### Table S1.1: Relentless growth in the United States, a miracle in Europe, and resurgence in Asia, 1820–2008

(average annual compound growth rates, GDP per capita, US$ 1990 Geary-Khamis PPP estimates)

| Period | Western Europe | Southern Europe | Eastern Europe | Former Soviet Union | United States | Japan | East Asia | Latin America |
|---|---|---|---|---|---|---|---|---|
| 1820–1870 | 1.0 | 0.6 | 0.6 | 0.6 | 1.3 | 0.2 | −0.1 | 0.0 |
| 1870–1913 | 1.3 | 1.0 | 1.4 | 1.0 | 1.8 | 1.4 | 0.8 | 1.8 |
| 1913–1950 | 0.8 | 0.4 | 0.6 | 1.7 | 1.6 | 0.9 | −0.2 | 1.4 |
| 1950–1973 | 3.8 | 4.5 | 3.6 | 3.2 | 2.3 | 7.7 | 2.3 | 2.5 |
| 1973–1994 | 1.7 | 1.9 | −0.2 | −1.6 | 1.7 | 2.5 | 0.3 | 0.9 |
| 1994–2008 | 1.6 | 2.7 | 4.0 | 4.2 | 1.7 | 1.0 | 3.9 | 1.6 |

Note: Regional aggregates are population-weighted. Western Europe refers to Austria, Belgium, Denmark, Finland, France, West Germany, Italy, the Netherlands, Norway, Sweden, Switzerland, and the United Kingdom. Eastern Europe refers to Albania, Bulgaria, Czechoslovakia, Hungary, Poland, Romania, and Yugoslavia. Southern Europe refers to Greece, Ireland, Spain, and Turkey. After 1989, West Germany becomes Germany, and the data reflect the newly independent countries in Eastern Europe that emerge from Czechoslovakia and Yugoslavia.
Source: Maddison 1996; Conference Board 2011.

At the beginning of World War II in 1939, per capita GDP was about $5,000 in Western Europe and $2,000 in Eastern and Southern Europe. By contrast, per capita GDP in the United States was more than $6,500. By the end of the war in 1945, per capita GDP had fallen to $4,000 in Western Europe and to under $2,000 in Eastern and Southern Europe. But by the first oil price shock in 1973, per capita income was more than $12,000 in Western Europe, just under $6,000 in Southern Europe, and around $5,000 in Eastern Europe. Per capita income in the United States also grew, from $11,700 after the war to around $16,500 in 1973.

Europe's productivity surge was multifaceted. From an accounting perspective, much of the surge in the 1950s reflected higher labor productivity, originating in capital deepening and heightened total factor productivity. Factors of production destroyed or misallocated as a result of the war were allocated more efficiently, incorporating new technologies and improved scale economies.[1] Eichengreen and Vazquez (2000) describe a period of "extensive growth," driven by additions to the stock of labor and capital and helped by stable returns to capital and labor. By imitating U.S. production practices and importing American technology, European countries experienced further productivity growth.

Growth accounting reveals that in the 1960s labor productivity in most countries grew from both applying more capital ("capital deepening") and improving total factor productivity (largely "technical progress"; figure S1.2, panel A).[2] These patterns held across Western Europe and were even stronger in Southern Europe. By contrast, higher total factor productivity and (to a lesser degree)

more work drove the United States's comparatively slower growth. Europe, unlike the United States, had countries to rebuild after the war and reallocated labor accordingly. This was a time of "classical catch-up." Countries improved productivity by bringing unexploited technology into use rather than through innovation. Europe realized productivity gains by rebuilding destroyed capital and importing technology from the United States (Abramovitz 1986). After 20 years of war and economic depression, there was finally room for large productivity gains.

European countries also integrated into a relatively stable global economy. After World War II, policymakers tried to understand the sources of the global economic disorder of the 1930s and apply its lessons[3] A relatively liberal regime of international trade underpinned by fixed but adjustable exchange rates was one result. The Marshall Plan, which acted as a "structural adjustment" program and anchored postwar trade liberalization, may have initiated Europe's commitment to trade. The Marshall Plan may have even helped create the early formal mechanisms of European integration (De Long and Eichengreen 1993). Beginning with the European Coal and Steel Community in 1951 and the European Economic Community in 1958, formal agreements led to significantly expanding intra-European trade.

Europe's trade openness may have both triggered more efficient allocation of investment and accelerated technology transfer from the United States. International integration's importance is evident from growth patterns in Portugal and Spain, which were less closely integrated with other Western European countries until the mid-1950s and early 1960s. Spain saw no major acceleration until it entered technological aid arrangements with the United States in the early 1950s, and Portugal's growth rate doubled after it joined the Bretton Woods system in 1960.

In many countries, an "ever closer union" went hand in hand with a domestic political economy of growth that permitted high investment in those catch-up years (Eichengreen 1994). The social market economy led to moderated wage demands in exchange for commitments from firms to reinvest profits. The high postwar investment rates are derived from a complex network that bound labor's participation in firms' production and investment decisions with relatively generous unemployment benefits and limited industrial policy supports. Growth rates were lower in countries that did not strike these labor-firm bargains—such as the United Kingdom.

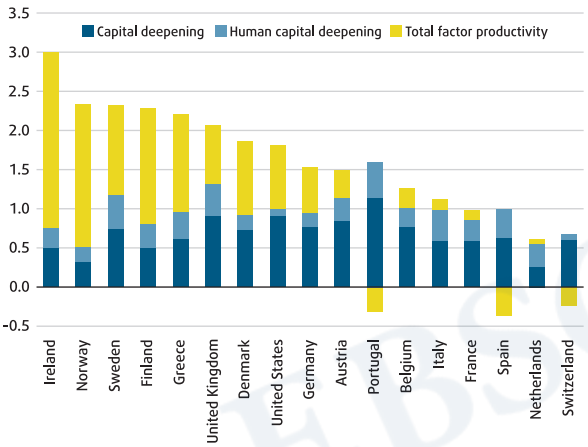
Despite a different economic philosophy, international integration proceeded apace in Eastern Europe. From a growth accounting perspective, the former Soviet Union's pattern was similar to that of other parts of Europe, with productivity growth driving much of the postwar boom. The high rate of capital accumulation in the former Soviet Union's postwar program did result in a large capital-deepening effect, though (Crafts and Toniolo 1996). Eastern Europe grew by different means: communism fueled an "extensive growth" driven by more labor and capital instead of improved technology or efficiency. But multifactor productivity—crudely estimated since the data are deceptive—was lower in the communist countries than in any economy in Western Europe, even when compared with countries with similar per capita income levels, such as Ireland or Italy (Crafts and Toniolo 2008).

## 1974 to 1993: convergence in the north and south, collapse in the east

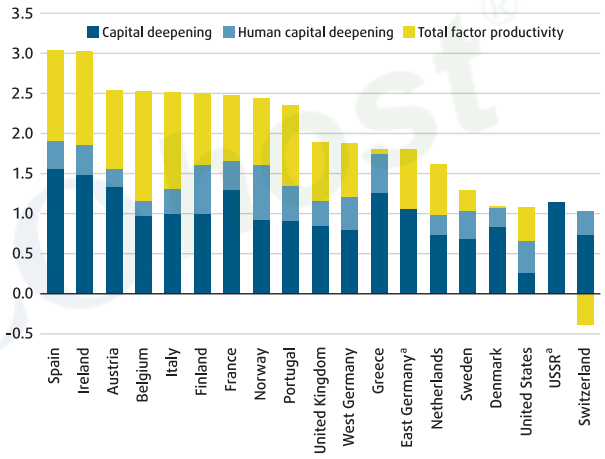
Rapid postwar growth ground to a halt in the early 1970s. The slowdown was widespread and affected market and socialist economies alike. Growth rates across developed and developing economies were at least 2 percentage points lower from 1973 to 1990 than from 1950 to 1973 (table S1.1). The collapse of the Bretton Woods international monetary system and the first oil price shocks

### Figure S1.2: Decomposing the growth in worker productivity

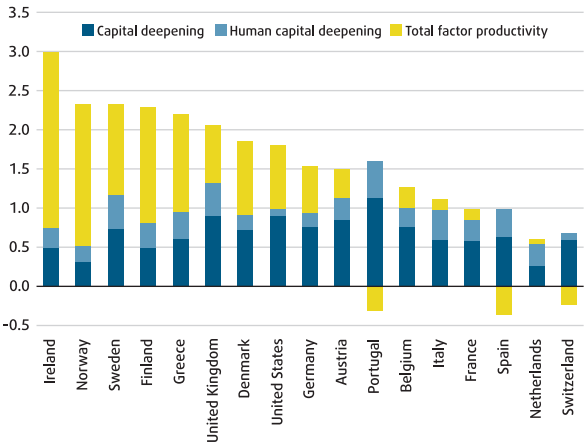
A. Big postwar increases in productivity, especially in the south, percent, 1960–70




B. Productivity growth weakens across Europe, but outstrips the United States, percent, 1970–90



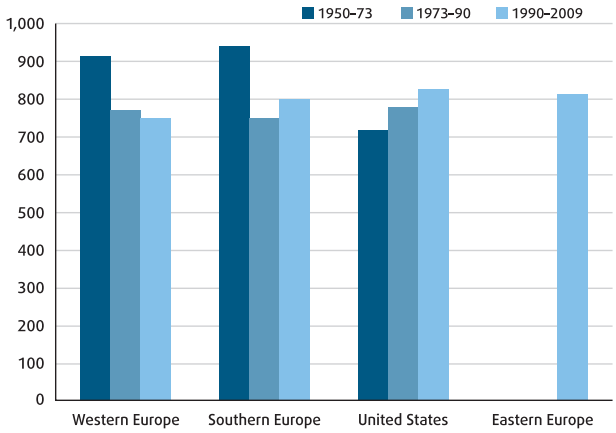

C. Productivity growth drops below the United States, except in Northern Europe, percent, 1990–2003




* Data on human capital deepening are not available.
Source: Crafts and Toniolo 1996 and 2008.

### Figure S1.3: Europeans work fewer hours while Americans work more

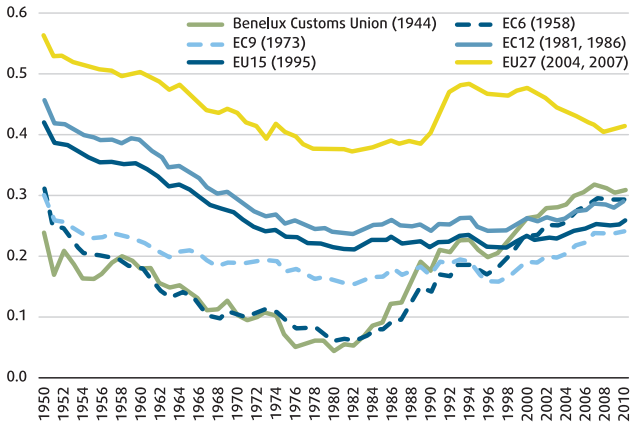
(annual hours per worker, 1950–2009)




Source: Conference Board 2011.

### Figure S1.4: Convergence until the 1980s, divergence since

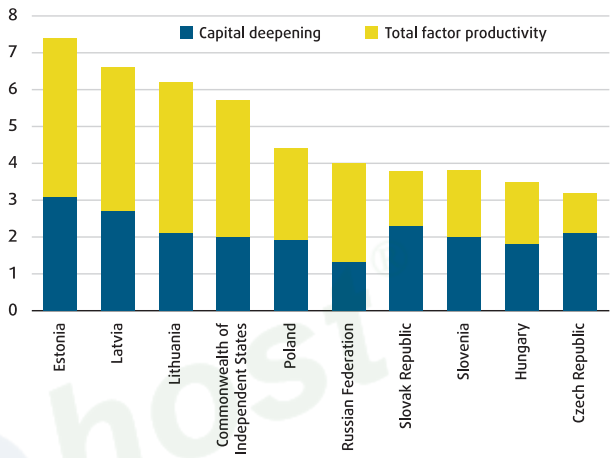
(coefficient of variation of GDP per capita in Europe, 1950–2010, US$ 1990, Geary Khamis PPP estimates)




Note: The aggregates illustrate the EC or EU membership for the identified period regardless of whether that unit has been created or not. For example, the EU27 reflects data for Eastern European countries for 1950, though these countries did not join the European Union until 2004 or 2007. The aggregates reflect West Germany until 1988 when a unified Germany is added in its place.
Source: World Bank staff calculations, based on Conference Board (2011).

### Figure S1.5: Big increases in productivity during the transition, especially in the former Soviet Union

(decomposition of labor productivity growth, percent a year, 1990–2006)




Source: Iradian 2007.

were associated with the interruption of the rapid trajectory of total factor productivity growth across Europe. Growth in the west fell from almost 5 percent in 1973 to 1.5 percent in 1974, and has yet to surpass 3.5 percent. The driver of the postwar boom—improved factor productivity—weakened across the region, along with capital accumulation and improvements in workers' skills (figure S1.2, panel B). Every country experienced declines in total factor productivity growth.

Even so, from a longer historical perspective, growth in Western Europe was reasonably impressive, averaging 1.7 percent over a 20-year stretch. But convergence to U.S. income levels stopped. In 1982, Western Europe's per capita income was about 77 percent of the United States's. By 1990, it was 72 percent and by 1999, 69 percent. Although the United States also saw an interruption in growth that slowed productivity increases, it continued to accumulate capital and improve skills. Once again, Western Europe was falling behind the United States. The prospective cohesion countries were a bright spot. Since 1945, Southern Europe—the poorest part of noncommunist Europe—has consistently grown faster than the rest of Western Europe. The prospect of membership in the European Community generated incentives for structural reform. Southern Europe grew at an average annual rate of 2.3 percent, compared with less than 2 percent in Western Europe. Yet, even in the cohesion countries, growth dropped off steeply.

The decline in Eastern European performance over this period was even steeper. Growth averaged just 0.8 percent in Eastern Europe and 0.9 percent in the former Soviet Union from 1974 until the end of central planning in 1990. During this period, the Soviet economy experienced an enormous decline in labor productivity, and total factor productivity growth may have even been negative over this period. Central planners ploughed back the earnings of large enterprises: investment-to-GDP ratio doubled from 1950 to 1970 while the capital stock grew 8.5 times. But the inefficiencies of heavy industrialization and forced capital accumulation became apparent by the 1970s (Crafts and Toniolo 2008). The collapse of central planning resulted in a free fall in output, and annual average compound growth from 1990 to 1993 was –3.5 percent in Eastern Europe and –6.5 percent in the former Soviet Union.

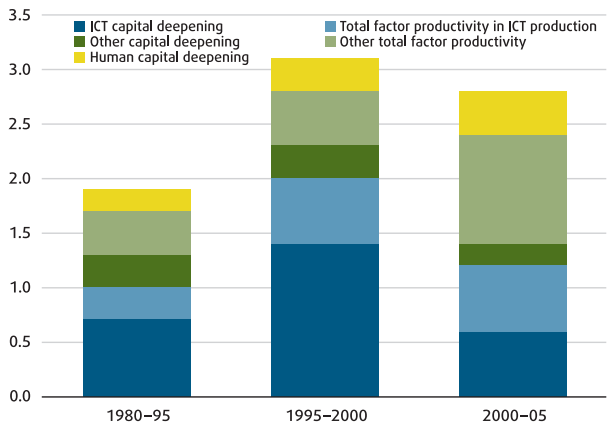
Perhaps the simplest explanation for this decline across Europe is that the inputs for catch-up growth had been exhausted. As the technology gap between the United States and countries such as France and Germany narrowed, the low-hanging fruit of imported productivity gains was plucked. Southern and Northern European countries that were slower to integrate into the European economic system benefited from productivity growth somewhat longer; they still had room to catch up to advanced Europe and the United States. It is also possible that the domestic and international institutions that so successfully supported rapid growth in Western and Southern Europe locked in a growth model that became progressively less suited to a changed global economy. The institutions that had underpinned extensive growth based on capital accumulation and imported American know-how were less suited to the intensive growth requirements of the period after the early 1970s (Eichengreen and Vazquez 2000).

**Figure S1.6: Productivity got a big boost from ICT in the United States, not so much in Europe**

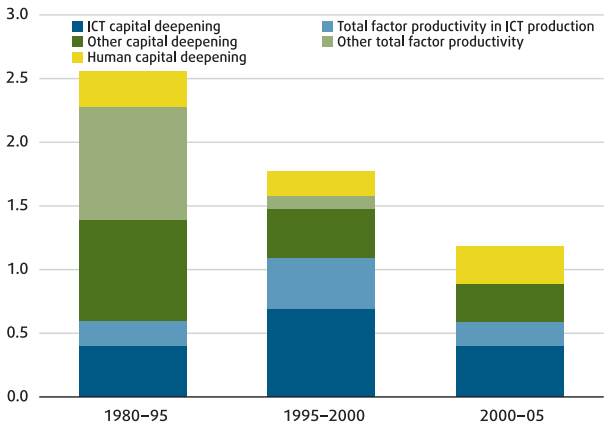
(contributions to labor productivity growth, 1980–2005, percent per year)

Source: van Ark, O'Mahony, and Timmer 2008.

A. Labor productivity went up in the United States in the mid-1990s—and stayed high




B. Labor productivity fell in the EU15, and ICT's boost was small



Among these outdated institutions were the mechanisms that facilitated a wage restraint and reinvestment consensus. As the potential for catch-up growth was exhausted, the demands for higher wages increased amid heightened union activity. And investment slumped. Whether this regime could sustain the existing rate of productivity, much less develop into a dynamic innovation engine, was questioned. The United Kingdom's relatively good performance during the 1970s and 1980s is sometimes attributed to the fact that it had not developed the same corporatist arrangements. The social market economy had started to show its weaknesses. It was good for countries catching up, but not for countries in the lead. It could take advantage of benign global conditions, but it would not adjust well to big changes in the world economy.

A range of labor market practices that may have dampened growth accompanied the postwar settlement. Two seemingly contradictory developments are particularly noteworthy. The gap in per capita incomes between the United States and Europe increased, but Europe continued to close the gap in labor productivity. The combination of a persistent gap in GDP per capita and increasing output per hour worked reflected a decline in work: lower labor force participation rates and a drop in working hours. Over time, Europeans have worked fewer and fewer hours than Americans (figure S1.3). In the 1950s, Western Europeans worked the equivalent of almost a month more than Americans. By the 1970s, they worked about the same amount. Today, Americans work an extra month compared with the Dutch, French, Germans, and Swedes, and work noticeably longer than less well-off Greeks, Hungarians, Poles, and Spaniards.

Put differently, the ratio of hours worked per capita fell from 127 percent in the west and 131 percent in the south in 1950–73 to 91 percent and 97 percent by 1990–2009. The lower opportunity costs of unemployment in a social market economy, longer holidays, and lower female labor market participation may explain this. Or it may simply be that Europeans value leisure more than Americans—chapter 6 further investigates this (Blanchard 2004). But the effects of Europe's declining work hours are clear: capital intensity increased as the slowing growth of labor led to a rise in real wages and a general substitution of capital for labor (van Ark, O'Mahony, and Timmer 2008). By the mid-1990s, many Western European countries had capital stocks per hour worked that were 10 percent higher than in the United States. When taken with the lower levels of multifactor productivity in Europe during this period, Europe's seemingly superior labor productivity performance is worrying. Its cause may lie not in innovative enterprises but in labor market rigidities resulting from the postwar consensus (van Ark, O'Mahony, and Timmer 2008).

## 1994 to 2009: convergence in the east

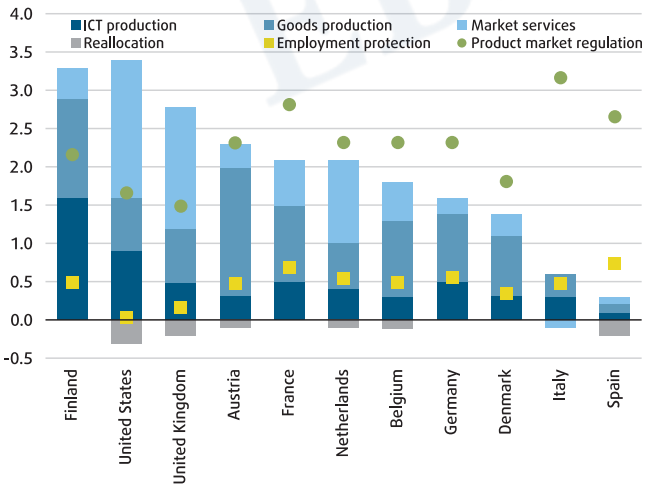
The general decline in performance from the 1970s gave way to considerable diversity by the 1990s. Output in Europe began to vary from the early 1980s and continued to do so through the 1990s and early 2000s, particularly in the west and south (figure S1.4). Between 1990 and 2009, Greece, Ireland, and the Netherlands experienced growth at or above 1989–2010 levels. By contrast, Denmark, Italy, and Switzerland experienced growth under 1.5 percent.

For most of Western Europe, catch-up with the United States continued to slow between 1990 and 2009. The average gap in per capita output was almost unchanged from 1973 to 2008 and closed at a diminishing rate in Southern Europe. In most European countries, labor productivity was below the United States's. Similarly, total factor productivity rates were lower in about three-quarters of European countries as European productivity continued to fall while the United States recovered. But again, the picture is varied. Denmark, Finland, Greece, Ireland, Norway, Sweden, and the United Kingdom had relatively rapid productivity growth during this period (figure S1.2, panel C).

In the newly independent countries of Eastern Europe, catch-up growth was based mainly on reallocating factors. After the massive collapse in output immediately after the end of central planning, Eastern Europe recorded faster GDP per capita growth than the rest of Europe and the United States. With the signing of the first EU Association Agreements in 1994 by Hungary and Poland, Eastern Europe began to integrate with the rest of Europe. This integration of markets and institutions propelled the convergence of east with west as Eastern Europe grew more than 4 percent from 1994 to 2008. Productivity growth reflected patterns from the Western and Southern European high-growth era and was driven by large total factor productivity gains, particularly in the Baltic

### Figure S1.7: Policy affects the pace and composition of productivity growth

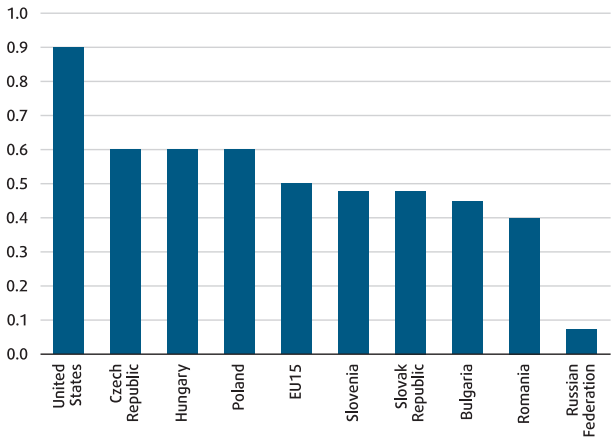
(sectoral contributions to labor productivity growth and regulatory burden, 1995–2004, percent per year)




Note: The "Reallocation" identity reflects the effects of reallocations of labor among sectors. The underlying Employment Protection Index was transformed so that it ranges from 0 to 1, where higher values reflect higher levels of protection. The Product Market Regulation Index ranges from 0 to 10, where lower values reflect higher levels of regulation.
Source: Timmer, O'Mahony, and van Ark 2007 (for productivity data); Crafts 2006 (for Employment Protection Index); and Conway, Janod, and Nicoletti 2005 (for Product Market Regulation Index).

### Figure S1.8: Information technology played a bigger role in Eastern Europe

(contribution of ICT to labor productivity growth, 1995–2004, percent per year)




Source: Alam and others 2008; Timmer, O'Mahony, and van Ark 2007.

economies (figure S1.5). The overindustrialization of the centrally planned economies had led to massive misallocations of labor, particularly in industry. The posttransition shift in workers from manufacturing to market services, small in the Soviet era, was major. From 1990 to 2005, the share of services in employment grew 16 percentage points in Eastern Europe and 9 percentage points in the former Soviet Union (Alam and others 2008). Eastern Europe and the former Soviet Union also benefited from some of the same gains from integration as Western Europe. Expanded trade and financial links between east and west anchored reforms at home, provided access to service and merchandise trade markets, and loosened the link between domestic savings and investment through capital flows.

The United States's ability to again outpace Europe in productivity growth reflected Europe's inability to adapt to structural changes in the global economy. Productivity growth in services and industry required information technology. In the mid-1990s, innovations in information and communication technology (ICT) produced a highly productive and capital-deepening sector with large positive externalities for improving productivity across the economy. Labor productivity growth shot up in the United States from 1980–95 to 1995–2000. Productivity enhancements in the ICT sectors and large gains in capital deepening were not the only benefit—multifactor productivity in other sectors also grew. These spillover effects continued to drive total factor productivity growth in the United States during the early 2000s when the initial burst of ICT-specific contributions to labor productivity began to diminish. By contrast, Western Europe's labor productivity fell steadily during this period, with considerably smaller share contributions from ICT. By the early 2000s, Western Europe faced almost no measured productivity growth (figure S1.6).

What explains the reemergence of the productivity gap between the United States and Europe? And why did new information technologies' power grow in North America but not in Europe? The components of the postwar

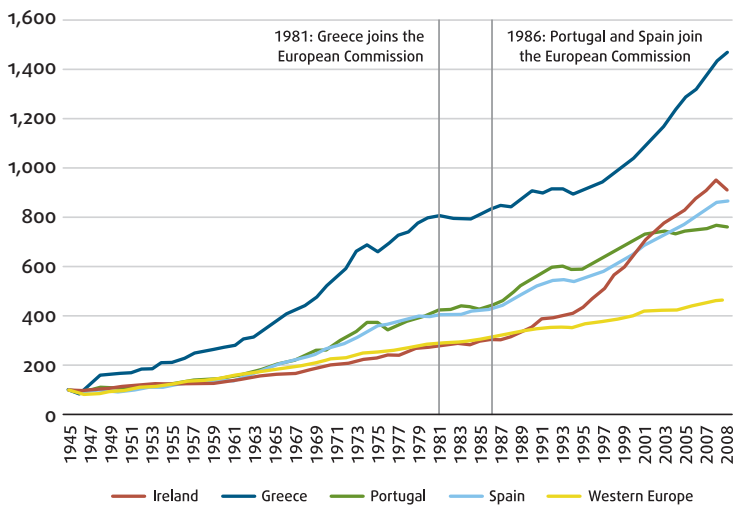



**Figure S1.9: Growth has been greater in Europe's southern states**

(growth in real GDP per capita, 1945–2008, 1945=100)

Note: Western European aggregate reflects a population-weighted average.
Source: Maddison 1996; Conference Board 2011.

## Notes

1 There are numerous studies that employ growth accounting approaches to understanding the components of economic growth in post war Europe. Some landmark studies include Denison (1967) and Maddison (1987).

2 In this picture, human capital formation plays only a small role and it is not clear whether this reflects the tendency of growth accounting to underestimate human capital or whether the already high-quality human capital that persisted in Europe at the start of this period left little room for further contribution to productivity. See Crafts and Toniolo (1996).

3 Eichengreen (1994) makes the case for the domestic and international institutional underpinning of postwar growth.

4 In a model fit with ordinary least squares: OVERALL PRODUCTIVITY GROWTH = 3.1 – 2.6 EMPLOYMENT PROTECTION INDEX (t = –2.0), where higher values on the employment protection index reflect higher levels of protection.

5 In a model fit with ordinary least squares: OVERALL PRODUCTIVITY GROWTH = 4.7 – 1.2 PRODUCT MARKET REGULATION INDEX (t = –2.4), where higher values on the regulation index reflect more stringent regulation.

6 The term "afterglow" is here adapted from some political science literature to refer to institutions and obligations that governments continue to support even after such policies may no longer appear rational. For other applications of the term and concept see Lake (1993).

European model that led to higher employment protection probably prevented the development and exploitation of new technology. Higher employment protection correlates with lower overall productivity growth and ICT deepening (figure S1.7).[4] Employment protections may deter investment in ICT equipment because practices central to developing this technology—such as flexible working and hiring practices—are more expensive (Gust and Marquez 2004).

The higher-performing Western European economies that regulated their labor markets more lightly (Finland and the United Kingdom) generated large ICT-related productivity gains. In Finland, these effects were even larger than those in the United States. Likewise, heavy-handed general product regulation may deter ICT capital investment, either directly or through a more general increase in costs.[5] Some of the Eastern European countries without the legacy of the Western European model were able to start from scratch and better exploit ICT (figure S1.8). Prospective EU member states should take note.

## Afterglow

The nexus of political institutions and market practices that developed in Europe after World War II lifted the continent to the heights of global prosperity. European integration not only headed off conflict, but also anchored trade and factor liberalization that bound Europe and brought the world together. Modern Europe's most attractive feature may be the prospects it offers poorer countries. The European economic model has served as a "convergence machine," taking in low- and middle-income countries and helping them become high-income countries. The machine can even count the currently troubled EU15 southern states among its successes (figure S1.9).

The European convergence machine continues to anchor productivity-enhancing reforms and policy integration across Europe and even into Central Asia. But this machine cannot continue to deliver rapid growth and improved quality of life in the advanced economies of Western Europe. European policymakers have assembled protocols and commitments to encourage more innovation and dynamism. Yet, the policies at the center of Europe's postwar growth model are not flexible enough for European economies to benefit from the technologies that supported high productivity growth in the rest of the world over the last 15 years. As Crafts and Toniolo (2008) note, the problem is not that European product market regulation and employment protections became more stringent, they just became more costly. The Western European model so effective in supporting catch-up has created "afterglow" institutions that are hindering growth in a new era.[6]

In areas aspiring to become part of the machine—notably the Balkan states and the eastern partnership countries—Europe's afterglow structures will probably not preclude the many benefits of greater economic union. And as ties to advanced Europe become stronger and more sophisticated, the afterglow structures may not prevent productivity gains in the new member states. By contrast, these legacy structures must quickly become more flexible in Western Europe. Convergence to a rigid core will soon lose its appeal.

Bryce Quillin contributed this spotlight.

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# Trade and Finance

Chapters 2 and 3 focus on the recent experience of the European Union's 12 new member states, the 8 candidate countries, and the 6 economies of the eastern partnership. Focusing on the 26 economies of Central, Southeastern, and Eastern Europe while assessing the trade and finance components of the European growth model is a deliberate choice: trade and financial flows are the main conduits for convergence. Advanced and developing countries are now connected through trade and capital flows everywhere in the world, but nowhere as closely as in Europe. Their experiences illustrate the model's strongest aspects: just as people who become Americans can attain the highest incomes in the world, countries that become European quickly reach the highest standards of living.

Trade is the principal channel through which prosperity is transmitted from the developed economies of Europe to the nearby emerging markets. Chapter 2 looks in turn at the trade in industrial goods, services, and agricultural goods and assesses how Europe has done. It identifies the policy reforms that can facilitate wider and deeper integration. As a region that generated almost half of global trade in 2008, Europe should be seen as the world's trade hub, and admired for its openness. But Europeans are dissatisfied with the slow growth of trade in modern services such as Internet sales, and perhaps justifiably so.

Actually, in one modern service—cross-border banking—Europe does rather well. Financial flows are often faulted for being too large, not too small. They are also seen as adding too much to economic vulnerabilities and not enough to economic growth. But chapter 3 shows that during the decade leading up to the global financial crisis, capital flows from Western Europe to the east helped more countries than they hurt. Analysts who expected during the crisis that foreign banks would head for the exits found that they were wrong—in Europe, capital does not behave as it has in the emerging markets of Latin America and East Asia. Western banks have neither fled, nor left the firms and households in emerging Europe mired in debt. But the variety of experiences—captured in written contributions by central bankers from Croatia, the Czech Republic, Estonia, Hungary, the former Yugoslav Republic of Macedonia, Poland, Romania, and Turkey—has left behind valuable lessons for how private finance might be "bust-proofed" and public finance "boom-proofed." Chapter 3 concludes that if these capital flows are managed well, Europe's emerging economies do not have to "become Asian," in terms of having to stockpile foreign reserves as the price of profitably participating in global financial markets.

# Chapter 2

## Trade

Škoda Auto used to be the butt of jokes in the 1980s: Why do Škodas have rear-window heating? So your hands do not freeze while pushing them. In 1989, the company sold about 150,000 cars in the former Czechoslovakia, despite having a monopoly. In 1991, Volkswagen AG bought a 30 percent stake in Škoda Auto, and by 2000 it had taken over the company. The subsidiary initially made the simpler parts that VW required for its cheaper cars. Škoda now makes more complicated transmissions and even engines for its parent. But it still makes its own cars—more than 750,000 of them in 2010—in plants at home in the Czech Republic and in the Slovak Republic, Ukraine, the Russian Federation, and India. Škoda tops consumer satisfaction surveys in the United Kingdom and India, beating Ford, Honda, and Toyota and inspiring loyalty instead of derision. And the company made almost $2 billion in profits for Volkswagen last year.

Škoda's success is symbolic of the progress in the manufacturing trade in Central and Southeastern Europe. German, Swedish, Swiss, French, and other manufacturers have been offshoring production, increasing the productivity of subsidiaries in emerging Europe and the profitability of their parents. Romania's Dacia is doing the same for Renault. Italy's Fiat has found it profitable to look east too: it now owns two-thirds of Serbia's Zastava Automobiles—known for producing the joked-about Yugo—and produces bestselling minivans in collaboration with TOFAS in Turkey. Asea Brown Boveri, the Swiss-Swedish engineering giant, produces electrical equipment in many plants in emerging Europe stretching from the Czech Republic to Russia, from Latvia to Croatia. Back-and-forth trade in parts and components is part of an increasingly sophisticated "Factory Europe" that extends beyond the enlarged European Union to include Turkey, the former Yugoslavia, Ukraine, Belarus, and Russia.

- Is "Factory Europe" as dynamic as "Factory Asia"?
- Is the Single Market for Services underachieving compared with the United States?
- Is the Common Agricultural Policy compromising Europe's global leadership?

But manufactured goods are no more than a quarter of Europe's $16 trillion economic output. More than 70 percent of GDP—or almost $11.5 trillion—consists of services: wholesale and retail trade, tourism, construction, transport, communications, modern business services, and finance. Europe's annual trade in services—counting both cross-border services trade and foreign sales of affiliates of multinational companies—is about $4 trillion. European policymakers view the vibrant U.S. market for services—coincidentally also valued at about $11.5 trillion—as the benchmark, and perceive the single market as falling short.

Many of these services are inputs to the production of other goods and services. Some reduce the distance and time between producers and consumers and between suppliers and buyers; think of transportation, finance, and communication. Others are direct inputs required for production and marketing—such as accounting, legal, and engineering services. Their quality affects productivity economywide. So trade and liberalization of services increase overall productivity. By allowing foreigners into communications, transportation, and banking, for example, the Czech Republic made these services more reliable, and improved the performance of "downstream" manufacturing sectors. European policymakers expect their economies to gain a lot through integration in services.

Some of these services are traditional and difficult to trade without face-to-face contact; think of hotels, restaurants, and supermarkets. Europe actually does a brisk trade in these services. France, Spain, Italy, the United Kingdom, and Germany are among the top destinations for tourists, for example, and Sweden's Ikea and the French Carrefour are global brands. Air transport has improved, and so have passenger trains, but international road and rail freight is inefficient. What vexes Europeans most, though, are what Baumol (1986) called "modern, progressive, and impersonal" services—those that can be traded over longer distances—in which the Americans and Asians are doing so well. Asia and North America are seeing a burgeoning trade in "digital services" such as Internet sales and IT support, and Europe is lagging.

But in one part of the modern services trade—cross-border banking services—Europe may be doing better than any other part of the world. Banking is quickly becoming integrated into a single market in the European Union and even in the candidate countries. European banks have branches or subsidiaries overseas, and many are doing such a busy retail and wholesale trade in emerging Europe that some observers are worried about capital flows being excessive. This report is optimistic about banking in Europe, and chapter 3 elaborates. In other modern services—especially those that involve new information technologies such as the Internet—Europe is underachieving. A recent HM Government (2011) document notes:

> *"Only 12 per cent of EU online trade is cross-border. Consumers in one part of the EU are often prevented from buying digital content from another. EU citizens can only access iTunes in 15 Member States and Spotify in seven. The benefits [EU citizens] have shared by freeing up the airline industry have yet to be realised on the railways or in other forms of transport. These are just a few examples—there are many more"* (p. 4).

Another example is the rapidly growing e-book trade. Almost a third of all book sales—by value, not volume—are now electronic, and are increasingly read on media tablets such as Apple's iPad and Amazon's Kindle. Sales of media tablets are projected to exceed $50 million in 2011. In the United States, e-books are now outselling hardcover publications. But e-book sales are anemic in Europe, because regulations make it difficult to sell books Europe-wide. The story is often similar in other services. In transportation and communications, in engineering and accounting, in architectural and legal services, and in health and education, Europe's services trade is segmented. To compare multicultural and multilingual Europe with the U.S. single market is unreasonable, but regulatory heterogeneity in Europe is excessive. ITunes users would think it is unreasonable.

The third aspect of Europe's trade that is often viewed by economists as less than satisfactory is that of agricultural goods. The sizable subsidies and other aspects of the Common Agricultural Policy have been criticized as helping neither equity nor efficiency in European and international agricultural markets.

This chapter asks and answers the question: Is Europe taking advantage of economic enlargement? The short answer is that it is for manufacturing, somewhat less for services, and least for agriculture. Europe's biggest success is the increasingly more sophisticated trade in goods spurred by a relocation of economic activity toward the new member states and EU candidate countries. In assessing trade as a principal component of Europe's growth model, this chapter tries to answer three questions:

- **Is Factory Asia outcompeting Factory Europe?** While Factory Asia is growing more quickly in size, the goods trade in Europe is becoming more sophisticated than in East Asia. Western Europe is not just giving the new member states of the European Union and other neighbors such as Serbia and Turkey a bigger share of its tasks, it is also giving them tougher things to do. The eastward expansion of Factory Europe is straining logistics—especially information and communications infrastructure—and it could grow even faster and further if this were fixed.
- **Does the Single Market for Services work as well as it should?** While it is impossible to generalize for activities that add up to two-thirds of European GDP, the short answer is that it does not. Travel is well developed but transportation is not; the market for financial services is quite efficient, but other business services—especially those involving modern information technologies like the Internet—are not. For trade in nonfinancial modern services, the solution lies not in trade facilitation but in better and more harmonized regulation of enterprises and improved labor mobility, issues taken up again in chapters 4 and 6, respectively.
- **Is the Common Agricultural Policy harming Europe?** The brief answer is that it is, but not in ways commonly talked about. At about 33 eurocents per person a day, the financial cost of the Common Agricultural Policy (CAP) is small. But the subsidies go mostly to well-off farmers in richer France, Italy, and Germany. Despite Europe's position as the largest importer of agricultural goods from the poor countries in Africa, the CAP may also result

in Europe ceding the moral high ground to emerging economies in global trade talks. But Europe mostly pays for its agricultural trade policies not with the approximately $75 billion a year distributed for agriculture and rural development by the European Commission, but through missed opportunities for closer regional integration with eastern partnership countries, where more than a third of all workers still depend on agriculture for a living.

These weaknesses notwithstanding, the overall assessment of European trade has to be a positive one. In 2009, Europe's merchandise trade was worth $4.5 trillion, more than Asia's and North America's combined. Based on balance of payments accounts, its cross-border trade in services was worth $2.25 trillion, more than for the rest of the world combined. Trade between advanced and emerging Europe is growing bigger and noticeably more sophisticated every year, aiding quick convergence in productive capacity and living standards, and helping to create a bigger and stronger economic union. Trade is the mainstay of the European economic model, and its most attractive attribute.

## Europe: the world's trade center

With increasing frequency, Europe is portrayed in the press as a sluggish part of the world. When it comes to international trade, it is actually the busiest.

In 2005, and even in 2009, Europe's merchandise trade dwarfed North America's and Asia's. Nearly 45 percent of the world's $10 trillion merchandise trade begins or ends up in Europe (figure 2.1). Two-thirds of this trade is among European economies, making its regional trade the biggest in the world. This has not come at the cost of global trade relations. Europe also has thick trade ties with every other part of the world, importing more manufactured goods from Asia than the United States, and trading more with Africa than Asia or North America. Europe also imports and exports more farm products from poor countries than any other developed region.

For services, Europe is again the global leader in trade. The data are difficult to come by and the magnitudes differ a lot depending on whether balance of payments information only is used, or the services trade is also imputed from reports by foreign affiliates of companies. Based on balance of payments statistics, the value of cross-border services exports of the European Union and candidate countries was just under $2 trillion in 2007, and about $2.25 trillion in 2009. The value of the services trade rises further if the sales of services by foreign affiliates of multinational firms are added. For the European Union, the value of these sales was more than $2 trillion in 2008. So, total European services trade is worth around $4 trillion. According to the Trade in Services database, the EU15 accounted for one-third of global cross-border exports; the U.S. share was 13 percent (Francois, Pindyuk and Woerz 2009). The EU15 was also the biggest importer of cross-border services, with more than one-third of global trade.

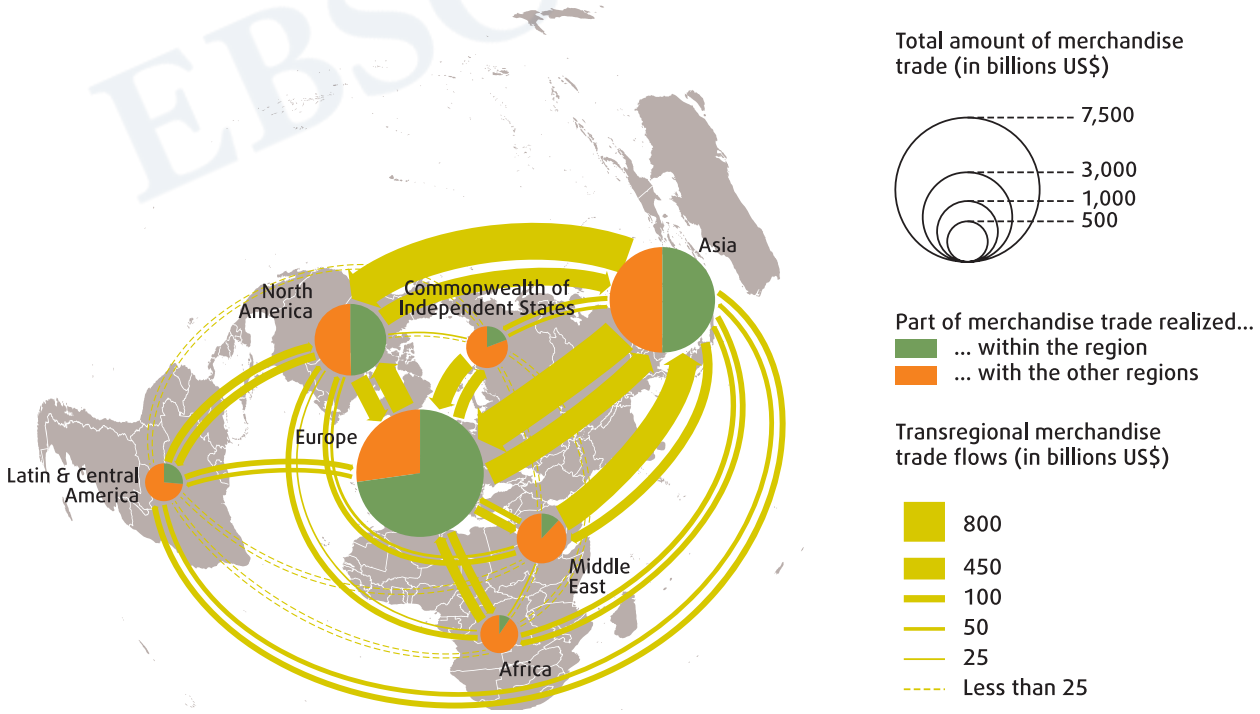
Europe's services trade is more than half of the global trade in services, and more than half of this trade in services is within the European Union's single market. But it is also clear that there is a lot less regional trade in services than in goods—the ratio between intra-EU and extra-EU exports for services was 1.3

while the ratio for goods trade was 2.1 in 2008 (figure 2.2). Western Europe is the largest contributor to the European Union's exports in services, with more than 70 percent of total cross-border exports and some 95 percent of total sales by foreign affiliates. Western Europe trades relatively more with economies outside the European Union, while Southern Europe and the new member states trade more within.

Through the goods trade and direct investment, enterprises in the EU15 countries have become globally competitive. Although Asia is catching up, Europe is the world's trade leader in industrial merchandise. Trade facilitation measures can increase the size and sophistication of this trade and increase the productivity in manufacturing in both advanced and emerging Europe. But Europe has yet to exploit such synergies in modern services. More trade in services will help increase productivity in an even bigger part of the European economy. Regulatory reform could increase services trade in the single market by multiples of the current $4 trillion. And the European Union could do a lot more to encourage the regional trade in agricultural produce with the eastern partnership. The next three sections of this chapter take up each of these three components of trade in turn.

### Figure 2.1: Europe has the world's busiest goods trade

(world merchandise trade, US$ billions, 2008)




Source: World Bank staff using WTO 2009a.

## Factory Europe—a little bigger, a lot smarter

A few years ago, Baldwin (2008) noted the rise of "Factory Asia": "Like some gigantic, impossibly complex and wonderfully efficient factory, the region churns out millions of different products ... by sourcing billions of different parts and components from plants spread across a dozen nations." The Barbie doll, which is assembled in China and consists of pieces from many Asian countries, has been used to highlight the large and increasing fragmentation of production across borders in the region (Tempest 1996). Other products include cars, computers, and mobile phones (Gill and Kharas 2007).

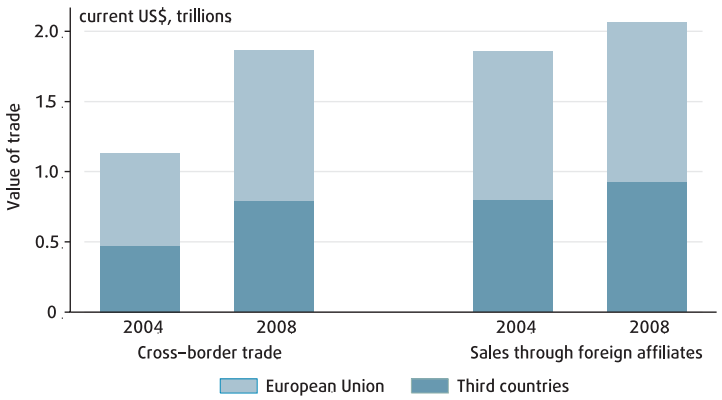
Such examples are no longer unique to Asia, if they ever were. Siemens has organized its activities in a global value chain, which includes engineering in Western Europe and assembly in Eastern Europe (Marin 2010b). Škoda in the Czech Republic makes high-tech components—including transmissions and engines—for Volkswagen (box 2.1). The production line for the Porsche Cayenne ends in Leipzig, Germany, but stretches out to the Slovak Republic (Watson 2010).

This fragmentation is indicative of greater efficiency in production and trade, and is a source of productivity growth in both advanced and emerging Europe. Intermediates trade is likely to be especially helpful. Productivity growth in firms is facilitated by access to cheaper or greater varieties of inputs. Being a part of a production chain catalyzes cooperation in technology and knowledge-transfer more than might be the case for trade in final products (Grossman and Helpman 1991; Dixit and Stiglitz 1977; Romer 1990; Frankel and Romer 1999). And the expansion of the European Union may affect patterns of intermediates trade to a greater extent than standard trade.

This section takes the reader on a brief tour of Factory Europe. First, it looks at trade in finished products. The European Union's new member states have rapidly increased their trade both with the European Union and with the rest of the world. Indeed, while the EU15's share of total trade with the new member

**Figure 2.2: The European Union does a brisk trade in services**

(cross-border service exports and sales of foreign affiliates, current $ trillions, 2004 and 2008)




Source: World Bank staff calculations, based on Eurostat.

### Box 2.1: Volkswagen and Škoda

Intra-firm trade with Eastern European affiliates is estimated to have helped German firms increase productivity by more than 20 percent, and German offshoring within Europe has raised the productivity of the subsidiaries almost threefold compared with that of local firms. More imported inputs have raised firm productivity in Hungary, driven to a large extent by access to increased variety or complexity of inputs—not just volumes. Reductions in intra-firm tariffs and input tariffs associated with EU enlargement has helped the offshoring relationship between German or Austrian firms and their Eastern European affiliates by raising their total factor productivity.

The relationship between Germany's Volkswagen and the Czech Republic's Škoda provides an inspiring example. Volkswagen (VW) acquired Škoda in 1991, and took over its management 10 years later. In 1990, Škoda sold 170,000 cars despite having enjoyed a monopoly in communist Czechoslovakia. The cars inspired jokes and derision. By 2007, its annual sales were up to 630,000, with plants in places as far away as India, and cars that had started to inspire loyalty. Before the global crisis, its plans were to increase sales to more than a million. Its rapid growth had made it an important part of VW's strategy to outdo GM and Toyota for global market share.

Škoda has its own cars but also makes components for VW. Starting with the basics, VW helped Škoda transition into a market economy. VW allowed Škoda to benchmark its production practices against those of plants in Germany. The quality of Škoda's own cars has improved, overcoming a reputation for bad quality, and some components are now shared in Škoda and VW cars. Škoda now makes high-tech components for VW automobiles, including transmissions and engines. One example is the Mlada Boleslav engine plant. In 2009, the plant started making a cutting-edge 1.2TSI petrol forced-induction engine, the product of collaborative R&D, that could produce 77 KW. VW used to fear the loss of intellectual property, limiting willingness to share technology and know-how. But the 1.2TSI is an example of how this has clearly changed.

The Czech auto industry includes a broad and complex supplier network within its borders. The simple parts of the production process shifted east 10 years ago and have continued to move further east. The Czech Republic and the Slovak Republic have increased their presence in higher value-added activities that are more complex technically.

Source: Marin 2010a; Hansen 2010; Halpern, Koren, and Szeidl 2011; Ledgard 2005; Škoda Auto 2010; Watson 2010; Volkswagen 2009. For a discussion of the car industry in Europe, see Rhys 2004.

states has increased, trade of the new members outside the EU15 grew even faster than their trade with the EU15, and so the relative importance of the EU15 has declined. The EU candidate countries seem to be following the same pattern with a lag of a few years. A typical example is the trade in motor vehicles, accounting for almost one-fifth of all exports by new member states. EU enlargement has created new markets for advanced economies in Europe and helped emerging Europe become more competitive, not just in Europe but worldwide. Germany is not the final assembly point for inputs imported from the east—in fact, both German (and Austrian, Belgian, Dutch, French, and Scandinavian) companies and their eastern subsidiaries are exporting successfully along a differentiated product range. This pattern is distinct from the role Japan and now China play in Asia (box 2.2).

Second, an examination of intermediates trade shows that Factory Europe is not as large as Factory Asia, but it is becoming smarter more quickly. Trade in intermediates is a smaller proportion of total trade within Europe than within Asia. EU enlargement has led to a rapid increase in intermediates trade with the new member states, although once again, new members have increased their trade with non-EU partners even faster. Most important, however, intermediates trade within the enlarged European Union has become a lot more sophisticated and complex, at the same time as the sophistication and complexity of the EU15's trade with the rest of the world has stagnated. EU enlargement has had a limited effect on the size of Factory Europe, but it has influenced its complexity. Factory Europe is becoming a bit bigger, but a lot more brainy.

### Box 2.2: Germany is not Europe's China

Gill and Kharas (2007) and others have documented an interesting asymmetry in intra-Asian trade. They show that intermediates tend to be imported by China from the rest of the region—from Southeast Asia and from Japan and the newly industrialized economies in Northeast Asia—so that China runs a sizable trade deficit within the region. In turn, China exports finished goods to the rest of the world, including the European Union and United States, running a trade surplus with the rest of the world. The question naturally arises whether the world's second-largest trader—Germany—has a similar relationship in Europe.

Information on trade balances (including intermediates) was analyzed in search of a European analog. The new members have trade deficits with the region and the rest of the world while Germany has trade surpluses with both the region and the rest of the world. Prima facie, there is no evidence of a large economy in Europe playing the role that Japan once played in Asia, and that China is now playing.

Source: Gill and Kharas 2007.

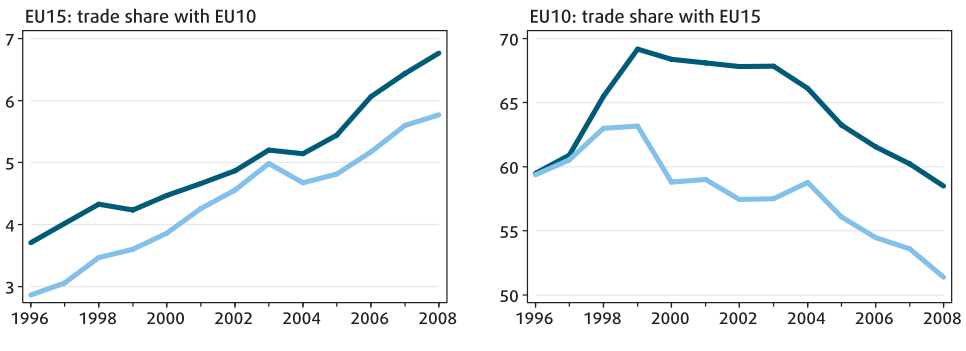
## The goods trade has grown most in the East

Trade-to-GDP ratios have increased worldwide and Europe is no exception. For the EU15, the ratio rose from 45 to 54 percent from the late 1990s to the late 2000s. For the 2004 members, the ratio rose from 63 to 94 percent. For the 2007 entrants and potential members, the change was smaller, rising from 43 to 52 percent (box 2.3 explains the regional grouping used in this section). Trade within the EU27 also rose: the export-to-GDP ratio increased from 15 to 19 percent. But this masks an asymmetry within the union. Exports from the EU15 to the new member states as a share of total exports doubled over the period, reflecting how the 2004 members became increasingly important for advanced Europe (figure 2.3). By contrast, the importance of Western Europe for the new members declined. The large and proximate markets to their west are still important destinations and sources of goods but—due in part to relatively slow GDP growth—the importance of those markets has been falling since 2000.

The composition of the goods trade has changed too. For the 2004 members, machinery and transport equipment comprise more than a third of imports and almost half of exports (figure 2.4). The proportion has risen, but the data indicate a shift away from the EU15 as a source of this product category. The patterns of

**Figure 2.3: The European Union's new members are more important partners for the EU15, the EU15 less for the new**

(shares of regional trade for EU15 and EU10, 1996–2008)




Note: The EU10 includes new member states joined the EU in 2004, except Cyprus and Malta.
Source: World Bank staff calculations, based on UN Comtrade.

### Box 2.3: Scope of the goods trade data

This chapter considers trade in the European Union's 27 member states and the accession countries, broadly defined to include Ukraine. Of the European Union's new members, the data are best suited for 8 of the 10 countries that joined the European Union in 2004. These countries are Czech Republic, the Slovak Republic, Slovenia, Hungary, Poland, Latvia, Lithuania, and Estonia. This is mainly because the data coincide with their accession years (since the mid-1990s) and formal membership. The group is called "EU10," "new members," "2004 members," or the "new member states."

The group known as the "potential members" or accession countries includes Bulgaria and Romania because they joined only in 2007, close to the end of the period of available data; the Western Balkans (Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia—all at various stages of accession); Turkey (which has a customs union with the European Union and is an official accession candidate); and Ukraine (even though it has neither). This is a diverse group, so it is sometimes necessary to look at subgroups or individual countries within this category. Data going back to 1996 are used when available for the 2004 members or potential members, except for Bosnia and Herzegovina, which started reporting in 2003. For comparison, the nine Asian countries in Kimura, Takahashi, and Hayakawa (2007) are considered to be China, Hong Kong SAR (China), Indonesia, Japan, Malaysia, Philippines, the Republic of Korea, Singapore, and Thailand.

BEC nomenclature is used unless stated otherwise, grouping products into consumption, capital, and intermediate goods (Miroudot, Lanz, and Ragoussis 2009). Goods are classified according to "expert judgment" and may not fall neatly into one category. For example, it is not obvious whether fruits should be classified as consumption or intermediate goods. But this approach has the advantage of covering a wide spectrum of goods trade. In contrast, studies identifying parts or components can only reliably do so for a subset of sectors (for example, Kaminski and Ng 2005; and Kimura, Takahashi, and Hayakawa 2007).

Source: Behar and Freund 2011.

trade in machinery and transport are thus illustrative of the general pattern: EU15 trade has shifted eastward, while the new members' trade has become global.

Interestingly, the pattern seems to repeat itself in the EU candidate countries. The share of machinery and transport equipment in exports from the 2004 entrants rose from 30 to 50 percent between 1995 and 2002, and then stopped growing. But these exports are still growing fast in Romania, Bulgaria, Turkey, and the other countries in the Balkans—from a share in total exports of about 10 percent in 1995 to 30 percent by 2008.

The fastest-growing subcomponent of machinery and transport equipment trade includes cars and other road vehicles. For the new members who joined in 2004, the proportion of motor vehicles in total exports continued rising even after overall machinery export growth flattened out and reached almost

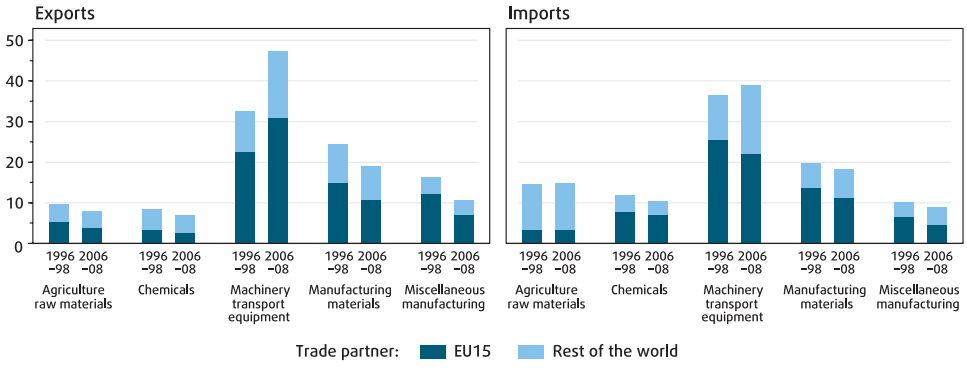



**Figure 2.4: Machinery and transport equipment are half of the exports of new member states**

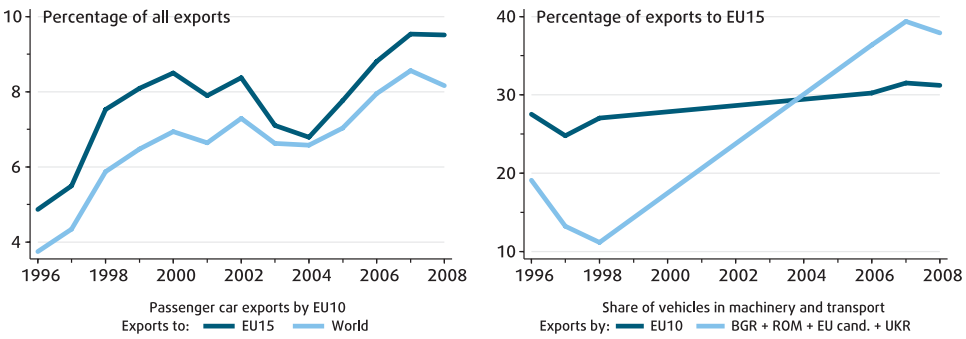
(sector shares of 2004 entrants' trade, 1996–98 and 2006–08)

Note: The category of agriculture and raw materials includes products with codes 0–4 in Standard International Trade Classification (SITC), Revision 2. Period averages for the years 1996–98 and 2006–08 are shown.

Source: World Bank staff calculations, based on UN Comtrade.

**Figure 2.5: Automobiles are a big part of the goods trade in Europe**

(share of road vehicles in exports of emerging Europe, 1996–2008)




Note: Passenger cars (code 51 in Broad Economic Categories (BEC) classification) are shown. In the right panel, data for "potential members" are linearly interpolated between 1999 and 2005.
Source: World Bank staff calculations, based on UN Comtrade.

20 percent, the highest ratio in the world. For the 2007 members and the EU candidate countries, the increase in the share of motor vehicle exports is even faster (figure 2.5). Candidate countries have seen a large rise in both exports and imports, mainly because of Turkey.[1] EU enlargement and integration may be helping Europe's carmakers maintain global competitiveness in the same way as Factory Asia helped Japan's and the Republic of Korea's.

The parallel patterns in the new member states and EU candidate countries illustrate a more general point: enlargement is a process and its economic impact is felt long before the final accession act is signed (box 2.4). Trade liberalization is usually a precursor to enlargement. Turkey even joined a customs union with the European Union in 2005. For the eastern partnership countries, deep and comprehensive free trade agreements are negotiated as a key step toward closer integration. In the new member states and in the candidate countries, the prospect of membership has often catalyzed a first round of deep structural reforms, which in turn have attracted foreign investment and facilitated deeper trade integration.

## Trade in intermediate goods has grown more

One way to compare Factory Europe with Factory Asia is to look at regional trade in intermediates. This matters because intermediates trade may be a particularly potent source of economic growth. Productivity within a firm is increased by improved access to inputs that are cheaper or more plentiful, of higher quality, and greater in variety, as well as through the technology and knowledge they embody (Grossman and Helpman 1991; Dixit and Stiglitz 1977; Feenstra, Markusen, and Zeile 1992). International trade can provide more or cheaper inputs, or these inputs may embody a higher level of technology than locally available ones. When they are part of a supply chain, relationships between producers and consumers of intermediates are likely to be closer. So there are more opportunities for transfers of better production methods and other know-how than is the case for consumption goods. One should expect a link between fragmentation—manifest in trade in intermediates—and productivity growth.

The proportion of the EU27's output traded across borders as intermediates increased, but Asia overtook it in 2004 (figure 2.6, left panel).[2] Emerging Europe experienced a rapid increase, including with non-EU trade partners. For the 2004 members, for example, the share of intermediates trade in GDP rose from 15 to almost 25 percent. At 21 percent, Asia's ratio is lower despite having doubled since 1995. Factory Asia has been growing fast. In Factory Europe, mostly the eastern wing has been growing.

The share of intermediates in total trade in Europe is no higher than in the late 1990s. Asia has seen a steady increase (figure 2.6, right panel). This is true for trade within the region as well as trade with the rest of the world. The share of intermediates within EU27 exports to the world has stayed at about 50 percent, while import shares have risen marginally from 55 to 57 percent. Asia's share in worldwide intermediates exports fell marginally to 50 percent, but its import shares rose from 64 to 73 percent. In Europe, the shares of intermediates inputs in exports and imports have been roughly constant, at about 50–55 percent for the EU15, 55–60 percent for the 2004 entrants to the European Union, and 60–65 percent for the 2007 entrants and the EU candidate countries. These numbers suggest that—outside Asia—the increases in fragmentation may be more modest than popularly believed.[3]

The aggregate patterns presented mask asymmetries and geographical shifts. The new members form an increasingly important market for EU15 intermediate products (figure 2.7). The EU15 is sourcing more of its intermediates from the new members, but there was a slowdown since the early 2000s. The importance of the EU15 as a source of imports for the new members is falling: the new members now import less than half of their intermediates from the EU15.

### Box 2.4: EU integration is a process

The recent expansion of the European Union eastward is formally marked by the addition of 10 members in 2004 and the further addition of 2 members in 2007. But formal enlargement comes toward the end of a longer integration and harmonization process. Many concrete measures are taken well before the accession year. These come through two main mechanisms, which are often negotiated and implemented in parallel:

**Trade agreements.** While the European Union has many different kinds of motivations for agreements, one form is especially designed for countries applying to join it, and this intention is made explicit. These introduce free trade in almost all industrial products but not agriculture. As part of the process, countries must relinquish all other bilateral trade agreements.

**Association agreements.** Trade agreements are nested in association agreements, which are typically aimed at aligning legislation with the European Union and recognizing intellectual property rights. For the Balkans, for example, this comes as part of a stabilization and association process. Tellingly, an objective is "to encourage the countries of the region to behave towards each other and work with each other in a manner comparable to the relationships that now exist between EU Member States" (European Commission 2010). It includes integration into regional infrastructure networks.

In the mid- to late 1990s, countries that eventually became part of the EU27 signed Association Agreements with EU (for example, Hungary in 1994, Romania and Bulgaria in 1995, and Estonia, Latvia, Lithuania, and Slovenia in the late 1990s). In 1995, Turkey signed an association agreement, and formed a customs union on December 31, 1995.

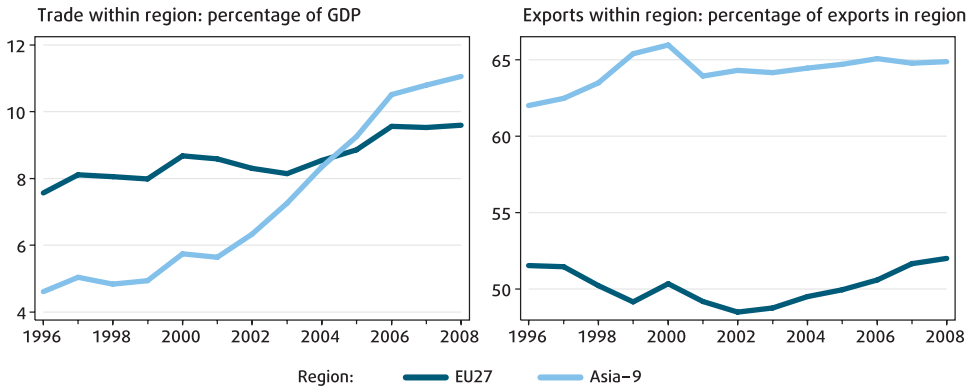
In 1998, the Ukraine–European Union partnership and cooperation agreement was signed, though association agreement negotiations are still under way. In 2000, the prospects of joining the European Union were mooted for Balkan countries in Zagreb, including any intention to sign stabilization and association agreements. In 2004, the former Yugoslav Republic of Macedonia signed a stabilization and association agreement, becoming the first (West) Balkan country to do so. Others soon followed: Croatia in 2005, Albania in 2006, Montenegro in 2008, and Bosnia and Herzegovina in 2008.

Integration with the European Union should not be viewed as a discrete change upon membership. The process of actual reforms precedes formal entry, sometimes by more than a decade.

Source: Behar and Freund 2011.

**Figure 2.6: Intermediates are about half of the European Union's trade, but two-thirds of the trade in Asia**

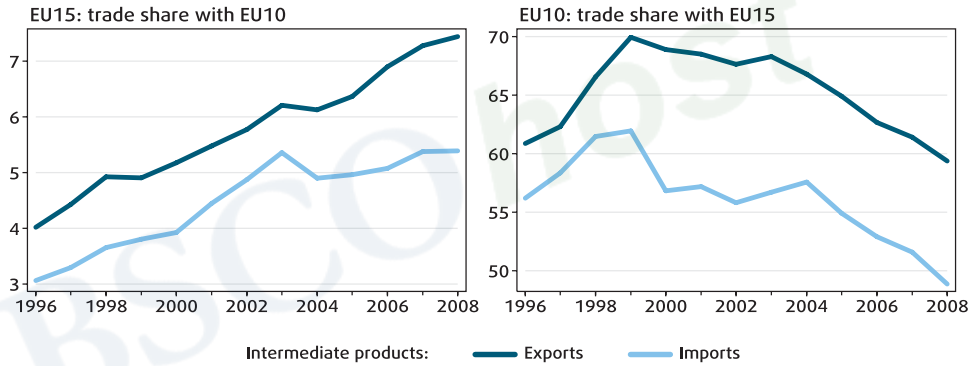
(share of intermediates trade in GDP and total trade, 1996–2008)




Note: Trade in intermediates is defined by the BEC nomenclature.
Source: World Bank staff calculations, based on UN Comtrade; and WDI.

**Figure 2.7: New EU members are more important for the EU15 for trade in intermediate goods**

(intermediate goods trade shares, EU15 and EU10, 1996–2008)




Note: Trade in intermediates is defined by the BEC nomenclature.
Source: World Bank staff calculations, based on UN Comtrade.

## More variety in the intermediate goods trade

The trade between Fiat and its affiliates in Serbia and Turkey, or between Škoda and Volkswagen, is classified as intermediates intra-industry trade, which has been growing substantially in and near the European Union. The intra-industry trade in intermediates between the new member states and the EU15 is higher than between average trade partners in the rest of the world. The Grubel-Lloyd index for intermediates has risen by 22 percent, higher than for all products (figure 2.8). The Grubel-Lloyd index for intra-industry trade in intermediates between the new member states and the EU15 rose by about 30 percent; by contrast, the index for trade between the EU15 and the rest of the world actually fell.

The growing intra-industry trade is best understood as driven by increased "horizontal differentiation," which is manifest in greater variety (Jones and Kierzkowski 2005). An alternative interpretation of growing intra-industry trade is the fragmentation of production. But as seen above, the evidence for increased fragmentation within Factory Europe is ambiguous. By contrast, 9 of 13 EU15 countries—Belgium and Luxembourg excluded—increased the variety of

### Table 2.1: A greater variety of intermediate goods are being traded

(variety of intermediate goods sent from 2004 members to the EU15)

| | 1996–98 | 2006–08 |
|---|---|---|
| Average EU15 imports | 1718 | 1807 |
| Average new member state exports | 1482 | 1591 |
| Aggregate EU15 imports | 2997 | 2942 |
| Aggregate new member state exports | 2914 | 2924 |

Note: The first two rows ("average") show simple averages across corresponding groups and the third and last rows ("aggregate") do region-wide values, using either EU15 import data or 2004 members' export data. Harmonized Commodity Description and Coding System (HS) 1996 six-digit trade data are used, and from them, intermediate products are chosen using the HS–BEC concordance information.

Source: World Bank staff calculations, based on UN Comtrade.

intermediates that they sourced from the new members. Similarly, 7 of 10 new members increased the variety of goods sent to the EU15 from 1482 to 1591. So, while the picture for the European Union as a whole is mixed, more EU15 countries are receiving more varieties from more 2004 members (table 2.1).

By contrast, the variety of goods shipped by the new members to the world as a whole fell. The variety of goods imported by the EU15 from the world also fell. In other words, a bigger share of EU15 intermediate varieties is coming from the new members, and a larger share of new members' intermediate varieties is destined for the EU15. The rise in variety is not confined to intermediates. The variety of consumption goods exported by the new members to the EU15 rose as much as that of intermediates. But the variety of consumer goods sent to the world as a whole also rose, so the relatively greater variety in the trade with the EU15 (compared with trade with the rest of the world) is a development in the intermediate goods trade, not the trade in final goods.[4]

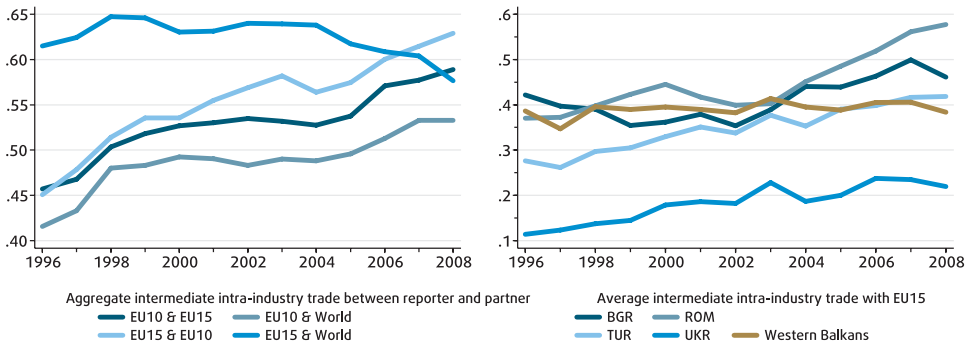



**Figure 2.8: Growing intra-industry ties in the east, but faster within the European Union**

(intermediate intra-industry trade index, 1996–2008)

Note: Intermediate intra-industry trade is measured with SITC (Revision 2) four-digit trade data, and the SITC–BEC concordance information is used to select the SITC products that are classified by the BEC as intermediates.

Source: World Bank staff calculations, based on UN Comtrade.

### Box 2.5: Measuring the sophistication of exports of goods

The first measure of trade complexity is the sophistication of intermediate products, constructed by adapting the method in Hausman, Hwang, and Rodrik (2007). The sophistication of each product is estimated by using the GDP per capita of those countries that export it. Every product's share in each country's total exports is calculated. This share for the country is standardized by dividing it by the average share of this product for all countries. The key step is that this is multiplied by the GDP per capita of that country. Summing across all countries gives the sophistication of that product, or its "PRODY." The sophistication of a country's export basket, or its "EXPY," is calculated by multiplying the sophistication of each product by the share of that product in the country's exports and summing across all products. The averages of GDP per capita and exports over 2001–03 are used, and the sophistication of products is held fixed so that any changes over time are due to changes in the export basket from year to year.

The main adaptation of this measure for this report restricts this to only the four-digit Standard International Trade Classification Revision 2 goods classified by the Broad Economic Categories as intermediates. To distinguish these measures of intermediates sophistication from those for all goods, we use the terms I_Prody and I_Expy. We also produce an analog for imports and refer to it as I_Impy. Mishra, Lundstrom, and Anand (2011) develop a similar procedure for services trade, which is used in the next section.

The second measure of trade complexity is the relationship-specificity of products. This measure was developed by Nunn (2007), who constructed the fraction of each product exported by a country that was itself made with differentiated inputs within the country. The higher the fraction, the less regulated the process by which the good was put together. Because this requires more relationships, this gives the relationship-specificity of the product. Nunn's measures use input-output data to construct the share of each product that uses differentiated inputs as defined by Rauch (1999).

The measures for three-digit International Standard of Industrial Classification data are taken from Nunn's Harvard University website add the website (www.economics.harvard.edu/faculty/nunn/data_nunn) and mapped to four-digit data using the appropriate concordance information. Of most interest is the fraction of intermediates using differentiated inputs; the technique makes use of a further concordance to Broad Economic Categories–defined intermediates categories to construct the index of relationship-specificity of intermediates (RSI).

The two measures provide alternative accounts of the complexity of the products being traded. The RSI, which is affected by the rule of law and other behind-the-border factors, accounts for the complexity of production chains within a country. It therefore does not matter whether these chains are complete (exports of final goods) or part of a broader chain (intermediates). Therefore, even if cross-border trade in all goods is considered, the RSI still provides information about the complexity of the steps needed to make those goods. The sophistication measure incorporates the complexity of trade across countries.

Source: Behar and Freund 2011.

## Emerging Europe's goods trade is getting sophisticated

In addition to greater horizontal differentiation, is there also evidence for increased vertical differentiation, which would imply improved quality of inputs traded? Yes. Both the measure of export sophistication and the measure of relationship-specificity show that trade within Europe is becoming more complex, while trade with non-European partners seems to be declining in complexity (box 2.5).

The sophistication of intermediates exports from the new member states to the EU15 rose by about 15 percent from 1996 to 2005 but has remained flat since then (figure 2.9). The sophistication of EU10 intermediates exports to the EU15 rose faster than to the world. For EU15 intermediates exports to the world, sophistication follows an inverted U-curve and the measure in 2008 is roughly the same as in 1996. By contrast, the sophistication of EU15 exports to the 2004 members has risen by 7 percent over the period despite a slight decline since 2004. Echoing the earlier pattern shown for the trade in finished products, changes in the nature of intermediates received by the new members are similar regardless of whether they come from the EU15 or the rest of the world. By contrast, from the perspective of the EU15, the new members are becoming an increasingly sophisticated source and market relative to other regions. And this seems to be the case for both the 2004 members and the EU candidate countries. This is largely because of Turkey: both the size and sophistication in its trade are at the highest levels and have shown the clearest upward trend. The other countries in this group—including Bulgaria and Romania—have not seen an increase in the sophistication of trade.

The second measure of complexity is based on the relationship-specificity of intermediates (RSI): the fraction of differentiated inputs embodied in exports. The RSI for the world's exports fell while that of the new members rose by 7 percentage points to 70 percent for all goods and by 6 percentage points to 67 percent for intermediates. For intermediates exports in particular, the new members' exports have a higher RSI than do those of the world as a whole. EU candidates and the 2007 entrants have less complex exports, but Bulgaria and Romania have experienced a large increase.[5] Joining the European Union has allowed the 2004 and 2007 members to produce more relationship-specific goods, and the EU15 can now source more relationship-specific products from them. Figure 2.10 shows a rise in the RSI of 6 percentage points to 69 percent for intermediates and by 5 percentage points to 72 percent for all goods, but a decline in the relationship-specificity of imports from other countries.

Trade within Europe is becoming more sophisticated, while Europe's trade with the rest of the world is becoming less complex. Enterprises in advanced Europe are giving emerging Europe more difficult things to do. Factory Europe is more spread out and much smarter today than it was two decades ago.

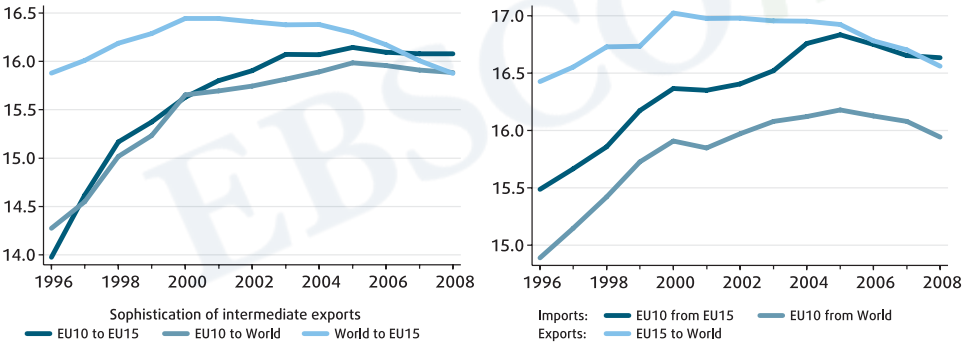



**Figure 2.9: Advanced and emerging Europe are trading more sophisticated intermediate goods**

(EXPY for intermediate goods, US$ thousands, 1996–2008)

Note: Trade in intermediates is defined by the BEC nomenclature.
Source: World Bank staff calculations, based on UN Comtrade; and WDI.

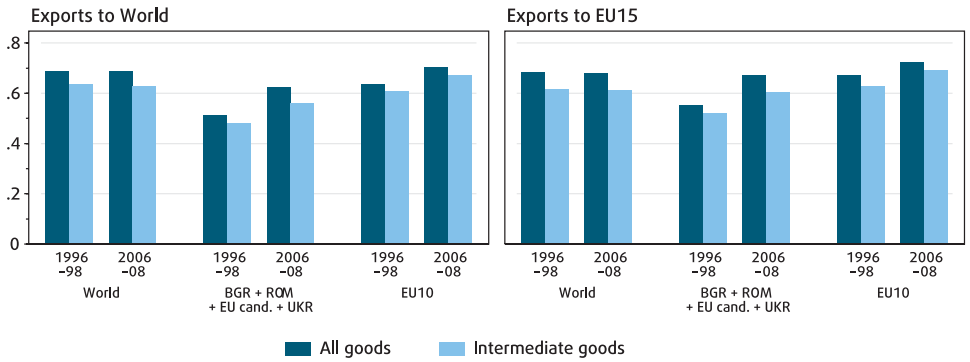


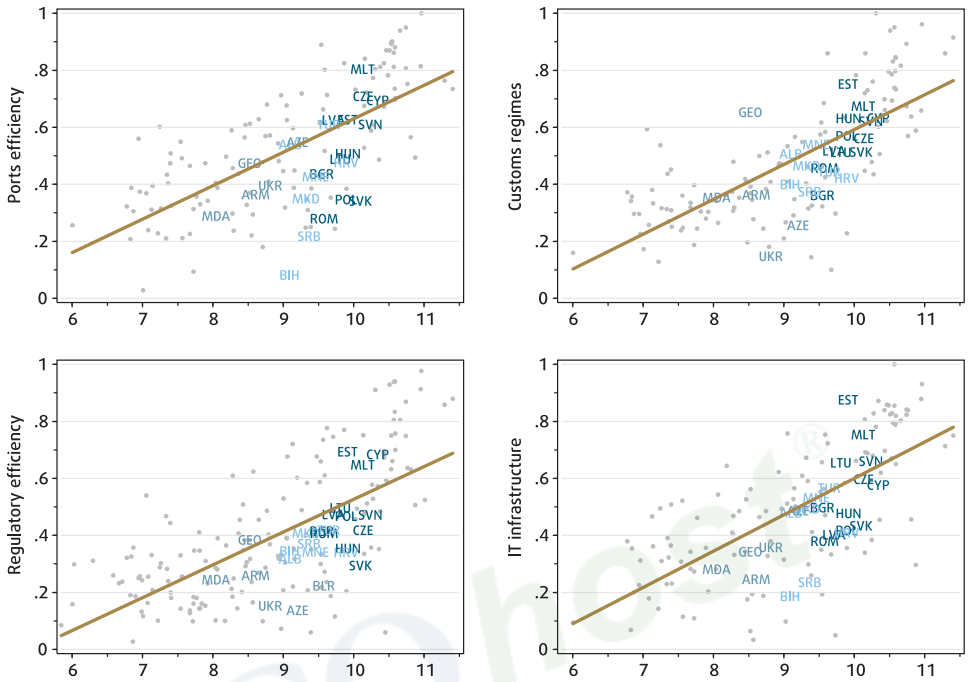

**Figure 2.10: Emerging Europe's exports have become more complex**

(relationship-specificity index of exports, 1996–98 and 2006–08)

Note: Intermediates export is defined by the BEC nomenclature.
See box 2.5 for the construction of the index.
Source: World Bank staff calculations, based on UN Comtrade and Nunn 2007.

**Figure 2.11: Emerging Europe has developed sizable backlogs in trade facilities**

(ports efficiency, customs regimes, regulatory efficiency, and IT infrastructure, 2009–10)




Note: The x-axis in each panel shows per capita GDP, PPP, in logs.
Source: World Bank staff calculations, based on the latest available data (Dutta and Mia 2011; IMD 2010; Schwab 2011; and WDI) to update estimates in Wilson, Luo, and Broadman 2010.

## A growing backlog in trade facilities

The new member states and candidate countries are doing well to become part of the production networks centered in Germany and other EU15 economies. But many of them have now developed a sizable backlog in trade facilities: in particular, the airports and ports, customs regimes, regulations, and IT infrastructure needed to make the goods trade hassle-free. Except for a few countries, most emerging European countries do not do well, especially in port efficiency and in IT technology (figure 2.11). The first round of gains in size and sophistication of merchandise trade seems to have come from lowered divisions between emerging Europe and the big (and growing) market in Western Europe. With eurozone growth prospects uncertain and the composition of trade changing to become increasingly sensitive to transport costs, the next round of gains will depend on how much economic distance is shortened.

Sizable trade gains—more from greater exports than an increase in imports—can be had if the port efficiency, regulatory regimes, and IT infrastructures in the new and candidate member countries are improved by even just half the distance to the EU15 average. The greatest absolute trade gains come from cutting the gaps in port efficiency and IT infrastructure. Most of these trade gains result from greater exports.

Priorities for investments in improving trade facilitation infrastructure are not the same for the new member states and the EU candidates. Among the four most important trade facilitators, IT infrastructure improvements will lead to the largest gains in both groups of countries (Wilson, Luo, and Broadman 2010). Simulations suggest that about 40 percent of the trade gains across the region will come from improved information and communication technology (ICT). For the new members of the European Union, another 35 percent improvement will come from investments in air and maritime port efficiency. The results for the candidate members suggest more widely dispersed gains with investments in port efficiency, customs regimes, and regulatory policy of similar importance. Improvements in each dimension result in about 20 percent of the total trade gains.

Public investment programs and EU development programs should consider these results. Improvements in port facilities and IT infrastructures are likely to be more costly than reforms of customs regimes and regulatory policy. For EU candidate countries, the latter should continue to have high priority, given financing constraints. The eligibility for additional EU financing after accession increases the scope for ambitious investments in transport and IT infrastructure. In all countries, the private sector has a role to play in the funding and operation of infrastructure facilities.

## Service Europe—not yet a single market

The Internal Market Strategy for Services expects eventually "to make the provision of services between member states as easy as within a member state" (OECD 2007, p. 75). For a multilingual, multicultural region with diverse political and legal precedents, this is a tall order. Indeed, while in assessing its performance in the goods trade Europe measures itself against East Asia, a developing region, its benchmark for trade in services is the United States, a developed country. For more than half a century, European policymakers have been trying to reduce the costs of cross-border transactions and foster the integration of the internal market. For the goods trade, they have largely succeeded. For services, the single market is still a work in progress and—given the nature of regulatory reforms needed to make it work efficiently—it is likely to remain one for a while.

Too much attention to export performance risks neglect of efforts to make service markets more open, which may well be the wider channel for productivity improvement. Most services are still not tradable through digitized means, so foreign direct investment (FDI) and the movement of people is the biggest part of internationalization, and the channel through which productivity growth is induced, both in services themselves and in "downstream" industries. Productivity is what's key, not trade. Given that the lion's share of output and employment is in services, many of which will remain nontradable, the focus should be on improving markets for services, hence raising the average productivity of enterprises. Indeed, the performance of business services can explain a good part of aggregate productivity differentials among advanced economies (Inklaar, Timmer, and van Ark 2007).

This is discussed in detail in chapter 4. This chapter discusses the progress in the services trade. Until recently, economists treated "nontradables" as almost synonymous with services, recognizing the special difficulties in crossing borders to provide services: "Because, by definition, services are a flow and so are not storable, their exchange frequently requires the proximity of supplier and consumer" (Francois and Hoekman 2010, p. 648). The requirement of proximity entails additional costs—the "proximity burden" of the services trade. The questions to be answered are: Has technology reduced this proximity burden? How much has the single market program helped? These questions are taken up in turn.

## The services trade in the European Union is growing

The internal market of the European Union is more important than third countries for trade in services. But the internal market for trade in services has been less integrated than for goods. Services exports within the European Union have grown slower than exports to third countries in recent years despite the implementation of the Services Directive and other initiatives to push forward regional integration in services. The European Commission passed the Services Directive in 2005, aiming to eliminate regulatory barriers to a Single Market for Services. But from 2004 to 2008, intra-EU exports grew at 13 percent, while extra-EU exports grew at 14 percent. Nonetheless, the EU10 and the candidate countries integrated faster within the internal market than with the rest of the world. Services exports from the EU10 members to other EU member countries achieved an annual growth rate of 24 percent, 6 percentage points higher than the rate of their exports to third countries. For the candidates, the difference was 10 percentage points. The prospect of joining the European Union seems to facilitate market entry in services.

Trade in services through establishment-based transactions or sales by foreign affiliates is a big part of the services trade. As in the United States, establishment-based transactions are the most important channel for Western European companies to sell services, while cross-border trade remains the dominant channel for other members (table 2.2, top panel). The sales by affiliates of the Western European members were some 46 percent higher than cross-border services exports (table 2.2, bottom panel). For their intra-EU exports, the value of establishment-based transactions was also about 45 percent higher than that of cross-border exports. By contrast, the sales by the affiliates of companies in both Southern EU members and the EU10 were less than one-third of their cross-border exports. But there was little additional integration of Western Europe with other members through establishment-based transactions. Between 2004 and 2008, the sales by affiliates in EU members grew at a meager 0.4 percent while the sales by affiliates located in third countries increased by 3 percent.

Transportation and travel remain dominant in the European Union's services exports. While services were traditionally regarded as nontradable, transportation and travel had always been the exceptions. Western Europe accounts for 70 percent of total exports in transportation and over half of total exports in travel. For the members of Southern Europe, travel is the most important services export. In 2008, the value of exports in travel accounted

for 40 percent of total services exports by Southern Europe and almost one-third of total exports in travel by the European Union. For the EU10 members and candidate countries, the two also stand out as the leading services export sectors.

Financial and other business services are now becoming the drivers of EU service exports. Financial services cover financial intermediation and auxiliary services, except those of insurance enterprises and pension schemes. Other business services consist of professional and management consulting services; research and development services; and technical, trade-related, and other business services (UN 2011). These services were traditionally not tradable, partly due to the "proximity burden" and partly due to heavy regulations. The rapid advance of information and computer technology over the past decades has spurred trade in these sectors by reducing the "proximity burden." Regulatory simplification and harmonization with international standards have also helped.

## Services are becoming more tradable—especially modern services

Services exports by Europe and developing countries almost tripled between 1997 and 2007. Services exports have changed qualitatively. They have increasingly become a final export that is directly consumed. Because many services can now be stored and traded digitally, they are not subject to many of the traditional trade barriers (such as transport costs, border delays, physical inspections, and so on) that physical exports have to overcome. Services not only have become more tradable, but they can also be increasingly unbundled: a single service activity in the global supply chain can now be fragmented and done separately at different geographic locations.

The new member states have been especially successful in growing services exports since the mid-2000s—not quite star performers like India or China, but high performers compared with the rest of the world (figure 2.12, left panel). Figure 2.12 (right panel) graphs the tradability of services between 1986 and 2008. In Europe, there are three developments of note. First, the share of service value added that is traded rose from 10 to 15 percent. Second, the share of services traded in the new member states has increased erratically, but now is almost double its share at the beginning of the transition. Third, the EU candidate countries have seen a drop in the share of services traded since the late 1990s, likely due to rapid expansion of domestic services such as construction, transport, travel, retail trade, and government services, rather than a drop in services exports. What is also clear from international comparisons is that aside from India, trade is a bigger part of the services economy in Europe than in any other part of the world.

The increased tradability is mainly due to new technologies that have changed the nature of many services from "traditional" to "modern." Traditional services require face-to-face contact, while modern services can be delivered over longer distances. Modern services, such as banking and financial services, telecom support, and technical support, are now more "impersonal" and tradable across borders. But technological progress has also helped such

traditional services as tourism, retail trade, education, and health care take advantage of new information and communication technologies, exploit the potential for fragmentation and scale economies, and become more productive.

### Table 2.2: Western Europe drives much of the services trade

(cross-border exports, 2008)

| | EU members | | | Candidate countries |
|---|---|---|---|---|
| | Western Europe | Southern Europe | EU10 | |
| **Value of exports (current $, billions)** | | | | |
| EU members | | | | |
| Western Europe | 560 | 97 | 41 | 16 |
| Southern Europe | 189 | 26 | 7 | 5 |
| EU10 | 57 | 6 | 13 | 3 |
| EU candidate countries | 33 | 8 | 5 | 3 |
| **Share in total exports (percent)** | | | | |
| EU members | | | | |
| Western Europe | 42 | 7 | 3 | 1 |
| Southern Europe | 56 | 8 | 2 | 1 |
| EU10 | 52 | 6 | 12 | 3 |
| EU candidate countries | 45 | 11 | 7 | 4 |

(sales by foreign affiliates, 2008)

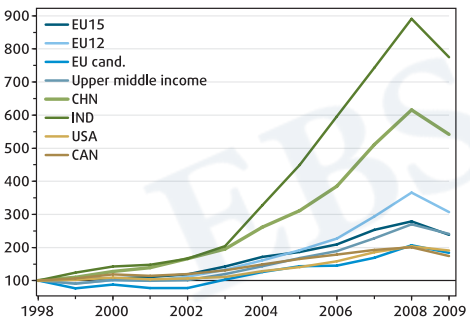
| | EU members | | | Candidate countries | Other countries | |
|---|---|---|---|---|---|---|
| | Western Europe | Southern Europe | EU10 | | High and upper middle income | Middle income |
| **Value of exports (current $, billions)** | | | | | | |
| EU members | | | | | | |
| Western Europe | 514 | 271 | 226 | 34 | 839 | 42 |
| Southern Europe | 55 | 8 | 11 | 5 | 13 | 4 |
| EU10 | 2 | 0 | 7 | 3 | 1 | 1 |
| **Share in total exports (percent)** | | | | | | |
| EU members | | | | | | |
| Western Europe | 26 | 14 | 12 | 2 | 43 | 2 |
| Southern Europe | 56 | 8 | 11 | 5 | 13 | 4 |
| EU10 | 13 | 1 | 54 | 19 | 9 | 5 |

Note: The top reports numbers from balance of payments data, and the bottom from establishment accounts. EU candidate countries include EU members that joined in 2007 (that is, Bulgaria and Romania).
Source: World Bank staff calculations, based on Eurostat.

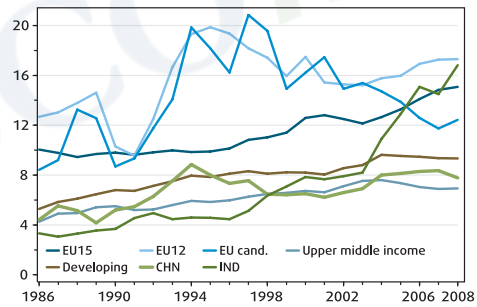
Cross-border trade in modern services has been growing faster (figure 2.13). In the EU15, the rate of growth of trade in modern services is 15 percent, higher than that in the United States. The growth in the new member states is even higher at 25 percent. But EU candidate countries saw a contraction in modern services trade, and rapid growth in traditional services.

The share of service value added as a percentage of GDP is high in the EU15, followed by EU new member states and EU candidate countries.[6] This is normal, given their per capita incomes. But in most European economies total productivity growth is faster than predicted by growth in output of services. In other words, services output growth contributes less to overall growth in GDP per capita than might be expected given the share of services in GDP. This is consistent with the finding reported in chapter 1 that a gap in services accounts for the largest part of the difference in overall productivity between Europe and the United States. It also explains the focus of European policymakers on deepening the market in services as a core element of Europe's future growth strategy (for example, Monti 2010).

(services exports, 1998–2009, 1998 = 100)

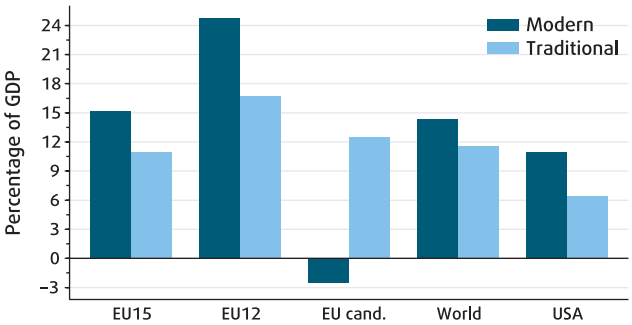



(exports as percent of service value added, 1986–2008)




Source: IMF BOPS; and WDI.

**Figure 2.12: Services exports are growing fast in the new member states**




Note: Modern services include communication, insurance, finance, computers and information, royalties and license fees, and other business services. Traditional services are transport, travel, construction, and personal, cultural, and recreational services.
Source: World Bank staff calculations, based on IMF BOPS.

**Figure 2.13: Modern—more tradable—services are growing faster almost everywhere**

(annual growth in modern and traditional services trade, 2000–08)

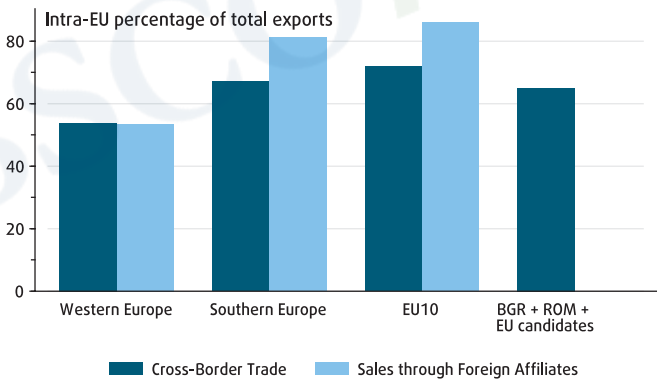
## The single market is delivering—but not for modern services

The services trade in the European Union is now a $4 trillion business, and more than half of this is in the internal market (figure 2.14). For the smaller economies in the east and south, the internal trade is actually more than two-thirds of the total. There has been progress toward deeper integration of services in the European Union (European Commission 2002).

Not surprisingly, Western Europe accounts for almost 80 percent of the internal services trade (figure 2.15), and more than half of the sales within the internal market by foreign affiliates took place in Western Europe.[7]

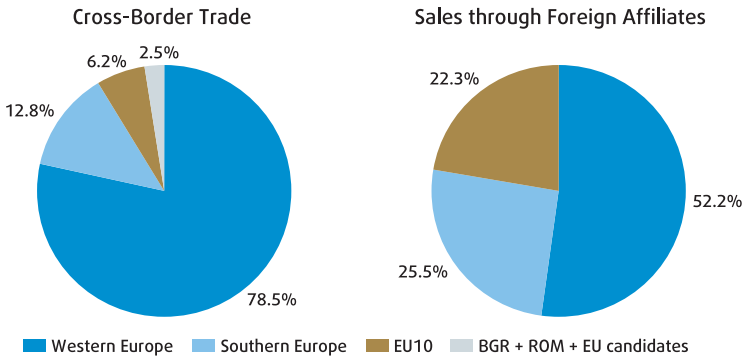
But the EU10 and the EU candidate countries appeared to integrate faster into the single market. Exports of the EU10 to the internal market grew at 24 percent annually, 6 percentage points higher than their exports to the rest of the world. For the accession countries, the difference was 10 percentage points. As discussed in the previous section for goods trade, integration is a gradual process and precedes actual accession—the prospect of joining the European Union seems to facilitate market entry by the accession countries.

Figure 2.14: Internal trade tendencies in the European Union vary across countries




Source: World Bank staff calculations, based on Eurostat.

Figure 2.15: Western Europe does most of the internal trade in services, 2008




Source: World Bank staff calculations, based on Eurostat.

### Table 2.3: The single market has increased services trade and FDI by about 25 percent

(estimates of the effect of the Single Market for Services on trade and FDI, 1992–2006)

| Source | Data | Time | Methodology | Effect (percent) |
|---|---|---|---|---|
| Fink (2009) | Cross-border trade | 1999–2002 | Gravity model without country-pair fixed effects | 32 |
| | Cross-border trade | 1999–2006 | Gravity model with country-pair fixed effects | 33 |
| | Outward FDI | 1992–2005 | Gravity model without country-pair fixed effects | 30 |
| | Outward FDI | 1999–2005 | Gravity model with country-pair fixed effects | 18 |
| Straathof and others (2008) | Cross-border trade | 2002–05 | Gravity model without country-pair fixed effects | 11 |
| | Outward FDI | 1994–2004 | Gravity model with country-pair fixed effects | 22 |

Source: World Bank staff.

The single market program has promoted deeper integration of services. Straathof and others (2008) and Fink (2009) both show that the single market program reduces trade costs and leads to more bilateral trade between members, both as cross-border trade and foreign direct investment.[8] Services trade flows and FDI within the European Union are 10–30 percent higher compared with their trade with third countries and trade by the rest of the world (table 2.3).[9] Enlargement, especially in 2004, has promoted deeper integration of new members with the European Union, and most of the increase in services trade does not seem to have come at the expense of third countries.

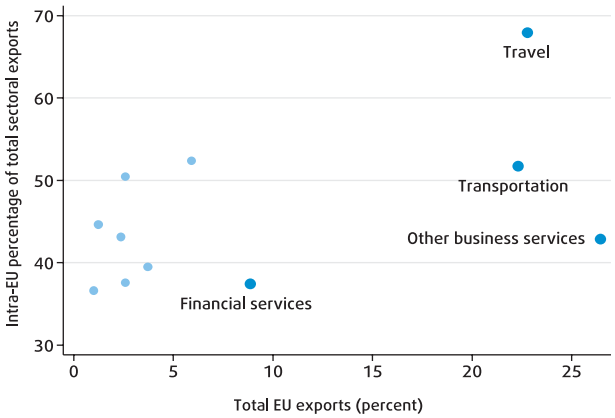
But the single market works a lot better for trade in traditional than in modern services. Transportation and travel, two traditional sectors, dominate the European Union's cross-border services trade. Their levels of integration—or the working of the single market—differ a lot. For travel, more than two-thirds of exports were transactions within the European Union; for transportation, only half of total exports were oriented toward the internal market (figure 2.16). For business services—which include the ICT-facilitated digital trade that is so fragmented in the European Union—the internal market accounts for just two-fifths of the trade. Financial services integration is taken up in chapter 3; this chapter looks more closely at transportation, information and communications technology, and other business services to see how the single market can be made to work better.

## Europeans are dissatisfied with the Single Market for Services

While the internal trade in services has been growing, the progress is considered unsatisfactory for several reasons. First, services are a large fraction of the economy but a small share of trade. In the EU15, services are more than two-thirds of total value added and about three-quarters of employment. In the new member states that joined in 2004, services are more than 60 percent of value added and employment. More than half of labor productivity growth between

**Figure 2.16: The single market works better for traditional services**

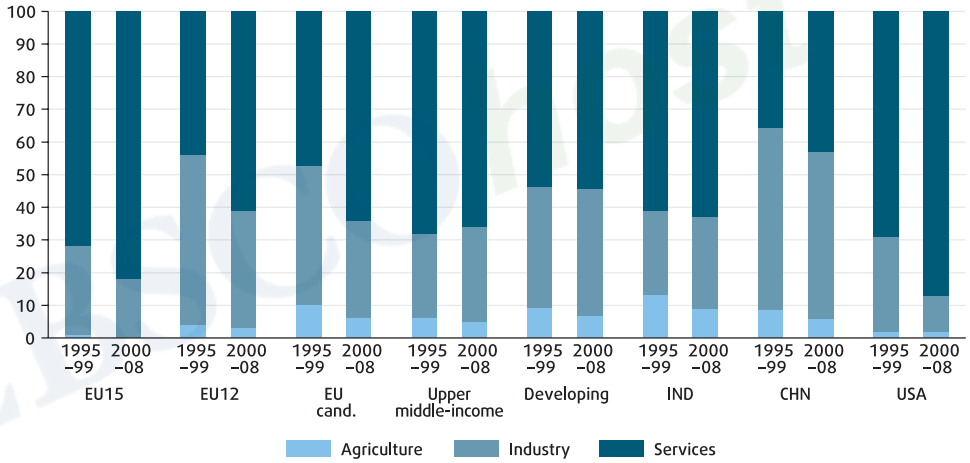
(Intra-EU Share of service exports, percent, by type of service, 2008)




Source: World Bank staff calculations, based on Eurostat.

**Figure 2.17: Services are contributing even more to growth in Europe**

(sector shares in economic output, 1995–99 and 2000–08)




Source: WDI.

2000 and 2006 in EU15 countries was in services, but services are just one-fifth of total intra-EU trade. Even after accounting for the sales by foreign affiliates, services were just one-third of total intra-EU trade in 2008. Services are an ever larger slice of the European economy, and a still larger part of its economic growth (figure 2.17). New developments in information and communication technology have increased both the tradability of and productivity growth in services, traditionally considered less tradable and a productivity laggard. So trade in services appears underdeveloped—less than 10 percent of service value added is currently exported, compared with 90 percent of goods value added.

The second reason is that services trade within the European Union has not grown as quickly as the internal trade in goods. In terms of simple statistics, the exports of goods within the internal market are more than double the exports of members to third countries. By contrast, the exports of services within the internal market are only 20–40 percent higher than the exports to third countries, depending on the measure used. The evidence suggests that

## Box 2.6: How big should the Single Market for Services be? Clues from Canada

Regional trade in goods in East Asia is a common benchmark for Europe. But when it comes to trade in services, policymakers in the European Union compare their progress to that of countries like the United States or Canada, not to continents or regions such as North America or East Asia. If there were a Single Market for Services in Europe as in the United States or Canada, how much would trade in services go up—would it increase 20 percent, twofold, or twentyfold? And how much would this increase productivity?

Lejour and de Paiva Verheijden (2007) provide answers to the first question by analyzing the services trade among Canadian provinces between 1997 and 1999, and among OECD countries between 1999 and 2001 (box figure 1). It was impossible to do something analogous for the United States: reliable data for trade in services among U.S. states are simply not available. Sizewise, comparisons with the United States are more apt: in 2011, the value added in services in the European Union was $11.4 trillion (70 percent of its GDP of $16.2 trillion), almost exactly the same as that in the United States (77 percent of its GDP of $14.8 trillion). In other respects, Canada is a better benchmark. Linguistic, legal, and cultural divisions hamper trade in most services more than does distance. So for Europe, it may be instructive to see how much the French- and English-speaking provinces of Canada trade despite the divisions.

In 2000, services trade as a share of GDP in Canada was almost 9 percent of GDP, more than twice the ratio for the EU. Given the fact that size matters for goods and services trade (larger countries and provinces trade more), and the European Union's GDP was about 10 times that of Canada in 2000, the share of services trade in the European Union should be greater, not smaller. Smaller distances in Europe relative to Canada would make this ratio even bigger for the European Union, while linguistic differences would make it smaller.

Looking more closely, GDP size matters roughly the same amount for trade in travel, transport, commercial, and government services. Distance matters more for commercial and transport services, and least for travel-related services. When differences in regulations are accounted for, language matters only for travel and commercial services. The strictness of product market regulations in the origin country reduces trade in commercial services, while destination country regulations affect travel and trade in government services.

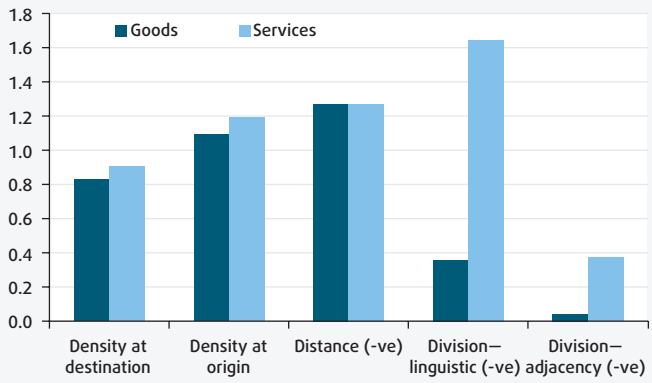
There is considerable unexploited potential for both goods and services trade in the European Union. If the EU market functioned like that of Canada, intra-EU goods trade would be three times as high as it was in 2000, and services trade between three and five times as much. Given that not all differences in language and legislation can be eliminated, a reasonable objective over the next few years might be a doubling of intra-EU cross-border trade in services by 2020. Using 2007 statistics, this would mean an increase in intra-EU services trade of about €660 billion, or around $1 trillion (roughly $100 billion a year). A threefold increase would mean that services exports within the European Union would rise by €1.3 trillion, or about $2 trillion.

Source: Lejour and de Paiva Verheijden 2007.

### Box figure 1: Language differences hamper services trade more

(effects on trade between Canadian provinces, 1997–99)

Source: Lejour and de Paiva Verheijden 2007.




the effect of the single market is greater for goods than services, when it might be expected to be the other way around.[10] New technologies have resulted in rapid growth of "modern impersonal services," such as information technology, business-related services, medical records transcription, call center operations, education services, and entertainment production services. More and more

services can now be stored and traded digitally, and they have become similar to manufactured goods in that they benefit from technological advancement and their costs depend on economies of scale, agglomeration, and division of labor. More important, these sophisticated services provide an opportunity for innovative, high-tech jobs.

The third reason is that trade in services within the European Union has not been growing faster than services trade to third countries. Cross-border exports in the internal market grew at 13 percent annually between 2004 and 2008, while the exports to third countries grew at 14 percent. The difference led to a 3 percentage point decline in the ratio between intra-EU and extra-EU exports. Foreign affiliate sales within the European Union have been more volatile than sales to third countries, and the ratio between intra-EU and extra-EU sales dropped by 9 percentage points over the same period.

A useful thought experiment to gauge the potential gains of deeper integration is to estimate the extra scope for intra-EU trade if the internal market were to function like the interstate trade in services in some benchmark countries. As federal countries, Canada and the United States are the obvious benchmarks. The level of income and role played by the services sector in both economies are comparable to those of the European Union. Their interprovince/interstate market could be taken as having the maximum possible integration. Regulatory barriers are low in both countries. According to the Organisation for Economic Co-operation and Development (OECD), Canada's regulatory regime was rated 0.95 and the United States' at 0.84 in 2008, compared with the most restrictive regime in Europe rated at 2.60 and the most liberal one at 0.84. Although provinces/states have their own rules and organizational legacies, the federal government in both countries provides a framework for regulating services. The

### Box 2.7: Can liberalization of services contribute to productivity growth? Evidence from the Czech Republic

The debate on the welfare effects of trade and investment liberalization has traditionally centered on goods. The literature confirms productivity gains in many cases. Services liberalization is another potential source of productivity gains—working through the same channels. The evidence, however, has been scarce—even more so when it comes to plant- or firm-level evidence. But a recent study by Arnold, Javorcik, and Mattoo (2011) on the Czech Republic's services liberalization in the late 1990s helps to shed some light on the issue.

In 1998, the Czech Republic adopted a more friendly approach to foreign direct investment, including services. In telecommunications, for example, a third mobile operator entered the market in 2000 with 100 percent foreign ownership, and one existing mobile company attracted a controlling stake by a foreign investor. In banking, 90 percent of assets were in foreign hands by 2001.

Anecdotal evidence suggests that services seem to have become more reliable after allowing foreign entry. Moreover, these foreign providers were at the forefront of introducing innovations. For example, Ceska Sporitelna, an Austrian-owned bank, installed 1,080 ATMs across the country. It was also the first bank to offer transaction ATMs and became the market leader in remote banking. Cash flow management tools, multimodal transport services, and digital services in telecommunications were also introduced by foreign companies.

Results of a World Bank survey of 350 Czech firms provide more systematic support. The share of positive perceptions ranged from 55 percent of the respondents when asked about the quality of accounting and auditing services to 82 percent for telecommunications. With regard to the variety of products offered, the positive views of liberalization varied between 56 percent of respondents who evaluated accounting and auditing services to 87 percent of respondents asked about telecommunications.

Analysis of data from a panel of manufacturing firms over 1998–2003 confirms that allowing foreign entry into services industries is the key channel through which services liberalization contributes to better performance of "downstream" manufacturing sectors. Liberalization is captured in four ways: an index of policy reforms, the share of foreign-owned firms in services output, the share of private firms in services output, and the extent of competition. There is a strong correlation between services sector reform and the productivity of local producers relying on services as intermediate inputs.

Source: Arnold, Javorcik, and Mattoo 2011.

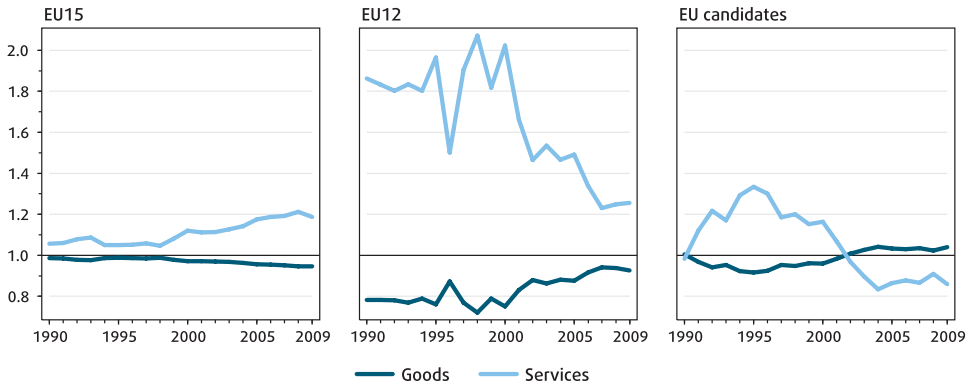



**Figure 2.18: The European Union has a comparative advantage in services**

(revealed comparative advantage, services and goods, 1990–2009)

Note: The index greater than one means the country has a comparative advantage in the activity.
Source: Lundstrom Gable and Mishra 2011.

best guess is that intra-EU cross-border services trade could double or triple if the internal market functioned as well as the Canadian market for services (box 2.6).

Allowing greater foreign competition in services has helped to increase productivity in downstream manufacturing, that is, activities that rely on efficient provision of services. The experience of the Czech Republic illustrates these benefits (box 2.7).

## Could trade in modern services drive growth?

As Europe looks for new ways to increase incomes and productivity, it could better facilitate both the goods and services trade. The potential is believed to be greater for services trade. Whereas increasing trade volumes in niche products or services fuels economic growth, growth can also be achieved by improving the sophistication of goods and services exports. Export "quality" in goods and services helps economic growth or at least is associated with growth—what you export matters. While growth in manufacturing is still an important track for many countries, services exports may be an additional or even alternative channel. For the services-dominated economies in Europe, it may even be a big part of the solution to the search for an "export-oriented growth model."[11]

This raises the question of how far the specialization in services can go in Europe, given the globalization of services and the competition from Asia. That is, does Europe have a comparative advantage in services? The revealed comparative advantage in goods and services—defined as the shares of the goods and services category in a country's export basket compared to their shares in the global export basket—are informative in assessing this. The EU15 has a revealed comparative advantage in services, and the gap between goods and services is increasing (figure 2.18). The new member states also appear to have a comparative advantage in services; the gap with goods was sizable in the 1990s but is now at the same level as in the EU15 economies. EU candidate countries had a comparative advantage in services until the early 2000s; now they have a comparative disadvantage.[12]

### Box 2.8: Measuring the sophistication of services exports is much more difficult than for goods

It is not straightforward to apply the Hausmann, Hwang, and Rodrik (2007) methodology, developed for measuring the sophistication of exported goods, to measure how sophisticated services exports are.

Service PRODYs, reflecting the income level associated with each category of services produced in a country, must first be calculated. In technical terms, $PRODY_j$ is the income associated with the service j, and is constructed by using the service export share of a country i in world's export of service j, divided by the sum of shares of j in world exports of j across all countries exporting that service. The ratios are multiplied by the exporting countries' per capita income (Y) and the result is summed for all countries. In effect, the PRODY is the weighted average of per capita GDPs, where the weights represent the revealed comparative advantage in service j for each country. PRODYs are constructed for each service category and are by construction the same for all countries. EXPY is then the weighted income value of services exported by a country, computed as the weighted sum of PRODYs; the weights are the share of the particular service in the country's total services export basket.

Trade data come from the IMF Balance of Payments statistics, available for more than 190 countries from 1990 to 2007. Due to data availability, the sample has just 100 countries. GDP data are from the World Development Indicators.

There are two differences for the services EXPY compared with the measure for goods exports: a high level of aggregation and the need for dynamic PRODYs. First, services export data are less detailed than for goods. There are only ten categories of services exports, compared with several hundred for goods. If a country—within a broad services export category—moves from a low PRODY subcategory of services to one with a higher PRODY, this does not show up in the static EXPY. So while constructing the Services EXPY, PRODY values of a service export are allowed to vary from year to year. Hence, an increase in dynamic EXPY can be due to either an increase in the PRODY of a service or an increase in the share of high PRODY products in the export basket.

The second reason is that countries are exporting higher-value services, but the services exports themselves are increasing in sophistication due to information and communication technology. Many richer countries are exporting services, boosting the PRODYs of some service export categories. Since the data are much less disaggregated for services, using static PRODY would not capture the higher PRODY service exports that are subcategories of the broader groups in Balance of Payments data. The dynamic EXPY incorporates this because it allows the PRODYs to change over time.

Source: Lundstrom Gable and Mishra 2011.

Trends in productivity seem to back this assessment. Service productivity is many times higher in the EU15 than in emerging Europe. This can be explained by a more efficient service sstructure and workforce in the EU15 and by the type of services produced there. Services productivity has increased globally over the last decade, even for already high-productivity service economies such as those in the EU15. The growth in services productivity in the European Union's new member states has been highest, while EU candidate countries are catching up with higher-income countries more slowly.[13]

However, the services exports of the European Union are less sophisticated than those of India or the United States. Applying the technique used to measure the sophistication of goods production and exports is not easily extended to services, because data are much less disaggregated for services (box 2.8). But with services accounting for such a large proportion of GDP and hence of aggregate productivity growth, it is useful to analyze whether there is a link between the sophistication of services exports and GDP growth.

On average, the PRODYs for modern services are higher and their growth has been greater, despite higher initial levels. The EU15 has 43 percent of its export basket in modern services, the EU12 has 26 percent, and the EU candidate countries 11 percent. The world average is 21 percent. Due to the high PRODYs for modern services, EU15 EXPY is to a large extent explained by the high share of modern services, especially financial services. For the new member states and the EU candidates, the EXPY is still determined more by traditional services (table 2.4).

### Table 2.4: EU services exports are more sophisticated than those of the rest of the world

(PRODYs, 1990–95, 1996–99, and 2000–07, and PRODY values and shares by service and country group)

| | World | | | 2007 services export share (percent) | | | | 2007 EXPY share | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990–95 | 1996–99 | 2000–07 | World | EU15 | New member states | EU candi-dates | World | EU15 | New member states | EU candi-dates |
| **Traditional services** | | | | | | | | | | | |
| Transportation | 8,161 | 9,629 | 11,990 | 21 | 19 | 32 | 18 | 8 | 5 | 10 | 8 |
| Travel | 7,433 | 7,851 | 8,999 | 41 | 22 | 30 | 58 | 6 | 3 | 5 | 15 |
| Construction | 14,510 | 10,534 | 10,464 | 2 | 2 | 3 | 3 | 8 | 7 | 12 | 20 |
| Personal, cultural, and recreational | 14,510 | 10,534 | 10,464 | 1 | 1 | 3 | 2 | 10 | 5 | 30 | 26 |
| **Modern services** | | | | | | | | | | | |
| Communications | 6,261 | 6,320 | 7,584 | 4 | 2 | 3 | 4 | 5 | 3 | 5 | 9 |
| Insurance | 8,167 | 11,306 | 13,630 | 2 | 2 | 0 | 1 | 9 | 9 | 2 | 5 |
| Financial | 18,590 | 23,063 | 25,743 | 3 | 9 | 3 | 1 | 20 | 33 | 10 | 4 |
| Computer and information | 14,916 | 20,092 | 18,797 | 2 | 5 | 3 | 1 | 12 | 16 | 10 | 6 |
| Royalties and license fees | 10,263 | 13,293 | 14,707 | 1 | 3 | 1 | 0 | 12 | 10 | 6 | 2 |
| Other business services | 7,883 | 9,437 | 13,162 | 15 | 26 | 19 | 9 | 10 | 9 | 9 | 5 |

Note: Government services are not included.
Source: Lundstrom Gable and Mishra 2011.

Services exports in the European Union are becoming more sophisticated. Figure 2.19 shows the evolution of Services EXPY. All groups start out with more or less the same level of sophistication in the beginning of the 1990s, and diverge in the late 1990s. The EU15 made the largest jump in the late 1990s, while the new member states continued an already strong trend though at a lower level than the EU15. The EU candidate countries and the eastern partnership countries dropped in Services EXPY in the late 1990s and have not been able to catch up since.

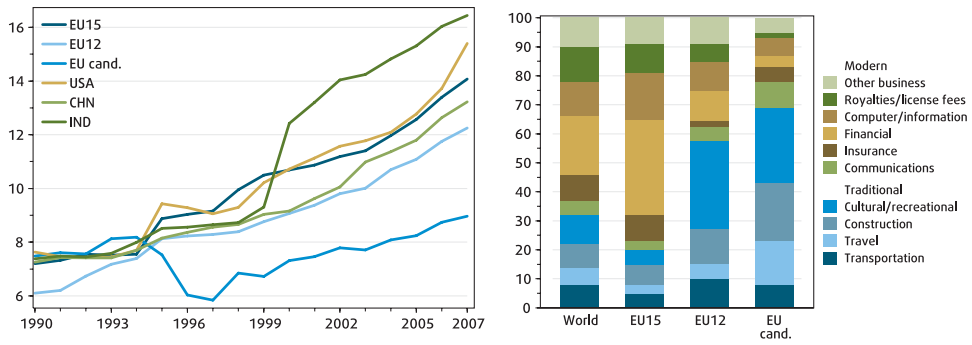
Compared to non-European peers, however, the EU15 has fallen behind. The services PRODY of the United States has been higher than that of the EU15 since the early 2000s. This is consistent with the growing productivity gap in services with the United States highlighted in chapter 1 as one of Europe's key challenges. India has seen a big increase in PRODY, and China has been closing the gap as well.

In general, countries with a high Services EXPY also have a high goods EXPY. European economies have more sophisticated exports than the median country, somewhat more so for goods exports than for services. To what extent has higher services trade sophistication been reflected in faster economic growth? Lundstrom Gable and Mishra (2011) find evidence of an association between growth and services trade sophistication for a global sample. In Europe, the correlation is especially strong for the European Union's new member states.

**Figure 2.19: India and the United States have more sophisticated services exports than the European Union**

(service EXPY, 1990-2007 (left), and shares in service EXPY, 2007 (right))

Source: Lundstrom Gable and Mishra 2011.




## Making the single market work for services

Services are where most economic regulations are concentrated (Conway and Nicoletti 2006). Mainly, this is due to the difficulty in evaluating the quality of services. The consumer cannot be certain about the quality of services until after they have been consumed, and sometimes not even then. The production and consumption of services also cannot easily be separated in place and time, making it difficult to standardize services products. In the case of complex services (such as professional services), the consumer may not have the knowledge to make a judgment about the services even after consumption. Regulations are necessary to address this problem of "asymmetric information." They may also be needed because of the externalities associated with some services (for example, in the financial sector) and the need to provide equal access to essential services such as transportation and utilities.

### Homogenize regulations

Because of cumbersome regulations, services providers have to overcome many barriers to be able to export: outright legal discrimination (as with exclusive rights to domestic providers), implicit restrictive regulations (for example, licensing based on domestic qualifications), and lack of transparency and nonlegal barriers like language and culture. Some countries require services providers to meet an "economic needs test" to show that—even if they will provide better choice and value for consumers—they will not undercut or destabilize local competitors. These tests leave room for arbitrary enforcement. Businesses find it costly just to find out what the legal and administrative formalities are. For example, an engineering company may end up spending 3 percent of annual turnover on researching the differing legal requirements in just two other member states of the European Union where it wanted to supply services (World Trade Organization 2009b). These hurdles discourage services exports. Nicoletti and others (2003), among others, find that high regulation intensity between OECD countries depresses trade in services. Moreover, they find that the impact is greater than for trade in goods.

A unique character of services further compounds the issue. Services are often partly produced where they are consumed. The production process uses inputs

### Box 2.9: Reviving the reform agenda for the European single market

Enlargement and creation of the single market has proved beneficial for all EU members. European enterprises found it easier to trade goods and services across borders. Yet, the single market is far from efficient. Small and medium enterprises face difficulties when recovering foreign liabilities. EU citizens have to re-register a car and pay taxes every time they move to a different country.

Although the services sector in Europe contributes substantially to GDP growth and job creation, the reform agenda for creating a Single Market for Services is far from complete. Technological transformation has left Europe's market for modern services well behind that of its global peers. At the same time, political and social support for it seems to have lost momentum. The attention given to policies for strengthening a European single market differs considerably across the European Union's member states.

Paradoxically, overall enthusiasm for a single market declined even more during the recent financial crisis, while in fact Europe needs a strong internal market now more than ever before.

A recent report by Mario Monti (2010, p.37) for the European Commission points out that the "single market is Europe's original idea and unfinished business". It lists the completion of the single market as a prerequisite for economic growth in Europe. For the common digital market, the report recommends an introduction of a pan-European licensing market, EU copyright law, and European Union–wide online broadcasting as well as improvement of the business environment for cross-border e-commerce. Development of the European digital market by 2020 could yield around 4 percent of the European Union's GDP. EU customers would benefit from greater integration of retail banking. Workers would benefit from greater mobility due to better information about amenities in other member states.

The report recognizes the discrepancies in how different countries imagine a fully functioning single market. New strategies proposed in the report seek a common ground between the Anglo-Saxon preference for competition, the variety of experiences among Nordic countries, the ambitions of emerging Europe, and the concerns of social market economies. But before new strategies are drafted and implemented, Europe would benefit from fully reinforcing laws already passed. On average more than half of EU directives are not implemented on time by the member states. The full implementation of the Services Directive alone could yield between €60 and €140 billion.

Source: Monti 2010.

from both exporting and importing countries, which does not apply to goods. As a result, providers who want to export are subject to the regulations of both countries. Mirza and Nicoletti (2004), for example, find evidence that policy factors affecting the use of inputs in the exporting and importing country both have impact on the same flow of traded services between the two countries, and the effects are of similar scale. Nicoletti and others (2003) find similar problems using regulations in exporting and importing countries to evaluate regulation intensity.

The differences between trading partners' regulatory regimes hinder the growth of the single market. Each member has its own qualification criteria, implying additional compliance costs every time a firm wants to expand to a new country. The importance of regulatory harmonization has been supported by recent studies. Kox and Lejour (2005) show that high heterogeneity in domestic regulations, together with the level of regulatory intensity, depresses cross-border trade in services. Kox and Lejour (2007) show that harmonization or mutual recognition by countries could lead to a 13–30 percent increase in trade. Notably, both studies suggest that eliminating explicit legal barriers is not sufficient either to promote either cross-border trade or to attract foreign direct investment in services.

## Remove regulatory barriers

Much like tariffs on trade in goods, stringent regulations also shield domestic firms from foreign pressure and reduce the competitiveness of domestic providers in regional and world markets. Firms also have little incentive to innovate. Existing studies consistently illustrate that a high level of regulation in exporting countries is also associated with low bilateral trade flows in services (for example, Mirza and Nicoletti 2004; Kox and Lejour 2005). Services

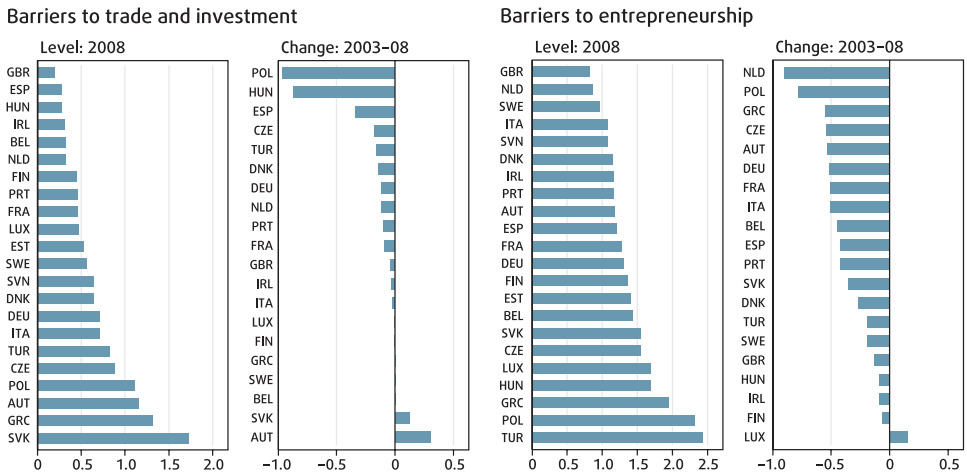
liberalization tends to foster productivity growth in the broader economy (Francois and Hoekman 2010).

The European Commission (2002) did a comprehensive inventory of the internal regulatory barriers that hinder cross-border trade and prevent the commercial presence of foreign services providers. Services providers hit internal barriers at every stage of the business process. The report also discovered that many barriers are "horizontal"—that is, they affect a wide range of activities. It identified a wide range of barriers to services providers at every stage of business operation: from distributing services, selling services, and dealing with after-sales issues for cross-border trade, to establishing a business, using inputs, and promoting business for exporting through commercial presence. The distribution of services is affected by residency or nationality requirements, which prevent provision from home countries. Small and medium enterprises (SMEs) are hit the hardest. A recent report done for the European Commission reported that the gains from implementing the Services Directive are close to €500 billion (box 2.9).

There are many examples of companies that find it almost impossible to set up subsidiaries in other EU member states. Some actually find it harder to get established in the EU15 than in the new member states. This report also documents that all services providers encounter, at least, barriers at one stage of the business process; often they encounter them at several or even at all stages. Many barriers are horizontal. One common feature is a "single regime," in which the national government applies the same regulations to both cross-border services trade and sales through commercial presence. A single regime may lead to duplication of requirements and disproportionate burdens for the second category because it already complies with home regulations. Legal uncertainty is another problem.

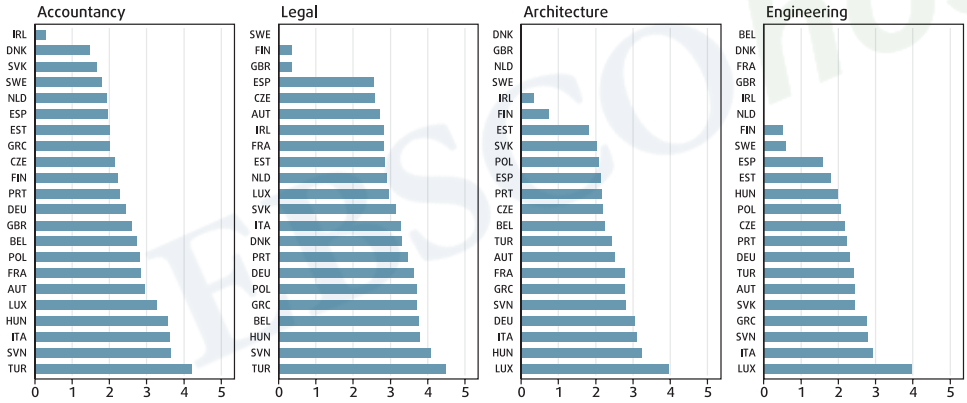
SMEs often do not have sufficient resources to meet these requirements or to afford the extra legal assistance costs. Monti (2010) provides the example of cross-border enforcement of judicial awards, which can cost as much as €2,000 even for pure formalities. As a result, SMEs are either dissuaded from cross-border activities or are at a clear competitive disadvantage compared to domestic operators. Those from less developed EU members are particularly disadvantaged. SMEs often do not consider expanding to other member states, even if their services are not market-specific and have export potential. There is a lack of trust and a natural resistance to deal with services providers from other member states.

The OECD product market regulation indicators help to measure regulatory barriers (OECD 2011). They quantify the barriers to several services sectors and network industries, offering a good basis to compare regulation of services. According to the latest (2008) indicators, the EU member and candidate countries have removed many of the obvious restrictions to trade and foreign investment. But they have been slow to improve domestic regulations, which affect the services trade and investment more. Administrative hurdles, barriers to entry, and restrictions to competition in domestic markets remain a concern of many European countries, especially Turkey, Poland, and Greece.




Note: The indicators range from 0 to 6, with 6 the most restrictive. In panels for changes, negative numbers indicate liberalization.
Source: OECD 2011.

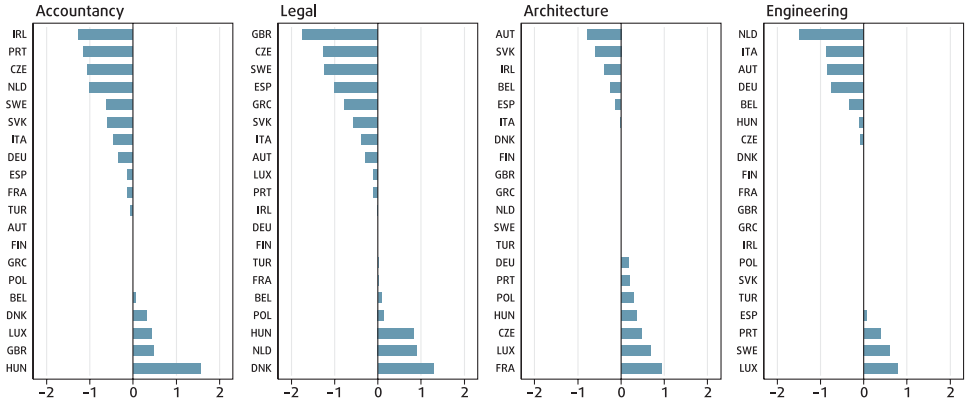
**Figure 2.20: European economies have made trade easier**




Note: The indicators range from 0 to 6, with 6 the most restrictive.
Source: Conway and Nicoletti 2006; and OECD 2011.

**Figure 2.21: Professional services remain tightly regulated**

(product market regulation indicators for regulations in professional services, 2008)




Note: A negative number indicates liberalization.
Source: Conway and Nicoletti 2006; and OECD 2011.

**Figure 2.22: Not all countries are making trade in business services easier**

(changes in product market regulation indicators for regulations in professional services, 2003–08)

### Box 2.10: Facilitating the services trade in the Western Balkans

The share of services in the economy has been increasing in the Western Balkans (Albania, Bosnia and Herzegovina, Kosovo, the former Yugoslav Republic of Macedonia, Montenegro, and Serbia). It now accounts for about 70–75 percent of GDP in every country except Serbia, where services are still less than 60 percent. Travel, transport, construction, real estate, and wholesale and retail trade are the largest service sectors.

Trade in services has been increasing too. Services exports averaged €16 billion a year in 2007–09 and were 10 percent of GDP in the landlocked countries but about 20 percent or more in Albania, Croatia, and Montenegro. Tourism receipts are three-quarters of services exports in Croatia and Montenegro. The average ratio of services imports to GDP is about 10 percent, with Albania (18 percent) at the high end and Bosnia and Herzegovina (5 percent) at the low end.

While the size of services exports in the Balkans is similar to those of the EU15 and the new member state economies, the sophistication of exports differs. Traditional services dominate: travel accounts for two-thirds of total services exports—concentrated in the coastal countries—followed by transport at 14 percent and construction at less than 5 percent. From modern services, communications service exports are the largest, but they are still less than 5 percent of services exports. Exports of computer and information and communication technology (ICT) services have been on the rise, but concentrated in Croatia, Serbia, and FYR Macedonia. Business services are 8 percent of total services exports, but poor statistics make it difficult to analyze their composition and direction.

Western Balkan countries are disadvantaged vis-à-vis the EU15 and the new member states because they do not have full access to the European Union's markets. In fact, companies face problems even when trying to export to other signatories of the Central European Free Trade Agreement (CEFTA), which replaced 32 bilateral agreements in 2007, and eliminated most barriers to trade in manufactures and farm products.

In assessing what can help trade in services between the six CEFTA countries, a recent World Bank study looked at five areas: market access, commercial presence, performance requirements, protection of rights, and movement of people. The region has made progress in all aspects except the movement of natural persons. Tedious work authorization procedures and nonrecognition of professional qualification mean that none of the CEFTA countries offers "freedom of employment." Other problems:

- In construction, the main problem is that companies have to establish a local presence; only Bosnia and Herzegovina allows cross-border provision.
- In road transport (three-quarters of the transport business), bilateral relations still affect trade.
- ICT services are the most open of all the traded services; the biggest problem may be enforcing intellectual property rights.

Aside from these barriers, service exporters now face the hassles that all entrepreneurs have to deal with: enforcing contracts and dealing with product, labor, and land regulations. But perhaps the biggest impediment to the development of the services trade in the Western Balkans now is getting the same access to the large EU market that Bulgaria, Romania, and the other new member states enjoy.

Source: Handjiski and Sestovic 2011.

The majority of the EU members were rated as having a fairly open regime toward foreign business (figure 2.20). But regulatory regimes for services tend to be more restrictive. Professional services remain tightly regulated, with legal services the most restrictive (figure 2.21). Exclusive rights are reserved for lawyers in a majority of the countries. In addition to a law degree, practical experiences and professional examinations are also widely demanded. Concerning conduct regulation, only 2 countries of 22 allowed sole practitioners. Advertising by legal professionals is prohibited or regulated in most countries. There are six types of regimes to govern prices, ranging from minimum prices on some to all legal services, to maximum prices on some to all services. Some countries such as Luxembourg have actually tightened controls on professional services since 2003 (figure 2.22).

## Implement the services directive

The European Parliament and the Council adopted a directive on services in the internal market in 2006 (generally referred to as the "Services Directive") to eliminate barriers to the "freedom to provide services within the community" and the "freedom of establishment." It was designed to serve as a new legislative impetus for deeper integration. It has a relatively wide coverage.[14] When the draft was proposed by the European Commission in January 2004, the Services Directive was regarded as ambitious and far-reaching.[15]

Its expected benefits were subjected to a number of assessments. Because of the wide scope of the Directive, particularly in its draft (not the final) form, these assessments serve as illustrative estimates of the potential gains of deeper integration of services.

How big are the likely gains from homogenizing regulations and reducing regulatory barriers? Researchers have used two approaches to answering this question: evaluate the effects of proposed legislative reforms, and compare the single market with the internal market of benchmark countries. Both suggest that deeper integration through dismantling the regulatory barriers can yield significant trade gains.

Kox and Lejour (2006) focus on other commercial services, excluding transportation and travel, to be close to the scope of the Services Directive. The assumption is that the Services Directive will be fully implemented. Explicit barriers to trade and direct investment are expected to be reduced substantially, while barriers to competition are only moderately reduced. Their results indicate that cross-border trade in commercial services in the European Union could increase by 30–60 percent, while the foreign direct investment stock in services might rise by 20–35 percent.

Copenhagen Economics (2005) evaluates the effects of the Services Directive on trade in regulated professional and business services and distributive trade. The analysis indicates that the Services Directive will reduce the existing barriers to service provision by more than 50 percent. The direct policy impact—intra-EU trade enhancement—is between 1.0 and 9.4 percent for cross-border trade and between 1.3 and 2.7 percent for foreign direct investment, for the three sectors included. The analysis also predicts gains in employment and well-being. As highlighted by Monti (2010), however, poor implementation and poor enforcement of EU directives regulating the single market continue to hamper the realization of these gains.

### Improve the services trade among candidate and partner countries

For the non-EU economies in Europe, the problems are more severe. Services exporters have trouble accessing the EU markets. They also have difficulties accessing other nearby markets, as a recent World Bank report documents (box 2.10). Even the services traders in the former Yugoslavia—who have shared language and legislation for decades—now have trouble accessing regional markets. The typical barriers that exporters face relate to movement of natural persons (such as work permits for professionals and unskilled labor), licensing procedures (licenses issued in the home country are not recognized by the importing country), and recognition of professional skills and diplomas (qualifications obtained in the home country are not recognized). The difficulty of such barriers differs by activity: they present a significant obstacle to firms and individuals in construction, transport, legal, and health sectors, but not for ICT firms, banks, or telecommunications companies. For them, the agenda includes facilitation of trade in traditional services (construction, transportation, and travel) as well as attempts to revive trade in modern services with the economies of the European Union.

## The Common Agricultural Policy—cheap, but not worth it

The European Union's Common Agricultural Policy (CAP) has been subject to a lot of criticism for its wastefulness (it absorbs around one-third of the European Commission's annual budget, costing about €50 billion annually), poor targeting of benefits (larger farms in richer EU countries benefit more than small farms and poorer EU countries), and weakening of Europe's position in international trade talks. Moreover, EU agricultural subsidies are contributing to maintaining the European Union's position as a global net exporter of food, thereby discouraging the expansion of production in locations with much lower production costs and potentially contributing to higher global food prices as a result.

The criticism is well founded but probably a little exaggerated. At least in money terms, the CAP is relatively cheap, and the policies have been improved over time to become less distortional. It has progressively focused on supporting rural development or ecological objectives, such as organic farming, and helping the European Union's new members to comply with elaborate food safety regulations. And the European Union is the world's largest importer of agricultural commodities from the world's poorest countries, though this is because of special trade preference—despite the CAP, not because of it. But perhaps the biggest cost of the CAP to Europe is that it limits the opportunities resulting from economic integration with its eastern neighbors, which have among the largest underused land resources in the world.

Ukraine has about 42 million hectares of land suited for agriculture, of which only 30 million hectares are actually used; by comparison, the United Kingdom, one of the world's top 20 agricultural exporters in 2010, has a total of 12 million hectares. Between 1990 and 2000, the land under cultivation in Ukraine actually fell by about 2 million hectares as agricultural production decreased. About 30 percent of Ukraine's workers are on farms that are quite efficient, other than

### Box 2.11: Ukraine would gain a lot if it could get freer access to the European Union's agricultural market

Ukraine's exports in 2008 were about $70 billion—about 36 percent of its GDP. The European Union is Ukraine's largest export market, but its share has dropped from 40 percent in 2002 to 29 percent in 2008. The Russian Federation is the second-largest export market, with a share constant at about 24 percent. The combined share of Turkey, the Arab Republic of Egypt, India, and Kazakhstan has gone up from 7 percent to 17 percent. Ukraine is just 1 percent of the European Union's (third party) imports.

Barley, wheat, maize, and sunflower seeds are Ukraine's main agricultural exports. In the five years leading up to World Trade Organization accession in April 2008, Ukraine reduced import tariffs on most goods from 15–66 percent to 5–15 percent, with the exception of sugar, for which the tariff was 80 percent but has been reduced to 50 percent. Ukraine's wheat exports to the European Union face a tariff of 10.5 percent, and its barley and maize exports a tariff of about 6.5 percent. Sunflower seeds are not subject to a tax, but sunflower oil faces a 6.5 percent tariff. However, the nature of EU import tariff calculations and exemptions means that ad valorem tariff rates fluctuate a lot. Again, observed tariffs on barley imports from Ukraine were 16 percent between 2003 and 2007, but have fallen to zero since.

A "deep and comprehensive" free trade agreement between Ukraine and the European Union will help Ukraine a lot more than it will the European Union. A full liberalization of cereals and processed food imports will give Ukraine immediate benefits of more than $350 million annually, or about 0.6 percent of GDP. Agricultural output and land use would rise by about 6 percent, mainly to grow more wheat, maize, and oilseeds. Ukrainian sunflower- and beet-processing industries would face more competition from EU producers, but even considering this, Ukraine would gain $200 million each year. This is not a large amount, but the agricultural reforms that the trade might encourage would also bring Ukraine institutionally and economically closer to the European Union.

Source: Chauffour and others 2010.

### Box 2.12: (Not) extending the single market to the European Union's eastern partners—the case of Georgia

Messerlin and others (2011) argue that the European Commission's current approach to trade with Georgia serves neither the European Union nor Georgia well. According to the analysis in the report, it is:

- Bad development policy for Georgia. It requires Georgia to adopt and implement many imprecisely identified EU internal market regulations that go beyond trade-related matters, many of which do not make sense for Georgia and other eastern partners. The regulatory changes imposed on Georgia are equivalent to taxing producers—endangering its growth and the sustainability of its fight against corruption, which is crucial for economic growth. The preconditions in sanitary and phytosanitary measures may double the price of many food products purchased by the third of Georgians who live in poverty. A better set of conditions would focus on infrastructure, which is probably the binding constraint for growth in Georgia.
- Bad commercial policy for the European Union and Georgia. It would lead to an expansion of the trade between Georgia and non-EU countries. Georgian consumers would be induced to import what Georgian producers could no longer sell because of EU norms; and their low incomes would induce them to turn to imports from non-EU sources that are less expensive than those from the European Union. To survive, producers who would not be able to sell their products any more on Georgian markets under EU norms would sell them to foreign markets not observing EU norms, thereby artificially boosting Georgia's exports to non-EU countries.
- Bad foreign policy for the European Union. Preconditions are being imposed on a country that is granted no EU membership perspective. They would make the EU deep and comprehensive free trade agreement (DCFTA) partners appear like EU member states but without full access to the EU markets in agriculture and services and without EU aid.

The study's conclusion: The European Union should not inadvertently discourage Georgia from continuing its successful domestic reforms. It should open negotiations with Georgia without further delay since it has more than satisfied the relevant subset of preconditions. More broadly, a pro-growth DCFTA process would mean asking Georgia to do things as and when its income reaches sensible thresholds. In general, the European Commission's DCFTA doctrine should be made clearer, coordinated better among EU agencies (since DCFTAs involve a lot more than trade), and adapted to the circumstances of the partner.

Source: Messerlin and others 2011.

for beet sugar. The European Union is still Ukraine's largest export market, but just barely. Its share has been falling during the last decade, as Central European countries that have joined the European Union replace Ukrainian farm products in the common market (box 2.11).

The European Union, Russia, and Ukraine have accounted for more than 80 percent of Belarus's exports over the last decade, and about 90 percent of imports. Russia's share in Belarus's exports has been declining—from 65 percent in 1998 to 32 percent in 2008—but its share in imports has been stable. During this time, the European Union's share in overall exports has increased from 16 to 43 percent. Agricultural exports are a different story. While Russia's share in agricultural exports has stayed between 83 and 93 percent during the last decade, the European Union's share has fallen. For dairy products, one of Belarus's main farm exports, the decline was from 48 percent in 2000 to almost zero in 2008 (World Bank 2009). Much of this decline may be the result of Belarus's own sanitary and safety policies rather than the European Union's demands, but the result is the same: the prospects for the 30 percent of Belarussians who depend on agriculture for a living remain poor.

The European Union's approach to Moldova shows how it can be done. Moldova is the most rural and agricultural economy in Europe. More than half of its population is rural, a third of its labor force is in farming, and agriculture accounts for about a fifth of GDP. Agricultural output is still about a third below its pretransition level. Perhaps helped by its small size—its trade is just 0.1 percent of the European Union's trade—Moldova is doing better than Belarus and Ukraine in accessing the European Union's single market for farm products. But the European Union's share in its agricultural exports is just

about 36 percent, about half of this due to the European Union's enlargement and Moldova's long-established trade with Romania and Poland. Moldova has one of the most liberal trade regimes among developing countries, but trade is hampered by a poor domestic environment for doing business and capacity shortfalls in meeting the European Union's sanitary and quality standards. Moldova needs the European Union's assistance, and will get it through a deep and comprehensive free trade agreement.

If Moldova shows how the European Union's trade policies should be designed, Georgia's experience may well illustrate the opposite. Agriculture accounts for about half of Georgia's labor force, and about a third of Georgians live below the poverty line. Farm exports could be a potent source of growth for Georgia, and the country is negotiating a deeper economic partnership with the European Union, with agricultural trade as a special focus. Messerlin and others (2011) point out that "Georgia's own trade policy is more open towards the EU than vice versa, and Georgia has achieved governance reforms on a par with some of the old and new EU member states" (p. i). The European Commission is viewed as insisting on a difficult set of preconditions before negotiating, which it has not done for either Ukraine or neighbors in the southern Mediterranean. These may hurt Georgia's poor, and not really improve Georgia's growth prospects (box 2.12).

## Trade—the mainstay of the European model

This chapter asks whether Europe is taking advantage of enlargement through trade in manufactures, services, and agricultural products. The short answer is that it is doing so for industrial goods and traditional services, but it could do a lot better for modern services and agricultural produce. Trade in industrial goods has spread most quickly, not just to the European Union's new members but also to European Free Trade Association economies such as Switzerland, candidate countries such as Turkey, eastern partnership nations such as Ukraine, and even nations further afield such as Russia. Trade in agricultural goods has grown in the European Union and with the candidate countries, but it has not grown as much with the eastern partnership. The trade in modern services has increased mostly just within the European Union. In reaching this conclusion, this chapter tried to answer three questions.

**First, is "Factory Europe" as dynamic as "Factory Asia"?** Yes, but in ways that are quite different. Factory Europe is growing bigger, but more noticeably it is getting smarter. Spurred by the need to compete globally, industrialists in Austria, France, Germany, Sweden, and other advanced countries are offshoring activities to their cheaper, less developed neighbors. These activities—and the goods trade between emerging and developed Europe—have been becoming more sophisticated, as Western Europe transfers progressively tougher tasks to countries in Central, Southern, and Eastern Europe. The benefits extend not just to the new member states of the European Union such as the Czech Republic and Estonia, but also to the EU candidates such as Serbia and Turkey, and even the eastern partners such as Georgia and Ukraine.

EU enlargement has had a limited effect on the size of Factory Europe, but it has changed its configuration. Enlargement has led to an increase in Factory

Europe's complexity. The European Union's internal trade in intermediate goods has become more sophisticated and has been using more relationship-specific inputs. Factory Europe has become brainier.

New members' exports embody more complex and more time-sensitive relationships. As this trade has become bigger and more sophisticated, their trade facilities—ports, airports, customs regimes, and ICT infrastructure—have become strained. In particular, reducing infrastructural deficits in ICT is likely to result in sizable trade gains.

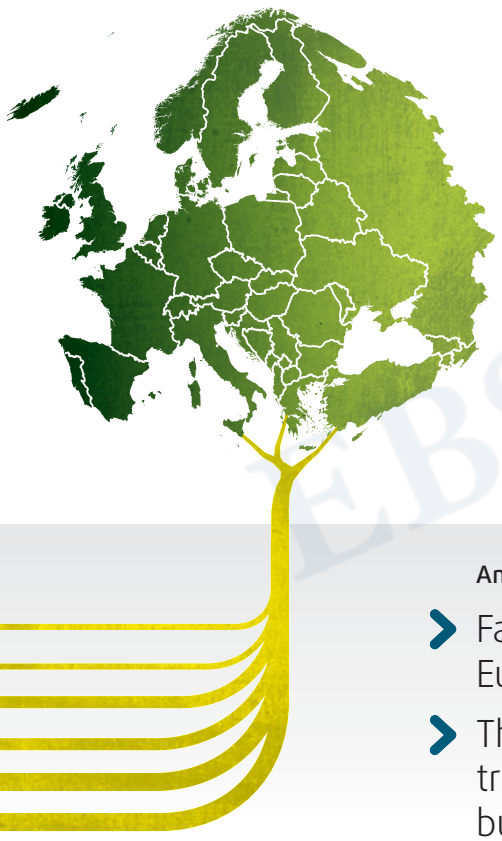
**Second, is the Single Market for Services underachieving compared with North America?** The answer is that for traditional services, such as travel and construction, it is not. But it is for modern services such as communication, insurance, finance, computers and information, royalties and license fees, and other business services—with the notable exception of banking. Technology has made them more productive and tradable. As in the rest of the world, European economic growth is increasingly composed of services. Services dominate growth in EU15 countries and, to less extent, in the new member states and candidate and partner countries. Within the European Union, trade in modern services is growing. But outside—in the Balkans and the eastern partnership—trade in modern services has stagnated.

An educated estimate is that with the right policy measures, the trade in services can double in value within the decade, and possibly even triple. But for this to happen, the trade in modern services must be greatly facilitated. Ideally, services exporters should have to satisfy product market regulations in just one (current or aspiring) member state. Ideally, the qualifications of professionals should be certified in just one country. Ideally, at least within the European Union, the movement of natural persons should be unfettered. For all these reasons, the single market is not likely to become as unified a market for services as those in the United States or Canada in the foreseeable future. But with appropriate changes in product market regulations, vendors of digitally tradable services might soon be able to treat Europe as a single market.

**Third, is the Common Agricultural Policy compromising Europe's credibility in global trade talks?** The European Union has followed increasingly enlightened trade policies toward the least developed countries of the world. But the European Union's agricultural policies are hobbling its efforts to extend the benefits of the single market closer to home—especially to eastern partners such as Georgia and Ukraine. The Common Agricultural Policy is popular among EU citizens, who appear to believe that 33 eurocents a day is a small price to pay for maintaining the livelihoods of the 15 million farmers and farmworkers in the European Union. In the eastern partnership countries—Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine—this number may be even more, because more than a third of their people depend on agriculture. The European Union is missing the opportunity to improve their lives, and win the hearts and minds of 75 million eastern partners.

Increasing the trade in modern services is not easy because it requires improving and harmonizing regulations, in both exporting and importing countries. Addressing these barriers will require a consensus and measures to reassure skeptical consumers and workers (Monti 2010). Large gains may

be had in noncontroversial areas such as digital trade. Between 1998 and 2003, many countries in Europe showed that product markets can be made more competitive. The momentum for market regulation was lost during the boom years between 2004 and 2008. Now it should be regained. As chapter 3 discusses, Europe has shown that trade in one modern service—banking—can grow quickly and contribute to economic growth.



**Answers to questions on page 87**

- Factory Asia is growing faster, but goods trade in Europe is more sophisticated.
- The single market is working quite well for traditional services such as travel and transport, but it is underperforming in modern services such as insurance, information technology, and other business services.
- The European Union's agricultural policies hobble the extension of the single market to its neighbors, and Europe is missing an opportunity to improve the lives of 75 million people in the eastern partnership countries.

# Notes

1 By this measure, Turkey's exports are more than ten times those of the next biggest exporter in this category (Romania), which in turn are much bigger than the third-biggest. Turkey's car exports more than tripled, and its share went from 0.7 to 6.7 percent. Entry into the customs unions in 1996 may have had a lot to do with this. For the other countries, cars are a small part of exports and unimportant for the region's car trade.

2 This measure divides by GDP to control for total output (supply capacity), but within-region calculations arguably should be divided by the square of GDP to account for total demand as well. Doing so does not affect the main conclusions.

3 Data issues preclude firm conclusions, however. Numerous studies, using different time periods, and with different sectoral and different country focuses, come to varying conclusions. Hummels, Ishii, and Li (2001) report a declining share in intermediates trade in OECD countries between 1970 and 1992, while Yeats (2001) reports an increase. Miroudot, Lanz, and Ragoussis (2009), and Curran and Zignago (2009) find constant shares of intermediates in total trade in OECD countries and Europe respectively since 1995. Baldwin and Venables (2011) question the reliability of trade data and prefer firm-based analyses. Firm-level data show increasing fragmentation of production among German and Austrian companies as they outsource production toward the new member states, but micro studies for other Western European firms are few. Halpern, Koren, and Szeidl (2011) show that Hungarian firms have increased the import of intermediates, but the source of these imports cannot be ascertained in their analysis.

4 Martínez-Zarzoso, Voicu, and Vidovic (2011) also find a rise in the variety of intermediates exported from six Central and Eastern European countries to the European Union at the same time as a fall in the varieties exported to non-EU OECD countries. But for imports, the results are not the same. They find a rise in the variety of imports in these six countries from the European Union at the same time as there is a fall in the variety of imports from non-EU OECD countries.

5 Romania (28 percent) and Bulgaria (13 percent) had the biggest rises. The RSI measure appears to capture the effects of deeper integration beyond a customs union.

6 The sample consists of Albania, Croatia, the former Yugoslav Republic of Macedonia, Montenegro, and Turkey.

7 Other factors compound the estimation problems. Characteristics of third countries may determine bilateral trade flows, similar to the trade in goods (Anderson 1979). The formation of a Free Trade Agreement may target existing policy issues between countries that are hard to observe (Baier and Bergstrand 2007). Taking advantage of panel data, recent studies are able to mitigate the influence of these and other unobserved factors.

8 Previous studies are based on shorter time series, which restricts the choices of methodology, and the results are less consistent. See, for example, Ceglowski (2006) and Walsh (2006 and 2008).

9 The wide range of the estimate is mainly due to the poor quality of data for services trade. Data availability changes over the years, and the match between credit and debit data is poor.

10 Straathof and others (2008) study the effect for goods and for services and find a single market effect of some 30 percent for trade in goods, but only 10 percent for cross-border trade in services. Trade in goods within the European Union is about 30–60 percent higher than trade with or between third countries (see Fidrmuc and Fidrmuc 2003, Lejour, Solanic, and Tang 2006, Baldwin and Rieder 2007).

11 Hausmann, Hwang, and Rodrik (2007) have proposed that it is not just specialization but also the sophistication of exports of goods that matters for growth. To examine this phenomenon for service exports, Mishra, Lundstrom, and Anand (2011) propose an analogous index for studying service export sophistication. In a background paper for this report, Lundstrom Gable and Mishra (2011) show how different parts of Europe are faring in the services trade.

12 Kandilov and Grennes (2010) argue that for some types of services and destinations, Central and Eastern Europe are effective competitors for Asia.

13 Eschenbach and Hoekman (2006) propose that countries in Eastern and Central Europe that undertook productivity-enhancing service reforms, such as reforms of financial and infrastructure services, have attracted more FDI and had higher economic growth. Fernandes (2009) confirms this, and shows that the large service productivity gap between the EU15 and the new member states is shrinking as the latter catch up. Moreover, this effect is stronger the further an activity is from the technological frontier, suggesting that liberalization of services can speed catch-up.

14 The Services Directive excludes financial services, electronic communications services, most transport services, health care, services provided by temporary work agencies, private security services, audiovisual services, gambling, certain social services provided by the state, and services provided by notaries and bailiffs.

15 The draft was more ambitious than the Directive that was finally issued. Most important, the draft proposed the "country of origin" principle, which was dropped from the final directive.

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# Chapter 3

## Finance

In the boom years leading up to the financial crisis of 2008–09, Western European banks moved aggressively into emerging Europe.[1] Austrian, Italian, and Swedish banks were especially active; Belgian, French, and Greek banks a little less. Almost 80 percent of the banking sector in some countries that looked to Europe for trade and finance—such as Bulgaria, Croatia, the Czech Republic, and FYR Macedonia—were foreign-owned. It was big business. In 2007, Austria's Raiffeisen and Erste banks had, directly or through their subsidiaries, about $300 billion in assets in emerging Europe, equivalent to almost 80 percent of the country's gross domestic product (GDP). A fifth of the loans of Sweden's biggest bank, Swedbank, were to customers in the Baltics. Italy's massive Unicredit Group had the biggest stake in the banking systems of Central and Southeastern Europe, spanning 17 countries. Belgium's KBC and France's Société Générale were also active. Greek banks came a bit late but, on the eve of the crisis, Alpha, National Bank of Greece, and Piraeus Bank held sizable stakes in the Balkans.

By mid-2009, many economists viewed this eastern expansion as a big mistake. Analysts who had covered crises in East Asia and Latin America saw emerging European economies as bubbles. Fears were rife that Western Europe's banks would walk away from these subsidiaries, leaving inexperienced regulators to clean up the mess. Experts put out assessments viewing the close ties with foreign finance as the result of policies that were inadequate to offset the misfortune of being too close to Western Europe. Few pundits felt that this financial integration might have been good for growth or to Eastern Europe's advantage to be near—physically and financially—a developed system of banks, or even that some of these savings-starved countries had instituted policies good enough to get the best from Western European finance. A massive pullout was expected.

- Why is finance in emerging Europe different from other regions?
- How did some European economies benefit more from international financial flows than others?
- Is there evidence of a "debt overhang" in emerging Europe that reduces growth and justifies government intervention?

It did not happen. These banks have all stayed, tolerating big losses in 2009 as incomes fell and bad debts mounted. Swedbank's Baltic Banking Unit cut its staff by a third and reported losses of about $200 million in the first quarter of 2010. Unicredit and Raiffeisen also suffered big losses. But by late 2010, Raiffeisen's quarterly profits in the region had risen to $500 million and Swedbank was generating profits from its Baltic business. Today, Eastern Europe accounts for about a tenth of the portfolios and profits of Unicredit, Raiffeisen, Erste, Swedbank, and SEB. The head of Raiffeisen Bank International expects Western European banks to stay and grow in Eastern Europe: "The region still has a lot of catching up to do to reach the economic level of Western Europe. We will continue to benefit from this process at least in the next one and a half to two generations" (Hansen 2010).

This chapter asks and answers the question: Has financial integration in Europe happened too fast? The answer is a qualified no. The chapter shows that finance in Europe has an enviable and unique feature—that capital flows downhill, as economic textbooks argue it should. Financial flows of all types go from richer, slower-growth countries to less developed fast growers. This close integration of the wealthy and the dynamic is an underappreciated attribute of the European economic model. The answer is qualified because emerging Europe, by being integrated, is now vulnerable to the consequences of prolonged uncertainty and potential financial deleveraging in the eurozone, and because financial integration in a few countries led to excesses and misallocation of resources. The chapter discusses how the risks can be better managed going forward.

Three questions follow.

- **Why is emerging Europe different from other regions such as East Asia and Latin America?** The answer lies in the powerful pull of accession to the European Union. The implication is that the closer a country gets to the European Union in its policies and institutions, the more it stands to benefit from financial integration. Perhaps the expectation of stronger institutions suffices to spur economic growth.
- **What helped some European economies—such as the Czech Republic, FYR Macedonia, Poland, the Slovak Republic, and Turkey—get more out of the largest international financial flows in history than others during the years preceding the crisis?** The main lesson is that external imbalances have to be managed, not eliminated. A blend of conservative economic policies—including cyclically sensitive fiscal and macroprudential policies for managing systemic risk—will help to keep growth sustainable. Policymakers should do what they can to "boom-proof" public finance and "crisis-proof" private finance.
- **In other countries that did not manage these flows as well, is there evidence of a "debt overhang" that justifies government intervention?** Evidence in this chapter should persuade the reader that, for the most part, economies in emerging Europe are both liquid and solvent, and that treasuries, enterprises, and households are not facing a debt overhang that could become a drag on activity. Some banking sectors in emerging Europe

might well face challenging times ahead. But the dependence on foreign banks has so far been a blessing as banking flows to the region have been remarkably stable. There are risks, but these originate primarily in the dependence on Western European banks that have large exposures in some EU cohesion countries, such as Greece, from where trouble could easily spill over into emerging Europe.

Thus, the chapter concludes, foreign capital is an enviable development opportunity integral to Europe's income-convergence engine. This strong conclusion comes with three caveats. First, it is based on an analysis of emerging Europe's experience over the past decade. The chapter contrasts the experience of the "EU cohesion countries" (Greece, Ireland, Portugal, and Spain) with developments in emerging Europe. It does not analyze the experience of the cohesion countries in detail. However, as later chapters show, heavy regulatory barriers and an overextended public sector are more likely candidates to account for the woes of Europe's south today. Second, the chapter suggests that the closeness to Western European finance led in some cases to excesses. Therefore, external imbalances need to be managed to avoid a buildup of vulnerabilities, and the chapter provides some guidance on how to do so. To recover quickly and manage the next boom, policymakers must clearheadedly assess what led to the misuse of proximity to Western European finance—and strengthen their preemptive and prudential arsenal. But managing external imbalances is not the same as self-insurance. Indeed, the latter is not the lesson policymakers in Europe should take away from the crises: Europe's emerging economies should not "become Asian." Third, the balance sheets of banks in Western Europe are strained by the sovereign debt problems faced in the eurozone. Since many of these banks are active in emerging Europe, they could be forced to deleverage from noncore markets; addressing the problems in the eurozone is thus crucial for all of Europe.

# Europe is unique

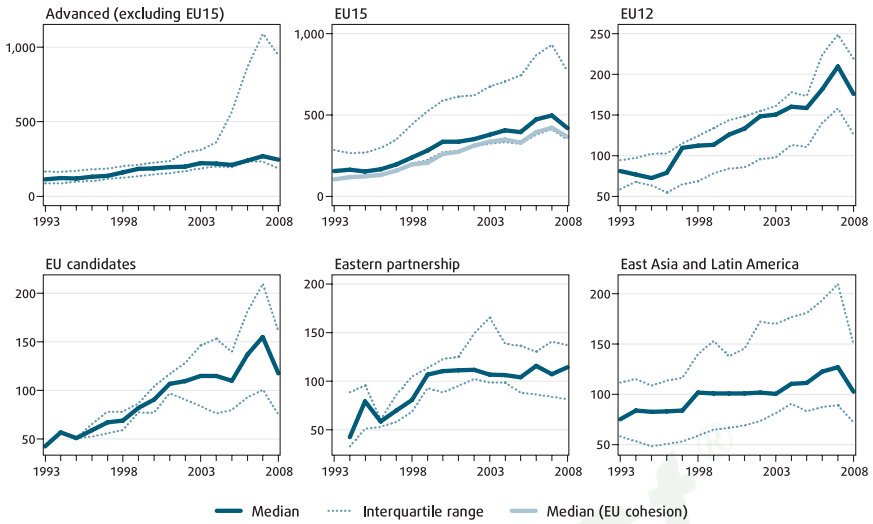
Worldwide, financial integration progressed rapidly from the late 1990s. The sum of foreign assets and liabilities as a share of GDP—the financial equivalent of trade openness indicators—increased greatly. But the rise was not uniform. There is sharp widening of the interquartile range (the gap between the top and bottom 25 percent of the distribution) in some of the country groups (figure 3.1). Europe stands out as a region that experienced a deepening in financial integration, in particular the EU cohesion countries (Greece, Ireland, Portugal, and Spain) and the EU12 and EU candidate countries. Among emerging markets and the EU eastern partnership the increase is less steep.

## Financial flows in Europe are different

The types of capital that emerging Europe received are different. Foreign direct investment (FDI) was higher than in other emerging markets (figure 3.2). Banking and other flows, which recorded a sharp increase in the EU12 and EU candidate countries in 2005–08 relative to the preceding four-year period, also played a key role. To a lesser degree, this is also the case in the EU eastern partnership. Intracompany debt-creating flows from parent corporations and

**Figure 3.1: Fifteen years of financial integration show that Europe is different**

(percentage of GDP)

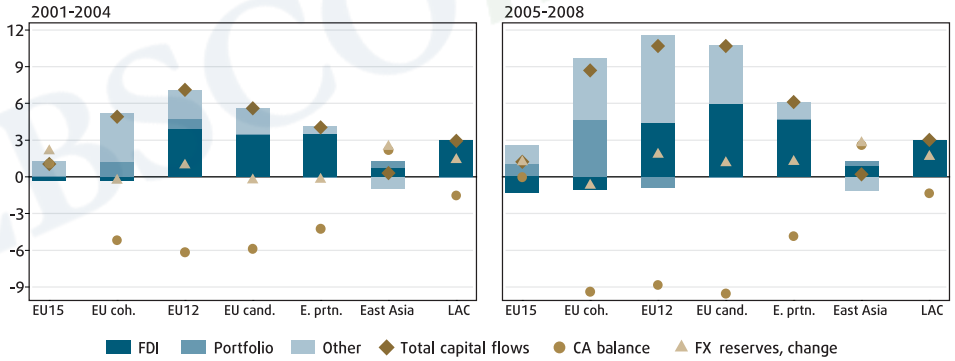



Note: Financial integration is measured as foreign assets plus liabilities. The interquartile range reflects the region between the top and bottom 25 percent of the distribution among the countries in the group.

Source: Updated and extended version of dataset constructed by Lane and Milesi-Ferretti 2007.

**Figure 3.2: Capital flows in emerging Europe are particularly large**

(percentage of GDP; period average of group median values)

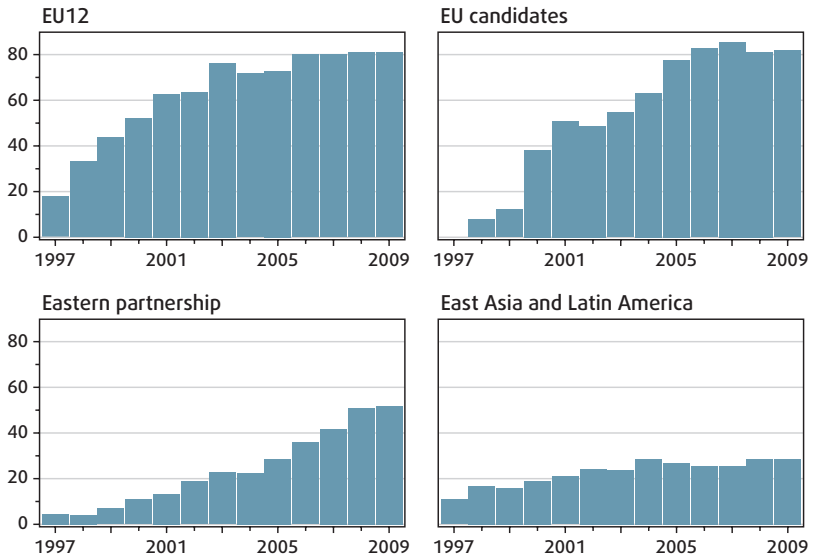



Note: "EU coh." refers to the EU cohesion countries, "EU cand." refers to EU candidate countries, "E. prtn." refers to EU eastern partnership countries, "LAC" refers to the Latin America and the Caribbean region. CA stands for current account and FX is foreign exchange.

Source: World Bank staff calculations, based on IMF WEO.

banks in Western Europe to their subsidiaries in emerging Europe have FDI-like features: this type of capital flow (referred to in this chapter as financial FDI) combines the risk-sharing features of FDI and the lower costs of debt financing.

Another feature of emerging Europe is the role of foreign banks in corporate governance. Western European banks increasingly dominated credit in emerging European countries and weakened the link between governments and the enterprise sector. Failure to do so earlier had resulted in a history of quasi-fiscal bailouts during the 1990s. In the new member states of the European Union, the share of foreign ownership in banking system assets (through both branches and subsidiaries) increased early in the decade and today accounts for over 80 percent of total banking system assets (figure 3.3). The EU candidate countries




Source: Claessens and van Horen 2012.

**Figure 3.3: Foreign banks are emerging Europe's unique feature**

(percentage of banking system assets, median values)

followed the same path with some delay, but today foreign banks hold close to 80 percent of total banking system assets. Foreign banks are less dominant among the EU eastern partnership countries.[2]

## Capital flows in the right direction in Europe

Economic theory posits that because poor countries have low capital-labor ratios they should also have high expected rates of return to capital, making investment more attractive. Poor countries also typically save less. This mix—high investment, low savings—should lead to large current account deficits (capital inflows from abroad are just their mirror image). Yet, for most of the developing world, the evidence that capital flows downhill is limited (Lucas 1990).

Three explanations are possible for this lack of absorption of foreign capital. First, the policy framework of recipient countries does not always support the absorption of foreign savings. Countries like China, for instance, accumulate foreign exchange reserves to prevent an appreciation of the real exchange rate.[3] Second, the experience of some emerging markets with capital account crises and sharp reversals in external imbalances and growth might lead to more cautious economic policies, such as the self-insurance policies of some East Asian and Latin American countries after the crises of the late 1990s. Third, differences in risk-adjusted returns to capital and low total factor productivity might also constrain the absorption of foreign capital. In other words, the quality of economic policies and institutions might affect the returns to capital. Whatever the reason, just being poor or rich is not enough to explain the direction of capital flows. Surprisingly, capital does not flow to high-growth countries either.[4] High growth reflects actual marginal productivity and should therefore lead to an increase in capital flows to those countries that have higher

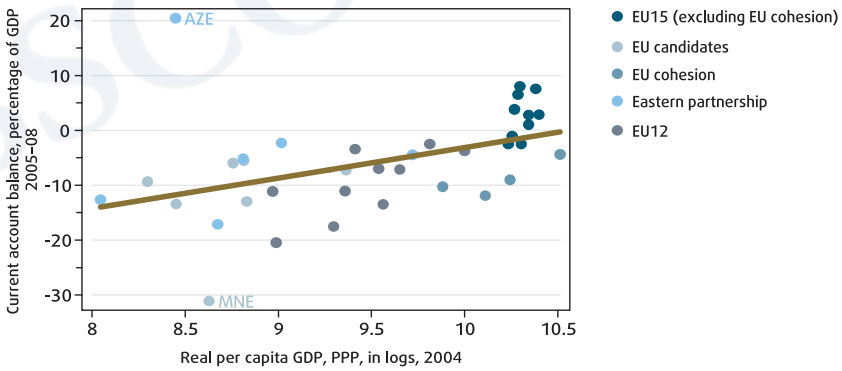
growth rates—and thus higher productivity. But this is not the case in most developing regions.

The exception is Europe, where foreign capital appears to flow toward poorer countries (figure 3.4)[5] and those with higher growth rates (figure 3.5, left panel).[6] But classifying countries in line with their political proximity to the European Union (EU12, EU candidates, and EU eastern partnership) suggests that there is also significant heterogeneity among those countries. Capital has flowed to high-growth countries in the first two groups, but in the less integrated EU eastern partnership countries, the pattern is similar to that of other emerging markets (figure 3.5, right panel).

## In Europe, finance supports growth—and more so the closer countries get to the EU

It is then worth asking: Why is Europe different? The answer lies in the model of economic convergence—how poorer countries are provided with the instruments for catching up to their richer neighbors. Classifying countries in line with their political proximity to the EU (EU12, EU candidates, EU eastern partnership countries) proves to be instructive.[7]

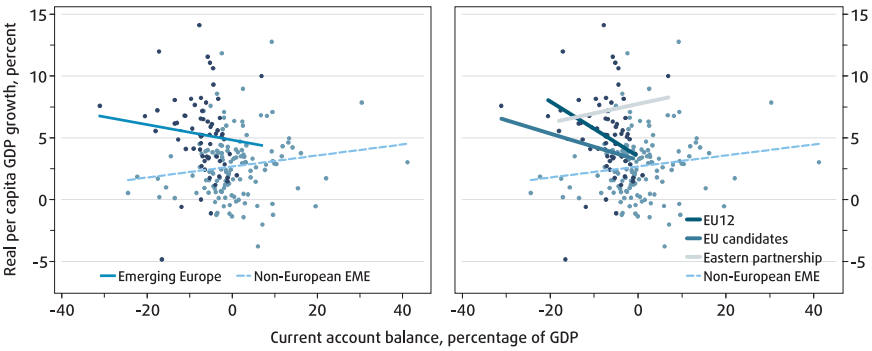
**Figure 3.4: In Europe, capital flows to countries with lower incomes**




Source: World Bank staff calculations, based on IMF WEO.

**Figure 3.5: In Europe, capital also flows to high-growth countries**

(current account deficits and per capita income growth, 1997–2008)




Note: Average values calculated using 3 four-year periods in 1997-2008 are shown.
Source: World Bank staff calculations, based on IMF WEO.

To draw lessons from emerging Europe's financial integration experience and its links to growth, it is necessary to understand the role of foreign savings, which provide a composite measure of net foreign capital flowing into a country. The empirical work in this section draws on Stojkov and Zalduendo (2011) which shows that foreign savings support growth in many—but not all—emerging European countries (table A3.1). The varying strength in the relationship between the EU12 countries and EU candidate countries reflects a combination of early EU accession and faster transition to a market economy. And, countries where EU membership prospects are still distant—the EU eastern partnership—behave much like emerging markets outside Europe. So far, foreign savings have not supported their growth.

How can the foreign savings-growth link be explained? The evidence shows that foreign savings in the EU12 and EU candidate countries seem to have enabled the pursuit of investment opportunities that would otherwise have remained unfunded. Emerging Europe experienced a notable rise in investment as external imbalances increased in the decade before the crisis (figure 3.6). Adding investment as an explanatory variable makes the EU-specific foreign savings and growth link no longer important. Including savings, however, does not have such an effect among the EU12 and EU candidate countries. In contrast with results from a range of other developing economies (for example,

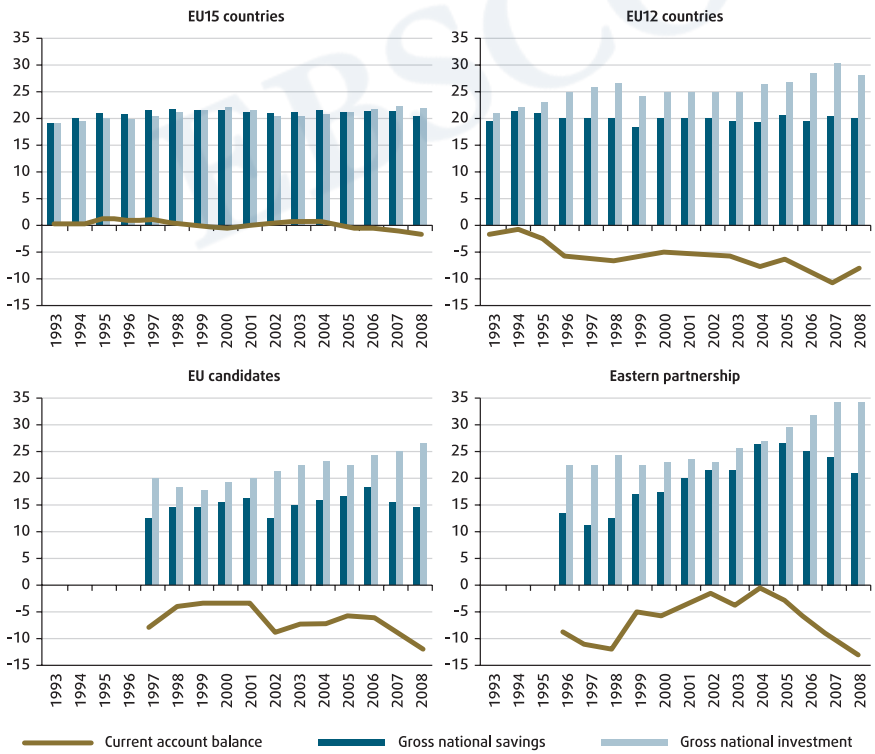



**Figure 3.6: Investments rose strongly in Europe as external balances improved**

(saving-investment balances, unweighted averages as percentage of GDP, 1993–2008)

Note: The averages are not presented for some years in the early 1990s because at least one observation is missing.
Source: World Bank staff calculations, based on IMF WEO; and WDI.

Aizenman, Pinto, and Radziwill 2007), foreign savings do not seem to substitute for domestic savings in some of the countries in emerging Europe. For countries in or close to the European Union, investment is no longer resource-constrained.

## The European Union as a "Tractor Beam"

There is no doubt that financial intermediation is crucial for foreign savings to support growth. Households borrow from future income streams for consumption smoothing and firms borrow to pursue investment opportunities. In either case, the financial system needs to intermediate the foreign financing that makes consumption smoothing and investment possible.

Two alternative explanations exist as to what makes financial intermediation effective. One relates to "thresholds in financial development" that improve the flow and quality of information and enhance a country's absorptive capacity (Blanchard and Giavazzi 2002). Another relates to "financial frictions" and how they affect intermediation. These frictions are, in turn, linked to the institutional development of individual countries. Both insufficient financial development and weak institutions can reduce absorption and cause capital inflows to boost unsustainable private and public consumption or asset-price bubbles that weaken the link to growth.[8]

To examine why the EU12 and the candidate countries have largely avoided these drawbacks, indicators of financial and institutional development are added by Stojkov and Zalduendo (2011) to a growth equation to explore their impact on the underlying foreign savings–growth link among EU-specific country groups.[9] The results suggest that there are EU-specific factors at play. The importance and magnitude of the EU-specific foreign savings interaction remain unchanged when financial development is used to construct a threshold variable on financial development, suggesting that it is not the driver of the foreign savings–growth link (table A3.2). Slightly different is the conclusion reached using measures of institutional development. The impact of the EU-specific foreign savings interactions weakens as institutional development increases, suggesting that institutional development features might be operating. But the weakening is limited, and the EU-specific foreign savings interactions remain important. That institutional development indicators do not eliminate these EU-specific effects might reflect that EU membership (actual or potential) acts as an anchor for expectations of improved institutional quality, even if actual improvements materialize slowly.

The European Union behaves much like a space station, with its rules of accession acting as a "tractor beam" as it exerts a powerful institutional pull, while countries like Germany may have the pulling power of big spaceships.[10] Disentangling these pull factors is a subject for future research. Even so, European integration appears to be a determinant of growth for countries in and near Europe when they begin their transition toward the European Union.

## Benefits for many, excesses for some

With the benefit of hindsight, excess financing was a problem before the global crisis, and it hurt some emerging European countries. The abrupt declines in real GDP must be recognized and included in any assessment of the effectiveness of

financial integration. These declines raise the question of whether the positive dynamics described above are inherently unsustainable.

Reassuringly, even when episodes of "excessive growth" are excluded from the analysis, the association between foreign savings and growth remains (see Stojkov and Zalduendo 2011).[11] The results are not linked to the unusually high growth rates—or to the unsustainable external imbalances—of the precrisis period. A key challenge for policymakers is thus not to avoid financial integration, but to understand which policy mix contributes to turning this opportunity into a sustained growth dynamic and how the tail risks can be effectively mitigated. This is the focus of the next section. Because the lessons of prudence apply to all countries, the next section covers not only emerging Europe but also, albeit less thoroughly, the EU cohesion countries.

# Prudence when finance is plentiful

Macroeconomic outcomes in emerging Europe improved in the late 1990s. After many years with large fiscal imbalances and high and volatile inflation, economic stability was reestablished.[12] In turn, financial integration in the early 2000s increased economic interdependence and raised the credibility of policymakers by anchoring institutional development to structures known in Western Europe. In the eurozone, the elimination of currency risks led to a sharp fall in borrowing costs for the EU cohesion countries and a corresponding acceleration of foreign borrowing by private and public sectors. In some emerging European countries, there was also an acceleration in credit growth to the private sector, albeit from low initial levels.

## Emerging Europe is not the same everywhere

Against this general background, important differences emerged across countries in the region. To examine these differences, emerging European countries can be classified along two dimensions. The first is institutional: EU12, EU candidates, and the EU eastern partnership. The EU cohesion countries are identified separately, because they are the subject of current interest. The second dimension is monetary, using the exchange rate regime of each country (based on the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions [AREAER] classification): flexible (group 1), intermediate (group 2), and fixed (group 3).[13] The analysis distinguishes two four-year periods prior to the crisis: 2001–04 and 2005–08 (table 3.1, bottom panel, shows the changes in savings-investment balances between these two periods and includes a sample of emerging markets outside Europe).

Three broad conclusions emerge from this comparison:

- External imbalances in emerging Europe were largely private. Public sector imbalances declined in most countries. This is also the case among EU cohesion countries with the notable exception of Greece and Ireland. However, the improvement in public savings–investment balances is also misleading, as it also reflects buoyant tax revenues during the boom.

## Table 3.1: Private imbalances in the East, a more complicated story in the South

(saving–investment balances, average of median values, 2001–04 versus 2005–08)

| | Emerging Europe | | | | | | EU Cohesion | | | | East Asia | LAC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Regional classification | | | Exchange rate regime classification | | | Greece | Ireland | Portugal | Spain | | |
| | EU12 | EU candidates | EU eastern partnership | Flexible (group 1) | Intermediate (group 2) | Fixed (group 3) | | | | | | |
| **2005-08** | | | | | | | | | | | | |
| **National savings (S)** | 20.1 | 15.4 | 30.5 | 21.1 | 21.1 | 18.2 | 9.4 | 21.4 | 15.4 | 21.1 | 29.0 | 18.0 |
| **Public** | 3.0 | 3.3 | 7.1 | 4.3 | 3.0 | 3.7 | -2.6 | 1.4 | 12.5 | 4.0 | 6.3 | 4.9 |
| **Private** | 17.1 | 12.1 | 23.4 | 16.7 | 18.2 | 14.5 | 12.0 | 20.0 | 2.9 | 17.1 | 22.8 | 13.1 |
| **National investment (I)** | 28.5 | 24.7 | 32.9 | 27.2 | 26.1 | 31.8 | 21.3 | 26.2 | 21.6 | 30.2 | 28.8 | 22.9 |
| **Public** | 4.3 | 3.8 | 4.8 | 4.5 | 3.7 | 4.6 | 2.9 | 4.4 | 2.4 | 3.8 | 6.9 | 5.3 |
| **Private** | 24.2 | 20.9 | 28.1 | 22.7 | 22.4 | 27.2 | 18.3 | 21.8 | 19.2 | 26.4 | 21.9 | 17.6 |
| **(S-I) public** | -1.2 | -0.5 | 2.3 | -0.1 | -0.8 | -0.9 | -5.5 | -3.0 | 10.1 | 0.2 | -0.6 | -0.4 |
| **(S-I) private** | -7.2 | -8.9 | -4.7 | -6.0 | -4.2 | -12.7 | -6.3 | -1.8 | -16.3 | -9.3 | 0.9 | -4.5 |
| **Current account** | -8.4 | -9.4 | -2.4 | -6.1 | -4.9 | -13.6 | -11.9 | -4.8 | -6.2 | -9.1 | 0.3 | -4.8 |
| **Δ (2005-08 minus 2001-04)** | | | | | | | | | | | | |
| **National savings (S)** | 0.6 | -0.6 | 10.0 | 2.3 | 1.7 | -1.2 | -7.3 | -2.0 | -1.4 | -2.1 | 2.0 | 2.5 |
| **Public** | 1.9 | 2.6 | 2.8 | 3.0 | 1.9 | 0.6 | -1.3 | -3.1 | 1.0 | 0.9 | 1.1 | 2.8 |
| **Private** | -1.3 | -3.2 | 7.2 | -0.6 | -0.2 | -1.8 | -6.0 | 1.1 | -2.3 | -3.0 | 1.0 | -0.4 |
| **National investment (I)** | 3.2 | 3.6 | 9.5 | 5.2 | 1.9 | 8.6 | -1.9 | 3.0 | -2.2 | 3.0 | 3.9 | 3.6 |
| **Public** | 0.9 | -0.2 | 0.5 | 0.1 | 0.1 | 1.6 | -0.6 | 0.5 | -0.9 | 0.3 | 0.2 | 0.4 |
| **Private** | 2.3 | 3.7 | 9.0 | 5.1 | 1.8 | 7.0 | -1.3 | 2.5 | -1.2 | 2.7 | 3.6 | 3.3 |
| **(S-I) public** | 1.0 | 2.7 | 2.3 | 2.9 | 1.7 | -1.0 | -0.6 | -3.6 | 1.9 | 0.6 | 0.8 | 2.5 |
| **(S-I) private** | -3.6 | -6.9 | -1.9 | -5.8 | -2.0 | -8.8 | -4.8 | -1.4 | -1.1 | -5.7 | -2.7 | -3.6 |
| **Current account** | -2.6 | -4.2 | 0.5 | -2.9 | -0.3 | -9.8 | -5.4 | -5.0 | 0.8 | -5.1 | -1.8 | -1.2 |

Note: The exchange rate classification is based on three groups of countries: group 1 (flexible or independent floating; Albania, Armenia, Czech Republic, Moldova, Poland, and Turkey); group 2 (intermediate, including basket, peg within bands, crawling peg, crawling band, and managed floating; Azerbaijan, Belarus, Croatia, Georgia, Hungary, FYR Macedonia, Romania, Serbia, Slovak Republic, and Ukraine); and group 3 (fixed, which includes countries with no legal tender, currency boards, and conventional pegs; Bosnia and Herzegovina, Bulgaria, Estonia, Latvia, Lithuania, Montenegro, and Slovenia). LAC stands for the Latin American and the Caribbean region.

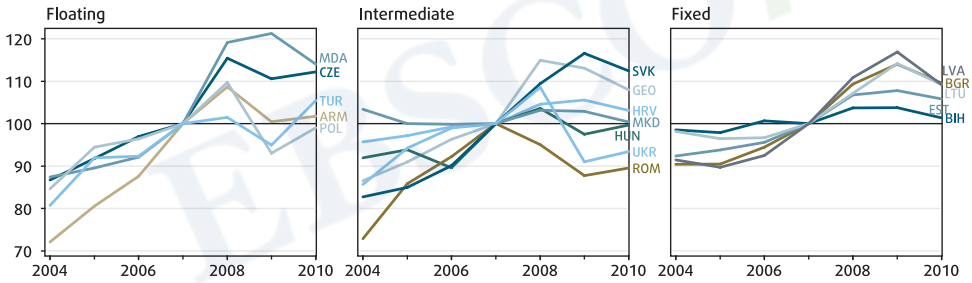
Source: World Bank staff calculations, based on IMF 2010; and IMF WEO.

- Countries in emerging Europe with fixed exchange rates recorded a sharper decline in their current account and private savings–investment balances, due to lower private savings and a rapid increase in public and private investment.
- Institutional characteristics, as argued in the previous section, influence the observed evolution of public and private sector balances. The EU cohesion countries are distinguished by a decline in national savings, much lower increases (or in the case of Portugal and Greece, declines) in national investment, and, with the exception of Portugal, substantial deterioration of their current accounts. EU12 and EU candidate countries by contrast show stable or moderately increasing national savings and increases in investment. EU eastern partnership countries display increases in both savings and

investment, and improvements in their current account positions despite a small deterioration in private savings–investment balances. These differences have consequences for assessments of solvency and liquidity as discussed in the next section.

Did rapid capital inflows cause excessive exchange rate appreciation in emerging Europe, as many skeptics feared? Real exchange rates appreciated gradually in most emerging European economies, consistent with the "Balassa-Samuelson" effect in developing countries (figure 3.7).[14] But, as noted by Bakker and Gulde (2010), in several European countries wage inflation exceeded productivity gains. The loss of competitiveness led to further capital inflows to cover resulting current account imbalances. Where this happened, sustainability was at risk.

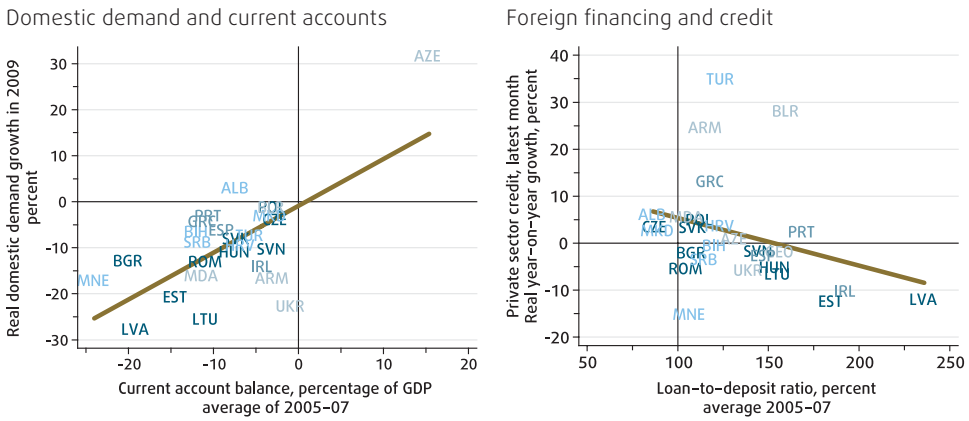
Some have blamed fixed exchange rate policies for the loss in competitiveness precrisis and the sharply differentiated impact of the crisis on growth. On closer inspection, the inconsistency of fixed exchange rate regimes with other policies—fiscal policy in particular and generally complacent policies in the presence of massive external imbalances—are more important drivers of the boom-bust cycle that some emerging European countries experienced.




Source: World Bank staff calculations, based on IMF 2010; and IMF IFS.

**Figure 3.7: Emerging Europe's real effective exchange rates appreciated**

(2007=100)



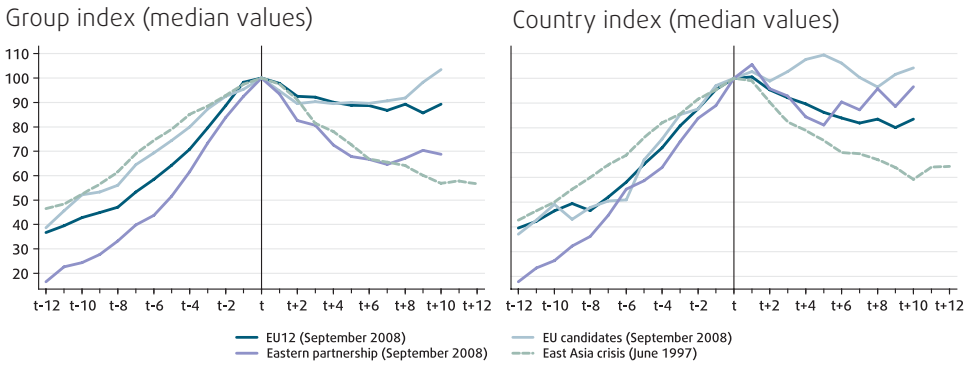

Note: The label colors reflect the EU12, EU candidate, and EU eastern partnership country groups. Also included for reference are EU cohesion countries. Data on credit include the domestic banking system only, and for most countries, are for May 2011.

Source: World Bank staff calculations, based on IMF IFS; and IMF WEO.

**Figure 3.8: Emerging Europe showed rapid economic adjustment but slow economic recovery**

**Figure 3.9: The closer a country gets to the European Union, the more stable its bank financing**

(banking flow stocks to emerging markets, quarterly data; t = 100)




Note: The figures are based on quarterly data released on July 2011. Values are exchange rate adjusted. Crisis timing date is defined in parentheses. Asian crisis countries are Indonesia, the Republic of Korea, Malaysia, the Philippines, and Thailand. The group index is based on aggregate group values, and the country index is the median value of the values of individual countries within the group.

Source: World Bank staff calculations, based on BIS Locational Banking Statistics.

Unusually liquid global markets during the precrisis period certainly would have strained the toolkit of any government authority. But the presumption that a convergence-driven "new Europe" was at hand resulted in complacency on the part of bankers and bureaucrats in some emerging European countries.

There are also differences in private credit developments—the engine fueling large private imbalances—and the corresponding external imbalances. The countries most affected by the crisis in terms of declines in domestic demand were also those with the largest precrisis external imbalances (figure 3.8, left panel). In addition, countries that heavily depended on foreign funding to extend credit (for example, those with high loan-to-deposit ratios) are also those where private sector credit growth was slowest during the recovery (figure 3.8, right panel). This suggests that excesses left unmanaged caused the crisis to have a deeper and potentially more lasting impact.

Against this background, three small European economies faced similarities before the crisis, but policy responses were dictated by differences in initial conditions, such as the choice of exchange rate regime, the feasibility of introducing capital controls (for example, Ireland is precluded from doing so as an EU member), and the existence of a lender of last resort (box 3.1).

So indeed some of the precrisis developments increased vulnerabilities, in particular in the years immediately preceding the crisis. At the same time, bank ownership structures in emerging Europe proved to be a source of stability. While some foreign banks took too many risks in the precrisis period, the crisis did not lead to a sharp reversal in cross-border flows; in fact, banking flows linked to Western European banks have been more stable than during the East Asia crisis (figure 3.9). More precisely, cross-border flows came to an abrupt stop, but did not go into reverse as in Asia in 1997–98. The one exception is the EU eastern partnership (driven by developments in Ukraine), where foreign banks had a less dominant position and short-term wholesale funding sources, mostly delinked from ownership structures, were not renewed.[15]

## Box 3.1: Economic adjustment in three small European economies

Iceland, Ireland, and Latvia, with populations of 0.3 million, 4.4 million, and 2.3 million, respectively, got into trouble during the global crisis as a result of rapid growth in credit and other banking activities financed by precrisis international borrowing. Credit booms led to property price booms, peaking in 2006 or 2007 (box figure 1). The construction sector was slightly over 10 percent of GDP in each of these countries. During the crisis, property prices collapsed. All three countries had to turn to the IMF and their European partners for help.

Fiscal austerity programs coupled with structural reforms were central to these countries' economic adjustments. Although saving–investment imbalances in the high-growth years were largely of a private origin, public spending kept up with the revenue overperformance, but it had to be clawed back (more so in Latvia than the other countries). The three countries also faced banking problems (over half of bank assets were foreign-owned in Latvia, but domestic owners dominated in Iceland and Ireland). Such differences meant that the policy responses and economic outcomes varied.

### Policy responses

*Exchange rates.* Adjustments in real exchange rates form the clearest difference across these countries. Ireland is a member of the euro area, so changing the exchange rate was not an option. Latvia had pegged its exchange rate to the euro, and chose not to devalue. For Iceland devaluation was the only option given the size of the country's obligations and available financing. Accordingly, the krona fell by about 50 percent and the country introduced capital controls to limit further depreciation. While the depreciation-induced inflation eroded some of the competitiveness gain, the krona is still weaker by about a third relative to its precrisis level in real terms. Ireland and Latvia have seen small declines in their real effective exchange rates, but Latvia's is still well above its precrisis value (box figure 2).

*Lender of last resort.* In Iceland, with obligations exceeding the country's GDP several times over, the central bank could not fulfill this role. It had no choice but to let the banks default. Domestic deposits were fully guaranteed, but foreign creditors of Icelandic banks faced a €47 billion loss in 2007—three times Iceland's precrisis GDP (Benediktsdottir, Danielsson, and Zoega 2011). The central bank suffered losses because of the liquidity support it provided to banks.

Irish banks' balance sheets reached eight times GDP. The Eurosystem and the central bank provided liquidity (Buiter, Michels, and Rahbari 2011a and 2011b). The Irish government guaranteed all liabilities of Irish banks and covered banks' losses with taxpayers' money.

In Latvia, about two-thirds of bank assets were held by foreign (mostly Scandinavian) banks, which assumed most of the losses. The exception was the domestically owned Parex Bank, which was nationalized. Total bank losses in 2009 and 2010 were 9 percent of GDP. Financial support from official sources helped stem the risk of a run on deposits.

*Capital controls.* Only Iceland applied capital controls—and only Iceland could. This had a lock-in effect on nonresident deposits; it also locked out krona assets outside the country. The IMF (2011) estimates that offshore krona holdings imply a high spread between onshore and offshore exchange rates. Capital controls have so far been effective.

### Economic outcomes

Precrisis vulnerabilities shaped these outcomes. Both Latvia and Iceland had unusually large current account deficits of over 20 percent of GDP. Ireland's deficit was more moderate, at 5 percent. The improvements in the external accounts had knock-on effects on all components of demand, employment, and public finance:

- From peak to trough, Latvian GDP collapsed by 25 percent—twice as much as in Iceland (11 percent) and Ireland (13 percent).
- All three countries saw a comparable collapse in investment. Private consumption went into free fall in Iceland and Latvia (the adjustment in Ireland was smaller).
- Public consumption fell furthest in Latvia (20 percent), in line with reliance on internal devaluation, and the onus on clawing back public spending.
- In Iceland, export growth fostered the massive adjustment of the current account. Exports of goods and services rose by 7 percent in 2009, against an average fall of 12 percent in the European Union.
- Imports collapsed by about 40 percent in Iceland and Latvia, in line with the fall in investment and private consumption, while the Irish import decline (14 percent) was similar to the EU average.
- Iceland experienced a modest (6 percent) fall in employment from 2007 to 2010. The labor market impact was sharper in Latvia (17 percent) and Ireland (13 percent).
- The differences in output and employment between Iceland and Latvia are likely due to real exchange rate developments. Less clear is why Ireland's employment contracted more than Iceland's, given the similar GDP developments and a similar fall in construction.
- Precrisis gross government debt was 40 percent of GDP or less in all three countries. But the fall in output, the large budget deficits accumulated during the crisis, and banking sector support—about 40 percent of GDP in Ireland, and 20 percent in Iceland—all contributed to sharp increases in public debt. Despite similar public debt-to-GDP ratios, in the summer of 2011, 5-year credit default swaps on sovereign debt were high (above 1,000 basis points) in Ireland, but had fallen to a moderate level (around 250 basis points) in Iceland and Latvia.

### The moral

Although similar before the crisis, the economic recovery of each country is proceeding at a different pace.

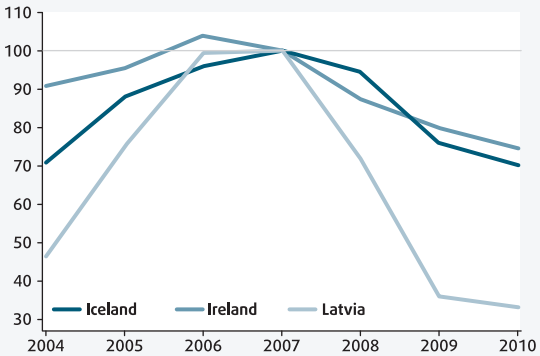
- Latvia suffered a sharper decline in GDP (and thus incomes) than Iceland and Ireland. It has stabilized its public finances, returned to growth, and tapped international bond markets again, but will take a long time to catch up with Iceland in employment and output recovery.
- Iceland emerged from the crisis with the smallest fall in employment and a fast expansion of tradable production despite the largest shock to the financial system and a collapse of the exchange rate. Yet it will have to lift capital controls (Gylfason 2011; IMF 2011).
- Ireland did not have the option of devaluing its currency nor of introducing capital controls. But the external imbalance was the smallest and the tradable sector was competitive (Darvas, Pisani-Ferry, and Sapir 2011). Ireland's problem was its banks, whose losses were largely charged to Irish taxpayers.

One main lesson from the crisis is that when debts are commercially held, the state should avoid loading itself with debts to save the financial system. The costs to Ireland are clear: public debt exploded, necessitating a sharp fiscal adjustment that has hampered confidence and recovery.

The other main lesson is that a sharp adjustment in the real exchange rate through nominal devaluations comes about more rapidly and thus is helpful when the saving-investment balance needs a drastic improvement. Iceland did much better than Latvia in this regard. However, domestic borrowers also suffered heavily from the collapse of the exchange rate.

Source: Darvas (2011).

Box figure 1: Real housing prices (2007=100)




Box figure 2: Real effective exchange rates (CPI-based, 2007=100)


Source: World Bank staff calculations, based on data collected by the Global Property Guide; and IMF IFS.

That foreign ownership could have been a source of stability is somewhat perplexing. Cross-border flows are supposed to protect countries from domestic shocks and exacerbate exogenous shocks. Several factors might explain this, including the moral suasion role of international financial institutions through the Vienna Initiative and the provision of liquidity and public financial support in Western Europe to parent banks at the peak of the crisis.[16] But the "lock-in" of resources in banks' subsidiaries due to the long-term nature of their loan portfolio must be remembered.[17] Deleveraging is likely to be limited and gradual. However, downside risks remain high and originate in the problems faced by the EU cohesion countries and their impact on Europe's economic outlook; indeed, the overall balance sheet strength of Western European banks that are active in emerging Europe is being challenged by the exposures to sovereign debts within the eurozone. This is a risk that could have spillover effects on emerging Europe.

The experience described points to heterogeneity in the regional buildup of external and domestic vulnerabilities. Some countries sustained high growth rates without growing imbalances, while others experienced growth with increasing vulnerabilities. But what defines a high-reward, low-risk outcome? Research since the crisis highlights some of the economic characteristics and policies that would strengthen Europe's financial integration model. Ghosh, Sugawara, and Zalduendo (2011b) identify some drivers of the tradeoff between growth and vulnerability (box 3.2). The main policy conclusion for emerging Europe is to manage external imbalances,[18] which requires boom-proofing public finance and crisis-proofing private finance.

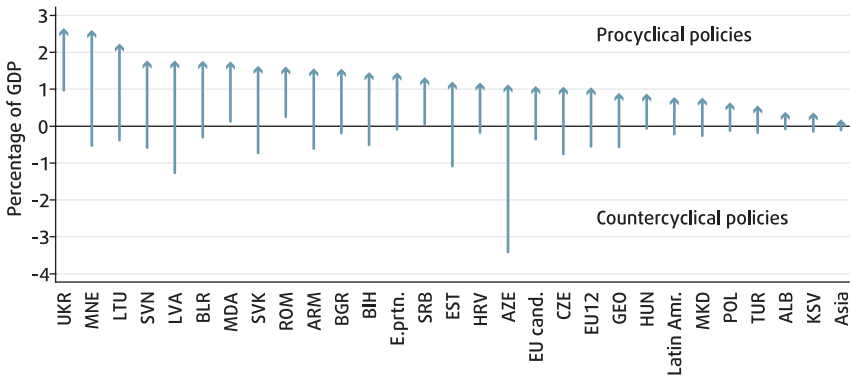
## Boom-proofing public finance

How policymakers boom-proof public finance is critical. Fiscal deficits were not the cause of the saving-investment imbalances in emerging Europe (nor of the resulting boom-bust cycles these countries experienced). But a distinction has

to be drawn between the cause of these imbalances and the policy stance that should be put in place in their presence. There was a shift toward a procyclical fiscal stance across emerging Europe from 2004 to 2008 (figure 3.10). More precisely, the difference between fiscal balances and cyclically adjusted fiscal balances shifted from negative (countercyclical) to positive (procyclical) territory for many countries, and in some countries the shift was quite marked. This implies that countries entered the crisis with weakening fiscal positions. Other developing regions experienced less fiscal deterioration.

The explanation for this fiscal deterioration is simple. As noted by Bakker and Gulde (2010) and Islam (2010), real expenditures rose sharply in the decade before the crisis, especially after 2004. While fiscal deficits for the most part did not deteriorate, the revenue overperformance before the crisis masks actual developments in public finances. In Latvia, for example, additional budget allocations were authorized in the middle of every fiscal year after 2005 (Åslund and Dombrovskis 2011). Also, some countries (such as Latvia and Serbia) approved wage and pension increases, as well as new capital spending, just a few months before the crisis broke.

How should integrating countries boom-proof public finances? For some economies, following an acyclical fiscal policy might suffice; if economic growth leads to revenue overperformance, these resources should be saved. The fiscal policies of Bulgaria and Estonia in the precrisis period were, with hindsight, enlightened (figure 3.11). But even there fiscal positions were excessively procyclical.[19] In fact, a more determined countercyclical fiscal policy stance—using both revenue and spending measures—would have been needed in many countries to counterbalance private behavior. The unusually large size of private sector imbalances in some countries could not (and should not) have been fully matched by fiscal surpluses, but many authorities shied away from the signaling that was required by the overheating that was apparent even then.

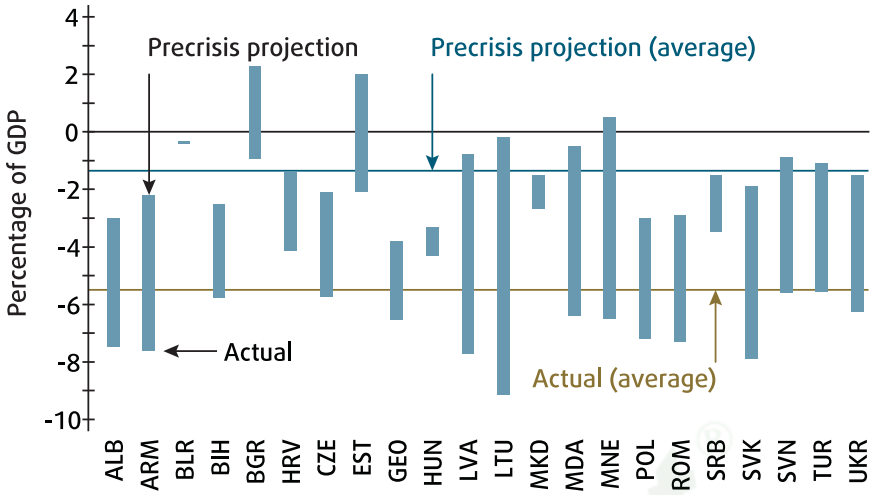



Note: The figure depicts the difference between fiscal balances and cyclically adjusted fiscal balances. Arrows begin in 2004 and end in 2008. Group median values are presented for EU12, candidate countries (EU cand.), and eastern partnership countries (E. prtn.).
Source: World Bank staff calculations, based on IMF WEO.

**Figure 3.10: Fiscal positions became procyclical in 2004–08**

(difference between unadjusted and cyclically adjusted fiscal balances)

Figure 3.11: Revenues lost to the Great Recession, 2009




Source: World Bank staff calculations, based on IMF WEO.

## Crisis-proofing private finance

Financial integration has benefits and risks. De Larosière (2009, p72) puts it well: "Integration increases contagion risks, and thereby jeopardises financial stability; integration makes it more difficult to ensure a level playing field if rules and supervisory practices differ; integration means the development of large cross-border groups, which will require more streamlined and cost-effective supervisory organisation."

The global crisis also revealed weaknesses in financial architectures. The emerging market countries in Europe were hit hard, but few experienced a collapse of their banking system. By contrast, in Ireland, the banking crisis became a sovereign debt crisis, in turn revealing weaknesses in the European Union and euro area precrisis economic policy and regulatory frameworks, surveillance arrangements, and governance mechanisms.

Financial developments in Europe highlight the difficulties of concurrently pursuing financial integration, financial stability, and national sovereignty. Typically, only two of these objectives can be attained concurrently (Allen and others 2011). Just as the precrisis experience showed that financial integration is key to Europe's income convergence, the financial crisis showed the importance of financial stability. To some degree, sovereignty appears to be the casualty of an integrated world. Yet, countries will always need to tailor their policy responses to country-specific developments. At a national level, macroprudential policies play a useful role, and will have to be tailored to a country's initial conditions and, in particular, to cyclical developments that might differ across Europe. And of course supranational approaches are also needed. Policy coordination is paramount in such a context to achieve the correct balance between sovereignty and country specificity. The alternative, not worth pursuing, is to give up on financial integration, a big part of what fuels Europe's redoubtable convergence machine. Nor should financial stability be compromised.

### Box 3.2: Understanding the growth–vulnerability tradeoff

Ghosh, Sugawara, and Zalduendo (2011b) analyze economic policies and other conditions that are favorable for countries to achieve growth without building macroeconomic vulnerability, using data for countries in the World Bank's Europe and Central Asia region.

What are their main conclusions from? First, trade supports growth, but could also lead to vulnerability. Vulnerability is less likely to occur, however, if a dynamic export sector is part of the equation. Second, the type of capital coming into a country matters. Financial openness might support growth, but also contributes to vulnerability. As this chapter argues, foreign capital is an enviable development opportunity with tail risks. However, if FDI (and to a degree this must also apply to financial FDI) is one of the elements of the capital flowing into the country, then it is less likely to increase a country's vulnerability and more likely to support its growth. Third, fiscal policy is a key element in the toolkit to reduce vulnerability. It might slow down economic activity, but it also shifts countries into a less vulnerable development path when risks are mounting. In this regard, when private finance is the engine of growth—but also of growing vulnerabilities—fiscal policy can play a signaling role on the need to avoid excesses. In such a case, governments should not shy away from signaling their concerns with private behavior. Fourth, capital account openness appears to increase vulnerability. However, given the many benefits that have been derived from foreign capital in parts of emerging Europe, the correct lesson is to manage external imbalances more proactively.

What was the policy stance of countries in emerging Europe in the years preceding the global crisis? A snapshot of policy stances for 2004 and 2008 offers lessons on what countries could have done differently.

- *Fiscal policy did not play enough of a countercyclical role.* It is well known that public imbalances were limited in much of emerging Europe, and they were not the drivers of external imbalances. Fiscal policy, however, became looser before the crisis—the opposite of what was advisable for overheating economies. Also, countries with fixed exchange rate regimes had, on average, looser fiscal policies than other emerging European countries, contrary to what was expected given the exchange rate regime of these countries. In conclusion, the revenue windfalls of high growth were spent, not saved, in most countries in emerging Europe.
- *Monetary policies should have played a counter-credit role.* Countries in emerging Europe had loose monetary conditions at the outset of the credit boom in 2004. Monetary conditions were tightening by 2008, but credit growth rates suggest that monetary policy should have been tightened further.
- *Capital controls may play a role in the future.* Measures of capital account openness changed little between 2004 and 2008 (right panel), but the Chinn-Ito index (Chinn and Ito 2006 and 2008) suggests that emerging Europe's capital account was more open than that in other emerging markets. Work by the IMF suggests that capital controls may have a role under certain conditions (Ostry and others 2010). For EU members the options are limited (that is, capital controls can be against the freedom of capital movement), but others in Europe could consider such measures. Alternatively, these results could suggest that there is room to develop policies that might affect capital inflows, for example macroprudential policies.

Source: Ghosh, Sugawara, and Zalduendo (2011b).

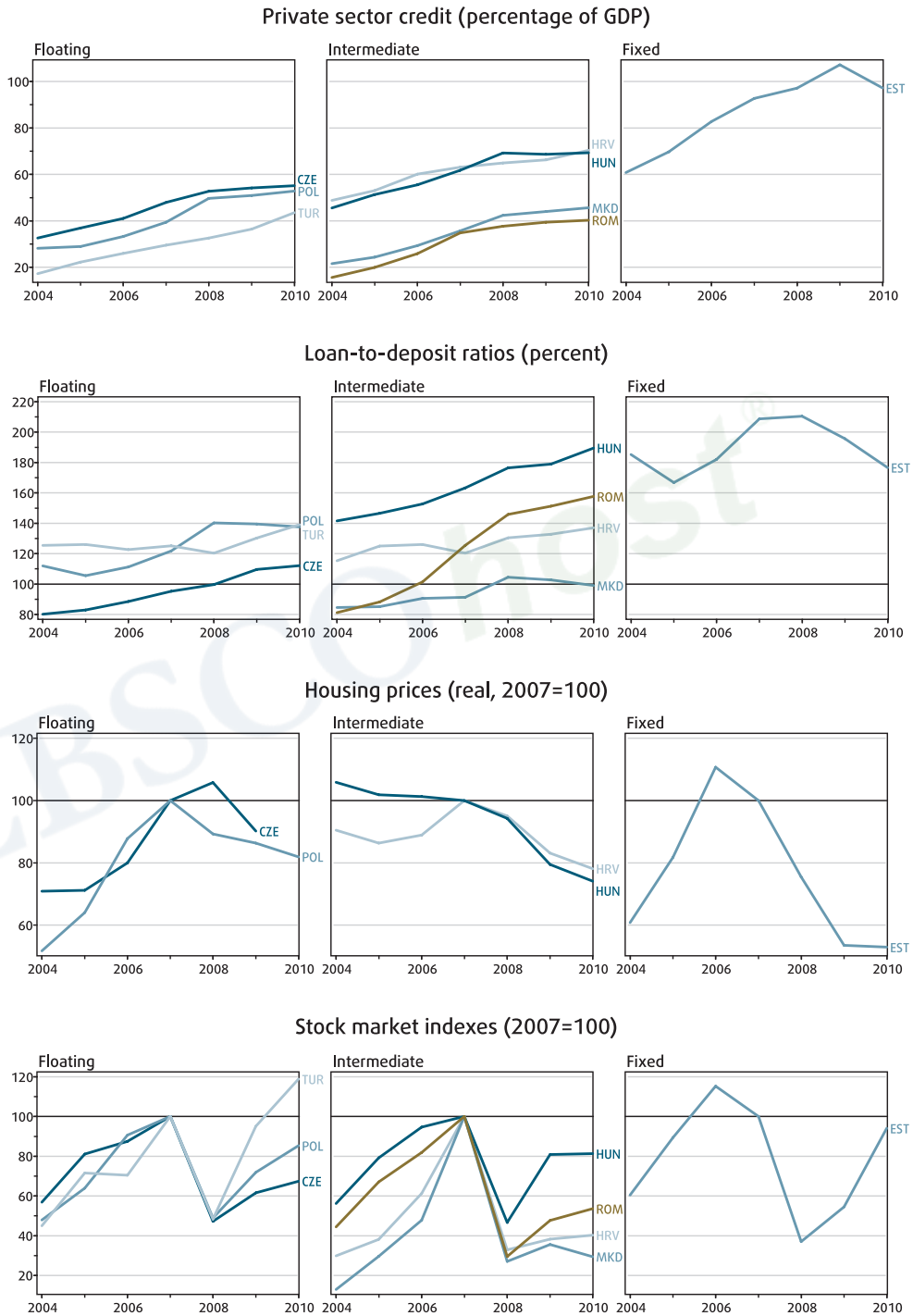
## Macroprudential policies

Prudential regulations are traditionally used to mitigate risks in individual institutions. But they are also central to strengthening financial system stability, particularly against the systemic risks that arise from the externalities associated with individual institutions' actions. In this context, macroprudential policies are those that are adjusted to turns in the economic cycle.

Examples of macroprudential regulations include policies that increase buffers, contain credit growth, and directly improve individual credit quality during good times. Some traditional prudential policies, such as capital-adequacy ratios for banks, may be intended to hedge risks by creating buffers or slowing credit growth (or both). But they become macroprudential only when adjusted in response to macroeconomic developments. Ratios may, for example, be increased when credit growth is high—either for the whole financial system or for systemic banks—or may include larger capital buffers for certain types of lending, such as changing risk weights on mortgage loans.[20]

Liquidity-related regulations are intended to curtail (or promote) credit growth by increasing the cost of extending credit without using (or in addition to) monetary policy instruments. These measures can be targeted to all or to specific business lines. For example, Croatia applied additional liquidity requirements that increased the cost of credit across all business lines. By contrast, FYR Macedonia targeted credit card and consumer loans. Quantitative

**Figure 3.12: Countries showed varying experiences with credit growth and asset prices**




Note: The exchange rate classification follows the description in table 3.1.

Source: World Bank staff calculations, based on data collected by the Global Property Guide; Bloomberg; IMF 2010; IMF IFS.

restrictions or direct credit controls (sectoral or aggregate) are also possible, but it should be noted that acting through quantity-based measures rather than price-based measures potentially has more severe distortionary effects.

Regulations to improve the quality of new loans take the form of more stringent eligibility requirements on certain types of lending and may be viewed as reducing systemwide financial risks one transaction at a time. Polgár and Zdzienicka (2010) classify these regulations into "hard" and "soft" restrictions. The first includes tighter loan-to-value ratios and debt service-to-income ratios. The second refers to qualification requirements, such as a checklist of requirements that household borrowers must meet in order to borrow in foreign currency.[21]

What, then, was the experience with macroprudential policies in emerging Europe before the crisis? For Croatia, the Czech Republic, Estonia, FYR Macedonia, Hungary, Poland, Romania, and Turkey this report asked for written accounts from staffs at the central bank or financial supervision agencies of these countries. It is worth noting that financial sector developments in the run-up to the crisis differed substantially in these eight countries (figure 3.12). This influenced both the type of and scope for macroprudential tools.

These eight countries had varied experiences with macroprudential policies before the crisis (table 3.2 and box 3.3), but many are deploying these policies more proactively during the recovery. A range of factors affected policymakers' choices, including the monetary policy and exchange rate regime in place, the historical context of financial sector development (such as the convergence process and the presence of foreign banks), the distributional implications of various policies, the legal implications of policies (such as whether the authorities were legally permitted to vary regulations according to the size of the institution), and the ability of regulated entities to circumvent regulations. External factors also played a role. Countries that adopted these policies had to adapt them as agents changed their economic behavior, loopholes emerged, and side effects became more apparent.

Overall, the impact of macroprudential policies had the intended effect though sometimes only a transitory one. The first lesson is that policymakers need to consider the implications of prudential regulation across all financial intermediaries. They should be aware, for instance, that tightening regulation might not always be effective because it could encourage a shift to less regulated institutions or countries, such as through direct cross-border lending to corporations by parent banks with subsidiary operations. Second, the macroprudential toolkit deployed emphasized creating buffers and slowing credit growth, but few countries introduced measures to strengthen credit quality before the crisis, an area deserving greater attention going forward.[22] Third, even if the effect of these policies might at times be transitory, supervisory authorities should assess what works and aim to adjust these policies when undesired developments take place or loopholes emerge in the macroprudential toolkit. A wait-and-see strategy is too costly, as the 2008 crisis has shown.

Table 3.2: Precrisis use of macroprudential policies in eight emerging European countries

| | CZE | EST | HRV | HUN | MKD | POL | ROM | TUR |
|---|---|---|---|---|---|---|---|---|
| Buffers and credit growth containment | | | | | | | | |
| Capital-adequacy ratios | | • | • | | • | • | | • |
| Risk weights | | • | • | | • | • | • | |
| Liquidity requirements | | | • | | • | • | • | • |
| Constraints on total credit growth | | | • | | • | | | |
| Regulations on lending in foreign currency | | | • | | • | | • | |
| Other | | • | • | | | • | • | |
| Credit quality | | | | | | | | |
| Loan-to-value ratios | | | | | | | • | |
| Debt service-to-income ratios | | | | | | | • | |
| Eligibility criteria | | | | | | | • | |
| Other | | • | | | • | • | | |

Note: The table reflects changes during 2004-08.
Source: Background papers prepared by country officials for this report.

## Supranational policies

Financial system frameworks before the crisis let market discipline and official oversight work in tandem to provide checks and balances to prevent systemic threats to financial stability.[23] The global crisis revealed that this approach was wrong. Neither market discipline nor official oversight performed their functions as envisaged. The strategy tilted too heavily toward allowing the market to discipline itself, which proved to be elusive until it was too late—at which point market-disciplining behavior led to widespread uncertainty and severe market dysfunctions. Too little official oversight—the corollary—failed to spot the buildup of systemic weaknesses.

Similar to other advanced economies, the European Union introduced on January 1, 2011, a new architecture for safeguarding financial stability, collectively referred to as the European System of Financial Supervision. It includes three new microprudential European Supervisory Authorities (ESAs) and a new macroprudential body—the European Systemic Risk Board (ESRB).[24] The goals are to improve the microprudential supervision of financial institutions and the regulation of capital markets at national and supranational levels, assess systemic risks, and recommend risk-mitigation measures. This is complemented by changes still being introduced in the role and mandate of the European Financial Stability Facility and its programmed successor to be introduced later in this decade.

Even if used as envisaged, these reforms have limitations (box 3.4). The ESAs are more than a group of coordinating mechanisms in "crisis" situations, but they must defer to national authorities. Similarly, although the ESRB can identify countries that pose systemic risks and make recommendations, it has

## Box 3.3: Country experiences with macroprudential policies

Classifying countries into four groups serves to represent these experiences: countries that were proactive in the use of macroprudential policies, countries that relied somewhat on macroprudential policies, countries that relied on moral suasion, and countries that did not use these policies.

### Proactive use of macroprudential policies

FYR Macedonia, Croatia, and Romania were perhaps the most proactive in applying macroprudential tools before the crisis. FYR Macedonia introduced regulations to limit the growth of lending in foreign currency and in household lending in early 2008. In the view of Celeska, Gligorova, and Krstevska (2011), the regulations were beginning to have an impact when the crisis hit. This partly reflected FYR Macedonia's late exposure to the process of high credit growth that characterized emerging Europe, and it is unclear how much the crisis slowed credit growth.

In Croatia, the authorities adopted various prudential measures to limit credit growth and to safeguard the financial system against an accumulation of systemic risks, particularly from lending in foreign currency. They introduced the new regulations relatively early, in 2003. Because banks attempted to circumvent the new regulations, they were improved simply through "trial and error." A combination of prudential regulations and complementary monetary policies reduced credit growth, though the tools were sometimes circumvented by direct cross-border lending by parent banks (Kraft and Galac 2011).

Romania is a case of proactive monetary policy and prudential tools aimed not only at securing a low inflationary environment, but also at strengthening financial stability (Popa 2011). Although monetary authorities were proactive in the use of policy rates, their approach was accompanied by a large set of administrative and prudential measures, including differential reserve requirements on domestic and foreign currency liabilities, changes to risk weights in some business lines, and adjustments over time to the level and coverage of debt service-to-income ratios.

### Limited macroprudential action

Turkey experienced a more gradual credit boom cycle in the precrisis period. Perhaps for this reason the authorities acted in a limited fashion on the macroprudential front, with the most visible intervention related to higher capital-adequacy ratios for banks that wished to expand (measured by authorizations for opening new branches). Turkey did not allow foreign currency lending to households before the crisis. Since witnessing a rapid pickup in credit in late 2009, the authorities have firmly applied macroprudential policies, including measures to improve credit quality (such as lower loan-to-value ratios) and to preclude lending in lira indexed to the exchange rate (Kenc, Turhan, and Yildirim 2011). These policies' success remains to be seen.

### Moral suasion

In Estonia and Poland much of the initial intervention centered on moral suasion efforts (Sutt, Korju, and Siibak 2011). Only a few policy actions were taken as credit booms emerged. In Estonia, the initial policy response was to reduce the tax deductibility of mortgage interest payments; it was reduced by half in 2004. This move was followed in 2005 with changes to risk weights on mortgage lending. Capital buffers were maintained at higher levels than in advanced economies and accompanied by high reserve requirements.

Poland applied stricter rules on capital-adequacy ratios for new banks and used moral suasion to build capital buffers through retained earnings. It also increased the emphasis on credit eligibility criteria. Until the crisis, its prudential toolkit took the form of recommendations. Recommendation S, for example, sets guidelines on mortgage loans, ranging from rules for evaluating creditworthiness in foreign currency loans to standards for disclosing information to customers on exchange rate risks. These recommendations led to some action in the banking sector before the crisis (by all accounts, supervisory authorities emphasized compliance with what legally were only recommendations), but they became stricter after the crisis (Kruszka and Kowalczyk 2011). They now include quantitative standards to evaluate creditworthiness (Recommendation T) and more specific loan-to-value and debt service-to-income ratios (in a revised Recommendation S, scheduled to come into effect in December 2011).

### No use of macroprudential policies

Hungary and the Czech Republic did not take any macroprudential steps before the crisis. In Hungary, the authorities deemed fast credit growth to be sustainable given the country's convergence to EU incomes. Although they had some concerns over foreign currency lending and fast growth in mortgage loans, they did not impose restrictions for political and social reasons. The banking authorities have recently imposed several lending restrictions to reduce systemwide risks in household lending (Banai, Király, and Nagy 2011). Since late 2010, for example, mortgages may not be denominated in foreign currency, and tight loan-to-value limits have been adopted.

Judicious macroeconomic policy with a flexible exchange rate helped the Czech financial system avoid some of the pitfalls of other countries. Although credit growth, especially household credit, was high in some years, the authorities for the most part viewed it to be in line with the country's convergence process (Frait, Geršl, and Seidler 2011). What makes the Czech banking system special is that it did not accumulate lending in foreign currency. Perhaps because the country had established macroeconomic management credibility well before high global liquidity emerged, and thus had low inflation and interest rates, carry-trade opportunities that fueled foreign currency lending elsewhere were simply nonexistent (Mitra, Selowsky, and Zalduendo 2010).

Source: Background papers prepared by country officials for this report.

no authority other than moral suasion. Looking ahead, three challenges are important for emerging European countries: regulatory requirements, a large foreign presence, and liquidity management during a crisis.

- **Regulatory requirements for capital, liquidity, and leverage.** The crisis showed that microprudential regulations for ensuring the safety and soundness of individual financial institutions were inadequate. Many aspects contributed to the buildup of risks, such as misunderstood management of

liquidity risks, inadequate and unbinding leverage limits, and a flawed Basel framework for determining capital requirements for on- and off-balance sheet credit exposures. The Basel Committee on Banking Supervision and the Financial Stability Board—each with European leadership and representation—are considering reforms to tackle these weaknesses, which will be phased in over time. As discussed in Ghosh, Sugawara, and Zalduendo (2011a), emerging Europe is the region most likely to be negatively affected

## Box 3.4: The new European architecture for financial stability

The precrisis EU architecture for financial stability evolved into an institutional framework with three characteristics that the crisis revealed needed to be strengthened:

- *Decentralization.* Before the crisis, financial stability functions were decentralized, based on the exercise of national responsibilities by banking supervisors, central banks, treasuries, and deposit insurance schemes (despite the integration of European finance).
- *Segmentation.* Precrisis financial stability functions were segmented across sectors and countries; for example, supervision of banks and financial conglomerates was conducted separately by the supervisors that licensed each entity.
- *Cooperation.* Voluntary cooperation structures were relied on to bridge the gaps between national responsibilities. These structures ranged from legal provisions (for example, consolidated supervision) to voluntary memorandums of understanding.

Since the crisis, the European Union has undertaken institutional reforms aimed at enhancing the effectiveness of economic, financial, and financial sector policymaking and policy coordination. The two elements of the response are:

- The creation on January 1, 2011, of the European System of Financial Supervision, a framework for coordination of microprudential supervision and for a macroprudential organization for assessing Europe-wide systemic financial risks.
- The creation of a new—and still evolving—sovereign crisis resolution and European economic surveillance mechanism comprising the European Stability Mechanism, a permanent crisis resolution tool, to replace in July 2013 the European Financial Stabilization Mechanism in EU member states and the European Financial Stability Facility in euro area countries facing sovereign debt problems; the Euro Plus Pact, to strengthen the economic pillar of the euro area; a strengthened economic surveillance framework; and the European Semester, an integrated annual surveillance cycle.

### The new microprudential framework

Three microprudential supervisory authorities (ESAs) were created: the European Banking Authority, the European Insurance and Occupational Pensions Authority, and the European Securities and Markets Authority. The ESAs should be seen as the next step in the evolution of effective cooperation between national authorities rather than as a centralization of power. Each of the ESAs has the following responsibilities in their respective competencies: establishing a single set of harmonized rules; ensuring consistent application of EU rules; managing disagreements between national supervisors; making recommendations if there is a manifest breach of Community law; creating a common supervisory culture as well as supervisory practices; having full supervisory powers for some entities; ensuring a coordinated response during crises; and collecting microprudential data.

The three new authorities are responsible in these areas for coordinating with the respective national supervisory or regulatory authorities. But the legal and regulatory authority for conducting everyday supervision remains with national authorities. The mandates of the new ESAs therefore do not provide much scope beyond an enhanced coordination role. An important part of the legislation is a safeguard clause specifying that no decision by the ESAs may impinge on the fiscal responsibilities of member states.

### The new macroprudential supervisor

The European Systemic Risk Board (ESRB) is the European Union's coordinating organization to monitor and assess Europe-wide systemic risks and vulnerabilities. One of the shortcomings of the precrisis architecture was an overemphasis on supervising individual financial institutions and a lack of attention to systemwide risks. The ESRB will assess and prioritize sources of systemic financial risks and vulnerabilities and will make recommendations for change. To achieve its objectives, the ESRB will collect and analyze relevant information; identify and prioritize systemic risks; issue warnings where risks are significant and make those warnings public; issue recommendations for remedial action and, where appropriate, make those recommendations public; issue confidential warnings of emergency situations to the Council and provide the Council with an assessment of the situation; monitor the follow-up to warnings and recommendations; and cooperate closely with all the other parties to the European System of Financial Supervision, providing the ESAs with information on systemic risks that is required for the performance of their tasks, and developing in collaboration with the ESAs a common set of indicators to identify and measure systemic risk.

The decisionmaking body of the ESRB, the General Board, will have voting members who are also top-level policymakers: the governors of the 27 EU national central banks, the president and vice president of the European Central Bank, a member of the European Commission, and the chairpersons of the three ESAs. There are also nonvoting members. But there is uncertainty about whether this decisionmaking structure is sufficiently empowered and independent. First, because of the size and composition of the board, it will be difficult to reach consensus on risks and mitigation response. Second, the ESRB's recommendations are nonbinding and subject to influence. National authorities are responsible for taking action, but are not obliged to do so. Although the ESRB does have the authority to follow up on its recommendations, its only recourse is to go public. Third, the board is constrained in assessing risks and making recommendations because it does not have uninhibited access or independent authority for obtaining information on financial institutions.

Source: Schinasi (2011).

by the capital requirements proposed in Basel III. Yet these effects are still manageable, and the benefits of greater financial stability are likely to outweigh transitional costs.

One possible area of disagreement between EU members relates to the discussions on capital, liquidity, and leverage regulations. The source of conflict is whether these requirements should be viewed as a minimum standard or as a target to be applied equally by all countries. Bulgaria, Estonia, Lithuania, the Slovak Republic, Spain, Sweden, and the United Kingdom recently argued that EU member states should be allowed to apply more stringent regulations.[25] Given that countries in the European Union might face different initial conditions and different economic cycles, it would seem sensible to allow for differential practices as long as these are not discriminatory and meet the agreed minimum standards. This approach is further supported by the fact that the fiscal implications of bank resolution remain in the purview of national fiscal authorities.

- **Dealing with a large foreign presence:** the home and host challenge. Despite financial integration and the emergence of pan-European financial institutions, supervision of EU groups remains segmented. Where cross-border groups have set up subsidiaries under local host country laws, these subsidiaries are subject to host country supervision and regulation. By contrast, where cross-border branches have been set up, these are supervised by home country authorities. EU laws provide safeguards for the host country supervisors to act only under certain conditions (for example, to protect depositors in emergencies). Moreover, these supervisors retain control of liquidity even in branches (as is the case with domestic institutions, be these domestically owned or subsidiary operations from other countries), and are entitled to being informed by home authorities of relevant information on the whole group.

  But this supervision structure, largely unchanged from before the crisis, is complex, with multiple lines of reporting between home and host country supervisors. Nor does it address the misaligned incentive structures of cross-border supervision: it creates supervisory gaps, especially in emerging Europe, and has been associated with a level of mistrust that does not encourage effective cooperation. Host country supervisors depend heavily on the effectiveness of home country supervisors.

Problems to be addressed include:

- Host country supervisors do not have comprehensive means to challenge the home state supervision of a group with branches in its territory. Home state supervisors tend to protect their own domestic banking system, not the host country's.
- There is no binding mediation mechanism arbitrating between home and host supervisors. If a national supervisor fails to take a necessary step, no quick mechanism allows for a collaborative decision on the liquidity or solvency of a group.
- Effective cross-border crisis-management arrangements are lacking.

- There are no mechanisms to facilitate sharing the costs of liquidity support between home and host country authorities, or the costs of recapitalizing or winding down an institution in the host country.

Unless Europe deals with this policy failure on cooperation between home and host supervisors, emerging Europe will continue to struggle in managing the financial implications of foreign banks' operations as their activities ebb and flow with economic and credit cycles.

- **Managing liquidity during a crisis.** A sudden restriction of access to euro and dollar liquidity hurt emerging Europe. Prior to the crisis, domestic and foreign banks in the European Union (but outside the eurozone) relied heavily on the pan-European money markets for managing liquidity. These markets work through a hub-and-spoke system in which large (or money center) institutions gather liquidity at European Central Bank (ECB) auctions and then act as conduits to provide and gather liquidity from small and medium European banks engaged in retail finance.

  During the repeated bouts of liquidity crisis since late 2007 and until late 2009, large money center banks became risk-averse and curtailed their lending to what they viewed as higher-risk countries and banks. This lending "triage" led to severe euro liquidity shortages in emerging Europe. While some parent banks of dominant foreign branches and subsidiaries operating in the EU12 provided liquidity, the subsidiaries operating there did not have direct access to ECB liquidity facilities because of the ECB's collateral arrangements and policies. The ECB relaxed its collateral requirements during the crisis, but it did not expand eligibility to securities denominated in non-euro currencies (other than a handful of reserve currencies), though it should also be said that the ECB did support non-euro area countries indirectly by providing liquidity to parent banks in the euro area. Developments since mid-2011 are once again threatening the liquidity needs in Europe's banking system, though central banks are also showing signs of being better prepared to intervene swiftly to address liquidity problems as they arise.

  Because of these liquidity problems, IMF-supported programs (in some cases with European Commission and World Bank support) became necessary. Although recent reforms to IMF facilities are likely to help by providing precautionary liquidity to eligible countries through flexible credit lines, the sovereign debt crises in the euro area suggest that no amount of funding can resolve economic and financial stability challenges when the policy environment itself produces indecision and uncertainty. Perhaps the ECB could take on this responsibility in the future; for instance, it could extend swap lines to central banks of noneuro countries in the European Union, akin to what the U.S. Federal Reserve did with Brazil, Korea, and Mexico at the peak of the 2008–09 crisis.

## Manage external imbalances, don't eliminate them

Europe's financial integration represents an enviable development opportunity but with large tail risks. While there is no doubt that unusually liquid global markets during the precrisis period would have strained the toolkit of any government authority (Mitra, Selowsky, and Zalduendo 2010), policymakers

across emerging Europe often did not use all the tools at their disposal. The presumption that a convergence-driven "new Europe" was at hand led to complacency among bankers and bureaucrats. In several countries, deep output falls and a slow climb to recovery are the result. What lessons can be learned?

First, fiscal policy should have done more to counterbalance private sector behavior, even though it was not the source of the imbalances across emerging Europe. To this end, boom-proofing public finance will require more determined action going forward, ranging from the discipline to save the revenue over-performance of boom cycles to, in some cases, a more deliberate effort to counterbalance private sector behavior—if not one-to-one, at least as a signaling device to avoid a buildup of vulnerabilities.

Second, private finance has to be crisis-proofed. Macroprudential tools must play a greater role in the future, and nationally, they should be deployed to limit the buildup of vulnerabilities (even though the experience of countries that used these policies suggests that their effects are transitory, and thus might require frequent modifications). For example, many countries are now taking steps to improve credit quality, an area in which most countries did little in the years preceding the global crisis. In addition, at a supranational level, countries that are less financially and institutionally developed must have recourse to measures that could require special treatment within the single market—and still in conformity with the single market principles. The newer elements of the European financial architecture are, as a result of the current sovereign debt crises, likely to strengthen financial stability. But the initial conditions in the small, open economies at income levels much below the EU average may occasionally call for more proactive interventions. This remains an area for further discussion among EU members.

## Helping markets deal with overindebtedness

The debt challenges faced by Eastern Europe are different from those in the EU cohesion countries, yet the future of these countries is interconnected. Indeed, while at the time of writing the center of gravity has shifted toward Greece, Italy, Portugal, and Spain, spillover effects could still reach east given the interlinkages in Europe's financial system. It is against this background that policymakers in emerging Europe have to assess whether a debt overhang threatens the recovery. This requires assessing how widespread the use of debt is, in particular among firms and households.

It is worth noting that a debt overhang does not necessarily mean that governments should take over this debt. Removing institutional and structural bottlenecks that act as a disincentive to private debt restructuring efforts is the logical first step (even with no debt overhang). But in extreme cases, debt relief with public resources might be needed to strengthen coordination between debtors and creditors.[26] These public actions, however, are not costless. By intervening, the public sector internalizes the economic implications of default that, in turn, could eventually weaken growth prospects.[27] Moreover, just the hint of a debt relief intervention could lead to a lack of payment discipline ("debtor moral hazard") or excessive risk-taking ("creditor moral hazard"; box 3.5).

How can one assess if a debt overhang exists? The first step is to carry out what can be viewed as a macroeconomic analysis of balance sheets. This involves both an assessment of external solvency and liquidity indicators, as well as an examination of domestic public and private aggregate exposures.[28] Two questions need answers: Is the country solvent or illiquid? Do the debt overhang risks originate in public or private balance sheets? As a benchmark against which to compare developments in emerging Europe, this chapter uses aggregate external and domestic indicators from emerging markets in East Asia, Latin America, and the EU cohesion countries.[29]

In doing so, one must keep in mind a number of factors that impact debt sustainability. For example, countries with better institutions can sustainably accommodate higher debt levels. In addition, underlying debt dynamics depend closely on growth and interest rates. Thus, the aggregate assessment of debt levels that follows should be looked at as a first approximation, not least because the uncertain economic outlook in the eurozone and the global economy make debt sustainability across emerging Europe more challenging.

But aggregate balance sheets can only take you so far, as they provide no more than a general idea of debt risks. As argued by Albacete and Fessler (2010, p89), "macrodata is of limited use in the analysis of the risks to financial stability … as it is neither possible to differentiate between households that hold debt and those that do not, nor is it possible to combine data on … debt with data on … assets." The same applies to firms. In this regard, data originating in surveys of firms and households provide a fuller picture of the debt risks faced by a country. What is novel about this chapter is that it also looks at the microeconomic dimensions of debt in emerging Europe: first, by examining the debt incidence among firms and households, as well as the characteristics of those with debt; second, by assessing the combination of risk and shock factors to which firms and households with debt have been exposed during the crisis; and third, by stress-testing the resilience of households' balance sheets to economic shocks.

This section concludes that much of emerging Europe is different from the worst-off among the EU cohesion countries. At a macroeconomic level, external and domestic public and private balance sheets seem manageable, although a prolonged economic downturn in the European Union and a lagging recovery of the global economy could have significant negative spillover effects.
At a microeconomic level, indebted firms and households are a small share of all firms and households, so direct effects on aggregate consumption and investment are likely to be small. This does not mean that the firms and households that borrowed heavily and the banks that lent them money will not face financial distress. (They might.) But the aggregate direct effect on economic activity is unlikely to be large.

This conclusion, sanguine at first sight, must be qualified due to developments in the banking sector. Ratios of nonperforming loans to total lending in the range of 10–20 percent are a serious concern, and the need to husband resources back home could force some foreign banks to retrench their operations in emerging Europe. So far this has not happened, and foreign bank ownership has been a source of stability in emerging Europe in contrast to previous crisis episodes in emerging markets. Since emerging Europe has debt

### Box 3.5: The pros and cons of debt-relief interventions

#### Macroeconomic

A debt overhang affects growth through multiple channels. If the debtor is the public sector, the overhang could require higher taxes to service these debts, which in turn would weaken economic incentives and undermine growth prospects (Sachs 1989). It might also turn funding markets more fragile. Specifically, if rollover risks increase, creditors might want to limit their exposure, concerned that liquidity problems may generate market disruptions.

Further, when the debts are external, the financial integration process that created these obligations might also alter the economic adjustment process. Large external obligations require trade surpluses that are more easily achieved with exchange rate depreciations, but while depreciations help to bring in the necessary foreign exchange, they also have valuation effects. Import compression might generate the necessary foreign exchange resources, but at the expense of limiting domestic demand and deepening a recession. Thus the resulting social and economic costs might require either a debt restructuring or increased access to official financial assistance to mitigate the economic adjustment.

The positive aspect of financial integration, as in Europe, is that it allows countries to spread the adjustment across borders. Foreign investors, for instance, see a decline in profits on their equity holdings. Another feature of emerging Europe is that the foreign financing, which enabled high credit growth, is also the main source of external account adjustment (that is, no change in relative prices through nominal exchange rate changes is needed).

#### Microeconomic

Evaluating whether there is a debt overhang requires balance sheets to be assessed. Myers (1977) argued that a link exists between debt levels and firms' decisions: if profits from new investments are likely to be used to pay existing creditors, shareholders might choose to pass up what would otherwise be profitable investment opportunities. Similar arguments apply to household investment in home improvement (Melzer 2010), reduced labor supply owing to the wedge imposed on incomes by debt-service obligations (Mulligan 2008), and limited consumption (Olney 1999). Equally, banks that have overleveraged balance sheets and are facing losses might limit new lending. In sum, balance sheet factors might become a drag on banks' ability to restore credit and support the recovery.

The extent to which the balance sheets of firms, households, and banks undermine economic activity also relates to their aggregate impact on the economy. Other firms, households, and banks might pursue investment, consumption, and lending opportunities that economic agents with overleveraged balance sheets cannot. But as seen, debt incidence in emerging Europe is not widespread and thus unlikely to become a drag on economic activity.

Given that the public sector in emerging Europe is not highly leveraged, it is often argued that governments can share the burden imposed by existing debts on firms and households. For several reasons, such decisions should not be taken in haste.

First, it is important to assess if a debt overhang actually exists and that, absent public financial support, social welfare will decline. In emerging Europe, the case for such debt relief does not appear to be compelling. Even in the countries most at risk, market-based approaches appear adequate to address the borderline debt-overhang cases discussed in this chapter. Also, although the strength of banks' balance sheets in emerging Europe is uncertain, these banks depend heavily on their Western European parent institutions' strength. The provision of public money by emerging Europe's governments is not easy to justify.

Second, the debtor and creditor moral hazard risks need to be gauged. From a borrower perspective, just talk of debt relief weakens payment discipline. From a lender perspective, bailouts might encourage excessive risk-taking. Debt-relief interventions also risk creating opportunities for politicization and capture by special interest groups on a matter that, so far, remains a largely private affair in much of emerging Europe.

Third, the premise that households should be compensated for an increase in debt-service burden due to external economic shocks is not easily justified given the distribution of debt across income quintiles. The analysis suggests that most households have room to tackle economic shocks. If, for political reasons, it is necessary to introduce such programs, it would seem sensible to target scarce public resources by loan size and household income.

concentrated in few firms and households, there is at least the potential for other actors (that is, new banks) to consider entering the financial sector. Given the challenges faced by Europe as a whole, however, there is no question that downside risks remain unusually high. Deleveraging has so far been limited and orderly, but in large measure because growth prospects in emerging Europe remained strong. The challenges within the eurozone are calling into question this assessment and could force parent banks to retrench in noncore markets.

## Economies—solvent and liquid

Several studies have recently analyzed the level of external indebtedness beyond which a country is likely to suffer slower growth and sustainability risks (Reinhardt and Rogoff 2010; Imbs and Rancière 2007). They point to a gross external debt-to-GDP ratio above 60 percent as a vulnerability threshold, although this varies with a country's level of financial development and

institutional strength. For emerging Europe, and in particular new EU members, the sustainable threshold is likely to be above that for a typical developing country. Moreover, it may be more appropriate to look at net external liabilities than at gross external debt as an indicator for a country's external solvency, explicitly taking a country's foreign assets as well as the structure of its liabilities (debt or equity) into account. As noted, any assessment of underlying debt dynamics depends closely on growth and interest rates, all of which currently face high degrees of uncertainty.

Against this background, and compared with emerging markets in past crises that had average net foreign asset positions of –36 percent of GDP, equivalent group positions in 2009 of the EU12 (–70 percent), EU candidates (–57 percent), and EU eastern partnership countries (–62 percent) were weaker (figure 3.13, left panel; these have changed only marginally since 2009). But they compare favorably with EU cohesion countries (–99 percent of GDP). Countries vary of course: net foreign asset positions were –129 percent of GDP in Hungary and –87 percent of GDP in Latvia, but less than –50 percent of GDP in the Czech Republic and Turkey.

While overall external liabilities seem large, net debt positions are not too weak in emerging Europe. With one exception, such positions are better than –60 percent of GDP, reflecting the substantial FDI inflows that characterize emerging Europe (figure 3.13, right panel). Net equity positions decline much more than net debt positions between 2002 and 2009 (figure 3.14). By contrast, net debt positions are the sole source of increase in external obligations among EU cohesion countries. The same is true for Estonia, Lithuania, Slovenia, and, to a lesser extent, Latvia and Hungary, though their net debt positions are not as large as those of EU cohesion countries.

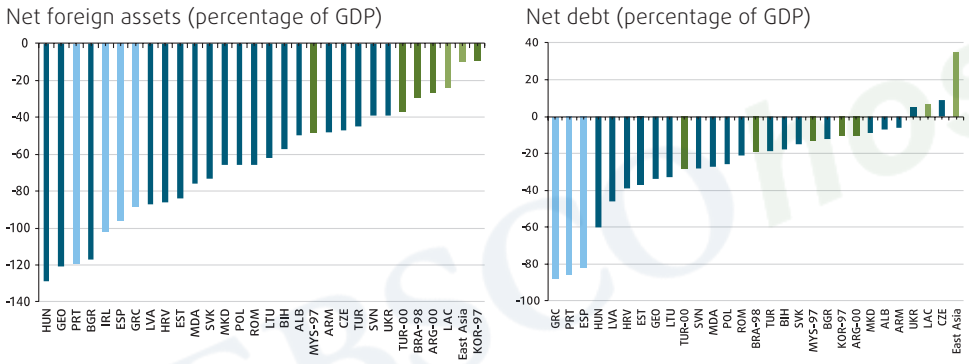
Why is the distinction between net debt and net equity positions important? The distinction matters because different types of liabilities have different burden-sharing features. In good times, the upside from growth accrues to foreign investors (Lane and Milesi-Ferretti 2007). Conversely, the value of equity liabilities falls as the economic performance of capital-recipient countries weakens.

Emerging Europe has another unique feature: a large share of its net debt positions originate in parent banks and firms extending credit lines to their subsidiary operations, due to the tax and regulatory advantages of such credit lines. When subsidiaries in emerging Europe are confronted with financial difficulties, however, not only is the capital base of their subsidiaries able to provide a buffer against negative shocks, but also parent banks and firms have been willing to convert these credit lines into capital. This is, for instance, the experience of banks in the Baltic countries. In sum, support by parent institutions to their subsidiaries in emerging Europe is a long-term strategic decision that depends on the European Union's growth outlook; thus, an integrated region where foreign ownership structures are important cannot be looked at through the metric used in other emerging markets.[30]

What about external liquidity positions? Emerging Europe has large foreign exchange positions that should serve to cushion the risks of external shocks.[31] Apart from the Baltic states, most countries have a ratio of total gross debt liabilities to foreign exchange assets of 3.5 or less—a sizable buffer. Countries

that suffered capital account crises in the past had weaker foreign exchange liquidity positions a year before such crises (figure 3.15). On this metric, the countries most at risk are the Baltic states (though Estonia must now be excluded as it joined the euro in January 2011), but their dependence on one country for most of their foreign exchange liquidity needs (Swedish banks dominate their banking sectors) likely lessens these risks because such concentration facilitates debtor and creditor coordination.

In sum, emerging Europe's external solvency and liquidity positions are in some respects stronger than those of emerging markets that suffered balance of payments or debt crises in the past, particularly taking into account the strength of parent bank support, the particular role of FDI, and the sizable foreign exchange reserves many of these countries have. Institutional developments in

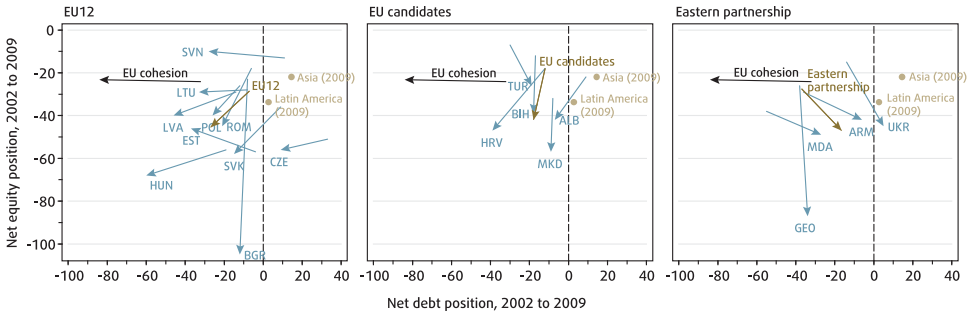



Note: The right panel reports net debt, which is international debt assets plus foreign exchange reserves minus international debt liabilities as a percentage of GDP. Ireland is excluded from the right panel as its data are distorted because international mutual funds hosted by Ireland are recorded as positive net debt, even though these resources are not related to the domestic economy. The light blue columns in both panels represent the EU cohesion countries. Similarly, the dark green columns are capital account crises countries in East Asia and LAC (Latin America and the Caribbean) regions in the 1990s and 2000s as well as Turkey in 2000. The light green columns are the 2009 regional averages for East Asia and LAC.

Source: Updated and extended version of dataset constructed by Lane and Milesi-Ferretti 2007.

**Figure 3.13: Emerging Europe is solvent, the EU cohesion countries less so**

(net foreign assets and net debt, percentage of GDP, 2009)




Note: Arrows begin in 2002 and end in 2009. The arrows for each region are median values. The dots are the median values for the reference groups. Ireland is excluded from net debt position (see note for figure 3.13).

Source: Updated and extended version of dataset constructed by Lane and Milesi-Ferretti 2007.

**Figure 3.14: Greater debt exposure in Southern Europe, more equity exposure in the east**

(aggregate external net equity and net debt exposures, percentage of GDP, 2002–09)

emerging Europe are also a positive aspect of their integration experience. This does not make emerging Europe immune to potential spillovers from troubles in the eurozone (such as a deleveraging on the part of parent banks), but the countries in the east and southeast of Europe would appear to be in more robust external health than their more advanced peers in Europe's south. Still, concerns remain and debt dynamics are worrying given the lack of growth in the region and the many uncertainties that still affect the recovery of the global economy; in other words, downside risks remain high.

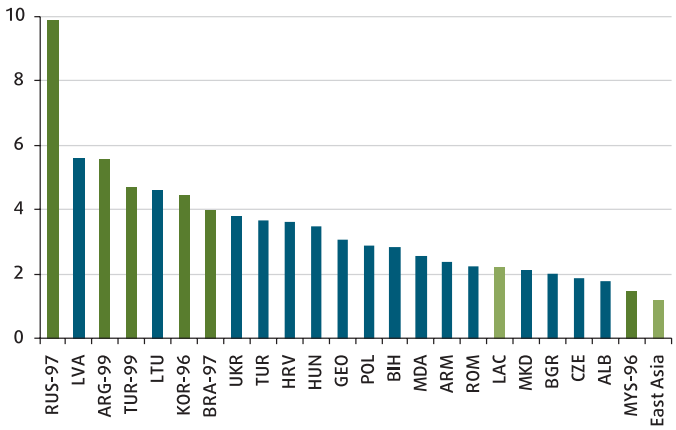
## Governments—largely solvent

High public debts can adversely affect capital accumulation and growth by raising inflation, distortionary taxes, long-term interest rates, and policy uncertainty. Reinhart and Rogoff (2010) find that differences in median growth rates of GDP between low-debt countries (less than 30 percent) and high-debt countries (above 90 percent) amount to 2–3 percentage points a year. Kumar and Woo (2010) find that a 10 percentage point increase in public debt ratios is linked to a slowdown in annual real per capita GDP growth ranging from 0.15 in advanced economies to 0.25 in emerging markets. They argue that this difference might reflect less developed financial markets or fragile access to international markets. Emerging Europe is likely to be better off on both counts.

By these criteria, countries in emerging Europe are not generally at risk of a public debt overhang. Many have public debt levels only slightly above the lower threshold of 30 percent: the regional average was 37 percent of GDP at end-2009. Emerging Europe's public debt ratios are, in most cases, lower than in Western Europe, EU cohesion countries, and countries that suffered economic crises in the recent past (figure 3.16, vertical axis). The one risk country is Hungary, where public debt ratios reached 78 percent of GDP at end-2009. While smaller than those observed among EU cohesion countries (the median

**Figure 3.15: Most economies in emerging Europe are liquid**

(ratio of gross liabilities to foreign exchange holdings, 2009)




Note: Higher columns indicate greater risk of suffering foreign exchange liquidity problems. The dark green columns are capital account crises countries in East Asia and LAC (Latin America and the Caribbean) regions in the 1990s and 2000s as well as Russia in 1998 and Turkey in 2000. The data for capital account crises countries reflect liquidity ratios a year before the crisis. The light green columns are the 2009 regional median values for East Asia and LAC.

Source: Brown and Lane 2011.

value of public debt among this latter group rose to 95 percent of GDP by end-2010), it remains too high for comfort. Albania and Poland also have borderline high levels of public debt.

In conclusion, even though very few countries are a concern, the capacity to add debt on public balance sheets is limited across most emerging European countries—and perhaps more so given the uncertain outlook for the global economic recovery. Most countries have accumulated debt since the crisis erupted, and a few already have to adopt debt-reducing policies. Fiscal prudence will thus need to be maintained and potentially even strengthened (see also chapter 7).

## Private aggregate debt—mostly manageable

Private sector credit developments reveal the growing financial depth of emerging Europe as it integrated with Western Europe, greater dependence on direct cross-border loans, and the dominant role of relationship-based financing that characterizes Continental Europe. Specifically, the private debt obligations of emerging Europe's countries—as credit through the domestic banking system and direct cross-border loans to the nonfinancial sector—are in some cases larger than in other emerging markets (figure 3.16, horizontal axis). Private sector debt in, for instance, the Baltic states, Bulgaria, Croatia, and Slovenia is higher than in East Asia, though lower than in the EU cohesion countries and other countries in Western Europe. The high credit growth between 2004 and 2009 stems mainly from growing credit to firms (figure 3.17, vertical axis). The countries with the most rapid increase in firm credit are Albania, Bulgaria, Slovenia, and Ukraine.

Total household debt in emerging Europe is below the EU15 average (figure 3.18). At 25–30 percent, the ratios correspond to those in the United States when this country had similar incomes per capita (in real purchasing power parity terms).[32] Overleveraged households are a potential risk, but only in a handful of countries: Croatia, Estonia, and Latvia, and perhaps also in Bosnia

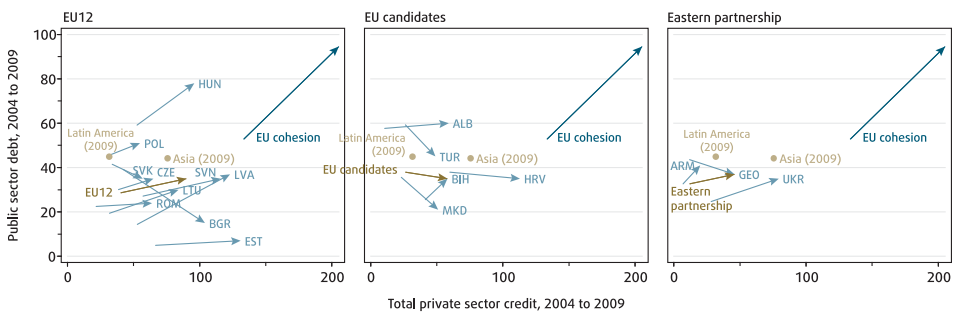



**Figure 3.16: EU cohesion countries have higher levels of public and private debt than emerging European countries**

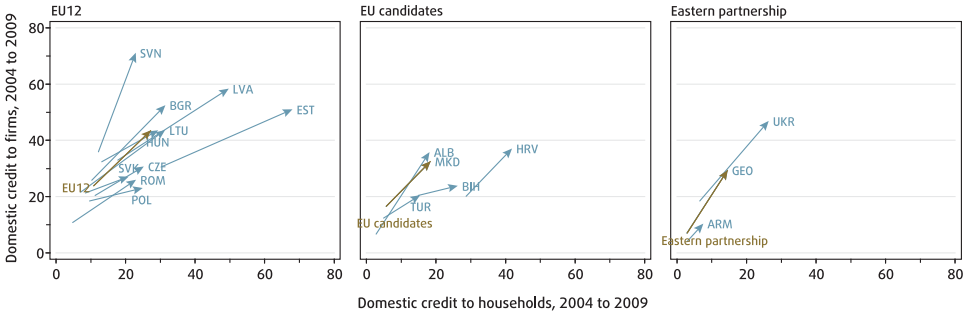
(aggregate exposure of the public and private sectors, percentage of GDP, 2004–09)

Note: Arrows begin in 2004 and end in 2009. The exception is the EU cohesion countries where the data for public debt corresponds to end-2010. The arrows for each region are median values. The dots are the median values for the reference groups. Total private sector credit is the combination of credit through the domestic banking system and credit through direct cross-border flows.

Source: World Bank staff calculations, based on Abbas and others 2011; Beck, Demirgüç-Kunt, and Levine 2000 and 2010; BIS Locational Banking Statistics; European Commission 2011; and IMF WEO.

**Figure 3.17: Credit to firms grew faster than to households in most emerging European countries**

(change in aggregate exposure of firms and households, percentage of GDP, 2004–09)




Note: Arrows begin in 2004 and end in 2009. The arrows for each region are median values.
Source: World Bank staff calculations, based on EBRD Structural Change Indicators; and Beck, Demirgüç-Kunt, and Levine 2000 and 2010.

and Herzegovina, Montenegro, and Ukraine (these three countries on account of their lower income levels). Still, margins for additional private debt accumulation are more limited than in the early 2000s.

To conclude, even though emerging Europe's countries have high aggregate private debt exposures, benchmarking financial sector development shows that only a handful have private sector credit-to-GDP ratios above what corresponds to countries at similar levels of economic development.[33] More important, they have much less developed stock and bond markets. This suggests that emerging Europe's experience with high credit-to-GDP ratios might partly reflect the relationship-based financing features of Continental Europe (Wolf 2011). In this context, examining the debt features at the level of firms, households, and banks using microeconomic level data (surveys) can provide useful insights.

## Firms—the stressed are sophisticated

The Business Environment and Enterprise Performance Survey (BEEPS), conducted by the European Bank for Reconstruction and Development (EBRD) and the World Bank every three years, can be used to assess potential debt overhang among firms. The 2008–09 BEEPS was carried out at the onset of the crisis, and provides data on a representative sample of 9,098 firms in emerging Europe.[34] The survey defines use of bank credit as firms that have loans or overdraft facilities.[35]

The survey offers several findings. First, the firms that are most indebted are also more likely to be financially sophisticated. Specifically, in line with the evidence on information asymmetries and credit access (for example, Brown, Jappelli, and Pagano 2009), large firms (with more than 50 employees), firms with audited financial statements, and firms with an export orientation are more likely to use bank credit (table 3.3). The difference is also economically important: about 60 percent of large, audited, and exporting firms rely on bank credit, while only about 40 percent of small, nonaudited, and nonexporting firms do. Also, old and manufacturing firms are more likely to use bank credit, but the difference relative to firms with the opposite characteristics is not large.

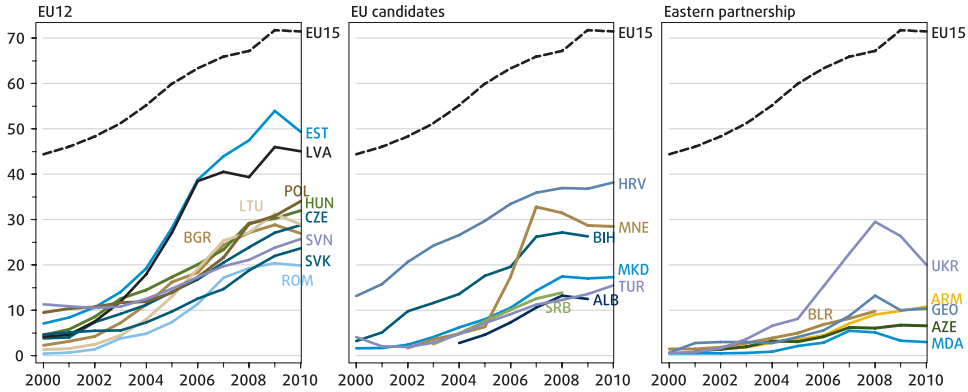



**Figure 3.18: Household indebtedness rose in emerging Europe, but remains below EU15 levels**

(total household debt, percentage of GDP, 2000–09)

Note: All types of household debt are included.

Source: World Bank staff calculations, based on data from the European Credit Research Institute (Lending to Households in Europe, 1995-2010); and EBRD Transition Indicators.

### Table 3.3: Firm characteristics and use of bank credit in emerging Europe

Note: The sample tests report the results of linear independent tests that examine whether credit incidence differs for firms with and without each firm characteristic. ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively.

| | | Share of firms (percent) | Bank loan (share of firms within category) | | Overdraft (share of firms within category) | |
|---|---|---|---|---|---|---|
| Small firm | yes | 74 | 0.40 | | 0.44 | |
| | no | 26 | 0.60 | *** | 0.61 | *** |
| Young firm | yes | 62 | 0.42 | | 0.47 | |
| | no | 38 | 0.48 | *** | 0.52 | *** |
| Audited | yes | 44 | 0.55 | | 0.55 | |
| | no | 56 | 0.38 | *** | 0.43 | *** |
| Manufacturing | yes | 34 | 0.49 | | 0.45 | |
| | no | 66 | 0.42 | *** | 0.53 | *** |
| Exporter | yes | 26 | 0.58 | | 0.60 | |
| | no | 74 | 0.41 | *** | 0.44 | *** |
| State-owned | yes | 5 | 0.47 | | 0.49 | |
| | no | 95 | 0.44 | | 0.47 | |
| Foreign-owned | yes | 1 | 0.40 | | 0.64 | |
| | no | 99 | 0.44 | | 0.47 | * |

Source: Brown and Lane 2011.

Second, emerging Europe's firms still rely heavily on internal financing or retained earnings. The share of fixed investment financed by bank credit during 2007 is small (table 3.3). Seventy-four percent did not rely on debt, either because they did not invest (40 percent) or because they financed their investments without use of bank credit (34 percent). Among the firms that use external financing for investment, the amount of financing (that is the amount of "leverage") increases as firms get more sophisticated. Leverage is moderate to high (meaning that more than 34 percent of investments are externally financed) in large (25 percent), audited (24 percent), and exporting (26 percent) firms. Other characteristics also matter (for example, age and ownership), but

the differences are not as important economically. With this as background, two approaches assess the existence of a debt overhang among firms: a level approach and a risk-shock approach.

The level approach relies on the findings of the literature on aggregate leverage. Coricelli and others (2009) examine balance sheets and income statements for 8,000 manufacturing firms in emerging Europe and establish a leverage threshold—40 percent—above which debt reduces firm productivity.[36] They find that the share of firms with leverage exceeding this threshold is higher in Bulgaria, Latvia, and the Russian Federation (15 percent of all firms in these countries). Taking this threshold as given, the BEEPS data suggest that the share of firms with excessive leverage (moderate to high leverage ratios) has, at about 19 percent, increased only marginally from the Coricelli and others sample (table 3.4).[37] Even among the larger firms, only one in four had either large or moderate leverage, and these firms are more likely to withstand economic shocks. The level approach thus presents a largely reassuring picture: debt incidence among firms is a limited phenomenon and is unlikely to be important in limiting economic activity.[38]

### Table 3.4: Firm debt is held by the financially sophisticated in emerging Europe

Note: The table reports the distribution of the variable investment loan for subsamples of firms that have and do not have a specific firm characteristic. Chi-square tests report whether the distribution is significantly different for firms with and without each firm characteristic. ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively.

| | | No investment | Investment share financed by loan (percent) | | | | |
|---|---|---|---|---|---|---|---|
| | | | 0 | 1 - 33 | 34 - 67 | 67 - 100 | Chi² test |
| All firms | | 40 | 34 | 7 | 8 | 11 | |
| Small firm | yes | 48 | 32 | 5 | 6 | 10 | |
| | no | 28 | 38 | 9 | 11 | 14 | *** |
| Young firm | yes | 42 | 34 | 6 | 7 | 11 | |
| | no | 36 | 35 | 8 | 8 | 12 | *** |
| Audited | yes | 32 | 36 | 8 | 10 | 14 | |
| | no | 46 | 34 | 6 | 5 | 9 | *** |
| Manufacturing | yes | 40 | 34 | 7 | 7 | 11 | |
| | no | 40 | 35 | 7 | 8 | 11 | |
| Exporter | yes | 30 | 36 | 8 | 11 | 15 | |
| | no | 45 | 34 | 6 | 6 | 10 | *** |
| State-owned | yes | 27 | 49 | 6 | 8 | 10 | |
| | no | 41 | 33 | 7 | 8 | 11 | *** |
| Foreign-owned | yes | 42 | 35 | 8 | 8 | 8 | |
| | no | 40 | 34 | 7 | 8 | 11 | |

Source: Brown and Lane 2011.