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Report on Single Market Integration and Competitiveness in the EU and its Member States

Accompanying the document

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

Upgrading the Single Market: More Opportunities for People and Business

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3 The evolution of integration, performance and remaining barriers in the Single Market

3.1 The evolution of integration in the Single Market

In 2014, intra-EU trade[117] performance improved relative to the two previous years, but it still remains short of what it would have taken to make a significant contribution to the economic recovery. As a percentage of GDP, the total of intra-EU trade in goods was 3 % higher in 2014 than in 2013. The change in trade in services in 2013 was 2.4 %.[118]

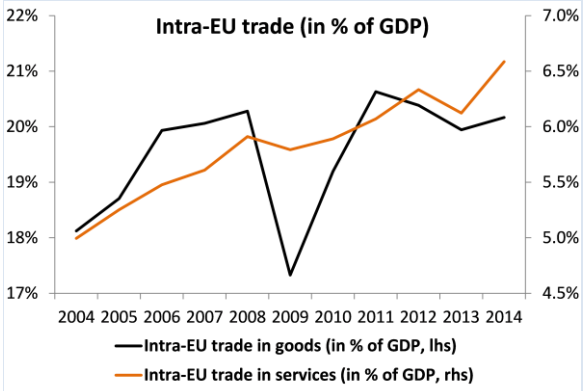
Looking into the evolution of intra-EU trade in goods and services over the last decade is particularly relevant at the time of presentation of the new Single Market Strategy. An overview of the most salient trends in the integration of goods and services markets is helpful to identify those areas where the single market is most dynamic. It is also needed to find out whether the expansion of trade is stagnating due to structural developments or restrictions to the free movement of goods, services, capital or labour in the EU economy.

This section looks at trade issues and the next one will present the situation regarding investment and establishment. The rest of the chapter looks into performance and remaining barriers in the single market, presenting some of the main developments that are the subject of priority action by the Single Market Strategy.

3.1.1 Trade in goods: The importance of enlargement for integration in the EU

The crisis had a profound negative impact on the evolution of intra-EU flows of goods. Intra-EU trade in goods contracted by 3 percentage points as a proportion of GDP in 2009 with respect to 2008, while in services it only dropped slightly. After that year, and unlike the evolution of trade in services, trade in goods within the EU has been growing slightly above GDP accounting for around 20 % of EU GDP in 2014 (Figure 3.1).

Figure 3.1: Evolution of intra EU trade



Note: EU-28 minus Spain, Italy, Croatia and Malta for which full BOP time series are not available at this point, Trade= ½ (Imports + Exports) / GDP.

Source: Eurostat

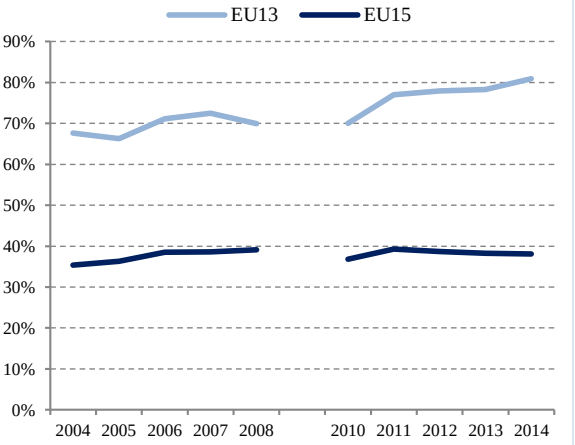
These aggregated data conceal very different patterns in the integration of the incumbent Member States in 2004 (EU-15) and those that have joined since then (EU-13). Figure 3.2 shows that the share of trade over their GDP of the first group has remained basically flat since 2004, if we exclude the fall in 2009 due to the crisis (Figure 3.2). Intra-EU exchanges in goods between the Member States of the EU-15 and the rest

(117) Trade and Intra-EU exchanges are measured as imports plus exports divided by 2. In this report we refer to intra EU exchanges of goods and services as "imports" or "exports".

(118) 2013 is the last year for which data are available for EU-28. After a change in the methodology, 2014 data are available for most EU except for Croatia, Finland, Italy and Spain. For that group of EU-24 and with the new methodology, intra-EU trade in services increased by 7.5 % in 2014 with respect to 2013.

of the Union have remained practically flat throughout the whole 2004–2014 period, accounting for less than 20 % of GDP (Figure 3.2). As a matter of fact, several of these countries have actually reduced their intra-EU exchanges in the five years from 2010 to 2014 from the previous period, albeit only by a small percentage of their GDP.

Figure 3.2: Intra-EU exchanges of goods as a share of GDP between Member States (2004–2008 and 2010–2014)

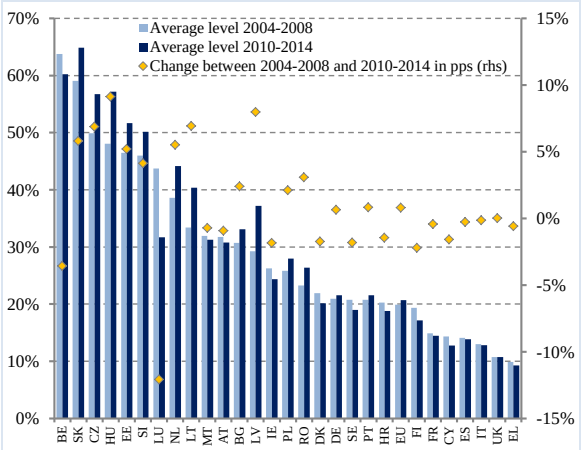


Note: EU-15 = Member States in the Union before 2004
EU-13 = Member States joining after 2004

Source: Eurostat

In contrast with this, the EU-13 group has displayed increasing integration in the EU-28 since 2004 if we exclude the worst days of the crisis. In fact, integration picked up momentum after the crisis. The intensity of intra-EU exchanges of goods between Hungary, Estonia, Lithuania, Latvia, Slovakia, Poland, Romania, the Czech Republic and Slovenia with the EU-28 has increased considerably. These nine of the EU-13 Member States account for much of the trade creation in the single market. Nonetheless, it must be noted that there has been an important increase in the trade in goods between the Netherlands and the rest of the EU-28. In contrast, Greece, UK, France and Italy show the lowest levels of integration in the trade in goods. Of the EU-13, only Cyprus shows a low level of integration in 2014.

Figure 3.3: Intra-EU trade in goods in % of GDP



Source: Eurostat

Table 3.1 gives a clear picture of the considerable turnaround in the ranking of integration in trade in goods of the Member States of the Union. In the last five years, two EU-13 countries, Slovakia and Slovenia have taken the lead in the ranking of trade integration in goods from Belgium, the leader in 2010. Large Member States of the EU-15 group remain at the bottom of the table with much lower and in some cases, falling trade integration indicators.

Table 3.1: Evolution in the openness to intra-EU trade in goods of EU-28 (2010–2014)

		Ranking in 2010	Trade integration indicator, i.e. imports plus exports as a percentage of GDP 2010	Ranking in 2014	Trade integration indicator, i.e. imports plus exports as a percentage of GDP 2014
Very open to intra-EU trade in 2010	BE	1	59%	4	59%
	SK	2	57%	1	68%
	HU	3	52%	3	61%
	CZ	4	50%	2	64%
	EE	6	46%	5	51%
	SI	5	46%	6	51%
	NL	7	41%	7	44%
	LT	8	35%	8	42%
Open to intra-EU trade in 2010	LU	9	34%	13	28%
	LV	10	32%	9	38%
	AT	11	30%	11	30%
	MT	12	29%	14	27%
	BG	13	28%	10	36%
	PL	14	27%	12	29%
	IE	15	25%	16	23%
	RO	16	24%	15	27%
	DE	17	21%	19	22%
	PT	18	20%	18	23%
	EU28		20%		21%
Least open to intra-EU trade in 2010	DK	20	19%	20	20%
	SE	19	19%	21	18%
	FI	21	17%	22	17%
	HR	22	16%	17	23%
	FR	23	14%	24	14%
	CY	24	14%	26	13%
	ES	25	13%	23	15%
	IT	26	12%	25	13%
	UK	27	11%	27	10%
	EL	28	8%	28	10%

Source: Eurostat

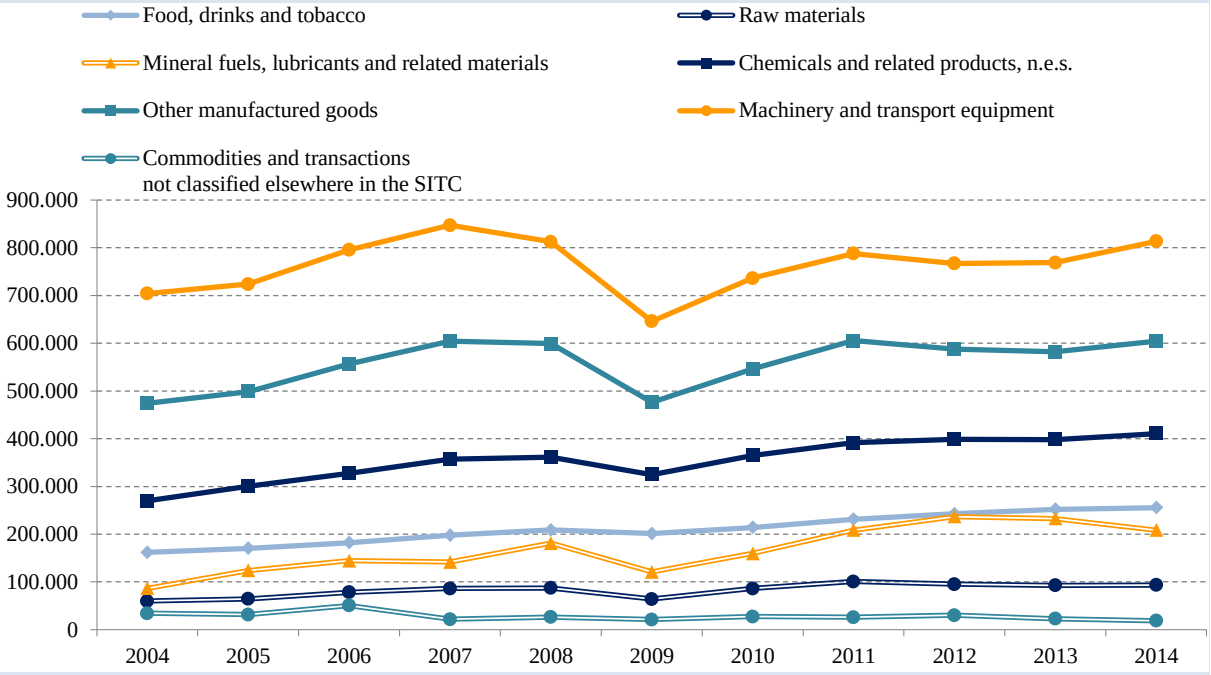
There are reasons to believe that this subdued performance of intra-EU goods markets after the crisis of the EU-15 cannot be attributed to the impact of the crisis only. The stagnation of intra-EU trade between the EU-15 and the rest of the EU started around 2004, well before the crisis struck in late 2008 and 2009. Differences in the trends of integration patterns between the EU-15 and the EU-13 also seem to call for additional explanations. Thus, the causes of the relative stagnation of intra EU exchanges in goods seem to have been present already before the crisis struck the EU economy.

There is no doubt that adhesion has been a very important driver of the integration of the EU-13. The relatively smaller size of the EU-13 Member States could explain, at least in part, these higher integration levels in the EU-13. However, there must be other additional reasons explaining their higher levels of trade integration. For instance, Poland, the largest of these 13 economies with a GDP more than twice as big as the GDP of Ireland, shows a trade integration index greater than Ireland. The very high shares of countries such as Slovakia or Slovenia also point in the same direction. Thus, country size does not seem to be the only variable explaining the higher levels of integration of the EU-13 that joined the Union in or after 2004.

This stagnation of trade in goods between the EU-15 and the rest of the Union needs to be studied in detail in future reports. At this moment, a preliminary analysis of the intra-EU trade flows suggests some possible hypotheses for future work. The impact of the crisis, changing patterns in the geographic location of production activities, some degree of exhaustion of the possibilities of integration in sectors where the removal of obstacles has been successful, and remaining regulatory, structural and behavioural obstacles in other sectors can be included among the "a priori" plausible explanations to consider.

A look at the evolution of trade of different groups of products can also help to give a preliminary glimpse of the sectors driving these trends in the evolution of trade in goods. "Machinery and transport equipment" is by far the most important product group in intra-EU trade in goods with approximately 7 % of GDP for the EU-15. Intra-EU "imports" in this category have fallen by over 9 % between 2007 and 2013, although they recovered in 2014 to almost reach their 2008 level. This major product category includes durable consumption goods (e.g. automobiles) but most importantly, investment goods too. The particularly low level of investment in the EU in recent years may have played a major role in the evolution of intra-EU exchanges of goods for the EU-15. The demand for goods in the "Machinery and transport equipment" group has evolved differently across countries. In Germany, "imports" of these goods from other Member States increased by 48 % in the last 11 years while it fell in Spain and Italy.

Figure 3.4: Intra-EU "imports" of goods in the EU-15 by product groups (2004–2014, million Euro)

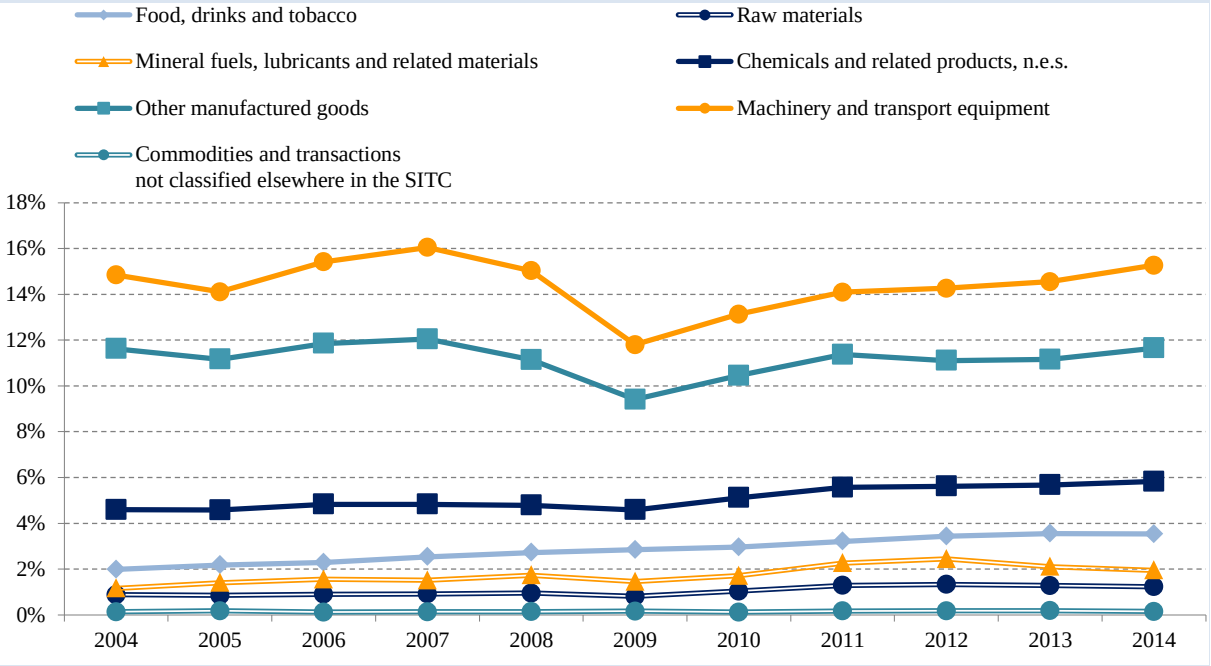


Source: Eurostat

Imports of other manufactured products have remained stable, as have raw materials and commodities, while other product groups – including chemicals – have expanded more than income for other product groups despite the impact of the crisis and slow growth rates of recent years. Thus, given the weight and evolution of "Machinery and transport equipment" imports until 2013, they appear to have played a determinant role in the stagnation of EU-15 "imports" of goods.

In the EU-13, the demand for "imported" goods suffered more severely the impact of the crisis in 2009 but it recovered quickly and vigorously after 2009. Intra-EU "imports" of the main product groups, machinery and transport equipment and other manufactured products, account for a much higher share of GDP than in the EU-15, since the beginning of this period, reaching almost 16 % of GDP for machinery and transport equipment.

Figure 3.5: Intra-EU "imports" of goods in the EU-13 by product groups (2004–2014, share of GDP)



Source: Eurostat

In summary, the analysis by Member State of the evolution of trade in goods shows two different patterns that seem to reflect the different stage of maturity in the single market: the incumbent Member States before 2004 (EU-15), where the impulse of integration seems to have dovetailed and a much more dynamic group of new Member States (EU-13) where the impulse of adhesion remains active. This distinction may be relevant for policy purposes.

A very preliminary look into the sectoral and geographic breakdown of intra-EU flows in goods suggests that the crisis, and in particular the subdued evolution of investment in the EU-15 analysed in Chapter 1, have certainly had a considerable impact. However, other structural and regulatory factors might contribute to explain this evolution of intra-EU exchanges in goods.

- In the EU-15, the sluggish growth, a mediocre productivity performance in many countries and the prevalence of obstacles to integration in goods as well as in services sectors keep trade in goods subdued. The quantitative importance of the "Machinery and investment goods" sector seems to have been a key factor explaining the evolution of trade in goods in the EU 15. Low levels of demand for investment goods in these countries must have played an important factors explaining the relative fall in trade in this sectors among the EU-15. But evidence provided by a recent study (see section 3.3.1) points at remaining regulatory barriers in the railway equipment sector as an additional factor limiting exchanges in this rector. In addition, the importance of barriers and inefficiencies in services markets for the development of goods markets should not be underestimated.
- Investment dynamics in the emerging EU economies and the consolidation of emerging new trading relations between the EU-15 and the EU-13 countries have supported the higher rates of integration of the relatively "newer" EU Member States. This seems to be confirmed by evidence provided in the foreign direct investment and establishment section below. The impact of a geographic redistribution of at least some production activities following the enlargement may explain the different behaviour of the EU-15 and EU-13 country groups as far a trade in goods is concerned.

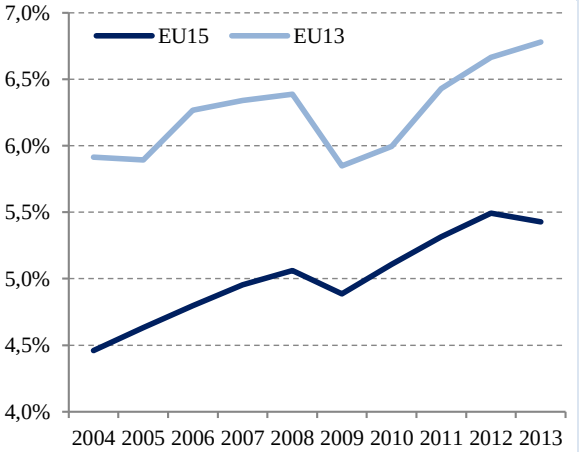
However, all this must be considered as preliminary evidence calling for new detailed work to learn more

about these patterns. The stagnation of trade flows in goods over a decade may also call for further work on the nature and effects of integration and dynamic efficiency in the single market.

3.1.2 Trade in services: the potential for further integration in the single market

Against this background, the situation of intra-EU exchanges in services is very different. First of all, the share of trade in services over GDP is much lower than in goods. In 2014, the share of total intra-EU exchanges in goods ("imports" plus "exports" divided by two) ranges between 18 % of GDP for EU-15 and more than 40 % for EU-13. For services, these shares go from 4.5 % to less than 7 % of GDP. The nature of services contributes to explain these differences. Services are less suitable to be traded cross-border. Many of them can only be provided if firms or consumers move cross-border. In those cases, establishment in other Member States is often the preferred way for the realisation of service provision. But there are other reasons at play: there remain considerable restrictions hindering cross-border exchanges of services as explained here below and in the Single Market Strategy.

Figure 3.6: Intra-EU exchanges of services between Member States (2004–2014)

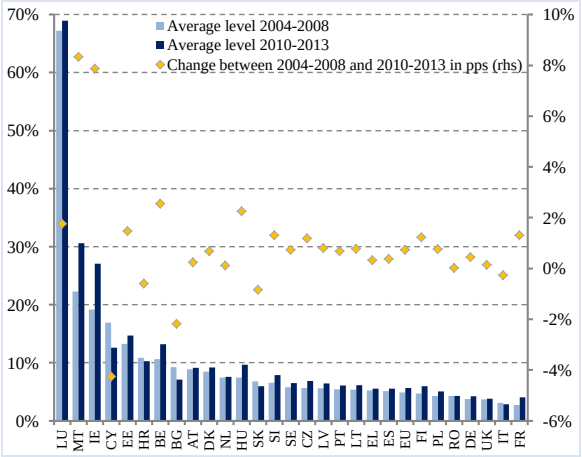


Note: EU-15 = Member States in the Union before 2004
EU-13 = Member States joining after 2004

Source: Eurostat

There is a second interesting difference between intra-EU exchanges in goods and services. Cross-border exchanges in services as a share of GDP show a steady and progressive increase over time and they have not been seriously affected by the crisis. Figure 3.6 shows that both in the EU-15 and in the EU-13, the intra-EU exchanges of services have been growing steadily more than GDP over the 2004 to 2014 period. The 2009 shock of the financial crisis had a much smaller impact on the flows of services than on goods and this impact was short-lived.

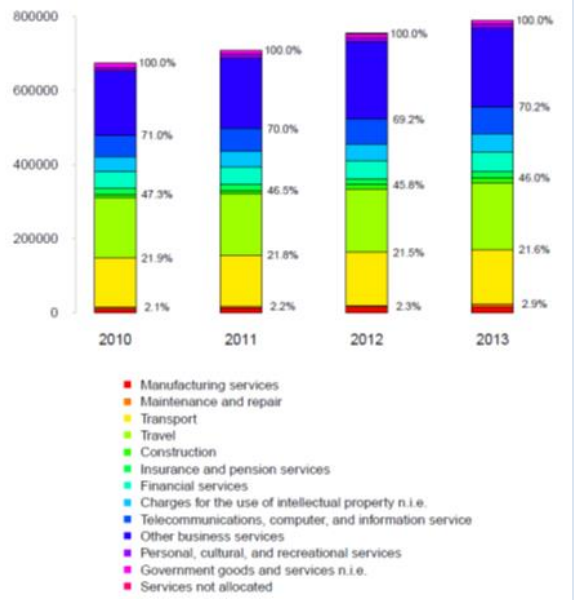
Figure 3.7: Intra-EU trade in services in % of GDP



Source: Eurostat

The breakdown of intra-EU exchanges in services by sector reveals important differences for various services activities. Easily traded services such as travel and transport account for a significant part of the total transactions with over 24 % and 19 % of the total cross border trade in services in the EU-28. However, "Business services" are the main sector accounting for the largest share of intra-EU trade in services with over 25 % in 2013. Intra-EU exchanges in this sector have grown by 5.6 % between 2010 and 2013, but the fastest growing sector in intra-EU trade terms has been the Maintenance and repair sector with over 15 % growth in those years.

Figure 3.8: Sectoral composition of intra-EU exchanges of services (2010–2013)



Source: Eurostat

The signs of maturity or stagnation identified in the previous section for the single market for goods, reflected by different patterns displayed by trade in the EU-15 and EU-13 groups of Member States, are not found in the services markets. The differences in the levels of integration between the two groups of countries are much smaller and the turnaround in the ranking of integration in services across countries is not so clear in favour of the EU-13 countries. Over time, progressive albeit modest improvements in the development of intra-EU exchanges in services sectors can be observed for the EU-28. The most significant improvements are reported by Ireland, Belgium and Hungary. Only Cyprus and Bulgaria show lower trade intensity in the intra-EU exchanges in services in 2010–2013 compared with 2004–2008 (Figure 3.7).

Within services there are sectors with considerable potential of expansion in intra-EU trade. The study on the implementation of the Services Directive[119] and the Communication preparing the mutual evaluation exercise[120] point out the economic importance of business services and construction for employment and growth making those two service sectors priority for the Commission.

The "business services"[121] sector is particularly important because it has a considerable impact on the productivity growth of manufacturing and other services sectors. Trade in "maintenance and repair services" is often associated with the acquisition of capital equipment or consumer durables. In many cases, these activities are often present in the development of new business models or in the bundling of goods and services in "business solutions". They also require the contribution or cross-border operation of skilled labour and/or professionals considered as regulated professions. As explained in the Staff Working Document accompanying the Single Market Strategy, these activities are often subject to national regulations that often hinder the development of these cross-border activities. Despite these difficulties, the considerable growth and increasing trading activities reported by these sectors are evidence of their growth potential once these obstacles are removed.

Box 3.1. The importance of business services

In some Member States, the services value added content of manufacturing exports is as high as 30%, of which 40% corresponds to business services. An implication of a high use of services in manufacturing exports is that exports of countries with underperforming services would benefit from reform efforts targeting services sectors. In addition:

1. Professional services activities included in the "business service" category such as architects, engineering, legal advice, accounting or management consultancy stand out because of their 'special' characteristics: a) they rely greatly on professional knowledge, b) are sources of knowledge and c) are of competitive importance for their clients. They perform, mainly for other companies, 'services encompassing a high intellectual value-added' providing customised problem solving assistance, through tacit and codified knowledge exchange. Therefore, their role in the economy goes significantly beyond their shares in value added and employment.
2. They create significant spill-overs because

([119]) http://ec.europa.eu/internal_market/services/docs/services-dir/implementation/report/COM_2012_261_en.pdf (see pages 2 & 3).

([120]) http://eur-lex.europa.eu/resource.html?uri=cellar:be389bae-2cf4-11e3-8d1c-01aa75ed71a1.0001.01/DOC_1&format=PDF.

(see page 9 and annex 2). See also Monteagudo at al. (2012) and European Commission (2015).

([121]) Since 2008, the definition of "business services" used by Eurostat is based on NACE Rev2. It includes NACE Rev 2 codes: J62, N78, J582, J631, M731, M691, M692, M702, M712, M732, M7111, M7112.

they are used in the production of other goods and services in the economy (supply spillovers) and can thus have a strong impact on other sectors' economic performance. This is particularly the case of professional services activities included in the business services categories. Thus, the benefits of reforms aiming at liberalising and improving the functioning of those professional services, will spread through the whole economy.

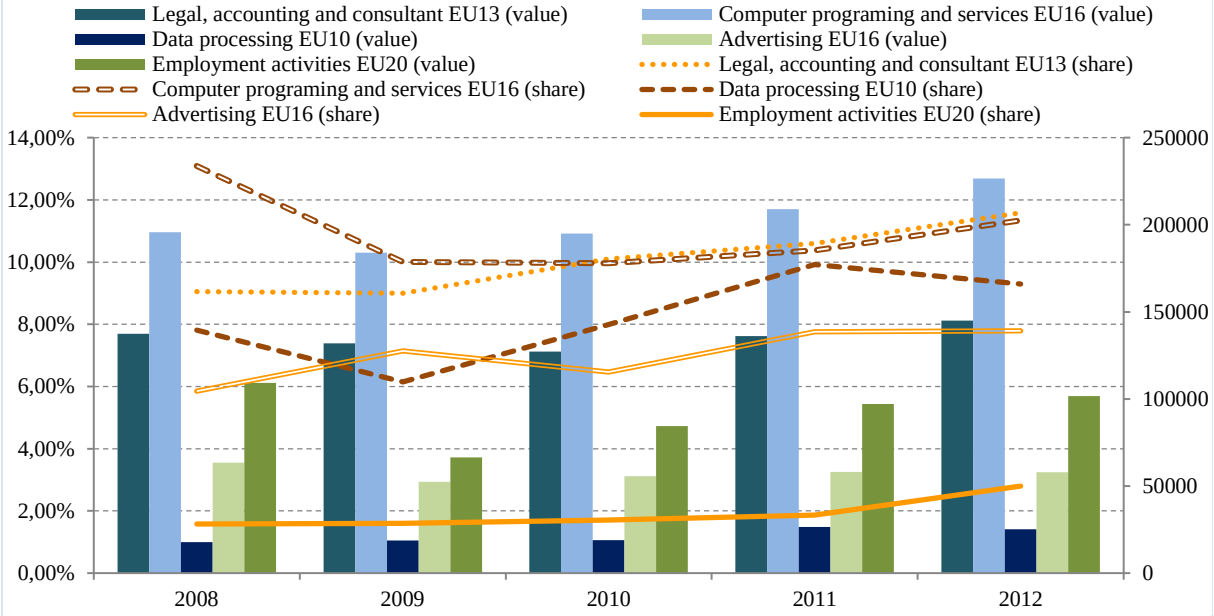
3. The increased fragmentation of production processes into parts that can be outsourced has led to more complex systems for manufacturing production and has enhanced the role of co-ordination and related professional-services. Successful business relies more and more on the value provided by services. Therefore, well-functioning business services contribute to business successes.

4. They can be a significant driver of non-price competitiveness. Business services, in particular professional services, are increasingly being used to differentiate products that can compete on the package of associated services (after-sales service, maintenance, training, etc.). Business services, among which professional services, are among the most important market services sectors for exports of manufacturing, as demonstrated by the 30% and 40% proportions referred to above.[122]

Data on the composition and evolution of the very diverse activities included in the "Business services" category are scant and time series are short. However, Eurostat publishes information shedding light on the recent evolution of some of those activities for at least some Member States, although it does not cover the full EU-28. Among them, computer programming and consultancy, employment and data processing services have reported turnover growth since 2008.

([122]) European Commission, *The economic impact of professional services liberalisation*, DG ECFIN, Economic Paper 533/2014.

Figure 3.9: Turnover of cross-border deliveries of "Business services" subsectors for several EU Member States: value and proportion of total sector turnover (2008–2012)



Note: EU-10: BG, DK, DE, ES, IT, AT, RO, FI, SE, UK
EU-13: BE, DK, DE, IE, ES, IT, CY, LU, AT, RO, SI, SK, UK
EU-16 (ADVERTISING): BG, DK, DE, IE, ES, IT, LV, LT, HU, AT, PT, RO, SI, SK, SE, UK (EU-10 – FI + IE + LV + LT + HU + PT + SI + SK)
EU-16 (COMPUTER): BE, BG, DE, ES, IT, LT, HU, AT, PL, PT, RO, SI, SK, FI, SE, UK (EU-10 – DK + BE + LT + HU + PL + PT + SI + SK)
EU-20: BE, BG, DK, DE, IE, ES, IT, CY, LV, LT, HU, AT, PL, PT, RO, SI, SK, FI, SE, UK (EU-16 + DK + IE + CY + LV)

Source: Eurostat

The evolution of cross-border activities of these subsectors was quite different. The bars in Figure 3.9 show the values of the cross-border deliveries of services to another Member State. The lines indicate

the share of these intra-EU deliveries over the total turnover of these subsectors.[123]

- Legal, accounting and consultancy services seem to be increasingly traded cross-border in the single market. This is due to the relative increase in the cross-border activities in accounting, audit and management consultancy while the value of cross-border deliveries of legal services remains stagnant over these five years.[124]
- The share of intra-EU cross-border deliveries of employment services is remarkably low, which probably reflects the relative degree of fragmentation of this market in the EU in national markets.
- While data processing displays growth in cross-border services deliveries, the situation seems to be less clear for computer programming and consultancy services. This subsector is probably the fastest growing and largest of the business services activities included in the "business services" category. However, the growth of intra-EU cross-border transactions is barely keeping up with the growth rate of the overall growth of the sector and the share of deliveries over total turnover is relatively flat.

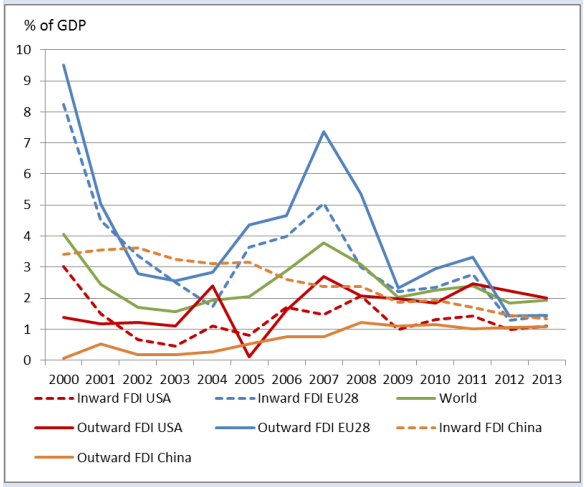
Although this statistical evidence should be taken with caution given the sparsely available data and the short time series, it seems to be well in line with the situation as described by the analysis of legal restrictions in the documentation accompanying the Single Market Strategy.

In summary, the resilience of intra-EU exchanges in services during the crisis shows their importance for the single market. The steady growth of the share of these flows over GDP is a sign of a latent potential for growth in cross-border exchanges in services. The factors limiting this potential are studied in more detail in the Staff Working Document accompanying the Single Market Strategy and the evidence presented here supports the direction the proposals included in the strategy. Given the importance of cross-border investment for services, this analysis must be complemented with a look into intra-EU foreign direct investment.

3.1.3 Foreign Direct Investment and establishment

Foreign direct investment (FDI)[125] has been a very important driver of Europe's internationalisation and integration. It has also been a very important component of the total investment as measured by Gross Fixed Capital Formation (GFCF). In 2000, total inward FDI in the EU represented almost 40 % of EU GFCF according to Eurostat figures, and intra-EU FDI alone accounted for over 30 %[126] This was an exceptional year, but the level in the past decade was often above 10 % of total investment.

Figure 3.10: Inward and outward FDI in major trading areas of the world (2000–2013, % of GDP)



Source: UNCTAD and Eurostat

(123) It is important to note that the total turnovers cannot be compared across subsector since they correspond to different EU aggregates. Only comparisons over time to each subsector are relevant here.

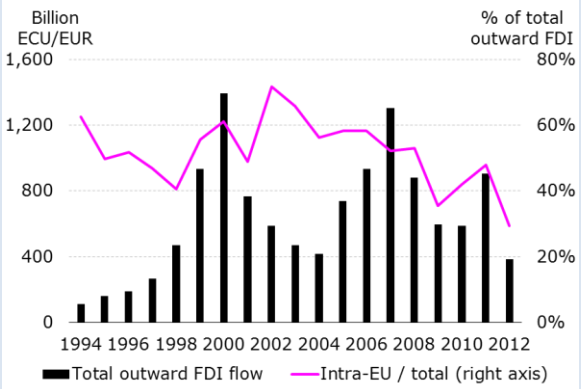
(124) Although accounting and audit are also subject to considerable professional regulations, their impact seems to be lessened by the harmonisation of accounting rules with international accounting reporting standards. See Bloomfield et al. (2015).

(125) Foreign direct investment is any cross-border investment by a resident entity in one economy with the objective of obtaining a lasting interest in an enterprise resident in another economy.

(126) 2000 was an exceptional year indeed. The share of inward FDI over GFCF has been very variable over the years but it has consistently reached 2-digit levels except in 2004 and the last two years since 2000. It must be noted that the fall with respect to total trade, the fall in FDI is also remarkable, reaching just 3 % of trade in 3013.

The fall in the outbound FDI flows has been important between 2004 and 2013. But the reduction in intra-EU investment flows has been much more significant and the evidence suggests that low intra-EU FDI is one of the reasons explaining why investments in the EU are below their long run trends (Figure 3.11).

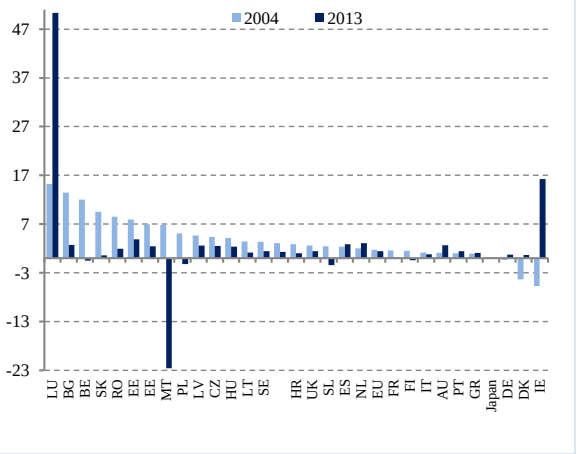
Figure 3.11: Intra-EU FDI (1994–2012, as a percentage of total outward FDI)



Source: Copenhagen Economics for European Commission with UNCTAD and Eurostat data

Intra-EU inward FDI from other Member States can be an indirect indicator of, at least, part of cross-border establishment.[127] Figure 3.12 shows data of investment flows between Member States and the rest of the world, including other EU Member States. The latest data available show intra-EU capital inflows below 4 % of GDP for the last four years. This is about half of the levels reached before the crisis. With the main exceptions of Luxembourg and Ireland, the fall in inward FDI has been almost generalised between 2004 (the worst year for FDI before the crisis) and 2013.[128] In Luxembourg, there has been a steady investment inflow after the crisis that cannot be found in other countries. The Irish case is different: although the level of FDI in 2013 has been considerable, the comparison is distorted by the fall in FDI registered in 2004.

Figure 3.12: Inward FDI by Member State (2000–2013, % of GDP)



Source: UNCTAD and Eurostat

The evolution of intra-EU FDI presents some clear analogies with the evolution of trade in goods. Once more, there is a different evolution in the EU-15 and the EU-13 groups of countries. European FDI in EU-15 Member States reached peaks in 2007 and 2011 but it has fallen since 2011 presenting now levels below those attained in 2004. On the other hand, European investment in EU-13 Member States has been growing consistently since the beginning of this century and has been little affected by the crisis.[129]

A look into the sectoral composition of FDI confirms the significance of establishment as a form of integration in other Member States. Eurostat statistics of the activities of foreign affiliates indicate that in 2012, services firms accounted for 74 % of all the foreign affiliates of firms from another Member State operating in the EU-28. These firms also accounted for the same turnover as all intra-EU foreign affiliates. These figures do not include firms in the financial services sectors where cross-border establishment is very frequent.[130]

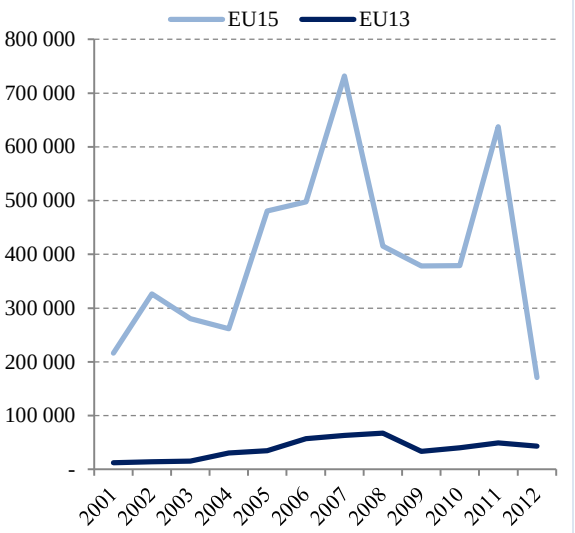
([127]) In this section, establishment includes investment resulting in the creation of branches, agencies and subsidiaries of EU companies in other member States.

([128]) Small increases can be reported in Spain, the Netherlands and Austria.

([129]) Most FDI into EU Member States has taken place in the form of mergers and acquisition of already existing enterprises; greenfield investments have taken a secondary importance. However, these greenfield investments have targeted EU-15 Member States instead of EU-13.

([130]) Financial intermediation accounted for over 65 % of the FDI stock into services in that year.

Figure 3.13: Inflows of intra-EU FDI into the EU-15 and EU-13 Member States (2001-2012, million Euro)



Source: European Commission; UNCTAD database

With over 49 000 firms, of wholesale and retail distribution hold the greater stock of foreign affiliates, followed by the real estate and the professional, scientific and technical activities with over 18 000 firms. Manufacturing only accounted for 18 of the total foreign affiliates of intra-EU origin. That percentage is around 4 % for construction.

Table 3.2: Number and turnover of Foreign Affiliates (FATs) of EU firms in other Member States (2012)

NACE_R2/TIME	Number of affiliates	Turnover or premia
Total business economy; repair of computers, personal and household goods; except financial and insurance activities	156545	4069467,5
Mining and quarrying	657	32488,2
Manufacturing	28444	1346479,9
Electricity, gas, steam and air conditioning supply	2338	322497,3
Water supply; sewerage, waste management and remediation activities	1241	21956,4
Construction	8600*	88008,8
Wholesale and retail trade; repair of motor vehicles and motorcycles	49282	1590000
Transportation and storage	8230	174743,9
Accommodation and food service activities	3907	25737,5
Information and communication	10000	200709,6
Real estate activities	16901	27093,2
Professional, scientific and technical activities	18577	115616,1
Administrative and support service activities	8492	119667,4
Services Total (excl construction)	115389	2253567,7
Services Total (including construction)	123989	2341576,5
	304614	8134465,8

Note: * denotes 2011 data

Source: Eurostat

In summary, there seems to be some *prima faciae* correspondence or may be complementarities between the evolution of trade in goods and FDI in the EU. Intra-industry and intra-firm trade seem to account for a considerable volume of trade, especially in those sectors that account for a large share of the intra-EU exchanges. FDI in EU-13 countries triggers future trade flows as a result of integration after accession of the EU-13. In EU-15, both trade flows and FDI have remained relatively subdued but the causal links are less clear.[131] FATs figures suggest that the inter-linkages between trade and investment or establishment in integration are very important. More work is needed to understand these factors better because barriers in either cross-border trade or in establishment in other Member States have an impact along value chains distorting the allocation of resources and hampering the growth of firms.

([131]) The complementarities between FDI and trade between goods and services sectors will be the subject of special attention in a future report.

3.2 Single Market Performance

The performance of markets can be measured according to different criteria. The same applies to the single market. This section presents a number of different overall assessments of the changes in the performance of the single market and the regulatory environment that defines it.

This is not an exhaustive assessment because it is not possible to present in this report a complete evaluation of the multiple dimensions of the economic performance of the single market as regards its impact on competitiveness, job creation, efficiency or growth effects as well as its social impacts in areas such as fairness, consumer welfare or cohesion. This is a first assessment focusing on some basic economic dimensions. These include allocative efficiency (goods producers as well as service providers), the performance of public procurement markets, the regulatory environment affecting product markets and the changes in the services sector after the introduction of the Services directive. Some of these assessments will be periodically repeated in the future and others covering additional areas will be developed in the future.

3.2.1 Brief review of the economic effects of the implementation of the Single Market legislation

Product markets

In January 2014, the Commission published a study conducted by CEES with an in-depth *Evaluation of the Single Market Legislation for Industrial Products*. This study was the basis for the Communication *"A vision for the single market for industrial products"* adopted on 22 January 2014.[132]

Among others, the objectives of the study included:

- Examine how far the body of single market legislation for industrial products is fit for purpose and the extent to which they constitute an effective means of addressing barriers to the functioning of the single market for industrial products;
- Identify and analyse any gaps, loopholes, inconsistencies and duplication in IM legislation for industrial products or in administrative requirements for economic operators;
- Assess the costs and benefits of Union harmonisation legislation for economic operators and the impact on strengthening industrial competitiveness;
- Assess the cumulative impacts of, and interaction between legislation and compliance requirements.[133]

The study concluded that the single market legislation presents a high level of "fitness for purpose". As stated in the Communication, "*The overall conclusion is that single market legislation is relevant to meeting*

([132]) COM(2014) 25 Final. Both available at http://ec.europa.eu/energy/sites/ener/files/documents/2014_iem_communication.pdf.

([133]) A typology and conceptual framework showing how cumulative impacts have been assessed through the research is provided in the CEES study.

EU objectives relating to the need for technical harmonisation measures with high levels of protection for health and safety and consumers and, to the environment." (page 7) However, the public consultation and the study also pointed out to a number of performance issues that led to 20 recommendations included in the Communication.

In particular, the study reviewed the efficiency and effectiveness of the implementation mechanisms and checked for compliance costs using a case study approach. Probably, one of the main results of the study was raising awareness about concerns among many stakeholders regarding the effectiveness of market surveillance. These concerns arise from: variations in the human and financial resources made available for market surveillance activities across different Member States, the low likelihood that more complex products such as industrial machinery will be checked and tested by market surveillance authorities for technical compliance due to the lack of adequate technical capacity and practical challenges in testing products against the requirements set out in more complex IM legislation such as the Ecodesign Directive and its implementing regulations.

There are also differences in approach to market surveillance between those authorities as to the degree of emphasis they place on checking products for technical compliance and administrative requirements respectively. There is a perception among economic operators that there remain unacceptably high levels of non-compliance, which undermines the level playing field and serves as a disincentive for firms to invest in meeting European compliance requirements. With regard to e-commerce, from a market surveillance perspective, difficulties were detected in preventing non-compliant products from entering the EU from third countries purchased on-line.

Regarding the costs of compliance, the study concluded that single market legislation does not pose excessive cost burdens, although some pieces of legislation were regarded as costly (especially those with other objectives than product safety). In most of harmonised product groups under review (e.g. electric motors, lifts, petrol pumps and air conditioners), annualised compliance costs do not exceed 1 % of annual turnover of the sector. However, the study encountered difficulties in getting firms to estimate substantive compliance costs at the design and R&D phase for many of the harmonised product groups examined, so the true costs of compliance may be somewhat higher. There was moreover some divergence in estimated compliance costs between different product groups, which does not easily facilitate cross-product comparisons.

There were only two exceptions where compliance costs were higher than 1 %, laptops (2 %) and gardening equipment (3.9 %). In the laptops sector, it was acknowledged that there were cost synergies from investment in compliance with European regulatory requirements when exporting to other global jurisdictions, even if there are differences in technical standards. In the case of gardening equipment, the higher level of compliance costs is mainly because the costs of compliance with environmental legislation (e.g. on outdoor noise, non-road mobile emissions) are relatively high. Administrative costs are still no more than 0.3 % of annual sectoral turnover. Nonetheless, there are concerns as regards the level of administrative costs and burdens associated with some single market compliance requirements. The Staff Working Document accompanying the Single Market Strategy presents detailed quantitative evidence of these case studies.

A further a detailed evaluation of the application of mutual recognition in services has been conducted more recently. Between June 2014 and May 2015, the European Commission commissioned an external evaluation with the view to examine the application of the principle of mutual recognition in the single market for goods. It also aimed at identifying sectors in which the application of the principle is economically most advantageous, but where its functioning remains insufficient or problematic. The evaluation has also been linked to the Regulatory Fitness and Performance (REFIT) Programme.

It pointed at significant barriers impeding the principle of mutual recognition to achieve an optimal application, among which:

- Lack of trust among national authorities, which leads to authorities in some Member States adding requirements (such as extra tests) which are not in accordance with the mutual recognition principle.

- Lack of knowledge of the application of the mutual recognition principle among competent authorities and businesses, often resulting in the latter abiding by the demands from national authorities to adapt their products that are already lawfully marketed in another Member State.
- Lack of cooperation between national authorities, not infrequently leading to delays and incomplete and unhelpful information to the economic operators.

The valuation produced the following main recommendations:

- Better monitoring of the implementation of the mutual recognition principle, including through active involvement of the Product Contact Points (PCPs). A strengthened role for PCPs, inter alia through grouping functions and activities related to Single Market issues within relevant Member State administrations to create better dynamics and a single access point for economic operators.
- Setting up a mechanism for easier demonstration of "lawful marketing" for economic operators.
- Better insight into the magnitude of an incorrect application of the mutual recognition principle for businesses, particularly for SMEs.
- Improve dialogue among competent authorities, as well as between the competent authorities and the Commission, including an improved notification procedure that should overcome the current discrepancies between the number of notifications received by the Commission and the number of decisions denying or restricting mutual recognition made by the national authorities.
- Awareness raising campaigns for economic operators, business associations and national authorities (including at regional level).

Last but not least, the evaluation identified a number of sectors where action particularly could be taken, most important of which construction and food sectors.

Services: the impact of the services directive

Covering over 45 % of EU GDP, the implementation of the Services Directive has so far been the largest recent reform effort in an area relatively to promote cross-border provision of services and the free establishment within the EU.

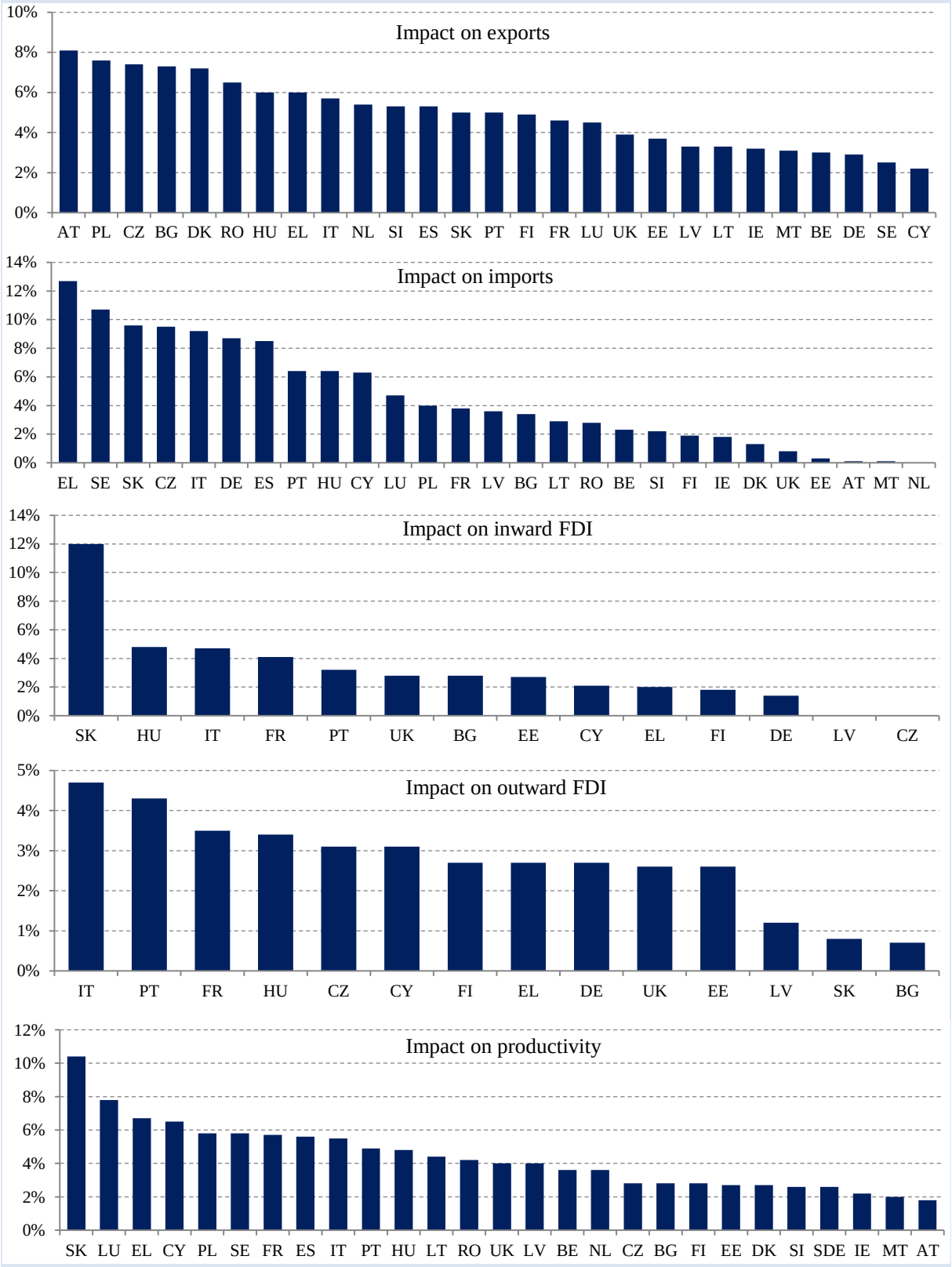
Its economic impacts have been assessed in detail in a study issued in 2012.[134] Based on econometric estimations using new data on specific barriers targeted by the Directive as well as simulation results obtained from the Commission's general equilibrium model (QUEST3), this study estimated the EU-level long-term impact of different scenarios of implementing the Services Directive. The study concluded that the reforms carried out by Member States until the end of 2011 would contribute 0.8 % of EU GDP, with varying impacts across Member States (ranging from below 0.3 % to more than 1.5 %). The study further highlighted the growth potential of an ambitious implementation of the Services Directive and estimated its possible *additional* economic impact at 1.8 % EU GDP over 20 years, with most of the benefit occurring in the first five years. Within the sectors considered, FDI growth would be 8.8 percentage points higher and productivity 8.9 percentage points higher, on top of the pre-2011 gains referred to above. These effects are found to vary significantly across Member States (Fig 3.14), reflecting differences in sectoral compositions and export and FDI structures.

The study also underlined the importance of the domestic transmission channel.[135] It showed a direct impact on labour productivity of the reduction of specific regulatory barriers thanks to the Directive. For instance, a 10 % reduction of barriers to establishment was found to bring about a 1.6 % increase in labour productivity in services.

(134) J. Monteagudo, A. Rutkowski, D. Lorenzani, *The economic impact of the Services Directive: A first assessment following implementation*, European Economy Economic Papers, No. 456, June 2012, http://ec.europa.eu/economy_finance/publications/economic_paper/2012/ecp456_en.htm.

(135) Measured as the direct impact on labour productivity of reduction of barriers affecting domestic establishment.

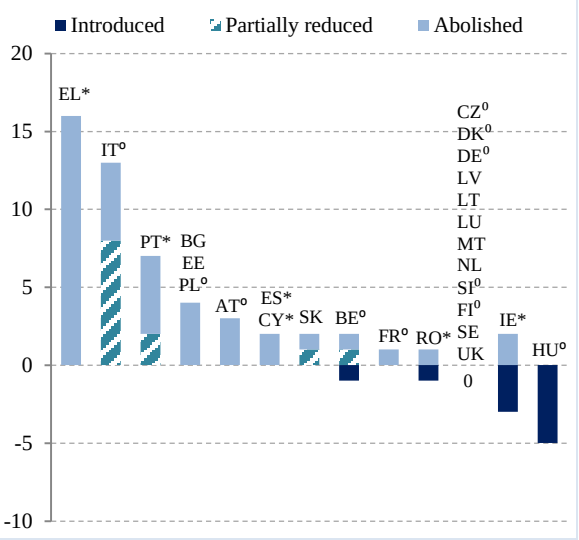
Figure 3.14: Impacts of barrier reductions within the analysed sectors in the EU



Source: Monteagudo et al. (2015), European Commission, European Economy Economic Papers 456, June 2012.

Additional work has been undertaken since to assess the progress made in implementing the various strands of the directive and update estimates of the related economic impacts. It showed that the pace of national reforms slowed considerably after 2011, compared to the period following the entry into force of the Services Directive, and that reform efforts have been uneven across Member States (Figure 3.15).

Figure 3.15: Number of restrictions in 2014 compared to 2011 by sectors

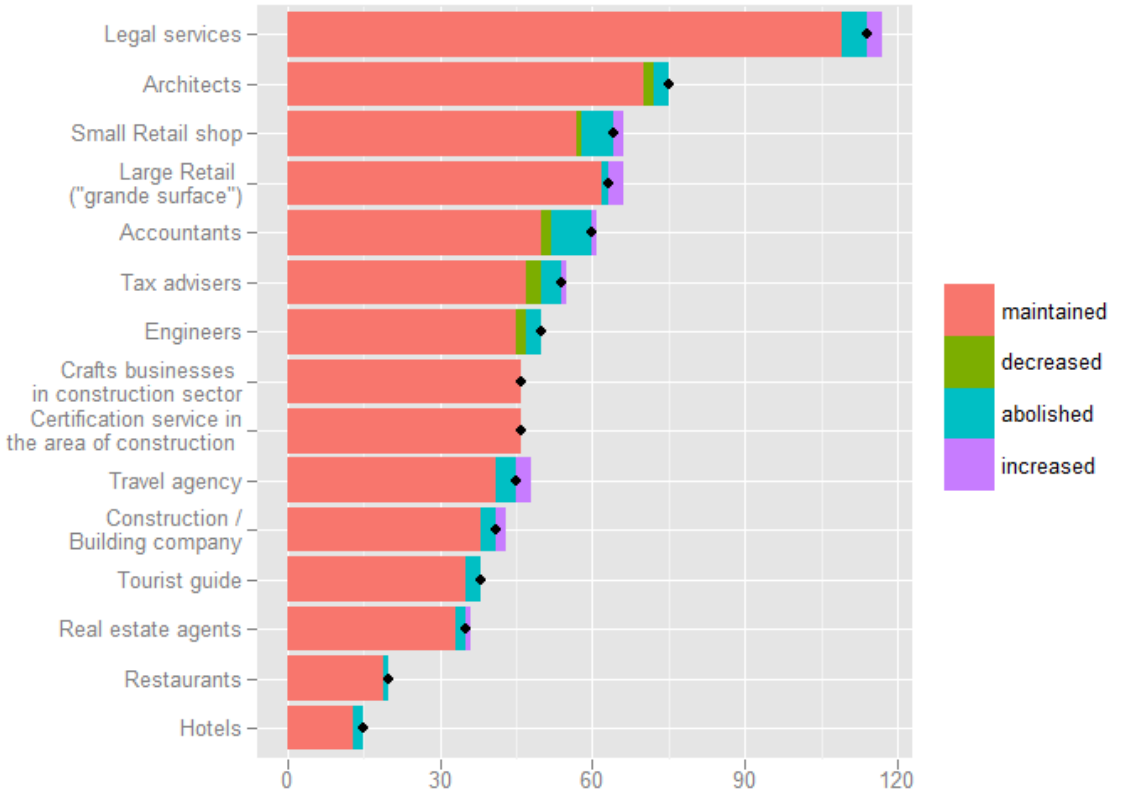


Note: * indicates MSs with economic adjustment programmes in 2012–2014, ° indicates MSs with one or more CSRs on services in 2012–2014.

Source: European Commission, own calculations

Based on an improved measurement of the changes in regulatory barriers, the 2015 assessment has shown that the largest reform efforts took place in the restrictions for accountants, hotels, tax advisers, and engineers, while legal services are still the most regulated sector in the EU followed by architects and retail trade (Figure 3.16).

Figure 3.16: Number of restrictions in 2014 compared to 2011 by sectors



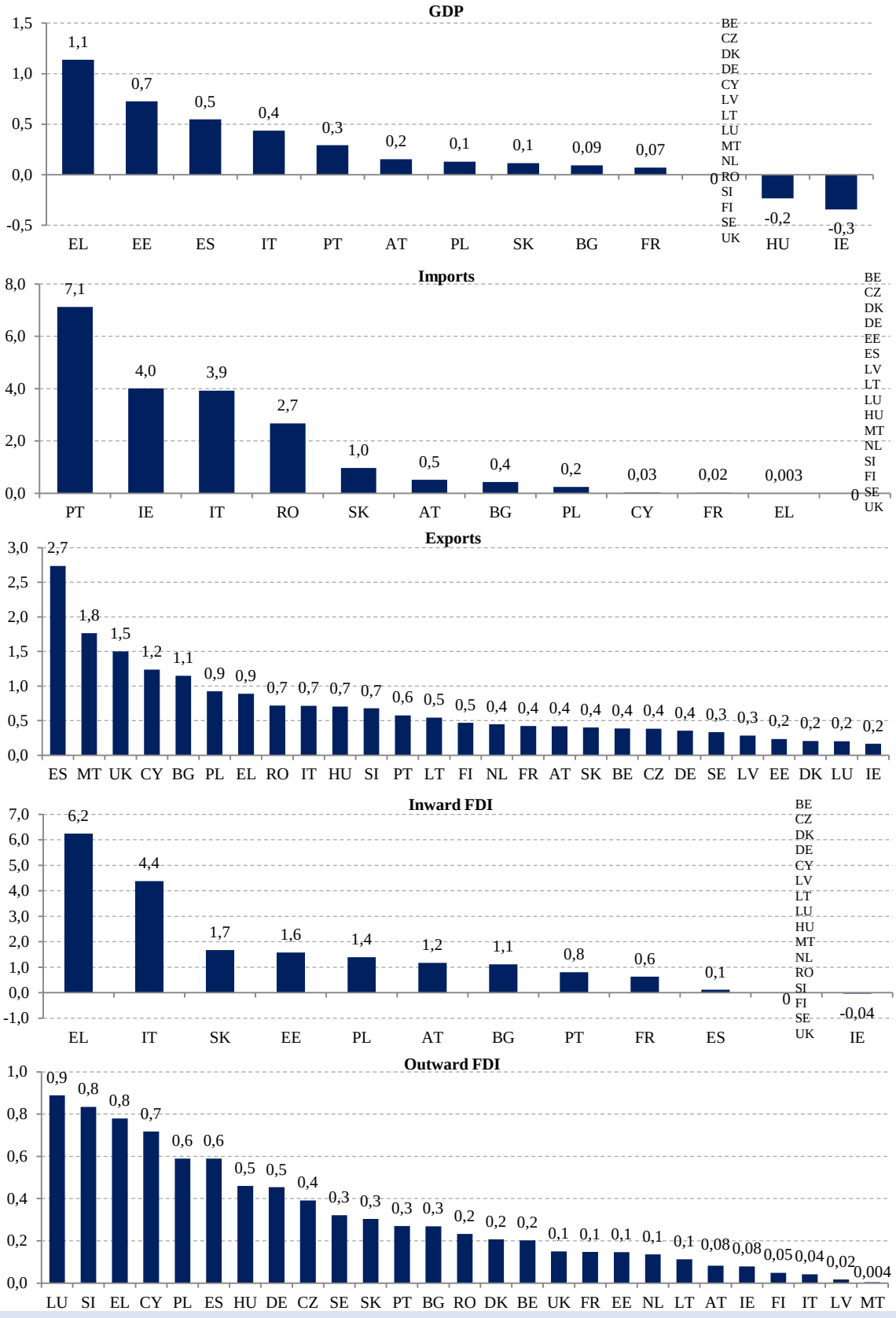
Note: The black dots denote the total number of restrictions in 2011

Source: European Commission, own calculations

For most Member States, there is no evidence of further reductions in regulatory barriers in the period 2012–2014. In some cases this can be explained by the fact that regulatory regimes were already relatively light, but in other cases there has been little reform progress despite recommendations under the European Semester. For Ireland and Hungary, barrier levels are even found to have slightly increased which could have small negative impacts. In contrast, Greece, Estonia, Spain, Italy, and Portugal have made the largest efforts to reduce legal barriers in accordance with the directive, with positive growth impacts of up to 1 % for Greece and 0.3–0.7 % for the Estonia, Spain, Italy and Portugal.

The new assessment concludes that the economic gains of reforms carried out in 2012–2014 are limited, about 0.1 % of GDP growth, and falling short of the estimated potential impact of 1.8 % in the 2012 study. The detailed impacts on GDP, FDI and trade of the Member States are shown in figure 3.17 below.

Figure 3.17: New estimates of the economic impact of the implementation of the Services Directive



Source: European Commission, own calculations

The results of these studies indicate that further efforts are needed to ensure enforcement of the existing legislation. This will also foster resource reallocation in the single market through its expected positive impacts on productivity and FDI.

3.2.2 Allocative efficiency across sectors and Member States

Chapter 2 of this report underlined the importance of the reallocation of productive resources to improve the competitiveness of the EU. At present, the importance of this reallocation is enhanced by the digitisation of the economy, changing relative prices of inputs and the new redistribution of labour at global scale.

In this section, we present some simple indicators as a first approximation of the state of play of resource allocation and performance of the single market at present. These indicators and measures will be complemented in future editions of the report with other indicators addressing other dimensions of market performance.

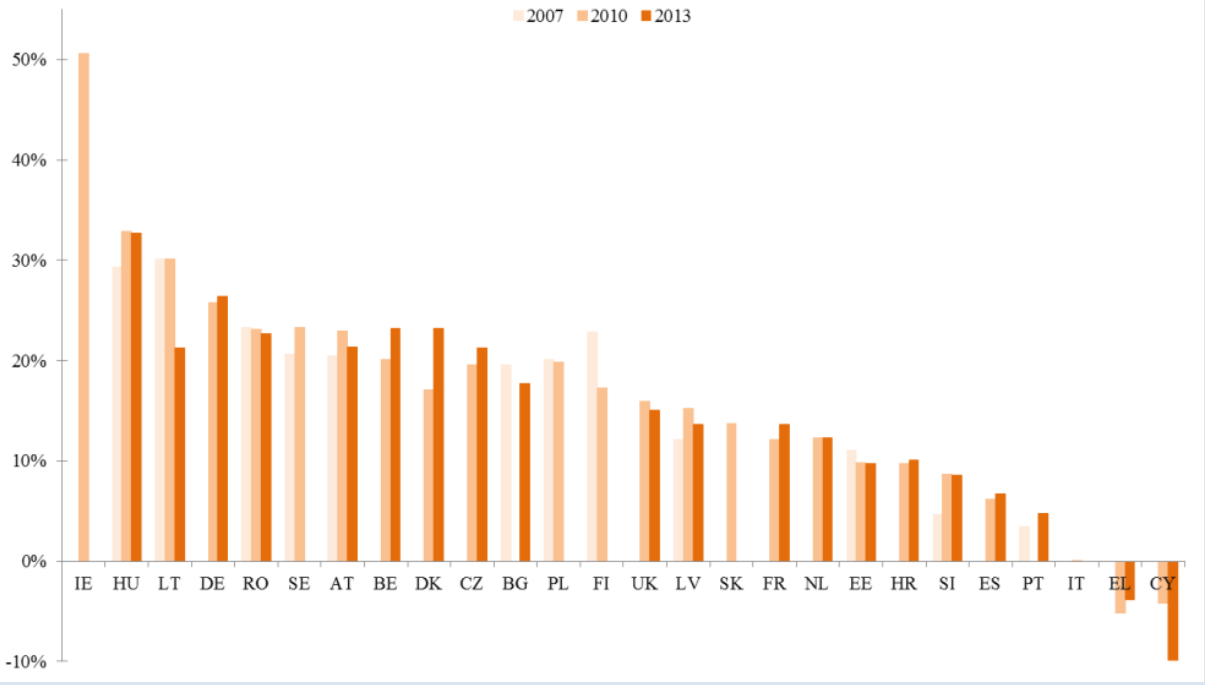
Allocative efficiency (AE) is the most traditional criterion to assess market performance. It refers to the allocation, within or between firms, of productive factors to their most efficient uses. In that sense it is particularly relevant to assess productivity.[136] [137]

This section presents AE indicators for a number of aggregated industrial and services sectors across most Member States (Malta is often missing due to data availability). The productive factor of interest in this context is labour. Efficiency in the allocation of this key factor of production will be assessed against the distribution of labour productivity in the same sector. Expressed in simple terms, the question of allocative efficiency then boils down to analysing the extent to which labour is allocated to the segments of each sector with the highest labour productivity.

([136]) The fact that this section focuses on allocative efficiency (AE) should not be interpreted as a suggestion that it is a more important determinant of productivity than productive or dynamic efficiency, the other two main dimensions of productivity. In fact, the relative importance of the three types of efficiency is likely to vary by product or service, firm and sector. It is also important to emphasise that the macroeconomic importance of high or low productive/dynamic/allocative efficiency depends on the importance of the sector to the rest of the economy: average efficiency in a vitally important sector will benefit the economy more than top efficiency in a sector of little economic importance, and vice versa for below-average efficiencies.

([137]) This section follows the methodology of the European Commission's *Product Market Review 2013: Financing the real economy*. European Economy 8/2013.

Figure 3.18: Allocative efficiency in manufacturing (2007–2013)



Note: Data for Luxembourg and Malta not available.

Source: Eurostat

The AE indicators presented here measure the efficiency of the current allocation of labour across firms within each sector by comparing it with a hypothetical efficiency level that would be achieved if labour would be uniformly distributed across firms. Insofar as the actual distribution of labour is the result of the functioning of the single market in that sector, this can be used as a proxy to measure the performance of the single market from the point of view of the efficient allocation of labour. A limited number of selected sectors are presented here.

Box 3.2. Measuring the efficient allocation of labour

To quantify AE for the purposes of this section, the product $(\theta_i - \theta_{base})(lp_i - lp_{tot})$ is calculated for each firm size class segment i of every national sector, after which the products are summed across all size classes (5 classes for industrial sectors; 6 for services following Eurostat classification). Following European Commission (2013),[138] the share of sector employment in size class i will be used for θ_i as a proxy for market share, while θ_{base} represents the baseline hypothesis that market shares (employment proportions) are distributed equally across size classes: 20% in each of the five size classes for the industrial sectors, 16.7% in each of the six classes for services. lp_i and lp_{tot} denote the logarithms of labour productivity in firm size class segment i of a sector and for the sector as a whole respectively. Using logarithms of labour productivity means that the resulting sum of products across all size classes can be given a straightforward interpretation as the percentage gain or loss in relation to the baseline scenario of the observed allocation of labour. If the sum is positive, the observed allocation is better than the hypothetical uniform distribution across firm size classes. If the sum is negative, the observed allocation is less efficient than the hypothetical uniform distribution.[139]

Looking first at ***manufacturing***, labour is more efficiently allocated than the baseline scenario in almost all Member States. Exceptions include Greece and Cyprus. For Ireland and Hungary, data suggest much higher allocative efficiency than in most other Member States. For some countries, data are available

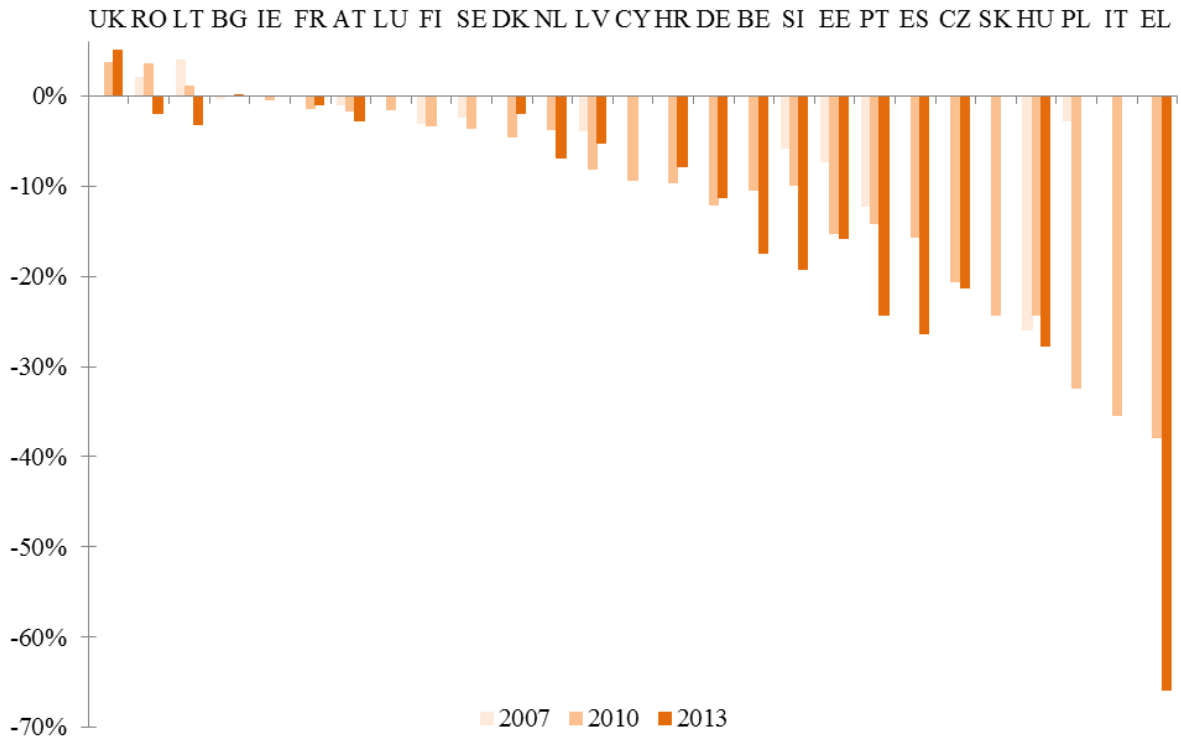
([138]) European Commission, *Product Market Review 2013: Financing the real economy*. European Economy 8/2013.

([139]) The publication European Commission (2013), *Product Market Review 2013: Financing the real economy*, European Economy 8/2013 includes a similar indicator of allocative efficiency which is slightly different of the one presented here because it has excluded self-employment. That methodology has also been used in SWD(2015) 202.

for three years (2007, 2010, 2013). Most efficiency gains are around 20 % and relatively stable over time; particularly significant improvements in AE can be reported in Denmark, Belgium and the Czech Republic while falling AE occurred over time in Lithuania, Finland and Cyprus (see Figure 3.18).

In contrast with the situation in manufacturing, in the ***construction sector,*** labour is allocated less efficiently than the baseline scenario. Prominent allocative efficiency losses are observed in Greece, Italy, Poland, Hungary and Slovakia. In 2013, the UK and Bulgaria were the only Member States with positive allocative efficiency. It is worth mentioning that this indicator shows a deterioration in the allocative efficiency for a number of countries, particularly in Greece, Spain, Portugal, Slovenia and Belgium in 2013 (see Figure 3.19).

Figure 3.19: Allocative efficiency in construction (2007–2013)



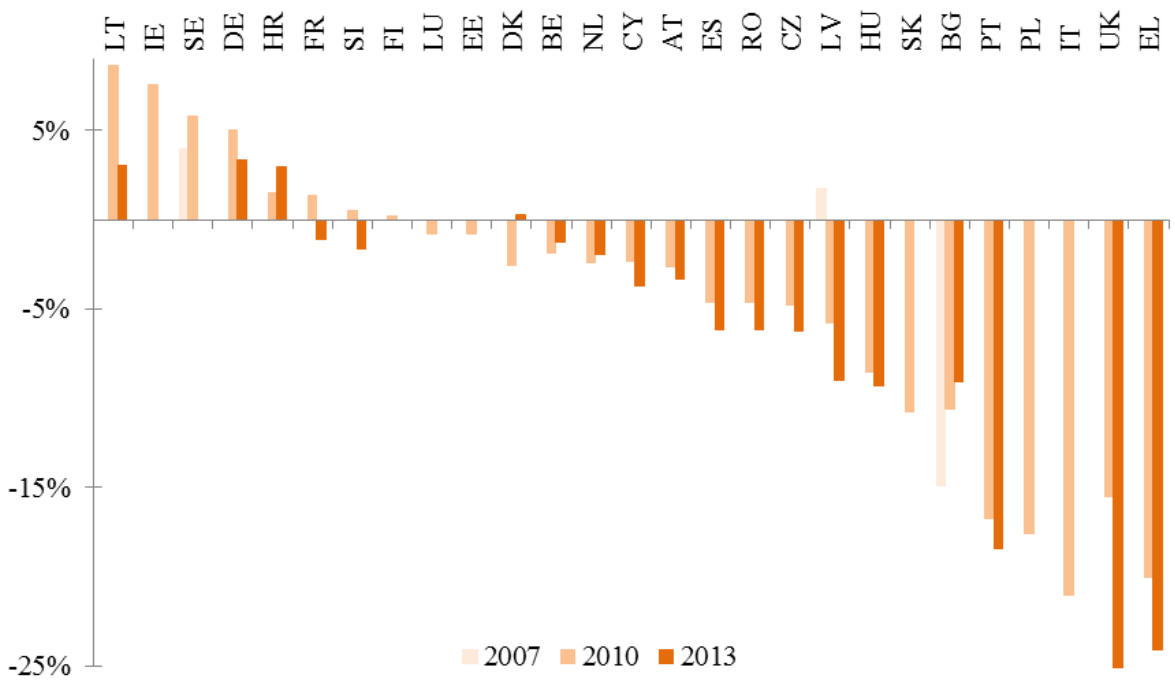
Note: Data for Malta not available.

Source: Eurostat

Carrying out the same calculations for ***distributive trades*** (retail as well as wholesale) and ***transportation and storage*** produces the AE values in figures 3.20 and 3.21. With some exceptions, AE values are generally negative in distributive trades (suggesting substantial scope for efficiency gains) and positive in transportation and storage. Germany is an exception, having allocative efficiency in trade but not in transportation and storage. Lithuania stands out as a Member State with allocative efficiency in trade as well as transportation and storage. The results differ slightly from those in European Commission (2013)[140] due to different aggregations of size classes. Over time, efficiency does not seem to be improving significantly in distributive trades, but rather the opposite. Some Member States report further deteriorations in this AE indicator.

([140]) European Commission, *Product Market Review 2013: Financing the real economy*. European Economy 8/2013.

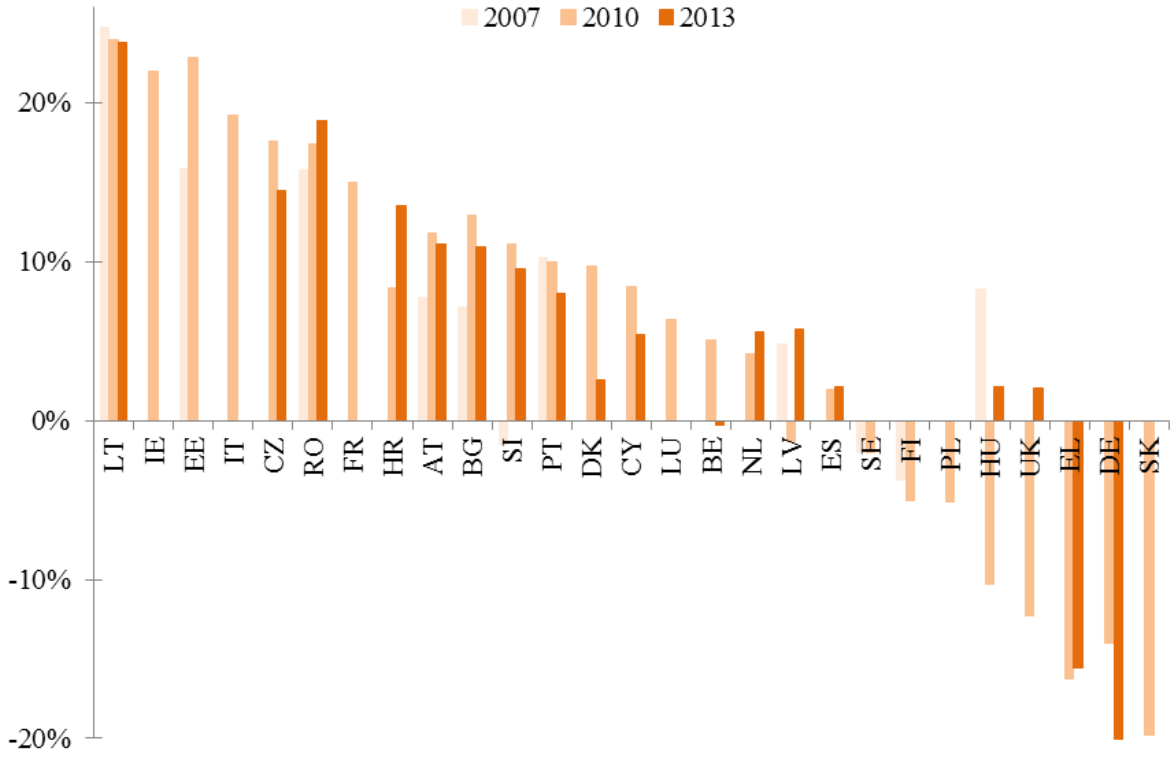
Figure 3.20: Allocative efficiency in distributive trade (2007–2013)



Note: Data for Malta not available.

Source: Eurostat

Figure 3.21: Allocative efficiency in transportation and storage (2007–2013)



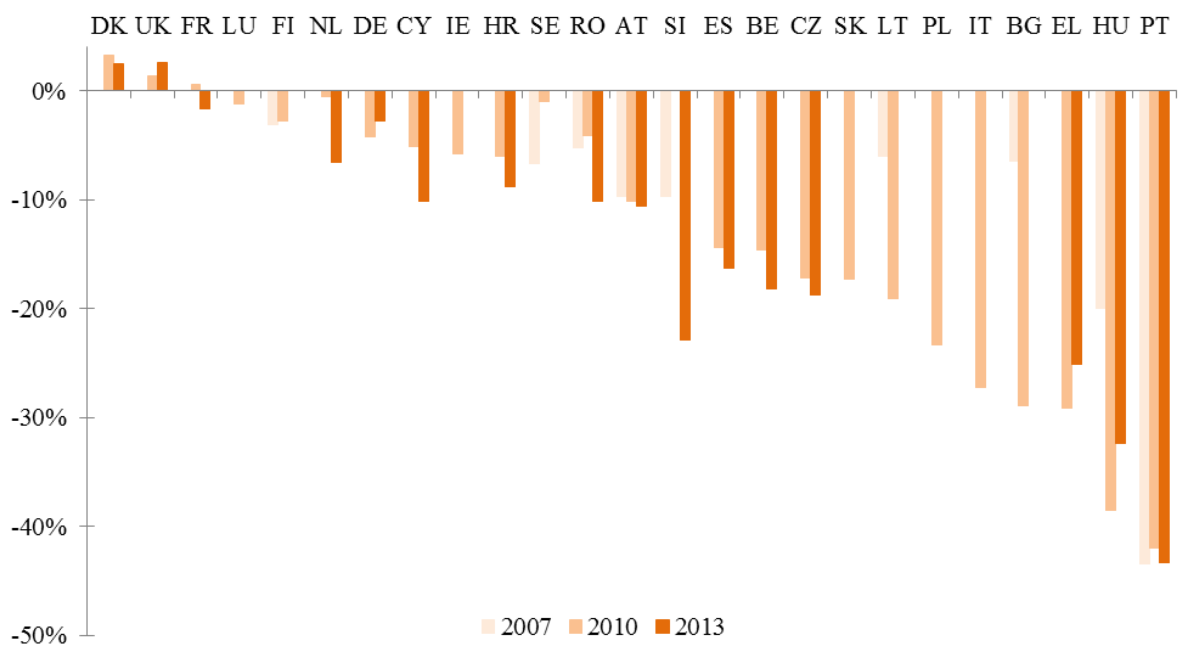
Note: Data for Malta not available.

Source: Eurostat

In ***professional, scientific and technical services***[141], AE values are generally negative (see Figure 3.22), while in ***information and communication*** services they are generally positive. In the former category, particularly low values – indicating scope for allocative efficiency gains – are found for Portugal, Hungary, Italy, Bulgaria and Greece. By contrast, Denmark and the UK are the only Member States with slightly positive AE values. In information and communication, the highest allocative efficiencies are found for Bulgaria, Spain, Croatia and Romania. The results differ slightly from those in European Commission (2013) due to different aggregations of size classes. Over time the situation seems to be worsening in both professional and information services (see Figure 3.23).

([141]) Scientific research and development; legal and accounting activities; architecture and engineering; technical testing and analysis; head offices; management consultancies; advertising and market research; veterinary activities; other professional, scientific and technical activities.

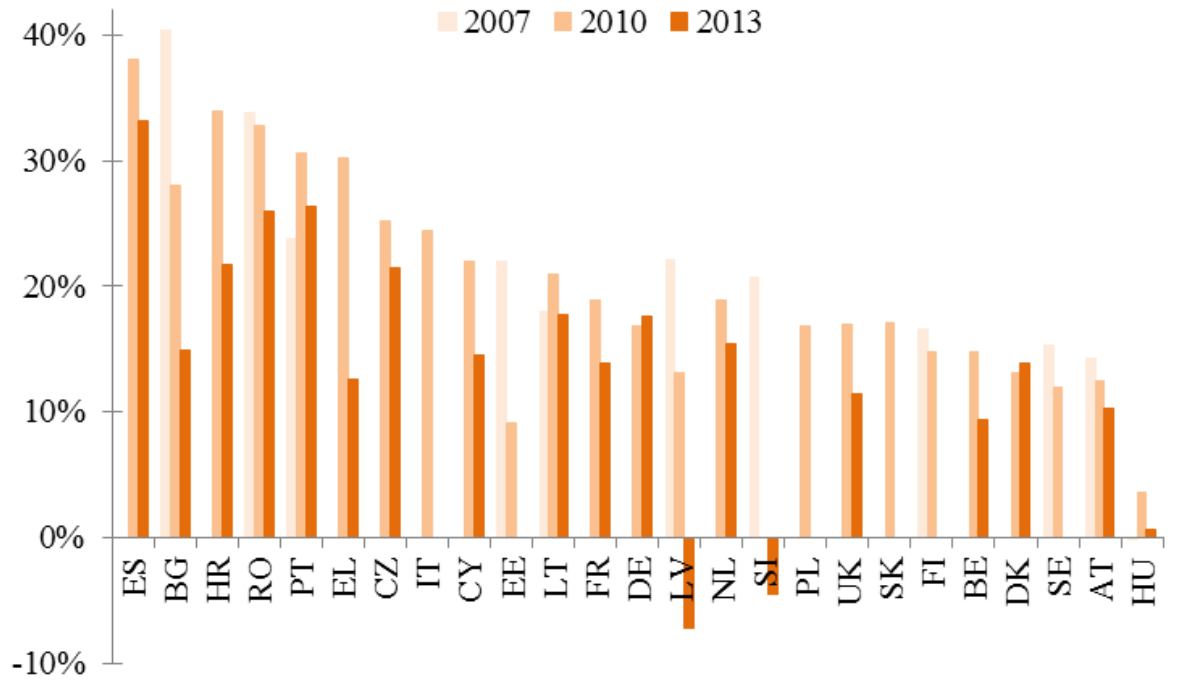
Figure 3.22: Allocative efficiency in professional, scientific and technical services (2007–2013)



Note: Data for Estonia, Latvia and Malta not available.

Source: Eurostat

Figure 3.23: Allocative efficiency in information and communication services (2007–2013)



Note: Data for Ireland, Luxembourg and Malta not available.

Source: Eurostat

The analysis in this section reveals a distinction between goods and services exposed to international competition and sectors catering mainly for their domestic market. In manufacturing, transportation and storage, and information and communication services, allocative efficiency is high in virtually all Member States. The output of these sectors is in many cases traded across borders and EU producers are often exposed to intense global competition.

By contrast, in sectors such as construction; distributive trades; professional, scientific and technical services, competition is more local and producers are under less competitive pressure. In these sectors, the assessment of allocative efficiency often resulted in negative values, indicating that an equal distribution of labour across the different size classes would be more efficient. In such cases there is scope for a more efficient allocation of labour, however it is not possible to predict how important such a reallocation would be for firms, sectors or the economy as a whole.

The evidence presented in this section also suggests that the direction of changes in allocative efficiency in recent years has been very diverse across sectors. While improvements can be detected in manufacturing, the services sectors mentioned in the second group above present further deterioration of their efficiency. The deterioration in allocative efficiency in the construction sector in several countries is an additional cause for concern. If confirmed with further analysis, this gives rise to additional concerns, especially at a time when an increasing volume of resources are being shifted from other sectors toward services.

3.2.3 Overall evolution of product market regulation in the Single Market

Despite the strong commitment to the creation of a competitive product market for goods and services in the EU, significant regulatory and non-regulatory barriers to the smooth functioning of the single market persist. After a period of crisis in which reforms in favour of single competition have stalled in many sectors, reviving the efforts to further eliminating these barriers appears to be a priority, as the single market is widely recognised as one of the main drivers of potential economic growth and competitiveness in the EU. A deeper and fairer single

market could allow the EU to reduce the investment gap with respect to commercial partners and increase trade between Member States, facilitating a more efficient reallocation of resources across Member States and delivering at least EUR 521 billion and 4 % of GDP growth in the EU.[142]

This section presents an overview of the evolution of product market regulation from 1998 to 2013 based on the Product Market Regulation indicators (PMRs) elaborated by the OECD. It must be said that these indicators measure the situation of markets taking into account the joint impact of regulations and legislation developed by the Member States in the implementation of EU directives and regulations as well as those developed at their own initiative.

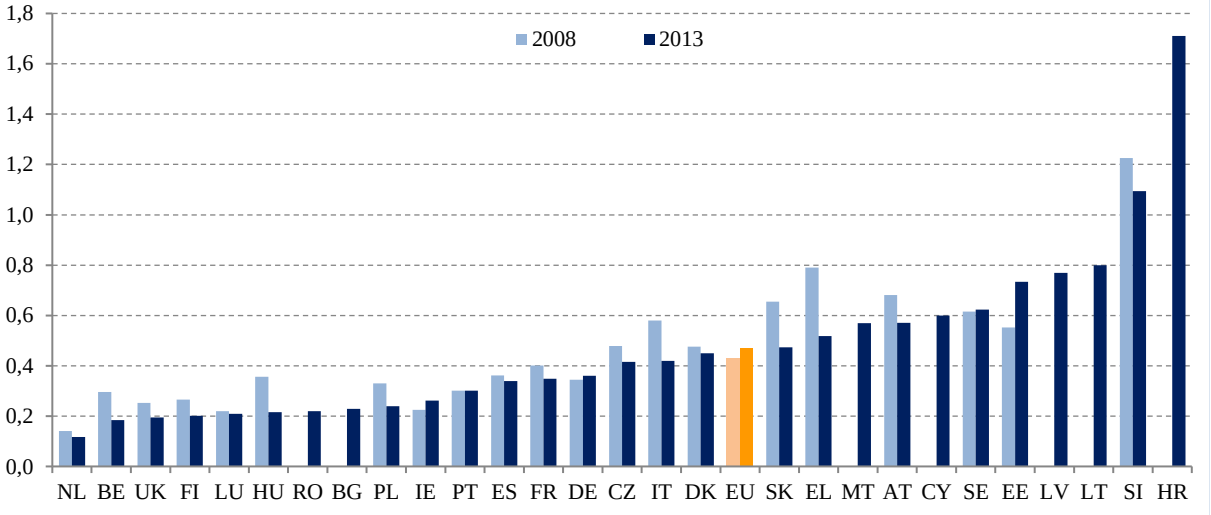
To measure the evolution of obstacles raised by Member States to a deeper and fairer single market and the contribution of national measures, the evolution of economy-wide and sector regulations[143] has been compared with the performances of key indicators of competitiveness and integration.[144]

The analysis shows that all Member States have made significant efforts over the years to improve market performance by reducing barriers and regulations. However, in the last ten years and in particular after the crisis, the momentum of reforms in this field has substantially slowed down, particularly in the EU-15. This is in contrast with the experience of Member States that accessed the EU in 2004 or later: they have made substantial efforts in the same period. These Member States appear to be reporting higher trade integration and faster convergence in terms of competitiveness.

Figure 3.24 shows the performance of Member States concerning barriers to trade and investment[145]. The majority of Member States were able to decrease the level of existing impediments between 2008 and 2013. In particular Hungary, Belgium, Greece, Slovakia, Italy and Poland report the largest weighted reductions. However, the average value in the EU increased with respect to 2008, mainly due to the above average barriers reported in Croatia, the Baltic countries, Cyprus and Malta, which were not included in the 2008 calculations. Moreover, performances in this domain are still heterogeneous in the EU: whilst the Netherlands reports the lowest aggregate score for existing barriers among all OECD countries in 2013, Croatia reports one of the highest absolute value.

([142]) Calculations based on the findings of EPRS (2014), *The Cost of Non-Europe in the Single Market*.
([143]) In particular the PMR dataset, OECD.
([144]) See chapter 2, in particular sections on intra-EU trade and productivity.
([145]) Such barriers can limit the number of suppliers of a product or service; limit the ability of suppliers to compete or reduce their incentive to do so; or limit the choices and information available to customers.

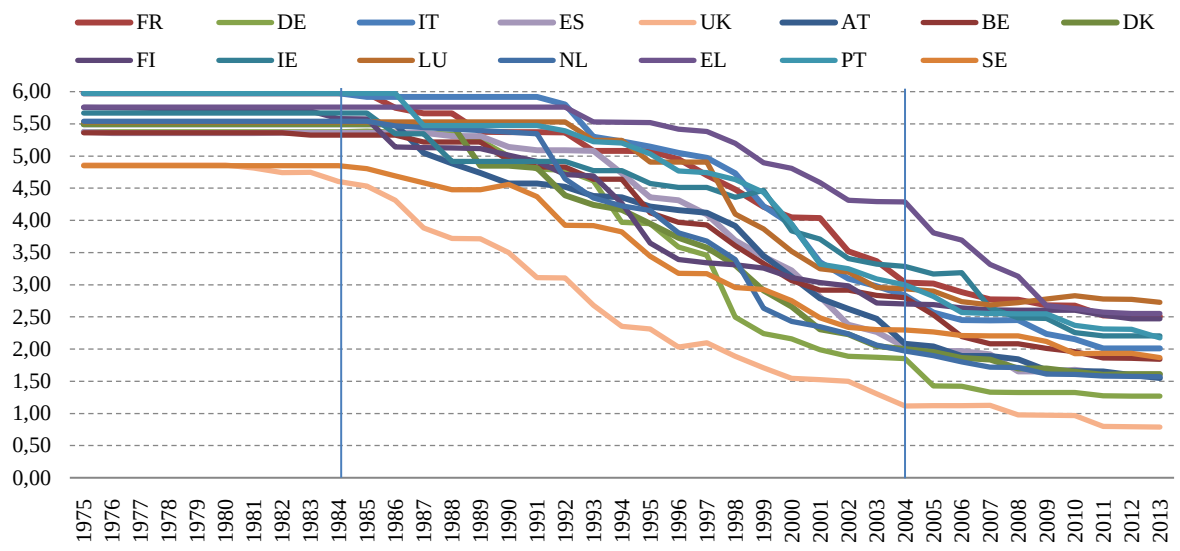
Figure 3.24: Barriers to trade and investment (2008–2013)



Source: OECD (aggregate index ranging from 0 (no barriers) to 6)

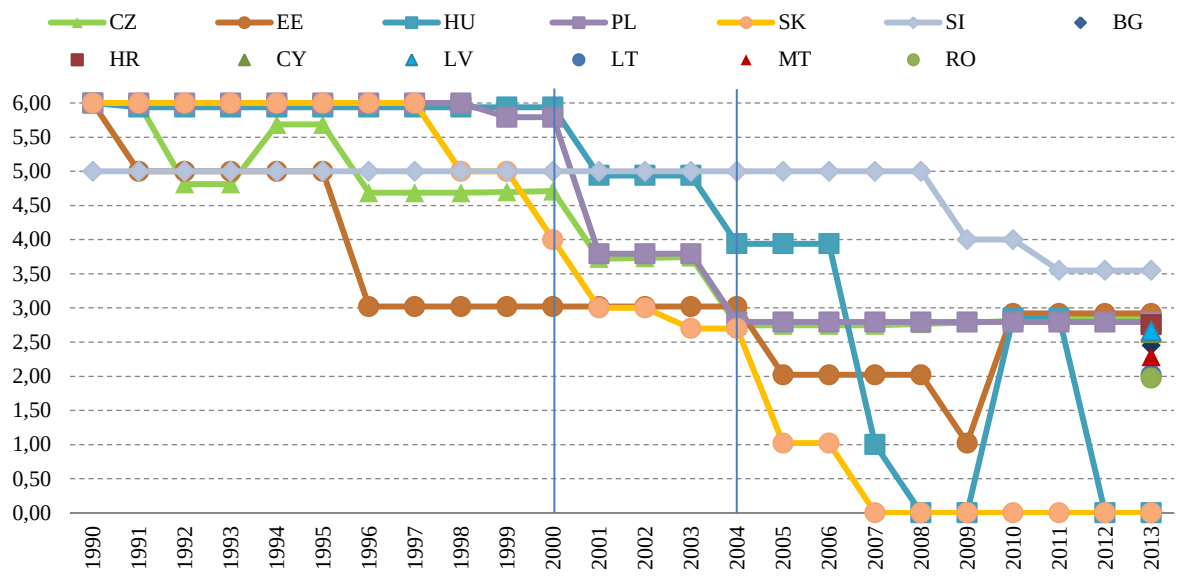
Although the available data do not cover the totality of Member States, it is interesting to observe the evolution of regulation in key sectors such as energy, transport and communication. Whilst barriers have generally decreased for all countries, it can be observed that the largest reductions have occurred in the two decades between 1985 and 2005 for EU-15 member States (Figure 3.25), whilst among the 13 countries which have joined the Union after 2003, those for which the data are available show consistent reductions of the barriers in the 2000–2013 period, in view and after their accession to the Union (Figure 3.26). Moreover, new entrants show a convergence path and among them one group of countries seems to have converged to the frontier while another group seems to have converged towards the values of low performing EU-15 Member States.

Figure 3.25: Regulation in energy, transport and communication, EU-15 (1975–2013)



Source: OECD

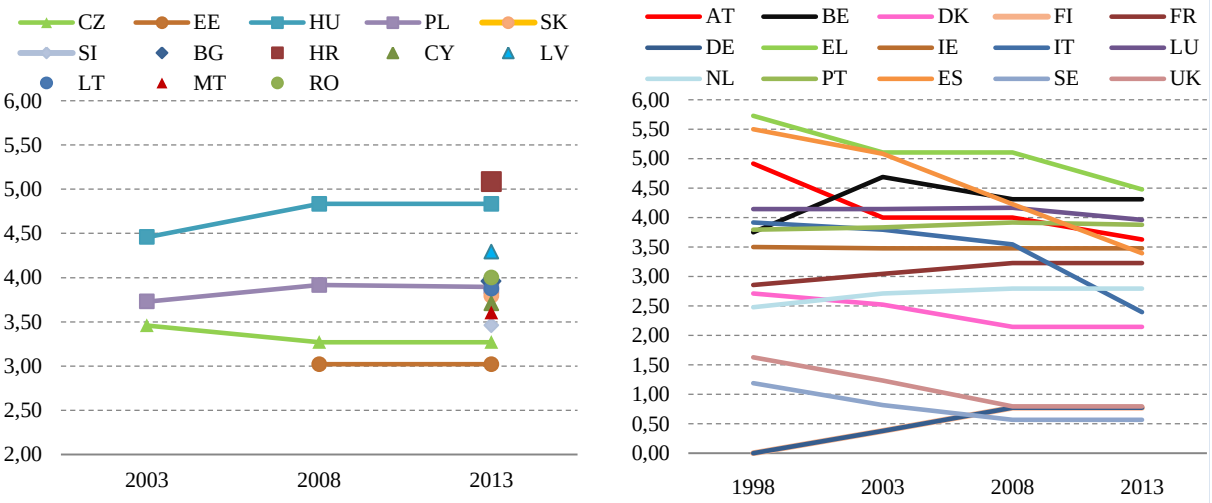
Figure 3.26: Regulation in energy, transport and communication, EU-13 (1990–2013)



Source: OECD (for non-OECD countries only 2013 data is available)

Comparing these trends with data on intra EU-trade, it can be observed that for many Member States, and in particular new entrants in the EU, the generalised increased effort in reducing regulatory barriers corresponded to an increase in intra-EU trade growth. Although other factors certainly contributed to this evolution, this confirms the strong potential of the single market in increasing intra-EU trade and investment.

Figure 3.27: Regulation in professional legal services, EU-13 (2003–2013) vs. EU-15 (1998–2013)



Source: OECD (for non-OECD countries only 2013 data is available)

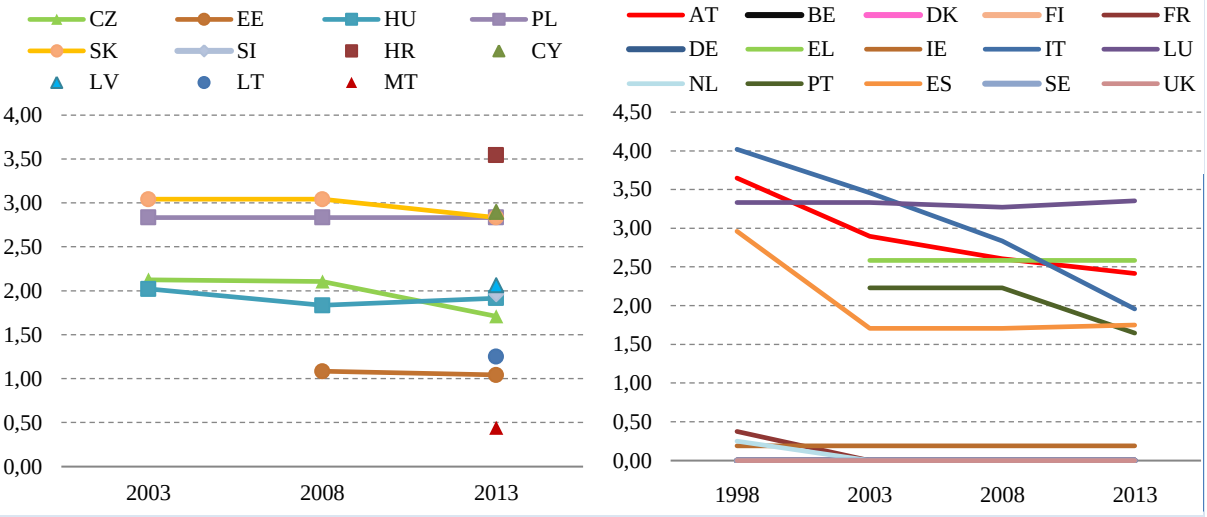
A number of existing barriers to the access and exercise of regulated professions[146] are impeding the full potential of services in the EU. In particular, professional services and retail regulations have been reported to be critical in some Member States, as well as being pointed out by the European Commission and the Council in the 2015 country-specific recommendations to Member States. As outlined in the SWD accompanying the Single Market Strategy, these services are essential to businesses and consumers, thus reducing these barriers could have a substantial effect on the integration and competitiveness of the EU. With respect to other energy, transport and communication sectors, progress in the elimination of barriers in regulated professions was subdued, as can be observed, for example, in figures 3.27 and 3.28 which depict the evolution of existing barriers in legal services and engineering services, showing neither convergence nor substantial progress in the last decade.[147] In addition the implementation of the Country Specific Recommendations (CSRs) by EU Member States dropped significantly in 2013. Member States put the greatest effort into addressing CSRs related to the financial sector whereas CSRs related to structural reforms had the highest percentage rate of non-implementation.[148]

([146]) It must be underlined that the indicators used here for these regulated professions are those published by the OECD. The SWD accompanying the Single Market Strategy publishes an update of these indicators produced by the Commission services. In order to avoid changes in the methodology with respect to the data published by the OECD for previous years, these new estimates of the indicators are not used here.

([147]) OECD methodology changed in 2008. Therefore data for 2003 and 1998 are estimates.

([148]) Source: http://www.europarl.europa.eu/RegData/etudes/STUD/2015/547558/EPRS_STU(2015)547558_EN.pdf

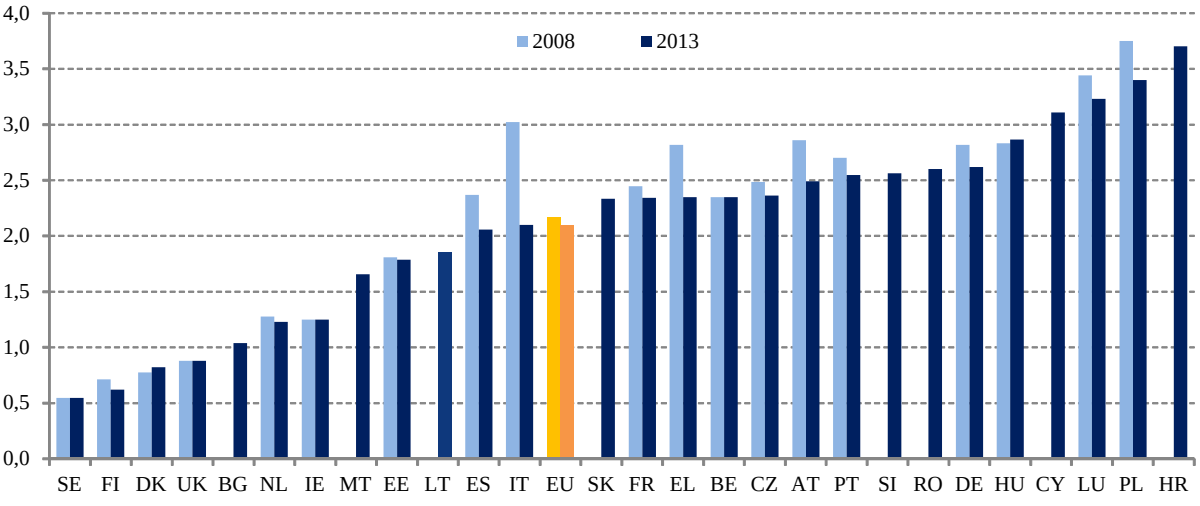
Figure 3.28: Regulation in professional engineering services, EU-13 (2003–2013) vs. EU-15 (1998–2013)



Source: OECD (for non-OECD countries only 2013 data is available)

Looking at the aggregate index for all analysed professional services (Figure 3.29), it can be observed that the most substantial progress between 2008 and 2013 has been achieved in Italy, Greece, Spain, Austria and Poland. However, overall policy initiatives in this field have been limited, leaving scope for further improvements that will particularly benefit integration and competitiveness.

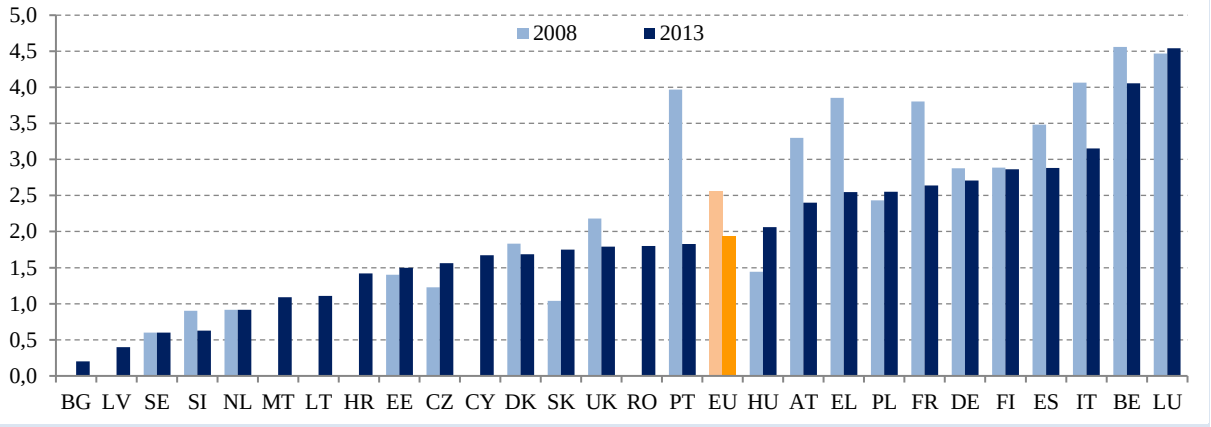
Figure 3.29: Regulation in professional services (2008–2013)



Source: OECD (aggregate index; data for Latvia not available)

The performance of the retail sector is shown in Figure 3.30. It can be observed that this is one of the areas in which the EU has achieved substantial progress when compared to the 2008 situation. Competition in the retail sector has been fostered through reforms in many Member States and the trend has continued in 2014, with further Member States implementing reforms, offering better market conditions both to consumers and enterprises and improving the functioning of the single market. While the results of the reform process is a notable achievement, the data also show that in many Member States barriers are still high and the space for improvement is still substantial across the EU.

Figure 3.30: Regulation in retail trade (2008–2013)



Source: OECD (aggregate index; data for Ireland not available)

3.2.4 Economic convergence in the Single Market

One of the objectives of the European Union is to promote the economic convergence amongst Member States by fostering changes in economic structures and increasing the degree of market competition. Closer economic integration is expected to unleash competitive forces which would lead to further economic convergence. As shown in Box 3.3 below, we observe various degrees of convergence for the EU as a whole (EU-28) in prices, GDP per capita and labour productivity over the last 15 years. However, we do not detect any convergence on these parameters among the fifteen countries that joined the EU before 2004 (EU-15).

A properly functioning Single Market is expected to foster market integration and thus the convergence of prices among Member States. If there are low barriers to trade in goods and services, prices should be similar due to the unconstrained interaction of supply and demand as economic agents take advantage of arbitrage opportunities. We would thus expect to see a decrease in the dispersion of prices across EU Member States, yet this is not exactly what we observe. Indeed, there has been price convergence for the EU as a whole over the last twelve years, with a remarkable convergence among the Member States who joined as from 2004 (EU-13). However, there has been stagnation in the dispersion of prices across the EU-15 over this period. Moreover, we observe a change of trend among the price dispersion in the EU-15 since the onset of the crisis. Indeed, prices started to diverge in the last 5 years, reversing the slight progress achieved in previous years. This may signal a compartmentalisation of the single market with the onset of the crisis.

The effective functioning of the Single Market should also ease the mobility of production factors (labour, capital) across Member States. This enhance mobility of resources should contribute to their efficient reallocation from less productive firms and industries to more productive ones. Even if other factors play a significant role on resource allocation, we could expect that the disappearance of obstacles to the free movement of capital and labour would lead to a convergence in productivity levels.

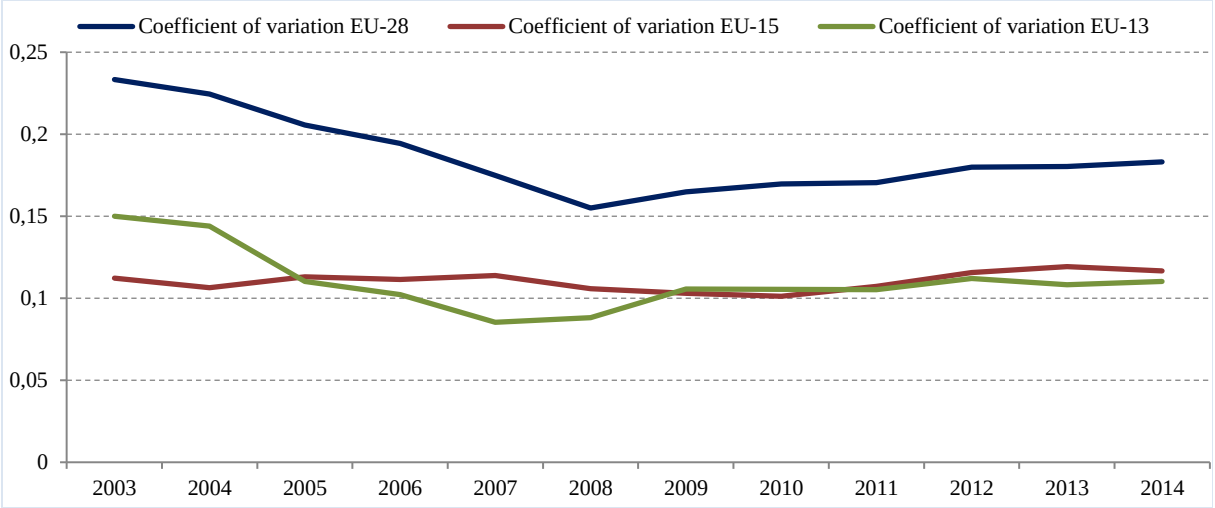
Ultimately, a convergence in productivity levels should also stimulate the catching up process from less developed economies and therefore would be reflected in a convergence of GDP per capita. However, we see again different performances between the EU-28 and the EU-15. While there has been a slight convergence in the former, there has been divergence in the latter.

The above-described evolution in the dispersion of prices shows that there has been an overall economic convergence among EU Member States in the last 15 years. However, the analysed parameters seem to imply that the convergence has been driven by the dynamism of those Member States who joined as from 2004, since no convergence is observed amongst those who joined before. Indeed, a more granular analysis of sigma convergence in labour productivity at sectorial level clearly shows the

distinct performance of the two groups of Member States. The overall stagnation in the dispersion of labour productivity among the EU-15 is in sharp contrast with a marked reduction among EU-13. This reduction is very sharp in the years just before accession and continues at a more moderate pace afterwards.

This analysis of economic convergence reconfirms the pattern observed in trade and investment. That is, the co-existence of a more sluggish performance of the EU-15 where the single market is relatively more mature, and a more dynamic evolution of the EU-13 resulting from their accession to EU. This validates the unquestionable benefits of joining the single market in terms of a reduction in the economic disparities. However, the dwindling of economic convergence dynamics after accession seems to imply that the single market does not generate endogenous factors that would guarantee the continuation of this convergence in the long term. Reforms of the single market could certainly lead to a higher degree of economic integration and convergence. Indeed, the disappointing performance of the EU-15 may be partly due to the unfinished status of the single market, particularly in the services sector, and the slow or incomplete implementation of reforms in this area. Yet, the challenge is to ensure that reforms establish appropriate mechanisms to maintain economic convergence dynamics amongst Member States in the long run.

Figure 3.31: Coefficient of variation in prices



Note: Purchasing power parities (PPPs), total goods, price level indices and real expenditures for ESA2010 aggregates

Source: Eurostat, European Commission's calculations

Box 3.3.: Sigma convergence in prices

Sigma convergence analysis measures the evolution of the dispersion of a variable to assess whether convergence is taking place. In this section we look at the evolution of the coefficient of variation (that is, standard variation of the variable divided by the mean) prices,. A decrease in the coefficient over time signals a reduction in the dispersion of data and thus a convergence in the analysed parameter. In the same way, an increase in the coefficient signals a surge in dispersion and thus increasing divergence.

The coefficient of variation of comparative price levels for goods in EU-28 sharply decreased after the enlargement of 2004 until the start of the crisis. Afterwards, price dispersion increased, although not fully reversing the previous gains. In contrast, there has been an overall stagnation in the price convergence across those countries that were EU Member States before 2004 (EU-15), with a perceptible increase in the dispersion in the last five years. (see Figure 3.31)

Similar analyses can be carried out for GDP and labour productivity convergence.

3.2.5 The role of the public sector: public procurement markets

The public sector is an important economic player in the EU economy. The size of public expenditures on works, goods, and services (representing more than

19 % of EU GDP) makes public procurement a critical area of single market integration, an important driver of both Member States' and businesses' competitiveness, and a critical lever to help achieve economic recovery and the creation of jobs.

Public procurement is also directly linked to many key policy challenges the EU is facing: growth and jobs, fiscal discipline, modernisation of public administration, trust of citizens in public authorities, innovation, and green and inclusive growth.

3.2.5.1 The untapped potential of public procurement for the integration of EU firms in the Single Market and the performance of public procurement markets

Transparent, fair and competitive procurement markets across the Single Market create business opportunities for European enterprises and contribute directly to economic growth and the creation of jobs. While steps towards a single European procurement market have been taken for decades, there are still significant inefficiencies in public procurement across Member States that limit cross-border expansion or growth in the domestic market.

These include for example:

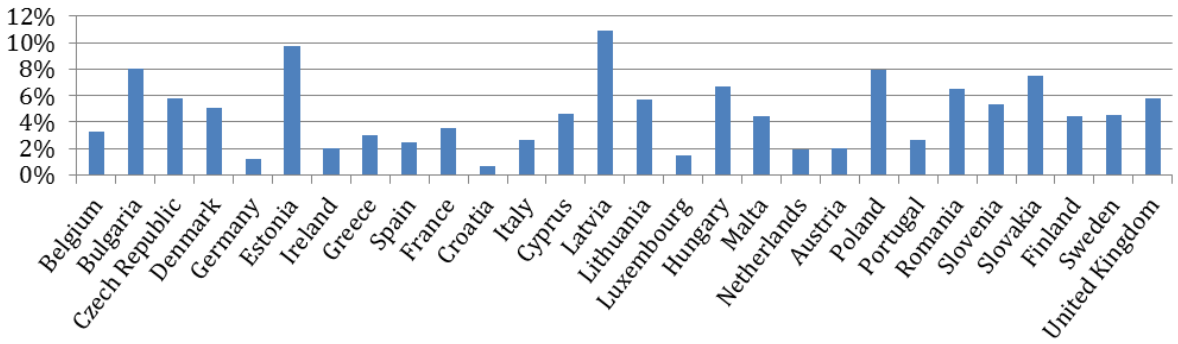
- the different procedures based on the Remedies Directive 2007/66/EC which provides legal tools to aggrieved bidders for breaches of EU procurement law by public bodies or utilities;
- the low level of publication of public tenders at EU level (the estimated average of value of tenders with utilities corresponds to 4.7 % of EU GDP);
- the varying speed of the implementation of e-procurement in the Member States;
- the uneven level of professionalization of public buyers;
- the remaining vulnerability to corruption;
- the low number of Member States that have defined policies for socially responsible public procurement or for inclusion of innovation aspects, and the absence of consistent approaches in implementing these policies across Member States, especially when they result in (technical) requirements inhibiting access to national markets, may affect the functioning of the Single Market;
- rare cases of aggregation of demand in public procurement (14 % of contract award notices at EU level established a framework agreement in 2009–2014, but it varies with type of product/service).

3.2.5.2 The level of publication of public tenders at EU level

One of the key policy issues on Single Market integration is the level of publication of public tenders at EU level. Although EU-wide publication of contracts above certain thresholds is one of the key obligations stemming from the EU rules on public procurement, there are some Members States where the value of procurement published in relation to GDP is far below the EU average of 4.7 % (2009–2013). As pointed out above, despite the fact that increased publicity requirement induces more entry, transparency of below-threshold procurement varies greatly across Member States (Figure 3.32).[149]

([149]) Research shows that increased publicity requirement induces more entry and higher winning rebates, which reduces the costs of procurement and rationalizes public spending. Increased publicity also selects different winners: it increases the likelihood that the winner hails from outside the region of the public administration and that the winner is a large company. See Decio Coviello and Mario Mariniello (2014), *Publicity requirements in public procurement: Evidence from a regression discontinuity design*, Journal of Public Economics, 2014, vol. 109, issue C, pages 76-100.

Figure 3.32: Value of calls for tender published as a percentage of GDP by Member State (2009–2013)



Source: European Commission based on OJ/TED data

Member States in which the value of published tenders is relatively small in relation to their GDP, such as Germany (1.3 %), Luxembourg (1.5 %), Netherlands (2 %) or Austria (2 %),[150] also have a current account surplus, i.e. while benefitting from other countries' market openness, these countries do not offer symmetric opportunities for European businesses from other Member States. An increase in the value of contracts published EU-wide would generate additional opportunities for European businesses in other Member States, including in Member States with current account deficits.[151]

3.2.5.3 Participation of non-national operators in national public procurement

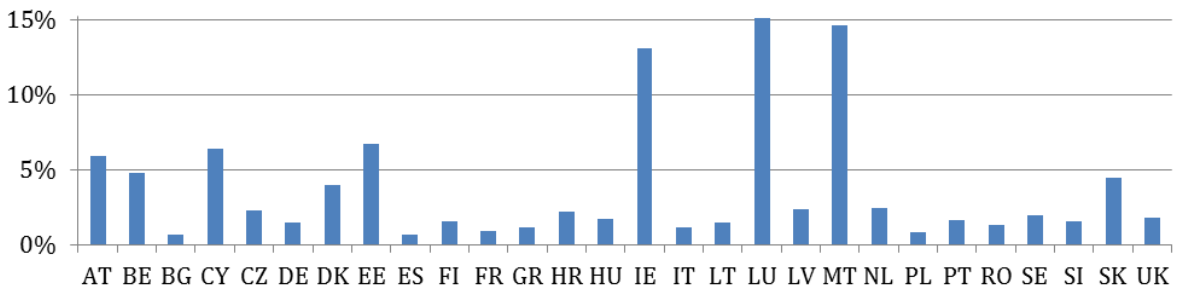
Other symptoms of deficiencies in the functioning of the Single Market include the low level of participation of non-national operators in the national public procurement markets, with striking inequalities among Member States. For EU-28, the average proportion of contracts which were awarded to foreign companies in 2009–2014 is 4 % and relatively stable, the best performers being Luxembourg (15 %), Malta (15 %), Ireland (13 %), while the countries far below the EU-28 average are Spain (0.6 %), Bulgaria (0.7 %), Poland (0.8 %) and France (0.9 %) (Figure 3.33). The reasons for the low level of participation of non-national operators in the national public procurement markets include indirect buying from branches or subsidiaries, where the differences between Member States in the value of indirect cross-border awards vary from nearly 0 % to 44 % (the EU average is around 13.4 %).[152] Such indirect buying distorts data on the proportion of contracts awarded to foreign companies.

([150]) If the value of procurement published EU-wide is compared to public expenditure, the group of four low publication countries (DE, LU, NL, AT) remains unchanged.

([151]) It should be emphasised that a low value in relation to GDP does not imply that rules are not respected, simply that other Member States publish tenders representing a higher proportion of their economy.

([152]) Ramboll Management (2011), *Cross-border procurement above EU thresholds*, study for the European Commission.

Figure 3.33: Proportion of contracts awarded to foreign companies



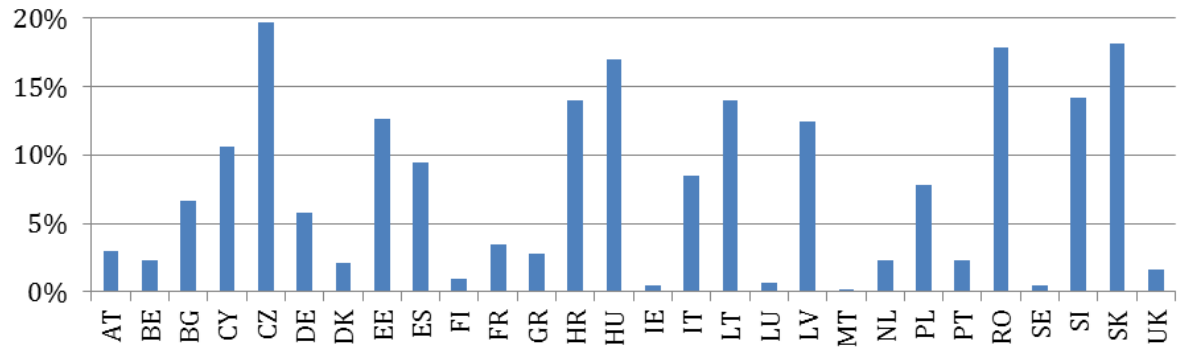
Source: European Commission based on OJ/TED data

3.2.5.4 *The procedures used in public procurement*

One of the key elements that indicate the openness and the potential for competition in public procurement is the transparency level, which is mainly given by the type of procedures used. The main procedures, which could also indicate the level of transparency, are the open procedure for high openness and the negotiated-without-competition procedure (NOC) for low openness.

The EU-28 proportion of contract award notices where the NOC procedure was used is 7.6 % in 2009–2014, indicating that the observable part is fairly transparent. But there are certain countries with a very high proportion of contract award notices using the NOC procedure, such as Czech Republic (20 %), Romania (18 %), Slovakia (18 %) and Hungary (17 %). (See Figure 3.34)

Figure 3.34: Proportion of contract award notices where the NOC procedure was used



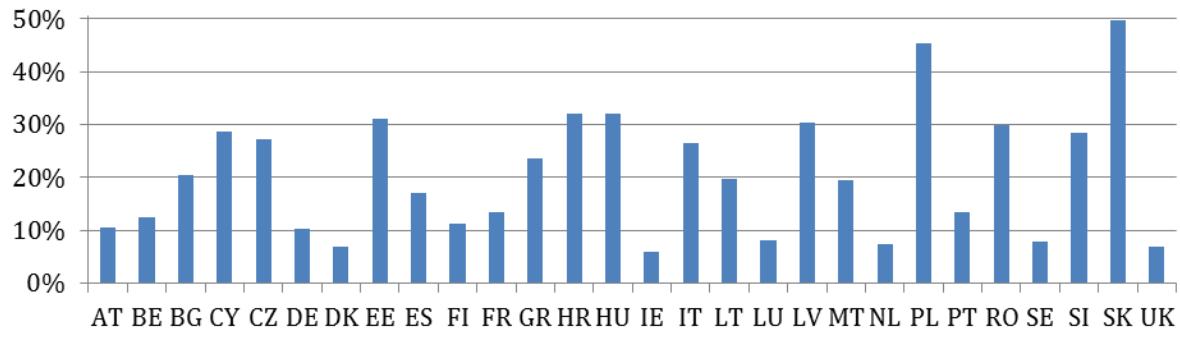
Source: European Commission based on OJ/TED data

3.2.5.5 *Competition in public procurement*

The final aim of public procurement policy is to achieve the best value for money through high levels of competition among bidders; the proportion of awards with just single bids is an indicator of low levels of competition.

At EU-28 level there were 21 % notices with just one bidder. The highest figures were for Slovakia (50 %), Poland (46 %), Croatia (32 %), Hungary (32 %), Estonia (31 %), Romania (30 %) and Latvia (32 %). The best performers were Ireland (6 %), UK, Netherlands and Denmark (each with 7 %). There is a high potential for improvement for many Member States (Figure 3.35).

Figure 3.35: Proportion of contracts for which there was a single bid (excl. frameworks) (2009–2014)



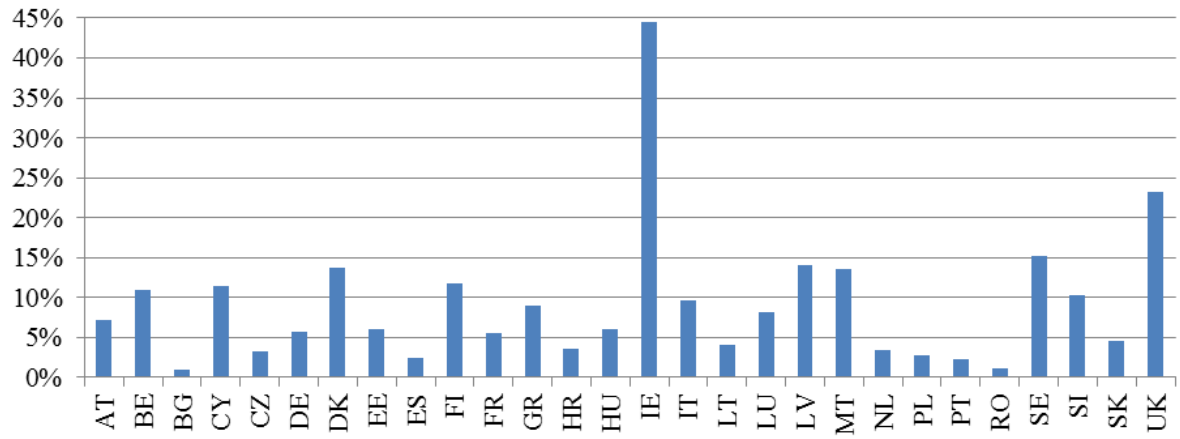
Source: European Commission based on OJ/TED data

3.2.5.6 *Aggregation of demand*

Aggregation of demand has a high potential to help public authorities obtain best value for money by incentivizing sellers to achieve economies of scale which could be shared with the authorities mainly if competition is strong (or by direct access to wholesale markets). Aggregation also has the potential to help public authorities achieve other important objectives such as social or green targets. There are two options of demand aggregation – buying through an established central purchasing body (CPB) and joint procurement with other entities. Commodities such as electricity are good examples.

At EU-28 level in 2009–2014, the average proportion of contract award notices where the contracting authority is purchasing on behalf of other contracting authorities was 9 %. There are Member States with much higher levels of aggregation than EU-28 such as Ireland (45 %) and UK (23 %), but there are also countries which much lower levels e.g. Bulgaria (1 %), Romania (1 %) and Portugal (2 %) (Figure 3.36).

Figure 3.36: Proportion of contracts award notices where the contracting authority is purchasing on behalf of other contracting authorities (either joint purchasing or central purchasing bodies) (2009–2014)



Source: European Commission base on OJ/TED data

3.2.5.7 *Good practices*

Aggregation of demand

Ireland – Savings in excess of €21 million have been achieved by the National Procurement Service (NPS) when purchasing electricity and natural gas for the public service in 2011. The NPS strategic approach to energy procurement will also ensure that the Irish public sector is on target to meet the national renewable (green) electricity requirements target of 40 % by 2020. Electricity contracts awarded in 2011 will deliver 51.9 % of electricity generated from renewable sources.

Scotland – National framework agreement for the supply of electricity for the Scottish public sector produced estimated savings of £40 million over an initial three year period; open to central government, health, local authorities, universities and colleges, other public bodies or NGOs; over 99 per cent of in-scope Scottish public sector volume is committed to this national agreement.

Italy – Consip acts as the Central Purchasing Body, procuring supplies and services for the entire Italian public sector. Following legislative measures introduced to rationalise public expenditure, the use of Consip tools is rapidly taking up (from € 3.3bn in 2012 to € 4.3bn in 2013). In 2013, the average savings generated by Consip, calculated comparing Consip prices with the average price paid by the PA for comparable goods and services, was 23 %.

Finland – Finland has an efficient central purchasing unit, Hansel Ltd, which generates savings for central government entities through easy and safe public procurement using framework agreements. In 2013,

these savings amounted to approximately 240 million euros.[153]

eProcurement

Over the years, public procurement has increasingly benefitted from electronic tools. eTools have proved to be important for simplifying the whole value-chain of public procurement, from preparing calls for tenders and uploading them for all European companies, to submitting bids and evaluating them. The simplification of the publication of notices has also made cross-border business opportunities much easier to find. Finally, an important benefit of electronic procurement, which has started to develop in recent years and is currently gaining momentum, is the use of procurement data to improve the governance of procurement systems and detect procurement anomalies. Whilst e-procurement has been introduced across the EU, the following are examples of good practices:

Czech Republic – zIndex is a tool created for benchmarking public procurement across ministries, municipalities, and other public institutions. Each institution has a graphically attractive profile with a score according to a transparent methodology and is given space to explain its performance. The tool has been created by researchers at the Charles University in Prague.

Portugal – Portugal has been a pioneer in the implementation of e-procurement. The Portuguese legislator made an effort to modernise public procurement, altering the public procurement regime to include new possibilities arising from technological developments. As a result the tender process was made almost completely electronic[154] and in most cases tender procedures do not use any paper documentation at all: in 2011, around 62 % of all tender procedures were carried out through e-platforms, out of which 92 % with a value above the EU Directives' thresholds.[155] Following the introduction of e-procurement, Portuguese hospitals were able to achieve price reductions of 18 % on their procurement contracts. In aggregate, the switch-over to e-procurement in Portugal is estimated to have generated savings of about €650 million in the first year but could have reached €1.2 billion if all contracting authorities had fully implemented it. The potential savings amount to between 6 % and 12 % of total procurement expenditure. Most of the savings were due to lower prices resulting from higher competition (more bids per procedure), although administrative savings were also achieved.[156]

SMEs access to public procurement

Belgium – Belgium has introduced legislative measures to facilitate SME participation in public contracts. Contracting authorities are e.g. no longer allowed to request tenderers to provide facts or data which they can easily verify free of charge in an authenticated web-application database called Digiflow. The database was developed by the federal authority to facilitate the work of contracting authorities and to reduce the administrative burden of tenderers. The use of Digiflow is mandatory to the federal and regional authorities. According to a recent study conducted by DG GROW, the share of SMEs participating in public contracts is slightly higher in Belgium than the EU average (SBA Fact Sheet 2012 – Belgium). This tends to confirm that the measures taken by the Belgian authorities have at least to some extent strengthened the position of SMEs in public contracts.

3.2.6 The role of the public sector: modernisation of public administrations

Modernising public administrations is one of the priorities of the Europe 2020 strategy for growth and jobs. Public Administrations are policy makers, implementers, service providers, regulators but also investors and procurers. Thus their role in improving the competitiveness of the general business environment and creating a climate conducive to investment by the private sector, and growth for the purpose of job creation, is crucial. More specifically, a well-functioning administration facilitates investment by increasing stability, predictability and transparency and by reducing running costs for businesses through the streamlining of procedures

([153]) Hansel LTD, report of activities 2014.

([154]) E-procurement is mandatory for all public contracts with a value above the PP Directives' thresholds.

([155]) See Report on public procurement, page 10 (http://www.base.gov.pt/oop/downloads/RelContr_Pub_2011.pdf).

([156]) A strategy for e-procurement, COM(2012) 179 final, page 4.

and elimination of red tape. It also improves the business entry and exit conditions though the establishment of a simple and stable regulatory framework or through the adoption of transparent and fast insolvency procedures

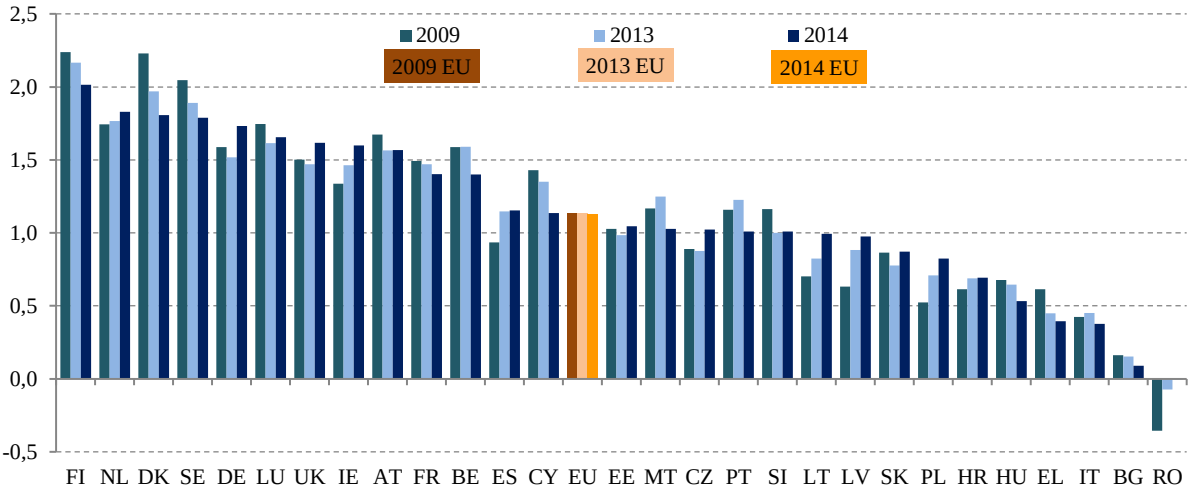
Therefore, improving efficiency in public administration and the framework conditions for business investment are key priorities. This includes streamlining the regulatory environment in which companies operate, including combating corruption. Regarding national justice system this concerns efforts to improve the quality, the independence and the efficiency of judicial systems.[157]As discussed also in chapter 1 of the report, the 2015 EU Justice scoreboard[158] shows that there are significant divergences in the effectiveness of the judicial systems across Member States, and some of them continue to face challenges relating to the functioning of their justice systems.

While most Member States are implementing or planning to implement ambitious reforms aiming at modernising public administrations and the business environment, much remains to be done. In actual fact, data shows that, on average, government effectiveness has not improved across the EU over the past five years. According to the World Bank Governance Indicators, fifteen Member States' ranking fell in 2014 compared to 2009, while fifteen Member States achieved an index reading below the EU average. (see Figure 3.37)

([157]) The 2015 EU Justice Scoreboard, COM(2015) 116 final, http://ec.europa.eu/justice/effective-justice/files/justice_scoreboard_2015_en.pdf.

([158]) Idem.

Figure 3.37: Government effectiveness



Note: The Worldwide Governance Indicators summarise information from 30 data sources on views of citizens, businesspeople and experts in the public, private and NGO sectors. Government effectiveness captures the perceptions of the quality of public service, its independence from the political process, the quality of policy formulation and implementation, and the credibility of the government commitment to policies.

Source: World Bank – Worldwide Governance Indicators

Administrative reform measures undertaken in recent years in Member States cover a variety of areas. For example, in Bulgaria, Croatia, Hungary, Italy, Romania and Slovakia new strategies to modernise national public administrations are either being drafted or have been launched. In Spain, the 2013 law on transparency, public access to information and good governance at central government level entered into force in December 2014.

Administrative simplification is also high on the agenda. France and Germany have recently adopted better regulation work programmes, in Italy a Simplification Agenda has been adopted and in Portugal and some other Member States inventories of the most burdensome regulations are being made in an effort to reduce these burdens. Other key measures to reduce administrative burden include the introduction of the only-once principle and easy-submitting principles pursued by a number of

Member States. Poland, Spain and Italy are implementing the common-commencement date principle where new regulations will enter into force only twice a year to increase regulatory predictability. Also, new initiatives to strengthen and promote digitisation of the public sector have also been launched in a number of Member States during the year such as Finland, Bulgaria, Germany and Poland.

Concerning the daily running and opening of businesses, Czech Republic and Denmark have reduced the minimum capital requirement to start a business, Greece lowered registration costs, Lithuania and the UK made tax registration faster while Malta and Spain introduced electronic systems which link government agencies, thereby simplifying procedures. In 2014 it took, on average, 3.5 days at a cost of EUR 313 to set up a private limited company in the EU (the SBA targets are 3 days and EUR 100).

Thus, while Member States are implementing or planning ambitious reforms, national administrations must keep in mind that the challenges to meeting the needs of the business community require enhancing the capacities of public administrations, a commitment to implement agreed policies and adopting a culture of continued improvement.

3.3 Remaining barriers to integration in the Single Market

The situation of the Single Market calls for attention. The stagnation of trading in the single market for goods is due to the fall in single demand in the EU following the crisis. However, there seem to be other underlying factors calling for more detailed analysis to explain why integration has stalled in this area for most countries that were part of the Union before 2004 and why trade flows have dwindled in some of them. Progress has been made in the process of integration in terms of the volume of the cross-border exchanges in services but these exchanges still represent a disproportionately low share of GDP. There is surely more potential for expansion in the cross-border trading in services within the EU.

This section presents results from recent work undertaken or commissioned by DG GROW to identify remaining barriers to integration in the single market with a significant impact of the performance of some sectors or value chains with a critical importance for the competitiveness of the EU. Other barriers are particularly harmful for the dynamic performance of the EU by limiting the growth of young and dynamic export-oriented SMEs.

The barriers presented here have a regulatory or structural nature. There are other barriers of a behavioural nature resulting from the conduct of firms and other economic agents. The most important of these are the barriers erected by firms in an attempt to fragment the single market using territorial restriction practices. The best-known case of these practices affecting e-commerce consumers is the so-called "geo-blocking".

Geo-blocking has been defined as any practice or measure preventing online consumers from accessing a web-site or purchasing goods, audiovisual contents or services based on location of access and/or nationality. Geo-filtering refers to the practice when different sales terms and conditions are applied according to the residence/nationality of the customer. Part of these practices is legitimate. Addressing unjustified geo-blocking is part of the Commission's Digital Single Market (DSM) Strategy[159] of May 2015. Geo-blocking and other restrictions based on the geographical location of the customer also form the subject of a public consultation.[160] Studies cover this matter at length.[161] Commercial practices which discriminate recipients of goods and services on the basis of nationality or residence may result in fragmentation of the Single

([159]) European Commission, *A Digital Single Market Strategy for Europe*, COM(2015) 192 final.

([160]) Public consultation on Geo-Blocking and Other geographically based restrictions when shopping and accessing information in the EU at http://ec.europa.eu/digital-agenda/en/newsroom/consultation/dsm

([161]) See for instance European Parliament, *Discrimination of Consumers in the Digital Single Market*, 2013 and Cardona, M. and Martens, B., *Supply side barriers to cross-border e-commerce in the EU*, JRC/IPTS Digital Economy Working Paper No 2014-13, 2014.

Market in forms that may or not be compatible with the Treaty and secondary legislation.[162]

In this section, we shall not dwell on commercial practices but only on those regulatory or structural barriers that are identified as particularly important for competitiveness in a number of recent case studies. Further work on these and behavioural barriers will be conducted for future reports.

These obstacles to the cross border trade within the single market are often also generic barriers to entry affecting domestic firms too. In other words, the elimination of these barriers may require well-coordinated actions at EU level to complete the single market in services, but interventions at Member State level are also necessary to remove those obstacles presenting national specificities or particular difficulties. In some cases, these may be the most effective way of eliminating some of those obstacles. This is why it is important to ensure coordination and complementarities in the reform efforts undertaken at EU and national levels as well as in the monitoring and identification of those reforms.

Complementarities between actions at national and EU levels are important in the governance of economic integration. Integration is a complex process that requires not just the elimination of legal and regulatory barriers but actual and effective market integration that can allow an efficient allocation of resources. But in addition, it is also necessary to provide the right governance environment to ensure stability and a smooth market operation.

3.3.1 Regulatory barriers in economically significant sectors for competitiveness

A recent study[163] has identified a number of infrastructure bottlenecks in logistics that add significant costs to the internationalisation of exporting EU firms. These have been grouped in three categories: barriers hampering internal demand and infrastructures; regulatory barriers; and barriers limiting the free movement of skills in the single market.

3.3.1.1 Structural barriers limiting the potential of the Single Market at present: Low demand, vast volume and enabling infrastructures

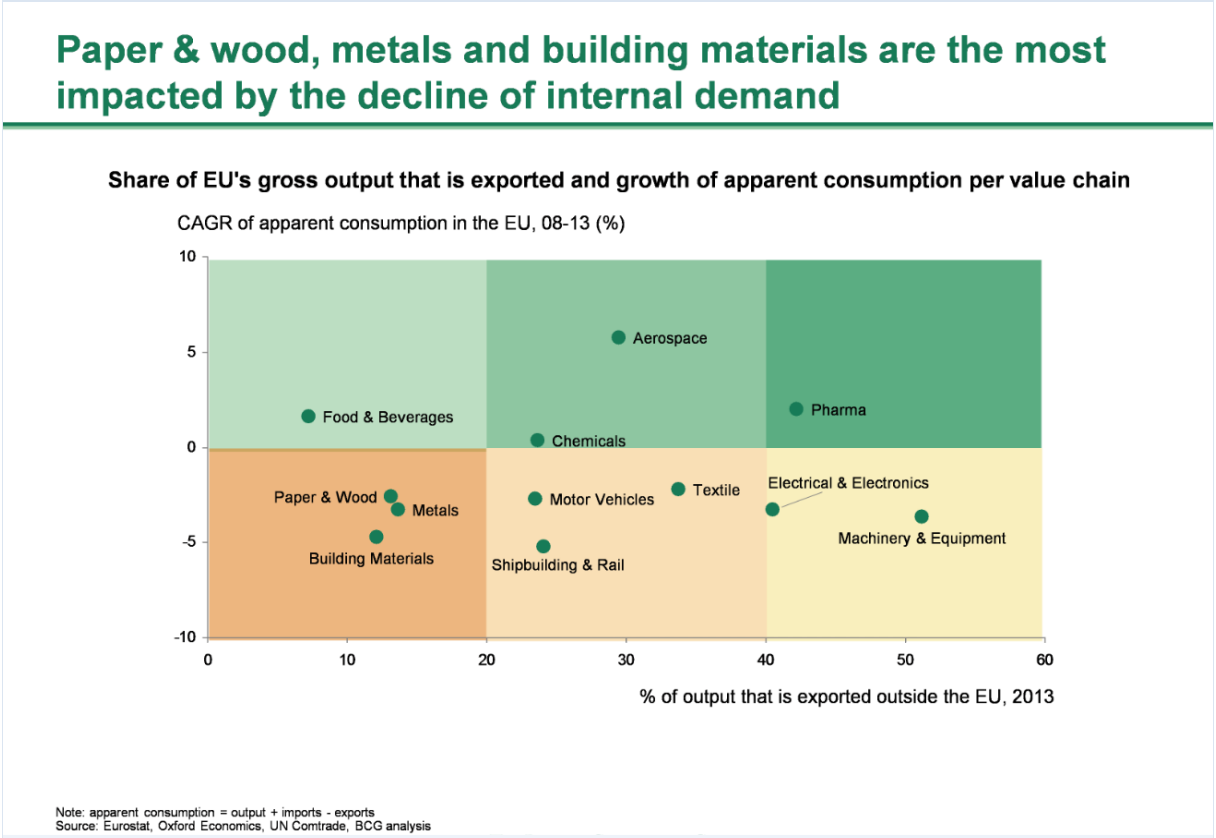
On average, around three quarters of the EU's manufacturing output is not exported outside the EU and, hence, relies on internal demand. In this regard, three types of value chains can be identified. First, in value chains such as food & beverages and building materials, exports account for less than 20 % of total production value, which means they are highly dependent on EU demand. Second, some value chains export between 20 % and 40 % of their output outside the EU. Examples include the motor vehicles and chemicals value chains. Finally, machinery and pharma are the least dependent on internal EU demand since they export over 40 % of their production (Figure 3.38).

With the sharp drop in EU demand in all value chains since 2008 – except in aerospace, pharma, food & beverages and chemicals – those with limited access to external markets have struggled more. Paper & wood, metals and building materials have been affected the most by falling internal demand since they only export between 10 % and 15 % of their gross output. In short, declining internal consumption, together with more limited access to external markets, has severely affected EU-based companies (Figure 3.38).

(162) For a detailed presentation of these practices and their compatibility with EU law see European Commission, *A partnership for new growth in services 2012-2015*, COM(2012) 261 final.

(163) Boston Consulting Group (2015), *Inventory of Europe's Industrial Assets for Growth*, October.

Figure 3.38: Proportion of the EU's gross output that is exported and growth of apparent consumption, per value chain



Source: Eurostat, Oxford Economics, UN Comtrade, BCG analysis

Single market demand for innovative products also has a significant impact on the competitiveness of certain value chains. The early adoption of new technologies in the single market allows local companies to enhance their capabilities and situate themselves at the forefront of emerging and innovative market segments.

For example, early local adoption of new types of cars and trucks, such as autonomous vehicles (AVs), could strengthen the EU's global leadership. Manufacturers can develop top-tier capabilities to serve local customers, thereby becoming more competitive to serve export markets as soon as demand ramps up in other regions.

Similarly, in the EU's textile value chain, increasing demand for fast fashion could support the EU's recovery. Fast fashion retailers require a short time-to-market. If demand for fast fashion products is strong in the EU, manufacturing textile products in the EU may become more attractive for companies since they would be able to reduce their lead times to serve their customers. Proximity to demand is becoming increasingly relevant when deciding on the location of production facilities.

Finally, infrastructures are a critical factor in avoiding bottlenecks and spurring demand. There are currently inefficiencies affecting several value chains that may limit expected demand growth. Examples include the EU's electric car charging network, which is not harmonized nor does it have enough charging stations, air traffic management (ATM) capacity, which constrains air traffic and aircraft demand growth, and fuelling stations to guarantee supplies for LNG-powered ships.

3.3.1.2 Large pool of highly qualified talent that can move freely across the EU

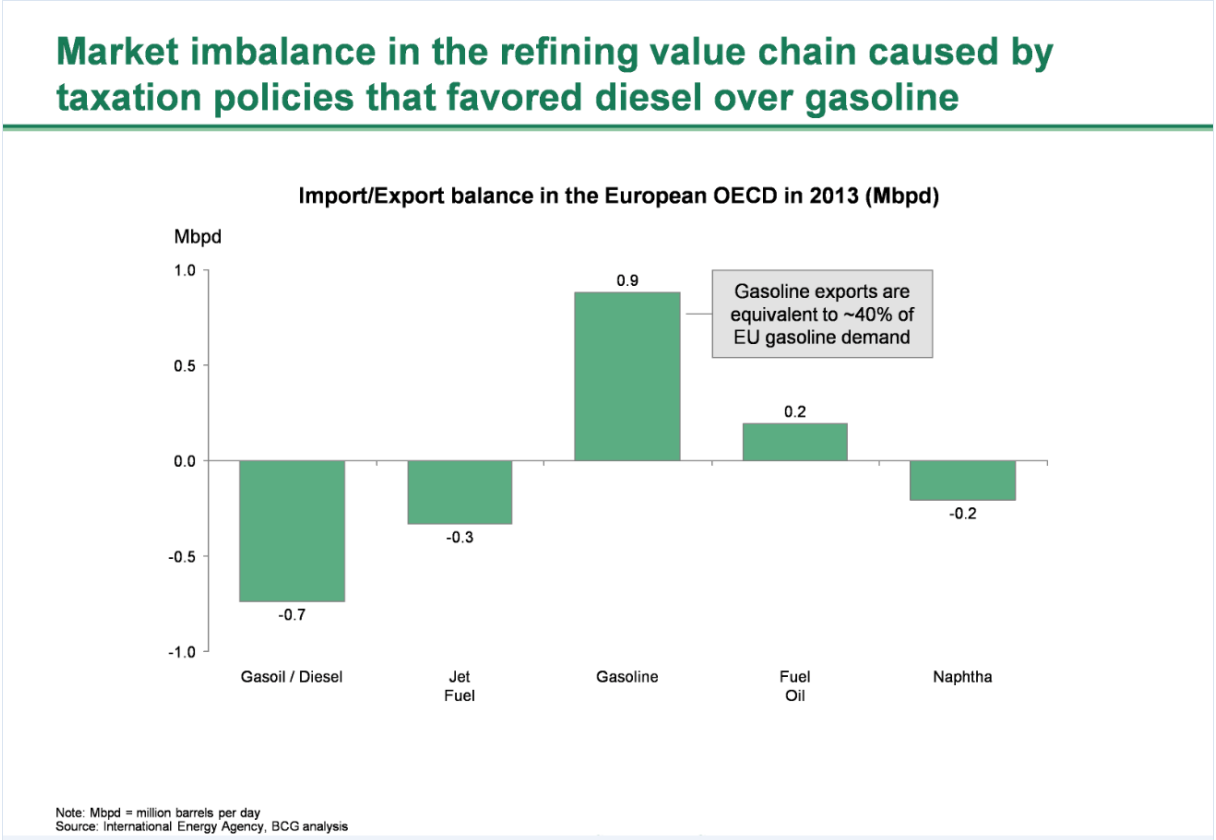
The third major single market asset is the provision of highly qualified talent. There are nearly 225 million persons employed in the EU. Despite Europe's ageing population, the number of graduates per year in the highest skill levels – ISCED levels 5 and 6 – is rising

considerably. In areas such as mathematics, computing and engineering, the number of new graduates per year has increased by 20–50 % since 2003.

In manufacturing alone, there are 31.5 million workers in the EU, which is more than Japan's and the US' manufacturing workforces combined. In tandem with the overall increasing number of highly skilled graduates, the European manufacturing workforce's average skills level has also increased in recent years.

Two elements need to be in place in order for this talent base to foster a knowledge-driven economy. Talent must have the skills that companies require, and they should be able to move freely across Member States.

Figure 3.39: Import/export balance in European OECD countries in the refining value chain (2013)



Source: Eurostat, European Commission, IEA, BCG analysis

Even though Europe's economy has been recovering from the recession, unemployment has continued to be significantly higher than before the recession. The overall unemployment rate has reached 10 %, an increase of 3 percentage points since 2008. More importantly, the youth unemployment rate is twice as high, with over 22 % of those under the age of 25 remaining unemployed (Fig 3.39). This problem is particularly severe in countries such as Spain or Greece, where more than half of the youth population does not have a job.

According to Eurofound's survey, the EU suffers from a severe skills mismatch. Only 57 % of EU employees hold jobs that match their skills. The remaining employees are either overeducated, which is a key issue in Greece and Lithuania, or undereducated, which mostly takes place in the most advanced countries. For example, approximately 30 % of employees are under-qualified in France, Ireland and Finland. In addition, the limited cross-national data available suggests that occupational mismatch still persists for tertiary graduates, with 25 % of them having jobs that would traditionally be viewed as not requiring a tertiary qualification.[164]

([164]) European Commission, *Education and Training Monitor 2015*, Staff Working Document, http://ec.europa.eu/education/tools/et-monitor_en.htm.

Due to this mismatch, 39 % of firms in Europe have difficulties finding talent with the required skills; up from 35 % in 2005. When analyzing countries, the three Baltic States fall behind when compared to the rest of the EU. Moreover, manufacturing companies face more difficulties than the general economy's average. In European industry, 43 % of firms have skills matching issues, while the figure is only 30 % for companies from the financial services sector. Multiple factors explain these difficulties, including less attractive working conditions, such as geographical location, or poor recruiting policies.

3.3.2 Barriers affecting SMEs and the special case of exporting start-ups

Given their flexibility, number and weight in the economy, SMEs play a very important role in the EU. However, the relatively small size of many SMEs means many of them cannot venture beyond their regional or national market. Fixed costs of entry in export markets, difficulties to access capital and market failures specific to the activities of SMEs discourage many SMEs to internationalise.

The percentage of SMEs selling their goods and/or services to at least another Member State or to a third country reflects these difficulties. According to Eurostat figures, only 17 % of firms buy from another Member State and 9 % beyond EU borders. The share of SMEs selling in the single market is limited to 14 % while 10 % export to third countries. These percentages vary considerably across Member States, ranging from 39 % of SME intra-EU exporters in Estonia to 4.6 % in Malta. (see table 3.3)

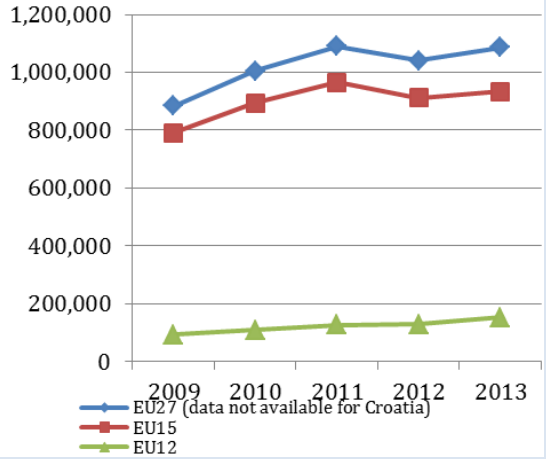
Table 3.3: Internationalisation of SMEs in and beyond the Single Market

	Share of SMEs involved in **intra-EU** trade of goods in 2012		Share of SMEs involved in **extra-EU** trade of goods in 2012	
	Imports	Exports	Imports	Exports
Austria	58,74%	27,08%	16,23%	15,67%
Belgium	66,67%	34,33%	15,01%	11,05%
Bulgaria	17,09%	15,35%	9,14%	7,77%
Croatia	22,01%	12,57%	15,03%	10,32%
Cyprus	24,38%	5,13%	14,40%	5,02%
Czech Republic	7,62%	7,63%	2,81%	2,38%
Denmark	37,04%	24,39%	23,77%	21,19%
Estonia	38,95%	39,24%	18,02%	14,39%
Finland	27,67%	10,61%	12,67%	11,82%
France	4,95%	8,18%	7,27%	9,39%
Germany	38,91%	29,30%	14,39%	15,10%
Greece	8,23%	5,70%	7,17%	6,26%
Hungary	21,01%	17,30%	5,83%	4,81%
Ireland	31,38%	17,72%	49,50%	31,15%
Italy	15,72%	16,29%	7,89%	14,21%
Latvia	37,19%	25,33%	10,34%	9,49%
Lithuania	19,00%	16,12%	8,21%	9,13%
Luxembourg	28,63%	20,47%	17,82%	11,13%
Malta	20,90%	4,55%	18,03%	6,97%
Netherlands	4,75%	5,26%	12,95%	9,09%
Poland	11,55%	11,44%	4,90%	5,93%
Portugal	25,70%	17,45%	4,96%	9,11%
Romania	21,35%	12,97%	6,56%	4,42%
Slovakia	14,96%	8,40%	2,33%	1,78%
Slovenia	35,92%	20,61%	12,21%	12,57%
Spain	5,77%	5,75%	6,93%	10,42%
Sweden	20,15%	14,38%	13,32%	13,59%
United Kingdom	14,19%	15,64%	13,49%	14,05%
EU	17,05%	14,12%	8,60%	10,20%

Source: Eurostat

The share of EU SMEs selling to another EU country did not increase between 2008 and 2012, while the share of exporters to the rest of the world went up to 10.2 % in 2012 from 9.09 % in 2008. The volumes of exports of SMEs have remained relatively stable since the 2010 recovery (see Figure 3.40). However, the evolution of EU-15 is different from the EU-13 minus Croatia. The latter display a steady growth while for the EU-15 SMEs exports have remained stagnant in recent years.

Figure 3.40: Exports of goods by SMEs to the EU-28 (million Euros)



Source: to be added

The EU has a clearly defined policy in support of SMEs to help them overcome the obstacles to trade, especially in the single market. Traditional theory about international business suggests that companies first establish a solid home market and go global only in later stages of their life cycle.

However, this view is challenged by research that shows that some firms internationalise quickly after start-up – so-called 'born globals'. "Born global" (BG) start-ups are enterprises[165] that, soon after inception, intensively engage in international activities. They can be found in all sectors of the economy, but their product/service portfolio is characterised by a high level of innovation, technology and/or exclusive design. They fill important gaps in global value chains. Data from the Global Entrepreneurship Monitor (2011) show that they constitute about 2.5 % of all SMEs and 12 % of young enterprises. Similar results can also be shown from national data for Austria, Estonia and Sweden.

Born global start-ups are particularly important for the dynamic development of the EU economy.

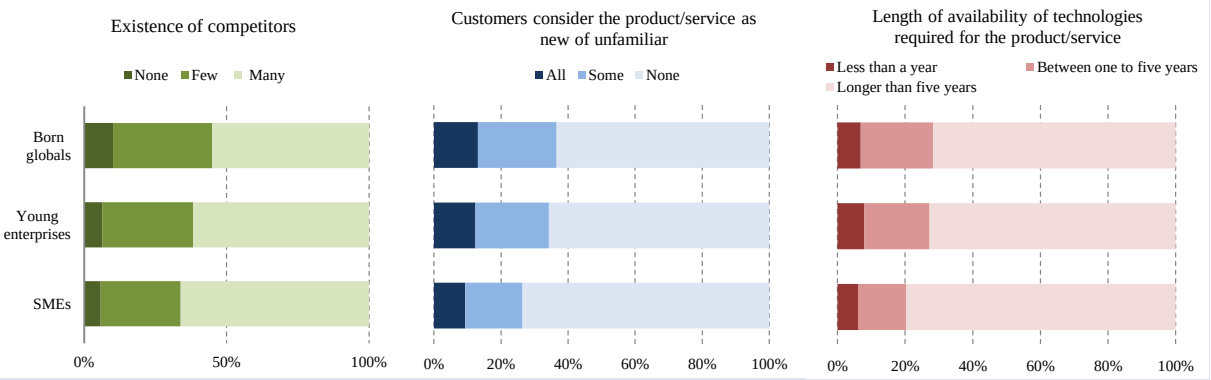
Available data highlight that BG start-ups are more **innovative** than other SMEs.[166] More competitive firms that bring new products and services to market are also likely to outlast and outgrow their competitors. 45 % of European BG start-ups indicate to have none or only few competitors, compared to about one-third of SMEs. 37 % of born globals consider their products/services new for their customers while 26 % of SMEs do so. Finally, about 30 % of both BG and other start-ups assess that the technology required for their products has been available for a maximum of five years, while only 20 % of SMEs are confronted with such short life cycles. (See Figure 3.41)[167]

([165]) There is no standardised/harmonised definition of BG start-ups,. Eurofound (2012) suggests a 'European definition' of born globals including among others the following elements: It has been started, is a spin-off, or has been a business transfer; it has an active, strategic intention to internationalise; it has an export share of at least 25 % of total sales during at least two of these first five years; it is active in at least two foreign countries, with 'close markets' (as regards geographic and cultural distance or language) also being considered as different markets. All served countries can be within Europe.

([166]) Innovativeness was measured by managers' and owners' answers to three following questions: 'Right now are there many, few, or no other business offering the same products or services to your potential customers?', 'Do all, some or none of your potential customers consider the product/service as new and unfamiliar?', 'Have the technologies or procedure required for this product or service been available for less than a year, or between one to five years. Or longer than five years?'.

([167]) Similar results can also be shown by national data. In Austria, around three-quarters of BG star-ups introduced at least one new product, service or method between 2010 and 2012, compared to around 70 % of young enterprises and SMEs. In Sweden, around 70 % of these firms significantly improved or developed new products and/or services in the past three years, compared to around half of young enterprises and SMEs. Sources: *Survey of the Austrian Institute for SME Research on behalf of the Austrian Federal Economic Chamber, 2013; Survey of the* Swedish Agency for Economic and Regional Growth, 2014.

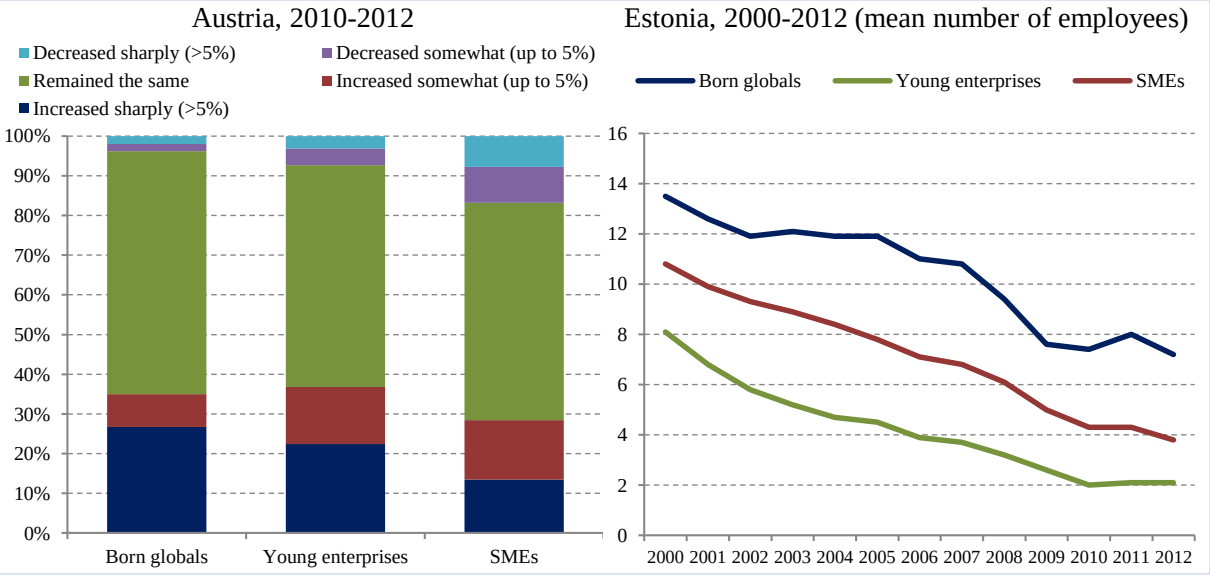
Figure 3.41: Innovativeness by type of company, selected Member States (2011)



Source: GEM 2011 APS

BG start-ups are also comparatively dynamic **job creators** and likely to create high-quality and sustainable jobs and might also have some labour market integration effects, particularly for youth. GEM data from 2011 show that on average in European countries, these firms employ 9.6 staff, compared to 5.6 in other start-ups (up to 3.5 years) and 6.7 in SMEs in general. As shown by the examples of Estonia and Austria in graph 3.42 BG start-ups also show a greater employment potential than other start-ups or SMEs in general.

Figure 3.42: Employment change by company type, Austria and Estonia



Source: Survey of the Austrian Institute for SME Research on behalf of the Austrian Federal Economic Chamber, 2013; Statistics from Estonian foreign trade data combined with business registry data

The dynamism of the EU economy could be significantly improved if the single market provided a more favorable environment for the creation, expansion and growth of BG start-ups. A number of case studies at EU and EU level provide evidence of problems currently faced by this type of exporting start-ups. Born globals face some specific challenges that hamper their potential. Some of these problems are also common to SMEs in general, but they often present special for BG start-ups difficulties given the nascent nature or high export intensity of these firms. These problems affect not just to their exporting activities but also to their sourcing of key human and capital inputs.

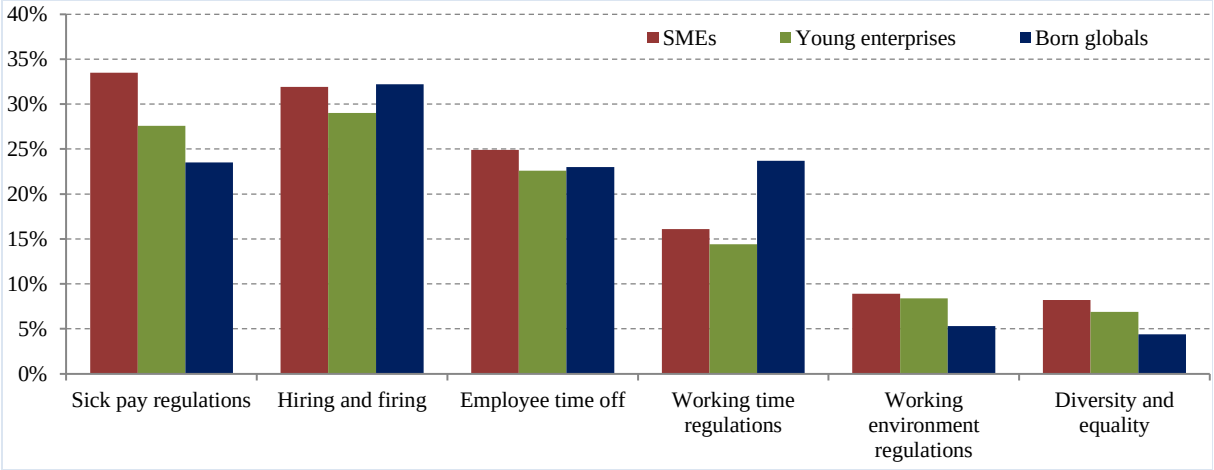
- **Access to finance**: the fragmentation of the single market for capitals is an additional handicap for the creation of BG start-ups. These companies often require specific financing products that take into account the

provision of risk or other forms of venture capital with the risks associated to the exporting activities. These products are not equally available across the single market. Even in Member States with a diversified availability of financial products, these companies report special difficulties. For instance, 28 % of Swedish BG start-ups report limited access to loans as an obstacle for business development/growth, compared to 16 % of other start-ups and 13 % of companies in general.[168]

- **Business environment**: The fragmentation of the single market in national markets with different national regulations requires additional efforts for BG start-ups to market their products or services in different EU markets as well as beyond EU borders. These differences in legislations and regulations act as entry barriers limiting the extension of the activities of these firms. For example, among Swedish BG start-ups, laws and government regulations are mentioned as a large obstacle to business development and growth by almost 40 % of the entrepreneurs, compared to about 20 % for SMEs in general. This could refer to the number of legal pieces a company has to familiarise itself with and adhere to, their complexity and continuous changes which make it time consuming for a born global to stay updated. Furthermore, long procedures, e.g. for authorisations, might hamper the company development (see Figure 3.43).

([168]) Survey of the Swedish Agency for Economic and Regional Growth, 2014.

Figure 3.43: Labour law related growth obstacles by company type, Sweden (2014)



Source: Survey of the Swedish Agency for Economic and Regional Growth, 2014

- **Migration legislation**: Due to their international orientation and experienced lack of skills in the home market, BG start-ups often need to be open to hire foreign workers. As regards non-European candidates, several of the interviewed entrepreneurs mentioned unfavourable migration legislation as a barrier for job creation. Lengthy and difficult-to-understand application processes make it difficult for them to recruit international talents from outside the EU.
- **Labour law**: The rigidity or lack of flexibility of labour legislation and the complexity and frequent changes make it difficult for SMEs to handle them in practice. The Austrian Working Time Act has been mentioned as a barrier for employees who are working abroad on a regular basis and may wish to work longer hours abroad to benefit of compensatory time-off when they return. Between one-tenth and one-third of Swedish SMEs report various elements of labour legislation to be an important obstacle for their business development and growth.[169] However, a lower share of start-ups that have been identified to be more dynamic in job creation than SMEs on average – encounter

([169]) Survey of the Swedish Agency for Economic and Regional Growth, 2014

these problems. This includes both exporting and non-exporting start-ups.

3.3.3 Remaining barriers to the free circulation of construction products: Barriers created by national or quality marks

The construction sectors show relatively low levels of integration. Intra-EU exchanges in construction services represent a low percentage of total exchanges, well below the share of construction activities on GDP. The same applies to the cross-border presence of Foreign Affiliates in other Member States. The European Parliament (2014) study[170] includes a case study on the situation in construction materials. It reports on different barriers affecting in particular SME operators in this sector. A change from directives to regulations is estimated to have a non-negligible impact on the sector.

To improve the situation in the construction materials sector, the Construction Products Regulation (EU) No 305/2011 (CPR) entered into full force on the 1 July 2013, replacing the Construction Products Directive 89/106/EEC (CPD). A recent study has shown considerable improvements as a result of the Regulation. For instance, evidence indicates that clarifying the obligations of economic operators has been effective in terms of increasing legal certainty and transparency regarding the rules. In turn, the improved understanding of companies has facilitated their ability to comply with the CPR and made enforcement of the legislation easier for Market Surveillance Authorities (MSAs). The legal certainty provided by these provisions has also increased the respect of legal obligations by economic operators.

The main objective of the CPR – compared with the CPD – was to facilitate the consolidation of the Single market for construction products through, inter alia, simplification, clarification and increasing the credibility of the legislative framework for construction products. Under the CPR, the CE marking shall be the only mark to attest conformity of construction products with characteristics covered by harmonised standards. Furthermore, CE marked construction product must be allowed free movement onto the market of all EU Member States (Article 8(3) and 8(4) CPR).

Quality marks are permitted under the CPR, so long as they do not cover essential characteristics and fulfil a different function to the CE marking affixed under the CPR. Member States are not permitted to stipulate that a construction product must attain additional national marks or approvals, over and above those required by the CPR, before it can be legally marketed within their territory.

Prior to the CPR, it was evident that trade in construction products across Member States had been impeded in various countries, some of which had been referred to the ECJ. For instance, in 2008, the ECJ found that the practice of Belgian authorities encouraging economic operators to obtain Belgian marks of conformity prior to the marketing of construction products that had been manufactured/marketed in accordance with the CPD in another Member States, infringed the free movement of goods principle (Article 34, Treaty on the Functioning of the European Union).

More recently, a case was brought against Germany where the ECJ ruled in favour of the Commission with regard to the application of the German Ü mark administered by the German Institute for Construction Technology (DIBt).

A study recently conducted for the Commission concerning the implementation of the CPR (final report dated 15 September 2015, conducted by RPA) concludes that mandatory CE marking of construction products under the CPR has not enhanced the free movement of construction products, partially because national and quality marks are still in use in many Member States (mainly in DE, FR, NL and UK, but also in AT, BE, DK, PL, ES and SE). According to the study, stakeholders report the existence of marks linked with national standards, *de facto* mandatory marks (for example, cases where quality marks are requirements imposed under public procurement rules or by insurers) and of market-driven quality marks (which are recognised and highly rated by customers and consumers) which restrict market access to construction products. Where these practices exist, it is SMEs who are hit hardest, as larger companies can

([170]) EPRS (2014), *The Cost of Non-Europe in the Single Market*, http://www.europarl.europa.eu/RegData/etudes/STUD/2014/510981/EPRS_STU(2014)510981_REV1_EN.pdf.

rely on their good reputation and resources to obtain additional marks.

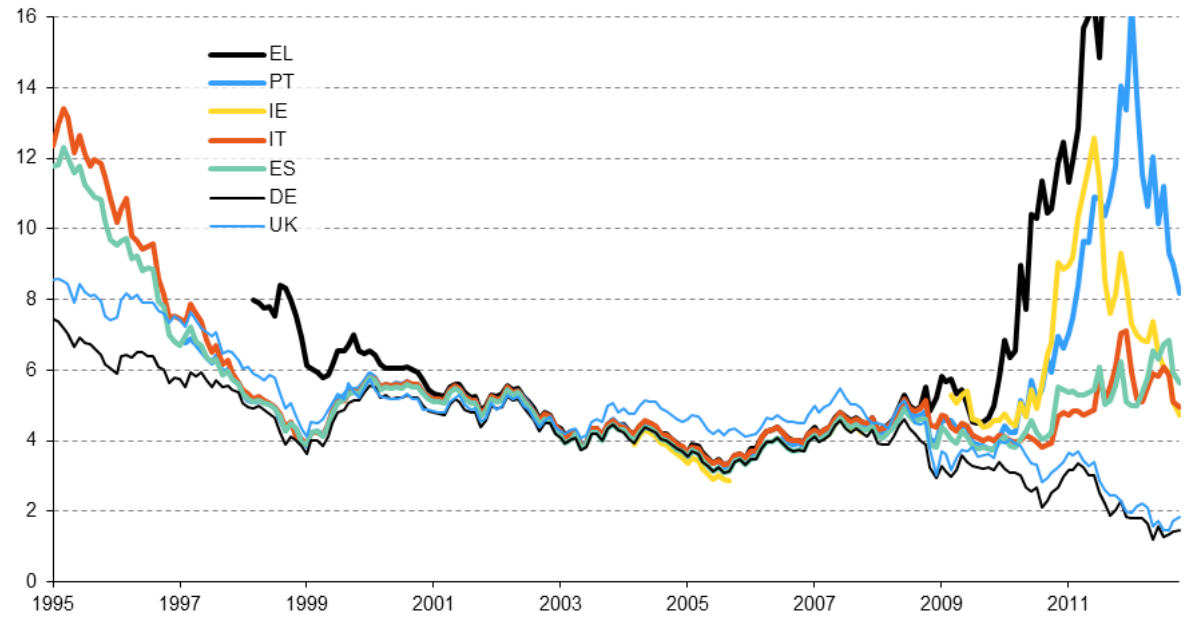
Based on the study findings and on the ECJ judgements, it is recommendable that Member States analyse the situation in their territories to address the market access issues which could be created by national or quality marks.

4.1 Single Market for Financial Services before the crisis: Financial convergence and increased cross-border capital flows during EMU

The creation of EMU and the successive enlargement of the euro area has given rise to rapid financial convergence since the late 1990s. Financial integration is a key element of the single market and has brought significant benefits to EU Member States. However, as pointed out elsewhere in this report, economic convergence has not progressed steadily over time and has been accompanied by significant imbalances.[171]

([171]) This is a contribution of the Directorate General for Financial Stability, Financial Services and Capital Markets Union (DG FISMA).

Figure 4.1: Yields on 10-year government bonds (%)



Source: Bloomberg

In the run-up to the introduction of the euro, a remarkable convergence of interest rates towards the lowest level took place. The expectation was that ever-closer trade relations and increased coordination of economic policies would reduce remaining differences across Member States.[172] But whereas certain Member States based their growth model on competitiveness and growing export market shares, others opted for a model based on credit-driven domestic demand. As a result, the latter group of countries persistently lost competitiveness and experienced higher than average inflation rates, higher unit costs of labour, and higher deficits on their current account in that period. Economic fundamentals, country-specific risks, and national policies diverged increasingly and were not offset by correction mechanisms at the supranational level. Moreover, an inadequate perception and evaluation of risks by market participants, in some cases encouraged by statements from international organizations or prominent academics, also contributed to a lack of correction of growing

([172]) This was the expectation when the Council tasked the Commission in 2001 to monitor on a regular basis the evolution of financial integration in EMU; see the monitoring document published on an annual basis at: http://ec.europa.eu/finance/financial-analysis/reports/index_en.htm.

macroeconomic imbalances that built up during the first decade of EMU.

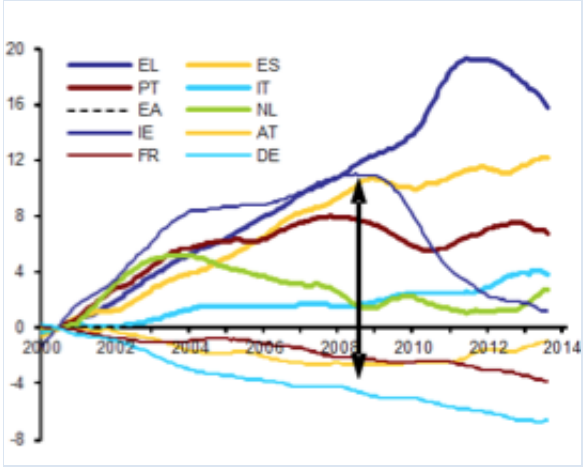
As a result, sovereign debt interest rates of euro area countries converged remarkably in the run-up to EMU and continued to move in lockstep throughout EMU (until the September 2008 global financial crisis and more in particular the May 2010 euro area sovereign debt crisis) (Figure 4.1). At the same time, the introduction of the euro reinforced the global growth in cross-border capital flows, thanks to the elimination of exchange rate risk (Lane and Miles-Ferretti (2008)). The surge in cross-border capital flows occurred mainly through portfolio debt flows (bank-based debt driven capital flows).

4.2 Significant divergences in economic fundamentals during EMU giving rise to imbalances and capital misallocation

Since its creation and up to the global financial crisis of 2007/8 and the euro area sovereign debt crisis in 2011/12, EMU has been characterized by its unique institutional framework with a single monetary policy but primarily national fiscal, economic, and financial policies (including supervision of financial institutions, financial crisis management, and deposit insurance). In this setting, low labour and/or capital mobility and limited fiscal transfers across countries make Member States potentially vulnerable to asymmetric external shocks or persistent differences in current accounts, wages costs or inflation.

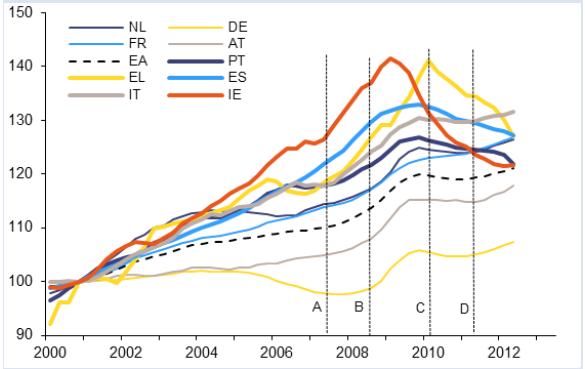
Figures 4.2 and 4.3 exhibit the divergences in Member States' economic fundamentals, such as inflation rates and unit labour costs. As a result of the diverging economic fundamentals, significant imbalances in the current and capital account had been built up over the pre-crisis period (Figure 4.4).

Figure 4.2: Cumulative inflation since 2000



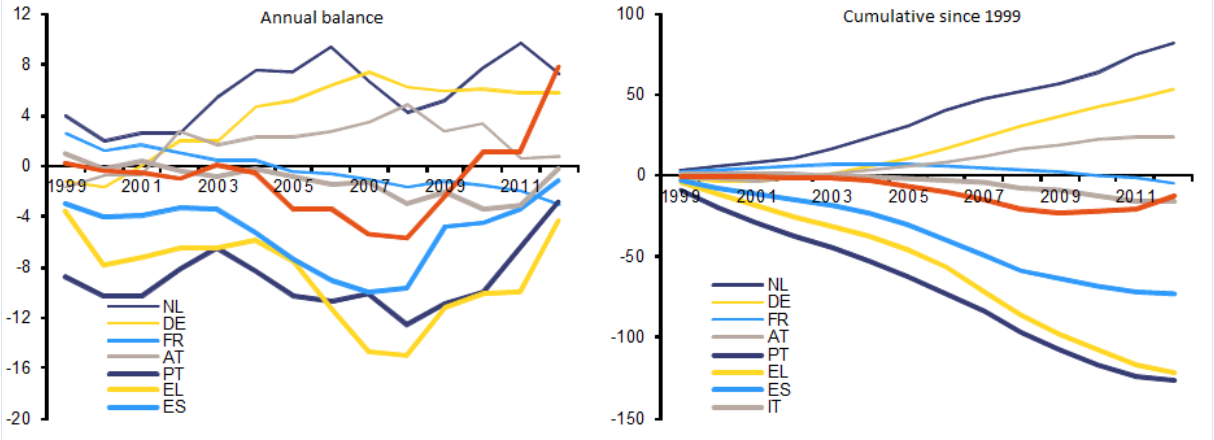
Source: ECB and own calculations.

Figure 4.3: Unit labour cost, 2000=100



Source: ECB and own calculations. ()

Figure 4.4: Current account balance (% GDP)



Source: Bloomberg

In some Member States growing current account deficits were financed by increasing and mostly short-term capital inflows, predominantly in the form of cross-border debt via the banking system. Moreover, longer-term capital flows were often financing activities such as real estate development that have strong immediate effects on economic activity but with limited impact on long-term growth; dynamic real estate investment also contributed and in some cases was driving growing credit bubbles in some countries. However, growth dynamics dominated by credit financed consumption spending and real estate investment successfully attracted savings from other parts of the monetary union as well as from the rest of the world, deepening the mis-allocation of resources towards the least productive uses.

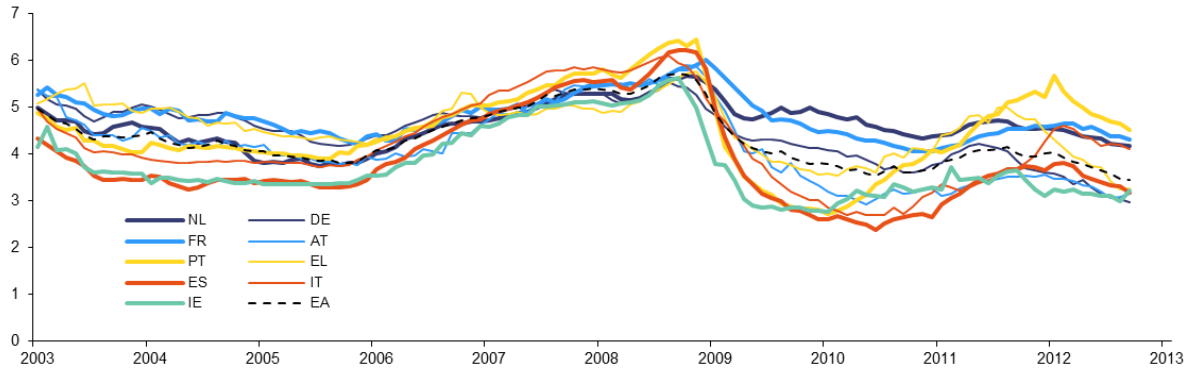
When the international financial crisis broke in 2007-2008, market perceptions were reviewed, including financial and country risks. Short-term capital movements to countries with severe macroeconomic imbalances stopped and reversed, starting a severe and disruptive process of adjustment that would widen up further the gap in financing conditions among Member States. The apparently high level of integration in the Eurozone financial markets vanished and monetary policy transmission mechanisms stopped functioning adding to the difficulties of the recovery.

4.3 Single Market for Financial Services in the wake of the financial crisis

4.3.1 Dispersion and fragmentation in credit conditions

Interventions to rescue the banks pushed public deficits up significantly in 2009. The fiscal situation of some Member States became unsustainable and investors were no longer willing to finance the deficits and refinance the debt roll-overs. The problem was worsened by the lack of sovereign debt restructuring mechanisms, suggesting that a sovereign default would be disorderly. In addition, a sovereign default would give rise to major difficulties for domestic and foreign banks, and hence indirectly other Member States. Banks have a home bias towards holding sovereign debt of the home country but often hold sizeable portfolios of other countries bonds as well. Banks also are often exposed to each other.

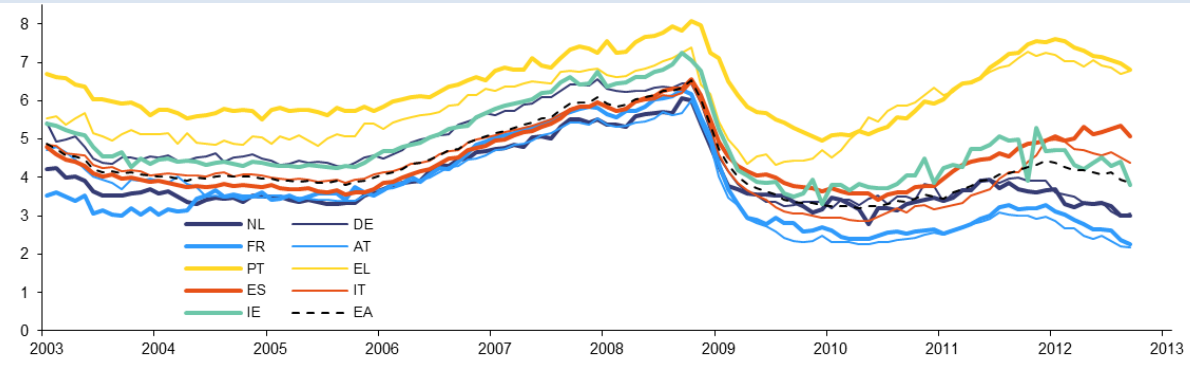
Figure 4.5: Interest rates on mortgages (%)



Note: Data for new loans

Source: European Central Bank

Figure 4.6: Interest rates on loans to SMEs (%)



Note: Data for new loans

Source: European Central Bank

The fate of banks and Member States in the euro area turned out to be highly interconnected giving rise to a vicious circle between states and banks: Insolvent states threaten to take down their banks because banks hold large amounts of sovereign debt on their balance sheets (in particular of the home country) and because their stability depends on the public trust in the robustness of the public safety nets. Insolvent banks threaten to take down their sovereigns because of the disproportionate amount of required government interventions (capital injections and debt guarantees).

In sum, the global financial and euro area sovereign debt crisis has shown that financial integration also carries financial stability risks. An integrated and properly regulated financial system with a stable and predictable governance system can contribute very effectively to the adjustment process when asymmetric shocks hit by ensuring liquidity and more stable lending conditions in the economies in difficulty. Deprived of the right regulatory and governance conditions, financial integration turns fragile and renders financial markets less effective to contribute to the recovery.

Financial integration, if not properly regulated, may unravel and give rise to renewed fragmentation. Triggered by the crisis, cross-border bank exposures declined after 2008 and cross-border credit flows reversed again, in particular in interbank market. Banks focussed increasingly on "core" and home markets and meeting domestic lending commitments. Financing costs became increasingly dispersed across countries. The divergence of sovereign yields in a context of strong connection between banks and sovereigns resulted in financial fragmentation and segmentation of risks along national borders. Banks located in countries with difficulties found increasing difficulty in refinancing on the market, due to the perceived poorer quality of the collateral they were holding. Cross border activity dropped across the board. The segmentation of bank funding costs was

passed on to retail borrowers and non-financial firms (Figure 4.5).

4.3.2 Importance of Banking Union to break the bank-state nexus

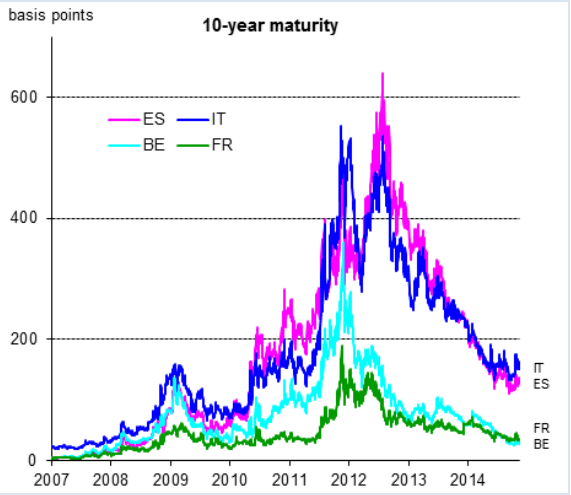
A number of extraordinary interventions and European financial assistance mechanisms provided an impressive safety net[173] for Member States, but these crisis mechanisms did not deal with the bank-sovereign nexus, the fragmentation of the EU banking sector, the heterogeneity in bank supervision, and the distortions arising from banks being European (global) in life, but national in death. Insolvent states threaten to take down their banks because banks hold large amounts of sovereign debt on their balance sheets[174] (in particular of the home country) and because their stability depends on the public trust in the robustness of the public safety nets.

Banking Union was announced on 29 June 2012, following a historical meeting of euro area heads of state. Banking Union refers to the framework in which banking sector policy decisions are taken and executed at the level of participating countries (euro zone and member states outside the euro zone that wish to participate), in particular regulation, supervision, and resolution.[175]

Banking Union is mainly defined by two of these policies, known as the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM). The SSM transfers the power to grant or withdraw banking licenses and related supervisory duties from national authorities to the ECB, effective since 4 November 2014 (after a rigorous Asset Quality Review and stress-test).

The objectives of Banking Union are to break the nexus between banks and states described above, to ensure that a common high-quality supervision is applied consistently to all banks, to ensure a stable cross-border EU banking system through supranational resolution, and to build the necessary trust between member states as a necessary condition to introduce common public financial safety nets (such as the European Stability Mechanism or ESM).

Figure 4.7: Sovereign spreads for selected countries over 10-year German bund, 1 January 2007 to 1 January 2015



Source: Bloomberg.

The political announcement of Banking Union was the game changer the ECB needed to, in turn, launch its unprecedented Outright Monetary Transactions (OMT) programme.[176] The OMT programme signalled the ECB's readiness to buy sovereign bonds of distressed member states, under certain conditions, in order to ensure the effectiveness of monetary policy throughout the euro area. So, the major reversal in sovereign spreads on Italian and Spanish

(173) Alongside the EFSM, EFSF and ESM, funding from the International Monetary Fund (IMF) and possible ECB (European Central Bank) purchases of sovereign debt on secondary markets was made available; for Member States that have not yet adopted the euro, the Balance-of-Payments (BoP) assistance was used.

(174) The zero risk weights and hence capital requirements on sovereign exposures, the exclusion of zero risk weighted sovereigns from existing limits within the applicable large exposure regime, and the categorisation of high-quality government bonds as highly liquid assets in the EU regulatory framework for banks have also promoted the nexus. See also the 2015 "ESRB report on the regulatory treatment of sovereign exposures".

(175) A single deposit insurance is not part of the Banking Union framework, but it is highlighted in the 5 Presidents report of June 2015 (http://ec.europa.eu/priorities/economic-monetary-union/docs/5-presidents-report_en.pdf) as a crucial reform to complete the Economic and Monetary Union and to address the bank-sovereign negative feedback loops which were at the root of the financial .c

(176) The OMT was announced in general terms on 2 August and in more technical detail on 6 September. It was alluded to already by ECB President Draghi in London on 26 July 2012, when he stated that "*we think the euro is irreversible… Within its mandate, the ECB is ready to do whatever it takes to preserve the euro.*" President of the European Council Herman Van Rompuy in a speech noted that "the European Central Bank was only able to take this OMT decision because of the preliminary political decision, by the EU's Heads of State and Government to build a Banking Union. This was the famous European Council of June 2012, so just weeks before Mr Draghi's statement in London; he himself said to me, during that Council, that this was exactly the game-changer he needed."

debt vis-à-vis German Bund, visible in Figure 4.7 in July 2012, can be attributed to the introduction of Banking Union and related flanking measures.

4.3.3 Importance of CMU for the financing of the EU real economy

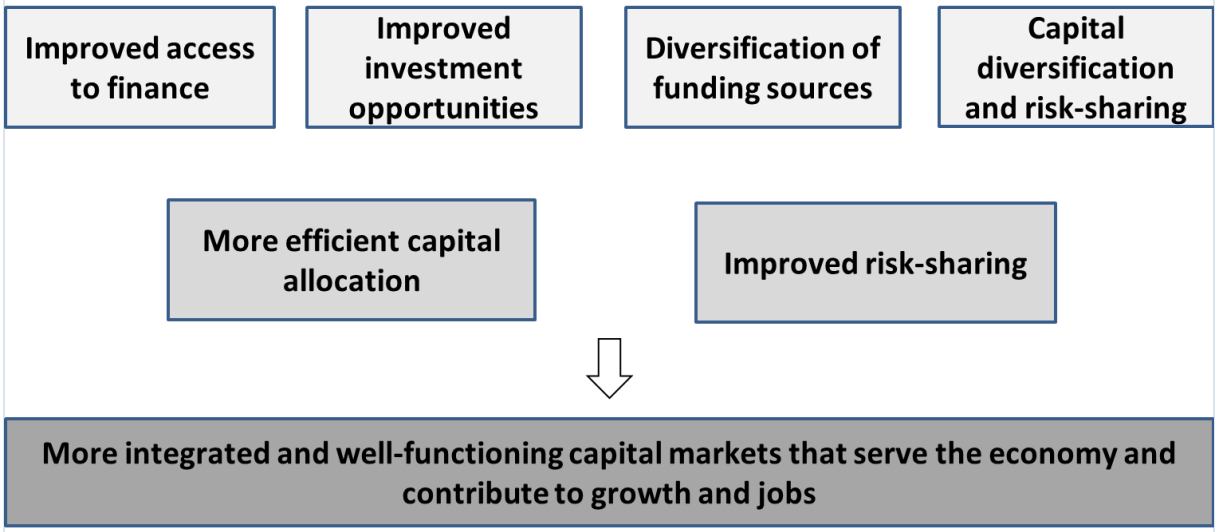
The Capital Markets Union (CMU) is a complement to the regulatory financial reform agenda enacted after the financial crisis and to the Banking Union. While the latter provide stability and resilience to financial markets by creating a safer regulatory environment, CMU will make a critical contribution to the financing of the real economy of the EU.[177]

The CMU is aimed at rebalancing the sources of financing in Europe by making capital markets stronger, which will complement Europe's strong tradition of bank financing. It will offer to both borrowers and investors a broader set of financial instruments to meet their needs, and better connect financing to companies and investment projects across the EU. The CMU wants to help complete the single market for financial services, which will foster competition and make capital markets deeper, more liquid and more efficient. This will bring three main advantages to companies seeking finance (Figure 4.8): (i) improve their access to finance, (ii) optimize their capital costs by creating competition among investors, and (iii) reduce the risk of disruption in financing by diversifying their funding sources. On the investors' side, the benefits come from more investment opportunities. Efficient capital markets offer investors a broader set of financial products to (i) meet their investment objectives, (ii) diversify and manage their risks, and (iii) optimize their risk-return profile, while respecting their investment constraints – whether in terms of risk, duration, or other assets' characteristics. This results in a greater mobilisation of resources and an optimized allocation of investors' capital.

Non-bank financing does not merely substitute for investment that was previously funded by banks, but it enables additional investment that banks would not be ready to fund. In fact, non-bank financing tends to be better suited to fund riskier investment projects (with a higher required rate of return), and is also generally more flexible than bank finance. Overall, capital markets (especially equity investment) facilitate entrepreneurial and other risk-taking activities, which have a positive effect on economic growth. Capital markets enlarge the potential investor base, because they act in complement to bank financing.

([177]) For a detailed analysis we refer to the CMU Action Plan published on 30 September 2015 as well as the accompanying economic analysis Staff Working Document (see http://ec.europa.eu/finance/capital-markets-union).

Figure 4.8: A stylised view of the economic benefits of integrated and well-functioning capital markets



Source: European Commission (Directorate General Financial Stability, Financial Services and Capital Markets Union)

The CMU goes beyond previous initiatives to foster the single market for financial services and deepen financial integration. The CMU shares some economic objectives with its predecessor, the Financial Services Action Plan (FSAP), which led to the adoption of 42 regulatory measures, including 24

legislative measures between 1999 and 2004.[178] The FSAP also aimed at reducing obstacles for cross-border financial investment, thereby unleashing efficiency gains through higher competition and realisation of scale effects and allowing better diversification of risks on integrated financial markets. The CMU focuses on remaining obstacles to cross-border investment and the role of non-banks in the EU financial system.

([178]) FSAP was followed by the Commission White Paper on Financial services policy 2005-2010, which focused on implementation and enforcement of existing regulation and on delivering targeted improvements in the existing regulatory and supervisory frameworks.

4.4 Business financing remains a concern, although of a less pressing nature

Access to finance remains a concern for European businesses, even if it is becoming a less pressing one.[179] Financial flows to SMEs are increasing but remain subdued. On the monetary side, Quantitative Easing (QE) by the European Central Bank (ECB) is having a stronger than expected impact on financial markets, contributing to lower interest rates and expectations of improving credit conditions.

SMEs continue to be disadvantaged compared with large firms in terms of interest rates and the overall cost of borrowing. Also, more innovative enterprises experience more problems than less innovative enterprises.[180]

Financing conditions for SMEs continue to differ significantly across Member States. SMEs consider financing as the most pressing problem in Cyprus, Greece and Slovenia; and as the least pressing in Sweden, the Czech Republic and Denmark. Comparing across different types of enterprises, SMEs in the construction sector consider the problem of access to finance the most pressing.

4.4.1 Bank financing is improving overall, but difficulties subsist for several SMEs

There has been an overall improvement in bank financing conditions. On average, SMEs perceive bank loans to be available. Bank lending rates have been trending downwards since the third quarter of last year. The average loan duration remains stable and loan amounts are increasing overall.

Yet, there is a slight increase in the rejection of bank loans applications by SMEs. The highest rejection of loan application is reported by SMEs in the Netherlands (39 %), Lithuania (36 %), Greece (27 %), Latvia (30 %) and Slovenia (24 %). However, the relevance of bank loans as a source of financing may differ between member states, as well as the size of SME sector. The difficulties of accessing bank loans are particularly affecting smaller and younger companies. The highest rejection rate (20 %) is among micro enterprises employing fewer than 10 people. In addition to the problem of loan applications being rejected, 18 % of successfully applying companies received less than they applied for and 4 % declined the loan offer from the bank because they found its cost unacceptable. This means that more than a third of SMEs didn't get all the financing they asked their banks for in 2014.[181]

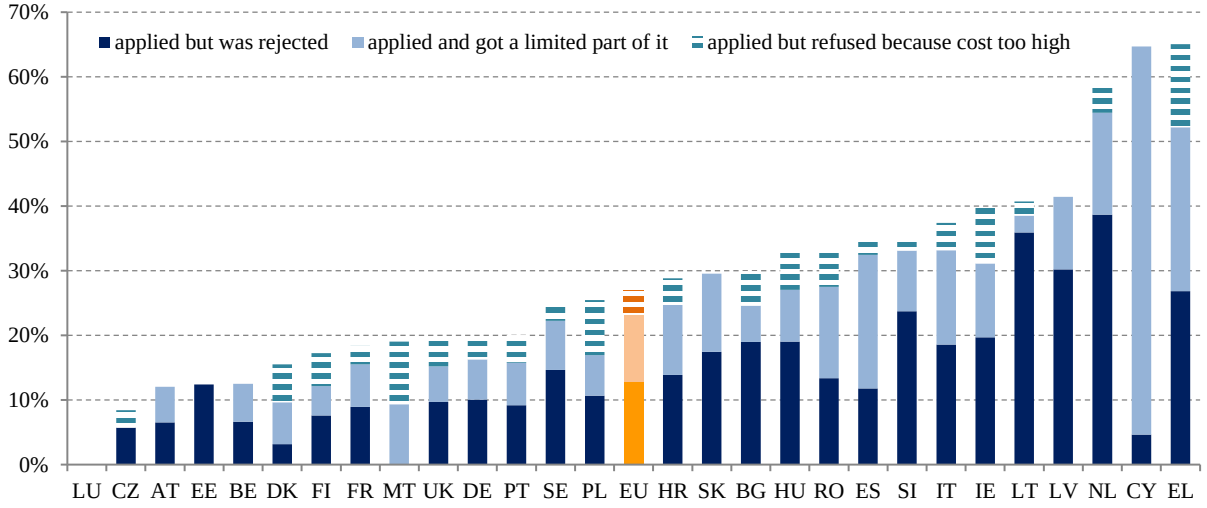
SMEs also report a substantial net increase in collateral and other requirements for bank loans. Collateral requirements are considered as tightened by SMEs in all EU countries, with the highest average increase in Cyprus, Greece and Slovenia.

([179]) According to the European Commission's and the ECB's latest *Survey on the Access to Finance of Enterprises* (SAFE), access to finance moved down from being the third to being the fifth most pressing problem for euro area SMEs compared to the previous survey round.

([180]) European Commission, *Survey on the Access to Finance of Enterprises in the euro area*, November 2014.

([181]) European Commission, *SME access to finance survey*, November 2014.

Figure 4.9: SMEs not receiving most of the amount of bank loan requested (as % of total SMEs requesting bank loans)



Source: European Commission - European Central Bank SAFE survey (2014)

Financial market fragmentation along national lines has diminished, but remains too high. This fragmentation hinders the development of deep and liquid markets, impeding the flow of finance within the EU and with the rest of the world. Bank lending rates have gradually showed less dispersion across Member States, yet significant spreads remains. Indeed, interest rates above 7 % are reported in Portugal and Greece, while SMEs in Austria, Belgium and Luxemburg report rates below 4 %. In dynamic terms, the highest net percentage of SMEs reporting an increase in interest rates were in Italy, Cyprus and Slovenia, while a net decrease was reported in Sweden, Belgium, Germany and France.

4.4.2 Policy response at national level

Loan guarantee systems have been the preferred policy measure to ease bank lending. Their scope and financial allocation have been broadened during the credit constraint. Furthermore, their efficiency has been enhanced by improving and speeding up administrative procedures. Yet, as bank financing conditions improve, it is expected that their role in supporting the financing of businesses will decrease.

In parallel, measures have been taken to facilitate the access and transfer of financial information (such as in the United Kingdom and Spain). Also, the establishment of development finance institutions in several Member States has continued. The institution being set up in Portugal received its financial company license in September 2014, while a single development bank has been established in Latvia this year. Malta is currently considering the possibility of creating a development bank.

Other policy measures to ease SME access to finance recently adopted by Member States include enhancing public venture capital funds (e.g. Finland, Malta, Spain) and establishing a regulatory framework for peer-to-peer lending (e.g. Finland, Netherlands, Spain).

4.5 Conclusions

The crisis has shown three things. First, there is a direct relationship between the financial markets and those for goods and services. Secondly, there are risks from incomplete integration and that governance structures must be adapted to market changes and the stage of integration achieved. Finally, failures in the process of integration in one area of the EU economy can have dear consequences for the rest, because a large economy needs to ensure high levels of efficiency in the allocation of resources to be competitive but also to remain stable and resilient to shocks.

Economic studies indicate clearly that the "…members of a union can share risk via cross-ownership of productive assets, facilitated by a

developed market, and may smooth consumption by adjusting the composition and size of their asset portfolio."[182]

To reap the full benefits of financial integration on a sustainable basis, the governance and institutional framework must evolve together with increased integration. Before the crisis, there were no supranational tools to monitor cross-border risks or to control the build-up of imbalances, and there were no tools to engage in coordinated crisis management and resolution.[183]

Cross-border openness of private financial markets and highly mobile capital flows cannot be paired with incomplete national-based supervisory, regulatory and crisis management arrangements. This dichotomy is detrimental in two ways; it prevents, in normal conditions, a reaping of the full benefits of the removal of barriers to cross-border movements of capital and financial services; and it impedes, in crisis times, even-handed action to maintain financial stability that is consistent across the euro area. The resulting fragilities become more apparent under stress.

Financial integration, properly regulated, will remain a powerful tool to attain higher standards of freedom, equity and welfare for society as a whole. New investment and diversification opportunities should become available for households as well as firms. Financial integration should do away with impediments inherent in the current structure of the EU financial system that prevent further allocative efficiency and optimal risk sharing. In addition, more sound governance, supervisory and regulatory framework will transform integrated financial markets into useful instruments to provide stability and resilience to the real economy against asymmetric shocks. Breaking up the bond between public finances and the banking system will provide a more stable and reliable source of financing to the real economy.

The 5 Presidents Report of June 2015[184] outlines the ways through which closer coordination of economic policies can be achieved to ensure the smooth functioning of the Economic and Monetary Union. Progress must happen on four fronts: first, towards a *genuine Economic Union* that ensures each economy has the structural features to prosper within the Monetary Union. Second, towards a *Financial Union* that guarantees the integrity of our currency across the Monetary Union and increases risk-sharing with the private sector. This means completing the Banking Union and accelerating the Capital Markets Union. Third, towards a *Fiscal Union* that delivers both fiscal sustainability and fiscal stabilisation. And finally, towards a *Political Union* that provides the foundation for all of the above through genuine democratic accountability, legitimacy and institutional strengthening.

Several advances have been made and continue to be made. On 30 September 2015, the Commission presented its Action Plan towards Capital Markets Union (CMU),[185] along with several initiatives.[186] It sets out the steps that the Commission will take over the next years in order to establish a CMU by 2019. The CMU Action Plan foresees thirty three actions in six main areas: (i) Financing for innovation, start-ups and non-listed companies; (ii) Making it easier for companies to enter and raise capital on public markets; (iii) Investing for long-term, infrastructure and sustainable investment; (iv) Fostering retail and institutional investment; (v); Leveraging banking capacity to support the wider economy; (vi) Facilitating cross-border investment. The CMU will ensure more diversified sources of finance so that companies, including SMEs, can tap capital markets and access other sources of non-bank finance in addition to bank credit. At the same time, a well-functioning CMU will strengthen cross-border risk-sharing through deepening integration of bond and equity markets, the latter of which is a key shock absorber. Truly integrated capital markets will also provide a buffer against systemic shocks in the financial sector and strengthen private sector risk-sharing across countries.

([182]) Sorensen and Yosha (1998). As a matter of fact, in the USA 62 % of shocks are absorbed by market transactions and only 13 % by federal tax transfers (Asdrubali et al. (1996))

([183]) Financial prudential regulation has long been a subject of EU competence, but financial supervision and financial crisis resolution remained purely national prerogatives. This situation was even true in the euro area where the single currency resulted in even greater market integration than in the EU in general, yet financial stability policy was no more integrated there than in the EU. As a result, both the EU in general and the euro area in particular were ill-prepared to deal with the financial crisis.

([184]) http://ec.europa.eu/priorities/economic-monetary-union/docs/5-presidents-report_en.pdf.

([185]) COM(2015)468 final.

([186]) http://ec.europa.eu/finance/capital-markets-union/index_en.htm.

Abiad, A., Leigh, D., Mody A., (2007), *International Finance and Income Convergence: Europe is different*, IMF Working Paper WP/07/64.

Allen, F., (1993), *Stock markets and resource allocation*, in: Colin Mayer and Xavier Vives (eds.) *Capital Markets and Financial Intermediation*, Cambridge University Press, pp. 81-108.

Allen, F. and Gale, D., (1999), *Corporate Governance and Competition*, Center for Financial Institutions Working Papers 99-28, Wharton School Center for Financial Institutions, University of Pennsylvania.

Amoroso, S., Moncada-Paterno-Castello, P. (2015), *Profits, R&D and the demand for labour*, JRC-IPTS Working Papers on Corporate R&D and Innovation (forthcoming).

Asdrubali, P., Sorensen B.E., Yosha, O. (1996), *Channels of Interstate risk sharing: United States 1963-90*, Quarterly Journal of Economics 111, 1081-1110.

Barkbu, B., Pelin Berkmen, S., Lukyantsau, P., Saksonovs, S., Schoelermann, H. (2015), *Investment in the euro area, why it has been so weak?*, IMF working paper WP/15/32, International Monetary Fund.

Bauer, M., Lee-Makiyama, H., van der Marel, E., Verschelde, B., (2014), *The costs of data localisation: friendly fire on economic recovery*, ECIPE OCCASIONAL PAPER No. 3/2014, European Centre for International Political Economy.

Bekaert, G., Campbell, H.R., Lundblad, C. (2005), *Does financial liberalisation spur growth?*, Journal of Financial Economics, 77, 1, 3-55.

Black, B. S. and Gilson, R. J. (1998), *Venture capital and the structure of capital markets: Banks versus stock markets*, Journal of Financial Economics, 47, 3, pp. 243-277.

Blanchard, O. (2004), *The Economic Future of Europe*, Journal of Economic Perspectives, 18(4): 3-26.

Bloomfield, M.J., Brüggemann, U., Christensen, H.B., Leuz, C. (2015), *The Effect of Regulatory Harmonization on Cross-Border Labor Migration: Evidence from the Accounting Profession*, Chicago Booth Research Paper No. 15-03, January 2015, http://ssrn.com/abstract=2551569 or http://dx.doi.org/10.2139/ssrn.2551569

Brännback, M., Carsrud, A.L., Kiviluoto, N. (2014), *Understanding the Myth of High Growth Firms*, Springer, New York.

Brynjolfsson, E. and McAfee, A. (2014), *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*, W. W. Norton & Company.

Boston Consulting Group (2015), *An Inventory of Europe's Industrial Assets for Growth: Identification of key assets in manufacturing value chains*, Study carried out for the European Commission, DG GROW.

Cecchini, P., Catinat, M. and Jacquemin, A. (1988), *The European Challenge – 1992, the benefits of a single market*, Wildwood House Ltd.

Centre for European Policy Studies (CEPS) and Economisti Associati (2013), *Assessment of cumulative cost impact for the steel and aluminium industry*, Study for the European Commission, DG GROW

CEPR (2002), *Financial market integration, corporate financing and economic growth*, European Economy, Economic Papers No. 179, European Commission.

Citi (2015), *Global Economics View – poor productivity, poor data, and plenty of polarisation*, Citi Research, August 2015.

Cordes, A., Gehrke, B., Römisch, R., Rammer, C., Schliessler, P., Wassman, P. (2015), *Identifying revealed comparative advantages in an EU regional context*.

Coviello, D., Mariniello, M. (2014) *Publicity requirements in public procurement: Evidence from a regression discontinuity design*, Journal of Public Economics, 2014, vol. 109, issue C, pages 76-100.

Dabla-Norris, E., Guo, S., Haksar, V., Kim, M., Kochhar, K., Wiseman, K., Zdzienicka, A. (2015), *The New Normal: A Sector-level Perspective on Productivity Trends in Advanced Economies*, IMF Staff Discussion Notes No. 15/3, March.

Demirgüç-Kunt, A., Feyen, E., Levine, R. (2013), *The evolving importance of banks and securities markets*, The World Bank Economic Review, 27, 3, pp. 476-490.

EAG (1996), *The development of foreign direct investment flows in the EU due to the internal market programme*, European Commission.

EBRD (2014), *Innovation in transition*, Transition report 2014, November 2014.

ECB (2012), *The benefits of the EU's single financial market revisited in the light of the financial crisis*, Special feature on Financial integration in Europe, April 2012.

ECB (2015), *Survey on the access to finance of enterprises (SAFE), October 2014 to March 2015*, June 2015.

ECORYS et al. (2015), *An empirical assessment of the contribution of clusters to smart specialisation*, report for the European Commission, DG GROW.

Ernst & Young in cooperation with Danish Technological Institute (2014), *Study on E-Government and the Reduction of Administrative Burden*, Study prepared for the European Commission.

ESRB (2014), *Is Europe Overbanked?*, Reports of the Advisory Scientific Committee, No. 4, June.

ESRB (2015), *ESRB report on the regulatory treatment of sovereign exposures*.

Eurofound (2015), *Upgrading or polarisation? Long-term and global shifts in the employment structure: European Jobs Monitor 2015*, Publications Office of the European Union, Luxembourg.

Europe INNOVA (2012), *Guide to resource efficiency in manufacturing: experiences from improving resource efficiency in manufacturing companies*, Greenovate! Europe E.E.I.G., May 2012.

European Central Bank (2015), *Financial integration in Europe*, April 2015

European Commission (1997), *Economic evaluation of the internal market*, European Economy No. 63.

European Commission (2008), Staff Working Document, *The concept of clusters and cluster policies and their role for competitiveness and innovation: Main statistical results and lessons learned*, SEC (2008) 2637.

European Commission (2009), *Communication on "Preparing for our future: Developing a common strategy for key enabling technologies in the EU*, (COM(2009) 512 final.

European Commission (2013), *Product Market Review 2013*, Publications Office of the European Union, Luxembourg.

European Commission (2014), *Economic review of the financial regulation agenda*, SWD(2014) 158 final.

European Commission (2014), *Infrastructure in the EU: Developments and Impact on Growth*, Occasional paper 203.

European Commission (2014), *European Cluster Panorama 2014*, European Cluster Observatory

European Commission (2014), *Public Procurement as a Driver of Innovation in SMEs and Public Services* (guidebook).

European Commission (2014), *Survey on the Access to Finance of Enterprises in the euro area*, November 2014.

European Commission (2014), *The economic impact of professional services liberalisation*, DG ECFIN, Economic Paper 533/2014.

European Commission (2015), *A digital Single Market Strategy for Europe – Analysis and Evidence*, Staff Working Document, SWD(2015) 100 final.

European Commission (2015), *A Single Market Strategy for Europe – Analysis and Evidence*, SWD(2015) 202 final.

European Commission (2015), *EU Structural Change 2015*, DG GROW, Office for Official Publications of the European Communities, Luxembourg.

European Commission (2015), *First annual report*, Key Enabling Technologies (KETs) Observatory, May 2015.

European Commission (2015), *Study on the compliance by Member States on the time needed to get licences and permits to take up and perform the specific activity of an enterprise*, June 2015.

European Commission (2015), *Innovation Union Scoreboard 2015*, DG GROW, http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index_en.htm.

European Commission (2015), *Innobarometer survey on innovation trends at EU enterprises*, Flash Eurobarometer 415.

European Commission (2015), *Eurobarometer survey on European businesses and public administration*, Flash Eurobarometer 417.

European Commission (2015), *Regulatory Fitness Check for the Petroleum Refining Sector*, Staff Working Document

European Commission (2015), *Energy Union Package: A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy*, COM(2015) 80 of 25 February 2015, http://ec.europa.eu/priorities/energy-union/docs/energyunion_en.pdf

European Commission (2015), *Energy Economic Developments: Investment perspectives in electricity markets*, Institutional paper 003/July 2015, DG ECFIN

European Commission (2015), *Country Report Slovenia 2015*, Staff Working Document, SWD(2015) 43 final/2

European Parliamentary Research Service (EPRS) (2014), *The Cost of Non-Europe in the Single Market - 'Cecchini Revisited': An overview of the potential economic gains from further completion of the European Single Market*, by Zsolt Pataki, CoNE 1/2014

European Public Administration Network (EUPAN) (2015), *EU Quality of Public Administration Toolbox*.

European Union (2015), *Quarterly Report on the Euro Area*, 14(2), Publications Office of the European Union, Luxembourg.

Federal Ministry of Science, Research and Economy, Austria (2015), *Investing in Europe's Future. Restarting the Growth Engine*, Vienna, June 2015

Fernald, J. (2014), *Productivity and potential output before, during and after the great recession*, NBER, Working Paper no. 20248, 2014).

Frey, C.B., Osborne, M.A. (2013), *The future of employment: how susceptible are Jobs to computerisation?*, OMS Working Paper, 2013.

Garcia-Santana, M., Moral-Benito, E., Pijoan-Mas, J., Ramos, R. (2015), *Growing like Spain: 1995-2007*, ECARES, mimeo 21 July.

HM Treasury and Cabinet Office (2015), *Review of economic statistics: call for evidence*, August 2015

I-COM (2014), *Conflitto tra poteri, rischio regolatorio e impatto sugli investimenti esteri*, Istituto per la Competitività, Policy Paper 01/14.

IDC-EY (2013), *Digital Entrepreneurship Monitor*.

Kukenova, M. (2011), *Financial liberalisation and allocative efficiency of capital*, World Bank Research Working Paper, No. 5650.

Lane, P. and Milesi-Ferretti, G.M. (2008), *The drivers of financial globalisation*, The Institute for International Integration Studies Discussion Paper Series, No. 238.

Linklaters (2014), *Set to revive: Investing in Europe's infrastructure*
http://www.linklaters.com/pdfs/mkt/london/6380_LIN_Infrastructure%20Report%20FINAL_WEB.PDF

London Economics (2012) *Quantification of the macro-economic impact of integration of EU financial markets – Final report to the European Commission*, Directorate General for the Internal Market and Financial Services.

Maican, F. and Orth, M. (2012), *A Dynamic Analysis of Entry Regulations and Productivity in Retail Trade*, IFN Working Paper No. 939, 2012

Marinello, M., Sapir, A., Terzio, A. (2015), *The long road towards the European single market*, Bruegel W. P. 2015/01.

McGowan, M.A., Andrews, D., Criscuolo, C., Nicoletti, G. (2015), *The future of productivity*, OECD report, July 2015.

Meng, C. and Pfau, W. D. (2010), *The Role of Pension Funds in Capital Market Development*, https://ideas.repec.org/p/ngi/dpaper/10-17.html

Miller, B. and Atkinson, R. (2014), *Raising European Productivity Growth through ICT*, Information Technology and Innovation Foundation Report, Washington, June.

Monteagudo, J., Rutkowski, A., Lorenzani, D. (2012) *The economic impact of the Services Directive: A first assessment following implementation*, European Commission, European Economy Economic Papers, No. 456, June 2012, http://ec.europa.eu/economy_finance/publications/economic_paper/2012/ecp456_en.htm.

NIW, wiiw, ZEW (2015), *Identifying revealed comparative advantages in an EU regional context*, Study carried out for the European Commission, DG GROW.

OECD (2009), *Measuring Capital - OECD Manual*, 2nd edition.

OECD (2014), *Recommendations of the Council on Effective Public Investment Across Levels of Government*.

OECD (2015), *Going for growth: Breaking the vicious circle*.

OECD (2015), *Government at a Glance 2015*, OECD Publishing, Paris.
http://dx.doi.org/10.1787/gov_glance-2015-en

Olley, G. S., Pakes, A. (1996), *The dynamics of productivity in the telecommunications equipment industry*, Econometrica 64: 1263–1297.

Piketty, T. (2014), *Capital in the Twenty-First Century*, Cambridge, MA: Belknap Press.

PwC (2014), *The sharing economy – sizing the revenue opportunity*.

PwC (2015), *Exploring the potential role of human, physical and knowledge capital investments in a smart specialisation context*, Study for the European Commission, DG GROW.

PwC, London Economics and Ecorys (2011), *Public procurement in Europe: cost and effectiveness*, Study prepared for the European Commission.

Ramboll Management (2011), *Cross-border procurement above EU thresholds*, study for the European Commission.

Rocholl, J. and Niggemann, T. (2010), *Pension Funding and Capital Market Development*, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1571126

RWI (2015), *Labour market transitions in turbulent times*, Research Project Report for EUROFOUND, RWI Projektberichte.

Saha, D., Fikri, K. and Marchio, N. (2014), *FDI in U.S. metro areas: the geography of jobs in foreign-owned establishments*, Brookings Institution, June 2014.

Sirkin, H.L., Zinser, M., Rose, J.R. (2014), *The Shifting Economics of Global Manufacturing, How Cost Competitiveness is Changing Worldwide*, Boston Consulting Group.

Sorensen, B. and Yosha, O. (1998), *International Risk sharing and European Monetary Unification*, Journal of International Economics, 45, 211-238.

Special task Force (Member states, Commission, EIB) on investment in the EU (2014), Final Task Force Report, December 2014

Stehrer, R., Leitner, S., Marcias, M., Mirza, D., Stöllinger, R. (2015), *The future development of EU industry in a global context*.

The Conference Board (2015), *Productivity Brief 2015, Global Productivity Growth Stuck in the Slow Lane with No Signs of Recovery in Sight*.

Timmer, M.P., Los, B., Stehrer, R. and de Vries, G.J. (2013), *Fragmentation, incomes and jobs: an analysis of European competitiveness*, Economic Policy, 28(76), 613–661.

Van Ark, B., O'Mahony, M. and Timmer, M.P. (2008), *The Productivity Gap between Europe and the US. Trends and causes*, Journal of Economic Perspectives, Volume 22, Number 1, Winter 2008, Pages 25–44

Vandenbussche H. (2014), *Quality in Exports*, Economic Paper 528, DG ECFIN, European Commission.

Vrontisi, Z., Kitous, A., Saveyn, B., Vandyck, T. (2015), *Impact of low oil prices in the EU economy*, European Commission, DG JRC, IPTS.

wiiw (2015), *Identifying revealed comparative advantages in an EU regional context*, study for the European Commission.

World Bank Group (2015), *Doing Business 2015: Going Beyond Efficiency*, World Bank.

World Economic Forum (2008), *The Global Competitiveness Report 2008 – 2009*, Global Competitiveness and Benchmarking Network, Geneva.

World Economic Forum (2013), *The Global Competitiveness Report 2013 – 2014*, Global Competitiveness and Benchmarking Network, Geneva.

World Economic Forum (2014), *The Global Competitiveness Report 2014 – 2015*, Global Competitiveness and Benchmarking Network, Geneva.