I. The euro area services sectors [1]

In modern and increasingly globalised value chains, services are closely intertwined with other sectors of the economy and across borders. Therefore, where they show underperformance, this has consequences for the economy as a whole.

Services are also relevant for the functioning of the economic and monetary union. With no exchange rate between themselves, the ability of euro area Member States to adjust to specific shocks depends on the ability of their economies to adjust through their production and prices. This adjustment is hampered if rigidities and distortions affect significant sectors of the economy. Indeed, given that services are traditionally less exposed to competition, they are more likely to suffer from rigidities which prevent them from reacting efficiently to economic signals. In some Member States, rigidities in services –which are to a large extent non-tradable- can also be an important constraint on growth in domestic demand, thereby hampering intra-euro area current account rebalancing.

This chapter shows that service sectors have both strong backward (demand) and forward (supply) interlinkages with manufacturing, and that these spillovers also create added value. Econometric estimates show that productivity growth in services contributes to the export performance of manufacturing. Evidence of underperformance in services sectors is presented in terms of a misallocation of productive resources across firms and relatively high mark-ups. These facets of underperformance are driven by a lack of competition. Indeed, product market regulation is for some countries and service sectors still relatively strict.

By tackling structural bottlenecks, reforms to liberalise and enhance competition in service sectors can play an important role for growth and competitiveness. Although there is a general consensus on the need to liberalise service sectors in the euro area, little progress has been achieved over the last few years as only a few Member States have carried out significant reforms.

I.1. Introduction

Service sectors, like wholesale and retail trade, transport, telecommunications and business services are often studied in isolation, with no consideration of their potential role in a country's overall macroeconomic performance. There is, however, strong evidence that the functioning of service sectors affects the whole economy, not only because of their sheer size but also because of their interlinkages with other sectors in the economy. Services are used as inputs in the production process of downstream firms, and service sectors are in turn an important source of demand for upstream producers.

Well-functioning service sectors are therefore an important ingredient of a country's overall macroeconomic performance. Various signals of possible underperformance in service sectors require policy attention. Such underperformance can become visible in relatively low productivity, high mark-ups, and an inefficient allocation of resources. At the same time, it appears that service sectors in many countries are still subject to competition-unfriendly regulation.

Reforms tackling structural weaknesses in service sectors can help to remove impediments to fundamental drivers of growth: they can foster employment creation and investment and improve productivity. Reforming services is high on the agenda of the EU's European Semester and six euro area countries have received country-specific recommendations (CSRs) related to their services sectors. In addition, the euro area as a whole has also received a recommendation in the area of services. Service sector reforms can, however, face opposition from the rent-seeking activities of groups protecting their interests. Providing evidence of the potential economy-wide benefits of such reforms could help to overcome resistance and build political support for reforms.

This chapter first provides evidence of the key role that service sectors play in the economy, including their role as drivers of manufacturing exports, which is an aspect that is seldom considered. It

(1) Chapter prepared by Erik Canton, Mats Marcusson and Josefina Monteagudo.

then reviews a series of performance indicators. ([2]) Finally some policy implications are discussed.

I.2. The economic contribution of market services

Market services ([3]) are the largest economic sector in euro area economies: in 2014 they generated 51 % of euro area GDP and accounted for 45 % of employment. In addition, their increasing interconnectivity with other sectors (including manufacturing as well as non-market services) magnifies their significance for the overall economy's performance. Their economic importance exceeds their size in several ways:

- Services are important determinants of competitiveness as they are both 'inputs' in, and facilitators of, exports. Manufacturing firms both use and offer services as a means to improve their competitiveness. This can work in essentially two ways. The first way is through increased productivity and/or reduced costs; the second, through upgrading their products so that they can charge customers a higher premium. Services, which increase management skills and improve the organisation of firms, are examples of the former effect. A well-known example of the latter is the smart phone, in which the manufactured hardware, the telephone itself, is bundled with a range of different services.

- Compared to manufacturing, services are relatively labour intensive and thus a natural source of job creation. This is an important consideration when emerging from a crisis, as well-functioning service sectors can more easily absorb workers affected by restructuring.

- Rigidities in service sectors hinder the adjustment capacity of an economy to shocks and the efficiency of resource reallocation. The inadequate regulation and lack of competition that often characterises services sectors can lower their resilience and adjustment capacity to shocks by creating rigidities and distorting economic signals. This has particularly important implications for the euro area because of the absence of nominal exchange rate movements as an alternative adjustment mechanism.

- Finally, despite their increasing tradability, services are still mostly non-tradable. Rigidities in services can therefore be an important constraint on growth in domestic demand, thereby contributing to an asymmetric process of current account rebalancing within the euro area.

I.2.1. Services and the rest of the economy

Services have become increasingly interconnected with other sectors, both as users of other sectors' inputs and as inputs into the production process of other sectors. The strength of the interconnections between services, either as users of other sectors' inputs, or as suppliers of inputs to other sectors, is gauged by backward or *demand* linkages and forward or *supply* linkages respectively.

Backward linkages measure the multiplier effects that services have on the rest of the economy. These backward linkages show the total production generated, directly and indirectly, to satisfy one euro of final demand for services. The range of the value of multipliers for services in the euro area is 1.5 (financial services) to 2.5 (air transport). ([4]) Air transport and other service sectors such as telecommunications, business services, wholesale trade and financial services have relatively large demand linkages. It is worth noting that demand spillovers generated by some service sectors are of the same order of magnitude as the ones generated by manufacturing industries such as transport equipment and the chemical industry (see Graph I.1).

The role of services as intermediate inputs into the production of all goods and services produced in the economy is analysed by calculating forward or *supply* linkages. The forward linkages show the total production generated in downstream industries, directly and indirectly, by one euro worth of supply

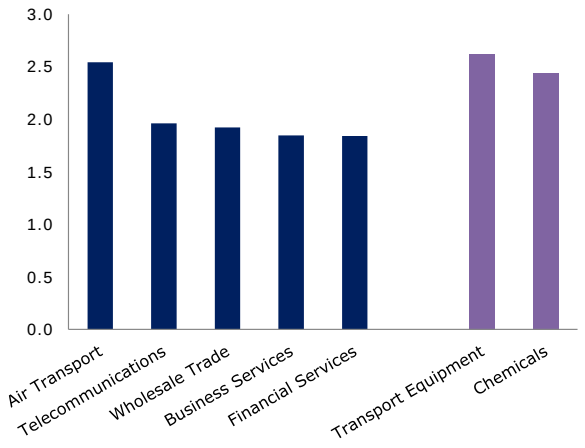
([2]) A problem when assessing performance in services sectors is data availability and thus it is not always possible to present up-to-date indicators.

([3]) Through the chapter, services are defined as market services and include: wholesale and retail trade; transport; accommodation and food service activities; information and communication; financial services; real estate activities; and professional, scientific and technical activities. Public administration, defence, education, human health and social work activities are therefore excluded.

([4]) Calculated as the average of backward linkages in euro area countries. The domestic linkages account for around 90 % of total backward linkages, thus only 10 % of the demand leaks out abroad. Data source is Input-Output tables from the World Input-Output Database (WIOD), www.wiod.org.

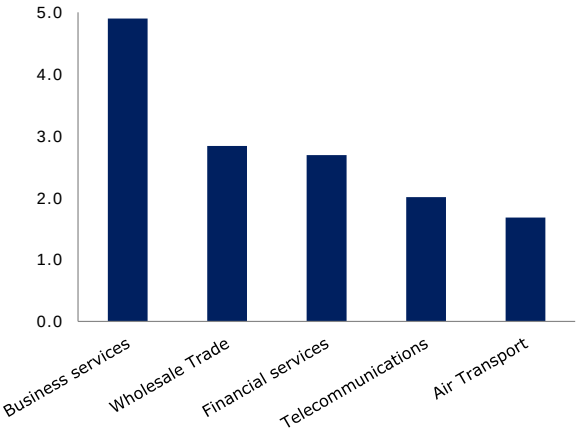
in an upstream industry. The range of these interlinkages for services in euro area economies is 1.3 (for air transport) to 4.8 (for business services). Indeed, business services and wholesale trade are the service sectors with the strongest forward links with the rest of the economy (Graph I.2). ([5])

Graph I.1: **Demand effects — Backward linkages for selected services and manufacturing industries, euro area(1)**



(1) 2011 averages for the 19 euro area countries. See main text for the explanation of backward linkages.
Source: WIOD, www.wiod.org

Graph I.2: **Supply effects — Forward linkages for selected services industries, euro area(1)**

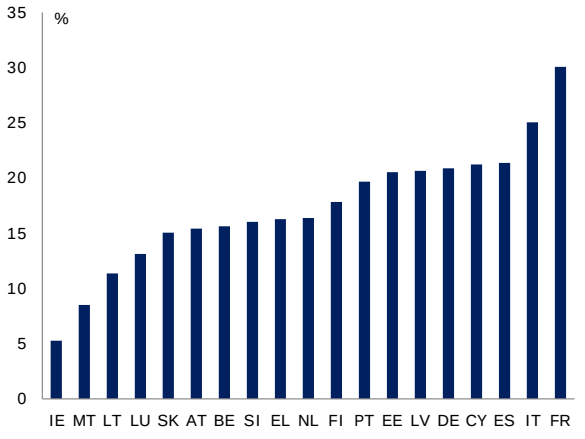


(1) 2011 averages for the 19 euro area countries. See main text for the explanation of forward linkages.
Source: WIOD, www.wiod.org

But do these interlinkages between services and other sectors create significant added value? The answer is yes. Graph I.3 shows the domestic value-added content of market services embodied in manufacturing exports in 2011, the latest year for which data are available. There is a large variation across euro area countries. Irish manufacturing, for example, uses domestic services to a much lesser extent than French manufacturing industries. Note, however, that a high content of domestic services in value-added does not necessarily indicate healthy domestic service sectors. This is partly because small and open economies tend to source more intermediate goods and services from abroad than large countries. Moreover, a high value-added content of domestic services can be compatible with low productivity, in particular for non-tradable services as manufacturing firms cannot easily find foreign substitutes for them.

Countries whose manufacturing exports use a high proportion of domestic services could therefore potentially boost their export performance by addressing underperformance in their service sectors.

Graph I.3: **Domestic services value-added content of manufacturing exports, euro area countries(1)**
(2011, %)



(1) Calculated as percentage of total manufacturing exports.
Source: WIOD, www.wiod.org

I.2.2. Services and competitiveness ([6])

Services are important for exports of goods and services. The competitiveness of manufacturing firms in open economies is determined partly by

([5]) Euro Area services industries have on average stronger forward linkages than manufacturing industries while the opposite is true for backward linkages. Average services forward linkages is 2.7 while average manufacturing forward linkages amount to 1.4. Calculations based on World Input-Output tables.

([6]) The results are based on a forthcoming publication by W. Connell, M. Marcusson and J. Monteagudo.

access to low-cost and high-quality services (telecommunications, transport and distribution services, financial intermediation, business services etc.). But to what extent do well-functioning domestic service markets have an impact on the export of manufactured goods?

This question can be addressed by combining information on the importance of different service sectors in the production of manufactured goods with an indicator of service sector performance i.e. labour productivity growth. Empirical evidence shows that in a majority of euro area countries and for the euro area on average, there is a negative correlation between productivity growth in service sectors and their forward (*supply*) linkages with the rest of the economy. Reforms that improve the capacity of service sectors to innovate and adjust and increase competition should translate into productivity gains. This, in turn, should benefit manufacturing sectors which use the inputs of services in the production of goods.

An augmented export growth equation that incorporates the importance of service sector efficiency confirms that service sectors matter for exports. The methodology and key results are presented in Box I.1. The econometric findings support the hypothesis that productivity growth in services (the proxy for efficiency) can be an important driver for the growth of manufacturing exports.

But not all service sectors contribute equally to increased manufacturing exports. Higher productivity in business services, telecommunications and postal services, and financial services, increase growth of manufacturing exports. However, it seems that the trade (wholesale and retail) services, transport services, and hotels and restaurants, do not significantly affect the growth of manufacturing exports. The lack of statistical significance for transport services may seem surprising, however, the results should not be interpreted as suggesting that transport services are not important for exports. Rather, it means that productivity changes in the transport sector (which were relatively flat over the sample period) have had less impact on export growth than productivity changes in other services sectors. A plausible explanation for this result may be that transport includes three sub-sectors -air, land and water transport- whose productivity performance may have evolved differently, making the aggregate coefficient less meaningful.

The results in Box I.1 show that the estimated elasticities for the service sector productivity variables do not seem to be large. However, when used in conjunction with the average productivity growth in services observed during the sample period, the impact on exports can be as high as the impact of the real effective exchange rate. (7) Thus the efficiency of services used by exporting manufacturing industries seems to be an important determinant of the non-price competitiveness of goods exports.

I.3. The economic performance of services

The integration of services has been high on the European agenda for the single market over the last two decades. Despite their economic importance and the recognition of their importance at the EU level, service sectors have not always been high on the reform agendas of Member States. This has not been because reforms were not needed, on the contrary, many service sectors show signs of underperformance and limited competition. The lack of competitive pressure can be linked to limited tradability, small national markets, the limited presence of foreign firms, 'natural' monopoly characteristics, or just regulation.

In this section three indicators are presented: Unit Labour Costs (ULC) developments as a measure of the competitiveness of services, and allocative efficiency and mark-ups as other measures of their economic performance.

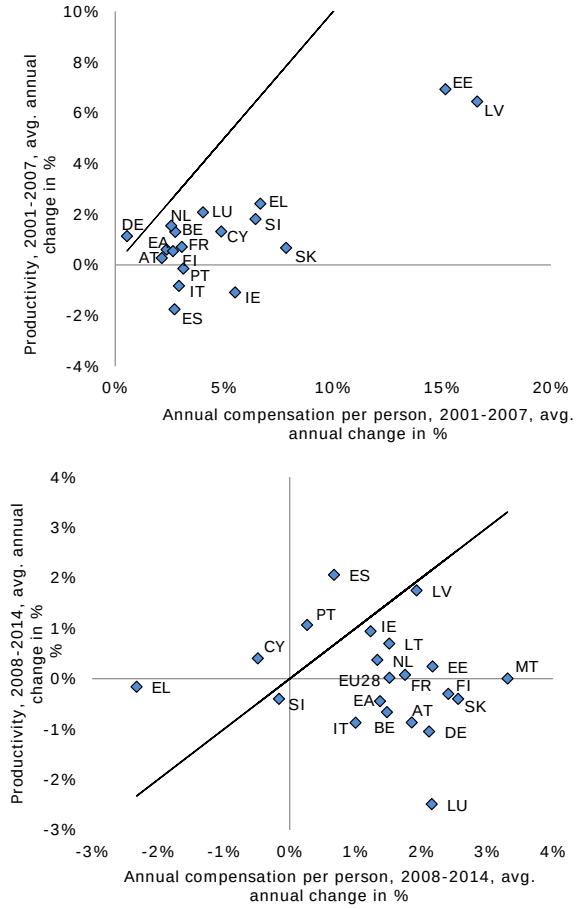
I.3.1. The 'competitiveness' of services

To what extent do labour productivity developments in services go hand in hand with labour compensation trends? Graph I.4 shows the average annual per capita growth rates for labour productivity and labour costs in market services before (top panel) and after (bottom panel) the crisis. The comparison between these two indicators can be seen as an indicator of competitiveness gains.

(7) The average impact is larger for telecommunications, followed by financial and business services.

The graph shows that since the crisis, labour productivity in market services has only outpaced labour compensation in countries such as Portugal, Spain, Cyprus and Greece (those left of the diagonal line), which have experienced strong market pressures and which have been undergoing major competitiveness adjustments. There are however significant differences between them. While Portugal and Spain show increases in both labour productivity and wages, the strong wage adjustment in Greece has not been accompanied by improvements in labour productivity in services.

Graph I.4: **Compensation per hour and labour productivity before (top)and after the crisis (bottom), euro area countries**

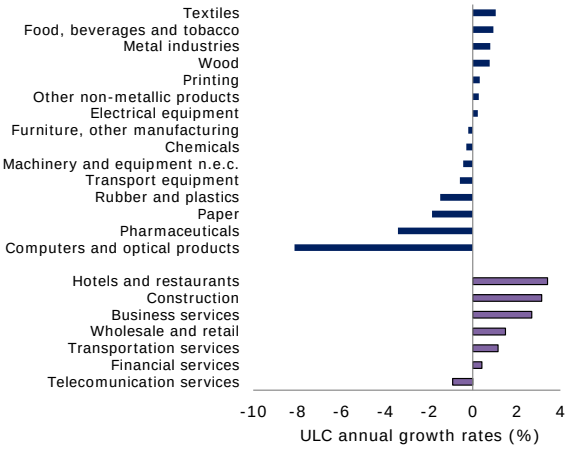


Source: DG ECFIN calculations based on Eurostat data.

The situation before the crisis was quite different with most countries showing the reverse pattern of wage compensation growing faster than labour productivity. Indeed, losses of competitiveness in the pre-crisis period were driven by large unit labour cost increases in the non-tradable sector. As shown in Graph I.5, euro area market services had significantly higher unit labour cost growth than manufacturing, which holds across almost all sectors.

Graph I.5: **Sectoral ULC before the crisis, euro area**

(2001-2007, avg. annual change in %)



Source: DG ECFIN calculations based on AMECO data.

I.3.2. Indicators of allocative efficiency

Allocative efficiency, the extent to which productive resources are allocated towards their most productive uses, is relatively low in service sectors compared to manufacturing. ([8]) This is shown in Graph I.6 for manufacturing sectors compared, as an example, with professional services. ([9])

The allocative efficiency indicator (AE) uses information on employment and value-added distribution across firm-size classes. Although data are only available until 2011, it is useful to look at the insights of this, rather structural, indicator. The interpretation is the following. In, for example, the Austrian manufacturing sector, the actual allocation of resources implies a 23 % higher productivity (compared with a theoretical benchmark where all resources would be allocated uniformly across firms). For services, the AE indicator is typically negative, implying that firms with relatively low productivity have above-average market shares. In the case of Austria, the productivity loss from this

([8]) European Commission (2013), 'Product market review 2013: Financing the real economy', *European Economy 8/2013*, DG ECFIN, European Commission.

([9]) Professional services are part of market services (and therefore included in this aggregate sector in the analysis). The indicator for allocative efficiency is calculated for NACE Rev. 2 sectors (not for market services as a whole), where sector M corresponds to professional services.

Box I.1: The role of services in EU exports

The model estimates consists of an export demand equation that includes, together with relative prices and foreign demand, the extent and efficiency of interlinkages between manufacturing and services. A panel data model is estimated for 22 Member States, of which 15 have adopted the Euro (1), and 10 manufacturing sectors for the years 2000-2013. The econometric analysis follows the approach in European Commission (2010). (2)

$$\Delta lnX_{c,i,t} = b_1 \Delta lnREER_{c,i,t-1} + b_2 \Delta lnM^*_{c,i,t} + b_3\, FL_{c,i} \Delta ln\, ProdServices_{c,i,t-1} + \lambda_{c,i} + CRISIS_t + EA_c + \varepsilon_{c,i,t}$$

Where t indexes time, c country and i sector. The dependent variable, X, is real manufacturing exports. REER is the real effective exchange rate from AMECO with national export prices as deflators, http://ec.europa.eu/economy_finance/db_indicators/ameco/documents/list_of_variables.pdf. M^* is foreign demand which is measured by foreign imports. Exports and imports are collected from COMTRADE and deflated with national export and import prices. *ProdServices* is a vector capturing the efficiency of different service sectors, measured by the sectors' labour productivity. The productivity variable is combined with the *supply* or forward linkages between each service sector and manufacturing sectors (*FL*). The forward linkages are calculated from the WIOD input-output tables. (3) The resulting variable measures therefore not only the productivity of service sectors, but also how interconnected they are to manufactures as suppliers of inputs. The service sectors considered are: trade (including wholesale and retail); transport (including air, water and land transport); hotels and restaurants; business services (including professional services, scientific and technical activities, R&D activities and advertising and marketing research), telecommunications (including also postal services); and financial services. Finally, the model also includes country and sector dummies ($\lambda_{c,i}$), and controls for the crisis and membership in the euro area.

The results show that the relative price and foreign demand variables are significant with the expected signs: an increase of foreign demand growth increases export growth (elasticity of almost 0.7) while a real appreciation negatively affects export growth (elasticity of -0.3). The productivity performance of service sectors matters for exports, particularly productivity growth in business services, telecommunications (and postal services) and in the financial sector. The estimated elasticities for these three sectors are of the order of 0.06 -0.07. The coefficient of the euro area dummy implies that being in the euro area gives a country a premium in the form of higher export growth of 0.8 pps.

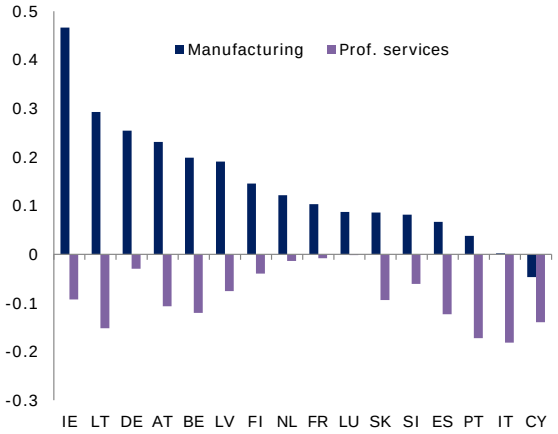
Dependent variable is real export	
REER $_{t-1}$	-0.31**
	(0.11)
Foreign demand $_{t}$	0.68***
	(0.04)
Productivity trade services $_{t-1}$	-0.03
	(0.04)
Productivity business services $_{t-1}$	0.07**
	(0.03)
Productivity transport services$_{t-1}$	0.03
	(0.02)
Productivity financial services $_{t-1}$	0.06**
	(0.02)
Productivity telecommunications $_{t-1}$	0.06**
	(0.02)
Productivity hotel and restaurants $_{t-1}$	0.01
	(0.03)
Euro Area	0.8**
	(0.25)
Crisis	-0.03***
	(0.01)
N	2 320
R^2	0.57
adj. R^2	0.53
Fixed Effects	Country & Sector

Note: Standard errors in parentheses * $p < 0.1$, ** $p < 0.05$, *** $p < 0.001$. The variables, REER, foreign demand and productivity in services are expressed as first difference logs. The productivity in services variable is combined with the *supply* or forward linkages between services and manufactures.

(1) Lack of data on productivity in services industries, made it impossible to construct the services interlinkages variable for Croatia, Cyprus, Estonia, Ireland, Luxemburg, Malta and Sweden.
(2) European Commission (2010), 'Product Market Review 2010-11', *European Economy 8|2010,* DG ECFIN.
(3) www.wiod.org

mis-allocation of resources is about 10 %. In France and Germany the AE indicator is close to zero, but these countries could also reap substantial gains by reallocating resources in order to arrive at positive values for the indicator (as observed in for example the United Kingdom where it is +6 %).

Graph I.6: **Allocative efficiency, euro area countries(1)**
(2011, %)



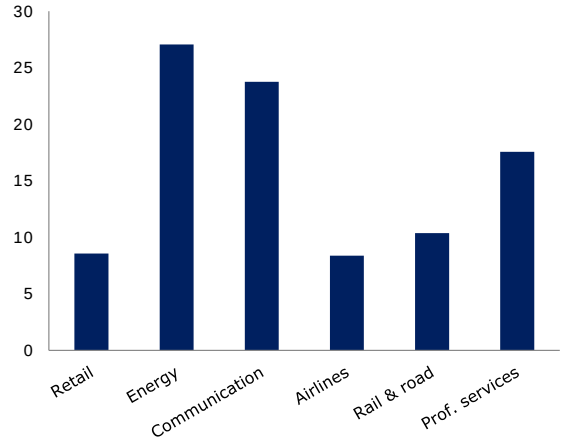
(1) Some EA countries are missing because of data availability issues.
Source: DG ECFIN calculations using Eurostat data.

I.3.3. Competition indicators: mark-ups ([10])

Mark-ups, i.e. the difference between the cost and the selling price of a good or service, are an important determinant of the producer and consumer surplus. Lower mark-ups increase purchasing power for consumers and downstream users and are generally seen as welfare enhancing.

This sub-section presents estimates of mark-ups in the services sectors of EU Member States. The work is based on an extension of Roeger's (1995) mark-up estimation methodology by allowing for the mark-ups to depend on sectoral product market regulations. ([11]) Roeger's methodology was previously used by DG ECFIN to compute time-invariant mark-ups. Changes in product market regulations and competition in Member States, however, are likely to have changed mark-ups. With the additional assumption that mark-ups depend on product market regulation, one can estimate time-varying mark-ups. It is then assumed that the mark-up in country *i*, sector *j*, and time *t* is a function of the sector-specific product market regulation and a country-specific component controlling for other factors (see Box I.2). Using the EU-KLEMS/WIOD database, the OECD sectoral Product Market Regulation indicators and applying Roeger's method, mark-up estimates are derived for the six sectors shown in Graph I.7.

Graph I.7: **Mark-ups in selected service sectors, euro area**
(2013, %)



Source: DG ECFIN calculations based on Thum-Thysen and Canton (2015).

In general, the regressions confirm the existence of a strong link between mark-ups and regulation: declining mark-ups over time are related to a reduction in the strictness of product market regulations. For example, in the Austrian retail sector, estimated mark-ups decreased from 17 % in 1996 to 9 % in 2013. In the Spanish professional services, the mark-up declined from 28 % in 1996 to 18 % in 2013. Secondly, with regard to the comparison across sectors, comparably high mark-ups in energy, communication (that includes postal and telecommunication activities) and professional services are found.

This may, to some extent, be explained by sector-specific technological characteristics (such as high fixed costs in network sectors), but can also indicate above-normal rents associated with sheltered competition and restrictive product market regulation.

([10]) The results in this section are based on Thum-Thysen A., and E. Canton (2015), 'Estimation of service sector mark-ups determined by structural reform indicators', *European Economy — Economic Papers,* No 547, DG ECFIN, European Commission.

([11]) Roeger W. (1995), 'Can imperfect competition explain the difference between primal and dual productivity measures?' *Journal of Political Economy*, Vol. 103, No 21, pp. 316-330.

Box I.2: Methodology for the mark-up estimations (*)

To estimate time-varying mark-ups based on structural reform indicators a method developed by Roeger (1995) is used. A well-known measure of mark-ups is the Lerner index, which relates prices to marginal costs. The difficulty with this direct measure of mark-ups is that marginal costs are not directly observable. Therefore, Hall (1988) came up with an indirect measure based on short-run fluctuations of production inputs and output on the macro level. The idea is the following: under perfect competition, production input shares equal output elasticity. Under imperfect competition, however, production input shares are smaller than output elasticity because the monopolist collects rents and factors are consequently remunerated below their productivity. As a consequence the Solow Residual underestimates factor input contribution to output growth and this measurement error can be used to estimate the mark-up. The non-zero difference between the primal (SR) and dual (SRP) Solow Residual can be written as:

$$SR_{it} - SRP_{it} = B(PMR_{it})\left(\Delta y_{it} + \Delta p_{it} - (\Delta k_{it} + \Delta r_{it})\right) + b_1 \Delta PMR_{it}$$

Δy_{it}, Δp_{it}, Δk_{it}, Δr_{it} are the log differences of output, price of output, capital and price of capital. B is interpreted as the mark-up, and PMR measures the strictness of product market regulation.

The estimation model is derived as follows. Assuming $B_{it}=b_{0i}+b_1 PMR_{it}$, inserting this in the above equation, defining $Y_{it}=SR_{it}-SRP_{it}$ and $Xit=\Delta y_{it}+\Delta p_{it}-(\Delta k_{it}+\Delta r_{it})$ and adding an error term provides the following equation, which is estimated by sector in order to retrieve sectoral estimates of the parameters β_{0i} and β_1:

$$Y_{it} = \beta_{0i} X_{it} + \beta_1 (PMR_{it} X_{it} + \Delta PMR_{it}) + \varepsilon_{it}$$

Note that a main difference with traditional panel methods is that the country-specific term β_{0i} is a slope parameter rather than an intercept. The term β_{0i} is interpreted as a country-specific random coefficient (varying across countries), rather than a country-specific fixed or random effect.

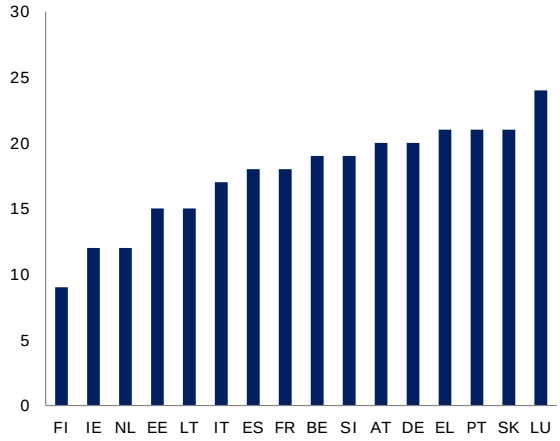
The PMR indicator is not the only factor that explains mark-ups; indeed competition or labour market policies may play a considerable role. Furthermore, country-specific factors such as capital costs - and in particular transfer pricing - may bias the estimation results for the country-specific effects and cause measurement errors. These two facts could explain why in some countries (in particular Italy in the retail sector) despite comparably strict product market regulations, the mark-up calculated from the estimation model is low compared to countries with lose product market restrictions such as the United Kingdom. A GDP-weighted average of country-specific effects β_{0ave} can be used, so that cross-country variation stems only from the PMR indicators and cross-country variation coming from capital productivity is averaged out. The estimates shown in this section are based on the GDP-weighted average.

(*) Based on Thum-Thysen and Canton (2015)

Relatively low mark-ups were found for the retail and transport sectors. ([12]) From a cross-country perspective, the estimations point at low to medium mark-up levels in UK, the Netherlands, and Denmark. Country examples with medium to high mark-ups differ per sector. For example, high mark-ups in professional services are found in Greece, Portugal, Slovakia, and Luxembourg. High mark-ups in retail are found for Luxembourg, Belgium, and Italy. Graph I.8 shows the estimated mark-ups in 2013 across the included euro area countries for the professional services.

([12]) The sectors covered in the estimations do not cover manufacturing. Other studies typically find that mark-ups in services are higher than in manufacturing. For example, an ECB study reports average mark-up ratios in the euro area for the 1981-2004 period of 1.56 for market services and 1.18 for manufacturing & construction, cf. Christopoulou R. and P. Vermeulen (2008), 'Markups in the Euro Area and the US over the period 1981-2004; A comparison of 50 sectors', *ECB Working Paper Series*, No 856.

Graph I.8: **Mark-ups in professional services, selected euro area countries**
(2013, %)



Source: DG ECFIN calculations based on Thum-Thysen and Canton (2015).

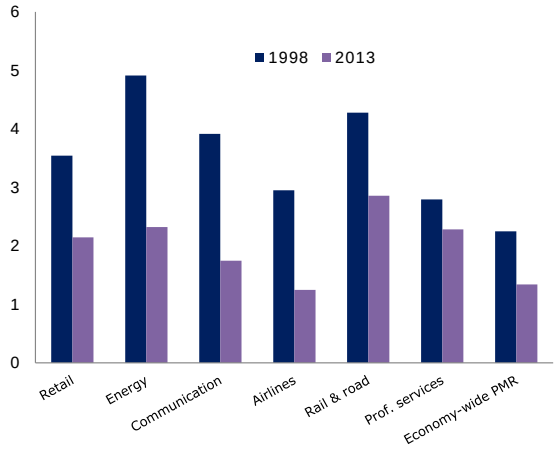
I.4. Improving the functioning of services

I.4.1. Regulation indicators in services

The product market regulation in services indicator of the OECD (PMR) approximates the level of regulatory burden for retail, professional services, transport, energy and communication sectors. The PMR indicators take values from 0 (least restrictive) to 6 (most restrictive).

Graph I.9 shows the indicator values for the different service sectors for the initial (1998) and the final (2013) year compared to the economy-wide PMR. The graph shows that, in all sectors, product market regulations were generally less strict in 2013 than they were in 1998, but progress has been slow in professional services. These averages for the euro area hide differences across countries. OECD countries that show comparatively low PMR in several sectors are the Netherlands, the United Kingdom, Sweden, Australia and the United States (the Netherlands being the only euro area country). In several sectors, the variability across countries seems to have decreased and countries seem to converge to more similar levels of product market regulation. This is in particular the case in the energy sector, the communication sector and the rail and road sectors, likely driven by EU regulatory framework in these sectors. ([13]) ([14])

Graph I.9: **PMR indicator, euro area**
(1998, 2013)



Source: DG ECFIN calculations based on OECD.

Reduced strictness of product market regulations can contribute to sectoral performance through various channels. For example, abolishing unnecessary regulation can help to achieve a more efficient allocation of productive resources in the sector. The relationship between allocative efficiency and product market reform can work through business dynamics, i.e. the entry and exit of firms in the market. The idea is that reduced product market regulation can foster the entry of productive new firms and the exit of inefficient firms, which would contribute to allocative efficiency. Canton, Ciriaci and Solera investigate this for the professional services ([15]) and find that a reduction of the PMR indicator by one point increases business dynamics (the sum of the entry and exit rate in a market) on average by 1.75 percentage points, which in turn increases allocative efficiency by 5.7 percentage points.

In addition, regulation could have an impact on firms' price setting behaviour. The earlier mentioned work by Thum-Thysen and Canton can be used to calculate the impact of changes in the PMR on mark-ups, and a typical finding is that a

([13]) However, this convergence is observed across most OECD countries, and is not confined to the euro area.

([14]) The estimated impact of the PMR on mark-ups is sector-specific, which explains for example that the observed reduction in the PMR in the communication sector has yielded only a relatively modest reduction in the mark-ups.

([15]) Canton, E., D. Ciriaci, and I. Solera (2014), 'The economic impact of professional services liberalisation', *European Economy — Economic Papers,* No 533, DG ECFIN, European Commission.

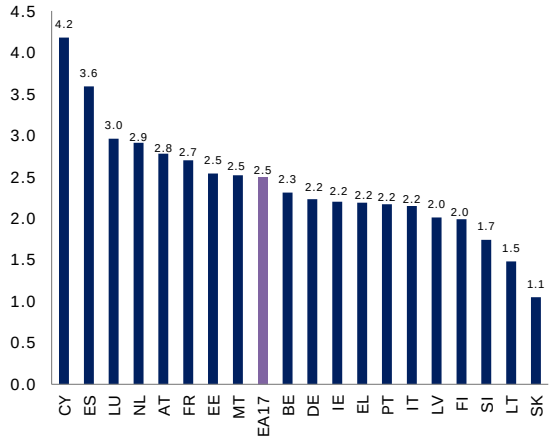
1 point decrease in the PMR indicator would reduce mark-ups by about 1 percentage points for rail & road, by 3 percentage points for energy, and by 5 percentage points for retail and professional services (for the other sectors the results are statistically insignificant). ([16]) ([17])

I.4.2. Implementing the Services Directive ([18])

The Services Directive (SD) has been a milestone in leading the Member States to simplify administrative procedures for business and to eliminate requirements that undermine fair competition in the Single Market. The services covered by the Directive account for nearly 45 % of EU GDP. ([19]) Thanks to the implementation of the Services Directive, Member States have improved their regulatory environment for businesses but reforms have been flagging in recent years in many Member States and much further work remains to be done.

Lack of reform has a significant cost in terms of growth. In fact, estimates of the potential GDP gains from implementation of the Services Directive are significant. Graph I.10 shows the reform gains in terms of GDP if countries were to reduce regulatory barriers to the level of the five best-performing countries (per sector). For the euro area as a whole, this ambitious implementation could yield about an extra boost to GDP of 2.5 %, with the majority of effects materialising during the 5-10 years following implementation. Given the reform efforts so far, more than half of the benefits are, on average, still pending.

Graph I.10: **Services directive: GDP impact of ambitious implementation, euro area countries[(1)]**
(2011, %)



(1) If countries would reduce barriers to the level of restrictions of the five best countries in the EU.
Source: Monteagudo et al. (2012)

I.4.3. Services-related CSRs

Service sector reforms are an important challenge for many euro area Member States and for the euro area as a whole. An assessment of the degree of implementation of the 2014 services-related country-specific recommendations yields a very low score and shows service sector reforms as one of the main areas lagging behind in terms of reform efforts. Indeed, no country has shown significant progress and reforms either lack ambition (i.e. France in professional services) or face difficulties in adoption or implementation (i.e. Spain also in professional services).

Member States have not seized the opportunity to make service markets more flexible and stimulate growth through a reduction in barriers. Cumbersome authorisation requirements, strict legal form and shareholding requirements, reserved activities, insurance obligations and complex administrative procedures, remain obstacles.

Country-specific recommendations that aim to improve the functioning of services markets have been proposed for a number of euro area countries in 2015: Austria, Germany, Spain, Finland, France and Italy. The euro area has also received a CSR in this area. The focus is on taking measures to stimulate competition and removing

([16]) Mark-up reductions can be driven by particular types of product market regulations. For example, professional services mark-ups are mostly affected by entry regulations, and retail sector mark-ups by registration and licensing regulations.

([17]) Mark-ups and allocative efficiency are often-used indicators of a sector's static efficiency. In this paper service sector performance in terms of innovation (a form of dynamic efficiency) is not discussed. Indeed, increased firm entry may also contribute to productivity gains through Schumpeterian creative destruction (see for example Aghion P., R. Blundell, R. Griffith, P. Howitt and S. Prantl (2004), 'Entry and productivity growth: Evidence from microlevel panel data', *Journal of the European Economic Association*, vol. 2, pp. 265-276).

([18]) See Monteagudo, J., A. Rutkowski and D. Lorenzani (2012), 'The economic impact of the Services Directive: A first assessment following implementation', *European Economy — Economic Papers, No 456*, DG ECFIN, European Commission.

([19]) The scope of the Directive is broad both in terms of requirements and sectors covered: wholesale and retail trade, construction, business-related services, most regulated professions, tourism, etc. Economically important sectors excluded (e.g. financial services, telecommunications, transport) are covered by other EU legislation.

disproportionate and unjustified restrictions. Regulated professions, and to a lesser extent retail services, are priority sectors for reform.

I.5. Conclusions

Given the sheer size of service sectors and their inter-linkages with the rest of the economy, the economy-wide effects of reforms to liberalise them are considerable.

Euro area countries are aware of the importance of reforming service sectors but they face challenges in designing, adopting and implementing reforms. The resistance of sometimes powerful vested interests groups that benefit from the status quo should not be underestimated.

Improving competition in services is beneficial not only from a national point of view. It is relevant for the euro area as it facilitates its adjustment capacity and the process of current account rebalancing. It is also important from a single market perspective due to the services' strong cross-border spillovers. A further integrated services market depends on the efforts undertaken by Member States to reduce barriers and facilitate the free movement of service providers across the single market. Of particular relevance are reforms adopted in the context of the implementation of the Services Directive (given its broad coverage both in terms of service sectors as well as requirements). Reforms of service sectors are ongoing but progress varies across countries and has generally slowed down. In particular, although significant progress was achieved following the entry into force of the Services Directive, reforms have been flagging in recent years in many Member States.

At EU level, further deepening the Single Market remains high on the agenda in order to help Member States' modernise their economies and become more competitive and attractive for investors. A more integrated Single Market for goods and services remains one of the priorities of the 2015 Work Programme of the European Commission and the new Internal Market Strategy will be presented to Member States by the end of the year.

In addition to identifying priority areas for action (on the basis of the economically most significant barriers), the Internal Market Strategy will also focus on enforcement policy and on regular monitoring and reporting on single market developments.