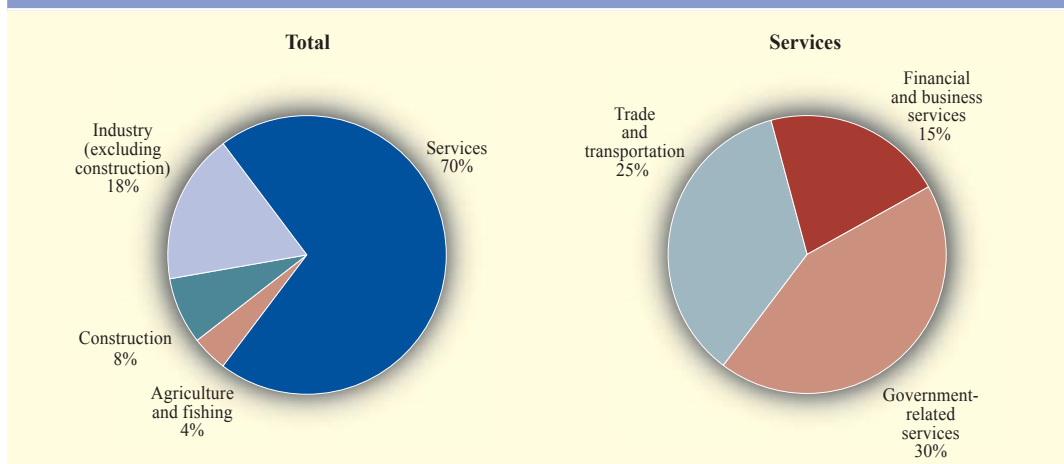


Source: Eurostat.
1) Weights refer to the year 2005.

According to the breakdown of the European System of Accounts (ESA 95), the euro area services sector can be decomposed into three main sub-sectors, namely “trade and transportation”, “financial and business services” and a sub-sector that comprises mainly “government-related services”. Though this decomposition does not strictly separate market and non-market services, the two categories “trade and transportation” and “financial and business services” are usually referred to as the

market services sector. The relative size of the three main sub-sectors differs somewhat between value added and employment. While the size of the three sub-sectors is relatively similar in terms of value added, the share of employment is relatively high in “government-related services” and relatively low in “financial and business services”, pointing to differences in the relative labour productivity levels across these sub-sectors. At a more disaggregated level, “trade and transportation” includes

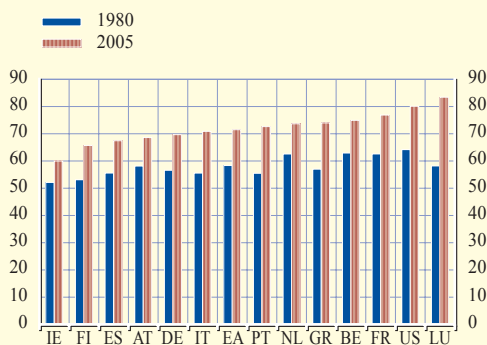
Chart 2 Breakdown of total employment in the euro area ¹⁾



Source: Eurostat.
1) Weights refer to the year 2005.

Chart 3 Share of services in total nominal gross value added

(in percentages)

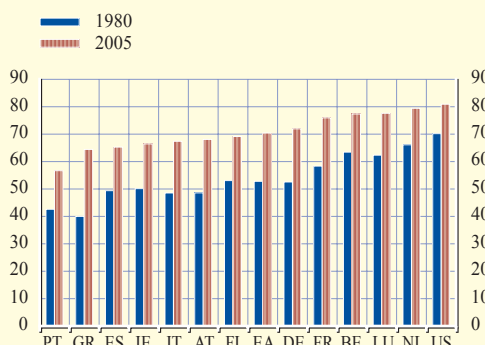


Sources: 1980: ECB (2006); 2005: Eurostat, Bureau of Economic Analysis.

Notes: Data for Ireland refer to the year 2004. EA stands for "euro area".

Chart 4 Share of services in total employment

(in percentages)



Sources: 1980: ECB (2006); 2005: Eurostat, OECD STAN database.

Notes: Data for Portugal and the United States refer to 2003 and those for Greece refer to 2004. EA stands for "euro area".

“wholesale and retail trade, repair of motor vehicles and household goods”, “hotels and restaurants” and “transport, storage and communication”, while “financial and business services” encompass “financial intermediation” and “real estate, renting and business activities”. “Government-related services” include a wide variety of activities, such as “public administration and defence”, “health and social work” and “education”.

Like other developed economies, the euro area economy has undergone significant structural changes associated with the strong increase in the share of services in both nominal value added and employment over time (see Charts 3 and 4).⁴ This trend is shared by all euro area countries, as well as by other economies, such as the United States. Several, in part complementary, explanations have been suggested to account for this shift to services. For instance, the demand for services is likely to rise with the income level, as services satisfy higher needs than do goods according to the “hierarchy of needs” hypothesis. Furthermore, the increased participation of women in the labour market has caused some shift from in-house produced to market-provided services, in turn boosting both GDP and the number of people employed, as well as the share of

services in total value added and employment. Moreover, market liberalisation in services and globalisation are likely to have contributed to this development.

The rising share of services in the euro area reflects clear differences in the relative growth performances of the various sectors. Over the last ten years, the average contribution from services to total value added volume growth amounted to more than 70%, with the rest coming primarily from industry; construction and agriculture made only a small contribution. In terms of employment, these differences are even more pronounced, as services account for almost all of the employment growth in the euro area during the same period. A further specific characteristic of services value added volume growth is its lower volatility both in terms of the range of its fluctuations over the entire business cycle and the short-term volatility of its quarterly growth rates.⁵ This

4 The charts in Section 2 are based on the dataset compiled for the ECB (2006), details of which can be found in Annex 1 of that report. For the period 1980-2003, the dataset incorporates data from the OECD STAN database, from the Groningen Growth and Development Centre (GGDC) and from the national central banks. For the period 2004-05, the Eurostat ESA95 database is used.

5 See Box 5 entitled “The sectoral composition of euro area growth” in the ECB’s Annual Report 2005.

applies, in particular, to government-related services, but is also evident for market services. However, despite this lower volatility, the services sector contributes as much to the average absolute changes in the quarterly pattern of value added growth in the euro area as the more volatile (but smaller) industrial sector. This highlights the importance of short-

term developments in this sector for conjunctural analysis and forecasting and therefore also the importance of conjunctural indicators and timely information for this sector, which, despite recent improvements, are still less well developed than for the industrial sector (see Box 1).

Box 1

EURO AREA SHORT-TERM STATISTICS ON SERVICES OUTPUT

Despite the services sector's large share in euro area value added, the data and indicators available for monitoring short-term developments in its output are less well developed than those for the industrial sector. This applies to the depth of the detailed breakdown of the data, the frequency with which the data are collected, the timeliness with which the information is released and the number, as well as the quality (e.g. the time series length), of available indicators. Nevertheless, the European Statistical System has recently made significant progress in terms of the provision and timeliness of euro area turnover series for services as covered by the Short-Term Statistics Regulation.¹

At the moment, the main source of data for the short-term analysis of activity in the euro area services sub-sectors is value added data from the national accounts. For total (market and non-market) services as well as the three major sub-categories, i.e. (i) trade, repairs, hotels and restaurants, transport and communication, (ii) financial, real estate, renting and business activities and (iii) public administration, education, health and other services, value added data are available from 1995 onwards on a quarterly basis with a delay of around two months after the end of the reference quarter. These data are available in current prices and in volume terms. Value added data for more detailed euro area services industries are published by Eurostat on an annual basis about ten months after the end of the reference year.

Monthly information on actual turnover for the services industries, as covered by the Short-Term Statistics Regulation, is available for retail trade and other (market-related) services. Euro area retail trade turnover data, expressed in current and constant prices, are made available in a timely manner, the first estimate being released around 35 days after the end of the reference month. Recently, euro area turnover data for other services industries (e.g. sale and repair of motor vehicles, wholesale trade, hotels and restaurants, transportation and business activities) have been published by Eurostat. However, these time series are rather short and are available in current prices, but not in volume terms. Work is under way pursuant to the new Short-Term Statistics Regulation to provide services price data, which are necessary to calculate deflated turnover data, by 2009. Monthly production data for services, similar to the industrial production index, which is published around one and a half months after the reference month, are not available.

¹ See Regulation (EC) No 1158/2005 of the European Parliament and of the Council of July 2005 amending Council Regulation (EC) No 1165/98 concerning short-term statistics.

As regards tendency surveys, the European Commission (EC) and Purchasing Managers' (PM) surveys for the retail trade and services industries are published on a monthly basis. The results of these surveys for the euro area are made available in a timely manner, i.e. around the end of the reference month to which they refer. However, the survey results differ somewhat in the length and coverage of the time series. The surveys for retail trade started in 1985 (EC) and 2004 (PM), whereas the surveys for the services industries started in mid-1995 (EC) and mid-1998 (PM) and are therefore available over shorter time horizons than those for the manufacturing industries. With regard to the available breakdowns, the EC survey provides detailed information for only a number of services industries, whereas a very detailed and almost complete breakdown is available for the manufacturing industries. As regards the PM survey, such details are not available for the euro area. The services industries covered in the EC survey have been extended continuously in the recent past; the PM survey includes branches currently not covered by the EC survey, e.g. the financial services industries.

Overall, enhanced data availability has helped to improve the overall picture for the services sector. However, given the importance of the euro area services industries, the existing information is still insufficient for a comprehensive and timely conjunctural analysis of the euro area services sector. This becomes particularly evident when compared with the data availability for industrial activities. All in all, the development of new services statistics requires significant effort on the part of national statistical institutes and has become an agreed priority at the European level.

KEY FACTS REGARDING LABOUR PRODUCTIVITY AND PRICES

LABOUR PRODUCTIVITY GROWTH

Labour productivity growth in the euro area services sector decelerated slightly in the 1990s compared with the previous decade. This downward trend persisted during the period 2000-05 (see Chart 5), even though it appears to have reversed in the Netherlands and Spain since 2000. Conversely, productivity growth in the United States picked up considerably in the mid-1990s, surpassing that in the euro area and increasing further during the period 2000-05.

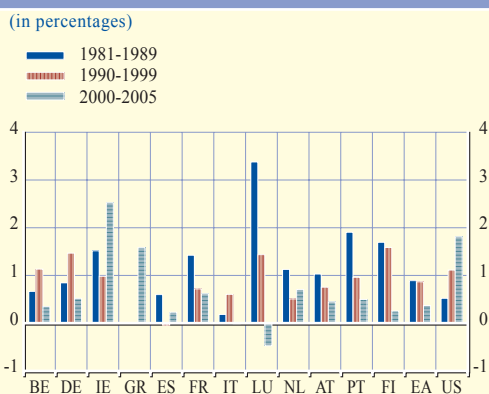
Chart 6 shows a positive gap between labour productivity growth in total manufacturing and total services for the euro area. However, the evidence on slow productivity growth in the services sector needs to be qualified in two respects. First, the labour productivity growth gap in the euro area has narrowed since the 1990s. Second, there is substantial heterogeneity across the sector, with post and

telecommunications and financial intermediation experiencing strong productivity growth, but hotels and restaurants and real estate, renting and business activities showing low or even negative productivity growth. This is a common phenomenon across the majority of euro area countries.

Analysing the individual sub-sectors in more detail,⁶ the most striking difference between the euro area and the United States can be observed in the wholesale and retail trade sectors, with the euro area showing low and decreasing productivity growth since the 1990s (in particular since the mid-1990s) compared with the United States. In the literature, this is attributed mainly to the larger retail outlets and consequently the better use of economies of scale and more intensive use of information and

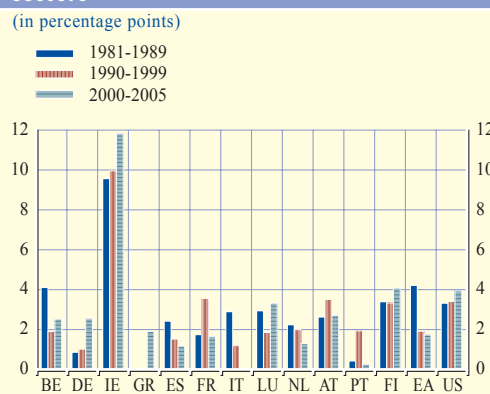
6 For more detailed data on productivity growth and valued added price changes in individual services sectors, see ECB (2006) and Box 4 entitled "Labour productivity and price developments in the euro area services sector: the role of competition" in the April 2006 issue of the Monthly Bulletin.

Chart 5 Labour productivity growth in the services sector



Sources: ECB (2006) and Eurostat.
Note: Data up to 2005 if available, otherwise the latest available year. EA stands for "euro area".

Chart 6 Labour productivity growth gap between the manufacturing and services sectors



Sources: ECB (2006) and Eurostat.
Note: Data up to 2005 if available, otherwise the latest available year. EA stands for "euro area".

communication technology (ICT) in the United States.⁷ Negative labour productivity changes in hotels and restaurants across the majority of countries could also be related to the sectors' labour-intensive nature, domestic orientation and issues of quality adjustment in measuring output. Labour productivity growth in transport and storage and in telecommunications in the euro area was higher than in the United States during the period under consideration. In transport and storage, this partly reflects the differences between this sector in the United States and in the euro area.⁸ In telecommunications, the liberalisation measures implemented in the 1990s contributed to increased efficiency, the use of ICT, an increase in demand and lower prices (see below). Negative labour productivity developments in real estate, renting and business activities recorded in both the euro area and the United States may also be attributed to the fact that they are inherently based on rents and do not increase output.

VALUE ADDED PRICE CHANGES

Chart 7 shows a clearly decreasing pattern in the implicit value added price deflator for services (referred to as price changes hereafter) in the majority of the euro area countries and the United States since the beginning of the 1980s. This development has been accompanied

by decreasing dispersion in price changes across euro area countries, as measured by the coefficient of variation.

At the euro area level, the gap between price changes in the services and manufacturing sectors shrank (see Chart 8), whereas in the United States, the gap widened during the period 2000-05 due to a more pronounced price decline in the manufacturing sector than in the services sector.

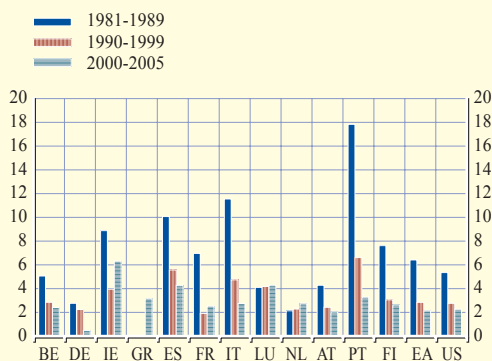
Looking beyond aggregates, price developments within the services sector are rather heterogeneous. In hotels and restaurants, prices generally grew at a faster rate compared with total services, which is explained mainly by a higher labour intensity and the resulting smaller scope for productivity improvements in a context of limited wage flexibility and/or insufficient competition. A similar trend in real estate, renting and business activities can be attributed to the increase in prices of underlying

7 M. Timmer and R. Inklaar, "Productivity differentials in the US and EU distributive trade sector: statistical myth or reality?", Research Memorandum GD-76, Groningen Growth and Development Centre, 2005.

8 B. van Ark, E. Monnikhof and N. Mulder, "Productivity in services: an international comparative perspective", in *Canadian Journal of Economics*, Vol. 32, No 2, 1999, pp. 471-499. This article highlights the high use of private cars and a smaller scope for efficiency improvements in US passenger transport.

Chart 7 Value added price changes in the services sector

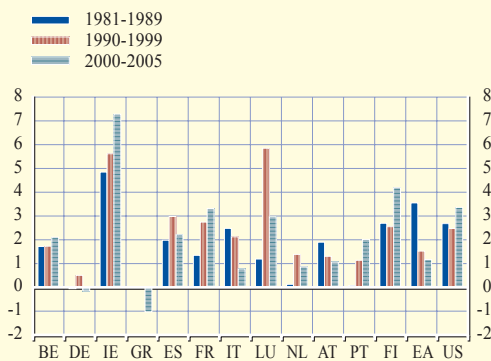
(in percentages)



Sources: ECB (2006) and Eurostat.
Note: Data up to 2005 if available, otherwise the latest available year. EA stands for "euro area".

Chart 8 Gaps in value added price changes between the services and manufacturing sectors

(in percentage points)



Sources: ECB (2006) and Eurostat.
Note: Data up to 2005 if available, otherwise the latest available year. EA stands for "euro area".

assets in real estate and to the improving quality and growing customisation of professional services. Conversely, in post and telecommunications, prices fell in a majority of countries over time (in particular in Germany, France and the Netherlands since 1996) due to the opening-up to competition and cost decline on the back of technological progress in the sector.⁹ Price developments in wholesale and retail trade in the euro area show a pattern similar to the one in total services, while the United States experienced negative price changes in this sector from the second half of the 1990s onwards, reflecting its more positive productivity developments.

CONSUMER PRICE INDEX (HICP) DEVELOPMENTS

The main HICP developments in the services sector are broadly similar to those observed for the value added deflator. The HICP for services refers to final consumer prices of services and reflects, in addition to the components of the value added deflator, the evolution of other factors influencing consumption prices, i.e. taxes on consumption, the prices of other inputs and the prices of imported products directly consumed.

The weight of services in the euro area HICP has been growing steadily. In 2006 it reached 40.8% which, however, is less than the share of

services in total value added or employment. The differences arise for two main reasons. First, many services are intermediate inputs for the production of consumer goods, and their input is embodied in the prices of the other items of the HICP (e.g. margins of wholesale and retail services are incorporated into the price of the goods sold to customers). Second, some non-market services do not require monetary transactions and are not included in the HICP, since the share of households' final monetary expenditures for these services is zero (e.g. public administration and defence, and to some extent education, health and social protection services).

Since 1992, increases in services prices have followed a broadly similar pattern to that of non-energy industrial goods (i.e. consumer goods excluding food and energy).

However, the annual rate of increase in HICP services prices has been consistently above that of HICP non-energy industrial goods prices (see Chart 9). This gap, which has been around 1.7 percentage points on average, mainly

⁹ For a discussion, see "Price effects of regulatory reform in selected network industries", ECB, March 2001, and R. Martin, M. Roma and I. Vansteenkiste, "Regulatory reform in selected EU network industries", ECB Occasional Paper No 28, April 2005.

Chart 9 HICP developments in the euro area

(annual percentage changes)



Source: Eurostat.
Note: Data prior to 1996 are estimated on the basis of national CPIs.

reflects the above-mentioned productivity growth differentials between the services and industrial goods-producing sectors and the resulting impact on unit labour cost developments.

At a more detailed level of disaggregation, the benefits of liberalisation and technological progress can be seen clearly in the evolution of telecommunications services prices which have declined at an annual rate of 2.2% on average since 1996, compared with an average increase of 2.3% in overall HICP services prices. In this context, the broader liberalisation of services activities could also be expected to have an impact on overall services price developments.

Beyond the effect on the degree of inflationary pressures, services price increases contribute to the persistence of inflationary fluctuations over time. The recent work of the Eurosystem Inflation Persistence Network (IPN) points to higher price increases and a larger degree of nominal rigidities in services than in other items of the HICP.¹⁰ Services price index changes are less frequent, but larger compared with those recorded for manufactured goods. According to price-setting surveys, the main factors preventing price adjustments are (i) long-term relationships with customers, (ii) explicit contracts that are costly to

renegotiate and (iii) a low level of competition. Moreover, there is a large asymmetry in price changes, since only 20% of price changes in services are price decreases (compared with 40% in manufacturing). This asymmetry may also be explained by a larger share of labour input and downward nominal wage rigidities.

3 THE IMPACT OF COMPETITION ON PRODUCTIVITY AND PRICE DEVELOPMENTS IN THE SERVICES SECTOR

THE ECONOMIC ARGUMENT

Perfect competition is generally associated with a market structure where all economic agents are price-takers and firms are able to enter and exit the market freely without incurring fixed costs and unable to exploit increasing returns to scale. In the real world, perfect competition is rare, especially in the services sector, where the heterogeneity of the output supplied may create monopolistic power for the suppliers. Competition in services can be limited not only by the nature of the products involved, but also by legal barriers to trade or by legislation discriminating between local and foreign firms (see Box 3).

The effects of increased services sector competition on services sector labour productivity can be direct and indirect. Direct effects stem from the reduction in business costs and the removal of entry barriers following a broad range of product market reforms. Indirect effects on labour productivity in the services sector operate through three main channels:¹¹ (i) a reduction in mark-ups and a better allocation of scarce resources (allocative efficiency); (ii) an improvement in firms' utilisation of the factors of production

10 For a summary of the main findings of the IPN in the euro area, see I. Angeloni et al., "Inflation persistence in the euro area: preliminary summary of findings", Eurosystem Inflation Persistence Network, ECB, 2005, and E. Dhyne et al., "Price-setting in the euro area: some stylised facts from individual consumer price data", ECB Working Paper No 524, 2005.

11 See, for example, "The EU Economy: 2004 Review", European Commission, 2004.

(productive efficiency); and (iii) an incentive for firms to innovate and move to the technology frontier (dynamic efficiency). Gains in allocative and productive efficiency (known as static gains), which are brought about by changes in competition, represent one-off changes in the level of productivity. By contrast, the effects of dynamic efficiency on productivity, also known as dynamic gains, are believed to raise the level and growth rate of total factor productivity in the long run, as well as to have a potentially larger and longer-lasting impact on productivity, compared with static gains. Services sector competition can also indirectly support labour productivity in other sectors of the economy that use services as an input in their production process.

Increased competition is generally associated with a lower price level brought about by a reduction in the mark-ups of firms for given marginal costs. Moreover, stronger competition stimulates a more efficient use and allocation of resources, exerting downward pressure on costs and triggering price reductions.¹² The price (level) effects in services are both direct, via the effects of lower services prices for consumers, and indirect, via the reduction in the prices of services used as inputs to produce

other services within the services sector or other sectors of the economy. The effects of changes in competition on price levels are expected to persist. It may take several years before the sector has reached a new steady state. During this period of relative price adjustments, the aggregate inflation rate is also expected to be affected temporarily by such changes in competition.

In general, the more competition there is in an economy, the more flexible it is likely to be in terms of wages and prices and factor substitution of inputs. More flexible prices could lead to a less persistent output loss following a negative cost-push shock. This is particularly relevant in the case of services, since services prices are generally stickier than manufacturing prices and companies operating in markets with a higher degree of competition adjust their prices more frequently in response to cost and demand factors (see Section 2). Finally, increased competition in the international services market should also enable consumers to compare prices more easily, especially in a monetary union, increase price

¹² See, for example, the article entitled "Price level convergence and competition in the euro area" in the August 2002 issue of the Monthly Bulletin.

Table 1 Measures of product market regulation

	Product market regulation		Retail services		Professional services ¹⁾	
	2003	2003 minus 1998	2003	2003 minus 1998	2003	2003 minus 1996
Belgium	1.4	-0.7	4.5	0.9	2.1	-0.1
Germany	1.4	-0.5	3.1	0.8	3.1	-1.0
Ireland	1.1	-0.4	1.1	-0.2	1.3	0.1
Greece	1.8	-1.0	4.2	0.2	2.9	-
Spain	1.6	-0.7	3.4	-0.3	2.4	-1.0
France	1.7	-0.8	3.1	-1.6	2.0	0.1
Italy	1.9	-0.9	2.4	-0.5	3.6	0.3
Luxembourg	1.3	-	-	-	3.2	0.0
Netherlands	1.4	-0.4	1.6	-0.3	1.6	0.2
Austria	1.4	-0.4	3.2	-0.9	2.0	-2.2
Portugal	1.6	-0.6	2.2	-1.0	2.4	-0.3
Finland	1.3	-0.7	2.6	-0.8	1.0	0.2
Euro area	1.5	-0.7	2.8	-0.3	2.3	-0.3
United States	1.0	-0.3	2.6	-	1.8	-

Source: OECD.

Note: A higher index indicates stricter regulation.

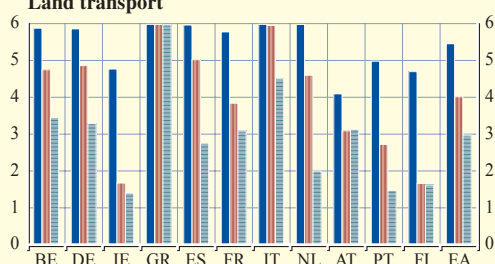
1) The overall indicator for professional services is the simple average of indicators for accounting, architect, engineer and legal services.

Chart 10 Sectoral regulation

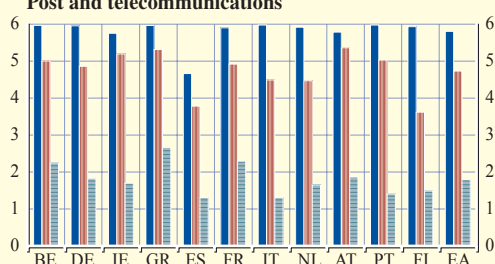
(period averages)

■ 1981-1989
 ■ 1990-1999
 ■ 2000-2003

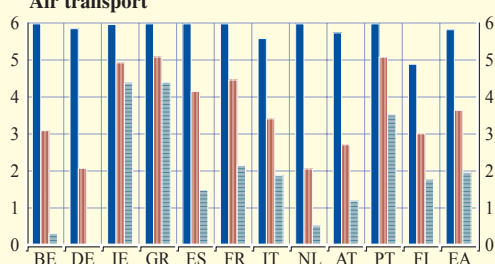
Land transport



Post and telecommunications



Air transport



Sources: OECD and own calculations.
 Notes: The index ranges from 0 to 6. A higher index indicates stricter regulation. The value for the euro area is computed as a simple average. EA stands for "euro area".

transparency, enhance arbitrage possibilities across countries and allow a smoother functioning of EMU. More competition in economies could therefore attain lower inflation rates for a longer period of time.

SERVICES MARKET COMPETITION IN THE EURO AREA

Measuring competition in the non-financial business services market is a complex task,¹³

since regulations do not lend themselves to being measured quantitatively and competition is hard to observe directly. Therefore, proxies that capture institutional information or assess actual performance against the hypothetical benchmark of full competition must be used. Box 2 provides an overview of such proxies, as well as a discussion of their strengths and limitations. Looking at the different measures of competition, however, provides a fairly robust picture of the progress the euro area countries have made in increasing competition over recent years and the remaining cross-country differences. Consequently, proxies measuring the degree of total economy and sectoral regulation, as well as proxies of corporate profitability, are presented in this section.

The overall OECD Product Market Regulation (PMR) index provides a synthesis of regulations that have the potential to reduce or increase the intensity of competition. This index dropped clearly during the period 1998-2003 for both the euro area and all countries examined (see Table 1, columns one and two), suggesting that the overall regulatory environment has become more supportive of product market competition since 1998, although for the most part it remains tighter than in the United States. The biggest improvements have been recorded for Greece, Italy and France, although the levels in all these countries are still among the highest. By contrast, retail services and professional services have shown only limited progress in terms of deregulation since 1998 and 1996, respectively, and even some tightening of regulations in some countries (see Table 1, columns three to six).

Chart 10 shows the evolution of sectoral regulation for air transport, land transport and post and telecommunications during the periods 1981-1989, 1990-1999 and 2000-2003. A higher index value indicates stricter regulation in terms of barriers to entry, public ownership, market structure, vertical integration and price

¹³ See Chapter 3 of ECB (2006) for a detailed discussion.

controls. These indicators have decreased significantly over time in the euro area as a whole and across countries, suggesting that regulation in these sectors has become more “business-friendly”. This is the case for air transport and post and telecommunications in particular, which experienced the biggest drop. Progress recorded, however, tended to differ across countries and industries, as suggested by the increase in the dispersion of sectoral regulation over time (signalled by a higher unweighted standard deviation across countries in the second and third periods considered than in the first). Consequently, cross-country differences in the level of regulation in these industries are still considerable.

The extent of regulation in the services sector could affect firms’ behaviour and profitability. Proxies of profitability can therefore be used as an alternative measure of competition. They comprise the mark-up, simply measured as the ratio of the value added deflator to unit labour costs, and the profit margin which is calculated as the ratio of the operating surplus to value added. The mark-up, corrected for the imputed

labour compensation of the self-employed, is characterised by rather limited variations over time and by an upward trend in the euro area as a whole and most of the euro area countries and sectors examined in the 1990s compared with the 1980s.¹⁴ In general, both the mark-up and profit margin in the euro area non-financial business services sectors exceeded the corresponding indicators for the total economy and manufacturing in the 1980s and 1990s. However, it is difficult to draw strong conclusions on the evolution of competition from these proxies, as a high level of profitability could be associated either with limited competition or with the high dynamic efficiency of firms within a competitive sector leading to productivity gains (see also Box 2). Nevertheless, stronger competition should reduce economic rents from regulations and therefore mark-ups in the medium to long term.

¹⁴ For a discussion, see the article entitled “Measuring and analysing profit developments in the euro area” in the January 2004 issue of the Monthly Bulletin.

Box 2

COMPETITION PROXIES IN THE SERVICES SECTOR

Measuring competition in the services market is important for the assessment of its effects on labour productivity, growth and inflation. Since competition cannot be observed directly, different proxies have been developed for non-financial business services. This box complements the second part of Section 3 of this article by providing a comprehensive overview of these proxies of competition. They are schematically divided into four categories, detailing their statistical sources and their main methodological caveats.

1. Proxies of corporate profitability at the sectoral level, such as the mark-up and the profit margin (OECD Structural Analysis (STAN) database). Difficulties in measuring capital stock at the sectoral level may make it difficult to measure profits and, in general, international comparisons should be cautiously interpreted. Moreover, higher profitability cannot be unambiguously understood as an indication of less competition.
2. Proxies measuring the degree of total economy and sectoral regulation (OECD Product Market Regulation (PMR) database). Using a bottom-up approach, these proxies summarise indicators covering information on state control, barriers to entry, state involvement in

business operations and price controls. They are generally available with some delay (the latest available observations cover the year 2003) and with low frequency. Other indicators of regulations for selected services (accountants, pharmacists, architects, engineers, lawyers, retailers) are also available (Copenhagen Economics¹ and Paterson et al.²). These indicators are generally available at a high level of disaggregation but their time coverage is very limited.

3. Indicators of market structure, such as the number of firms, the number of persons employed per enterprise and the share of self-employed in total employment (Eurostat New Cronos). The construction of more precise measures of market structure, such as Herfindahl indices, poses significant challenges due to data limitations. It is important to stress that firm size should not be taken unambiguously as a proxy for market concentration. On one hand, average firm size may be positively related to concentration and on the other hand a fragmented market structure might be an indication of barriers to entry for more efficient organisational models, such as large retail outlets.
4. Proxies measuring the degree of market openness, such as trade openness (OECD Statistics on International Trade in Services) and indices of foreign direct investment restrictions³. The latter are constructed by aggregating several indicators signalling the discrimination of a country against foreign firms, for example through operational restrictions on foreign firms and limits on foreign equity ownership. This category of proxies can be used to assess the extent of international competition.

- 1 Copenhagen Economics, "Economic Assessment of the Barriers to the Internal Market for Services", 2005, a study commissioned by the European Commission, DG-Enterprise, Brussels.
- 2 I. Paterson, M. Fink and A. Ogus, "Economic impact of regulation in the field of liberal professions in different Member States", Regulation of Professional Services, Research Report, Institute for Advanced Studies (IHS), Vienna, 2003.
- 3 S. Golub, "Measures of restrictions on inward Foreign Direct Investment for OECD countries", OECD Economic Studies No 36, 2003, pp. 85-117.

THE EMPIRICAL LINK BETWEEN MARKET COMPETITION, LABOUR PRODUCTIVITY GROWTH AND RELATIVE PRICE CHANGES IN SERVICES

The empirical literature generally finds that competition is an important factor in explaining both labour productivity and price developments in the services sector. Deregulation and liberalisation contribute to higher levels and rates of growth in labour productivity.¹⁵ At the same time, higher competition is generally found to exert downward pressure on costs and prices.¹⁶

For the euro area, the ECB (2006) study investigates the link between several proxies of competition in the services market, labour productivity growth and relative value added

price changes (i.e. price changes in each analysed services sub-sector relative to price changes in the economy as a whole).¹⁷ Although several findings are in line with the evidence for broad sets of industrialised countries, it is

- 15 See the study by P. Conway, D. De Rosa, G. Nicoletti and F. Steiner, "Regulation, Competition and Productivity Convergence", OECD Economics Department Working Paper No 509, 2006, and the literature quoted therein.
- 16 See, for example, P. Cavelaars, "Does Competition Enhancement Have Permanent Inflation Effects?", *Kyklos*, Vol. 56, No 1, 2003, pp. 69-94, and M. Przybyla and M. Roma, "Does product market competition reduce inflation? Evidence from EU countries and sectors", ECB Working Paper No 453, March 2005.
- 17 Value added price changes rather than the HICP are used for the purpose of analysing data since the start of the 1990s, given that comparable HICP data across countries are available only from 1996. Relative rather than absolute value added price changes are investigated given that, in the medium to long run, absolute price level changes are driven by monetary developments and country-specific characteristics.

worth stressing that the results should be interpreted with caution given the limitations of the existing data. The caveats associated with the proxies of services market competition should also be borne in mind (see Box 2).

The study shows that competition in the services market is an important factor in explaining labour productivity growth in the majority of industries analysed. This result is fairly robust to possible measurement errors since it holds true for a range of indicators (FDI restrictions, OECD indicators of sectoral regulation, etc.). In particular, limited competition in the services market generally appears to dampen labour productivity growth in the services sector across euro area countries. However, the results differ across sub-sectors and there did not appear to be any systematic impact of services market competition in the case of hotels and restaurants and real estate, renting and business activities.

In all sectors examined, relative unit labour costs prove to be a key explanatory variable of

relative price changes. Moreover, higher relative profit margins are associated with higher relative price increases. However, these results should be interpreted with caution given that higher profitability cannot be unambiguously understood as an indication of less competition. In addition, in wholesale and retail trade, hotels and restaurants, and transport and storage, the other proxies of services market competition do not explain relative price changes. However, in post and telecommunications and real estate, renting and business activities, tighter sectoral regulation and some indicators of economy-wide product market regulation are associated with higher price increases or lower price decreases, suggesting that increased services market competition has a dampening impact on relative price changes in these sub-sectors.

Overall, more competition in services would promote more efficient and better functioning services markets (see Box 3), as well as increase productivity and consumer welfare in terms of price reductions in some sectors.

Box 3

THE EU DIRECTIVE ON SERVICES IN THE INTERNAL MARKET

The Treaty of Rome spelled out two fundamental freedoms underpinning the internal market for services: the freedom of establishment, allowing EU companies to establish themselves in other Member States, and the free movement of services, guaranteeing EU companies the freedom to provide services – on a temporary basis – on the territory of a Member State other than the one in which they are established.

However, in spite of these Treaty provisions, the internal market for services is not yet working satisfactorily. A plethora of legal and administrative barriers are preventing service providers from extending their operations beyond their national borders. The need to put into practice the internal market for services has thus been at the forefront of the European policy agenda for many years. Most notably, at the Lisbon summit in March 2000, the EU Heads of State or Government asked for a strategy to remove cross-border barriers to services, considering it a crucial cornerstone of the growth strategy known as the Lisbon agenda.

With a view to bolstering the exercise by service providers of these two fundamental freedoms, the European Commission presented in January 2004 a proposal for a Directive on services in the internal market (hereafter the “Services Directive”). The Services Directive was finally

adopted by the European Parliament and the Council in December 2006, and must now be transposed by the Member States into national law by the end of 2009.

The European Parliament and the Council modified the initial proposal of the European Commission on a number of points. They agreed to exclude a number of sensitive services from the scope of the Directive. Moreover, they rejected the Commission's suggestion to base the free movement of services on the "country of origin principle", which states that a company providing a service in another Member State – on a temporary basis – would only be subject to the laws of the country where it is established (with some exceptions). The European Parliament and the Council agreed to replace the country of origin principle by the principle that the Member State of destination must ensure free access to and free exercise of a service activity within its territory. The Member State of destination would be able to impose requirements on foreign providers of services only if these requirements are non-discriminatory, proportional and necessary on the grounds of public policy, public security, environment and health.

Notwithstanding these modifications, the Directive should still produce substantial benefits to both businesses and consumers by making it easier to provide and use cross-border services. In spite of its narrower scope, a large number of services continue to fall within the Directive's application. These include business services (e.g. management consultancy), consumer services (e.g. tourism) and services provided both to businesses and consumers (e.g. construction). Moreover, in line with the case law of the European Court of Justice, a number of restrictions on the exercise of both fundamental freedoms are now explicitly prohibited. The Directive will also cut red tape by modernising and simplifying the administrative procedures concerning the access to and exercise of service activities. Finally, all the restrictions imposed by Member States on foreign providers of services will be communicated to both the Commission and the other Member States and will be subject to mutual assessment.

Economic studies¹ have tried to quantify the macroeconomic impact of the Directive on economic growth and employment in the services sector. It has been argued that the Directive – as proposed by the Commission – would increase EU bilateral trade and investment in commercial services (except transport) by up to a third. Moreover, estimates indicate that the static effects (i.e. disregarding dynamic effects, such as the impact on firm behaviour) would already lead to gains in consumption and employment of 0.7% and 0.3% respectively, corresponding to a net increase of 600,000 jobs. Others suggest that GDP could rise by almost 0.7% as a result of the draft Directive.

These studies also consider the effect of the exclusion of the country of origin principle. Copenhagen Economics indicates that the provisions relating to this principle could increase the total welfare gains, measured in terms of total consumption, from the Services Directive by around 10%, while others estimate that the beneficial effects on GDP, consumption and trade could be approximately twice as high if the country of origin principle was adopted.

¹ R. De Bruijn et al., "The trade-induced effects of the Services Directive and the country of origin principle", CPB Document No 108, 2006. Copenhagen Economics, "Economic assessment of the barriers to the internal market for services", a study commissioned by the European Commission, DG-Enterprise, 2005. F. Breuss and H. Badinger, "The European Single Market for services in the context of the Lisbon Agenda: macroeconomic effects", a study commissioned by the Austrian Federal Ministry of Economics and Labour, 2006.

Overall, these studies provide some empirical evidence that the Directive's economic effects, despite being less than those that could be expected from the European Commission's original proposal, should be economically meaningful for all EU Member States.

Looking ahead, it is crucial that the Directive is implemented fully and effectively in all EU Member States, thus allowing the EU to reap the benefits as soon as possible.

4 CONCLUSION

The importance of the euro area services sector has increased significantly over time. This sector now accounts for around 70% of the euro area's total nominal value added and employment. However, labour productivity growth in the euro area services sector decreased slightly in the 1990s relative to the 1980s and this downward trend persisted during the period 2000-05.

Insufficient competition in the services sector is often referred to as one of the factors hindering labour productivity growth and contributing to stronger price increases than those in the manufacturing sector. Empirical results suggest that measures aimed at increasing market competition in the services sector may contribute to higher labour productivity growth and have a dampening impact on relative price changes in some services sub-sectors.

The proxies of competition in the services sector analysed here generally indicate that regulations in the euro area services sectors have become more "business-friendly" over time. However, the progress recorded tends to differ across euro area countries and industries, with retail and professional services showing only limited progress since the mid-1990s.

Overall, a higher level of competition in the services sector would promote more efficient and flexible services markets, facilitate adjustment processes and increase the resilience of the euro area to economic shocks, thus allowing a smoother functioning of EMU. The reduction of rigidities and barriers in the services sector should be part of a comprehensive

approach to reforms exploiting the complementarities of labour and product market reforms. In this respect, the completion of the single market for services should remain a high priority for European policy.