# Economic Effects of the European Single Market

## Review of the empirical literature

Kommerskollegium
National Board of Trade

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# Foreword

The single market was launched in 1992, to make the principles of free movement for goods, services, capital and persons a reality across Europe. The removal of barriers should pave the way for improved economic performance, through enhanced allocation of resources and greater opportunities for trade and travel. The National Board of Trade has reviewed the empirical literature on the economics of the single market, in order to assess how well the removal of barriers has gone and, accordingly, what the economic effects have been.

The benefit of the single market is currently being questioned by various policy makers and citizens, and suggestions have been made to limit the free movement. It is therefore necessary to collect and present the available knowledge on the single market, for the purpose of a well-informed debate.

The report was written by Erik Dahlberg.

Stockholm, May 2015

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# Summary

The European single market, launched in 1992 as an upgrade of the common market, is an extensive legal and political project, created and maintained to improve the economic performance of Europe. Through the free mobility of the inputs and outputs of production across a greater market, European firms should be forced, but also have greater ability, to innovate and compete, thus raising economic growth. When the debate over the "added value of Europe" is loud and questions are being raised over the possibilities to limit the free movement, it is important to assess what the single market has – and has not – delivered.

This literature review examines the empirical literature in order to assess what the economic effects of the single market actually have been, along with an account of the analytical methods that have been employed. The focus is thus on *ex post* analyses and reports, culminating in sixteen stylised facts on how the single market, through the free movement of goods, services, capital and persons, has affected the economic landscape of Europe. The review both has an intrinsic value for anyone who is interested in European (economic) politics, but can also serve as a point of departure for future analyses of the single market.

The general result is that the single market has had a significant positive impact on European GDP. Furthermore, this effect primarily seems to have run through the free movement of goods and capital – the intra-EU trade and investment flows have experienced significant increases since the implementation of the single market. In turn, this has been reflected in increased competition, more innovation and more product varieties, all of which are growth- and welfare enhancing. However, the single market does not seem to have affected the flows of services and people to a significant extent.

There are no robust findings of increased trade in services between member states attributable to the single market, nor are there any signs of increased competition or productivity in services sectors. However, there is so far no available *ex post* analysis of the effects of the Services Directive, which aims at remedying the problems with the free movement of services. The early evidence suggests that its implementation will bring significant positive effects, but it has yet to be firmly concluded through proper econometric methods.

Personal mobility is also found to remain at relatively low levels across Europe (although it has been noted that Europeans do not move much within countries either). The overall economic effect of intra-EU mobility has thus been modest. Some robust findings are, however, offered: EU citizens living in another EU country are more likely to be working than the native population (and have obtained a higher educational level); there are no clear signs that this has led to increased unemployment or lower wages in net receiving countries, nor have there been any significant effects on public finances. On the other hand, concerns have been raised that the current outflow of skilled workers may have a negative impact on net sending countries' productivity in the longer run, if the citizens' time abroad approaches permanency.

The general conclusion is that the single market has brought the expected positive effects where it has been properly implemented. The efforts for a deeper integration of the single market for services and enhanced possibilities for people to move across Europe should therefore continue.

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# 1. Introduction

The European Union is the world's largest economy in terms of GDP and the single market is the centrepiece of its economic integration since 1992. The ambitious political and legal project is founded on the idea that goods, services, capital and persons should have the right to free movement across the 31 states it comprises.[1] Anywhere across the market, citizens should have the right to live, work and study while firms should have the right to produce, sell and invest.

The current economic crises have led many Europeans to elaborate upon ways to counter stagnant growth figures, reduce unemployment rates and/or provide relief to strained public finances. Some have proposed measures to limit the free movement across Europe, while others suggest that closer integration and further liberalisation is the best medicine. This study aims at contributing to the debate by collecting and presenting the available economic research in order to answer the question: What are the economic effects after more than 20 years of the single market in Europe? The study reviews the empirical literature in order to establish sixteen stylised facts about the single market. As such, the focus is on *ex post* analyses and reports, primarily from the academic literature along with reports from the European institutions.

The report presents a brief historical overview of the European Union and the development of the single market. Pre-1992 reports and analyses are then presented to give an account of the reasoning behind creating a single market and the effects it was anticipated to entail. They are followed by chapters for each of the four freedoms where observed effects are presented, leading up to the final chapter where analyses of the single market's effects on economic growth are reviewed.

## 1.1 Free movement across Europe (1957 ~ 1973)

The cornerstones of the European single market are the four freedoms – the free movement of goods, services, capital and people. These freedoms were enshrined in the original Treaty of Rome, signed by Belgium, France, Germany, Italy, the Netherlands and Luxembourg on the March 25 1957. The objective of the European Economic Community (EEC), which was the original name of the union, was not only economic. The common market was a mean to tie the peoples of Europe together in an ever closer union, thereby avoiding war and conflicts in the future. The common market with its four freedoms was to be completed in twelve years – i.e. at the beginning of 1970 – but a plan on how the integration was to be achieved in practice was only drawn up for the free movement of goods. The first and most important step was to phase out the internal tariffs on industrial and agricultural goods and establish a common external tariff against the outside world. This process was completed in July 1968 with the EEC customs union.

The first step towards a common market for services was taken in 1962, when the Commission proposed the General Programme for the abolition of restrictions on freedom of establishment and to provide services (Nordström, 2012). According to the Treaty of Rome, priority was given to those services that had a direct impact on production costs or in other ways would promote trade in goods (such as consultancy-, legal-, and logistics services). Hence, it was the needs of the industrial sectors that guided the liberalisation process of services.

However, since services were surrounded by heavy regulations at the national level, it proved difficult to implement the General Programme in practice. While the barriers to trade in goods were to be found at the borders, the barriers to trade in services were rather

[1] The EU28, Norway, Iceland and Liechtenstein.

"behind" the borders. The setup of a common regulatory framework for services at the European level would have been a solution to this problem, but the political support was not strong enough to pursue such a project at the time. In addition, due to a rather imprecise formulation in the treaty, it was unclear which services that were affected by the liberalising measures. The General Programme thus became the starting point of an integration process that yet remains to be finished.

The free movement of capital experienced a similar, but even more sluggish, liberalisation process as that of services. Article 67 of the Treaty of Rome established that cross-border capital mobility was to be liberalised *"...to the extent necessary to ensure the proper functioning of the common market..."*. The formulation reveals that the free movement of capital was, just like services, primarily to be liberalised in those areas where it would facilitate the trade in goods across the EEC. In practice, however, many European states maintained, and raised new, measures to keep control over capital flows. Some liberalising efforts at the European level were made in the early 1960's, but the movement of capital across the EEC cannot be said to have been *free* until much later. If the customs union of 1968 established the free movement of goods, it took another 20 years before the Capital liberalisation directive[2] did the same for capital, making it the last of the four freedoms to be realised (Bernitz and Kjellgren, 2014).

The free movement of persons did also take its due time to become a reality. While the Treaty of Rome stipulated that the member states should abolish obstacles to the free movement of *persons*, the initial focus was rather on free movement of *workers* (i.e. economically active persons). As such, it was the intention to pursue economic activity (i.e. to work or search for work) that granted a person the right to move freely across the EEC.

The development depicted above shows that the European integration process in its bud was mainly focused on goods trade liberalisation. The three other freedoms, although clearly stipulated in the Treaty of Rome, were first and foremost developed insofar as their liberalisation would be beneficial to European industry.

## 1.2 Stagnation and protectionism (1973 ~ 1985)

European integration and economic performance stagnated during the '70s and early '80s after booming growth during the post-war period of reconstruction. The collapse of the Bretton Woods system and the 1973 OPEC oil boycott left Europe with high inflation and sluggish growth. State intervention and protectionism eroded parts of the liberalisation measures agreed upon in the Treaty of Rome. European governments raised product standards and regulatory measures in order to protect domestic industries, acting as barriers to trade (since import tariffs and quotas had been removed with the European Customs Union of 1968). The European Community (EC) was too weak to contain the protectionist forces (mostly due to the unanimity requirement to make common decisions). The development led many to believe that the European integration project had come to a halt (Baldwin and Wyplosz, 2012).

## 1.3 The Single Market Programme (1985 ~ 1992)

The calls for "more Europe" were intensified during the '80s. Poor economic results by the interventionist and protectionist measures suggested that closer integration was the right way to go for Europe. After all, the European customs union completed in1968 was never intended to be the final stop on Europe's journey of integration. The objective enshrined in

[2] Council Directive 88/361/EEC.

the Rome Treaty was "*...an ever closer union among the peoples of Europe...*" (European Economic Community, 1957, p. 2).

A fiery report for the European Parliament claimed that the unifying factor of Europe was no longer economic growth, but decadence (Albert and Ball, 1983). Growth through high inflation and expansionary fiscal policy is unsustainable and it was of utter importance that all member states showed due restraint (they illustrated the situation as the first days of autumn, with a cold, hard winter waiting around the corner). The fragmentation of Europe had left it ill-suited to recover from the stagnation, but the report refrained from the notion that 'common action' is good *per se*. Instead, it stressed the fact that further integration must be in such a manner that all segments of European society stand to gain from the change. By focusing on practical possibilities, the recommendation of the report was that the Community should ignite a change that would unleash the economic power that still existed within the EC. Public support was a necessity for this to happen, however.

Two years later, the European Commission president Jacques Delors presented a white paper labelled 'Completing the Internal Market' (European Commission, 1985). The white paper consisted of some 300 measures that the EC should undertake in order to transform the 'Common market' into a 'Single market'. In sum, the suggested measures were to remove technical-, non-technical-, and tax related barriers between the member states (many of them had been raised during the stagnant years). The new single market should reinforce the free movement of goods, services, capital and persons within Europe under the 'Single Market Programme'. In 1986, the 'Single European Act' (SEA), containing the legislation of the white paper measures, was signed. The measures from the act were to be implemented in all member states no later than December 31, 1992.

In addition to liberalising the movements of goods, services, capital and people, the SEA changed the decision-making procedure of the EC. The unanimity principle was replaced by majority voting on issues related to the single market. The new order, further strengthened in the Maastricht Treaty of 1992, established the European Union (EU). The concept of EU citizenship was also introduced, thus including non-active persons in the free movement of persons across the 12 member states.

## 1.4 Further development and enlargement (1992 ~ today)

In 1995, after the establishment of the single market, Austria, Finland and Sweden joined the EU. The remaining countries in the European Free Trade Area (EFTA) – Norway, Iceland and Liechtenstein – formed the European Economic Area (EEA) with the EU that granted access to the single market on essentially the same terms as EU members, except in agricultural- and fish products. Switzerland, which had also opted for the EEA, signed separate "EEA-like" agreements with the EU after a negative outcome in a referendum on the EEA. A further step in the integration process was taken in 1999, when the euro was introduced as the official currency in 11 member states (currently in 19 member states). The geographical coverage of the EU and the single market was enlarged to 10 new Eastern- and Central European states in April 2004; Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia, with Bulgaria and Romania following in 2007. Croatia joined in 2013. The single market now consists of 31 countries with more than 500 million people, comprising the largest economy in the world.

Instigated by the financial crises in 2008-2009, the "Monti Report" presented a strategy for reinvigorating the single market (Monti, 2010) in order to boost economic growth and employment. In the mission letter for the report, Commission president Barroso wrote that "*the cornerstone of Europe's integration and sustainable growth [...] requires new political*

*determination*".[3] The single market faces three major challenges that have to be addressed: rising tendencies of economic nationalism, the fact that the single market has yet to realise its full potential, and a growing concern about the social dimension of markets.

An interesting aspect of the report is its resemblance to the Albert and Ball (1983) report, which came 27 years earlier, also in times of economic crisis. Where Albert and Ball spoke of European decadence and a lack of will to coordinate economic policy, Monti mentions an "integration fatigue" and that the single market is perceived as "yesterday's business". A frank statement sums up the situation: "*The single market today is less popular than ever, while Europe needs it more than ever*" (Monti, 2010, p. 6). Given the high levels of national debt within the EU, a more efficient single market is the most useful and available source for economic growth. The report stresses the importance of *consensus* on potential reforms; the single market must be designed, and perform, in a way that makes most members of society view it as beneficial to their interests. A similar view is presented in Grech's (2010) report to the European Parliament.

The Single Market Act was presented by the Commission in 2011 as the Commission's response to the reports mentioned above. The Act should further develop the single market, as well as ensure the citizens of Europe that the benefits of the market were passed on to them (European Commission, 2011). Some of the measures proposed in the Act were to strengthen the consumer's stance on the market through easier dispute resolution processes, improvements of the digital single market, clarifications of the Posting of Workers Directive[4] in relation to national social systems, *et cetera*.

The Single Market Act II, released in 2012, brought further attention to sectors with a high growth potential as a response to the ongoing crisis. Primarily, its focus areas are transport networks, free mobility of citizens and businesses across borders, the digital economy, as well as further promoting product safety and social cohesion for the citizens (European Commission, 2012). Judging by the contents of the Single Market Acts, the free movement of services, citizens' and workers' rights, improved opportunities for small- and medium sized enterprises (SMEs), and adaptation to technological development seem to be the areas in which the Commission will focus its efforts to strengthen the single market.

[3] The mission letter can be found in the Monti report.
[4] Directive 96/71/EC.

# 2. *Ex ante*[5] studies on the single market

The "Cecchini report" (Cecchini et al., 1988), written before the launch of the single market on behalf of the Commission, is the most comprehensive report on the potential gains of the single market. The report addresses both the gains for individual sectors of the economy and the macroeconomic effects: overall GDP would increase by 4.25-6.5% in the long run, while the price level would decrease by 6%. The creation of 2 million jobs was also expected. The removal of border formalities and administrative costs was alone worth 3.5% of industrial output. Economies of scale and increased competition would induce structural changes which would provide further impetus for economic growth, through a more efficient resource allocation. Smith and Venables (1988) put the total GDP gains of the single market at 4%.

As a complement to the "Cecchini report", Baldwin (1989) estimated the dynamic gains of the single market. He found that the annual growth rate of the EU could be 0.25-1% higher as an effect of the single market, highlighting the dynamic gains (e.g. scale economies, innovation) as the most important effects of the single market.

Further insights into the single market were provided by Harrison et al. (1994), in a widely quoted study. They found that the gains from the single market were to be relatively higher for those countries that were more dependent on intra-EU trade. The estimated gain for the EU as a whole was a modest 0.5% increase in GDP in the short run, growing to 2.4% in the long run. Henrekson et al. (1997) concluded that members of the EEA would gain almost as much as members of the EU, since the only substantial difference in the access to the single market regarded agricultural- and fish products.

A different approach to the single market was provided by Head and Mayer (2000) who estimate the so-called home bias effect using a gravity model with three explanatory variables of trade: market size, proximity and trade barriers. By comparing the ratio of "domestic imports" to imports from other EU countries with the corresponding ratios for US states at the industry level, they found that European countries were 4.2 times more likely to buy home products than US states, suggesting that the barriers to trade were higher within the EU than within the US.

In sum, the early *ex ante* literature on the single market identified significant potential gains from trade, flowing from increased competition and economies of scale, which would promote European GDP by some 4.2 to 6.5 per cent. The static gains would be followed by additional dynamic gains over time as reduced barriers improved the competitive environment across a wide array of industries and services sectors, spurring growth through increased innovation and R&D.

[5] *Ex ante* roughly translates into "before the event" or "forecast", as the opposite of *ex post* which means "after the event" or "actual".

# 3. Free movement of goods

**Major events in the development of the free movement of goods**

1957 – The principle of the free movement of goods is established in the Treaty of Rome.

1964 – EC law is ruled to be superior to national law in the *Costa v ENEL* case (C-6/64).

1968 – The EC customs union enters into force.

1974 – The European Court of Justice (ECJ) establishes, in the *Dassonville* case (C-8/74), that all trading rules raised by member states that directly or indirectly hinder trade within the Community are prohibited (including rules that are *potentially* hindering).

1979 – The principle of mutual recognition – whereby a good that is lawfully marketed in one member state should be allowed to be marketed in any other member state, without further testing or adaptation to national rules – is established by the ECJ in the *Cassis de Dijon* case (C-120/78).

1987 – The Single European Act (SEA) enters into force. The introduction of qualified majority voting on single market issues enhances the EC's ability to remove obstacles to trade. Thus, "completion" of the single market becomes feasible.

1992 – The Maastricht Treaty is signed, establishing the single market and the EU. All remaining barriers to trade were to be eliminated within the EU, for example through harmonisation of product standards.

1994 – The EEA agreement enters into force, expanding the single market to several non-EU countries.

2011 – The Single Market Act (SMA) is launched to further deepen the single market through removal of remaining barriers.

**Source: HM Government (2014a).**

The free movement of goods across the single market is the most actively pursued of the four freedoms. The years following the Rome Treaty were mainly focused on barrier reduction in the goods market. Today, border barriers (e.g. customs) to trade in goods have long since been eliminated. The EU has, in addition, harmonised the regulation on a number of goods categories to ensure that national product regulation does not discriminate against foreign products. For products that have not been subject to harmonisation (for various reasons), the principle of mutual recognition states that a product that is lawfully marketed in one member state should have the right to be marketed in all member states.

## 3.1 Trade effects of the single market

Intra-EU exports have risen from 9 to 21% of EU GDP since the inception of the single market. Extra-EU exports have followed the same path, albeit at a lower level but at a higher rate (from 6 to 12%). The EU15 has become more trade-oriented (measured as the ratio of trade to GDP) compared to the US and Japan since 1992 (Vetter, 2013). Trade integration, measured as the ratio of intra-EU trade to GDP, increased during the 1990s. This trend did, however, more or less flatten out from 2000 and onwards, and more so for the old member states (EU15) that had already achieved a high level of trade integration between themselves. However, intra-EU trade is still less than two-thirds of intra-US trade (Ilzkovitz et al., 2007).

A widely quoted and extensive study is provided by Straathof et al. (2008), who investigate the single market's effects on the Dutch economy but also on the EU as a whole. The report studies the effect of EU membership from 1961 to 2005, through the reduction of intra-EU

trade costs. A gravity equation[6] is estimated to account for the EU's effect on trade and FDI. The dataset contains several non-EU countries in order to isolate the effect from European integration on top of global integration. The estimated equations indicate that the single market's contribution to intra-EU trade was 18% in the immediate years following the launch of the single market, without significant diversion from non-members.

The CER (2014) investigates whether (and if so, to what extent) the UK's entry into the EU has increased trade with the EU at the expense of non-EU countries, such as the US. Such trade diversion could happen in a customs union because of the difference in tariffs and other trade barriers between members and non-members.

The empirical model consists of bilateral trade data between 181 countries between 1992 and 2010, with a specific focus on the UK's trade with the EU, on the one hand, and its 30 largest non-EU trading partners on the other (these groups of countries account for roughly 90% of total British trade). Their gravity model explains trade by market size, distance and trade costs. A binary dummy variable (1/0) is included to identify trade between the UK and the EU (1) and non-EU countries (0). The estimated coefficient of the dummy variable tells us how much extra trade that the UK conducts with the average EU country as compared to the average non-EU country, all other things equal.

The study finds that the UK-EU trade is 55% higher than what economic size, exchange rates, distance and cultural factors would predict. Interestingly, the dummy variable for the top 30 non-EU trading partners is insignificant, suggesting that the entry of the UK into the EU has not come at the expense of trade with non-EU countries. These results corroborate those of Europe Economics (2013), which also finds positive and significant trade effects for the EU membership of the UK.

HM Treasury (2005) estimates a gravity model on trade data for all OECD members from 1960 to 2004. In addition to classical gravity variables, the model includes dummy variables for EU membership and other free trade agreements (FTAs), along with a negative 'transposition deficit' variable derived from the Internal Market Scoreboard. The latter gives an account for single market directives that have not been transposed into national law at the implementation deadline. The report finds that the EU has boosted intra-EU trade by 38% – out of which 5% have been diverted from non-EU members, leaving a large net trade creating effect of the EU. *In addition*, the single market has contributed an extra 9% of intra-EU trade. This trade effect translates into a growth effect of roughly 2% to EU GDP.

| **Single Market Stylised Fact #1** |
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| **The single market has created new trade within the EU without any significant trade diversion from third countries.** |

## 3.2 The home bias effect

Home bias is a concept used when consumption of domestic goods exceeds consumption of foreign goods, even after controlling for relevant factors. As such, the existence of a national border (or a state border in the US) between two cities of a certain distance significantly lowers their exchange of goods and services as compared to two cities of the same distance (and size) within a country. In a perfectly integrated market (i.e. where there is no home bias), a country's consumption of domestic products should be equal to its domestic

[6] In its most pedagogical form, a gravity equation states that bilateral trade is positively affected by the (economic) size of two countries and negatively affected by the distance between them. Other variables (such as the creation of a single market) can be added into the equation to determine their effect on bilateral trade.

production (as a share of the market's total production), after accounting for factors that make foreign goods less attractive (e.g. distance). Since the single market project explicitly aims at removing barriers within the EU, European home bias is an appropriate indicator for analysing how integrated the single market actually is.

Borders seem to have a larger negative effect on trade in Europe than they have in the US (even when one controls for language differences etc.). Delgado (2006) estimates that the EU home bias is two to three times higher than the US equivalent. He finds that the EU home bias fell between the mid-'90s and 2000, but has been stable thereafter. Austria and Belgium have the lowest home biases, while Spain and Greece are mostly skewed towards domestic consumption. Cafiso (2009) finds a declining border effect (i.e. home bias) between the late '90s and the early '00s, in 16 out of 20 industrial sectors.

Sophisticated econometric methods confirm the existence of a home bias in the EU. Pacchioli (2011) estimates a gravity equation with country- and time effects to properly account for the home bias in the EU as compared to the US, until 2002. He finds a significant home bias for both and, in line with previous studies, it is higher in the EU than in the US. The average EU state consumes roughly seven and a half times more domestic goods than goods imported from other member states, which corresponds to a three times larger home bias than in the US.

Martinez et al. (2014) provide more recent data on the home bias. As a combination of Pacchioli (2011) and Cafiso (2009), they estimate a gravity equation on industry sector data to properly account for the possibility of differences in home bias across industries. Furthermore, their data allows for panel estimation in order to explore how the home bias has developed over time.

Their findings suggest that there was a significant decrease in the EU home bias from 1995 to 2007.[7] The average EU home bias in 2007 was 11.93, i.e. significantly higher than the finding of Pacchioli (2011). These large differences in estimated home bias suggest that the results largely depend on the methodology used. Some caution should therefore be used in terms of the exact magnitude of the home bias, but the evidence would generally seem to support that the home market bias has fallen in Europe as an effect of the single market.[8]

**Single Market Stylised Fact #2**

**National borders still play a significant role across the single market, both in absolute and relative terms. However, the border effect has decreased since the launch of the single market.**

[7] A slight increase was estimated in 2008-2009 due to the financial crises.

[8] Braconier and Pisu (2013) show that the specification of the distance variable may greatly affect the home bias coefficient. The most common distance measure is the great circle distance, i.e. "as the crow flies". Domestic distance is often calculated as a quarter of the shortest international distance. Such distance measures overestimate internal trade costs which lead to an overestimated border effect. Instead, their study uses road distance and travel time estimations to properly account for the distance difference between internal and external trade. National road links are on average 10.5% faster than international road links of the same distance (sometimes due to natural factors, such as rivers or mountain chains that constitute national borders). This has the implication that the border effect is often overestimated by as much as 25% according to the authors, since the distance variable is not properly specified. They estimate that EU countries trade three times more with themselves than with other EU countries. However, they do only include the "continental" EU countries, thus eliminating countries where other types of transportation (ferries, trains, airports) are used more often.

## 3.3 Greater import varieties

So far, the articles in this section have been focusing on the supply side (i.e. production) effects on the economies of the EU states. However, the single market was also expected to bring large demand-side benefits, when firms' ability to serve the markets of their neighbouring countries increased. Therefore, the variety of available products in each country should increase, thus improving consumers' welfare (consumers love variety, as we know from 'new trade theory'[9]).

Mohler and Seitz (2010) investigate if, and by how much, the EU27 countries have gained from increased variety. Specifically, they observe how much a country's consumers are willing to spend on the variety set of 2008 compared to the set of 1999, in terms of GDP. With bilateral import data for over 10 000 product categories, they are able to analyse how a computed import price index for each good and country has evolved between the two sample years. It is assumed that each country produces one unique variety of each good, and product elasticities capture the fact that new varieties have different effects on consumer welfare (to use their example, car fuel is a product where more varieties do not affect consumer welfare since its elasticity of substitution is high (gasoline is gasoline), while new types of clothing may bring great consumer benefits). Furthermore, they separate between imports from other EU countries and imports from rest of the world (ROW), to single out the effect of European integration vis-à-vis global integration.

The large EU countries France, Germany, Italy and the UK did not gain from variety over the sample period; their variety effect has actually been negative, by 0.18% of GDP. The interpretation is that consumers in those countries were willing to pay 0.18% less of their GDP for the 2008 variety than for the 1999 variety. However, most of the loss is due to a decreased variety of imports from ROW rather than from the EU, and it is especially France that brings down the results. The authors suggest that these findings are mainly due to their initially high number of varieties (France already imported 9 860 out of the possible 10 428 product categories in 1999). They have rather been trading more at the intensive margin (i.e. increased trade in already traded product categories) between 1999 and 2008.

For the smaller EU15 members (and Spain), the gain from variety was 1.24% of GDP. Around 70% of this gain stemmed from intra-EU imports. These countries did not enjoy the same level of varieties as the larger countries did in 1999, despite their membership of the single market. The country with the largest gain from increased EU varieties in this group of countries is Denmark (2.07% of GDP), while Finland has the lowest (0.17%). The twelve new member states (NMS) of the EU have experienced the largest gain from variety, 1.68% of GDP, with EU-trade accounting for 90% of that increase.

The results highlight the importance of assigning elasticities when evaluating changes in product varieties. For the smaller EU15 members, there was actually a larger increase in the *number* of varieties from ROW than from the EU, but the total welfare effect was larger for EU products. This reflects that the EU countries specialise in product categories that, on average, are more differentiated (i.e. lower elasticity of substitution) and as such bring higher welfare gains to the consumers. In other words, while extra-EU trade has increased more than intra-EU trade,[10] intra-EU trade has brought more consumer welfare.

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[9] See Spence (1976) or Dixit and Stiglitz (1977).

[10] This is in line with economic (trade) theory – the economic size of a country is positively correlated with its trade. Trade costs are (naturally) negatively correlated with trade. The positive effect on intra-EU trade of the reduction of trade costs under the single market has not been able to match the effect on extra-EU trade of the rapid growth of ROW economies. Other factors (such as the technological sophistication and/or skill-level of the labour force) affect a country's (producer's) ability to differentiate its products, which is reflected in the results of Mohler and Seitz (2010).

**Single Market Stylised Fact #3**

**The single market has made European consumers able to enjoy a greater variety of products, particularly in the smaller and/or newer member states.**

## 3.4 Price convergence and competition

A pronounced objective of creating the single market was to increase competition across Europe. When competition toughens, prices should converge according to 'the law of one price', since the most efficient producers should be better able to compete with less efficient producers. Hence, the differences in price levels over time may indicate whether a region has become more competitive or not. Ilzkovitz et al. (2007) analyse data on price convergence, measured as the coefficient on price variation among member states, and found that it had dropped from 39% in 1995 to 26% in 2005 for the EU25.[11] Additionally, the top five companies in the manufacturing sector had in 2000 lost more than half of their production shares to other firms and price mark-ups had been reduced. The average EU firm in 2000 is less diversified (i.e. focuses more on the 'core' business), serves more markets (i.e. does business in more countries) and is larger. All this suggests that competition has intensified during the single market's existence.

### 3.4.1 Effects on price mark-ups

Increased competition is expected to decrease mark-ups – the difference between the price charged by the firm and the (marginal) cost of a product. Badinger (2007) investigates whether there is evidence of such a development in three broad European sectors (manufacturing, construction and services) and a more detailed analysis of 18 sub-industries. Competition is measured by the Lerner index (mark-up over price) for 10 EU countries from 1981 to 1999.

The single market has brought down mark-ups in the manufacturing sector by 32%. Moreover, there is evidence of increased mark-ups in some manufacturing sectors prior to the implementation of the single market, which in part explains the decrease in the post-single market period. There was a small decrease in the mark-ups in the construction sector, but these results were not robust to alternative specifications (mark-ups had increased in the services sector, but more on this in chapter 4). The author stresses that the lack of effective competition in the services market is especially alarming since roughly 70% of European GDP and employment are generated in this sector.

The finding of decreased mark-ups in manufacturing, but the opposite for mark-ups in services markets that are less integrated, suggests that the single market programme has fostered competition where it has been properly implemented. This view is corroborated by HM Treasury (2005) which finds a greater price convergence in those manufacturing sectors that have seen the most liberalisation under the single market programme, such as clothing, footwear and alcohol.

### 3.4.2 Effects on innovation

Griffith et al. (2010) investigate the product market reforms taken under the single market programme and how they have affected firms' incentives for innovation through increased competition. They estimate a two-stage instrumental variables regression on data from nine countries (five are part of the EU and four are not) over twelve manufacturing industries. The indicators for product market reform are allowed to vary over year, industry and

[11] It should be noted that, similar to the home bias in trade, prices are unlikely to ever *fully* converge.

country. In the first stage, profits are regressed on product market reforms and the second stage regresses innovation on profits. As such, a link between product market reforms and innovation is presented, separated from other economic events that affect the environment where the firms are active. However, their analysis does not allow us to identify how firms with different productivity levels are affected relative to each other (e.g. if the most productive firms behave differently than less productive firms).

Their results indicate that the single market programme entailed increased competition in the manufacturing sector, shown as lower profit margins. This has, in turn, led to increased innovation, since the second stage of the regression shows a positive correlation between lower profit margins and higher R&D expenditure.[12] The effects differ across sectors, which supports the idea that reforms under the single market programme have indeed reduced the extent to which firms can charge prices above (marginal) costs within the single market area. Had the effect been evident in all sectors (including countries not exposed to the Single Market Programme), it is more likely that the effect would have run through different channels (for example changes in input costs).

| **Single Market Stylised Fact #4** |
| --- |
| **The single market has increased the competition in the manufacturing sector, which has led to convergence of prices and spurred innovation. Other sectors have not seen similar pro-competitive effects.** |

## 3.5 Conclusion

The free movement of goods is the most ambitiously pursued freedom of the single market. In practice, this has significantly promoted trade within the single market, without diverting trade from non-single market countries. This has been reflected in tougher competition and higher consumer welfare, in terms of available products. Citizens and firms of the single market countries do, however, still have pronounced preferences for domestic products, although this preference has been in decline since the implementation of the single market.

[12] The reasoning behind this rather counter-intuitive correlation is that firms respond to lower profit margins, due to increased competition, by increasing their R&D activities in order to improve (i.e. make more efficient) their production and/or increase their product differentiation. If successful, the firm would be able to maintain/regain a higher profit margin, all other things equal.

# 4. Free movement of services

**Major events in the development of the free movement of services**

1957 – The principle of the free movement of services is established in the Treaty of Rome.

1974 – The ECJ rules that a citizen of a member state must not be discriminated against if he/she wishes to set up a business in another member state (*Reyners* ruling, C-2/74). The same ruling applies to any citizen who wishes to provide a service within the Community (*van Binsbergen* ruling, C-33/74).

1989 – A directive on mutual recognition of higher-education professional qualifications is adopted, in order to promote the ability for citizens (e.g. doctors) of a member state to provide services in other member states.

1992 – Supplementary directive on mutual recognition of professional qualifications not covered in the previous directive (e.g. car repairers). These two directives have later been reformed in the Professional Qualifications Directive (revised in 2013: 2013/55/EU).

2004 – The Commission proposes a horizontal Services Directive, based on a 'country of origin' principle. A service provider should be able to provide his/her service anywhere in the single market as long as the regulation governing the service in the country of origin (i.e. the provider's home country) was met. The proposal was blocked, due to risks of undermined national working- and social conditions.

2006 – A re-negotiated Services Directive (2006/123/EC) was adopted, where the 'country of origin' principle was absent. Instead, some national restrictions on services provisions were banned while others were permitted. Additionally, some sectors were excluded from the directive, such as health, education and transportation.

2009 – The deadline for transposition of the Services Directive into national law was reached on December 28, having resulted in over thousand pieces of national legislation across the single market.

**Source: HM Government (2014b).**

The free movement of services encompasses both the right to freely provide services across national borders and the right to establish one's business in another member state. The central principle is that of *equal treatment* – member states are allowed to regulate services in order to guarantee a certain level of quality, consumer protection, environmental protection etc., as long as the regulation does not discriminate against foreign actors (both consumers and suppliers). The principle does not only apply to rules that are formally discriminatory, but also to rules that have a discriminatory effect in practice (Nordström, 2012).

Historically, the EU (and EC) efforts related to the free movement of services have been sector- or issue-specific, while less attention has been paid to effectively integrate the national markets into a *single* market for services (see the events of 1974 depicted in the timeline above as an illustration – the focus was on the individual's right to provide a service in other member states, rather than efforts aimed at full market integration). It is only recently, with the Services Directive[13] of 2006, deep and comprehensive efforts have been made to realise the *free* movement of services across Europe. Hence, given the historical

[13] Directive 2006/123/EC.

development, one should not expect the launch of the single market in 1992 to have affected trade in services to the same extent as it has affected the trade in goods.

## 4.1 Trade in services

Services are in practice not as mobile as goods (Monteagudo et al., 2012). Services account for roughly 70% of EU production but merely 20% of EU trade. Such figures hide the fact that much of today's goods exports include a range of services (e.g. sales, maintenance and software), so-called servicification. Additionally, if trade is measured in value-added terms, services' share rises even more – an exported good is often to a significant degree composed by imported parts and components (National Board of Trade, 2010). This is especially true for most EU countries, since they have a comparative advantage in services. The improvement in information- and communication technology (ICT) has made firms more able to *supply* services across borders, while the high material living standards in the EU (so-called "material saturation") should be reflected in a higher *demand* for services (National Board of Trade, 2012). Still, services are inherently not as tradable as goods.

Some of the studies presented in the previous chapter of this review included services in their analysis and their results are briefly presented here:[14] Ilzkovitz et al. (2007) analysed the intra-EU trade-to-GDP ratio for EU members and found that trade in services was barely integrated at all (while the trade in goods had experienced significant integration). On the other hand, Straathof et al. (2008) found a 5% increase in intra-EU trade in services attributable to the existence of the single market, between 1999 and 2005. CER (2014) found that the UK-EU trade in services had grown more than *twice* as fast as GDP, whereas the UK-US trade in services had grown *one and a half* times the GDP growth rate. Badinger (2007), who analysed the single market's effects on competition, found that the mark-up ratio in the services sector had *increased*, while it had decreased in the manufacturing and construction sectors. Hence, the evidence seems mixed on whether the single market has been able to promote trade in services, prior to the Services Directive.

## 4.2 Barriers to trade in services

Trade in services is distinctly different from trade in goods. Barriers to trade in goods have historically been found at the borders between countries, such as customs, tariffs and import quotas. Services are, however, rarely subject to such restrictions. Instead, the barriers to trade in services are, to a larger extent than trade in goods, to be found "behind the border", in national laws and regulations.[15] Hence, the European customs union (for goods) of 1968 cannot be easily "translated" into services in order to facilitate their free movement across Europe (see Mustilli and Pelkmans, 2012).

Compared to services, goods are easier to define (i.e. one or more components of specific materials and design) and, as such, easier to regulate. Their free movement across borders can therefore more easily be accepted and guaranteed by the member states. Services are not as easy to define and are often part of a nation's backbone structure (i.e. infrastructure, healthcare, education and the "general business environment"). Hence, it is more difficult to define common standards and regulations that all nations can agree upon and it is often politically sensitive. The economic understanding of the importance of services has historically been less pronounced than it has for goods. However, it has become increasingly

[14] Many more of the articles in that chapter mentioned trade in services, but did not specifically include it in their results.
[15] It should, however, be noted that trade in goods also suffers from such non-tariff barriers.

clear that well-functioning services markets are important for an economy's ability to absorb temporary or permanent shocks.[16]

Mustilli and Pelkmans (2013) provide a good overview of barriers to services markets in the EU. Specifically, their report concerns (market) access barriers and it distinguishes between intra-EU barriers and WTO/GATS[17] barriers. GATS specifies four different modes of trade in services: 1) "classic" cross-border trade, mainly through e-commerce or similar; 2) the consumer temporarily crosses the border; 3) establishment in the foreign market through FDI; 4) the supplier temporarily crosses the border. When trade *flows* are analysed, one fails to include the third mode (since no trade actually takes place). This is more problematic for trade in services than for goods, since serving the local market through establishment is more common for service providers (it accounts for roughly half the trade in services).

The last section of Mustilli and Pelkmans (2013) provides a *useful-for-future-studies* overview of different types of indices to measure trade restrictiveness in services. The point of departure is that tariff equivalents of trade restrictions seldom do justice to the behind-the-border nature of most services restrictions. Therefore, it is hard to capture the "true" economic effect(s) of such barriers.

### 4.2.1 Measures of services barriers

The OECD[18] and the World Bank[19] each have a Services Trade Restrictiveness Index (STRI), where the regulatory level in a wide range of services sectors is measured. The index can then be used as an explanatory variable in gravity equations, for example. The problem with the two STRI's is that they do not provide much help for the specific case of intra-EU barriers to trade in services. Indeed, the EU countries are relatively well integrated in a global comparison, and the unique nature of the single market prompts for more detailed, preferably EU-specific, barrier measures.

Kox and Lejour (2005) designed such a measure in their analysis of international trade in services (this was before the STRI's and similar measures had been developed). Ranging from 0 to 1, they assess the *heterogeneity* of services regulation between country pairs. They note that "*[T]he simple fact that service providers have to meet regulatory standards is not in itself a trade barrier*" (p. 11). Instead, regulatory heterogeneity makes market entry more costly – a (sunk) cost that is incurred when the exporter (and/or the service they provide) has to adapt to the foreign regulation. Theoretically, regulatory heterogeneity affects trade in two ways: Fewer firms will be exporting, and the average size of an exporting firm rises with the degree of heterogeneity. In other words, only large-enough firms can bear the fixed entry costs. This leads to a lower diversity of available services across the single market.

183 aspects of product market regulation (PMR) were assessed for 17 EU countries in the early 2000's. For each bilateral pair, each PMR is assigned a value of 1 if the countries' regulations differ, and 0 if they are similar. Then, the mean value over all PMRs for each country pair can be obtained, ranging from 0 to 1.

Then, they move on to estimate a gravity equation on trade in services. The independent variables consist of classic gravity variables (GDPs, distance, language) along with the level of PMR in the country of origin, barriers to entrepreneurship in the destination country and, last but not least, a bilateral heterogeneity variable (decomposed into five sub-categories of

[16] Services markets are important in themselves, along with the "servicification" of the manufacturing sector, and its much lower dependency on external factors (e.g. changes in raw material prices).
[17] World Trade Organisation/General Agreement on Trade in Services.
[18] http://www.oecd.org/tad/services-trade/services-trade-restrictiveness-index.htm.
[19] http://iresearch.worldbank.org/servicetrade/aboutData.htm.

regulation[20]). The inclusion of the two country-specific regulation variables captures the *level* of regulation in countries, to ensure that the heterogeneity variable actually measures regulatory *differences* between countries without picking up other aspects of regulation which may bias the estimation.

It turns out that the level of PMR in the country of origin has a significant negative impact on bilateral trade in services. If the home market is heavily regulated, firms are less competitive which reduces their export possibilities. The regulatory level in the destination country is insignificant, however. As for the heterogeneity, it turns out that barriers to competition, barriers to trade and investment, and regulatory and administrative opacity all have significant negative effects. However, state control and administrative barriers for start-up firms are insignificant.

The policy implication by Kox and Lejour (2005) was rather straightforward – to overcome the negative effects of heterogeneity, EU countries should either harmonise their regulatory frameworks, or allow foreign firms to operate freely across the EU under the firm's domestic regulation (mutual recognition). The Services Directive aims at doing exactly that, and when heterogeneity is allowed to remain[21], easily available information should remedy its negative effects on trade (i.e. decrease the administrative entry cost) as much as possible.

The European Commission developed a new measure in Monteagudo et al. (2012), regarding the Services Directive (their article will be reviewed more thoroughly in section 4.5.2 – for now, we focus on the barrier indicator). A barrier indicator (range: 0 to 1) was constructed based on 'mutual evaluation' processes, with the change in barriers being quantified. The indicator shows if barrier *b* for sector *s* in country *c* were existent (1) or non-existent (0), and if it has been fully maintained (1), fully removed (0) or partially removed (0.8), following the implementation process of the Services Directive. The indicator covers 15 sectors. The effects of barrier reduction on productivity can then be seen both through increased trade and FDI, but also through increased exposure to foreign competition for domestic firms. The natural drawback is that it only covers services sectors that fall under the Services Directive.

**Single Market Stylised Fact #5**

**The single market for services has traditionally been, and still is to some extent, suffering from "behind-the-border" barriers to trade.**

### 4.2.2 Attitudes towards to trade in services

Another, and perhaps the most important, barrier is the public attitude towards trade in services. A cross-disciplinary study by Calmfors et al. (2009) combines economic and psychological analysis to investigate Swedes' attitudes towards (low-wage) trade competition in services vis-à-vis goods, from other EU countries (through posting of workers). Using both qualitative (interviews and small-group experiments) and quantitative (regression analysis) methods, they find that the attitudes towards trade in services are more averse than those towards trade in goods.

Furthermore, they found evidence of so-called coherence-seeking, i.e. adapting one's specific attitudes on certain issues to fit a more general attitude. In a first step, participants were asked for their opinions on certain specific issues related to low-wage services competition. After being informed about the broader context, participants were asked for their specific opinions once more. It turned out that a significant share of participants

[20] The categories are: Barriers to competition, administrative barriers for start-ups, regulatory and administrative opacity, explicit barriers to trade and investment, and state control.
[21] For example to ensure non-discriminatory consumer-, health- or environment protection.

changed their answers to fit a more general view on low-wage competition. This was more pronounced for those who *opposed* such competition – i.e. they expressed more negative attitudes in the second interview than in the first, after being informed about the broader context.

Such a finding provides one plausible explanation for why the single market for services has proved much harder to implement than the equivalent for goods. An inherent resistance to service competition seems to be apparent. However, the presence of coherence-seeking suggests that information efforts etc. may increase the public support for a deeper integration of the European services market.

## 4.3 The importance, and lack, of a well-functioning ICT market

Previous research has found that a significant share of the EU's productivity gap to the US' from 1995 until 2010 is due to differences in ICT usage. Productivity in ICT *producing* sectors is fairly similar – the large differences show up in sectors which *use* ICT intensively (such as market services, retail, finance etc.). Copenhagen Economics (2010) estimates that EU GDP would have been 3.2 per cent higher if European firms in such sectors had been able to make use of advances in ICT technology at a pace similar to their American equivalents. They argue that a digital single market could contribute to boost the EU's performance in this aspect.

The overall number of broadband lines has been larger and increasing more rapidly in the EU than in the US since 2004, so it does not seem as if the *practical* aspects are the problem. Rather, the problem is the fragmentation of the ICT markets in the EU. The US mobile phone customers subscribe to three or four operators (with a total of roughly 20 operators); the EU market contains almost 100 different operators, mostly serving their local market. The same picture emerges for the broadband sector. The lack of continent-wide European broadband suppliers has most likely hampered the development of online services within the union. The report argues that a lack of coherent regulation across countries makes large-scale investments (which are often necessary in network industries) less profitable than they would have been if there had really been a *single* market for digital services.

Such findings are supported by the report of Pelkmans and Renda (2011), which investigates eleven different telecom (or eComms) sectors across the EU member states. With price level data, they compute highest/lowest price ratios for each sector, and assume that a price difference of 50% would certainly be enough for firms to enter a market (i.e. that providing firms operating in the country with the lowest price level should see market potential in countries with a 50% higher price level). As it turns out, none of the eleven sectors has a price disparity lower than 100% within the EU. Hence, there is no sign of a *single* market here either.

The same holds true when the report investigates discrepancies in average monthly expenditure by businesses on a composite-basket of telecom services (i.e. the usage of ICT). The expenditure discrepancy across the EU states is 245% (or 195% when one excludes outliers). The corresponding discrepancy between New York and California is 30%. Such differences may have severe effects on location choices of firms and thus, the performance of the single market. The reports by Copenhagen Economics (2010) and Pelkmans and Renda (2011) show that the European ICT market is in need of improvement and that its development is crucial for further integration of the single market and the EU's future economic performance.

**Single Market Stylised Fact #6**

**The European ICT market is fragmented and its further development is crucial for all sectors of the EU economy.**

## 4.4 Business services competition in the EU

Business services include a number of different activities – accountancy, engineering, law, marketing, software service, employee recruitment, industrial cleaning or security services, to name some. Hence, business services often serve as inputs for all kinds of firms. Kox (2012) analyses the productivity and competition of business services within the EU. The point of departure is the average contribution (%) of business services to aggregate productivity growth in '92-'97 and '98-'05 for the US (0.1 to 0.7), France (0.0 to –0.1), Germany (–0.2 to –0.2), the Netherlands (0.0 to 0.1) and the UK (0.6 to 0.5). Clearly, while the business services' contribution of the US has grown significantly between the two time periods, the European equivalents have not been able to do the same.

### 4.4.1 Scale efficiency

In order to assess market efficiency in the European business services market, Kox (2012) divides firms into five different size classes[22] and estimates how much capital and labour the average firm in each size class uses to produce one euro of output. The efficiency of each size class can then be compared to the most efficient size class, thus creating an index of scale efficiency. It turns out that the 50-249 employees size class is the most efficient and receives a scale efficiency index value of 1 (since it is compared with itself). The 10-19, 20-49 and 250+ employees all show index values at 0.93 or above. In other words, there are no big differences for firms with 10+ employees, *on average*.

For the smallest size class (1-9 employees), however, the index value lands at 0.48 – the smallest size class is less than half as efficient as the most efficient size class. This is problematic, since 93% of European business firms fall into this category. The interpretation is that business services competition is weak since so many firms can survive despite their lack of efficiency.

### 4.4.2 X-efficiency

The smallest size class is the most homogeneous in terms of efficiency (so-called X-efficiency, the efficiency of the average firm as compared to the most efficient firms in the size class). Its X-efficiency index is 0.92, implying that firms in this class are relatively similar in terms of productivity. The same picture emerges for the largest size class (250+ employees), with an index of 0.81. The indices of the three middle classes range from 0.61 to 0.67 (the average firm within these size classes is significantly less efficient than the most efficient).

However, the question of main interest is how these indices have evolved over time. Kox (2012) investigates eight different business services sectors between 1999 and 2005 to see if there are any signs of improved efficiency. Only two of the eight sectors, 'miscellaneous business services' and 'IT/computer services', saw improved X- and scale efficiency (i.e. improved efficiency both within- and between size classes). The 'marketing services' sector saw a dramatic increase in X-efficiency (within-size class) but also a rather strong decrease in scale efficiency. Hence, the overall picture is that there are no clear signs of increased competition within the European business services sector. The article suggests that labour market regulation should be reformed in order to facilitate *post-entry growth*. The problem

[22] Grouped according to number of employees: 1-9; 10-19; 20-49; 50-249; 250+.

does not seem to be a lack of firms but rather a lack of larger firms. Since business services often serve as inputs for firms in all sectors of the economy, it is of great importance for the economic performance of the EU that these issues be addressed. This view is corroborated in Mustilli and Pelkmans (2012).

| **Single Market Stylised Fact #7** |
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| **Business services competition has been poor across the single market.** |

## 4.5 The Services Directive

The previous sections in this chapter have described a rather gloomy picture of the single market for services, with "behind-the-border" regulatory barriers, a fragmented ICT market and low competition in business services sectors. As stated in this chapter's introductory paragraphs, EU (and EC) efforts related to the free movement of services have historically been limited and of a case-by-case nature. The free movement of goods has, as a comparison, been much more actively pursued, both on a more aggregate level but also through sector- and product specific efforts.

In order to counter this, and to finally realise the *free* movement and to create a *single* market for services in Europe, the Services Directive was adopted in 2006. [23]

### 4.5.1 Implementation, coverage and *ex ante* estimations

The aim of the Directive is to minimise or remove (behind-the-border) barriers to trade in services in certain sectors, covering 46% of EU GDP.[24] Following its adoption in 2006, member states were given three years (i.e. until late 2009) to transpose it into national law. In essence, this implied that during the three-year screening period, each member state were to list every piece of national service regulation and either motivate it or remove it. In addition, each member state were to establish national contact points, where citizens and firms could turn to get information on the applicable regulation of a given service in the country.

The National Board of Trade (2012) estimated that the removal of barriers under the Services Directive is expected to have a significantly positive effect on trade across the single market, while Kox and Lejour (2005), presented in section 4.2.1, found that the administrative costs involved in cross-border trade in services were non-negligible. However, each member state has a degree of freedom when deciding how to implement the Services Directive into national law. The implementation has been rather mixed across the EU, and full *de facto* implementation is an ongoing process.[25]

### 4.5.2 Economic assessments of the Services Directive

To our knowledge, there are so far no "true" *ex post* assessments of the effects of the Services Directive on trade in services, FDI and GDP etc. The available data does not yet allow one to properly analyse its actual effects, since such an analysis requires a sufficient

[23] In the original proposal, the so-called "Bolkestein Directive" (named after the Commissioner of the Internal Market at the time), EU service providers were to be granted the right to temporarily provide a service anywhere in the EU under its home country regulation (i.e. a mutual recognition principle). However, strong opposition in the member states forced its withdrawal.
[24] The directive covers the following sectors: Tourism, Cultural and sport activities, Wholesale and retail, Construction, Real estate, Business services, and Other services.
[25] See http://ec.europa.eu/growth/single-market/services/services-directive/implementation/2012-communication/index_en.htm for information on the latest updates. Implementation is a "never-ending" process, since it requires systematic screening of all new national rules affecting services.

amount of post-treatment years. There are, however, at least two analyses that in various ways "come close" to being *ex post*, and they are reviewed below.

The European Commission released a first assessment of the Services Directive, carried out by Monteagudo et al. (2012). It estimates the impact of the barrier reductions on trade in services and FDI, and on sectorial labour productivity to obtain a domestic effect. The data on barriers is collected from the mutual evaluation process between member states and, along with experts' knowledge, a barrier index is constructed (see section 4.2.1). As such, their index reflects the actual implementation of the Services Directive. Most *ex ante* studies have assumed homogeneous implementation in all member states. However, the authors of the Commission report note that the data on trade, FDI, GDP and other control variables is not sufficient to make it qualify as a proper *ex post* assessment. Rather, they call it an "…*updated prediction or extrapolation exercise*" (p. 2). In other words, they use the *actual* implementation of the Services Directive, and apply it to *historical* trade data (2004-2007). Hence, the results should be regarded as well-educated predictions of the effects.

They estimate the effects of barrier reduction through a gravity model, where bilateral trade and FDI are the dependent variables, respectively, for each sector and year. The independent variable of interest is the index value for cross-border barriers in the trade equation and barriers to establishment in the FDI equation. A number of control variables are included, such as production by sector, production minus trade balance by sector, distance, language, and proximity, along with time- and sector-specific dummies. In addition, a composite variable for the ICT infrastructure of the countries is included as well as a Human Resources composite variable.[26] The estimated coefficients of the gravity equation reveal that a 10% reduction of barriers significantly increases trade in services by 1.5% and FDI by 1.35%. However, there are large differences between the member states. For example, the barrier reductions in the analysed sectors raises Swedish services imports by 10.7%, whereas Dutch imports remain unchanged.

In the second step, the effects on labour productivity in services are estimated through a regression analysis. Sectorial production is regressed on the previous year's production, domestic investment, inward and outward FDI and exports and imports. ICT and Human Resources variables are included, as well as country-, sector- and year dummies. The variable of interest is barriers to establishment and since trade and FDI are controlled for, the equation estimates how barrier reduction affects the EU economy through the domestic channel. They find that a 10% reduction in barriers to establishment increases labour productivity in the services sector by 1.6%.

Based on these estimated elasticities, the effects of the actual barrier reduction following the Services Directive are simulated. For the EU as a whole, the actual barrier removal should increase trade by 7.2%, FDI by 3.8% and productivity by 4.7%. This, in turn, leads to a GDP increase of 0.8%. Furthermore, these results can be seen as lower-bound estimations, since the report does not include all sectors affected by the Directive. The report covers sectors that make up 20% of EU GDP, while the Directive covers 46% of EU GDP. The authors do, however, stress that one should be cautious not to assume that the effects found for the analysed sectors are the same in the sectors that have not been included in their analysis. In other words, although the report analyses roughly half of the Services Directive, one should *not* simply conclude that the estimated effect on GDP will be twice as large.

The other "almost-ex-post" analysis of the Services Directive is provided by Dettmer (2014). She estimates a gravity model on trade in commercial- and business services, respectively. With export data for both EU and non-EU countries between 2004 and 2010, an interacted dummy variable is used to identify the effects of the Services Directive. The interaction term

[26] See Annex II, p. 68, in Monteagudo et al. (2012) for a list of the included parameters.

consists of a time dummy which takes the value of 1 when the Directive is in force (i.e. 2007-2010), an EU dummy which takes the value of 1 if the trading partners are EU members and a liberalisation dummy which takes the value of 1 if the trading partners had liberalised their trade in services prior to the Services Directive.[27] As such, the variable tells us whether the Services Directive has promoted trade "on top" of other liberalisations. A battery of control variables are also included to specifically control for specific types of PMR reductions and for non-intra-EU trade flows (to capture potential effects on external EU trade, for example).

The gravity estimations suggest that there are no significant effects on intra-EU15 or intra-EU10 trade, but the results are not completely robust to alternative specifications – if a "phase-in" period for the Directive is allowed, the trade effects are positive.[28] Indeed, since member states had until late 2009 to transpose the Directive, it is not too surprising that one cannot see significant effects from 2007 and onwards. Hence, when dummy variables are used as explanatory variables, the most suitable treatment year is rather 2010.

Future studies, with more recent trade data, will show a clearer picture of how the Services Directive has affected EU trade in services. The studies reviewed above can serve as a useful point of departure, especially from a methodological point of view.

| **Single Market Stylised Fact #8** |
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| **The Services Directive is work in progress and its effects have yet to be properly evaluated. Early evidence suggests that there will be significant positive effects.** |

## 4.6 Conclusion

The aggregate estimates have shown that there has been an increase in trade in services across Europe since 1992, but it remains unclear how much the launch of the single market has contributed to this. The studies on productivity and competition, conducted prior to the Services Directive, do indeed suggest that the single market had no, or at best limited, effects on firms operating in European services sectors. Hence, the single market effects "on top" of more global trends (i.e. increased tradability of services) have been modest. Future research will tell whether the transposition of the Services Directive in 2009, the first wide-ranging attempt at integrating the European services markets in practice, will alter this picture. The early evidence shows that there is reason to believe it will.

[27] Pre-Services Directive liberalisation is measured as a reduction in the countries' PMRs between 2003 and 2008.

[28] The results can, however, hardly be statistically confirmed, since there are too few post-treatment observations (years).

# 5. Free movement of capital

**Major events in the development of the free movement of capital**

1957 – The principle of the free movement of capital is established in the Rome Treaty, to the extent such that the function of the common market is ensured. As such, the free movement of capital was viewed as "secondary" or "supportive" to the other freedoms.

1993 – The Maastricht Treaty establishes that all restrictions on the movement of capital are prohibited across the single market. However, some exceptions are allowed, related to macroeconomic stability, tax differences and national security issues, for example.

**Source: HM Government (2014c).**

The member states showed reluctance towards integrating their capital markets during the first decades of the EC. Capital flows were seen as the reason for repeated banking- and other financial crises. The Commission introduced partially liberalising measures in the early 1960's, but it allowed for several exceptions which were often utilised by the member states. It was the Single European Act of 1986 that proposed that all forms of capital mobility should be free in the EU (Baldwin and Wyplosz, 2012, p. 499). This chapter reviews literature studying the effects of the single market on foreign direct investment flows.[29]

## 5.1 Foreign direct investment

A foreign direct investment (FDI) is defined by the OECD as a cross-border investment by a resident entity (i.e. a company) in one economy with the objective of obtaining a lasting interest in an enterprise resident in another economy. The lasting interest implies the existence of a long-term relationship between the investor and the enterprise and a significant degree of influence by the direct investor on the management of the enterprise. Ownership of at least 10% of the voting power, representing the influence by the investor, is the basic criterion used. The investment may either be a merger with, or an acquisition of, a foreign entity, or a greenfield investment where none existed before.[30]

FDI may either be a substitute or a complement to trade.[31] A horizontal investment, i.e. a duplication of production plants abroad, may reduce exports since the product can be locally produced. Trade in parts and components (intermediate goods), to and from the new plant, may outweigh the reduced trade in the final good, however. A vertical investment is made to make use of cost differences in different stages of the production process.[32] This may also lead to an increased trade in intermediate goods and services.

FDI activity did indeed increase between 1995 and 2005. The ratio of intra-EU FDI to total FDI has increased from 53% to 78% for FDI inflows and from 50% to 66% for outflows, as noted by Ilzkovitz et al. (2007). Forslid (2014) notes that the implementation of the single market led to increased flows of FDI within the EU – national firms, previously protected by various trade barriers, sought to maintain their market positions. Such investments are likely to be (intentionally) counter-competitive but, at the same time, they are likely to improve production efficiency through enhanced possibilities for large scale production. Villaverde

[29] Other types of capital mobility that are less related to trade (e.g. portfolio investments) are beyond the scope of this paper.
[30] See http://www.oecd-ilibrary.org/sites/factbook-2013-en/04/02/01/index.html?itemId=/content/chapter/factbook-2013-34-en.
[31] Neary (2002) provides a useful theoretical article on the (FDI) effects of the single market.
[32] The classic example being to locate labour-intensive activities where labour costs are low, while locating capital-intensive activities where capital costs are low.

and Maza (2012) do, however, show that the inflows of FDI have differed significantly between EU's national sub-regions. Differences in the economic structures of regions have made some regions highly successful in attracting FDI, while others have been much less so. Around the announcement of the single market programme in the mid-'80s, American FDI into member countries outpaced American FDI into non-members (AMCHAM EU, 2012).

## 5.2 Gravity equations on FDI

The theoretical foundation for the usage of gravity models on FDI flows is similar to that for trade flows, but with slight modifications. The economic size (measured as GDP) of the partner countries indicates market size (market potential) and supply capacity in an FDI equation, whereas it rather indicates the demand for (varieties of) products in a trade equation. Distance deters FDI in the same way as it deters trade (although not necessarily to the same extent). In addition to size and distance, the FDI equation should include a variable for the difference in factor endowments between partner countries (Martinez et al., 2014).

Straathof et al. (2008) estimate the effect of common market policies (i.e. policies for the free movement of capital) through a gravity model on bilateral FDI *stocks* from 1981 until 2005 (including 30 reporting OECD countries). FDI is regressed on an EU membership dummy, while controlling for the country pair's GDP as well as country-specific and time effects. Limited data availability disables the possibility to divide the sample into five-year periods, as is done in their trade model (see section 3.1 of this report). The bilateral FDI stock between EU countries is estimated to be 28% higher than between non-EU countries (and 14% higher between non-EU countries and EU countries). They then proceed to estimate that the existence of the single market explains 8.5% of outward FDI from the EU15 and 16% of inward FDI.

Further insights from a gravity assessment are provided by Egger and Pfaffermayr (2004), who show that the anticipation effects are strong when it comes to FDI. Their approach is slightly different and only covers data from 1986 to 1998. They divide the sample period into three sub-periods ('86-'92, '93-'94 and '95-'98) and analyse if there are any significant changes in FDI flows between those periods. The sample countries are divided into five sub-groups[33] and the flows of FDI are thus between those sub-groups (and not between each sample country).

The assessment reveals that FDI was positively affected by the Single Market Programme – but the increase was not significant for the EU12 countries. For the countries that joined the EU in 1995, the significant FDI boost came in the '93-'94 period. The same holds true for the NMS (and Turkey) but in the '95-'98 period. These findings lead the authors to conclude that the single market has a positive effect on FDI, but that the effect is rather visible after the announcement of the Single Market Programme (and the announcement of accession). This is important to bear in mind when FDI time series are analysed.

Flam and Nordström (2007) provide a similar assessment but with more recent data (their focus is rather on the euro effects, but the results offer insights into the single market effects as well). They estimate the intra-EU-, extra-EU- and non-EU FDI flows over three time periods ('95-'98, '99-'01 and 02-'06). The sample covers 20 countries, of which ten participate in the single market and the euro, four participate in the single market but not the euro and six high-income OECD countries form the control group. A novel feature of their gravity equation is that it does not only control for common business cycle effects through a time dummy, but also for unilateral business cycle effects through a deviation-from-trend-

[33] **Group 1**: the EU12; **Group 2**: Austria, Finland, Sweden; **Group 3**: Iceland, Norway, Switzerland; **Group 4**: Bulgaria, the Czech Republic, Hungary, Poland, Romania, Slovakia, Slovenia, Turkey; **Group 5**: Remaining OECD countries.

GDP variable. Two variables are thus of main interest – a single market dummy variable interacted with a dummy variable for the second time period of the sample, and a similar interaction variable for the third time period.

The estimation reveals that the single market, but not the euro, has had a significant and positive effect on FDI, both within the EU but also between the EU and non-EU countries (compared to FDI between the control countries)[34]. The single market, and the larger market it offers, has made FDI more attractive (and this effect seems to have dominated the fact that a firm can serve the entire single market from one country through exports). It is not as clear why the FDI outflow *from* the single market has increased, but Flam and Nordström (2007) suggest that one possibility is that the single market has made EU firms more competitive and thus more able to expand internationally.

While the evidence provided so far shows that FDI across the EU has increased since the implementation of the single market, it is less clear how different efforts of trade integration have affected FDI. Martinez et al. (2014) use their findings on EU home bias and include them as an independent variable for a gravity equation on FDI. As such, they investigate the relationship between closer trade integration and FDI.

They estimate two gravity models, one for horizontal FDI and one for vertical FDI. The horizontal model includes variables for each country's GDP and their bilateral distance as well as time- and country fixed effects. The bilateral home bias serves as the independent variable of main interest, but a Corruption Perception Index (CPI) is included to proxy for the institutional environment in each country. The model for vertical FDI does, in addition to these variables, also include a variable for relative factor endowments, measured as the share of skilled labour to total labour between countries. Their results show a significant negative correlation between bilateral home bias and bilateral FDI, suggesting that trade integration and FDI are complements. The results do, however, not reveal any significant differences between horizontal- and vertical FDI.

| **Single Market Stylised Fact #9** |
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| **The free movement of capital has substantially contributed to facilitate FDI activity within, to and from the single market.** |

## 5.3 Investment and political integration in emerging Europe

A puzzling finding in the development economics literature is that the correlation of current account balances with real GDP per capita growth are negative for central- and eastern European countries but positive for other developing countries across the world. Friedrich et al. (2013) have taken a closer look at this in a complex study. They suggest that *political integration* is a decisive factor in growth returns to financial integration.

The proposed argument is that political integration would provide foreign investors with greater confidence. The model on which they assumes that the (foreign) investor can make either a "big" investment or a "small" investment. The "big" investment yields high returns, and it also brings positive externalities to the recipient industry and country, such as improved corporate structure, increased competitiveness, infrastructure etc. However, the return to this "big" investment can only be obtained if the host country's (financial) institutional environment is "good". If the institutional environment is "bad", the returns to

[34] It should be noted that the report also estimates a similar equation for trade, where it is found that the euro, but *not* the single market, has had a positive effect. The explanation is that the single market's trade effects occurred before the sample period.

the investor will be zero (other actors will expropriate the returns instead). The "small" investment will yield a lower return to the investor, and it will not bring any positive externalities to the investee country. The investor's return is, however, guaranteed, regardless of the institutional quality. It is also assumed that the institutional quality is "bad" in a developing country, with a certain probability of being "good" in the future. The higher is this probability, the more likely will the foreign investor be to choose the "big" investment, which will entail positive externalities. The idea is then that political integration increases the probability of "good" institutions in the future, thus making "big" investments more likely.

With industry-level data for 55 countries (24 advanced-, 12 emerging Europe[35]- and 19 non-European developing countries) from 1998 until 2005, they regress economic growth on each industrial sector's external dependence interacted with its country's level of financial integration.[36] As such, the difference in growth performance between industries that rely heavily on *external* capital compared to industries that rely more on *internal* capital (i.e. reinvested earnings) can be assessed. When interacted with a dummy variable for the emerging Europe countries, one can see if this relative growth performance (between industries) is significantly different in emerging Europe as compared to other emerging countries. A similar interaction variable is included for the 'advanced' sample countries. Hence, differences in growth performance for industries in non-European developing countries serve as the benchmark against which industries of emerging Europe and the 'advanced' countries are compared.[37] The dependency on external financing is defined as capital expenditures minus operational cash flow, thus capturing how much of the industry's investments that are not financed from within the industry.

The regression shows that the growth differential between externally dependent and internally dependent sectors is significantly affected by the country's financial integration, within emerging Europe. This is not the case for other developing countries – a country's financial integration does not yield any significant effects on the growth differential between externally- and internally dependent industries. The same holds true for the group of advanced countries.

Next, a variable to measure political integration is developed. Friedrich et al. (2013) use five sub-indices to get a composite index value of each sample country's political integration[38] (each sub-index weights in parentheses): Institutions (30%), Policy (40%), Government attitude (10%), Public attitude (10%) and Security (10%). Each sub-index ranges from 0 to 10 (10 being the highest level of integration) and so does, of course, the composite index. The regression is then re-estimated, including each country's level of political integration through a dummy variable equal to 1 if the country's political integration index is in the upper quartile of the sample.[39]

The variable for political integration is significant. In fact, when political integration is included, the dummy variable for emerging Europe turns insignificant. If the emerging European country is politically integrated (with the EU), the growth differential between externally- and internally dependent industries in the country is larger. This is not the case for countries in emerging Europe that are less politically integrated. This difference between

[35] Emerging Europe consists of: Albania, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, FYROM, Poland, Romania, Slovakia, Slovenia and Turkey.
[36] The financial integration variable is a composition of nine different variables: see Friedrich et al (2013, p. 526).
[37] The share of each industrial sector in each country's manufacturing sector is included as a control variable to account for the fact that young industries usually grow faster than mature ones.
[38] See Friedrich et al. (2013, p. 529) for details on each sub-index.
[39] The following emerging Europe countries are assigned 1: Slovakia, Estonia, Slovenia, Latvia, Hungary, Poland, Czech Republic and Bulgaria.

integrated and non-integrated countries is not apparent in the 'Advanced' group of countries or in the 'non-European developing' group.

Hence, the report clearly shows that EU integration has promoted investment into emerging countries and thus contributed to economic growth. Eastern European countries that have not been integrated with the EU have not seen the same increase in foreign investment and the growth-enhancing effect it entails. The report by Friedrich et al. (2013) shows the strongest evidence of the benefits of the free movement (of capital), guaranteed under the single market.

| **Single Market Stylised Fact #10** |
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| **Eastern European countries that have joined the EU and the single market have been able to attract foreign capital to a greater extent than non-EU countries in Eastern Europe.** |

## 5.4 Conclusion

The free movement of capital is often said to be the best-functioning of the four freedoms, together with that of goods, and this claim is supported by the available literature. Cross-border FDI has significantly increased since the implementation of the single market and especially so across Europe. The evidence suggests that the single market has promoted foreign establishment across Europe which has been especially beneficial for the enlargement countries. However, the single market for capital is not "complete" – the European Commission is currently investigating ways to create a Capital Markets Union, in order to further facilitate Europe-wide flows of capital (see Lannoo, 2015, for an overview).

# 6. Free movement of persons

**Major events in the development of the free movement of persons**

1957 – The principle of the free movement of persons exercising economic activity is established in the Rome Treaty.

1968 – Restrictions on the movement of workers and their families are abolished.

1985 – The Schengen agreement on elimination of border controls is signed by Germany, France and the Benelux countries. Five years later, the same countries agree to eliminate border checks between themselves.

1990 – The principle of free movement of economically non-active persons (i.e. self-sufficient, students and retirees) is established across the EC.

1993 – The Maastricht Treaty formally establishes 'EU citizenship', granting EU citizens the right to reside anywhere across the Union (after meeting certain conditions).

2004 – The Free Movement Directive (2004/38/EC) replaced most previous regulation to consolidate the right to free movement for EU citizens. Regulation 883/2004 coordinates the social security systems across the Union.

2007 – Some of the EU15 member states impose transitional arrangements in response to the enlargements of the EU in 2004 and 2007, whereby citizens of the new member states only have limited access to labour markets (for a period of maximum seven years).

**Source: HM Government (2014d).**

It is of fundamental importance that the factors of production are mobile across a single market in order to meet labour shortages and -surpluses. However, the free movement of persons is by far the most disputed of the four freedoms – fears of increasing unemployment, downward pressure on wages and so-called welfare tourism, especially following the enlargements of 2004 and 2007, were heard in many of the old member states. Brain drain and falling productivity were possible outcomes in the new member states (NMS).

However, *within*-country mobility is low in the EU (Dhéret et al., 2013), suggesting that the removal of barriers to *between*-country mobility should not have any large effects as long as other (labour market) reforms are not undertaken. Bonin et al. (2008) found that the annual between-country mobility in the EU15 is 0.1% while within-country mobility is 1%. Barslund and Busse (2014) confirm that Europe as a whole is still characterised by low labour mobility, despite high rates of unemployment in many countries. There is, however, a rather pronounced East-to-West flow of persons across the Union. In 2014, the countries with the highest shares of non-national EU citizens were Luxembourg (39%), Cyprus (13%), Ireland (8%) and Belgium (7%), according to Eurostat figures.

## 6.1 Labour market effects

Following the enlargement in 2004, only three incumbent EU members chose to open up their labour markets immediately (Ireland, Sweden and the UK). The remaining countries imposed 'transitional arrangements' under which their labour markets were to be opened up over a period of maximum of seven years. The objective was to protect the national labour markets against potential mass movement from the NMS. Most studies on the immediate labour market effects following the enlargement, reviewed by Kahanec and Zimmermann (2009), did, however, only find modest effects and they seem to have evolved regardless of whether the country imposed transitional arrangements or not. On the one hand, Ireland was the EU country that received the highest amount of NMS citizens (2% of the Irish working-

age population), while Sweden did not receive significantly more than any other country. On the other hand, Austria, which did impose transitional arrangements, received a significant share (1.4% of the Austrian working-age population), while France and the Netherlands did not. Economic, geographic and language factors seemed to have been the key determinants. That NMS citizens move in order to receive more generous welfare benefits in the older EU states has hardly received any empirical support. Wages, not welfare, is the predominant driver.

When looking at descriptive statistics for the years prior to- and post enlargement, no significant increase can be found in EU15 unemployment rates, albeit slight increases in the Irish and UK rates. However, most studies point to the complementary effect of NMS citizens – they find employment in sectors where there was excess demand, such as hospitality, agriculture, manufacturing and business administration. Hence, they complement, rather than compete with, the incumbent work force. Studies on the sending countries also find positive employment effects (i.e. decreased unemployment, higher wages). However, labour shortages in certain sectors have been observed, when workers with specialist knowledge have left the country. In sum, the literature review by Kahanec and Zimmermann (2009) finds no significant effects on wages and employment rates.

If anything, the early literature suggests that personal movement has been a significant contributor to economic growth, through improved allocation of human capital and 'brain circulation' across the single market. In addition, remittances (i.e. workers sending money to their family at home) have helped to ease the effects in net sending countries. The authors' message is thus that the free movement of persons is a *"...key precondition to reap the benefits from the opportunities offered in the labour market, to ensure sustainability of member states' welfare systems, and to strengthen the EU's global competitiveness"* (p. 38).

### 6.1.1 Effects on receiving countries

In a recent report, the Migration Advisory Committee (2014) uses descriptive statistics to assess the macroeconomic impact of the increase of low-skilled labour from other EU countries into the UK, but figures are often presented for the EU15 as well.

It shows that the impact on GDP per capita, both in the UK and the EU15 as a whole, has been small, +0.2% (i.e. the rise in population has been matched by a proportional rise in GDP). For the EU15, the effect is +0.1%. There have been no clear effects on productivity, and only a small reduction in the price level of non-tradable services. The fiscal impact is small but positive, since the average EU mover (i.e. EU citizens living in another EU country than their home country) is working and has few children. The overall message from the study is that the effects of the enlargement have been modest. The employment rate of the UK-born working-age population has remained unchanged.

A more detailed study on the subject is provided by Åslund and Engdahl (2013), who study the economic effects in the southernmost part of Sweden (specifically, municipalities in southern Götaland). An explicit distinction is made between municipalities that are within 50 km distance from a ferry line harbour (treatment group) and municipalities that are more than 50 km away (control group), in order to see if there are different effects between the regions following the eastern enlargement of the EU. As such, they estimate difference-in-differences regressions where the labour market variable (e.g. employment or earnings) is regressed on individual control variables (age, education, industry), time fixed effects,

municipality fixed effects and a dummy variable indicating if the municipality is in the treatment group after 2004 or not, with sample data from 2000 to 2008.[40]

In the introduction of their paper, they argue that wages in destination countries may fall due to competitive pressures from low-wage countries, *even though the actual flows of workers are not significantly affected*. Workers in the receiving countries may accept lower wages (or, more likely, lower wage increases than would otherwise have been the case) to keep competition out. As such, the open borders affect the receiving country's labour market without an increase in the number of foreign workers. The authors argue that this effect is likely to be larger in local labour markets that are closer to the new competition, such as those Swedish regions with proximity to a ferry terminal.

This turns out to be (at least partially) supported by the regression results. The enlargement did lead to a slight increase in the presence of foreign workers from the accession countries, both permanent and temporary, but the EU-workers did *not* concentrate within the harbour municipalities. However, earnings in those regions fell by one percentage point compared to the control regions. The effects were stronger for workers with lower earnings, e.g. younger-, less educated- and/or foreign-born workers. However, there were no effects on employment.

Regarding the transitional arrangements that most EU15 countries imposed when the enlargement took place in 2004 and 2007, Baas and Brücker (2012) investigate their impact on the British and German economies. Since Germany chose to impose such arrangements while the UK did not, the comparison can be fairly representative for the EU as a whole. The analysis compares two scenarios, one where Germany maintains its arrangements for the maximum of seven years, and one where Germany would have fully opened up its labour market in 2004. The first scenario (i.e. the actual scenario) would thus include a diversion of EU movers from Germany towards the UK, compared to the second scenario, and the report analyses how this diversion has affected the two economies. They estimate a regression on the effect of the arrangements on the flows of persons and use the results from the regression to simulate the two scenarios.

The simulations reveal that the diversion of EU movers has positively affected the UK's GDP, employment and total factor income, while there has been no such effect for Germany. However, German workers have benefited from a higher wage rate and a lower unemployment rate as compared to the 'fully opened' scenario. These results lead Baas and Brücker (2012) to conclude that the transitional arrangements have created an aggregate loss for the EU15 countries as a whole, but that the distribution of this loss is ambiguous. If the intention to impose transitional arrangements was to protect the native workforce at the expense of overall economic performance, it seems as if they have been successful. It should, however, be kept in mind that the estimated effects have been of a rather small magnitude.

**Single Market Stylised Fact #11**

**The intra-EU flows of persons have been fairly small and so have the economic effects in net receiving countries. The transitional arrangements seem to have had a minor distributional impact, at most.**

### 6.1.2 Effects on sending countries

A less commonly investigated aspect of the free movement of persons is how it affects the sending countries' labour markets. In general, the free movement of labour is considered to

[40] They perform an interesting robustness check for the credibility of the model, by estimating the same model on data for 1994 to 2002 with 1998 as the "break" year. All coefficients turn out insignificant, as expected.

be of a win-win character for both sending and receiving countries. However, in her case study on Romania, Vasile (2014) argues that the higher is the demand for qualified labour and the longer is the period abroad for the moving workers, the less beneficial it becomes for the sending country.

The mechanism through which this works is of a "greasing-the-wheels" character – when labour market distortions arise, the free movement of workers can help mitigate the arising costs through a more efficient allocation of labour across the EU. Remittances from "home" citizens working in other EU countries provide additional income for households in the sending country. However, when the average period becomes longer and the average skill-level of the mover becomes higher, productivity falls in the sending country. When the average EU mover is high-skilled (well educated) rather than low-skilled, the sending country experiences a shortage of skilled labour. In relation to the loss in productivity, tax income and thus public investment, benefits will decrease in the longer term, as will domestic consumption.

These findings are complemented by those of Docquier et al. (2014), who investigate the impact on the wages of workers from labour mobility, across the OECD. They find that wages of the low-skilled workers in the receiving countries slightly increase with labour immigration, but that the effect is the opposite in sending countries. The main reason is, just as Vasile (2014) also notes, that the migrating labour force is on average more educated than the native labour force. An inflow of skilled labour is job creating and/or complementary to low-skilled labour, thus raising the latter category's wages. The opposite effect can be seen for countries with high outflow of workers, where the wages of the low-skilled are declining.

| **Single Market Stylised Fact #12** |
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| **The average EU mover is relatively skilled, which has led to a fall in productivity and wages in net sending countries.** |

## 6.2 Welfare tourism?

So far, the above studies have analysed the effects of the 2004 enlargement at the macro level. In a slightly different fashion, Gerdes and Wadensjö (2013) combine micro- and macro-level data in their assessment of the inflow of NMS citizens into Sweden.[41] They investigate the size of the personal movement, educational attainment and earnings of NMS workers in Sweden along with the wage- and employment effects, as well as income transfer characteristics. The average age of NMS movers is similar to that of native Swedes, but the former are more educated.

An important pitfall is stressed when it comes to employment rates: many EU movers do not deregister when they leave Sweden. As such, one cannot be certain whether a registered person who is not in employment, or enrolled in any unemployment programme, is part of the labour force (unemployed) or has left the country (not unemployed). This leads to an overestimation of the unemployment rate by an unknown magnitude.

A Mincer wage equation (wage regressed on age, gender, education and country of birth) shows that NMS citizens who arrived in Sweden between 2000 and 2010 on average have 6% lower wages than natives. This is an interesting trend break, since the longer a person has lived in Sweden, the smaller is the wage difference, but people arriving in 2000-2010 have a lower differential than those arriving in 1990-1999. There is, however, a significant variation

[41] Sweden chose to not impose any transitional arrangements and is therefore considered a useful reference point on these issues.

between persons from different NMS countries: the Lithuanian wage difference is 10%, while Czechs, Hungarians and Slovaks show no significant difference.

There are no clear patterns in the occupational distribution across sectors between NMS citizens as a whole and natives, but there are some country-specific exceptions: 13% of the Lithuanian workforce in Sweden work in the agricultural sector, but only 2% of the Swedes; the construction sector employs 7% of the Swedes, but 18% of the Lithuanians, 14% of the Poles and 11% of the Latvians; the health care sector employs 16% of the Swedes, but 27% of the Slovaks and 22% of the Hungarians; the financial services sector employs 16% of the Swedes but 21% of the Latvians. Swedes are only overrepresented in the trade- and communications sector (19% against 15% of the NMS workers) and in public administration (6% against 3%). These occupational patterns do of course explain the wage level differences to a large extent.

Furthermore, a regression is estimated where the share of people receiving income transfers (i.e. welfare benefits) is regressed on country of origin, age and gender. The results reveal that Swedes receive income transfers to a greater extent than NMS citizens. The coefficients for the latter group are, however, underestimated due to the previously mentioned lack of deregistration when leaving Sweden (which overestimates the total number of NMS citizens in Sweden). However, one can safely reject that welfare tourism became a reality following the enlargements of 2004 and 2007 (Gerdes and Wadensjö, 2013). The same message can be found in Ruist (2014), which finds no significant difference between the net effect on public finances in Sweden of NMS citizens and natives. Furthermore, he argues that the Swedish case can be seen as a lower bound estimate for the EU, since no transitional arrangements were imposed, coupled with the relatively generous Swedish welfare system.

The picture is similar across Europe. EU movers are more likely to be in employment than natives. Among those who are not in employment, the majority are retired, students, or seeking employment. Hence, there are no signs of welfare tourism at the European level (ICF GHK and Milieu, 2013). As for wage differences, Barrett et al. (2008) find that citizens from the NMS earn 10-18% lower wages than the natives in Ireland. However, the wage differences disappear when only low-skilled workers are compared (meaning that the wage difference is due to NMS citizens being overrepresented in low-skilled positions compared to native workers).

**Single Market Stylised Fact #13**

**There are no signs of welfare tourism following the Eastern enlargement. Movers from the new member states are more likely to be in employment than natives, often in low-income jobs.**

## 6.3 Conclusion

Intra-EU labour mobility is low and of an East-West character. The anticipated mass movement of Eastern European citizens following the enlargement rounds has been conspicuous by its absence. Fears of welfare tourism have proved unfounded and the effects on natives' earnings in the lower part of the income distribution are ambiguous, but certainly small. EU movers are often net contributors to public finances. Net sending countries run a risk of losing out on foregone productivity if the most qualified workers leave the country. The effect may be the opposite if workers return with a higher skill-level, acquired abroad.

# 7. Economic growth and integration

The primary objective for creating the single market was to promote economic growth. After going through the four freedoms and how they have affected trade, investment, labour markets, public finances, competition and innovation, we have reached the end station: the effect of the single market on economic growth.

## 7.1 Various growth models

Perhaps the most widely cited *ex post* study on effects of the single market on growth is provided by the Commission itself (Ilzkovitz et al., 2007). They combine micro- and macroeconomic analyses to present a thorough assessment of the aggregate effects of the single market until 2006, often using the US as the benchmark. As such, the observed effects are of a short- and medium term nature. The general picture that emerges is that the single market has been fairly successful in promoting integration and competition, but less so when it comes to promoting innovation.

Between 1992 and 2006, EU15 GDP increased by 2.2% and employment by 1.5%, as an effect of the single market. These conclusions are reached through simulations in the Commission's QUEST model,[42] where assumptions on, for example, price mark-ups and total factor productivity (based on findings in previous studies) have been made.

Straathof et al. (2008) analyse the effect of the increased trade found earlier in their report (see section 3.1) on economic growth. The data sample is divided into five-year periods (1960-2004) and GDP per capita is regressed on trade openness (trade-to-GDP), while controlling for initial GDP per capita (i.e. at the start of each five-year period), investment ratio, population growth and human capital (measured as primary- and secondary school enrolment). In addition, a dummy variable for EU membership is included to control for non-single market sources of growth arising from membership in the Union, along with period-specific effects to account for global time-varying effects.

The long-run effect on EU GDP of the increased openness attributable to the common market ranges from 2.5% to 10%, of which two thirds are yet to be materialised (for the Netherlands, the long-run effect of the common market ranges from 4.4-17.5%). One of the main insights from the paper is that it may take several decades to realise the full gains from economic integration, through reallocations of production factors, productivity improvement and innovation.

Badinger (2005) estimates the growth effect of the single market by comparing the EU integration with an alternative scenario with GATT[43]-only liberalisation (i.e. the liberalisations agreed upon at the multilateral level of the parties to the GATT). The implementation of the single market is modelled as a 5% additional reduction in trade costs between the EU member states (over their commitments made in the GATT).

Badinger concludes that the economic integration has brought significant temporary growth effects – if there had been no integration since 1950, European GDP per capita would have been roughly 20% lower in 2000. The major contributor is the GATT integration, but European integration accounts for one-third of the effect. The growth effects mainly arise from improved efficiency (i.e. technology-led growth, rather than investment-led growth). Each integration step leads to improved temporary growth performance that has accumulated to 7% additional growth compared to the GATT-only scenario over time.

[42] See http://ec.europa.eu/economy_finance/research/macroeconomic_models_en.htm for information on the QUEST model.
[43] General Agreement on Tariffs and Trade.

The above studies have approached the single market as an external shock. In contrast, Boltho and Eichengreen (2008) try to see how far, for each step of European integration (since the 1950's), they can push the argument that economic development would *not* have been very different, had the integration step never taken place. They adopt assumptions that are admittedly biased in favour of such a claim, in order to produce a lower bound effect of European integration. Overall, they conclude that European GDP would have been 5% lower without the EU and its efforts.

In the specific case of the single market, they argue that roughly half of the effects commonly attributed to the single market would have happened anyway. To some extent affected by American and British waves of liberalisation, the European economies were deregulated much faster in the late '80s than in the '90s. However, foreign competition in public procurement processes would most likely not have been allowed to the same extent, nor would the principle of mutual recognition have been implemented. They also argue that some European governments "took cover" behind the EU (EC) to pursue unpopular but necessary liberalisation measures.

A novel way of addressing the problem of a proper benchmark is proposed by Campos et al. (2014), who employ the synthetic counterfactuals method. Specifically, they estimate how the EU countries' GDPs per capita have developed ever since they joined the EU, compared to a weighted average of a set of countries that share the same economic structure as the joining country but did not join the EU. The evaluation of the matching object is based on investment shares, population growth, initial income, shares of agriculture and industry in value added and secondary- and tertiary school. For example, the "synthetic" comparison object for Sweden consists of Switzerland (31.5%), Iceland (27.3%), Canada (26.8%), Egypt (9.5%), Albania (4.7%) and Japan (2%). This combination is the one that matches the GDP path of the *pre-accession* years (in the case of Sweden 1980-1995) the best.

Using this methodology on the countries that joined the EU in '73, '81, '86, '95 and '04, the study concludes that the EU membership has spurred GDP growth by 12% on average. The effects do, however, vary greatly between countries. Ireland is, by far, the EU15 country with the highest pay-off from its EU membership – Irish incomes would be 43% lower today had it not joined the EU in 1973. Other countries with large benefits from EU membership are Denmark, the UK, Portugal, Spain, Austria, Estonia, Latvia, Lithuania and Slovenia. The effect has been smaller but still positive for Finland, Sweden, the Czech Republic, Poland and Slovakia. The effect on Greece of joining the EU is, by contrast, negative; its GDP per capita is roughly 15% below synthetic Greece. The sample data ends in 2008, so the negative estimated effect is not influenced by the economic crisis. The authors suggest that joining the common market in 1981 was too early and sudden for the relatively uncompetitive Greek industrial sector[44].

**Single Market Stylised Fact #14**

**The single market has made a significant contribution to EU GDP. The effect per member state depends on the economic structure of the individual country.**

## 7.2 Economic convergence

This section presents articles that analyse how integrated the EU members actually are and how such a process has affected their respective economic performance in relation to each

[44] The European Commission of 1976 argued that accession negotiations should be delayed until Greek producers were deemed competitive enough. This view was rejected by the Council of Ministers, however (Campos et al, 2014, p. 15).

other. Typically, articles in this section investigate whether the member countries' GDPs have converged or diverged, and to what extent membership in the EU (and thus the single market) has contributed to this.

There are two types of convergence in the economic literature: $\beta$-convergence and $\sigma$-convergence. The former refers to situations where the initial level of GDP per capita is negatively related to the growth rate of the studied period (i.e. a catch-up effect where the "poorer" countries grow faster than the "richer" countries). The latter refers to a decreased dispersion of the levels of GDP per capita across countries. [45]

Crespo-Cuaresma et al. (2008) estimate a regression on the EU15 and their growth performance between 1960 and 1998 (divided into four sub-periods) to test for $\beta$-convergence. They do indeed find that poorer countries have caught up with richer ones, at a convergence rate of 4 to 6 per cent a year. In other words, the income gap per capita is closed at a rate of 4-6 per cent per year. This effect is stripped of convergence effects from increased trade, since openness (measured as trade/GDP) is included as a control variable (and is positively related to growth). Furthermore, the number of years as a member of the EU is also found to have a positive impact on growth. Hence, EU membership does lead to GDP convergence, and this EU effect grows stronger the longer a country has been a member. The suggested theoretical interpretation is that the EU (and the single market) offers access to a broader technological framework which is relatively more beneficial to less developed countries. Similar results are found in Kutan and Yigit (2007), who specifically show that knowledge spillovers as well as net budget transfers have played a significant role when examining Spain, Portugal, Austria, Finland and Sweden with France as the benchmark country (sample period 1980-2004).

It does, however, remain unclear to what extent, and through which channel, the single market has contributed to economic convergence. Additionally, it is not clear if all countries are affected in the same way by joining the union and/or if the rate of convergence is constant over time. König (2014) addresses some of these issues when he examines the EU27 countries' real income per worker in the period 1993-2012. He finds evidence of a $\beta$-convergence of 1.5%, implying that a 1% increase in a country's initial income per worker reduces the growth rate in the following 19 years by 1.5%. There is also evidence of a $\sigma$-convergence: the standard deviation of income per worker between countries for each year decreased from 0.95 to 0.7. Furthermore, the decline was fairly stable over the sample period, where only 1999 and 2009 saw $\sigma$-divergence.

The paper does also investigate whether the single market offers larger benefits to smaller countries than to larger ones. The theoretical ground relies on scale effects of market size, and the notion that the single market provides a relatively larger increase in market size for a small country than for a big country. Population size does turn out to be insignificant for the EU27, when country-specific control variables are included. However, when one only considers the EU15, a size effect is apparent (corroborating the findings by Crespo-Cuaresma et al. (2008) on membership duration). This leads him to *suggest* that the convergence path within Europe is non-linear and indeed may have several turning points. Depending on which sample period that is investigated, different results may be found (since countries may be in a converging or diverging part of the process[46]). He concludes by advocating further integration of the single market as the most important policy objective for the EU.

[45] Additionally, $\beta$-convergence is a necessary but not sufficient condition for $\sigma$-convergence. For example, two economies may be on a converging path ($\beta$-convergence) but a random shock may disturb the process and increase the variation ($\sigma$-divergence).

[46] When a small country joins the EU, the increased market size would lead to convergence during the first years of membership. After some time, this effect will wear off.

**Single Market Stylised Fact #15**

**The single market has had a converging effect on the EU economies' GDP levels, but significant differences between member states still persist.**

## 7.3 The EU index

The EU index[47] of economic integration developed by König and Ohr (2012) is composed of four groups of indicators: Single Market, Homogeneity (i.e. similarity in GDP per capita), Symmetry (of business cycles) and Conformity (with EU law), evaluated from 1999 to 2012.

The first component of the Single Market sub-index consists of data on each country's intra-EU trade-to-GDP ratio as well as intra-EU trade-to-total trade (referred to as 'EU openness' and 'EU importance', respectively). The second component is capital integration, measured as each country's stocks of intra-EU FDI (both in- and outward). The third component, labour integration, is measured as each country's ratio of foreign EU-workers to domestic workers (openness) and to foreign workers (importance), respectively. The data is normalised so that each country receives an index value between 0 and 100, where 100 implies maximum integration. When grouped together, one receives an overall single market index value which tells us how well integrated into the single market each country is (and how its degree of integration has changed over the sample period). In turn, the four groups of indicators are aggregated to form an overall EU integration index.

In König and Ohr (2012), the overall integration index is the variable of interest – they compare each EU15 (except Luxembourg) country's index value in 1999 and 2010. They find two distinctive results. First, all countries, except Spain[48], became more integrated over the sample period. Second, the level of integration differs between countries.

Cluster analysis reveals the division. One cluster of countries, "the core", shows the highest level of integration and consists of Austria, Belgium (by far the most integrated country), Finland, Germany, France and the Netherlands. The second cluster consists of Italy, Portugal and Spain, followed by the third cluster, the non-EMU countries Denmark, Sweden and the UK. Greece and Ireland form the fourth cluster, furthest away from "the core". This has implications for future EU reforms (including further integration as well as enlargements) since heterogeneity suggests that the policy preferences may vary.

### 7.3.1 Subjective well-being

One of the co-authors uses the EU-index in his dissertation on European economic integration (König, 2014). He takes a novel approach to the EU project and investigates its effect on the *life quality* of the citizens, through *subjective well-being* (SWB). In addition, the effect is estimated separately for each of the four sub-indices, thus offering an insight into the contributions of the single market on Europeans' SWB, in the EU15.

The SWB (drawn from the Eurobarometer surveys of some 180 000 respondents and covering the period 1999 to 2012) is regressed on the EU index as the variable of interest. Additional variables are included to control for macroeconomic conditions and socio-demographic characteristics, along with country fixed-, year- and time variables. The SWB is a discrete variable, ranging from 1 to 4, where 4 reflects 'very satisfied'.

Starting with the control variables, we see some interesting results. Not surprisingly, unemployment has a large and negative effect on a person's SWB. However, contrary to

[47] www.eu-index.org
[48] However, the Spanish index value of 2012 was higher than its value in 1999.

popular (or at least to economists') belief, inflation and GDP per capita are insignificant. This may be due to the fact that inflation has been stable and low over the sample period within the union – fear of inflation is not a major concern for European individuals today. A similar explanation is suggested for GDP per capita, in the sense that all sample countries have reached a certain threshold level of material standards where an additional unit does not affect one's SWB to any large extent. Short-term *fluctuations* of GDP per capita do have a small but significant effect, however.

The composite EU index has a positive and significant effect, all other things equal – EU integration makes citizens more satisfied. A decomposition of the index reveals that the Single Market and Homogeneity are significantly positive, whereas Symmetry and Conformity are insignificant. Single market integration has the highest marginal effect of them all at 0.43, implying that a one-point increase in single market integration raises the probability of being 'very satisfied' by 0.43%. Hence, further integration into the single market and making use of its full potential have a significant effect on the well-being of the citizens. A single market index value of 70 should make a majority of a country's citizens 'very satisfied' with their life, other things equal. Belgium is the only country that had surpassed that level in 2012.

**Single Market Stylised Fact #16**

**Almost all EU15 members have become more (economically) integrated. This has positively affected EU citizens' (perceived) life quality.**

### 7.3.2 Estimating economic growth using the EU index

The Bertelsmann Stiftung (2014) has in a recent report estimated the growth bonus from the single market using the EU index. As such, it provides a new method on how to account for the counterfactual scenario of 'no single market'. In a first stage, a growth per capita regression is estimated on the EU index along with the previous year's GDP per capita, birth rate, the investment rate, public consumption/GDP and inflation. The central finding is that increased integration of one EU index point is associated with, other things equal, a 0.08% increase in economic growth. Using this figure, it is possible to compare the actual GDP per capita in 2012 to a counterfactual GDP per capita, assuming that each country's European integration would have remained at its 1992 level.

As such, actual growth during the sample period has been stripped of the growth stemming from increased EU integration. This formula has been calculated for the EU14 (due to lack of data for Luxembourg), and the growth effect of the single market for each country is obtained. The results show that the single market's accumulated effect on GDP per capita has been positive for all member states, except for Greece (which concurs with the findings of Campos et al. (2014) who also find negative effects for Greece). While Germany (+2.3%) and Denmark (+2%) have experienced the most positive effect, Greece (–1.3%) Sweden and Portugal (both +0.4%) have the lowest.

## 7.4 Conclusion

The single market has been a significant enabler for economic growth in Europe. Since the methodologies differ across various analyses, comparisons are not easily done, but 2-4 per cent seems to be in the ballpark. The closer economic integration of the member states has led to convergence of GDP levels, albeit it without "full" convergence. It has also been argued that closer integration in the single market is coupled with a higher overall life quality, but one should of course be cautious when interpreting such findings.

# 8. Concluding remarks

The available economic literature has showed that the free movement of goods and capital has had significant effects on the European economic landscape. Trade in goods and flows of investments have increased since the creation of the single market in 1992, leading to a greater variety of available products for consumers and tougher competition. Furthermore, the EU members of Eastern Europe have been able to attract foreign capital to a great extent after joining the EU. Consequently, economic growth has been positively affected.

The free movement of services does, however, not seem to have been practically realised yet. So far, there have been no significant indications that trade in services has increased, and neither has competition in services sectors. It remains to be seen whether the Services Directive will change this. The free movement of persons has also not had any large economic effects, primarily due to the fact that there has not been much intra-EU movement. Those EU citizens that do move within the union have, however, been shown to be more educated and more likely to work than natives. Fears of negative effects on public finances, wages and employment have been proved unfounded.

The single market has entailed the expected positive effects where it has been properly implemented. The efforts for a deeper integration of the single market for services and enhanced possibilities for people to move across Europe should therefore continue. The single market has come a long way in removing barriers across Europe, but more can still be done. This literature review has shown that it would most likely be a good idea to do so.

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