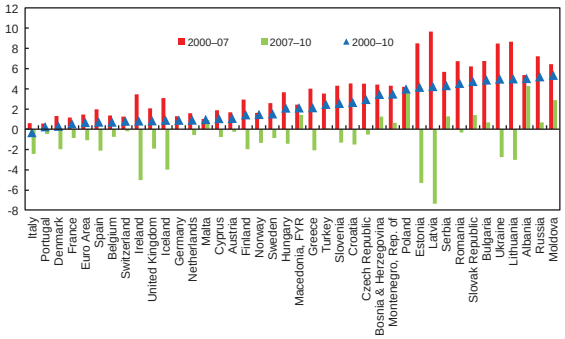
3. Long-Term Growth Differentials within Europe

In the past decade, growth rates in GDP per capita have differed markedly among European countries, from zero in Italy and Portugal to more than 4 percent in the best performers. To a large extent, the growth differentials reflect convergence. However, a number of countries have grown less than their potential because of poor macroeconomic policies and barriers to growth. The experience of earlier reformers provides useful lessons for current poor performers. Reforms do make a difference, but their implementation takes time, and their impact is felt only with a lag. Reforms would not only speed up convergence within Europe, but also help close the productivity and innovation gaps with the United States.

Figure 3.1
European Countries: Change in Real GDP Per Capita, 2000–10
(Annualized percent)



Sources: IMF, World Economic Outlook database; and IMF staff calculations.

Growth Differentials in Europe

Across Europe, countries have experienced a wide variation in per capita GDP growth over the past decade (Figure 3.1).[6] Growth rates have ranged from close to zero in Italy and Portugal to more than 4 percent in Albania, Estonia, Latvia, Lithuania, Moldova, Russia, and Ukraine.

Convergence explains a large part of these differences…

Poorer European countries have generally grown faster than richer countries, a process called "convergence." While there is no clear evidence of *absolute* convergence in the world, convergence is usually observed within more homogeneous groups of economies—a phenomenon called *conditional* convergence.[7,8] It is noteworthy that convergence in Europe has been stronger than in Latin America or Asia—regions that are not as economically integrated (Figure 3.2). Much of the convergence in Europe is due to rapid growth of emerging European countries, as they have adopted institutions similar to those in advanced Europe and benefited from higher investment rates, financed with intra-European capital flows.[9]

Growth theory identifies two factors that drive convergence: diminishing returns in the accumulation of capital and cross-country knowledge spillovers. Poorer countries usually have a lower capital stock and therefore, a higher

Note: The main authors of this chapter are Gregorio Impavido, Géraldine Mahieu, and Yan Sun.

[6] The chapter focuses on the period since the introduction of the euro. The limited number of observations and the impact of the global crisis in the latter part of the decade make it difficult to apply advanced econometric methods. Nevertheless, the findings in this chapter are similar to those found in the economics literature.

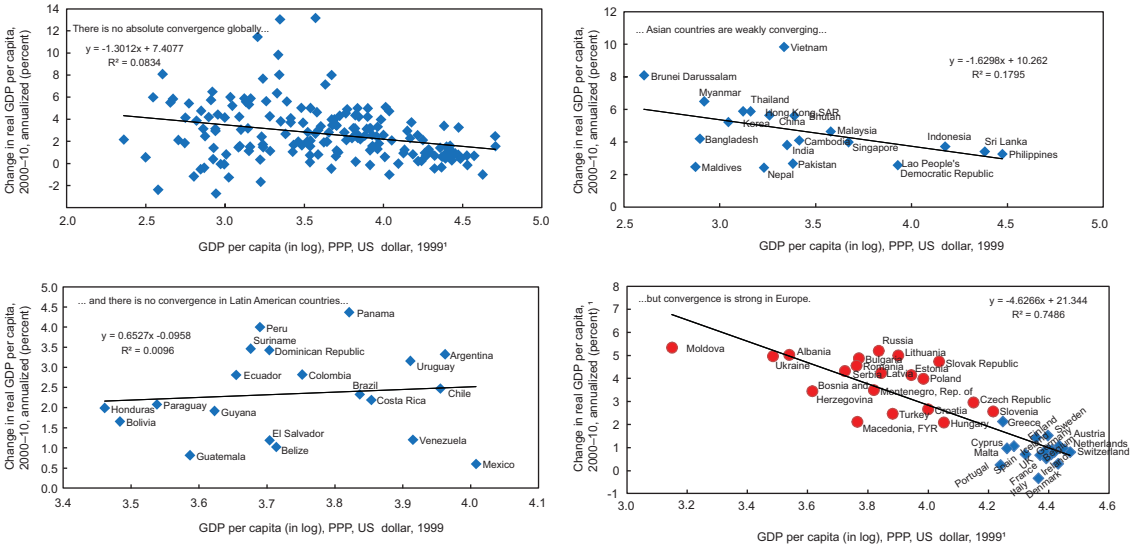
[7] See, for instance, Barro and Sala-i-Martin (2004) and Aghion and Howitt (2009).

[8] Conditional convergence predicts that countries converge to their own steady state where growth rates are only determined by technological progress. If countries share the same technology and fundamentals, they share the same steady state, so differences in per capita GDP will tend to disappear over time (Aghion and Howitt, 2009).

[9] Three advanced economies, which until 2008 (Slovenia) or 2009 (the Czech and Slovak Republics) were classified as emerging markets, have been included in this chapter among the emerging markets, reflecting their classification during most of the decade.

Figure 3.2

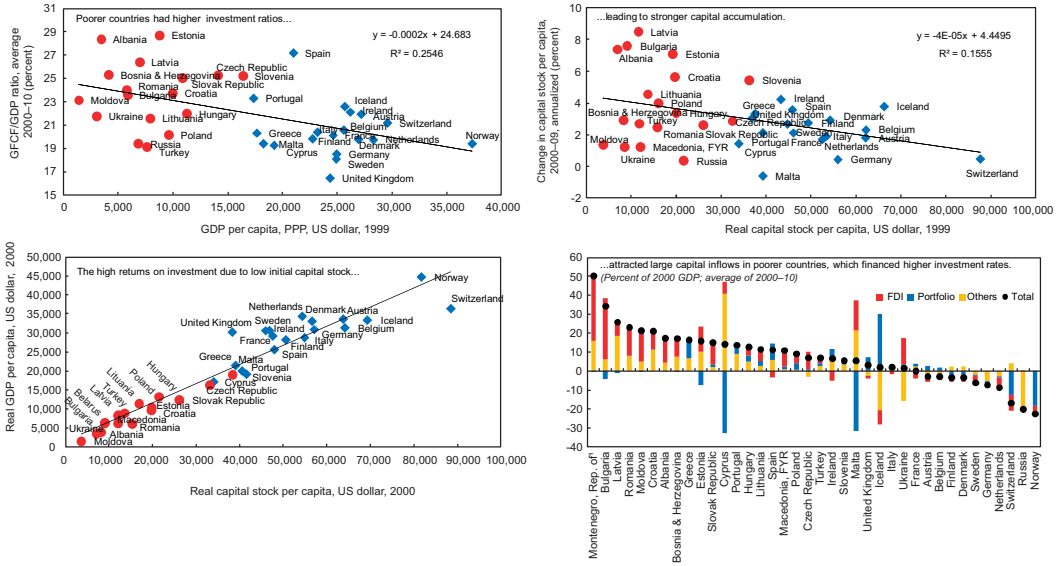
Convergence in the Three Global Regions, 2000–10



Source: IMF, World Economic Outlook database.
¹Data for Montenegro and Malta are for 2000.

Figure 3.3

European Countries: Contribution to GDP Growth of Investment and Capital Flows, 2000–10

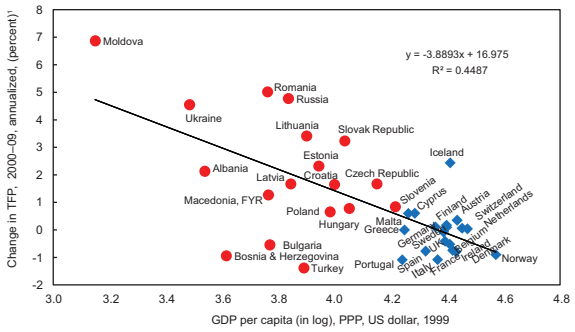


Sources: IMF, World Economic Outlook database; IMF staff calculations; and Penn Tables.
¹In percent of 2003 GDP; average of 2003–10.

marginal productivity of capital: increases in capital stock will thus have a large impact on output. Poorer countries can also boost output by imitating technologies already developed in richer and more advanced countries—a process that will raise total factor productivity (TFP).

Developments in the past decade have been in line with what the theory suggests: higher growth in poorer countries was the result of both faster capital accumulation and higher TFP growth. Higher returns on investment attracted strong capital flows, which financed higher investment rates and a more rapid accumulation of capital stock than in richer countries (Figure 3.3). In addition, poorer countries, facilitated by the EU enlargement process, achieved higher TFP

Figure 3.4
European Countries: Change in TFP Relative to Per Capita GDP, 2000–09



Sources: Conference Board Total Economy Database, January 2011; and IMF, World Economic Outlook database.
¹Data for Emerging Europe are for 2000–08.

growth by adopting new technologies and better institutions (Figure 3.4).

By contrast, the contribution of employment and human capital to average GDP growth has been lower in emerging Europe than in advanced Europe (Figures 3.5 and 3.6).[10] The lower contribution of employment growth in emerging Europe during the period was most likely related to the slower growth of its working-age population, which, in turn, was exacerbated by the emigration of workers to advanced Europe.

…but institutions and policies are equally important

Growth differentials have been more variable than convergence alone can account for. Figure 3.7 shows "adjusted" growth rates—the difference between each country's actual growth rate and the growth rate that would have been expected given initial income levels. While the precise figures are sensitive to the shape of the expected convergence line, it is clear that considerable differences exist and that some countries have done much better (and others much worse) than what would be expected on the basis of income differentials alone. For instance, Italy and Portugal have grown much slower than expected, while the Slovak Republic and Sweden have grown faster.

These growth gaps are associated with key differences in factors such as market structures, human capital stocks, institutions, and macroeconomic policies. The economic literature has identified a large number of factors likely to influence economic growth (Box 3.1). Select factors, discussed below, seem particularly relevant in differentiating fast-growing from slow-growing countries in Europe.

The importance of these factors differs across countries. The growth bottlenecks in countries that are catching up differ from those in countries that are at the technology frontier. For instance, policies promoting macroeconomic stability, flexible labor markets, and a well-educated workforce help growth in both sets of countries. Policies strengthening product market competition, better protection of property rights and legal security, and more innovation appear particularly growth enhancing for countries closer to the technology frontier (Aghion and Howitt, 2009). Finally, early economic liberalization policies during the transition process seem more important for imitating countries.[11]

Good macroeconomic policies matter

The economic literature suggests that macroeconomic volatility is not good for growth. Empirical studies have shown that countries with higher macroeconomic volatility have lower average growth (Ramey and Ramey, 1995). This may be because higher volatility discourages long-term investments that bring substantial returns only over the long term (such as investments in research and

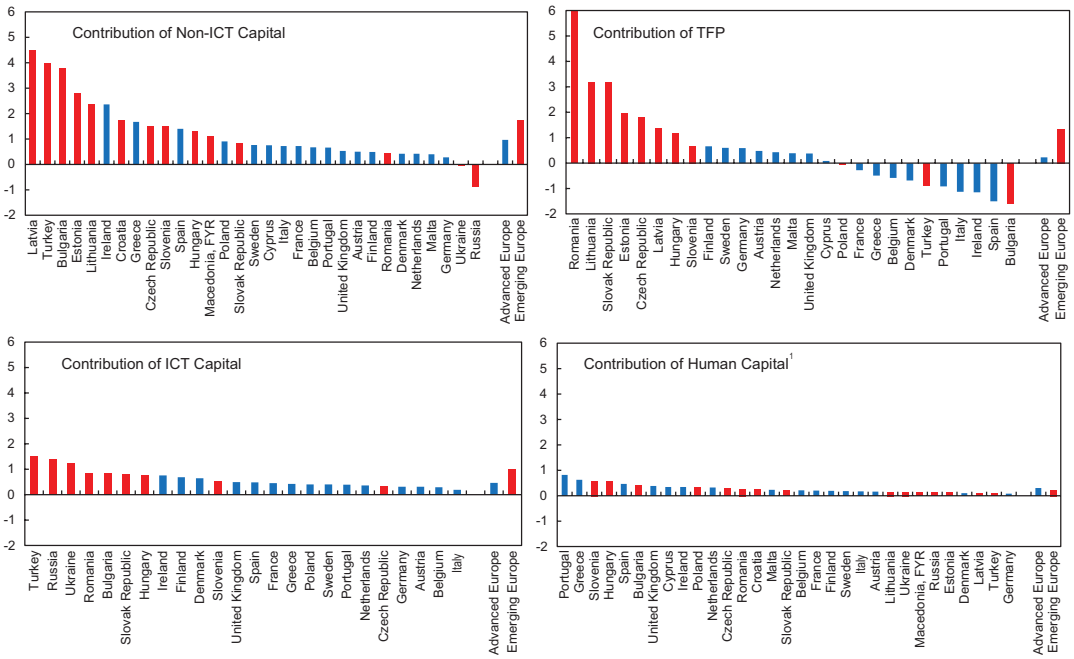
[10] The lower employment growth in emerging Europe was partly compensated for by longer hours worked.

[11] Catching-up countries will typically not focus on innovations and inventing new technologies, and instead, rely on the adoption and imitation of techniques developed outside.

Figure 3.5

Europe: Contribution to Growth of Output Per Hour Worked

(Annualized average rate, 2000–08, percentage points)



Sources: Conference Board Total Economy Database, January 2011; and IMF staff calculations.

[1]This reflects the change in the composition of labor measured on the basis of weighted measures of different skill-level groups in the labor force.

development [R&D]), especially among credit-constrained firms.[12]

Macroeconomic policies that prevent boom-bust cycles may therefore help raise long-term growth. Some of the countries in emerging Europe saw rapid growth in the run-up to the global crisis, as large capital inflows fueled a credit-driven domestic demand boom. That boom was followed by very deep recessions and generally resulted in slower convergence. For instance, if Estonia and Latvia had avoided the boom-bust cycle and maintained the average growth rates they achieved during the 1993–2005 period, their real GDP per capita in 2010 would have been 40 percent higher.

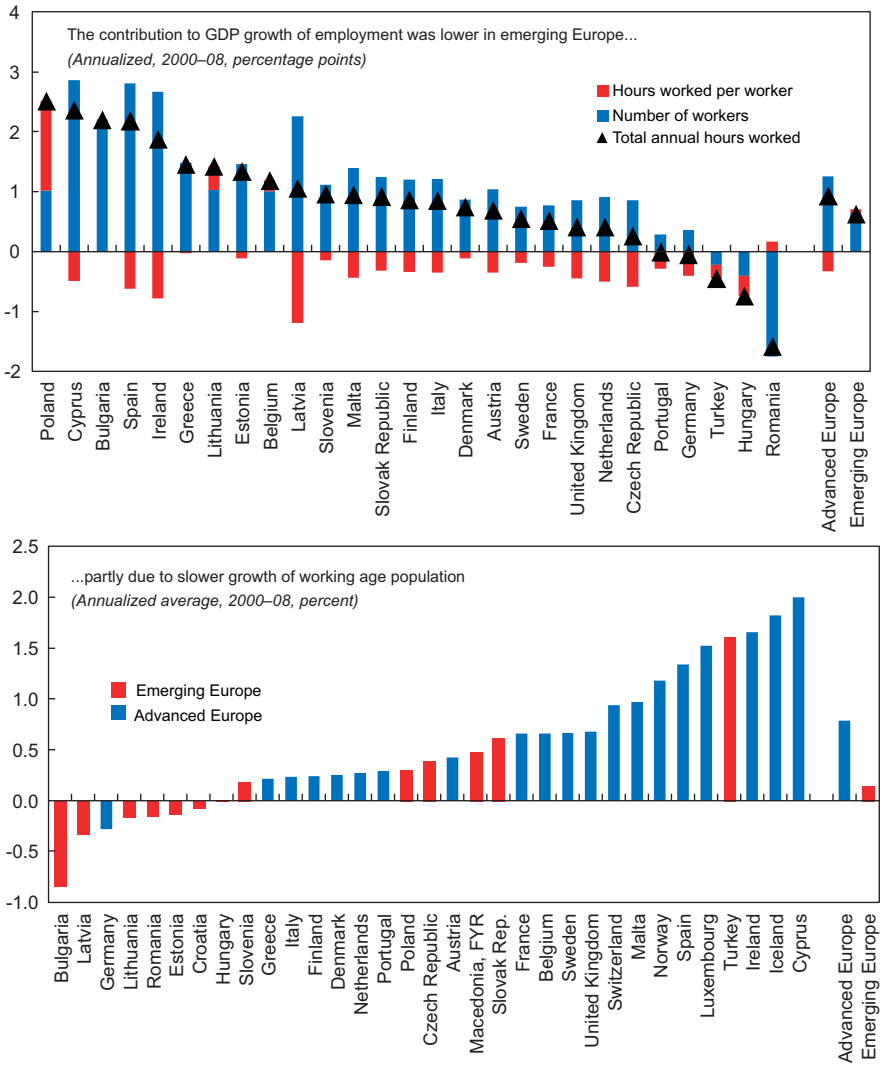
More generally, excessive growth in domestic demand may be detrimental to long-term growth (Figure 3.8). This is because it encourages a transfer of resources from the tradable to the less productive nontradable sector. In slow-growing countries, excessive domestic demand growth led to a surge in unit labor costs, notably in the manufacturing sector, and to less investment in the tradable sector. The loss in competitiveness increased further the current-account deficit, which was already boosted by higher imports that, in turn, were reducing GDP growth.[13]

Fiscal policy also matters. For instance, countries with high public debt have seen lower growth

[12] The literature also suggests that less-developed economies tend to go through a period of low and highly variable growth in the early stages of development. This is because the inability to diversify risks causes agents to invest in safer but inferior technologies in order to reduce risk. As a result, growth tends to be low and more dependent on the random outcome of a few existing activities (Acemoglu and Zilibotti, 1997).

[13] Empirical growth literature also finds a strong negative correlation between inflation, inflation volatility (even after controlling for the level of inflation), excessive credit growth, and growth. For our sample, we find a relatively weak negative relationship of these variables with growth (after adjusting for convergence). The weak correlation between growth and inflation could partly be due to the low variability of inflation among European countries, many of which share a common monetary policy.

Figure 3.6
Europe: Contribution to Growth of Employment, 2000–08



Sources: Conference Board Total Economy Database, January 2011; and Eurostat.
Note: Data for working age population for Croatia are 2002–10, for Iceland 2003–10, and for Macedonia, FYR and Turkey 2006–10.

(Figure 3.9), although the causality may run both ways. In addition, it is likely that higher corporate tax rates discourage investment by making it less profitable, causing corporations to shift investment to other countries with lower tax rates.[14] It is noteworthy that countries with lower corporate tax rates had higher investment-to-GDP ratios and attracted larger capital inflows (Figure 3.10).

[14] Higher tax rates also reduce retained earnings—a major source of financing for investment, particularly in smaller firms.

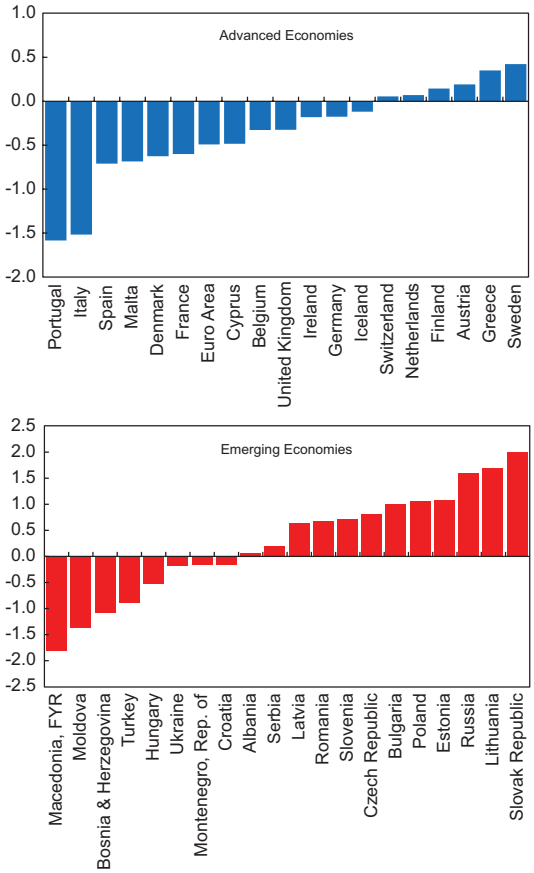
Labor market flexibility matters…

Higher labor market flexibility boosts growth by increasing labor participation and employment and better matching wage and productivity growth. In countries such as Italy, Portugal, and Spain, more rigid employment regulations (regarding dismissal of employees, collective dismissals, and temporary contracts) and hiring and firing practices may have contributed to lower participation and employment rates, particularly among women (Figure 3.11). In addition, they have likely hindered improvements in

Figure 3.7

Europe: Growth Experience Beyond What Is Explained by Convergence

(Adjusted change in real GDP per capita, 2000–10, annualized, percent)[1]



Sources: IMF, World Economic Outlook database; and IMF staff calculations.
[1]The adjusted growth measures the difference between each country's actual growth rate and the growth rate that could be expected given initial income levels.

TFP or the speed of adoption of new technologies, or both, by discouraging workforce adjustments in otherwise high-turnover industries.[15] In more efficient labor markets, that is, those with more flexible wage determination and better relationships between employers and employees, wage increases are also more likely to remain in line with productivity growth, preventing undue losses in competitiveness and slower growth.

…as does a better-educated workforce

Investment in human capital promotes growth in both innovating and imitating countries (Figure 3.12). The economic growth literature shows that both growth and stock of human capital matter for GDP growth. Higher *growth* in human capital contributes to higher output growth, and higher *stock* of human capital increases the ability of a country to innovate or catch up with more advanced countries by imitation.[16] The type of education that matters for growth depends on the country's state of technological development. Investment in tertiary education is more growth-enhancing for countries closer to the technology frontier, because it increases their ability to innovate, whereas primary and secondary education are likely to yield relatively more benefits among countries that are technology imitators.[17] Evidence for Europe shows that underperforming countries—both those closer to the technology frontier and those further from it—produce relatively fewer tertiary graduates and have a higher share of population with only a primary or lower secondary school degree. Italy and Portugal are performing particularly badly on this front. In addition, there is evidence to suggest that the first stage of tertiary education programs (outside PhD or doctorate programs, level 5 of the International Standard Classification of Education [ISCED]) is particularly important for countries that are technology imitators.

[15] See Bassanini, Nunziata, and Venn (2009). As suggested in Aghion and Howitt (2009), high labor market flexibility could be particularly beneficial for innovation activities, which often require initiative, risk taking, the selection of good projects and talents, and weeding out projects that are not expected to be profitable or operational. However, a more rigid labor market may favor the accumulation of firm-specific human capital, which could be more important in imitation activities.

[16] See, for instance, Lucas (1988), Benhabib and Spiegel (1994), and Krueger and Lindhal (2001).
[17] See Aghion and others (2005).

Box 3.1

Stylized Facts from the Economic Growth Literature

The economic growth literature has developed four leading growth model paradigms. In all models, the *level* of economic output depends on the stock of capital and labor and the state of technological progress. More accumulation of capital and labor will not in itself lead to a permanent increase of the *growth rate*: technological progress is needed to offset diminishing returns to capital and labor. The models, which differ concerning what determines technological progress, are as follows (Aghion and Howitt, 2009):

- The neoclassical paradigm, in which technological progress is exogenous. Higher investment increases the *level* of output but does not affect the *growth rate*, which is determined by the exogenously determined rate of technological progress. Consequently, the paradigm does not provide long-term growth policy recommendations.
- The AK paradigm, which endogenizes technological progress by considering it part of capital accumulation.[1] This yields constant returns to scale in capital accumulation. Hence, growth can now be boosted by higher investment—in either physical or human capital.
- The product-variety paradigm, which endogenizes innovation by linking it to product variety. More product variety raises an economy's production potential, which offsets the negative impact of diminishing returns. Sustained growth is possible only if new varieties, resulting from R&D investments, are created.
- The Schumpeterian paradigm, which endogenizes innovation by linking it to firm turnover and "creative destruction." In this paradigm, a higher rate of firm turnover generates faster growth, as "creative destruction" generates the entry of new innovators and the obsolescence of old products. In this model, growth performance will vary with proximity to the technology frontier, and imitators will converge to the frontier at a higher speed until they need to switch to more innovation. Failure to operate the switch can prevent a country from catching up.

These paradigms have been used to explain different factors that account for the growth process.

Financial sector development promotes growth. A large body of evidence suggests that countries with more developed financial systems tend to grow faster—although causality can go both ways. Better functioning financial systems (i) ease real sector external financing constraints, especially in innovative sectors with fewer collateralizable assets and in countries that lie further away from the technology frontier; (ii) provide ex-ante information on viable projects; (iii) provide ex-post monitoring of investment performance and strengthen corporate governance; (iv) facilitate the trading, diversification, and management of risk (including macroeconomic volatility); (v) mobilize and pool savings; and (vi) ease the exchange of goods and services. Policies aimed at developing financial markets would then be indirectly promoting growth. These policies fall under six categories of purpose: (i) to strengthen political and macroeconomic stability; (ii) to strengthen the operation of the legal and information infrastructure; (iii) to strengthen financial system regulatory and supervisory framework; (iv) to promote market contestability and efficiency; (v) to reduce government ownership of financial institutions and promote public investment in infrastructure that facilitates access to finance; and (vi) to promote financial liberalization and sound institutional development.

Competition has a non-linear impact on growth. Both too much and too little competition can inhibit innovation. In addition, market contestability has a more positive impact on growth in countries closer to the technology frontier but a less positive impact on sectors or countries that lie further away from the frontier.

Note: The main author of this box is Gregorio Impavido.

[1] The name "AK model" originates from the mathematical representation of the production function in the model $Y = AK$, where Y represents the total production in an economy, A represents total factor productivity, and K is capital.

These findings have important policy implications, including the following: (i) the promotion of national "champions" inhibits growth in countries closer to the technology frontier; (ii) countries closer to the technology frontier should promote entry (also with public funding) of innovative firms; and (iii) domestic competition policy should be complemented by policies aimed at facilitating the reallocation of capital and labor from laggard to innovative sectors.

Investment in human capital promotes growth in innovator and imitator countries alike. On the one hand, countries closer to the technology frontier should invest in secondary and tertiary education, since this facilitates the shift from imitation to innovation and avoids low-growth traps. In particular, funding and autonomous universities are strategically complementary; that is, although funding education is not growth enhancing, it enhances growth when universities are autonomous, because this autonomy better aligns research with market needs. On the other hand, countries further away from the technology frontier should invest in primary and secondary education, because this facilitates the adoption of technologies developed by innovating countries.

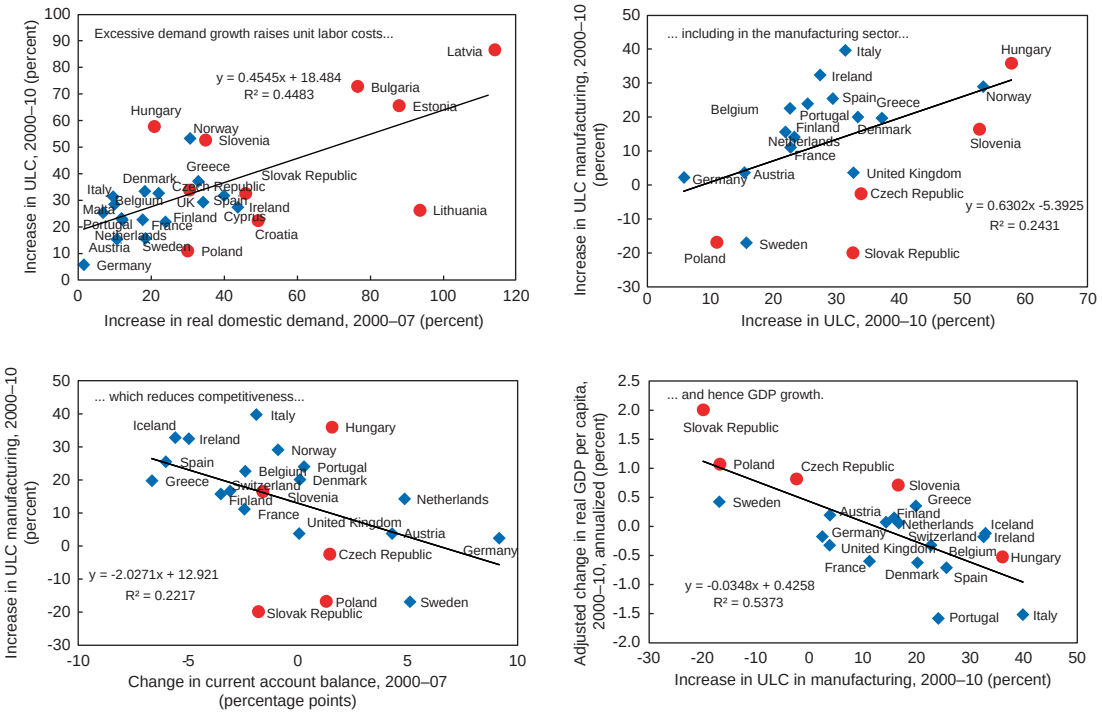
Macroeconomic volatility has a non-linear impact on growth. Volatility can promote aggregate savings and, therefore, growth when individuals have a strong preference for future, rather than current, consumption. More commonly, volatility hampers growth especially in less financially developed countries, which are less able to diversify macroeconomic shocks, causing lower investment in long-term R&D. In addition, the procyclical nature of R&D expenditures amplifies further the impact of macroeconomic volatility. Consequently, countries further below the technology frontier should prioritize financial sector development, especially in terms of low-end specialized intermediaries such as microfinance institutions. Countries closer to the technology frontier should prioritize access to external finance through capital market institutions such as private equity and venture capital. All countries would benefit from good macroeconomic policies to avoid short-term booms and busts that lower long-term growth rates.

Based on these theories, the empirical literature on growth has identified a number of macroeconomic, microeconomic, and institutional variables that are linked to long-term growth. Key growth determinants (of variable statistical relevance)[2] include (i) macroeconomic variables such as indicators of financial development, exchange rate evolution/variability/distortions, current account balance, money growth, government consumption and/or fiscal balance and/or government taxation, investment rate, human capital, trade openness, and volatility of shocks; (ii) institutional variables such as the rule of law, institutional quality and regulatory environment, expenditures and output of R&D, inequality, and political institutions; and (iii) demographic variables such as population growth or dependency ratio. The statistical relevance of these determinants varies widely and depends on many factors including, but not necessarily limited to, differences in country samples, other variables included in the regressions, and the econometric technique used.

[2] See, for instance, Chapter 8 of Aghion and Durlauf (2005).

Figure 3.8

Selected European Economies: Domestic Demand Booms and Their Impact on Long-Term Growth, 2000–10

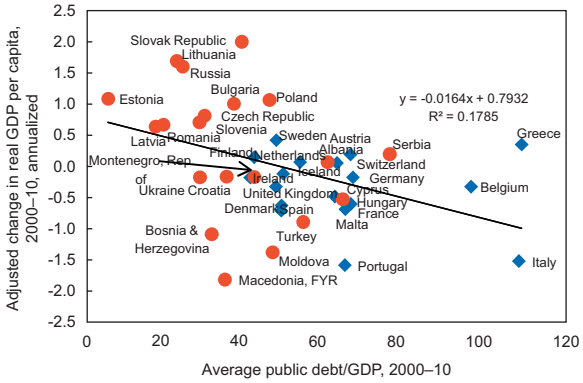


Sources: Eurostat; and IMF, World Economic Outlook database.

Figure 3.9

Europe: Public Debt and Adjusted Growth

(Percent)



Source: IMF, World Economic Outlook database.

For countries far from the technology frontier, economic liberalization is key…

For countries that are still far from reaching the technology frontier, economic liberalization reforms conducted during the transition process appear to be strongly growth enhancing. Countries that liberalized and reformed their economies earlier—including through privatizations; enterprise restructuring; liberalization of price, trade, foreign exchange, banking, and interest rates; and infrastructure reforms—have generally grown faster. Such reforms have helped them catch up more rapidly by fostering capital accumulation and the adoption or imitation of existing technologies (Figure 3.13).

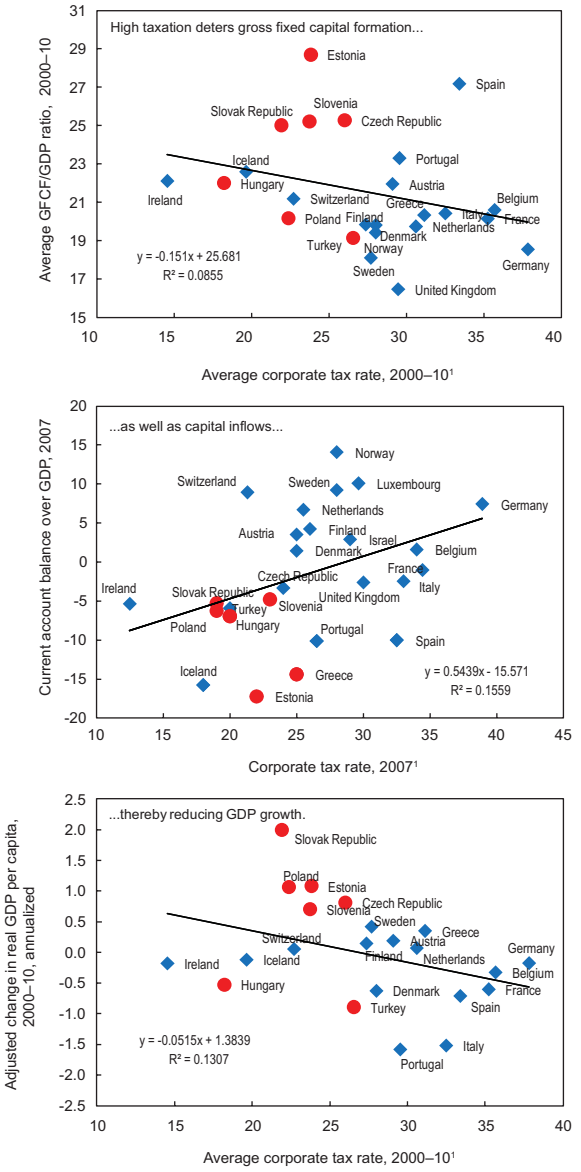
...as countries become richer, improving institutions becomes increasingly important for sustaining growth

When countries move closer to the technology frontier, product market efficiency becomes increasingly important. Ensuring a high degree of

Figure 3.10

Europe: Corporate Tax Rates and Growth, 2000–10

(Percent)

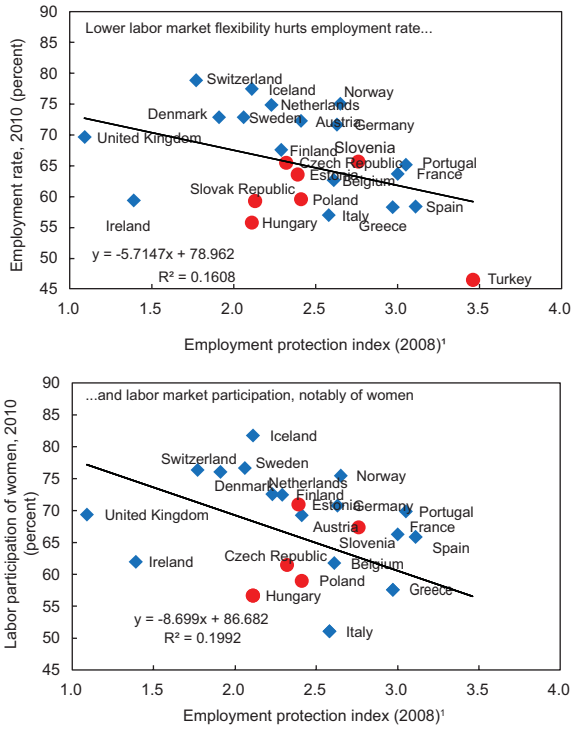


Sources: IMF, World Economic Outlook database; and Organization for Economic Cooperation and Development.

¹Nominal corporate income tax rate.

Figure 3.11

Europe: Labor Market Flexibility, Employment, and Labor Participation, 2010



Sources: Organization for Economic Cooperation and Development; and World Economic Forum.

¹Higher value means higher employment protection; 2008 is the latest year for which data are available.

product market competition appears to enhance growth in technologically advanced countries. As can be seen in Figure 3.14, good performers in advanced countries (such as Germany, the Netherlands, and Sweden) generally score better in terms of aggregate indicators of efficiency in the goods market and barriers to competition than slow-growing countries in advanced Europe (notably, Italy and Portugal).[18] This is in line with theoretical and empirical findings that show how competition encourages growth through two channels: by facilitating the entry of firms with quality-improving innovations and by encouraging incumbent firms in industries close to the technology frontier to innovate as the only available avenue to retain market share (Aghion and Howitt, 2009). Productivity and output will therefore be higher the more intense the competition in countries and sectors close to the technology frontier.

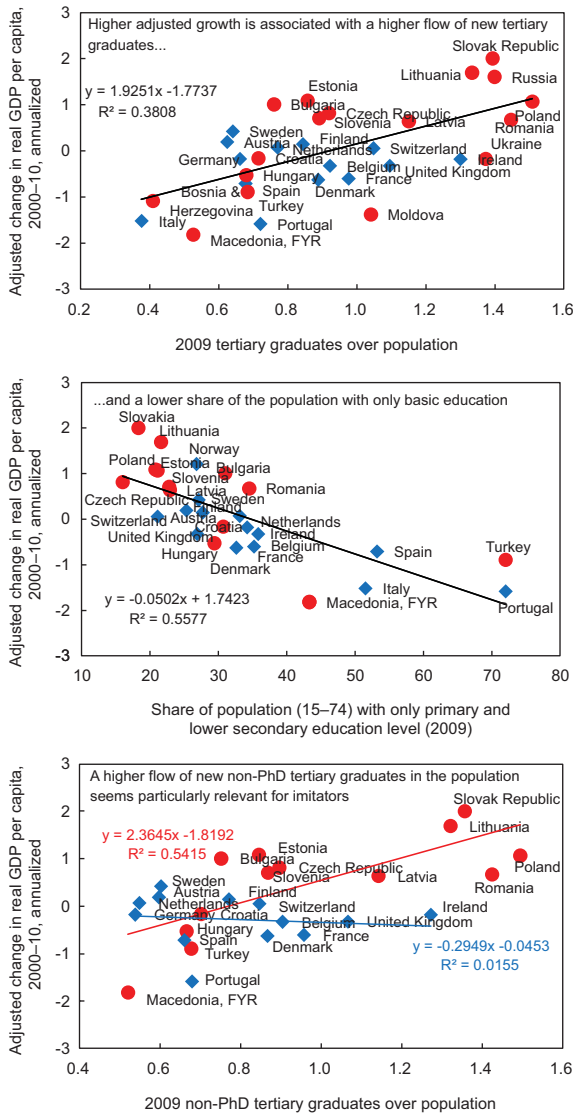
Quality of institutions is particularly important for growth in richer countries (Figure 3.15). Good

[18] The aggregate indicator of efficiency is an aggregate measure of domestic and foreign competition computed by the World Economic Forum in its annual *Global Competitiveness Report*, including the extent of market dominance, effectiveness of antimonopoly policy, tax and trade tariffs, restrictive rules on FDI, and so on.

Figure 3.12

Europe: Education Levels and Growth, 2000–10

(Percent)

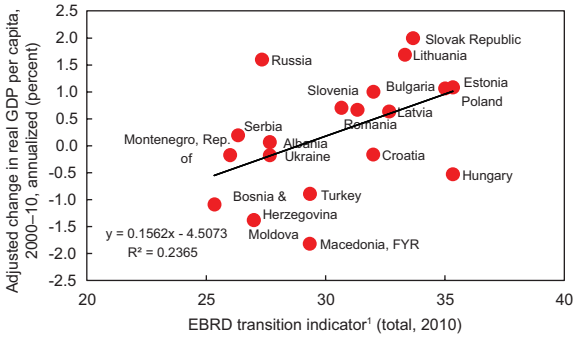


Source: Eurostat.

protection of property rights and a high level of legal security are associated with higher growth, in line with theoretical predictions and empirical findings (Bouis and others, 2011; Barro and Sala-i-Martin, 2004). The effect seems to run partly through R&D expenditures, which benefit from good legal systems and tend to boost growth by fostering innovation. There is also a strong positive association between the quality of institutions more generally and growth performance, but only for higher-income countries.

Figure 3.13

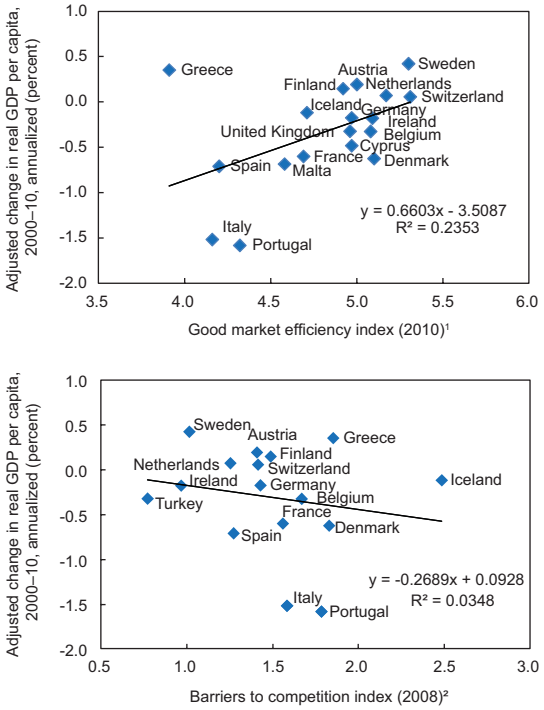
Emerging Europe: Economic Transition and Growth, 2000–10



Source: European Bank for Reconstruction and Development.
[1]Higher value means better score.

Figure 3.14

Advanced Europe: Product Markets Efficiency and Growth, 2000–10

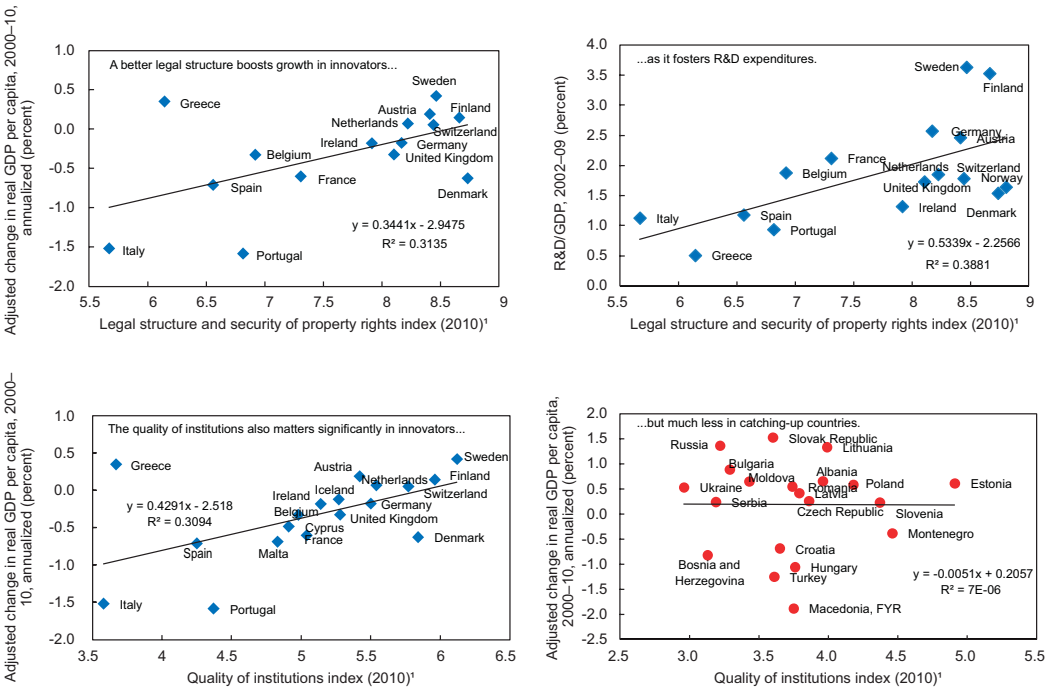


Sources: IMF, World Economic Outlook database; Organization for Economic Cooperation and Development; and World Economic Forum.
[1]Higher value means better score.
[2]Higher value means lower score. 2008 is the latest year for which data are available.

Good performers also have a generally high capacity for innovation (Figure 3.16). As stressed above, this is likely to be the result of their more efficient and competitive labor and product markets, their reliable institutions that foster

Figure 3.15

Advanced Europe: Institutional Quality, Legal Structure, and Growth, 2000–10



Sources: IMF, World Economic Outlook database; Frazer; Organization for Economic Cooperation and Development; and World Economic Forum.
¹Higher value means better score.

investment and innovation, and a more educated labor force. Innovation capacity matters a great deal in advanced Europe, which is closer to the technology frontier and therefore needs to grow via further innovation. Poor performers in advanced Europe manage badly on this front when measured by the number of patents granted, by an index of technological readiness (which measures capacity to develop and absorb new technologies), or by innovation capacity (which includes, in addition to R&D spending, the availability of scientists and engineers, university-industry collaboration, and government procurement of advanced technology).

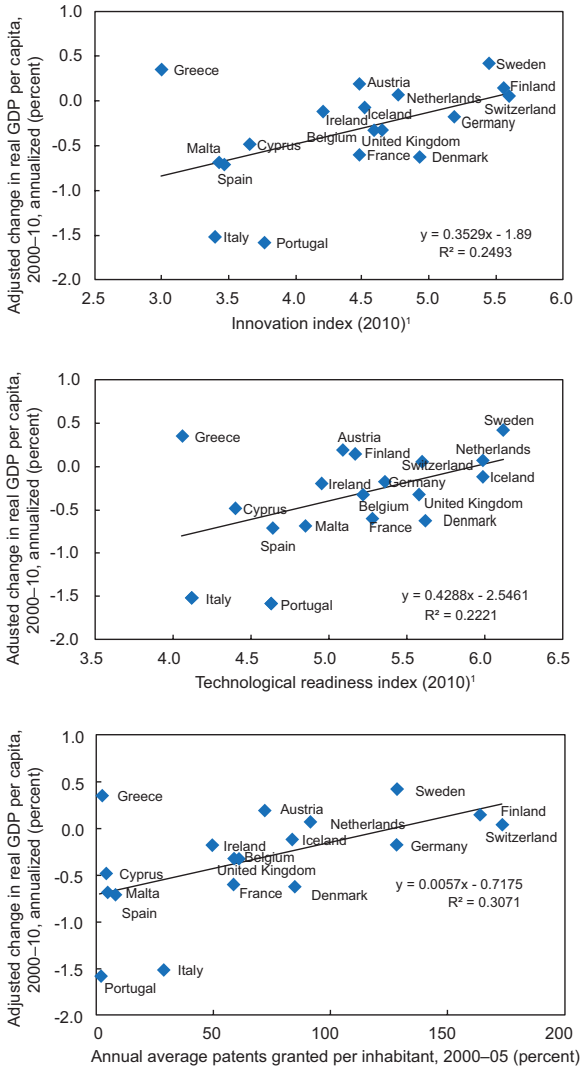
Trade integration: A critical transmission channel from institutions to growth

The relative degree of trade integration seems to strongly differentiate countries with high growth from those with slow growth. It is striking how many of the strong performers have enjoyed high and increasing levels of trade, both in exports and in imports, and how many of the poor performers have had much lower and stagnating levels, with growth driven more by the nontradable sectors. In Austria, Germany, the Netherlands, and Sweden, the share of export and import in GDP rose by about 15 percent to more than 20 percent between 1995 and 2010. The same was true for the Czech and Slovak Republics, and, to a lesser extent, Poland. At the other end of the spectrum, the export-to-GDP and import-to-GDP ratios of Greece, Italy, Portugal, and Spain stagnated over those years (Figure 3.17).

Differences in the degree of trade integration likely have little to do with trade policies as such. Generally, trade liberalization is a key driver of growth and in Europe, it has certainly played an important role in the increase of trade shares over time as the EU expanded, deepened, and developed closer ties with non-members in Europe and beyond. However, trade policy is identical for all EU countries and therefore cannot explain growth differentials among them.

Figure 3.16

Advanced Europe: Innovation, Technological Readiness, and Growth, 2000–10



Sources: Eurostat; and World Economic Forum.
[1]Higher value means better score.

Rather, trade integration reflects both better institutions and market competitiveness and amplifies their impact on growth. As previously mentioned, a more competitive and flexible labor market, as well as better institutions, encourages firms to imitate and innovate, resulting in higher TFP growth and external competitiveness. Countries with these advantages are likely to display higher export growth (Figure 3.18). At the same time, trade integration enhances growth since competition diverts resources from the nontradable to the more productive tradable sectors. Conversely, poor institutions that pose barriers to competition distort resources toward the protected nontradable sectors, such as real estate and construction, which are weaker sources of productivity growth. As can be seen in Figure 3.19, more manufacturing and less real estate and construction activity are associated with higher labor productivity and TFP growth.

Twenty to thirty years ago, Italy, Portugal, and Spain managed to grow relatively quickly, not only because they were benefiting from the catching-up effect but probably also because their institutions at the time were more appropriate for their stage of economic development, which was then based on technology imitation. However, as these countries moved closer to the world technology frontier, they needed to switch toward institutions more suited to innovation-based growth. That did not occur, and their ability to innovate and move up into new industries and technologies suffered. Consequently, their growth was hurt by low-cost competition from emerging Europe and China in their traditional labor-intensive manufacturing sectors.[19]

Low Growth Traps and How to Get Out of Them

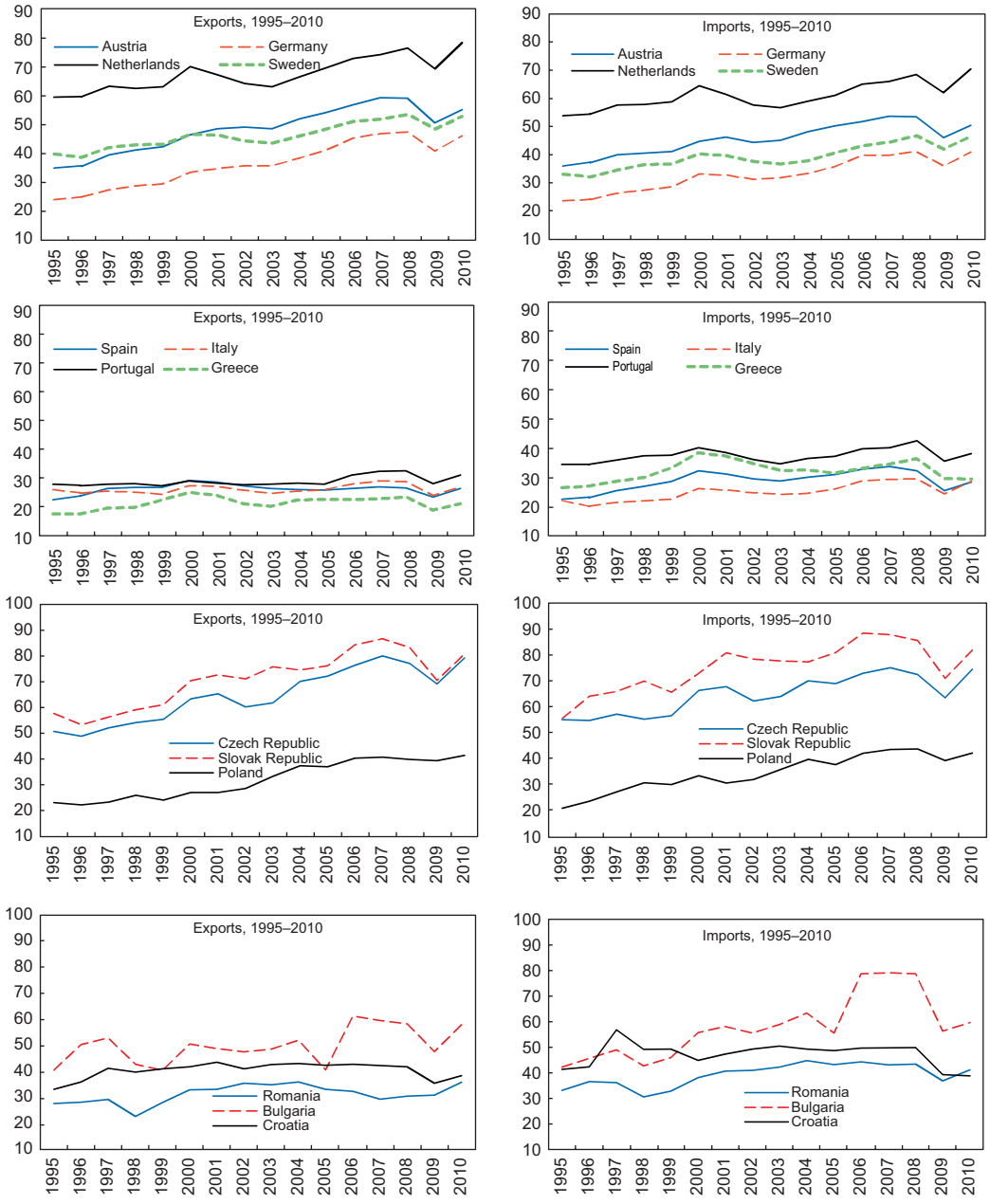
Heavily regulated goods and labor markets, poor institutions, and macroeconomic policies can interact to pull countries into low growth traps (Figure 3.20). Countries with inadequate institutions and less competitive markets are likely to see lower rates of innovation and stronger growth in the nontradable than in the tradable sector, leading to slower TFP growth. This, in turn, discourages investment in human capital, thereby reducing innovative capacities. The uncompetitive firms in these countries are apt to lobby the government to maintain barriers to competition to thwart new entrants. A vicious circle results with economies bound to grow less over the long term. Overly stimulative macroeconomic policies can further encourage investment in protected sectors by inflating domestic asset prices; this can lead to

[19] Chen, Milesi-Ferretti, and Tressel (forthcoming).

Figure 3.17

Selected EU Countries: Trade Openness, 1995–2010

(Percent of GDP)

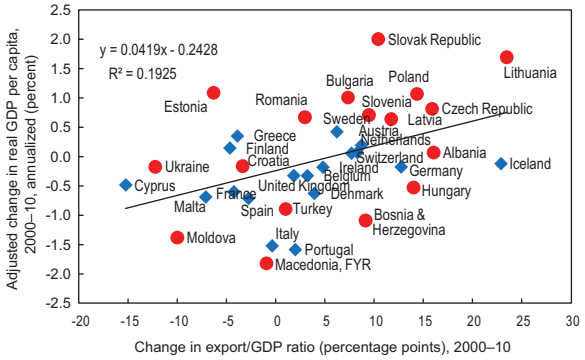


Source: IMF, World Economic Outlook database.

boom-bust cycles that yield private and public debt overhang, depressing growth further.

Conversely, more competitive goods and labor markets, a better educated labor force, good institutions, and prudent macroeconomic policies can set a country on a higher growth path. With more efficient institutions and more competitive markets, workers and companies are better positioned to innovate and more flexibly adapt to international competition. In these economies, trade promotes productivity growth as it provides

Figure 3.18
Europe: Trade Openness and Growth, 2000–10



Source: IMF, World Economic Outlook database.

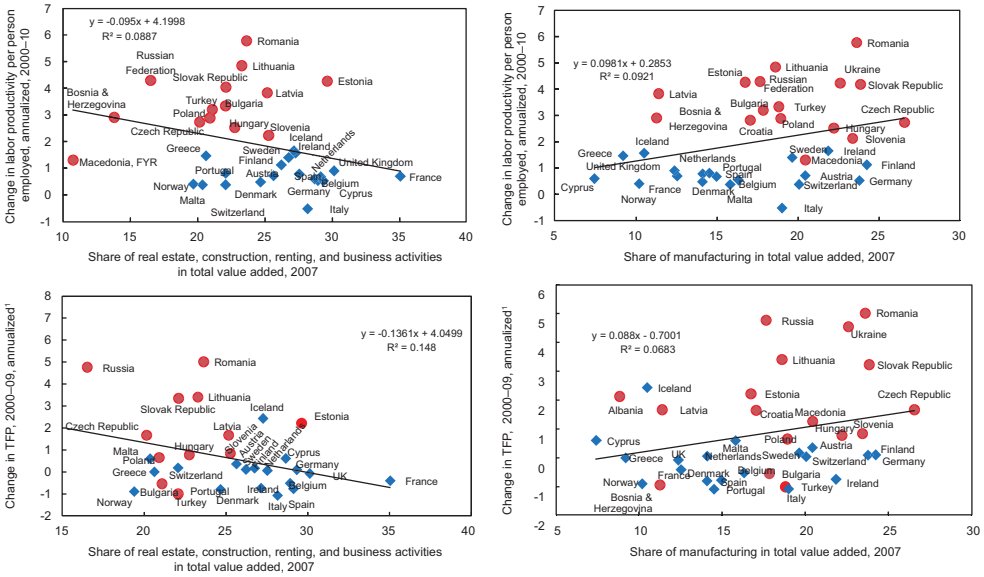
economies of scale in production and more scope for learning-by-doing externalities and knowledge spillovers. In addition, firms not only are forced to innovate by global competition, they also are more inclined to invest in R&D because of bigger ex-post rents that accrue to successful innovators in a larger external market. A vibrant, skill-intensive sector that offers employment opportunity will encourage investment in human capital, which will contribute further to the innovative capacity of the economy. Stronger growth in turn allows government to reduce expenditures (for example, on unemployment benefits) and opens the opportunity to lower taxes and stimulate investment.

Escaping low growth traps: Experience and lessons

The problem of slow growing countries in Europe is not new. In the late 1970s and early 1980s, many countries in Europe suffered from "euro sclerosis"—with high unemployment and low growth. These earlier periods provide important lessons, as they show that a change in policy can turn an economy around.

The experiences of the Netherlands and Sweden in particular show that it is possible to turn poor economic performance around. In the 1980s and 1990s, these two countries undertook sweeping reforms to boost GDP growth after prolonged periods of poor economic performance

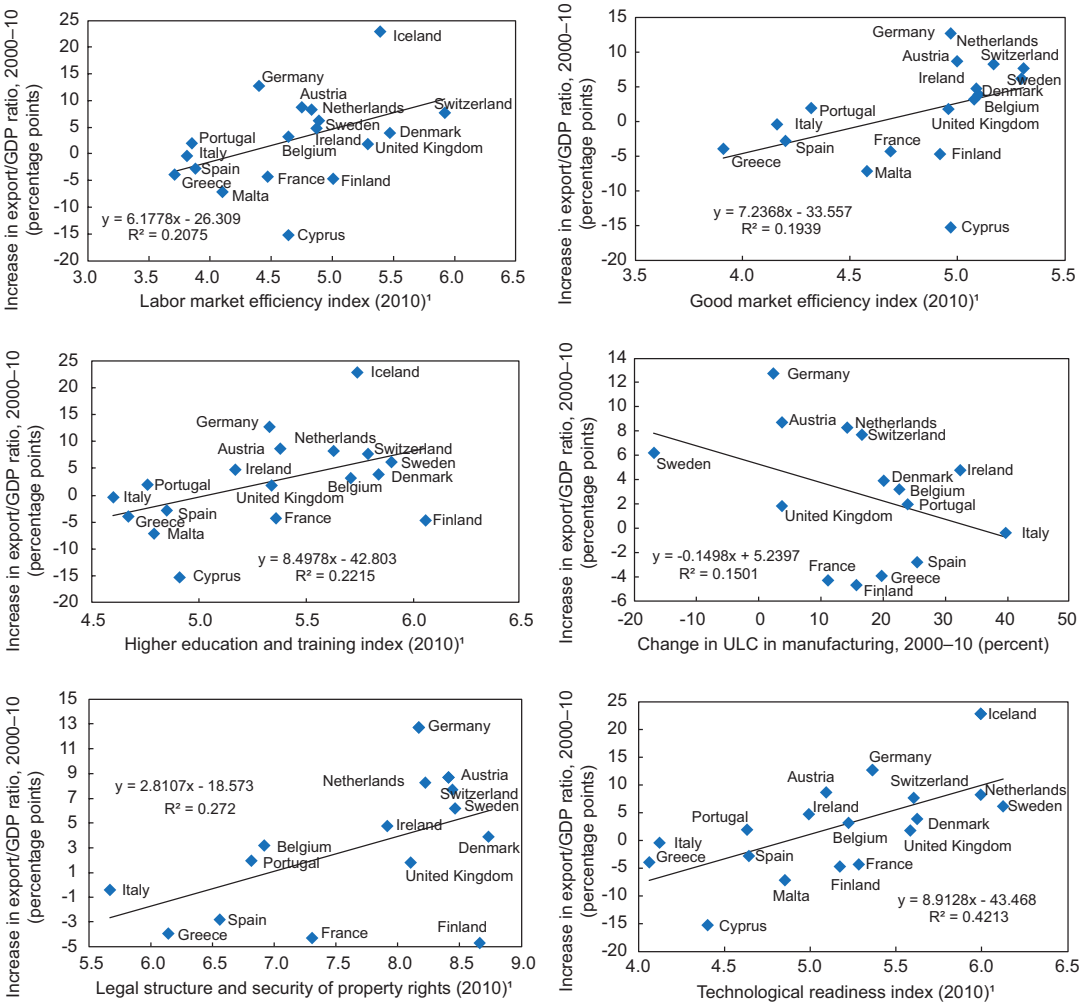
Figure 3.19
Europe: The Size of Tradable and Nontradable Sectors Relative to Productivity and Growth, 2000–10
(Percent)



Sources: Conference Board Total Economy Database, January 2011; and Eurostat.
[1]Data for Emerging Europe are for 2000–08.

Figure 3.20

Advanced Europe: Market and Institutional Efficiency Relative to Export Growth, 2000–10



Sources: Frazer; IMF, World Economic Outlook database; and World Economic Forum.
¹Higher value means better score.

(Boxes 3.2 and 3.3). Their experiences provide useful insights into how reforms could help other countries significantly reverse their economic fortunes.

Both countries undertook reforms only after a protracted economic malaise that culminated in a crisis. Income per capita was falling relative to that of Germany for about a decade (Figure 3.21). In addition, public finances were deteriorating: spending increased (Figures 3.22), and fiscal deficits were growing. Wage growth was also high in both countries, contributing to a decline in employment in the Netherlands (Figures 3.23 and 3.24). In Sweden, growth was also held back by reliance on relatively low value-added industries, the banking crisis in the early 1990s, and a stifling tax system. Finally, the erosion of competitiveness also contributed to deterioration in current account balances.

While each country's reform package differed in details, both included the same mix: measures to correct macroeconomic imbalances and measures to achieve comprehensive structural reforms. Both sets of measures were needed: on the one hand, macroeconomic stabilization

Box 3.2

Labor Market Reform: The Experience of the Netherlands in the 1980s–1990s[1]

Triggered by poor economic performance in the 1970s and early 1980s, the Netherlands undertook a series of labor market reforms that resulted in strikingly rapid employment growth. Excessive wage growth in the 1970s and early 1980s had led to a decline in private sector employment, as investment and job growth slowed. When unemployment shot up sharply from 1979 onward, in a recession that was much deeper than elsewhere, a consensus for reform gradually emerged.

Labor market reforms started in earnest in late 1982 with an agreement between unions and employers to pursue wage moderation in exchange for employment creation (the "Wassenaar agreement"). The agreement abolished automatic price indexation—not only in new wage agreements but also in existing wage agreements.

Subsequent governments implemented a series of labor market and fiscal reforms that complemented and reinforced each other.

- The level of the real minimum wage was reduced sharply. It was first cut by 3 percent and subsequently frozen in nominal terms for many years. As a result, by 1997, the real minimum wage had declined by 22 percent from its 1979 peak. The youth minimum wage was reduced even more sharply.
- Civil servants' salaries were subject to the same cuts and freezes as the minimum wage and declined in real terms by about the same percentage.
- The social security benefits replacement rate was cut significantly. Wage-related unemployment, sickness, and disability benefits were cut from 80 percent of wages to 70 percent; and the duration of unemployment and disability benefits was shortened. The minimum benefit, which is linked to the minimum wage, fell substantially in real terms.
- To support wage moderation, taxes and social security contributions paid by employees were cut substantially. As a result, disposable incomes rose substantially even in the absence of real wage increases.
- To finance the tax cuts, the government cut primary public expenditures by 14 percentage points of GDP. As a result, the government managed to reduce taxes and the budget deficit at the same time. The budget balance changed from a deficit of 6.2 percent of GDP in 1982 to a surplus of 2.2 percent in 2000.

The reforms contributed to a rapid increase in employment. Employment grew from 1984 onward, initially at a moderate rate, and accelerated further with the strong economic performance in the 1990s, helped as well by substantial financial sector and product market reforms. Employment growth largely benefited new entrants to the labor market, including recent graduates and women. The youth unemployment rate dropped sharply, from a peak of 25 percent in 1985 to 6¼ percent in 2008—the lowest rate in the European Union. The labor force participation of women rose sharply. Although most women worked part-time, this phenomenon seems to reflect cultural preferences rather than government policies.

Further reforms were undertaken in the last decade that reduced the generosity of the unemployment insurance and disability insurance programs. Also, tax rules were changed to stimulate working for second earners, and the tax advantages for early retirement were abandoned. During this period of reforms, the number of benefit recipients was reduced substantially and labor force participation rates increased.

Note: The main author of this box is Yan Sun.

[1] This box is partly based on Chapter III of IMF (2004), "The Netherlands: How the Interaction of Labor Market Reforms and Tax Cuts Led to Strong Employment Growth," with additional material from Gautier and van der Klaauw (2009).

Box 3.3

Sweden: Structural Reforms in the 1990s

The banking and financial crisis of the 1990s in Sweden triggered far-reaching macroeconomic and structural reforms that set the stage for Sweden's higher output growth in the late 1990s and 2000s. The reforms involved restoring a credible macroeconomic policy framework, and included a battery of structural reforms in the product and labor markets.

The first step in the aftermath of the crisis was to restore a credible, rule-based macroeconomic policy framework. This included: (i) the establishment of an inflation target in 1993 resulting in a drop in inflation (from an average of 7.5 percent in 1980–1990 to about 1.5 percent in 1993–2000); (ii) an impressive and successful fiscal consolidation, with the general government debt-to-GDP ratio falling from 72.5 percent in 1994 to 53 percent in 2000, the government expenditures-to-GDP ratio falling by about 16 percentage points between 1993 and 2000, and the budget balance turning into a surplus in 1998 from a double-digit deficit in 1993; (iii) the introduction of a detailed fiscal framework, including a nominal expenditure ceiling for the central government, a structural budgetary surplus target for the general government, and a balanced budget requirement for local governments, which helped the government to run a budget surplus every year between 1998 and 2008, except for 2002 and 2003; and (iv) a comprehensive pension reform put into effect in 1999. The new and more stable macroeconomic framework greatly improved policy credibility, thereby contributing to more moderate wage agreements. Moreover, the stronger public finances enabled some reduction in the high tax burden.

Successive reforms were implemented to improve labor market outcomes.

- In 1991, a comprehensive tax reform was implemented to mitigate the negative effects of the growing welfare state on labor supply. The reforms aimed at shifting the tax burden from labor income to consumption and capital income. The measures included lowering the marginal tax rates on earned income, widening the tax base, eliminating tax shelters, and introducing a more uniform taxation of capital. It is estimated that the tax reform led to an increase in labor supply of about 2 percent.[1]

- In 1997, a new agreement was reached by industrial labor unions to restrain wage increases. The consensus followed an unprecedented increase in the unemployment rate after the crisis (from 1.7 percent in 1990 to 9.4 percent in 1994). The agreement established explicit rules concerning the regulation of negotiations and the resolution of disputes; reintroduced more coordination in wage bargaining; and re-established the pacesetting role of the sectors exposed to international competition.

- Other complementary reforms targeted training, work incentive, employment protection, and education. These included a reorientation of active labor market policies toward training programs and/or practical insertion courses; relaxing employment security provisions; and to some extent, reducing the replacement rate in social insurance, and raising the qualification period for unemployment benefits.[2] Extensive reforms in the education system (primary to tertiary) were also conducted in the 1990s.

Building on the successes of early deregulations, additional product market reforms further promoted competition and restructuring. Early deregulation and the promotion of competition in the late 1980s fostered rapid restructuring and large productivity gains in the export sector. In particular, deregulation in the telecommunication sector (Sweden being the first country in Europe to deregulate its telecommunications market)

Note: The main author of this box is Géraldine Mahieu.

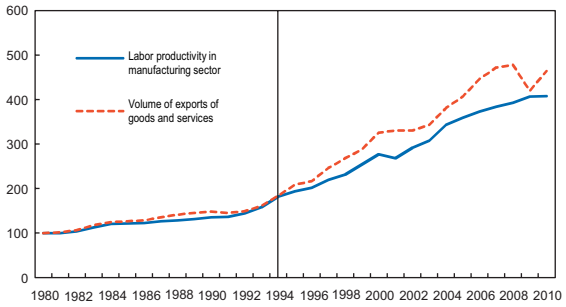
[1] Agell and others (1998).

[2] The generosity of the social security system, however, remained elevated compared with other European countries, whereas the level of employment protection was relatively low, in line with the concept of "flexicurity" also introduced in Denmark.

helped to spur competition and establish mobile phone access throughout the country.[3] Building on these early reforms, a new Competition Act and a new enforcement agency were created in 1993. After the EU accession in 1995, Sweden rapidly implemented all major directives of the internal market program and by 1998 was far ahead of many other EU countries.[4] These rapid product market reforms led to efficiency gains and helped the manufacturing industry transform from traditional industries in the 1980s to more knowledge-intensive and less labor-intensive production in the 1990s, leading to higher productivity gains.[5]

The restored macroeconomic stability and structural reforms, coupled with a strong IT sector, paved the way for growth, which averaged close to 3.5 percent between 1994 and 2007. With a more flexible labor market, a more competitive product market, and a strong IT sector, which Sweden was well positioned to capitalize on, it was able to emerge rapidly from the crisis when the international outlook improved. Wage growth restraint, improved macroeconomic stability, and higher productivity growth led to rapid growth in the export sector (notably the IT sector), which in turn became the main engine of growth. The real growth rate of export and labor productivity both doubled from the 1980s to the 1994–2008 period, rising from about 4 percent to 8 percent and from 3 percent to 6 percent, respectively (see figure).

Sweden–Labor productivity and volume of exports
(Index, 1980 = 100)



Source: IMF, World Economic Outlook database.

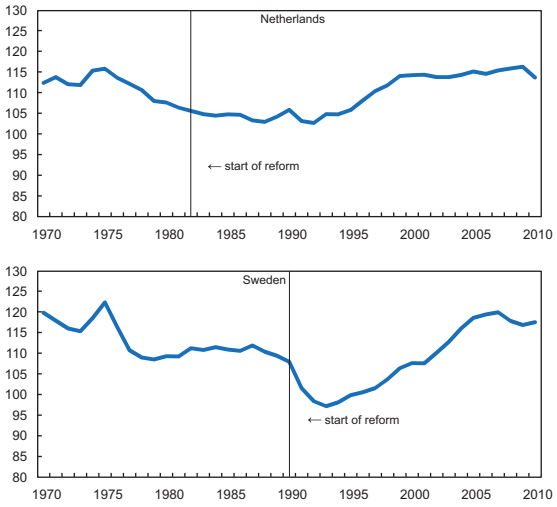
[3] Other factors, such as early investment by Ericson and the public telecommunications monopoly in establishing a mobile network, a high level of expenditures in R&D, a highly skilled labor force, and several public incentives to the adoption of ICT, also contributed to the emergence of a strong high-tech sector in Sweden.
[4] OECD (1998).
[5] In the 1980s, traditional industries such as steel, iron, and paper represented close to 20 percent of exports, whereas chemicals and telecom accounted for less than 9 percent. By the 1990s, the share of traditional industries had fallen to 13 percent whereas chemicals and telecom represented more than 20 percent.

policies without structural reforms would only deliver low, albeit stable, growth—as Italy has experienced in recent decades (Box 3.4); on the other hand, structural reforms without good macroeconomic policies could lead to large swings in economic growth and make sustained high growth all but impossible.[20] This was made painfully clear by the crises experienced in these two countries before their reforms.

From the start, structural reforms in these countries focused on clearing up the worst bottlenecks to growth. These bottlenecks manifested differently in different countries, so the initial priorities of reform also differed. In the Netherlands, a strong initial objective was to contain excessive wage growth and boost

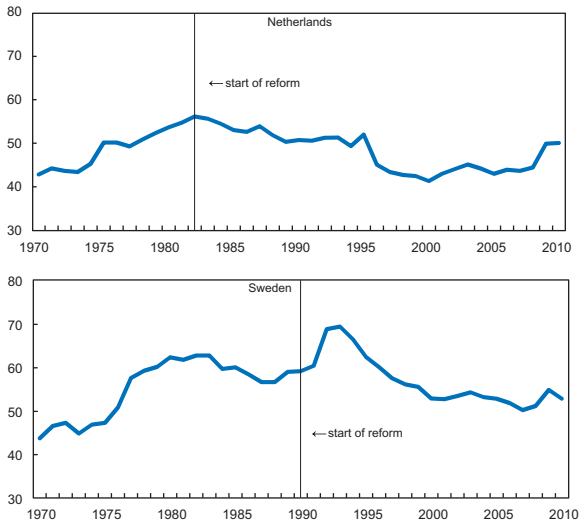
[20] Low growth, in turn, could derail the macroeconomic stabilization attempt, because it reduces fiscal space.

Figure 3.21
Netherlands and Sweden: GDP per Capita Relative to Germany, 1970–2010
(PPP terms, percent)



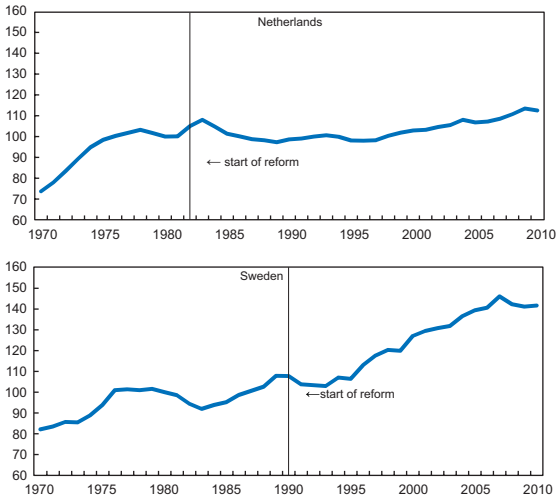
Sources: Conference Board Total Economy Database, January 2011; and IMF staff calculations.
Note: Germany's GDP per capita before 1989 was constructed using the growth rate of West Germany's GDP per capita.

Figure 3.22
Netherlands and Sweden: Government Primary Spending, 1970–2010
(Percent of GDP)



Sources: IMF staff calculations; and Organization for Economic Cooperation and Development.

Figure 3.23
Netherlands and Sweden: Real Compensation Rate of the Private Sector, 1970–2010
(Index, 1980 = 100)



Sources: IMF staff calculations; and Organization for Economic Cooperation and Development.

employment, and thus the centerpiece of the reform package was a wage agreement between employers and unions.[21] Sweden addressed its core problems through a combination of fiscal consolidation, tax reform, financial sector clean-up, and an overhaul of the wage bargaining system. In addition, further liberalization of network industries and reduced barriers to competition provided room for

[21] In the Netherlands, labor market reforms were accompanied by efforts to privatize government stakes in high-profile enterprises (steel and airlines) and to allow the bankruptcy of a major loss-making shipbuilder (which had received substantial government support). Both of these efforts signaled a change in industrial policy. Additional product market reforms, such as liberalizing licensing requirements and introducing new competition laws that included anticartel measures, were introduced a few years later. In Sweden, the wage bargaining system was reformed by reintroducing more coordination in the wage bargaining process and by using wages in the tradable sector (exposed to global competition) as a benchmark for wage negotiations. The reform of the wage bargaining system was accompanied by other labor market reforms in 1997 and by a deregulation of product markets.