GOLDEN GROWTH
Restoring the lustre of the European economic model

Country Benchmarks

ALEKSANDRA IWULSKA
Country benchmarks prepared by Aleksandra Iwulska with contributions from Bryce Quillin for the World Bank report “Golden Growth: Restoring the lustre of the European economic model” by Gill and Raiser (2012). The author may be reached at aiwulska@worldbank.org.
Golden Growth: Restoring the lustre of the European economic model – Country benchmarks

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<tr>
<td>1 Restructuring private debt</td>
<td><strong>Country:</strong> Sweden <strong>Rationale:</strong> Reduction of household indebtedness (131% of disposable income in 1988–89 to 90% in 1996) and household expenditure on interest (10% of disposable income in 1990 to 5% in 1997).</td>
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<td>2 Managing financial FDI</td>
<td><strong>Country:</strong> (EU) Poland <strong>Rationale:</strong> Effective macroprudential policies (profitable banks, the highest average GDP growth of 3.5% in CEE 2008–10, average nonperforming loans to total loans below 7% 2008–2010) despite high financial FDI inflows: in 1991-2003, one in five cross-border M&amp;A in Poland involved banks; foreign ownership stands at 2/3 of total banking sector assets.</td>
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<td>3 Crisis-proofing financial integration</td>
<td><strong>Country:</strong> Czech Republic <strong>Rationale:</strong> Sound banking sector despite the crisis (in 2009 ROE of 26.4%, ROA of 1.5%). Lowest ratio of nonperforming loans to total loans (4.6) in CEE in 2009 (Slovakia, 5.3; Poland, 7.6), low CDS spreads. Impressive results given country’s financial integration with the EU (as of January 2010, 96% of banking sector assets were foreign-owned).</td>
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<td>4 Increasing value-added</td>
<td><strong>Country:</strong> Slovak Republic <strong>Rationale:</strong> High FDI facilitated VA growth (2.8% average in 1995-2009). Successful in attracting worldwide investments (top FDI investors 2002–10: (1) Germany and (2) South Korea). 3rd highest GDP per capita in the region, after Slovenia and Czech Republic.</td>
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<td>5 Job creation</td>
<td><strong>Country:</strong> Ireland <strong>Rationale:</strong> Annual average employment participation growth rate of 1.6% in 1995–2009. In absolute terms the country (with 4.5 million population) added a million jobs in 1986–2008. Transformation from an outmigration country to immigration destination (share of the foreign-born doubled from 3.1% in 1999 to 6.3% in 2005).</td>
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<td>6 Export generation</td>
<td><strong>Country:</strong> Germany <strong>Rationale:</strong> World third largest merchandise exporter, number one in Europe: exports to GDP rate of 42% in 2009. In 2009 accounted for 9.0% of world merchandise exports, record value of total exports in March 2011 since the 1950s (nearly €100 billion).</td>
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<td>7 R&amp;D policy</td>
<td><strong>Country:</strong> Switzerland <strong>Rationale:</strong> European leader in innovation (in 2007 the highest number of patents per million inhabitants among industrialized countries (118 vs. OECD average of 42). 1st in the European Innovation Scoreboard 2009 (Swiss innovation performance growth: 3.3%, EU27 average: 1.8%).</td>
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<td>8 Tertiary education</td>
<td><strong>Country:</strong> United Kingdom <strong>Rationale:</strong> 2nd in SJTU Academic Ranking of World Universities, after the US (number of UK educational institutions in the top 100 grew from 9 in 2003 to 11 in 2010). 3 out of the world’s top 10 universities in Times Higher Education Ranking were British. High attainment levels of tertiary education (33% in 2008 compared to OECD average: 28%). 2nd most popular location for international students.</td>
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<tr>
<td>1 Restructuring private debt</td>
<td>Republic of Korea</td>
<td>Reduction of indebtedness in the corporate sector (manufacturing-debt-to-equity ratio decreased from 396% in 1997 to 211% in 2000). The ratio of nonperforming loans to total loans decreased from 8.3% in 1999 to 1.9% in 2002. Return to GDP growth of 10.7% in 1999.</td>
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<td>2 Managing financial FDI</td>
<td>(Non-EU) Croatia</td>
<td>Effective macroprudential policies given the magnitude of financial FDI (foreign ownership of banks jumped from 7% in 1998 to 90% in 2002) as well as economic and financial circumstances (in 2000-08 household loans grew on average by 23%; exchange rate regime restrained the usefulness of monetary policy).</td>
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<td>3 Crisis-proofing financial integration</td>
<td>Canada</td>
<td>Sound banking system despite the crisis: 1st in WEF GCR in soundness of banking system 2008–11, 1st in 2008 Moody’s ranking of banking systems soundness. Banking sector survived the crisis without a taxpayer bailout. Low ratio of nonperforming loans (1.3% of total loans in 2008–09) despite economic and financial integration with the US.</td>
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<td>5 Job creation</td>
<td>New Zealand</td>
<td>Annual average employment participation growth rate of 0.9% in 1995–2009. Reduction of unemployment rate (from 11% in 1991 to 4% in 2008). High labor force participation (70.3%). 5th in the Global Entrepreneurship Index that captures business formation processes in 71 world economies.</td>
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<td>7 R&amp;D policy</td>
<td>United States</td>
<td>Global leader in innovation: US firms accounted for nearly a half of 2010’s 50 most innovative companies in the world, according to Business Week. Home to big IT innovators (Google, Yahoo, Facebook): in 2008, 8 out of the world’s 10 largest Internet companies were based in the US. Strong innovative performance by high-level R&amp;D intensive industries (US enterprises employed 1 in 4 people working for 250 of the world’s biggest ICT companies and accounted for nearly a third of total revenue).</td>
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<td>8 Tertiary education</td>
<td>United States</td>
<td>World leader: US accounted for a third of total OECD population with higher education. 72 out of 200 universities listed in the Times Higher Education World University Ranking were American; each university from the top 5 was from the US. In 2008 the US tapped the highest share of international students among OECD countries.</td>
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<tr>
<td><strong>Management quality</strong></td>
<td>Sweden</td>
<td>No. 1 in management quality in Europe (together with Germany); second in the world after the US. World leader in monitoring management.¹</td>
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<td><strong>Internal mobility</strong></td>
<td>Ireland</td>
<td>Most mobile country in the EU (nearly 15% of population moved within the EU); one in five Irish moved within the country. 2nd lowest average job tenure—around 10 years—in 2006 in the EU15, after the UK. 2nd highest share of migrants born in the EU (9%), after Luxembourg (34%). Biggest ratio of non-citizens from EU27 to total population in the EU (around 5%, EU15 average around 2%).</td>
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<td><strong>Labor legislation</strong></td>
<td>Denmark</td>
<td>Low unemployment rate (in 1995–2008 average of 5%, vs. 7% in Sweden, 10% in Finland), a decrease in unemployment rate from 11% in 1993 to 4% in 2010. The second highest participation rate (80.7 percent) in Western Europe, after Switzerland (82.9 percent). High labor market flexibility: each year 1 in 5 Danes experiences unemployment. One of the most generous unemployment benefit systems in Europe but low incidence of long-term unemployment (9.1% vs. OECD weighted average 23.5%).</td>
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<td><strong>Immigration policies</strong></td>
<td>Sweden - United Kingdom</td>
<td>UK: The 3rd highest portion of permanent immigration in Europe with 2nd highest quality of immigration in Western Europe (34.8% of all migrants had tertiary education) and one of the biggest shares of international students (average 132.7 thousand in 2003–08) Sweden: High share of immigrants (13.9% of population is foreign born); best migrant integration policy among OECD (1st in MIPEX III ranking).</td>
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<td><strong>Social security</strong></td>
<td>Iceland</td>
<td>High pensions with low public spending: one of the highest income-replacement pension rates in OECD (96.9% for average earners); low spending on pensions (1.9% of GDP vs. OECD average of 7%). High pensionable age for men and women (67 years). High average effective age of labor market exit: 69.7 years for men, 65.4 for women.</td>
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<td><strong>Social service delivery</strong></td>
<td>Finland</td>
<td>Excellent primary and secondary education (3rd in the OECD 2009 PISA), with universal access at limited cost (spending per student US$7,216 vs. Japan, US$8,012; UK, US$8,622; or Australia, US$7,589). Satisfactory health care (long life-expectancy at birth of 79.5, low infant mortality rate of 2.7 vs. OECD 3.9) with limited spending (public spending 6.1% GDP vs. OECD 6.4%).</td>
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<td><strong>Green growth policies</strong></td>
<td>Germany</td>
<td>One of world leaders in green growth policies: in 2009 reduction of CO₂ emission by 23 percent relative to 1990 levels; energy consumption from renewables shot up fivefold from 1990 to 2010; the largest solar energy capacity in the world.</td>
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<td>10 Internal mobility</td>
<td>United States</td>
<td>High mobility rates (average mobility between the states of 3.1% 2000–05, EU15 NUTS 1 levels: 1%). On average Americans move 11 times a lifetime. In 2010 12.5% (37.5 million) changed their addresses. Mobile business landscape (1 out of 10 US businesses disappears every year).</td>
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<td>11 Labor legislation</td>
<td>United States</td>
<td>Successful in delivering jobs and keeping unemployment rate low (in 1995–2010 average of 5% vs. 9.4% in the eurozone). High level of labor force participation (74.6 vs. OECD weighted average 70.7). One of the most flexible labor markets in the advanced world.</td>
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<td>12 Immigration policies</td>
<td>United States</td>
<td>US: The highest portion of immigration in OECD (in 2000, one in four immigrants in OECD lived in the US) with relatively high quality of immigration (26.1% of all immigrants had tertiary education). Canada: High share of immigrants (one in five Canadians is foreign-born), one of the best migrant integration policies among OECD (3rd in MIPEX III ranking), and 2nd highest share of immigrants with tertiary education (38%) among OECD countries.</td>
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<td>13 Social security</td>
<td>Japan</td>
<td>Fastest aging nation in the world: median age is 44 years, life-expectancy is 82.6 years, and those aged 65+ account for 35.5% of working population. High average effective age of labor market exit: men, 69.7; women, 67.3. Higher than average but (considering demographics) relatively modest public pension spending: 9.8% GDP vs. France, 12.5%; Germany, 11.4%; Greece, 11.9%. Successful in gradual adjustments of pensions system (more changes needed).</td>
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<tr>
<td>14 Social service delivery</td>
<td>Singapore</td>
<td>Well-managed health care system (high life-expectancy at birth of 81.4, low child mortality rate of 2.2) at low cost (public spending 1.4% GDP). Excellent education (ranked in top 3 in the TIMSS, 6th in OECD PISA 2009) at low cost (public spending of 3.3% of GDP). Pioneer in e-governance: ranked 1st in 2009 in The Waseda University Institute of e-government ranking.</td>
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<td>16 Green growth policies</td>
<td>California (USA)</td>
<td>Regional leader in green growth policies based on energy efficiency: consumes the lowest amount of electricity per capita in the US; accounts for 15 percent of the US total renewable energy.</td>
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Restructuring private debt: Sweden

Abstract

Dealing with a private debt overhang becomes a potentially important issue after a financial crisis. When economic growth slows and bank lending dries up, highly indebted households and companies may face pronounced difficulties. Sweden illustrates how to reduce private sector debt after a crisis. After the crisis in the early 1990s, the government not only revived the economy but also restored the health of household balance sheets. The ratio of debt to disposable income of Swedish households fell from 130 percent in 1988–89 to 90 percent in 1996. Interest payments were halved from 10 percent of disposable income in 1990 to 5 percent in 1997. The government kept the costs of the bailout low. By 1997, the total bill amounted to only 2 percent of GDP, due to a comprehensive program that was tailored to different classes of financial institutions and realistic about financial sector losses. First, the government quickly recognized these losses. Transparency and true valuations were conditions for government support. Because banks were forced to write down losses, markets received accurate information. The government guaranteed their liabilities or took an ownership stake in the bank. By 1992, the Swedish authorities owned nearly a quarter of bank assets. Second, the government adopted an approach that was sensitive to distinctions among classes of financial institutions. Government assistance was available to Swedish banks, foreign-owned subsidiaries in the country, as well as specific credit institutions. And the support’s structure and amounts were tailored to the necessities of particular banks or institutions. A special body—the Bank Support Authority—was set up in 1993 to assess the magnitude of the troubled loans, as well as each bank’s earning potential in the long run. The actions of the Swedish government show the potential for public policy to address the fallout of financial crisis, if implemented quickly with an honest recognition of financial sector losses.

Private debt overhang can become a particularly important issue after a financial crisis. With slowing economic growth and reduced bank lending, highly indebted households and companies may face pronounced difficulties. Sweden can serve as a good example on how to reduce a private sector debt overhang after a crisis. Following the crisis of the early 1990s, the government not only revived the economy but also restored the health of households’ balance sheets. A ratio of debt to disposable income of Swedish households decreased from 130 percent in 1988–89 to 90 percent in 1996 (figure 1). What is more, households’ interest expenditures halved, from 10 percent of disposable income in 1990 to 5 percent in 1997. Finally, Swedish authorities managed to keep the costs of the bailout in check. By 1997 the total bill amounted to only 2 percent of GDP, down from 6 percent in 1993.

The boom-bust

During the mid-1980s, Sweden experienced a credit boom and subsequent bust in the real estate sector. Consumption, investment, and asset prices were surging. The real house price index grew from 97.8 in March 1985 to 136.2 in March 1990. Loans to households and corporations rose rapidly, as did the inflation rate, which surpassed 6 percent in 1988–90, hurting the country’s competitiveness. In just two years household debt as a percentage of disposable income grew from 116.9 percent in 1987 to 131.5 percent in 1989 (in comparison to 86.1 percent in the United States in 1989).
COUNTRY BENCHMARKS

Figure 1: Household debt and interest expenditures as a percentage of disposable income in Sweden and the US, 1981-974

Generous taxation, liberalization of credit markets, and financial innovation together with weak supervision contributed to deteriorating asset quality and lower profitability in the banking sector.5 Commercial banks in Sweden started to record smaller profits, and they turned negative in 1991; profits before taxes fell from 1.85 percent of total assets in 1986 to -0.5 percent in 1991 (Drees and Pazarbaşioglu 1995). Swedish GDP contracted in three consecutive years from 1991 to 1993.6

How did the Swedish government manage to rescue the financial sector? The next section provides a few insights.

How to reduce private debt

First, the government focused on early recognition of losses. True valuations and transparency were preconditions for receiving government support. Banks were forced to write down losses according to their true valuations, markets received accurate information. The authorities guaranteed banks liabilities or took an ownership stake in the banks. Ergungor (2007) indicates that after the public acquisition of Nordbanken in 1992, the Swedish authorities owned nearly a quarter of all bank assets. Banks assets were divided into two categories: good and bad. Assets qualified as good were left in the respective banks, which continued business as usual, while troubled assets were transferred to special asset management funds (AMF). Because these funds were deliberately overcapitalized, they had the capacity to absorb losses. AMFs also enjoyed independence from the state-level decision making that, together with the funds’ expertise, allowed for effective and successful management of the troubled assets. Moreover, a clear distinction between troubled and healthy assets paved the way for financial institutions to regain markets’ trust.

Second, the approach was holistic but diversified. According to a bill from September 1992, the government’s assistance (e.g., loan guarantees, capital injections) was available not only for Swedish banks but also foreign-owned subsidiaries located in the country and for other specific credit institutions. And the support’s structure and amounts were tailored to the necessities of...
particular banks or institutions. A special body—the Bank Support Authority (BSA)—was set up in 1993 to assess the magnitude of the troubled loans, as well as each bank’s earning potential in the long run.

Third, the authorities kept a long-term perspective in mind. Asset management funds that dealt with bad assets were excluded from regulations that forced banks to sell their troubled collateral within three years. Thanks to this exemption, the government avoided hastened sells that could have put additional downward pressure on fragile markets. Although the last liquidations by AMFs took place as early as 1997, initially the government assumed a longer time frame.

Finally, a devaluation of local currency and a decrease in interest rates followed by an export-led recovery and robust growth in the advanced world helped the country grow out of debt. Between 1994 and 2000 average GDP growth in Sweden surpassed 3.5 percent annually, practically equal to the average for Western Europe.

Crisis, resolution, and the cost

Although the authorities managed to reduce the costs of crisis to 2 percent of GDP in 1997, initially bank bailouts and financial sector assistance put a strain on public finances, as most of the restructuring was channeled through the public budget. The government turned from net lender to net borrower, with net government primary borrowing of 11.68 percent of GDP in 1993. Soaring public deficits reached 12 percent of GDP in 1994, while public debt jumped from 42.7 percent of GDP in 1990 to 72.0 percent just three years later. Finally, Spilimbergo et al. (2008) indicate that only part of this decline can be attributed to cyclical factors.

All in all, reducing household debt and restoring the soundness of banks’ balance sheets should be counted as genuine achievements. Naturally, every crisis puts different challenges before policymakers. Yet, Sweden’s experience in tackling private debt overhang can provide some insights for others. First, it shows the importance of accurate information and true valuations in times of crisis. Second, it underscores benefits of an efficient management of troubled assets. Finally, Swedish experience reflects the importance of balance between support for banking sector and soundness of public finances.
Sources


Notes

1. The timeframe of this country benchmark covers the period between 1985 and 1997. It is assumed that debt levels accumulated by households and corporations during 1985–1990 were unsustainable, thus suggesting a private debt overhang. In the early 1990s credit accounted for almost 70 percent of Swedish GDP, in comparison 14.5 percent in the United States and 20 percent in the United Kingdom, according to estimates of Spilimbergo et al. (2008).

2. Reduction of the cost was possible mainly due to two factors. First, the government took ownership stakes at the banks and was able to sell their stocks with a profit. Second, some of the troubled assets of the banks were recovered successfully.

3. Index 1995 q1 = 100. Source: Statistics Sweden.

4. For the US the category of households includes nonprofit institutions.

5. Prior to the 1980s Swedish regulation limited competition and placed restrictions on the availability of credit, while keeping the interest rates artificially low. Hence the demand for credit exceeded the supply, giving rise to the expansion of nonbank financial institutions. Even banks were setting up financial companies to bypass interest rate regulation. In the 1980s Sweden, like its Nordic neighbors, began to gradually deregulate the banking sector. This process led to expansion of credit in the economy as well as greater risk exposures in the banking sector. Households’ savings rates dropped from 5 percent in 1980 to -3.4 percent in 1987. At the same time, banks started to finance their lending less from deposits and more from market-based sources.


7. During the crisis banks were also granted a right to sell their collateral beyond the three-year limit.

8. Crisis legislation and blanket guarantees were abolished in 1996.
Restructuring private debt: Republic of Korea

Abstract

The Republic of Korea’s policies after 1997–98 crisis showed how a quick and comprehensive intervention can reduce private sector insolvency and restart growth. Korea’s corporate and financial sectors were heavily indebted when the East Asian financial crisis hit. A rapid debt-reduction program brought the overhang under control. In manufacturing, the debt-to-equity ratio shifted from 396 percent in 1997 to 211 percent in 2000. The share of nonperforming loans moved from over 8 percent in 1999 to just below 2 percent in 2002. What can other countries learn? First, the policy response was comprehensive. All corporations, large and small, were included in the government’s plan to restore solvency. Under government pressure, the country’s largest conglomerates negotiated debt workout programs with the banks. Government intervention led to the rollover of 90 percent of small and medium enterprise loans between July and November 1998, the worst months of the crisis. Nonperforming loans fell in part due to the government’s program to recapitalize healthier banks and merge or liquidate insolvent institutions. Second, new statutes allowed banks to go bust. The Korean Asset Management Corporation was created to handle bad loans and prevent “zombie banks”. Third, the size of the government’s response was proportionate to the crisis: financial sector support amounted to 13 percent of GDP between 1998 and 1999. Fourth, accommodative monetary policy managed deflation risks while the participation in an International Monetary Fund program and the introduction of central bank independence in 1998 sent strong signals to the markets. The timeliness and comprehensiveness of the Korean government’s actions are strong reminders of the potential importance of public interventions in stabilizing an economy when they are properly targeted, efficiently implemented, and of sufficient scale.

When households and companies begin to borrow too much, countries may lack appropriate financial supervision that limits excessive lending to the private sector. Republic of Korea (henceforth Korea) can serve as a good example on how to reduce debt in the private sector and restore soundness of banks in times of crisis, when a regulatory framework is not fully in place. Moreover, the Korean experience may provide some insights into coping with private debt overhang when financial distress spreads beyond national borders.1

Korean achievements

In Korea, private debt restructuring occurred mostly in the corporate and financial sectors. In manufacturing, the debt-to-equity ratio decreased from 396 percent in 1997 to 211 percent in 2000. This is an impressive achievement, since in 1997 the Korean manufacturing sector was much more indebted than the sector in other industrialized economies (figure 2). Moreover, restructuring of the banking sector improved the quality of loan portfolios. The share of nonperforming loans to total loans decreased from 8.3 percent in 1999 to 1.9 percent in 2002.

What happened in Korea in 1997?

In the 1980s and the beginning of the 1990s, Korea experienced impressive economic growth. Between 1985 and 1995 GDP grew by an annual average of 9 percent.2 As Korea recorded current account deficits, economic growth was partly financed by capital inflows from abroad. On the corporate level, economic prosperity brought greater investment in the country, on occasion
leading to overinvestment. On average between 1988 and 1996, median capital investment amounted to 13.6 percent, in comparison to 10.4 percent in Singapore and 8.3 percent in Hong Kong. In many cases these new investments lacked proper risk-benefit analyses. As indicated by Corsetti et al. (1998), in 1996 in 20 out of the 30 biggest Korean conglomerates the cost of invested capital exceeded the respective rate of return. Lower profitability, however, did not decrease lending to the corporate sector, partly because the Korean government influenced the allocation of credit in the economy. 

Even greater risks arose in the banking sector. Although the Korean financial system enjoyed greater freedom thanks to liberalization, it lacked proper regulatory framework that prevented excesses. Korean international banks borrowed short-term funds in foreign currencies to finance long-term loans in domestic currencies, partly for new investments. This currency and maturity mismatch gradually deteriorated the soundness of the banking sector. In the meantime, economic uncertainties together with structural fragility prompted a crisis in Thailand. The crisis hit Korea, when the country’s banks were unable to roll over their short-term lending. The reversal of capital from East Asian markets prompted panic on the markets and plummeting of local currencies.

Due to the widespread crisis, corporations and banks faced pronounced difficulties. In Korea, the share of nonperforming loans among total loans amounted to 7.4 percent in 1997 and surged further to 8.3 percent in 1998. For the 30 biggest conglomerates, debt-to-equity ratios surpassed 500 percent in 1997, according to Spilimbergo et al. (2008). High interest rates together with a depreciating currency pushed most of the banks and many corporations to the edge of solvency. The interest coverage ratio in manufacturing halved from 129.1 in 1997 to 68.3 in 1998 and increased to 96.1 in 1999, in comparison to the US ratio of 354.0 and the Japanese ratio of 367.5.

How did Korean authorities handle the crisis?

**Resolving the crisis**

First, private debt restructuring focused on the companies balance sheets. The applied toolkit included asset sales, debt/equity swaps, foreign investments, and equity injections. According to Spilimbergo et al. (2008), in the Korean case debt/equity swaps proved to be particularly useful.
The authorities made sure that all companies, regardless of their size, could address their debt overhang. Big corporations, so-called chaebols, prepared their own workout plans that were later negotiated with banks. Indebted small and medium enterprises (SME) were not left behind. Thanks to pressure from the Korean authorities, between July and November 1998 banks rolled over around 90 percent of SME loans.

Second, Korean authorities focused on the underlying problems in the financial system. Most of the resources were used to restore the health of the financial and corporate sector rather than boosting demand through fiscal stimulus. Banks were recapitalized, merged, or liquidated. A special body was established (the Korea Asset Management Corporation) to handle bad loans. However, good managerial practices were a prerequisite for receiving governmental support.

Consequently, the share of nonperforming loans to total loans declined from 8.3 percent in 1999 to 2.9 percent in 2001 and 1.9 percent a year later. Moreover, thanks to reforms at home Korean banks gradually became more profitable (figure 3).

**Figure 3: Return on equity and return on assets in Korea, Thailand, Indonesia, and Japan, 1998-2002**

Third, the response was quick enough to tackle the mounting difficulties. A rapid reaction was possible, because Korean authorities planned changes in the financial system prior to the outbreak of the crisis. In January 1997 the Presidential Commission for Financial Reform was set up to make recommendations on reforms in the financial sector. Even more importantly, the response was not only rapid but also substantial. Support for the financial sector between 1998 and 1999 amounted to 13 percent of GDP.

Fourth, Korea switched from a financial system that did not permit default to one that allows companies to go bust. In 1998, out of thirty-three banks five closed down. As indicated by Cargill and Parker (2002), regimes that allow for bankruptcy seem to have better economic results than state-directed regimes. The restructuring process was also supported by changes in the regulatory framework. Korean authorities loosened rules on hostile takeovers and lifted foreign ownership limits.

Finally, there were additional factors that contributed to Korea’s strong recovery. Successful monetary policy prevented deflation. Regulatory changes granted the Central Bank of Korea
independence in 1998. Cargill and Patrick (2005) suggest that Korea’s dependence on international markets together with the IMF assistance during the crisis facilitated the speed and depth of reforms. In 2000–01 Korea took also part in Financial Sector Assessment Program of the World Bank and the IMF aimed at improving the soundness of its banking sector.

**Crisis, debt, and the future**

Korea was successful in restoring the soundness of its financial sector in an environment of economic crisis. Yet the regulatory framework tamed excessive household borrowing only for some time after the crisis of 1997. Lax lending standards in the credit card market resulted in a surge of credit card debt, amounting to 15 percent of GDP in 2002. Chung (2009) suggests that higher household debt levels since 2000 contributed to greater volatility of private consumption.

However, Korea did achieve a success with its policies. Unlike Japan, Korea managed to tackle the indebtedness of the private sector without depressing the demand in the economy. Rapid and appropriate measures allowed for successful debt restructuring and the country was able to return to economic growth in 1999. The most valuable insight that the Korean experience gives is that countries struck by financial turmoil can still successfully restructure debt in the private sector without jeopardizing their economic prospects.
Sources


Notes

1. The timeframe of this country benchmark covers the years from 1985 until 2002. It is assumed that debt levels accumulated by Korean households and corporations were unsustainable, thus suggesting debt overhang in the private sector.
2. Staff calculations based on the IMF’s World Economic Outlook.
3. Median capital investment equals new investment as a percentage of existing fixed assets.
4. Much of banking lending was regulated by the government, with emphasis put on large conglomerates.
5. Korean authorities introduced requirements on credit allocation that favored big conglomerates, according to Cargill and Patrick (2005).
6. The debt-to-equity ratio equals the total liabilities to shareholder’s equity. In the case of Japan, time series data for shareholder’s equity start from 2007. As a result, net assets were used instead, following the methodology of Iwaisako et al. (2011).
7. At the same time, Japanese banks previously heavily involved in the Korean financial sector started to withdraw from Korea due to mounting problems in the domestic market (e.g., deteriorating profitability and quality of loan portfolios).
8. Data on nonperforming loans ratios in Korea prior to 1997 is unavailable.
9. Interest coverage ratio equals (operating income*100)/interest expenses.
10. According to Spilimbergo et al. (2008), 8 major banks negotiated with 64 corporations.
11. The quality of the loan portfolio in the Korean banking sector was much better than in other countries hit by the crisis. In 1998 the share of nonperforming loans among total loans hit 48.6 percent in Indonesia and 42.9 percent in Thailand, while it stood at 7.4 percent in Korea.
12. Data prior to 1998 for selected economies is unavailable.
13. The commission consisted of industry, academia representatives and experts from institutions.
15. For Korea, the Central Bank Independence index (0=dependent, 1=independent) by Crowe and Meade (2007) recorded an increase from 0.27 in 1980–1989 to 0.37 in 2003. In comparison, Japan’s score in 2003 amounted to 0.38, while the US score stood at 0.48.
16. For example, IMF assistance was conditional on the implementation of domestic reforms.
17. It needs to be underlined that in Korea the indebtedness was concentrated mainly in the corporate sector, whereas Japan’s crisis deteriorated corporate and households’ balance sheets.
Managing Financial FDI: Poland

Abstract

The integration of emerging Europe with Western Europe was accompanied by high levels of cross-border financial flows and transactions. One unique feature of this financial integration was the importance of financial flows that took on the characteristics of foreign direct investment (FDI): debt-creating flows from parent banks in Western Europe to subsidiaries in Central and Eastern Europe. As of the end of 2001, 41 major EU15 banking groups had 15 branches and 76 subsidiaries in the accession countries. When dealing with any form of capital flow, government must strike a balance between encouraging financial FDI and monitoring and managing macroprudential risks. After joining the European Union in 2004, Poland succeeded in striking this balance. Several factors helped. First, good macroeconomic performance: output has grown for 20 consecutive years, and has averaged more than 4 percent since 1991. Second, Poland’s prudential banking sector regulations were relatively sound: capital adequacy trigger ratios are higher than the Basel Accord minimum, and banks must comply with binding liquidity standards. Moreover, Poland was among region’s first to regulate foreign currency lending through Recommendation S in 2006. Third, an informal yet effective approach to regulation by central bank: much of the macroprudential regime, such as Recommendation S, was enforced through moral suasion, without automatic punishment mechanisms for noncompliance. This informal approach may have worked because of Poland’s generally sound macroeconomic policies.

In recent years, Eastern Europe has experienced increased financial integration with the West. Even prior to the eastern countries’ accession to the European Union, the region received a great deal of financial foreign direct investment (FDI). As of the end of 2001, 41 major EU15 banking groups had 15 branches and 76 subsidiaries in the candidate countries (Baudino et al. 2004). When dealing with any form of capital flow, government must strike a balance between encouraging financial FDI and monitoring and managing macro prudential risks. Poland was successful in striking this balance.

Keeping the balance

During the financial crisis in Europe, Poland recorded positive economic growth between 2008 and 2010. Growth averaged at 3.5 percent during the crisis, the highest in Central Europe and second highest among the transition economies, after Albania (figure 4). The ratio of nonperforming loans to total loans remained below 7 percent, while banks continued to record sound profits. These positive outturns coincided with strong presence of financial FDI originating from Western Europe. Between 1991 and 2003, one in five cross-border mergers and acquisitions involved banks. Currently, foreign investors own two-thirds of the Polish banking sector. As of 2010 Italy was the biggest investor (12.4 percent of banking sector), followed by Germany (10.4 percent), the Netherlands (8.6 percent), the United States (6.9 percent), and France (5.8 percent).

Benefiting from financial flows

Poland was successful in benefiting from financial FDI due to number of reasons. First, the country’s economic foundations were sound before the onset of the 2008 financial crisis. Between 2000 and 2008 average annual economic growth surpassed 4 percent. On average, exports of goods and services grew by 11 percent per annum between 2000 and 2008. A booming economy
together with European integration brought the unemployment rate from 20 percent in 2002 to 7 percent in 2008. The average annual inflation rate dropped from nearly 30 percent in 1991–99 to 3.4 percent in the first decade of the 2000s. And although the public deficit and public debt have grown in the past decade, the country’s economic situation remained favorable.

Figure 4: Average annual GDP growth (%) 2008–10 and average annual ratio of nonperforming loans to total loans (%) in selected Europe and Central Asia countries

Second, the Polish Financial Supervisory Authority persuaded banks to accumulate capital buffers that allowed banks to cushion losses when the crisis came. The actual capital adequacy ratios were higher than the legal requirement. When the crisis of 2008 came, Polish authorities encouraged banks to hold an additional 2 percent of risk-weighted capital above the Basel II requirements and retain their profits for 2008. All of these regulations were enforced through moral suasion without automatic punishment mechanisms for noncompliance.

Third, the authorities addressed liquidity in the banking sector. A number of regulations were adopted, including Resolution No. 386/2008 passed in 2008 that introduced binding liquidity standards for banks. The resolution had two particularly pertinent aspects. It introduced a new division of assets as well as liabilities according to their liquidity and stability. For example assets were divided into four groups (Kruszka and Kowalczyk 2011): core liquidity reserves (cash, receivables, and other assets obtainable within seven days); supplementary liquidity reserve (cash, receivables, and other assets obtainable within 7 to 30 days); assets of limited liquidity (banking activities outside of the wholesale financial market); and illiquid assets. The same was done for liabilities. In addition, according to this new division of assets and liabilities, quantitative and qualitative liquidity benchmarks were set for banks. For example, a bank with assets above 200 million PLN needs to maintain a ratio of illiquid assets to regulatory capital at minimum value of 1. In case banks fall short in one of the required standards, they are obliged to notify the regulator and undertake an immediate action to restore the required ratio. According to the Polish Financial Supervisory Authority, in December 2010 all commercial banks met the liquidity standards, while in March 2009 four commercial banks accounting for 5 percent of all banking assets fell short.

Fourth, Poland was one of the region’s first to regulate lending in foreign currencies through Recommendation S on good practices for mortgage-secured loan exposures, introduced in 2006.
Banks were advised to require higher credit worthiness for residential credits denominated in foreign currencies than for loans in local currency (PLN). Moreover, banks were advised to present the loan offer first in PLN and then in a foreign currency. This was followed in 2010 by Recommendation T that set good practices for managing retail credit exposures. Recommendation T advised limiting access to loans for those with lower incomes and providing customers with comprehensive information concerning risks of loans denominated in foreign currencies. During the crisis banks were obliged to report their new exposure to foreign entities on a daily basis. Some small amendments were also made to rules on the classification and provisioning of loans (e.g., a regulation of the Ministry of Finance from December 16, 2010).

**Policy, the crisis, and applicability**

Despite close supervision and regulatory actions, households still borrowed a lot in foreign currencies, especially Swiss francs. The share of households’ foreign exchange (FX) lending in total households’ loans grew from 6.4 percent in January 2000 to 42.3 percent in February 2009 and then dropped to 38.9 percent in August 2011 (figure 5). When the crisis hit and Swiss franc appreciated, the burden of payments piled up, threatening some households with insolvency.

**Figure 5: Households’ lending in PLN and foreign currencies, 1996-2011**

Fourth, much of macroprudential regime, such as Recommendation S, was enforced through moral suasion, without automatic punishment mechanism for noncompliance. In case of FX lending, legally binding rules were introduced in March 2010 (the risk weights for retail borrowing denominated in foreign currency were shifted from 75 to 100 percent).³

How useful is Polish experience? The actions taken can surely shed some light on successful tools for managing risks in the financial sector. Regulators focused on limiting moral hazard rather than undertaking direct interventions. However, what works in practice depends on a number of factors (e.g., exchange rate regime, monetary policy) and the extent to which authorities intervene does not necessarily determine success. Polish authorities did much less than most of their neighbors, yet they had one of the region’s best results. Finally, initial conditions matter. Poland’s approach may have worked because of generally sound macroeconomic policies.
Sources


Notes

1 As of 2001 candidate countries constituted of Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovak Republic, and Slovenia.
2 Averages calculated based on annual inflation, average consumer prices. Source: IMF WEO.
3 Gross government debt hit 54.98 percent of GDP in 2010 (from 36.79 percent in 2000), while general government structural balance doubled (from -3.17 percent of GDP to -7.75 percent in 2010).
4 The minimum binding level of capital adequacy ratio was consistent with Basel II.
6 Liabilities were divided into regulatory capital (banks’ own funds - capital requirements for market risk, settlement, delivery risk, and counterparty risk); stable external funds (funds included by banks into stable sources, e.g., core deposits); and unstable external funds. See Kruszka and Kowalczyk (2011).
7 Other rules for banks with assets above 200 million PLN include: short term liquidity gap (core liquidity reserves + supplementary liquidity reserves - unstable external funds) set at minimum value of 0; short-term liquidity ratio ([core liquidity reserves + supplementary liquidity reserves]/unstable external funds) set at minimum value of 1; and ratio of (illiquid assets + limited liquidity assets)/(regulatory capital + stable external funds) was set a minimum value of 1. See Kruszka and Kowalczyk (2011).
8 The recommendation was amended in January 2011. In the updated version the regulators introduced quantitative requirements for mortgage-secured loans.
9 Polish Financial Supervisory Authority Resolution No. 76/2010 of March 10, 2010.
Managing financial FDI: Croatia

Abstract

As part of its integration into the international and regional economy, Croatia experienced very large inflows of financial FDI. The foreign ownership of banks jumped from 7 percent in 1998 to 90 percent in 2002, remaining around this level since. Credit grew especially for households. Between 2000 and 2008 household loans grew at an annual average of 23 percent. But with rules-based macroprudential measures, Croatia managed the boom and subsequent crisis of 2008 relatively well. Between 2008 and 2010 banks enjoyed the highest average bank regulatory capital to risk-weighted assets in the region. The ratio of nonperforming loans to total loans was around 7 percent. What lies behind this performance? Croatia successfully implemented rule-based macroprudential policies. The exchange rate regime largely ruled out the use of monetary policy. Compared to Poland, the country’s record of economic growth, prior to the crisis, was also less favorable. Large structural budget deficits reduced the potential for fiscal policy. Croatia’s formal prudential policy framework may have made up for weaknesses in macroeconomic management. This approach is not without drawbacks. It is difficult to limit credit expansion effectively and tailor policies to different sectors without creating distortions in the market: limiting bank credit hampered the expansion of small banks but excluding them from regulation would be considered discriminatory against other players on the market.

In the last two decades, Croatia experienced significant financial foreign direct investment (FDI). Foreign ownership of banks jumped from 7 percent in 1998 to 90 percent in 2002, remaining around this level since. Credit grew, especially for households. Household loans grew at an annual average of 23 percent from 2000 to 2008. Croatia managed the boom and subsequent crisis of 2008 relatively well. Between 2008 and 2010 banks enjoyed the highest average bank regulatory capital to risk-weighted assets in the region (figure 6). At the same time, the ratio of nonperforming loans to total loans stood at around 7 percent. These results are particularly impressive given country’s limited room for macroeconomic maneuver. The exchange rate regime—a tightly managed float to the euro—restrained the usefulness of monetary policy while the prospective accession to the EU ruled out any direct capital controls. This country benchmark discusses how Croatia managed its large financial FDI inflows.

Active policies, measurable results

There are several measures that allowed Croatian authorities to manage its large financial flows.

First, Croatian authorities limited lending. Beginning in 2003, regulations were put in place that aimed at restraining credit growth once it surpassed a certain threshold. Because banks circumvented these restrictions by, among other means, transferring credit risks to foreign parents, in July 2004 the authorities introduced marginal reserve requirement (MRR). With MRR, banks were obliged to make additional noninterest deposits to the Croatian Central Bank when their foreign liabilities increased above June 2004 levels. Initially set at 24 percent, the MRR was raised over the years, to 72 percent in 2008. Moreover, in 2007 the regulations limiting credit from 2003 were reintroduced with some amendments. The new rules worked better because they addressed off-balance sheet items, thus limiting possible loopholes banks used to avoid credit growth restrictions. The credit growth limitations were lifted in November 2009.
Second, the authorities closely monitored the foreign currency positions of banks and reacted accordingly to events in the market. Foreign currency liquidity requirements were adopted in 2003. To avoid possible runs on deposits denominated in foreign currencies, banks were required to maintain higher liquidity standards for those liabilities. To circumvent the stricter rules, banks started to offer deposits in local currency but indexed to foreign currencies. Croatian regulators amended the rules in 2006 and foreign currency deposits as well as those indexed to foreign currencies were subject to stricter liquidity requirements. The limits on banks’ net open foreign exchange positions became stricter in the boom years.6

Third, the authorities amended rules on capital adequacy ratios. Starting in January 2008, capital adequacy ratios were linked to credit growth and founding sources of individual banks. For example, banks growing at 12 percent would have to comply with a capital adequacy ratio of 12 percent. The higher the credit growth, the greater was the minimum capital adequacy ratio requirement.

Fourth, authorities managed the risks in the banking sector, especially in case of loans denominated or indexed to foreign currencies. Setting clear rules was crucial as foreign denominated loans were substantial in Croatian economy. In the fourth quarter of 2006 nearly three-quarters of all bank credit to the private sector was denominated or indexed to foreign currencies, mostly the euro (54 percent). Since June 2006 banks that granted loans indexed to foreign currency to unhedged borrowers have had to apply higher risk weights. Consequently, home mortgage loan that would qualify for 50 percent risk weight would have to be increased to 75 percent for an unhedged borrower. These risk weights were raised gradually up to 100 and 150 percent respectively in January 2008.

**The policy and its risks**

Despite efforts to restrain lending, the availability of credit in the economy remained high (figure 7). And although restrictions did hamper credit growth in the economy, they entailed certain costs.
(Kraft and Galac 2011). Credit limits pushed banks to use unofficial channels, deteriorating the system’s transparency. They also effectively discouraged rapid growth of small banks. Finally, credit restrictions may have limited domestic credit growth, but at the same time banks were able to offset this decrease by an increase in foreign debt (Galac 2010).

Figure 7: Growth of household loans and corporate loans in Croatia, 2000-11

Source: Croatian National Bank.

What are the broader lessons of Croatia’s experience in managing its financial sector? Croatia may represent the case of the successful implementation of rules-based macroprudential policies. Croatia’s formal prudential policy framework may have made up for the exchange rate regime that mostly ruled out the use of monetary policy. Compared to Poland, the country’s record of economic growth, prior to the crisis, was also less favorable. Large structural budget deficits reduced the potential for fiscal policy. Croatia’s formal prudential policy framework may have made up for weaknesses in macroeconomic management. This approach is not without drawbacks. It is difficult to limit credit expansion effectively and tailor policies to different sectors without creating distortions in the market. Restrictions on bank credit, for example, hampered the expansion of small banks.
Sources

- Kraft, Evan, and Tomislav Galac. 2011. “Macropudential Regulation of Credit Booms and Busts: The Case of Croatia.”

Notes

1. In the respective period, corporate loans grew by an unweighted average of 12 percent. Estimates are based on year-on-year change in household loans (monthly data). Source: Croatian National Bank.
2. When bank lending exceeded certain level, a bank was obliged to purchase Croatian Central Bank bills that paid only 0.5 percent interest.
3. When in 2008 MRR stood at 72 percent, banks had to deposit 72 percent of surplus in foreign liabilities at the central bank, while the remaining 28 percent could be used for credit expansion. MRR was abandoned in October 2008.
4. To avoid credit limits from 2003, banks used leasing companies, encouraging clients to take leases instead of loans. Another possibility for banks was to refer clients to parent banks abroad. While the regulation from 2007 captured banks’ use of leasing companies, it failed to control cooperation with parent banks.
5. The Croatian National Bank kept credit growth restrictions in place to avoid depreciation of local currency when the crisis of 2008 hit.
6. In April 2003 authorities set the maximum open positions to 20 percent.
Crisis-proofing financial integration: Czech Republic

Abstract

During the financial crisis of 2008, banking failures in Europe and the United States posed a major threat to finance across the world. Most believe that financial integration with the west made banking systems in emerging Europe more vulnerable to external shocks. Yet, banks in some countries such as Czech Republic did better than others during recent global economic crisis. In 2009, Czech banks recorded sound profits: return on equity amounted to 26.4 percent, and the return of assets stood at 1.5 percent. This resilience reflected timely policy actions, a sound regulatory system, and prudent bank lending. First, the financial sector benefitted from a consolidation program that the central bank initiated in the mid-1990s, closing many small banks. Second, the process of financial sector prudential oversight was also consolidated. Since 2005, the Czech central bank has had the authority to oversee all segments insurance markets and commercial and investment banking. Third, the banking sector has a strong retail deposit base and benefitted from prudent lending practices—nonperforming loans were lower in the Czech Republic than in most other Central and Eastern European economies. No country is crisis-proof, but Czech financial sector practices and policies have been a source of stability during the financial crisis.

During 2008–10, banking failures in Europe and the United States threatened the stability of the world’s financial system. Most believe that financial integration with the west made banking systems in emerging Europe more vulnerable to external shocks. Yet banks in some countries did better than others during recent global economic crisis. The Czech Republic provides an example.

Surviving the storm

Despite the financial turmoil, in 2009 Czech banks recorded sound profits: return on equity (ROE) amounted to 26.4 percent and the return of assets (ROA) stood at 1.5 percent (figure 8). Credit default swap spreads for Czech Republic were among the lowest in the CEE region. While European banks lost their high rankings in the Global Competitiveness Report ratings in 2008–2011, the score of Czech banks remained practically unchanged.1 It is interesting to note that this stability was accompanied by a high level of banking sector integration with the rest of Europe; as of January 2010, 96 percent of bank assets were foreign owned.

During the crisis, the Czech banking system remained a source of liquidity for enterprises. Between 2007 and 2009—with the exception of the fourth quarter of 2008—the cross-border interbank lending exceeded the borrowing. There were some signs of distress as banks became more reluctant to lend and the maturity structure of the loans shifted toward long-term borrowing. Some banks faced downgrades in their ratings. But banks did not require bailouts, they managed to remain profitable, and their engagement in mortgage-back securities was limited. Given the magnitude of the financial turmoil in Europe, how did Czech banks manage to stay relatively immune?

Early lessons

One of the main reasons why Czech banks survived the crisis is that they were able to learn from previous financial difficulties that the country experienced in the 1990s. After the reintegration
with Europe, in 1991 the government launched a consolidation process to help banks deal with undercapitalization and the burden of bad loans from the socialist times. After 1991, the banking sector experienced a boom; between 1990 and 1993, 53 new banks were set up. Due to relaxed rules on banking licensing in 1990–91, many new banks lacked adequate capital and/or staff with relevant expertise. In the absence of adequate supervision of the sector, these small banks took on substantial risks, usually associated with venture capital enterprises.

Figure 8: Return on assets and bank regulatory capital to risk-weighted assets in selected economies in 2009

In the beginning of 1996, the Czech National Bank (CNB) launched a consolidation program for small banks that resulted in revoked licenses for some institutions. The authorities also started the Stabilization Program to maintain stability within the sector. This initiative proved to be unsuccessful: five out of six banks were excluded from the program. Nevertheless, thanks to all measures undertaken by the CNB, the situation in the sector improved significantly, and the ratio of nonperforming loans to total loans dropped from above 25 percent in 1995 to below 10 percent after 2001 (figure 9).

Figure 9: Nonperforming loans to total loans in the Czech Republic, 1998-2010

Although successful, the consolidation process was difficult for banks and their customers. The costs of banking sector restructuring amounted to 9.7 percent of GDP in 1992, 4.2 percent in 1998, and 2.8 percent in 2002.
There were several other factors that contributed to the resilience of the financial sector. Banks had a strong retail deposit base with supplementary bonds issuance: in the last quarter of 2009 bonds accounted for nearly 19 percent of retails deposits. According to Mitra et al. (2010), in 2010 Czech banks had the strongest loan-to-deposit ratio in the region (figure 10).

Figure 10: Loans to deposits ratio in Eastern Europe in 2009

![Figure 10: Loans to deposits ratio in Eastern Europe in 2009](image)

Source: Mitra et al. (2010).

Lending may have been more prudent in the Czech Republic than in other countries in the CEE region: the ratio of nonperforming loans to total loans in 2009 was 4.9 percent, compared with 5.3 percent in the Slovak Republic, 6.7 percent in Hungary, and 7.6 percent in Poland. During the crisis, banks were also able to improve their performance, reducing the cost-to-income ratio below 40 percent in 2009.

Households did not take loans denominated in foreign currencies to as great extent as did households in other countries. There was no increase in the ratio of foreign exchange loans to total loans between 2000 and 2007. The main reasons behind the limited presence of foreign loans were moderate interest rates in the country, lower than those set by the European Central Bank. Thanks to the credibility of the Czech National Bank and fiscal consolidation after 2004, low local currency yields (of the koruna) discouraged households from borrowing in foreign currencies.

Finally, the legal framework for financial sector supervision was strengthened during the crisis. The CNB has the sole authority for bank supervision and, together with the Ministry of Finance, prepares primary financial sector legislation. When a bank engages in undesirable or destabilizing activities, the CNB can amend the bank’s license or impose conservatorship. Moreover, since the consolidation of financial supervision in 2005, the CNB has been responsible for overseeing banks, capital markets, and insurance and cooperative banking. Centralized supervision allows for synergies: greater information flows, coordinated decisions, and coherent communication. New legislation established the Financial Market Committee that advises the CNB on supervision strategies, new trends in the financial sector, and supervision practices. The system underscores strong ties between financial institutions: at least one out of five members of body managing the Deposit Insurance Fund is chosen from the CNB.

Looking ahead

During the recent crisis, Czech banks did face challenges. In 2009 the ratio of nonperforming loans to total loans (4.6 percent) was higher than in most of Western Europe. Although the
banking system survived the crisis, the Czech export-led economy was affected by the global downturn, mainly due to falling demand from Western Europe. A plunge in external demand contributed to a decline in GDP as well as a surge in unemployment. The budget deficit amounted to 5.8 percent of GDP in 2009 (4.7 percent in 2010) and public debt grew after 2008 to nearly 40 percent in 2010 (figure 11).

Figure 11: Budget deficits and government debt as percentage of GDP in the Czech Republic, 2005-12 (forecast after 2010)

During the crisis Czech households engaged in mortgage lending that led to housing bubbles in bigger cities. During the crisis, the CNB provided the market with additional liquidity. But current ratios of highly liquid assets to total assets may not be enough to meet new Basel III liquidity regulations. Czech banks have also a surprisingly high return on equity (26.4 percent in 2009), indicating that they might be too profitable, at the cost of consumers.8

No country is crisis-proof, but Czech financial sector practices and policies have been a source of stability during the financial crisis. The GDP is projected to grow by nearly 3 percent in 2012 and the government budget for 2011 included the consolidation of public finances.9 Naturally, the recovery in a small, open economy like the Czech Republic depends on the economic performance of other European economies. Yet, when the recent crisis hit, changes in the regulation of the financial sector together with improvements in monetary policy proved to be of great value.
Sources

• Mitra, Pradeep, Marcelo Selowsky, and Juan Zalduendo. 2010. Turmoil at Twenty: Recession, Recovery, and Reform in Central and Eastern Europe and the former Soviet Union. World Bank, Washington, DC.

Notes

1 Measure 8.07: Soundness of the Banking Sector.
2 So-called Consolidation Plan I.
3 Until April 1991 regulators required the minimum subscribed equity capital of only CZK 50 million (US$2 million).
4 Data on return on assets for German banks is from 2008.
6 Leasing companies and nonbank credit institutions are not subject to the supervision.

7 With exceptions of Greece (7.7 percent), Iceland (61.2 percent), Ireland (9.0 percent), Italy (7.0 percent), and Spain (5.1 percent).
8 In comparison to 7.6 percent in the Slovak Republic, 10.7 percent in Poland, and 9.8 percent in Hungary.
9 Although consolidation measures have been passed, the Constitutional Court stated that some of the procedures were not appropriate and need to be voted on once again in order to be implemented in the budget. In order to be effective, consolidation measures need to be passed through the end of 2011.
Crisis-proofing financial integration: Canada

Abstract

The 2008 global financial crisis crippled or brought down financial institutions across the developed world and forced bailouts of banks as well as countries. But Canada’s banking sector survived the 2008-09 crisis without a taxpayer-financed bailout, and its banks remained stable and well capitalized. What did Canada do right? First, heading into the crisis, the structure of bank funding was more favorable, as banks relied much more on depository funding than wholesale funding. Second, the country has one of the most restrictive capital adequacy regulatory standards in the world in risk-weighting, allowable capital deductions, and definitions of permissible regulatory capital. Third, the structure of the Canadian banking system has traditionally made the sector more stable. Heavy regulation and tight restrictions on entry led to a highly concentrated banking system dominated by five large competitors. While this system made the sector less competitive, it also made the sector easier to regulate, limiting the size of the shadow banking sector. Supervisors always face a trade-off between competitiveness and stability—the “regulator’s dilemma”. The economy’s performance before the crisis – annual GDP growth rates between 2 and 4 percent during 1999-2008 – and the banking sector during the crisis suggest that Canada has struck the right balance.

The 2008 global financial crisis brought down many financial institutions, tarnished the reputations of others, and forced bailouts of banks and countries. But Canada’s banking sector survived the crisis without a taxpayer-financed bailout, and its banks remained stable and well-capitalized. This note will provide a few insights on how Canada managed to shelter its financial system from the global meltdown.

Escaping the global turmoil

Unlike many industrialized countries, the Canadian financial system weathered the recent global financial crisis well. Many who perceived the Canadian system as too risk averse in the boom years praised it after 2008 for its prudent lending practices. The country topped the World Economic Forum’s ratings for banking sector soundness for three consecutive years between 2008 and 2011 (figure 12). Canada also came first in Moody’s Banking Sector Outlook in 2008. Jim Flaherty, the Canadian minister of finance, was voted the Finance Minister of the Year in 2009 by Euromoney Magazine. These results are particularly impressive given Canada’s economic and financial integration with the United States. Duttagupta and Barrera (2010) suggest that US real GDP growth explains almost half of the variability in Canadian growth over the long run.

Although prudent, Canadian banks were affected by the crisis. So was the economy.\(^1\) The crisis put pressure on the banking market in terms of liquidity, funding of financial institutions, and capital adequacy. Yet despite global meltdown, Canadian banks remained profitable and were able to raise equity capital (figure 13). More interestingly, Ratnovski and Huang (2009) show that, although precrisis capitalization and liquidity ratios of Canadian banks were higher than the sample average, capitalization itself was not enough to protect banks from the crisis.\(^2\) Some US banks with higher capital ratios than their Canadian counterparts and/or relatively average liquidity levels defaulted during the financial turmoil. So why did Canadian banks do so much better? And is there a price for more prudent banking sector regulation?
Making the rules

First, the structure of funding was more favorable, because Canadian banks relied much more on depository funding than wholesale funding. According to Huang and Ratnovski (2009), banks whose funding relies more on deposits were more resilient during the crisis than those with a higher ratio of wholesale funding. Capitalization and liquidity ratios, though not the highest in the OECD region, probably strengthened the position of Canadian banks. More importantly, Canada’s exposure to US mortgage assets was limited (when compared with other OECD countries) and domestic mortgage lending was much more cautious than in the United States.4

Second, the regulatory framework restricts the risks undertaken by the banking sector. The country has traditionally had stricter capital adequacy regulatory requirements than other developed economies, even prior to the Basel Accord. One study found that Canada had the tightest regulatory capital standards in the years before the financial crisis (Quillin 2008).
Innovative financial instruments can amount to only 15 percent of capital, while 75 percent must be invested in common equity. The regulatory framework also restricts the maximum multiple of assets to capital at 20 (though exemptions up to 23 may be granted). Such regulations limited the exposure of Canadian banks to assets that turned toxic: according to Lynch (2010), the asset-to-capital multiple of major Canadian banks amounted on average to 18 in 2008, whereas it stood above 25 for many US banks and even above 30 for some European banks. Finally, regulations imposed higher capital requirements beyond the Basel Accords requirements, with the tier 1 capital requirement amounting to 7 percent of risk-weighted assets (as compared with 4 percent in Basel II) and a total capital requirement amounting to 10 percent of risk-weighted assets (as compared with 8 percent in Basel II).

Third, the structure of the Canadian banking system has traditionally contributed to stability of the sector (figure 14). Heavy regulation and tight restrictions on entry and have led to a highly concentrated banking system dominated by five large competitors. While it made the sector less competitive, it has made the sector easier to regulate, limiting the size of the shadow banking sector. Bordo et al. (2011) point out that between 1900 and 1980 Canadian system was not only more stable than the US one, but also brought higher returns on equity.

Figure 14: Bank nonperforming loans (as % of total loans) in Canada, Japan, the UK, and the US, 1998–2010

Risk versus stability

Canadian financial system provides a few insights on how to create a sound banking system: well-capitalized banks with limited leverage; system transparency; links among risk, performance, and reward; and prudent culture. In the end, however, Canadian banks did well during the crisis because they did not engage in complicated financial trades to the extent that their US counterparts did. Thus, even with similar ratios of bank regulatory capital-to-risk-weighted assets, Canadian banks were able to withstand the turmoil without bailouts.

Supervisors always face a trade-off between competitiveness and stability in the banking sector, the “regulator’s dilemma” (Singer 2007). Regulators must balance the desire of banks and investors to provide for a light touch regulation that encourages competitiveness and rewards risk taking while also ensuring stability and soundness. The economy’s performance before the crisis – annual GDP growth rates between 2 and 4 percent during 1999-2008 – and the banking sector during the crisis suggest that Canada has struck the right balance.
Sources


Notes

1 Financial distress and plunging global demand pushed GDP down by 2.5 percent in 2009, but growth recovered in 2010, reaching 3 percent (IMF WEO).
2 Authors include 72 banks from OECD countries.
3 Indicator measures soundness score according to Global Competitiveness Reports by the World Economic Forum.
4 However, the government is involved in the mortgage financing.
5 Due to the recent crisis, the share of innovative instruments in capital was temporarily extended to 40 percent.
6 (Total assets)/(tier1 + tier2).
7 These requirements are now strengthened in Basel III, which sets minimum tier 1 capital at 6 percent.
8 Nonperforming loans defined in line with the IMF methodology. Data for Germany ends in 2009.
Increasing value-added: Slovak Republic

Abstract

The Slovak Republic is the European value-added leader, increasing value added by 2.8 percent annually between 1995 and 2009. At independence in 1993, Slovak manufacturing was oriented towards heavy industry, but it was able to quickly diversify. First, productivity growth was possible due to employees moving from farms to high-growth manufacturing and services. Second, exporting enterprises in medium- and high-tech manufacturing industries were able to add value through new solutions: Slovak companies produced the second highest number of export discoveries in chemicals and third highest in animal products and raw materials in the region. Third, perhaps the biggest part of the story has been FDI, which grew from negligible amounts in the late 1990s to over 10 percent of GDP by 2010. Good policies encouraged this investment through a stable macroeconomic environment, targeted tax incentives, and a good business climate - which scored 41st in the World Bank's Doing Business in 2011, including top marks for new business registration. Fourth, unit labor cost growth has been more moderate in the Slovak Republic than in other CEE economies: in 2006, the minimum monthly wage in Slovak Republic amounted to €181 as compared to €223 in Poland, €230 in Hungary, and €280 in the Czech Republic. With its flexible factor markets and supporting policy environment, the Slovak Republic may remain a European leader in value-added for some years to come.

Enhancing productivity allows economies to grow in the long run. Since independence, the Slovak Republic managed to undergo a substantial transition, and the country currently has the third highest GDP per capita in the region, after Slovenia and the Czech Republic. Even more importantly, after years behind the iron curtain, Slovak became an attractive location for foreign direct investment from around the world. Between 2002 and 2010 Republic of Korea was the second biggest investor in Slovak Republic (12 percent of total FDI projects), after Germany (17 percent).1

Leader in productivity

Thanks to FDI-facilitated productivity growth, the Slovak Republic is one of the European leaders in terms of value-added. According to the World Bank estimates, the Slovak Republic was able to grow productivity by 2.8 percent annually between 1995 and 2009.2 The country was able to maintain high labor productivity growth between 1995 and 2009 (figure 15).

The influence of foreign FDI in the country’s manufacturing is reflected in the sectoral composition of gross value added (figure 17, in the appendix). In 2010 manufacturing accounted for a third of gross value added, nearly a 10 percent increase from 1995.3 Agriculture’s share remained practically intact at around 5 percent, while the role of financial intermediation and real estate diminished from 20 percent of gross value-added in 1995 to 15 percent in 2010. The share of services remained stable: Fernandes (2007) estimates that on average service sector accounted for around 50 percent of value-added between 1997 and 2004.

How to grow value added

Since the collapse of the Soviet Union and the country’s independence, the Slovak Republic has undergone a difficult transition from a planned economy. The macroeconomic situation in
the 1990s was far from favorable: unemployment surged from 12.8 percent in 1992 to 15.6 percent in 1998, many companies in the industrial sector were struggling to remain solvent, and the state-owned banking sector was ineffective. It was only after 2000 that economic growth accelerated, surpassing 4 percent in 2002. Thus, starting from such a difficult position how was Slovak Republic able to keep its productivity growing at high and steady pace?

First, at independence in 1993, Slovak manufacturing, oriented on heavy industry, was able to expand its base into a variety of products. Increases in productivity were possible due to transition of employees from farms to high-growth manufacturing and service industries. Moreover, the structure of Slovak agriculture, consisting of large farms, allowed for greater capital investments and productivity increases in this sector. Exporting enterprises in medium- and high-tech manufacturing industries added value through new solutions: Slovak companies produced the second highest number of export discoveries in chemicals and third highest in animal products and raw materials in the region. Alam et al. (2008) estimate that ICT-using manufacturing in the Slovak Republic contributed greater to a surge in value added than the ICT-using services.

Second, since the transition, the Slovak Republic has enjoyed growing inflow of FDI (figure 16). Foreign investment had a positive impact on productivity through a quicker capital build-up and transfer of technology. Companies ranging from German Siemens, T-systems, Volkswagen, and Deutsche Telekom; American HP, IBM, and DELL; French Peugeot, Citroën and Alcatel R&D; Korean Kia Motors, Hyundai, and Samsung; as well as Japanese Yazaki, Sumitomo, Panasonic, and Sony invested in the Slovak Republic. A bulk of these investments went to the manufacturing sector, most notably automotive. Although Volkswagen started investing in the country as early as in 1991, other investments came after 2000 (French PSA Peugeot Citroën in 2003 and Kia in 2004). Currently, the automotive industry remains a strategic sector for the Slovak economy: cars account for a quarter of manufacturing output. In 2009 machinery and transport equipment added up to more than a half of country’s exports.

To stimulate foreign investments the government provided tax incentives; in 1999, the tax allowance for VW amounted to €31.2 million. A fairly skilled labor force seems to be more disciplined than those in other CEE countries; between 1998 and 2008 there were around 26 strikes and lockouts, in comparison to 77 in Hungary and 15,575 in Poland. Slower growth of unit labor costs was also beneficial for the productivity growth, especially when high appreciation of
real effective exchange rate after 2002 is taken into account. In 2006 the minimum monthly wage in the Slovak Republic amounted to €181 in comparison to €223 in Poland, €230 in Hungary, and €280 in the Czech Republic.

Finally, some also point out the policy improvements that allowed for higher productivity growth in the region. Slow at first, the pace of reforms accelerated after 1998, including reforms in the business environment, bank restructuring, and fiscal consolidation. After 2001 the government increased its commitment to joining NATO and the European Union. The government implemented reforms of tax rates: setting personal income and corporate taxes at flat 19 percent together with a single VAT rate. The country ranks 41st in the World Bank’s Doing Business 2011 and does particularly well in registering property and getting credit. Alam et al. (2008) estimate that productivity gains from policy improvements, though moderate in comparison to other CEE countries, were the highest in terms of financial development, infrastructure stock and education.

**How to maintain the momentum**

Although productivity grew at remarkable rate in recent years there is a room for improvement. Slovaks still lag behind other industrialized European economies in labor productivity, accounting for less than a third of the EU15 average. Between 1995 and 2004 Lithuania, Poland, and Estonia were able to obtain higher labor productivity growth in manufacturing. In services, between 1994 and 2004 Slovak labor force was on average less productive than in Hungary, Poland, the Czech Republic, Slovenia, and Estonia but higher than in Latvia and Lithuania.

Another challenge for the future will be to raise country’s competitiveness. According to the Global Competitiveness Report 2010–2011, the Slovak Republic ranks only 60th, behind the Czech Republic (36), Poland (39), Slovenia (45), Lithuania (47), Montenegro (49), Hungary (52), and Azerbaijan (57). The IMF (2009) recommends a continuation of structural reforms, keeping wage growth under control as well as improving the education system. The latter is particularly important as the inflow of foreign investments uncovered a shortage of skilled labor force, despite one of the highest unemployment rates in the EU (14.5 percent in 2010). Deficiency in an educated workforce is reflected in the education attainment levels: only 15 percent of Slovaks aged 25–64 obtained tertiary educations, just one percentage point more than half of the OECD average (28 percent). At the same time, DB (2011) indicates that paying taxes remains complicated.
Nonetheless, taking into account country’s starting point, the improvements in productivity seem remarkable. IMF forecasts productivity growth to oscillate around 3.5 percent in the next years. Despite the downturn in 2009, FDI flowing to the country created more than 5,000 jobs, 44 percent more than a year before. Finally, thanks to the tripartite wage agreements signed in 2009, it will be easier to keep growing wages in line with productivity.
Sources


Notes

1. Slovak Investment and Trade Development Agency data on finished FDI projects.
2. Compound average growth rate of value added in industry and services, constant prices in USD 2005.
3. Gross value added (at basic prices), Eurostat.
4. Region understood as Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, Slovenia, Croatia, and Turkey.
5. Since then there have been some adjustments, but the basic architecture of the tax system has remained intact.

Appendix

Figure 17: Gross value-added by sector in Slovak Republic in 1995 and 2010

- Agriculture; fishing
- Industry (except construction)
- Construction
- Wholesale and retail trade; hotels and restaurants; transport
- Financial intermediation; real estate
- Public administration and community services; activities of households

Source: Eurostat.
Increasing value-added: Singapore

Abstract

Despite being a city-state of just over 700 square kilometers that has only been an independent country since 1967, Singapore is a world leader in international trade and investment. The country has successfully combined selective state intervention, market friendly policies, and from the 1970s, an export orientation to power it into the ranks of high-income countries with the 12th highest GDP per capita in the world (US$43,324 in current dollars). Singapore is a true Asian Tiger. Its journey to this position provides guidance for other economies seeking to increase their value added in international commerce. In its first decade of independence, the country manufactured labor-intensive goods (e.g., soaps, refined oil, basic chemicals, and cement), but in the 1970s the government adopted a more export-oriented approach, and consumer electronics and semiconductors as well as textiles dominated the product portfolio. Manufacturing’s share in GDP fell from 14 percent in 1965 to 24 percent by 1978. In the 1990s and 2000s, manufacturing moved toward high value-added sectors, and services became more predominant. This change has been the result of a development policy combining a free-market approach with state intervention. Singapore was able to attract multinational corporations, promoting investment and knowledge transfers as a result of stable macroeconomic conditions, efficient infrastructure services, and a supportive business environment. The country is a research and development center, topping the World Bank’s Doing Business rankings in 2010 and 2011. The state invests heavily in education and R&D. In 2007, nearly a quarter of labor force had a tertiary education. The National University of Singapore was ranked 34th in the Times Higher Education World University 2010 ranking, and Singapore scores in the top three in the TIMSS assessment measuring students’ performance in mathematics and science. The Economic Development Board focuses on attracting foreign investments and cooperates with other agencies such as human resources for specific industries. Heavy state intervention can cause inefficiencies. But Singapore’s combination of institutions, infrastructure, and interventions has rapidly augmented its value added.

For Singapore, a city-state of 5 million people and land area of 712 square kilometers, raising productivity has been an important factor behind economic growth. Over the years, Singapore became well known for its efficiency, especially as a transportation hub. Luo et al. (2010) found that Singapore is a global leader in port efficiency. Singapore was ranked 3rd in the Global Competitiveness Report 2010–11. The city managed to attract many high-tech MNCs as well as enterprises from the financial and professional business services sectors.

Growing productivity

Singapore succeeded in keeping productivity levels high. According to World Bank estimates, between 1995 and 2009 productivity in Singapore grew on average by 2.4 percent (figure 18). Wong and Seng (1997) estimate that between 1975 and 1995, total factor productivity (TFP) on average accounted for around 20 percent of economic growth. Productivity growth was weaker in the 1970s and the beginning of the 1980s but accelerated after 1985. In 2010 around two-thirds of value-added was created in the services sector, while manufacturing accounted for the remaining one-third. In the service sector, trade, financial and business services were the three biggest contributors in terms of value-added in 2010.
FROM TRANSPORTATION TO HIGH-TECH

From a historical perspective, Singapore’s economy underwent an impressive advancement. Since the country’s independence in the 1960s, Singapore slowly became an Asian transportation hub. In the first decade the country manufactured labor-intensive goods, e.g., soap, refined oil, basic chemicals, and cement. In the 1970s the government changed the economic strategy toward more export-oriented industries. Consumer electronics and semiconductors as well as textiles dominated the product portfolio. Manufacturing increased its share of GDP from 14 percent in 1965 to 24 percent by 1978. A decade later textiles started losing importance in favor of electronics, computers, and chemicals. In the 1990s and 2000s manufacturing switched toward high-value-added industries and, together with economic progress, services became more predominant. A growing importance of services is apparent in the last decade or so, based on value-added contributions by sector (Table 1).

Table 1: Value added by sector (% GDP) in Singapore in 1975, 1985, 1995, 2005, and 2008

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Industry</td>
<td>33.7%</td>
<td>36.1%</td>
<td>35.1%</td>
<td>31.0%</td>
<td>25.9%</td>
</tr>
<tr>
<td>Services</td>
<td>64.0%</td>
<td>62.9%</td>
<td>64.7%</td>
<td>68.9%</td>
<td>74.0%</td>
</tr>
</tbody>
</table>


Currently, 7 out of 10 employed work in services, in comparison to 6 out of 10 in 1980. Yet manufacturing remains an important part of the economy. Singapore exports mineral fuels, electronic components and parts, as well as chemicals, mostly to Malaysia, Hong Kong, and China.

EFFICIENCY, EDUCATION, AND THE STATE

How did Singapore evolve from a transportation hub to an innovation-driven economy? This note will investigate a few possible scenarios.
Since the country’s independence in 1965, development policy has been a combination of a free-market approach and state intervention. Tan and Phang (2004) suggest that the government recognized Singapore’s limitations in size and population of the country, and focused on efficiency. Policies introduced before 1965 underscored Singapore’s development as a major transportation hub. At the same time, the industrialization program of the 1970s and 1980s pushed for attracting FDI in selected sectors from rich Western economies and Japan. FDI stock has grown in the recent years, despite the crisis (figure 19).

Figure 19: FDI inflows to Singapore (% of GDP) from Asia, Europe, the US, and total as at year-end, 2000-09

![Figure 19: FDI inflows to Singapore (% of GDP) from Asia, Europe, the US, and total as at year-end, 2000-09](image)

Source: Statistics Singapore.

Thanks to MNCs locating in Singapore, the country was able to benefit from technology transfers, especially in targeted high-tech industries. This is reflected in the ICT sector: in the 1990s foreign enterprises accounted for more than 80 percent of output and 90 percent of value added.

The state was able to attract MNCs thanks to stable macroeconomic conditions, efficient infrastructure services, and a supportive business environment. Singapore was ranked 3rd in the World Competitiveness Yearbook 2011. The country topped the World Bank Doing Business rankings in 2010 and 2011. According to the Corruption Perception Index 2010 by the Transparency International, Singapore together with Denmark and New Zealand were the least corrupt countries in the world. Several advancements were introduced on the institutional level to make doing business in Singapore easier. For example, entrepreneurs can use the Enterprise One website, which gathers information from 30 government agencies necessary for setting up, licensing, and running a business.

Although domestic R&D performance still lags behind other industrialized economies, recently the state has been increasing its focus on innovation technologies. Thanks to a favorable business environment many MNCs have set up their R&D activities in Singapore. From the turn of the century, the innovation policy shifted from MNCs toward all enterprises capable of R&D activities, regardless of size. Singapore has ambitious plans: the so-called One-North Development, launched in 2001, aims at becoming a global hub for scientists and researchers working in biomedical sciences, ICT, and media. The center will cost around US$7 billion to develop over 20 years. Due to the importance of venture capital in the innovation process, the Technopreneurship Investment Fund was established, with initial funding of US$1 billion.
The state invests heavily in education. In 2007 nearly a quarter of labor force had a tertiary education. The National University of Singapore is ranked 34th in the Times Higher Education World University Ranking 2010. Singapore scores in the top three in the TIMSS assessment measuring students’ performance in mathematics and science. The country also ranks sixth in the OECD PISA 2009 ranking that captures students’ abilities in reading, math, and science.

**From efficiency to innovation**

The role of the state in Singapore’s economic development is substantial. It is the state who selects industries that are promoted. The Economic Development Board (EDB) focuses on attracting foreign investments and cooperates with other agencies—for example, in human resource training for specific industries. However, picking winners at the central level may cause inefficiencies.

Another concern has been the falling productivity rates in the recent years, in comparison to 1980s and 1990s. Rising employment ratios may indicate that Singapore was compensating for slower productivity with greater labor inputs. This might be because Singapore’s story could be cast as being more related to efficiency-driven growth rather than total factor productivity growth. According to Sun (2007), between 1970 and 1997, total factor productivity (TFP) growth in the manufacturing sector was partly fueled by the efficiency gains in the low-tech manufacturing sector, rather than technological progress. Some studies find negative TFP growth in the manufacturing sector in 1980s or 1990s. Efficiency alone, however, without successful R&D activities, may not be enough to support economic growth in the long run. Despite high-quality education in the country, Singapore needs to strengthen its domestic research base to allow for spillovers and backward linkages between multinationals and local suppliers. And the state alone cannot replace the willingness of domestic companies to invest in cutting-edge ideas. For example, in the ICT sector MNCs located in Singapore still rely on technology transfer from abroad: in 2004 two-thirds of largest ICT patent holders were foreign enterprises.

Long-term economic growth in Singapore will depend, among other things, on productivity levels and export performance. An aging population will pose additional challenges on the resource side. Felipe (2010) also suggest that the diversification and flexibility of Singapore’s export basket falls behind other industrialized countries. Nevertheless, Singapore should be considered as a useful example of how countries with limited resources can alter their economic future.
Sources

• Kiang, Lim Hng. 2011. “Singapore’s Key Role in Asia.” Speech given at the Eighth Annual Citi Asia Pacific Investor Conference, February 16.


Notes

1 Department of Statistics, Singapore.
2 Compound average growth rate of value added in industry and services, constant prices in USD 2005.
3 The author defines low-tech industries as textiles, wearing apparel, leather products, footwear, wood products, and furniture.
4 Different studies estimate various TFP growth rates of manufacturing sectors. See Tsao (1985) and Koh et al. (2002).
Job creation: Ireland

Abstract

Between 1995 and 2009, the rate of employment growth in Ireland was the second highest in Western Europe, surpassed only by Spain. These new jobs were mainly in services, though manufacturing employment also increased. Since the mid-1980s to 2008, the country of 4.5 million created more than a million jobs, and changed from being known for exporting people to become a destination for foreigners seeking work. While the crisis has reversed some of these gains, the factors that helped Ireland become a job creation leader remain intact. A good environment for doing business, integration with a large European market accentuated by sensible infrastructural improvements, and aggressive outreach to foreign investors by the Irish government all led to rapid economic growth. A low labor tax wedge and large investments in education and training helped translate this economic momentum into jobs. Ireland now faces the challenge of maintaining macroeconomic stability, but its business fundamentals remain strong, resembling those of East Asian tigers.

While most of Western Europe was struggling to keep jobs at home during the past two decades, Ireland has managed to transform itself from a country known for mass emigration to an attractive destination for foreign companies and jobseekers. Since 1995 immigration has surpassed emigration, reaching nearly 90,000 in 2007, or more than 2 percent of population.¹ The share of the foreign-born doubled in just six years, from 3.1 percent in 1999 to 6.3 percent in 2005.² This is particularly striking for a country of about 4.5 million that has had a long history of labor outflows: between 1820 and 1920 more than 4 million Irish migrated to the United States and the population levels stabilized only in 1960s.

Jobs superstar

In absolute terms, between 1986 and 2008 Ireland created more than a million jobs.³ Although much of the growth after 2003 resulted from a boom in construction fuelled by cheap credit, the bulk of jobs created during 1990s and 2000s can be considered a genuine economic achievement. Between 1995 and 2008 Ireland increased employment by 1.6 percent annually (figure 20). At an average annual rate of 5.3 percent, GDP growth comfortably outpaced the rest of the EU and OECD.

Ireland experienced a structural transformation. Employment in services grew by 1.6 percent annually between 2000 and 2010, in comparison to a decline of -2.3 percent for industry and -3.8 percent for agriculture.⁴ Share of services in total employment increased by 10 percentage points, from 63 percent in 1999 to 73 percent in 2010, while industry’s share fell from 30 percent to 23 percent, and agriculture’s from 7 percent to 4 percent (figure 21).

Construction, real estate, renting and business services, financial intermediation, health and social work, as well as hotels and restaurants contributed relatively more to employment growth (table 2, in appendix). Finally, most of the jobs were generated by private enterprises: the number of jobs added in the private sector between 1990 and 2008 was nearly nine times higher than that in public sector (the share of public employment in the total fell from 24 percent to 18 percent).⁵
Generating employment

Irish success in creating employment is largely a result of growing foreign direct investment. US high-tech companies seeking a European base opened branches in Ireland and cooperated with local suppliers of research, technical, and professional services. How did Ireland manage to attract so many international investors?

First, macroeconomic stabilization and the anchoring efforts of deepening EU integration helped. After the turbulent 1980s that saw soaring public debt (107 percent GDP in 1987), high unemployment (18 percent in 1987), and rampant inflation (over 20 percent in 1980), the establishment of macroeconomic stability generated big gains. Average annual GDP growth during the 1990s was more than double the rate of the 1980s and contributed to the taming of public debt (less than 20 percent of GDP by 2007), price stability (annual average inflation of 3 percent from 1990 to 2007), and big employment growth (unemployment fell to 3.9 percent in 2001). Ireland’s integration with the EU and the adoption of the euro inspired even more confidence in the country. Murphy (2006) suggests that a commitment to the European integration and
lack of language barriers were two significant factors behind investments of US multinational companies in Ireland. Indeed, Irish economic policy focused on fostering FDI. By following a trial and error strategy in the 1980s and 1990s, the Industrial Development Authority (IDA) was able to attract high-tech enterprises to Irish industrial clusters. Loewendahl (2001) suggests that the IDA started targeting American pharmaceutical and electronics companies as early as the 1970s. In the late 1980s and 1990s the IDA focused on software and internationally traded services, and then shifted its attention toward investments in e-commerce, information technology, and multimedia in the early 2000s. Apart from attracting foreign companies, Ireland invested in providing adequate linkages between the clusters and the rest of the country: a sizeable share of EU cohesion funds was spent on infrastructure investments. The IDA also launched the National Linkage Programme aimed at enhancing cooperation between local suppliers and foreign investors.

Companies coming to Ireland have been granted financial incentives, including grants and tax exemptions. Initially, the IDA attracted companies to particular clusters; later, in the first decade of the 2000s, it tried to diversify the locations of foreign entities. For example, the majority of financial enterprises initially went to the International Financial Services Center in Dublin and only later has the growth spread beyond the central location. Currently, there are several major industry and business clusters outside of Dublin: Cork, Shannon/Limerick, Galway, Waterford, Athlone, and Sligo.

Second, a favorable business environment allowed Ireland to become an attractive location for multinational companies. The country scores in the top 10 in the Economist Intelligence Unit’s ranking of business environments. According to an analysis by PricewaterhouseCoopers (PWC), compliance with income, corporate, and consumption taxes takes less time in Ireland than in any other EU country except Luxembourg (PWC 2011). Likewise, the World Bank’s Doing Business 2010 suggests that Ireland performs particularly well in terms of paying taxes, protecting the investors, and closing a business—major factors for international investors. The tax rates in Ireland proved to be particularly competitive, with one of the lowest total tax wedges among OECD countries (figure 22).

Figure 22: Total tax wedge in 2008 as a percentage of labor costs in OECD countries

However, Walsh (2000) suggests that Ireland’s commitment to a favorable tax regime for businesses came as early as the 1960s. So a low tax rate is not by itself enough of a factor, to explain the inflow of FDIs and generation of employment after 1990.
Finally, by the 1980s the country had an abundant and relatively cheap labor force when compared with other European economies. Compared with Spain, Portugal, and Greece, it invested the largest share of EU cohesion funds in training and education, including computer skills. Thanks to those investments, innovative companies like Google, Yahoo, and eBay decided to have their European base in Ireland. The availability of skilled human capital is still an advantage in Ireland; in 2007, at the height of the boom, the Talent Shortage Survey by ManpowerGroup indicated that only 17 percent employers in Ireland reported having problems filling jobs, in comparison to 31 percent average in EMEA. The university base seems solid: two Irish universities were listed in the top 100 of the Times World University Ranking 2010. Dublin area serves as an important education center. According to Dublin Chamber of Commerce, three out of four Irish PhDs come from Dublin County.

**Surviving the crash**

During the recent crisis of 2008-09 GDP contracted in three consecutive years (by -3.5 percent in 2008, -7.6 percent in 2009, and -1.0 percent in 2010), and the country required a joint bailout by the IMF and the EC. Employment suffered as well: the harmonized unemployment rate tripled, from 4.6 percent in 2007 to 13.6 percent in 2010 (figure 23). The gross government debt was estimated at 96 percent GDP in 2010 and is forecasted to shoot up to 125 percent GDP in 2013. Apart from dealing with problems at home, as a small, export-led economy Ireland depends on the performance of its trading partners. A recent study by Kanda (2008) suggests that shocks to quarterly US GDP have a significant impact on quarterly Irish GDP. The inflow of foreign investments in the ICT sector does not necessarily transform to technological advancements at home, as technology is often imported. Additionally, the competition between FDI locations, especially in terms of services, is becoming more intense: the A.T. Kearney Global Services Location Index 2011 ranks Ireland only at 49 among 50 surveyed countries in terms of attractiveness. However, given Ireland’s stellar record in putting people to work, the situation of the Irish may be not as grim as it seems. Despite the recession, on average more than 1,000 new businesses were set up each month in 2009. In 2010 HP announced adding 105 new jobs for highly skilled individuals in Global IT in Galway. Finally, in the past couple of decades the country has shown its ability to transform itself and benefit from global processes and international integration. Returning to high economic growth may require time: GDP growth is forecast to surpass 3 percent.
only in 2015. In order to reattain a high competitiveness rating, Ireland has to regain fiscal stability and the trust of international investors. Be that as it may, the transformation its economy underwent in the last three decades is remarkable—in 2010, at the depth of the economic crisis, GDP per capita was more than seven times the level in 1980.
Table 2: Employment by selected activities in Ireland in 1986, 1995, and 2008: level and share of total employment

<table>
<thead>
<tr>
<th>Activity</th>
<th>Level (in thousands)</th>
<th>Share of total employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Hunting and Forestry</td>
<td>169.9</td>
<td>146.2</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>212.2</td>
<td>245.1</td>
</tr>
<tr>
<td>Construction</td>
<td>72.7</td>
<td>96.6</td>
</tr>
<tr>
<td>Hotels and Restaurants</td>
<td>27.8</td>
<td>70.6</td>
</tr>
<tr>
<td>Financial Intermediation</td>
<td>34.3</td>
<td>48.1</td>
</tr>
<tr>
<td>Real Estate, Renting and Business Activities</td>
<td>45.6</td>
<td>78.3</td>
</tr>
<tr>
<td>Health and Social Work</td>
<td>75.2</td>
<td>103.8</td>
</tr>
</tbody>
</table>

Job creation: New Zealand

Abstract

In the past two decades New Zealand, a country of 4 million people, generated around 500,000 jobs. Between 1995 and 2009 the country was able to add new jobs at an annual rate of 0.9 percent. What is more, New Zealand ranked fifth in the Global Entrepreneurship Index that captures business formation processes in 71 world economies. The unemployment rate dropped from nearly 11 percent in 1991 to 4 percent in 2008. At the same time, the labor force participation rate of 70 percent was among the highest in the advanced world. These results are particularly impressive for a country that in the 1980s had one of the most rigid labor markets in the OECD. How has New Zealand generated these labor market outcomes? First, there was a dramatic change in the regulation that allowed for much greater flexibility in the labor market. In the 1980s the market was heavily regulated, with compulsory union membership and wage setting in the majority of industries. A change came in 1991 when the Employment Contracts Act was implemented. New rules encompassed deregulation of employment contracting and the abolition of many union privileges. Incentives were also put in place for employers and employees to negotiate contracts at an enterprise level. Although the Employment Relations Act in 2000 and additional amendments in 2004 limited the flexibility of the system, employment regulations are still much improved in comparison to the 1980s; the number of strikes and lockouts went down from 172 in 1988 to 31 in 2007. Reforms of the labor market in the beginning of 1990s were also part of broader liberalization efforts to encourage foreign direct investment. The opening of New Zealand’s economy accelerated the pace of the employment growth between 1992 and 1996 that in some quarters surpassed 5 percent. Countries looking to create jobs should look to New Zealand for guidance on how injections of labor market liberalization can lead to large payoffs in terms of employment creation.

Growing employment can fuel economic growth and improve the well-being of citizens. Since the early 1990s, New Zealand, with a population of 4 million, has generated around 500,000 jobs.¹ New Zealand ranks fifth in the Global Entrepreneurship Index that captures business formation processes in 71 world economies (Acs and Szerb 2010). By contrast, in the 1980s the country had one of the most rigid labor markets in OECD. Although there are still some hurdles ahead, New Zealand’s experience in transforming its economy could provide some practical insights for other countries.

An island of opportunity

For an advanced economy, New Zealand has been quite successful in generating employment. Between 1995 and 2009 the country was able to add new jobs at an annual rate of 0.9 percent (figure 24). The unemployment rate dropped from nearly 11 percent in 1991 to 4 percent in 2008. The recent labor force participation rate of 70.3 percent of working age population was among the highest in the advanced world.² Most new jobs were created in professional services as well as health care and social assistance, while manufacturing’s share in total employment shrunk (table 3, in the in appendix). New Zealanders work on average longer than their OECD counterparts, as the effective age of labor-market exit is 67 years for men and 65 for women (in comparison to the OECD averages of 63.6 and 62.4, respectively).
How to create jobs

How was New Zealand able to generate employment? First, there was a dramatic change in regulations, allowing for much greater flexibility on the labor market. In the 1980s the market was heavily regulated with compulsory union membership and wage setting in the majority of industries. The Employment Contracts Act implemented in 1991 deregulated employment contracting and abolished many union privileges. Incentives were also put in place for employers and employees to negotiate contracts at an enterprise level. Although the Employment Relations Act in 2000 and additional amendments in 2004 limited the flexibility of the system, employment regulations are still much improved in comparison to the 1980s: the number of strikes and lockouts went down from 172 in 1988 to 31 in 2007.

Figure 24: Average annual job creation rate (compound average annual growth rate of employment participation as percentage of working population) and recent employment participation rate (percentage of working age population) in selected economies, 1995-2009

The reforms to the labor market in the beginning of 1990s were a part of broader liberalization efforts. The opening of New Zealand’s economy accelerated the pace of the employment growth between 1992 and 1996, in some quarters surpassing 5 percent. It also gave rise to greater inflow of FDI (figure 25). As the world’s biggest dairy exporter, New Zealand attracted many multinational corporations from the food and chemicals sector, e.g., Denstree Corporation (the Netherlands), Nufarm (Australia), and Methanex New Zealand (Canada). Foreign companies have become an important employer in the country. As of March 31, 2005, foreign affiliates accounted for nearly 15 percent of total employment, according to New Zealand Statistics. Foreign enterprises were particularly dominant in the banking and insurance where two-thirds of employment in that sector came from companies based abroad.

The inflows of FDI were possible, among other reasons, due to a favorable business environment. New Zealand imposes only a few restrictions on FDI. The country ranked 10th in the 2009 Economist Intelligence Unit’s ranking of business environments and 3rd in Doing Business 2012. New Zealand enjoys a strong and transparent institutional framework in comparison to its advanced peers, according to the Global Competitiveness Report 2010-2011. Thanks to free-trade agreements, among others, with Australia (in 1983) and China (2008), New Zealand enterprises have access to large markets for its exports.
New Zealand also took advantage of its proximity to the biggest economy in the region. In 2010, Australia was a source of a half of the FDI inflows in the country, followed by the United States (11 percent). The presence of Australia’s enterprises reflects particularly well in employment statistics: as of March 31, 2005, Australian enterprises accounted for around half of the employment of foreign affiliates, and around 7 percent of total employment in New Zealand.

Finally, the country offers a well-educated labor supply; two in five New Zealanders have attained tertiary education. Thanks to a seasonal migration program launched in 2007, employers can hire workers from abroad, according to the company needs. Each accredited employer is able to hire an overseas employee up to 7 months within an 11-month period. Finally, special agreements with Philippines and Vietnam grant citizens with specific skills facilitated access to New Zealand’s labor market.

**Growing need for skills**

The expansion of a job market puts a strain on the skills side. Employers in New Zealand often struggle to hire staff with specific competences. According to the Talent Shortage Survey 2011, 44 percent of employers reported difficulties in filling positions, 10 percentage points above the global average. Engineers, sales representatives, and technicians were top three professions with shortages. A limited pool of labor is becoming even smaller due to outflows of nationals, especially to Australia. This trend picked up in the recent two decades, from 2.9 nationals per 1,000 residents in 1995 going abroad to 5.4 in 2008.

A recent report by the OECD on New Zealand indicates further necessary improvements (OECD 2011). Known for a regulatory efficiency, the country seems to have lost its leadership in the past decade. In addition, frequent changes in employment regulations in the past two decades may have had a negative impact on the labor markets. Finally, the job creation in the past two decades failed to deliver greater wealth to New Zealanders (figure 26).

Nevertheless, New Zealand’s efforts to improve its employment prospects need to be noticed. The government is currently experimenting with new initiatives to attract prospective employers. For
example, the Mankau Food Innovation Centre, due to open in the fall of 2011 in Auckland, should provide various food manufacturers with access to specialized laboratories they could not afford by themselves. Finally, due to the country’s geographical location, New Zealand needs to offer a particularly convenient business environment in order to participate in the global value chain. Recognizing this necessity early on seems to be an important step toward long-term growth.

**Figure 26: Real GDP per capita (OECD = 100) in Australia, New Zealand, and the US, 1970-2009**

Sources


Notes

1 Estimates based on total employment quarterly statistics, 1990q1 to 2010q1, Statistics New Zealand.
2 Higher rates were observed in Iceland (79.9 percent), Norway (75.5 percent), Denmark (74.4 percent), Japan (72.8 percent), Switzerland (72.7 percent), Sweden (72.1 percent), Australia (71.4 percent) and Canada (71.0 percent). Source: World Bank staff estimates, year 2009 or latest available.
3 Estimates based on quarterly data on total employment, quarter to the respective quarter from the previous year.
4 As a share of total population aged 25 to 64.

Appendix

Table 3: Share of total employment by sector in 1990, 1995, 2000, 2005, and 2010

<table>
<thead>
<tr>
<th></th>
<th>Manufacturing</th>
<th>Construction</th>
<th>Other business services</th>
<th>Transport and trade</th>
<th>Education, health care, and social assistance</th>
<th>Professional, scientific, technical, administrative, and support services</th>
<th>Public administration and safety</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990q1</td>
<td>19.9%</td>
<td>5.7%</td>
<td>13.5%</td>
<td>23.2%</td>
<td>16.5%</td>
<td>7.9%</td>
<td>5.9%</td>
<td>7.6%</td>
</tr>
<tr>
<td>1995q1</td>
<td>18.8%</td>
<td>5.4%</td>
<td>13.5%</td>
<td>22.7%</td>
<td>17.4%</td>
<td>8.8%</td>
<td>5.4%</td>
<td>7.9%</td>
</tr>
<tr>
<td>2000q1</td>
<td>16.0%</td>
<td>5.7%</td>
<td>13.9%</td>
<td>23.1%</td>
<td>19.0%</td>
<td>10.4%</td>
<td>4.6%</td>
<td>7.3%</td>
</tr>
<tr>
<td>2005q1</td>
<td>14.5%</td>
<td>6.8%</td>
<td>13.8%</td>
<td>22.5%</td>
<td>18.7%</td>
<td>11.5%</td>
<td>4.8%</td>
<td>7.3%</td>
</tr>
<tr>
<td>2010q1</td>
<td>12.1%</td>
<td>6.7%</td>
<td>14.5%</td>
<td>21.4%</td>
<td>19.5%</td>
<td>12.8%</td>
<td>5.5%</td>
<td>7.6%</td>
</tr>
</tbody>
</table>

Source: Statistics New Zealand.
Export generation: Germany

Abstract

Germany has a 9 percent share of the world’s merchandise exports, larger than that of the United States, an economy that is four times its size. It is Europe’s export leader and has strengthened its position as Europe’s growth engine during the crisis as exports rebounded to grow by 14 percent in 2010 after falling in 2009. German exports have almost doubled as a share of GDP since 1990. There are a number of key reasons for this performance. German manufacturers export to European, American, and Asian markets. Germany has taken advantage of its proximity to cheaper economies in Eastern Europe to offshore some of its production and increase efficiency both in these countries and at home. Exporters in Germany tend to be bigger than their Spanish or Italian counterparts, allowing for economies of scale and global competitiveness. A decade of successful industrial and labor reforms have led to wage restraint coupled with greater job security, allowing employers to reduce work hours without severing links with workers. Finally, a long-term mindset has encouraged medium and large businesses to maintain sizeable investments in R&D, totaling more than 2.5 percent of GDP. Germany’s economic performance has helped others in Europe: a 1 percent increase in German GDP increases eurozone output by 0.5 percent and Central European GDP by 1 percent.

Many countries want to fuel their economic growth with exports. Germany has been exceptionally successful in achieving this objective. Thanks to growing exports (the growth rate of exports was 14.2 percent in 2010) the country was able to quickly emerge from the recent economic crisis. After a sharp decline in 2008 of nearly -5 percent, German GDP grew by 3.5 percent in 2009 and 2.5 percent in 2010. In March 2011 German exports reached a record value of nearly €100 billion. The country’s Ifo Business Confidence Index rating surpassed its precrisis values in early 2011, rising to 110.4 in April. Germany ranked fifth in the Global Competitiveness Report 2010–2011 (after Switzerland, Sweden, Singapore, and the United States) and 16th in the World Competitiveness Yearbook 2010.

Europe’s export leader

As one of the global leaders in merchandise trade, Germany accounts for about 9 percent of world merchandise exports (see figure 30 and figure 31, in appendix). Although the country lost the title of world’s biggest merchandise exporter to China in 2009, it is still first in Europe. German exports as a share of GDP rose from 24.8 percent in 1990 to 47.5 percent in 2008, falling to 40.8 percent of GDP in 2009 (figure 27). The fall in volume of German exports was sizeable in 2009 (-14.29 percent) and practically equal to the euro area (14.28 percent). Exports rebounded by 14.2 percent in 2010, according to the Federal Ministry of Economics and Technology, and are forecasted to grow further by 6.5 percent in 2011.

Merchandise imports amounted to US$938 billion in 2009 (7.4 percent of global merchandise imports). In terms of services, Germany accounted for 6.3 percent of global commercial services exports in 2009, surpassed only by the United States (14.1 percent) and the United Kingdom (7.0 percent). In 2009 imports of commercial services, adding up to US$253 billion, exceeded exports (US$227 billion). Nevertheless, since 2001 the country has enjoyed rising current account surpluses, from 2.0 percent in 2002 to 7.6 percent in 2007 and 5.3 percent in 2010 (figure 27).
What did Germany do?

There are several factors that led to Germany’s success. First, thanks to its specialized, high value-added exports—especially machinery and transport equipment (44.5 percent)—the country tapped both industrialized and emerging markets. More than 60 percent of German exports goes to the EU27, followed by the United States (6.7 percent) and China (4.5 percent). By strengthening its ties with emerging economies, Germany accounted for more than one-third of EU exports to Brazil, Russia, India, China, and South Asia in 2009. Although exports to China were only 1.9 percent of German GDP in 2009, they grew by nearly 15 percent in 2010 (figure 28).

Second, Germany took advantage of its proximity to the cheaper labor force in Eastern Europe. Off-shoring production to Poland, the Czech Republic, Ukraine, and Russia not only made the cost structure leaner but also resulted in higher productivity in Eastern European facilities as well as their counterparts in Germany (Marin 2009). In the case of the automotive industry, factories in Eastern Europe became a part of Germany-centered value chains. For example, Volkswagen built plants in the Czech Republic, Hungary, Poland, and the Slovak Republic. Allard et al. (2005)
estimate that these two factors accounted for around 60 percent of the surge in German exports between 2000 and 2005.

Third, the characteristics of companies may have been another factor behind Germany’s export success. Traditionally, German enterprises are associated with the term Mittelstand that denotes small- and medium-sized enterprises dominating the manufacturing sector. Yet, Mittelstand may be more a concept than a fact. A study by Navaretti et al. (2010) suggests that German companies tend to be larger than their Spanish or Italian counterparts. Size allows exporting enterprises to take advantage of economies of scale and face costs of new technologies, complex management structures, and brand recognition.

Fourth, domestic corporate sector and labor reforms improved cost competitiveness of German enterprises. After rising criticism of high social entitlements, an aging population, and gloomy economic prospects in the 1990s, the German government started implementing a set of reforms. First, so-called Hartz reforms reduced social spending by, among other things, cutting unemployment benefits as well as modernizing the government agencies dealing with labor issues. Ecological tax reform raised taxes on energy use and transferred part of additional funds to the pension system, hence cutting employee’s contributions. Additional proposals followed in 2003, when Chancellor Schröder presented Agenda 2010. This policy was aimed at two goals: creating a suitable environment for economic and employment growth, while providing social assistance to citizens. Finally, the implementation of moderate wage agreements allowed businesses to keep wages from rising and to adjust working hours according to current demand in exchange for greater job security. Now, when demand is high, employees work longer, and in times of a downturn, hours are reduced with the state partly subsidizing lost salaries.

This was possible because German workers chose more work with lower wages rather than pushing for higher salaries and risking the loss of jobs to neighboring countries. All these measures helped to keep labor costs in check within the existing social contract. Darius et al. (2010) find that Germany had the best employment performance among the OECD countries (figure 29). However, as indicated in a Federal Ministry of Economics and Technology report (BMWi 2011), labor costs in Germany still remain one of the highest in the eurozone (BMWi 2011).

**Figure 29: Change in the unemployment harmonized rate (%) in OECD countries, 2007-09**

![Figure 29: Change in the unemployment harmonized rate (%) in OECD countries, 2007-09](chart.png)

Source: OECD and Center for Economic and Policy Research.

Finally, in the era of increased competitive pressures from abroad, the long-term mindset of the German Mittelstand is an important virtue. Companies tend to focus on investing in new
technologies, rather than realizing high profits. According to Eurostat, in 2007 Germany had the highest proportion of enterprises involved in innovation activities (63 percent) in Europe. Total R&D expenditure amounted to 2.5 percent of GDP, with the business enterprise sector accounting for 70 percent. The German skilled labor force receives both in-class vocational training and on-site practice, a dual system of training that has been a feature Germany’s economy for several centuries.

**Europe’s growth engine?**

During the recession of 2008-09 and, with it, a fall in external demand for manufactured capital goods, Germany’s merchandise exports fell by 14.3 percent. GDP contracted by 4.7 percent. In 2009, the German auto industry, which is an important contributor to exports, lost nearly a third of its export revenues. But GDP started to recover quickly, thanks partly to a rapid increase in exports.

It is not clear how sustainable this export-based model will be in the medium term. A dependence on exports together with an aging population is believed by many to pose a long-term threat to Germany’s economic prospects. The IMF forecasts that growth will slow after 2011, reaching only 1.3 percent in 2016. Some experts point out that low wages limit household consumption, which if higher, would increase demand and boost growth. High current account surpluses contribute to the imbalances among EU countries and result in bilateral deficits in Germany’s trading partners.

However, German growth is beneficial for other European nations, both inside and outside the eurozone. A recent study by the IMF (2008) suggests that between 1998 and 2007 an increase in German GDP of 0.5 percent was associated with a 0.25 percent increase in eurozone economic growth and a 0.5 percent increase in new member-state economic growth after three quarters.

Still, other countries can draw some useful lessons from what German workers, entrepreneurs, and policy makers have done during the past two decades. The mix of industrialized and emerging market trading partners allows the country to tap the potential of both groups and be more flexible when demand from Western countries falls. German entrepreneurs have cut costs by integrating regionally and producing goods that rising economies need. A long-term attitude toward doing business has enabled the country to invest more in technologies of the future (e.g. green technologies). Finally, over the years and despite some criticism, Germany kept its focus on manufacturing rather than services.

The risks come from an aging population and policies toward immigration. Germany needs the same long-term thinking that characterizes its business sector in addressing problems related to aging, education, and immigration. If German small and medium-sized companies are to succeed in the future, they will need skilled and dedicated workers. Education systems that benefit immigrants and natives differentially may jeopardize skill accumulation and hurt German industry.
Sources


Notes

1. IMF World Economic Outlook, constant prices.
2. Around US$141 billion.
3. Ifo Business Climate Index for German trade and industry, 2000 = 100.
4. IMF database, exports of goods and services.
5. WTO, in comparison to the previous year.
6. WTO.
8. UN Comtrade. See appendix.
10. IMF.
12. The following applies only to employees with permanent contracts.
14. IMF WEO.
15. Categories according to NACE (Nomenclature générale des Activités économiques dans les Communautés européennes) rev. 1 classification.
Appendix

Figure 30: Top six world leaders in exports of merchandise, in 2009 (by percentage share in total world exports)

World exports in 2009

Source: WTO International Trade Statistics.

Figure 31: German gross exports in 2009, by sector

Gross exports by sector

Source: UN Comtrade.
Export generation: Republic of Korea

Abstract

South Korea is one of the top 10 exporters in the world, registering a growth of exports as percentage of GDP from 29 in 1995 to 52 in 2009. This export performance has helped the country of 50 million people grow from “low-income” to “industrialized economy” status in less than 50 years. Today its exports, mainly heavy industry products, are worth nearly US$50 billion. Several factors account for this success. First, Korea has maintained a good environment for doing business, especially by keeping the tax wedge one of the lowest in the OECD. Second, the government has promoted exports since the 1950s, recognizing their importance when much of the world was engaged in import substitution. It has been aggressive in negotiating free-trade agreements with large and growing economies. Third, it has taken advantage of its neighborhood, first by attracting off-shored production by Japanese manufacturers, and then by off-shoring some of its own industry to cheaper Asian economies such as China and Vietnam. Fourth, it has diversified its markets. Today, about 23 percent of exports go to China, 13 percent to the EU, 10 percent to the United States, and 5 percent to Japan. China was responsible for more than 85 percent of South Korea’s export growth in 2009. This diversification of markets and a growing diversity of exported goods have helped South Korea during times of recession in different parts of the world. In 2009, for example, Korean export growth was the highest in the OECD. Korea provides valuable lessons in putting in place a generally favorable environment for exporters combined with selective interventions to speed up growth and diversification.

Economic growth in Asia has altered the way economists see the world. The export performance of East Asian economies has been a big part of this success. Perhaps the most remarkable story is that of South Korea (henceforth Korea)—a good example of how a low-income country can change its economic future through export-led growth. In just 50 years, Korea went from being one of the poorest in the world (conflict-ridden in 1953, and with a GDP per capita of US$1,110 in 1960) to a high-income, industrialized economy (with a per capita GDP of US$15,444 in 2009). When it joined the OECD Development Assistance Committee in 2009, Korea was the first former recipient of international development aid to become a donor.

Exporting to economic success

In the past two decades Korea has experienced an exceptional export performance (figure 32). Between 2001 and 2007 exports contributed to 68 percent of growth, which was less than for Taiwan (China) and Singapore, but more than in China, Japan, and Thailand. More interestingly, the country of less than 50 million people was among the top 10 world exporters in 2009, with exports valued at nearly US$50 billion in April 2011. Even in times of global economic turbulence, the performance of Korean exports in 2009 was the best in the region and its GDP growth the strongest among OECD economies.

The World Trade Organization estimates that between 2000 and 2009 Korea’s exports of goods and services grew at an average annual pace of 10 percent. In 2009 the ratio of exports to GDP was 51.8 percent, up from 28.8 percent in 1995. There was also a shift in structure of exports. Since the 1960s the country has moved from commodities and processed foods (75 percent of total exports in 1962), through manufactured goods (88.7 percent of total exports in 1985),
toward emphasis on high-tech products since the 1990s (Dornbusch and Park 1987). Currently, Korea exports mostly semiconductors, wireless telecommunications equipment, motor vehicles, computers, steel, ships, and petrochemicals. Heavy industry products accounted for 90 percent of all exports. China, the European Union, and the United States are the main export markets for Korean enterprises. It is estimated that in 2009 exports to China accounted for 10.4 percent of Korean GDP (Ali and Dadush 2010). Korean exporters have been able to catch up to their Japanese counterparts, as Korean exports were 95 percent as varied as those of Japan.3

Figure 32: Average real GDP growth between 1995 and 2009 and exports/GDP (% in 2009 or latest available) in selected economies

Source: World Bank staff estimates.

The making of an export miracle

There are several factors that allowed Korean enterprises to be so successful in international markets.

First, the Korean government has managed to keep its business environment friendly for exporters; in 2008 the country had the second lowest tax wedge (as a percent of total labor costs) among OECD countries (figure 33). Korea ranked 16th in the World Bank’s Doing Business ranking in 2010. Keeping the nominal exchange rate low vis-à-vis its key trading partners has also fueled the expansion of exports. Well-priced labor and reasonable production costs made Korean companies relatively nimble, and the export mix changed to maintain competitiveness. Revealed Competitiveness Advantage (RCA) indices suggest, for example, that the Korean shipbuilding industry managed to remain exceptionally competitive.4 The RCA index also suggests favorable positions of Korean chemical, iron, steel, and electronics industries, but an increasingly less favorable situation for the textile industry. The ability to compete comes mainly from a strategy to produce a limited variety of goods but in higher quantities, thus at lower prices. High concentration of export products (the top 20 percent of product categories accounted for 95 percent of total product exports) allowed Korean entrepreneurs to obtain higher profits and invest in R&D.5 Large enterprises account for nearly 60 percent of total R&D expenditures.

Second, starting in the 1950s, at a time when a large part of the developing world was engaging in import substitution, the government actively encouraged exports. Sectors that focused on foreign markets were granted special finance and tax policies, including subsidizing transport costs as
well as promoting infant industries. Exporters, mainly large, vertically integrated business groups (the so-called chaebol), were allowed to import inputs at world prices. From 1990 onward, the authorities supported the development of high-tech and next-generation industries. However, there is an inconclusive discussion in the literature on the extent to which activist industrial policy contributed to the growth of exports. Some argue that the role of government was crucial for the country. Others believe that additional factors (such as outward orientation and the role of the neighbors) were much more important than the industrial policy.

Third, deepening regional integration contributed greatly to Korea’s success. Castley (1995), for example, points out the role Japan played in the development of Korean exports. By off-shoring their production to Korea, Japanese companies gave Korean companies access to international markets (such as the United States and European Economic Community) together with prospective clients. In 1972 nearly three-quarters of all Korean exports went to Japan and the United States, while 81 percent of imports to Korea came from those two countries. Having access to the most sophisticated markets in the world contributed greatly to the growth of exports. The country also took advantage of its proximity to other Asian markets by off-shoring parts of production to China or Vietnam.

Fourth, Korea successfully diversified its portfolio of target markets. In 2009, 23 percent of total exports went to China, followed by the EU27 (12.8 percent), the United States (10.4 percent), and Japan (6.0 percent). Increasing economic ties with the biggest economy in the region and second biggest in the world proved to be beneficial, especially in times of global recession. In 2009 exports to China were responsible for 87 percent of the rise in Korea’s total exports, according to OECD (2010) estimates. Eichengreen et al. (2004) suggest that economic growth in China had a positive impact on exports in both middle-income Asian countries (such as Thailand and the Philippines) and high-income Asian countries (such as Japan and South Korea).

Finally, in order to ensure greater access to important markets, South Korea joined a number of international associations (ASEAN, OECD) and entered several free trade agreements (FTAs), including those with Chile, Singapore, and India. According to the Ministry of Foreign Affairs and Trade, three new FTAs are in effect: with the European Union, the United States, and Peru. The country is also negotiating further agreements with New Zealand, Canada, Mexico, Australia, Colombia, Turkey and the Gulf Cooperation Council.
Relying on exports during the crisis

During the recent economic crisis and decline in global demand for high-tech products, Korean exports fell by 15.4 percent in May 2009 compared to May 2008. Yet relative to other countries in the region, the drop in exports was relatively small and the rebound quick. Among OECD countries, in 2009 Korea was the leader of the recovery, with the highest real GDP growth (6.1 percent) and the second highest real export growth (10 percent), after Iceland (10.5 percent) (figure 34). Good trade performance fueled the recovery, partly due to the growth of Asian economies, mainly China. There were also other important contributors to growing exports: a relatively weak won, a sizeable fiscal stimulus, and good policy coordination in the OECD group. Thus, the consequences of the current global slowdown were less severe in Korea than those of the Asian crisis of 1997.9

Figure 34: Recovery in the OECD, selected economies: GDP and exports, percentage change in 2009 (4th quarter on 4th quarter)

Source: OECD (2010).

Although Korean exporters have successfully tackled the crisis, there are several challenges ahead. The IMF (2010), for example, argues that Korea could balance manufacturing and services better, thus making its economic growth less volatile. By decreasing the government’s support for export-oriented industries, the country could move from export-oriented sectors toward nontradables. Second, the competitive pressure from China is here to stay. Third, Korean population is aging, households remain highly indebted, and deteriorating terms of trade, though favorable to exports, limit income growth as well as domestic consumption. Double-digit growth rates of spending on health care can be offset only with higher productivity, raising labor force participation, and/or immigration.10

Export-led accomplishments

The magnitude of the economic expansion in South Korea during the past 50 years has been staggering; the GDP in 2009 was more than 30 times higher than in 1960.11 Even more importantly, Korean authorities have shown that they are capable of successfully managing the economy in the times of crisis. During both recent downturns—in 1997 as well as 2008—the government was able to react quickly and decisively. The macroeconomic prospects are good too. After one of the most severe crises in the past century, economic growth is robust, unemployment low (3.3
percent), and public finances stable.\textsuperscript{12} The public deficit is forecast to be close to zero in 2013. IMF (2010) points out that despite high dependence on exports, the country’s current account surpluses are relatively modest. GDP is expected to grow on average at about 4 percent per year between 2011 and 2016, while exports of goods will increase on average by more than 10 percent annually.\textsuperscript{13}

Korea has managed to leapfrog in 50 years from a low-income country to an industrialized economy. Its nondistorted labor costs and skilled labor allowed the country to expand exports for several decades. Taking advantage of regional integration and the rise of, first, Japan and then China—positioning itself first as a recipient of off-shoring from Japan and then off-shoring its activities to emerging Asia—gave Korea an important advantage. Korea’s FDI in the region exceeded US$10 billion in 2007 and ultimately, if other Asian economies grow, so will South Korea. Moreover, due to rapid growth in exports of movies, videogames, and soap operas, Korea is also becoming a cultural center of the region.\textsuperscript{14}

Government support for exports (industrial policies), outward orientation (opening trade, free market institutions) and external support from more advanced economies (especially Japan) were significant factors for export development in the past, and an evolving mix of similar factors (especially trade links with China) may prove to be beneficial for growth in the future. It is difficult to assess how replicable the Korean model is. But over the past 60 years Korea has shown one feature that others would be well-advised to study: a mix of policies that allows for successful adjustment to changing domestic, regional, and global conditions.
Sources


Notes

1 Constant prices, 2000 USD.
2 When measured as a monthly percentage growth of exports throughout 2009. Countries included in the comparison are China, India, Japan, Korea, Malaysia, Thailand, and Chinese Taiwan.
4 Created by BTMU Economic Research Office.
6 Including Hong Kong, China.
7 ASEAN = the Association of Southeast Asian Nations: Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei Darussalam, Vietnam, Lao PDR, Myanmar, and Cambodia.
8 The Gulf Cooperation Council is an economic union of the United Arab Emirates, Bahrain, Saudi Arabia, Oman, Qatar, and Kuwait.
9 The downturn of 1997, triggered by accumulation of short-term debt and nonperforming assets, was followed by a sharp decline in GDP, collapse of Korean won, and IMF loans as well as a restructuring of the banking sector after the crisis.
10 Though expenditure itself is below OECD average.
13 IMF WEO.
14 Some attribute the popularity of Korean movies and soap operas to a rise in Chinese tourism to Korea. See Li and Xiong (2007).
R&D policy: Switzerland

Abstract

Switzerland is Europe’s leader in innovation. In 2007, it obtained the highest number of patents per capita among industrialized countries, roughly three times higher than the OECD average. According to the Global Benchmark Report 2011, Switzerland is the most competitive country in the world, ahead of Canada, Australia, the United States, and Sweden (Confederation of Danish Industry 2011). There are several factors that made Switzerland stand out among industrialized countries. First, Switzerland started early. Its emphasis on research and innovation has a long history. The first two institutions funding university-based research were established in or shortly after 1943. Second, there are strong public-private links in the funding and conduct of research, and Switzerland has more private spending. Swiss companies spend twice as much on R&D than the EU27 average (Switzerland spends 2.2 percent GDP; EU27, 1.1 percent GDP). Third, Switzerland has some outstanding universities: with population of 8 million, it has four universities in the top 100 of The Times Higher Education World University 2010 ranking. In part due to its R&D policies, Switzerland may be Europe’s most innovative country and the rest of the continent should take note.

A country’s innovation performance is directly linked to the willingness of companies and academic centers to develop, implement, and share new ideas. Cutting-edge solutions are possible when governments set the right mix of legal environment and business incentives. Switzerland shows how to combine the best results in innovation with economic growth.

Swiss excellence

Among European nations, Switzerland is the leader in terms of innovation. In 2007, it obtained the highest number of patents per million inhabitants among industrialized countries (118), roughly three times higher than the OECD average (42). According to the Global Benchmark Report 2011, Switzerland was named the most competitive country in the world, ahead of Canada, Australia, the United States, and Sweden (Confederation of Danish Industry 2011). Switzerland was ranked number one in the European Innovation Scoreboard 2009 ranking, with its innovation performance growth outpacing most of the EU15 countries (Swiss growth: 3.3 percent; EU27 average: 1.8 percent) (figure 35). A rise in venture capital funding as well as community trademarks were the main contributors to this growth.

In the EU industrial R&D Innovation Scoreboard 2010, which ranks companies worldwide according to their R&D spending, 2 out of top 10 enterprises were based in Switzerland. This same metric also found that Swiss companies accounted for 4.4 percent of the world’s R&D investment. Finally, innovation plays an important role in the economy itself as, in 2007, 45 percent of the active population was employed in science and technology.

Leading in Europe

There are several factors that make Switzerland stand out. First, the emphasis on research and innovation has a long history. First two institutions funding university-based research were established in or shortly after 1943. Switzerland’s innovation performance is highly influenced by both the public sector and private enterprises and the links between the two.
Government expenditure focuses on generic research (in most cases the expenditure does not target specific thematic areas) and collaboration between private and public sector. There are several agencies involved in R&D policies, including, among others, the State Secretariat for Education and Research, the Swiss National Science Foundation, the Federal Development of Economic Affairs, and the Swiss Science and Technology Council. The first two are responsible for supporting basic research and higher education institutions. The Federal Development of Economic Affairs is in charge of applied research, technology transfer, and the general competitiveness of the Swiss economy. The Swiss Science and Technology Council serves as an advisory body to federal and cantonal administration on R&D issues. In total, gross spending on R&D stood at 3 percent of GDP in 2008, in comparison to the EU27 average of 1.8 percent (figure 36). In the recent years, the majority of the public spending on R&D has been focused on universities.

Second, Switzerland has more private spending. Swiss companies spend twice as much on R&D than the EU27 average (Switzerland spends 2.2 percent GDP; EU27, 1.1 percent). And they continued to spend on R&D even in the times of crisis. According to the EU industrial R&D Innovation Scoreboard, Swiss companies increased industrial R&D spending in 2009, while it
fall in other European countries. The majority of Swiss companies active in the R&D field are relatively large (employing more than 100 people) and belong to the medium-high innovation sector. However, small and medium-size enterprises (SMEs) do not lag behind; between 2004 and 2008 the SME sector increase its R&D expenditure by more than 50 percent. Thanks to a substantial pharmaceutical sector, with multinationals such as Roche and Novartis, the country also tapped part of the high R&D intensity sector. In 2008 pharmaceutical companies accounted for nearly 40 percent of total private R&D expenditure.

Companies are heavily involved in innovation processes, and not only at the enterprise level. Business leaders serve on the boards or advisory bodies of research and science institutions. A good example of how companies engage in education and research is the Avenir Suisse—a think-tank established by 14 Swiss enterprises in 1999 that focuses on recognizing new, cutting-edge ideas and possible research policy proposals.

Third, Swiss innovation processes are connected to its education system. The country of 8 million citizens has four universities in the top 100 of The Times Higher Education World University 2010 ranking. Swiss universities are successful in attracting international students; in 2008 approximately one in seven students enrolled in tertiary studies was foreign. The country also invests heavily in education, with the second largest level of spending on tertiary education per student among OECD, after the United States.

**Competing with the world**

Although Global Benchmark Report 2011 ranks Switzerland the highest in the world, country faces increased competition from abroad. Asian innovators seem to be catching-up at a remarkable pace, making the competition for the best R&D location harder. In 2009, Swiss companies increased their industrial R&D spending by 2.5 percent, in comparison to 40 percent in China and 27 percent in India. Naturally, developing countries start from a very low level of expenditure that allows for high growth rates.

There are several impediments along the way. Swiss productivity growth slowed, increases in R&D spending were smaller in the recent years, and GDP growth seems to be very irregular (figure in appendix). The OECD estimates that between 1995 and 2000, productivity rose on average by 1.6 percent, against the EU15 average of 1.8 percent, and then slowed to 1.0 percent between 2000 and 2006, against the EU15 average of 1.3 percent.

Additionally, a lack of competition in the sheltered sectors may discourage companies from investing in new ideas. Too many stakeholders involved in the innovation processes may hamper the development and lengthen the country’s response to changing global trends. On the tertiary education’s side, there is a growing need for greater governance, increased research efforts, and a lessening the reliance on public spending.
Sources


Notes

1. The report assesses the competitiveness based on following areas: human resources, finance and support, firm investments, linkages and entrepreneurship, throughputs, innovators, and economic effects.
2. Measure: The Summary Innovation Index comprises 29 indicators. Due to the lag in data availability, the data from European Scoreboard 2009 reflect performance from 2007/2008.
3. Half of the population employed in science and technology sector attained tertiary education.
4. The Commission for Technology and Innovation was funded in 1943 (present name from 1996), and the Swiss National Science Foundation was set up in 1952.
5. For all countries the data is from 2008, except Australia (2006) and Greece (2007).
7. The medium-high innovation sector is defined by the EU Industrial Investment Scoreboard as a sector with R&D intensity between 2 percent and 5 percent (e.g., automobiles, electronics and electrical equipment, aerospace).
8. R&D expenditure understood as intramural spending (spending on activities carried out within one entity, excluding contracts with outside research organizations).
9. High-level innovation sector is defined by the EU Industrial Investment Scoreboard as a sector with R&D intensity above 5 percent (e.g., pharmaceuticals, health care equipment, technology hardware, computer software).
10. The ranking has following criteria: teaching (learning environment), international diversity (staff and students), industry income (innovation), research (volume, income and reputation), and citations (research influence).
11. OECD, spending in all tertiary education (including R&D) per student for all services. Unit: USD PPP; reference year: 2007.

Appendix

Figure 37: GDP growth in Switzerland, 1990-2010

Source: IMF WEO.
R&D policy: The United States

Abstract

The United States is the most innovative country in the world. Half of the 50 most innovative companies in the world, by Business Week in 2010, are American. The country dominates the most R&D intensive industries. For example, it creates a third of the value added in the global information and communications technology industry. American enterprises also employed one in four people working for the 250 biggest ICT companies in the world and accounted for nearly a third of total revenue. How does the United States do so well? First, sizable public spending: gross expenditure on R&D was almost 3 percent of GDP in 2008, above the OECD average. Second, this spending is linked well to superb broad tertiary education base: the United States accounted for a third of the total OECD population with higher education. Its universities can reap the commercial payoff of R&D, even when it is federally funded. Third, federal funding is not the sole driver of innovation: private firms spend a lot. The partnership of venture capitalists and entrepreneurs in places like Silicon Valley has driven new innovations, changing businesses and expanding the technology frontier. Fourth, product market competition, labor market flexibility, and substantial management talent increase the payoff to R&D spending.

Half of the 50 most innovative companies in the world, by Business Week in 2010, are American. (figure 38). Prior to the crisis the ratio was even higher. The success of companies like Google or Facebook established the country’s reputation in the IT business: in 2008, 8 out of the top 10 Internet companies in the world were based in the United States.

Global leaders in innovation

The strong innovative performance of the American economy is represented especially by high-level R&D intensive industries. The United States leads in the global information and communication technology (ICT) sector, accounting for more than a third of the value added. What is more, American enterprises employed one in four people working for the 250 world biggest ICT companies and accounted for nearly a third of total revenue.

Figure 38: The 50 most innovative companies in the world (2010), and R&D investment by the top 1,400 companies in the world (2010), by country

All these results were achieved with gross expenditure on R&D of 2.8 percent of GDP in 2008, which is less than in Israel (4.9 percent), Sweden (3.8 percent), Finland (3.7 percent), Japan (3.4 percent), and Switzerland (3.0 percent), but more than the OECD average.

**Becoming the leader**

The success of US innovation stems from its high-powered presence in high-level, R&D intensive sectors (figure 39). In 2008, 7 of the world’s top 10 computer software firms were from the United States. Highly R&D intensive ICT sector allows economies to be more competitive and grow faster. Andes and Ezell (2010) reports that ICT sector accounted for a quarter of US economic growth after 1995.

**Figure 39: ICT sector value added in OECD countries**

![Image of figure 39 showing ICT sector value added in OECD countries]

Many of those successful ICT companies are young leading innovators (“yollies”)—enterprises set up after 1975 that managed to become world leaders thanks to investment in R&D. Yollies accounted for half of the leading American innovators, whereas in Europe the share stood at 20 percent. These young enterprises tend to be more R&D intensive than their older counterparts.

Second, the development of innovation processes is favorably linked with a superb tertiary education base. The United States accounted for a third of the total OECD population with higher education, while its universities top the world rankings. Out of 200 universities listed in the recent Times Higher Education World University Rankings for 2010, 72 were American. Each university from the top five was from the United States. In the Academic Ranking of World Universities, 8 out of the top 10 were American universities.

The US government was able to successfully change policies in the beginning of the 1980s to support the growth of innovation processes. After the Second World War, American companies enjoyed limited competition and robust profits, allowing for increased and risky investment in new technologies. Block and Keller (2008) suggest that until the 1970s, most successful innovations were funded by the private sector, while federal expenditure on R&D focused mostly on military sector. However, when companies faced increased competition thanks to lower barriers of entry and the computerization of businesses, the profit margins of the US companies were slashed, forcing them to cut costs. Many corporations closed down laboratories, reduced R&D operations, and/or shifted toward greater cooperation with government laboratories and universities.
These developments, together with increased international competition in the world during the 1980s, forced federal authorities to engage further in R&D activities. The authorities encouraged researchers and organizations to commercialize existing research and shifted their focus from the military sector toward commercial solutions. The Small Business Innovation Research was established to fund projects suggested by smaller companies. There were also several other R&D initiatives, including providing technical support for firms, encouraging collaboration of companies within particular industries, and granting tax credits. It is estimated that $1 spent on R&D credit triggers from $1 to $2 of R&D business (Atkinson and Castro 2009). Block and Keller (2008) suggest that in comparison to the 1970s, more successful innovations come from collaborative effort of various agents (government, university, and industry) rather than solely private projects. In fact, the Global Benchmark Report 2011 indicates that the United States is characterized by the best collaboration between universities and the private sector in the world.

Third, federal funding is not the sole driver of innovation. The Partnerships of venture capitalists and entrepreneurs in places like Silicon Valley allows for greater collaboration and joint funding of projects. The cohesive and connected network allows venture companies to control the financial and management side of start-ups. Venture capitalists can shape their clients and industries through, for example, legal and recruitment services. This close cooperation contributes to the development of informal ties, trust, and information sharing that fosters innovation performance. Lychagin et al. (2010) find that the geographical proximity of researchers triggers spillover effects, improving the overall R&D performance.

**Adapting to the change**

Although successful, US innovation performance was outpaced by other countries, especially in terms of funding. Gross expenditure on R&D as a percentage of GDP was higher in 1985 (2.8 percent) than in 2007 (2.7 percent) (figure 40).

**Figure 40: Gross expenditure on R&D in the US (as % of GDP), 1981-2007**

![Graph showing Gross expenditure on R&D in the US (as % of GDP), 1981-2007](source: National Science Foundation.)

Asian emerging economies are catching-up quickly, especially in the ICT sector. In 2008 Chinese ICT exports were 2.5 times bigger than the American exports. According to OECD (2010b), the US comparative advantage in ICT goods declined slightly in 2008 compared to 1998. Reduced confidence and therefore investment of venture capitalists in Silicon Valley were also observed after the 2008 crisis. For US innovation performance to remain competitive, funding itself might
not be enough: clusters like Silicon Valley need a constant inflow of gifted researchers and entrepreneurs. That presses for more even more advancement in education and research as well as mechanisms that allow for a transfer of an academic idea to specific business solution.9

Despite these challenges, the US innovation market still has a lot to offer. Even if companies like Google, Apple, or Facebook fail to provide more cutting-edge solutions, the brand of US innovation clusters may attract many researchers and entrepreneurs. The US companies are still leaders in funding. In 2009 Silicon Valley accounted for 40 percent of total US venture capital investment and represents a greater value than total European venture capital spending (Meyer 2010).
Sources


Notes

1. Before the crisis, in the Business Week ranking from 2007, American enterprises accounted for nearly three quarters of all companies listed in the top 50.
5. See Cincera and Veugelers (2010).
6. Ranking has following criteria: teaching (learning environment), international diversity (staff and students), industry income (innovation), research (volume, income, and reputation), and citations (research influence).
7. Conducted by the Center for World-Class Universities and the Institute of Higher Education of Shanghai Jiao Tong University, China. Ranking is based on four criteria: quality of education, quality of faculty, research output, and per capita performance. First published in June 2003.
8. Unit: billions of USD, current prices.
9. The transfer of researchers has been somehow more difficult due to stricter immigration procedures since 9/11.
Tertiary education: The United Kingdom

Abstract

British universities are the best in Europe, with two or three regularly among top 10 in the world. After the United States, the United Kingdom has the second largest number of foreign students. These results were achieved with total expenditure on educational institutions of around 6 percent of GDP, nearly equal to the OECD average. So how has the United Kingdom gotten exceptional results with ordinary budget? The answer seems to be that UK schools have done a better job than its neighbors in combining a rich, European heritage with modern knowhow. First, spending per student is higher in the UK than most European countries. Second, universities charge students with high tuition by European standard, supported by student loans. Third, universities in the UK enjoy more independence from government. This creates greater competition for funding and talent and more innovative curricula. The United Kingdom still faces challenges in getting the level of the tuition cap right, supporting part-time students, and ensuring that schools are producing needed skills. But the UK tertiary education system has shown that it is possible to meld the tradition of great European universities with current needs and modern approaches.

In the past, European universities were the center of tertiary education in the world, with few but excellent universities that were the birthplace of the enlightenment, philosophy, modern natural and social sciences. However, with a high dependence on the state, they are now faced with two major constraints: greater demand for higher education and limited capacity of public resources (due to growing expenditure on health and pensions).

European leader

British universities seem to be the exception. British universities were ranked second in the Shanghai Jiao Tong University (SJTU) Academic Ranking of World Universities, after the United States (figure 41). And the UK increased the number of its educational institutions listed in the top 100 SJTU ranking from 9 in 2003 to 11 in 2010. The QS World University Rankings rated Cambridge University first in 2010/2011. At the same time, in the Times Higher Education World University Rankings 2010, 3 out of 10 universities in top 10 where British.

Figure 41: Shanghai Jiao Tong University (China) higher education rankings in 2003 and 2010: Number of universities in the top 100 by region/country

Source: SJTU rankings.
Naturally, being an English speaking country gives the UK a competitive advantage over other European countries. Yet, language alone cannot foster excellence in tertiary education. In 2008 the attainment levels for tertiary education in Britain stood at 33 percent, higher than the OECD average (28 percent). Levels of tertiary education attainment grew at a pace of 3.2 percent between 1997 and 2008. The United Kingdom has the second largest number of foreign students, after the United States. Total expenditure on educational institutions of 5.8 percent of GDP was nearly equal to the OECD average (5.7 percent). How has the UK gotten exceptional results with ordinary budget?

**Rich heritage, modern attitude**

There are several reasons why British universities lead the rest of Europe. First, despite modest total spending on educational institutions as a percentage of GDP, British tertiary educational institutions spend more per students than their European counterparts. In 2007, annual expenditure per student in the UK amounted to US$15,463, in comparison to EU19 average of US$12,084. Moreover, this spending fell by 8 percent between 1995 and 2000 and then surged by 61 percent between 2000 and 2007. Higher spending derives partly from the fact that, in addition to public support, British universities charge students high tuition fees by European standards. The Higher Education Act of 2004 (implemented in 2006) changed the rules for financing higher education; the universities are now able to increase and differentiate tuition fees up to certain ceiling (£9,000 per year from 2012). Students can support their payments with loans funded by the government. Findings by Dearden et al. (2008) indicate that, although the level of tuition fees has risen, the net cost of higher education decreased for lowest levels of parental income distribution. Consequently, the net cost has risen for middle- and high-income households.

Second, British universities enjoy greater independence from the state in terms of funding. The reason for that has deep historical roots. While in the 19th century most European universities lost their independence, with governmental bodies taking control of appointments and salaries, the UK was the only country that did not follow suit. And although in the 19th century, universities in Europe usually charged students for their studies, most European countries (apart from the UK) reigned from tuition fees in the interwar years. Thus, British universities rely much less on the state than their European counterparts. Public funding that is distributed though the Higher Education Funding Councils accounts only for part of university funding; the rest comes from tuition fees, research grants, endowments, and investment income. In the UK more private resources are spent on tertiary education than in any other European country (figure 42). Aghion et al. (2007) indicate that the budgets of the best universities in the UK were twice the average value for all universities in the country.

Third, the British tertiary education system offers a variety of choices for prospective students. Apart from universities and colleges, the system offers Magnet Schools (specialist schools) as well as Charter Schools (academies and City Technology Colleges). The implementation of the Further and Higher Education Act 1992 allowed for greater diversity in higher education; the act abolished the divide between two categories of tertiary education and enabled a unitary approach toward universities and colleges. In 1999 the authorities changed the criteria on granting the distinction “university,” thus allowing for the further development of new educational institutions. Universities are often aligned in mission groups that foster cooperation: for example, out of 20 members of so-called Russell Group, 15 were listed on top 100 universities.
in the world. All universities get feedback from their students and therefore are able to improve their services. The National Student Survey agency performs a five minute questionnaire on how students enrolled in undergraduate courses assess their studies.\textsuperscript{7}

\textbf{Figure 42: Private expenditure on tertiary educational institutions in 2000 and 2007 as \% of total (private and public)}

Source: OECD (2010).

\textbf{The right mix}

British universities are the best in Europe and second best in the world. However, they are still not as autonomous as their American counterparts with caps on tuition levels. While recent reform of funding benefits households with the lowest incomes, the support for students has its shortcomings. British students working part-time, unlike their American colleagues, are usually not eligible for loans to support their tuition fees and are required to pay tuition fees upfront. There is also a need for greater accountability; superb performance in teaching is much less generously rewarded as excellence in research. Students lack choices as well as adequate information on courses offered and as a result higher education institutions deliver inconsistent outputs. The World Bank’s Doing Business report suggests inadequacies in workforce education.

All in all, taking into account the long history and rich traditions of British education, its ability to remain among the best over centuries should not be forgotten. From their origins in the 11th century, British universities have undergone several organizational and financial transformations. Naturally, the system faces challenges that need to be managed if higher education institutions want to stay on the top. Yet it seems that in the recent years subsequent governments as well as university authorities have recognized the role tertiary education plays in the British economy. Finally, British universities provide an interesting perspective how to successfully draw from the rich, European academic heritage and, at the same time, benefit from modern approaches in successful governance and management of funding.
Sources


Notes

1. The rankings are made by the number of universities in the top 100 by country. The ranking is conducted by the Center for World-Class Universities and the Institute of Higher Education of Shanghai jiao Tong University, China. Ranking is based on four criteria: quality of education, quality of faculty, research output, and per capita performance. First published in June 2003.

2. The ranking has following criteria: teaching (learning environment), international diversity (staff and students), industry income (innovation), research (volume, income and reputation), and citations (research influence).

3. Others include, in 2003, Australia (2), Canada (4), and Israel (1), and in 2010, Australia (3), Canada (4), Israel (1), and Russia (1).

4. OECD, a percentage of population between 25 and 64 years old.

5. Annual expenditure of tertiary educational institutions per student for all services in 2007, OECD, in USD PPP. EU19 denotes nineteen OECD countries that are members of the European Union.

6. There are three councils that manage the distribution of public funds: The Higher Education Funding Council for England (HEFCE), Scottish Funding Council for Further and Higher Education (SHEFC), and Higher Education Funding Council for Wales (HEFCW).

7. The survey touches upon different issues: teaching, academic support, organization and management, personal development, etc.
Tertiary education: The United States

Abstract

American universities successfully address two important issues: a growing demand for tertiary education, limited capacity and public funding. A diversity of academic opportunities helps target different educational needs, while abundant funding and favorable governance allow top universities to attract world scholars, students, and companies, channeling knowledge into ideas, innovations, and business solutions. Moreover, universities enjoy autonomy and diversity in funding, which is important in setting standards. U.S. universities dominate the international league tables, taking the top 5 positions - 7 of the top 10 - in the latest Times Higher Education ranking. Moreover, U.S. universities attract 20 percent of all international students. Given the role of top universities in building human capital for public and private sectors and as direct and indirect contributor to innovation, other countries should look at how the United States regulates and finances its higher education system.

As economies become more knowledge-based, universities act like clusters that create and disseminate knowledge. Simultaneously, more people around the world want to study. According to OECD, enrollment in tertiary education rose on the global level from 68 million in 1991 to 132 million in 2004. Tertiary education is also influenced by globalization and international mobility, which allows students to choose among different locations.

Best of the best

In tertiary education the United States is the world leader. The country accounted for a third of the total OECD population with higher education, while its universities top the world rankings. Out of 200 universities listed in the Times Higher Education World University 2010 ranking (THES), 72 were American (figure 43). Each university from the top five was from the United States. In the Academic Ranking of World Universities, 8 out of the top 10 were American universities. Ivy League schools like Harvard, Princeton, or Yale are globally recognizable brands that attract researchers and students from all over the world. In 2008 the United States tapped the highest share of international students among OECD countries (figure 43).

Figure 43: Market share in international education in 2008 (as % of all foreign tertiary students) and Times Higher Education World University ranking top 200 (by number of universities listed in selected regions/countries)

Source: OECD, Times Higher Education World University ranking.
The American population is well educated; the attainment levels for tertiary education in the United States (41 percent) are one of the highest among OECD countries (after Canada: 49 percent; and Japan 43 percent) and grew on average by 1.7 percent per year between 1997 and 2008. American society places great value on tertiary education, and the OECD estimates that the net wage premia per year for obtaining tertiary education exceeded 8 percent in the United States.

**Road to reputation**

Having the best providers of tertiary education is not an easy accomplishment. As pointed out by Salmi (2009), one needs not only excellent research teams but also innovative curriculums and teaching methods. How have American universities managed to be so successful?

The most obvious explanation could be that American excellence stems from higher spending per student. Indeed, the annual expenditure of educational institutions per student amounts to US$27,010 in comparison to OECD average of US$12,907 in 2007. Private expenditure at the tertiary level among OECD countries is the highest in the United States, according to OECD. High levels of expenditure seem logical when GDP per capita is taken into account: the richer the country, the more its educational institutions are able to afford (figure 44).

**Figure 44: Tertiary education in 2007: Expenditure of educational institutions per student versus GDP per capita (USD PPP) in selected OECD countries**

In 2007 the United States had the highest ratio of annual expenditure by educational institutions per student to GDP per capita (amounting to 58 percent) among OECD countries. By contrast, Canada had the ratio of 55 percent, the UK 44 percent, and Germany 39 percent. Having substantial resources for faculties and students gives universities a good start; plentiful funding lures talented researchers and they can pursue their interests with less financial restraint. The findings of Aghion et al. (2007) show a positive correlation between total expenditure per student and a country’s performance in research. This is also a strong incentive for students, as they are able to learn from the best scholars in the field.

However, having large budgets is not enough. Some research finds that with generous financial resources universities need autonomy over budgets to succeed. There is a positive correlation
between level of autonomy and research performance, especially in terms of employment and setting wages (Aghion et al., 2007, 2008). The governance of American universities and their level of autonomy depend greatly on the legal framework of a particular state. Overall, US universities seem to be more independent then their European counterparts, especially in terms of sources of funding and remuneration. The autonomy derives also from diversification of funding sources. Leading American universities receive support not only from federal and state authorities and students but also through other sources: particularly donations from private enterprises, foundations, and alumni. Some major research universities like Harvard have large endowments that are invested and managed. This allows them to be more independent from the state in terms of employment, setting salaries, and conducting research activities. In addition, thanks to the Bayh-Dole Act (introduced in 1980) the property of government-funded inventions can be transferred to universities, allowing for further development and commercialization.

Unlike some European universities American universities are not democratic. They are in many cases governed by a board that is in charge of managing the entity, including appointments and salaries. Students are more clients than stakeholders. Thus, US universities with independent budgets and wages face much greater competition from each other than their European counterparts. The competitive system reinforces peer learning, development of innovative curriculums, and the diffusion of policy solutions across the states.8

Although Ivy league universities often are most associated with American tertiary education, the system offers students a variety of choices. Out of all graduates in 2008 34 percent earned qualifications requiring more than three years of study (OECD average: 6 percent), 44 percent earned four-year bachelor degrees (OECD 43 percent), 20 percent earned master degrees (OECD 16 percent), and 2 percent earned doctorates (OECD 2 percent).9 The role of diversification was recognized by policy makers in many US states. For example, in California reforms of the tertiary education system (California Master Plan for Higher Education) in 1960 introduced community colleges, the Universities of California, California State University, private universities, and junior colleges. The case of California also shows the autonomy and flexibility the universities have: the California Master Plan was negotiated by leaders of universities and colleges in the state rather than governmental officials.

Finally, an important strength of American universities is their ability to attract foreign students and scholars. The United States tapped the highest share of international students (18.7 percent) among OECD countries.10 In addition, international students accounted for 28.1 percent of all students enrolled in advanced research programs.11 Students are attracted by the excellent quality of teaching that derives from a diverse and talented pool of staff. American universities managed to get the best scholars due to various reasons, including financial incentives: average remuneration for researchers in the United States stood at €62,793, in comparison to EU25 average of €40,126.12

The brand, the cost, and the future

Globalization and mobility of international students and scholars changed the way top national universities do business, making them compete in a much broader, global market. American universities seem to be the most successful on international education market, but there are some challenges ahead. Recent growth in tuition costs in state and private universities make education less affordable, in spite of states subsidies and federal government loan aid (figure 45).
However, Chapman and Tulip (2008) argue that rather than tuition, cost of living and alternative cost of not working during studies are the main barriers for prospective students.

**Figure 45: Annual average tuition fees in USD charged by institutions (for full-time students) in academic year 2006–07 in selected OECD countries**

Due to high tuition costs, a system of student-income contingent loans was introduced in 1993, based on private student loans with government subsidization of parts of the loan. This solution was reformed again in March 2010, and replaced with a government loan scheme. On average, in the academic year 2006–07, 38 percent of students benefited from public loans or scholarships/grants, which was lower than in Sweden (50 percent) but higher than in the Netherlands (21 percent), and New Zealand (24 percent).

During the recent crisis, state universities faced cuts in funding, pushing the pressure to slash expenses or raise tuitions. Some kept the wages flat or even decreased them, others increased student fees. As universities invest on the market to raise funds, they become dependent on performance of the economy. In the 2008–09 fiscal year, the total value of Harvard’s endowment was down by nearly 30 percent to US$25.7 billion. On average, colleges and universities lost 23 percent in endowments in the respective period. However, when the market recovers, private universities will most probably recoup their losses, while public ones may face limited state spending, hence leading to greater gap between those two groups. There is also a threat that the focus of many universities has shifted too much from teaching toward research, with researchers often receiving higher remuneration than teachers.

American universities successfully address two important issues: a growing demand for tertiary education, and limited capacity and public funding. A diversity of academic opportunities helps target different educational needs, while abundant funding and favorable governance allow top universities to attract world scholars, students, and companies, channeling knowledge into ideas, innovations, and business solutions. Universities enjoy autonomy and diversity in funding, which is important in setting standards. Finally, the American example shows that universities need three crucial features to flourish: a pool of talents, abundant resources, and favorable governance.
Sources


Notes

1 The ranking has following criteria: teaching (learning environment), International diversity (staff and students), industry income (innovation), research (volume, income and reputation), and citations (research influence).
2 Conducted by the Center for World-Class Universities and the Institute of Higher Education of Shanghai Jiao Tong University, China. The ranking is based on four criteria: quality of education, quality of faculty, research output, and per capita performance. First published in June 2003.
3 Percentage of foreign tertiary students reported to the OECD who enrolled in each country of destination. Reference year: 2008.
4 A percentage of population aged 25-64. Source: OECD.
5 Findings were true for both men and women.
6 For all services in 2007 (in USD PPP), OECD.
7 For all services, in equivalent USD PPP.
8 McLendon et al. (2005) find strong evidence for policies diffusion across the US states.
9 Degrees with cumulative theoretical duration of at least 3 years are considered to be at tertiary level and part of the Bologna structure (first degree) – OECD methodology.
13 Countries selected according to availability of the data.
14 National Association of College and University Business Officers and Commonfund survey.
Management quality: Sweden

Abstract

According to Bloom and Van Reenen (2010), Sweden is in a tie with Germany for having the best managers in Europe and second best in the world, after the United States. The country is also the world leader in monitoring management. And the superb performance of Swedish managers is not just a result of higher salaries. In fact, CEOs in Sweden earn less than the average in the Nordic countries and around 40 percent of the average for their international peers. So why is Sweden so good in management? As in the United States, much of the country’s ability to encourage top management relates to the broader policy environment in which firms operate. First, Sweden invests in high-quality education: one in three Swedes ages 25 to 64 attended tertiary education. More than half the population between the ages of 25 and 64 attained upper secondary and postsecondary (nontertiary) education, 9 percentage points above the OECD average. Second, the education system is highly competitive. Individuals can start their own schools, the state will pay for the students, and if they manage these funds effectively enough the schools can generate profits. There’s no fixed curriculum or study plan. Instead, schools are given a number of goals in each subject that students need to achieve. High-quality education matters a lot, because the smarter the employees, the greater is the management quality in the private sector. Third, Sweden has fairly competitive product markets. Roseveare et al. (2004) underscore that in the 1990s Sweden was a European pioneer in deregulating a number of sectors, including rail transport, domestic air traffic, postal, and telecom. Finally, a strong emphasis on equal opportunities makes the job market transparent and competitive. An emphasis on equality and transparency makes the recruitment process fair and competitive, allowing companies to find the best fit for a particular position. The labor market is inclusive; Sweden has the best policies in Europe toward migrant integration on the labor market and the country scored fourth in the World Economic Forum’s Global Gender Gap Index 2010. European countries will need to find ways to encourage top managers to perform. Sweden is an example of how this may be accomplished.

Faced with increased competition from East Asia and North America, European enterprises need to be productive, creative, and innovative to operate on the global market. How can management quality help? According to recent findings by Bloom and Van Reenen (2010), greater management quality may positively impact a firm, and thus a country’s, productivity growth. The authors put forward a ranking that compares countries according to their achievements in management. In Europe, Sweden is the leader in terms of overall management. This country benchmark investigates why.

Europe’s number one

Sweden (in a tie with Germany) has the best managers in Europe and second best in the world, after the United States (figure 46). The country is also the world leader in monitoring management. The superb performance of Swedish managers is not a result of higher salaries, as CEOs in Sweden earn less than the average in the Nordic countries and around 40 percent of the average for their international peers. So why is Sweden so good in management?

From efforts to achievements

There are several possible reasons why Sweden was able to outscore its European peers in management quality.
First, Sweden invests in high-quality education. One in three Swedes aged 25-64 attended tertiary education. More than a half of population between the ages of 25 and 64 attained upper secondary and postsecondary (nontertiary) education, 9 percentage points above the OECD average. Students may choose among 17 national programs, including vocational programs that prepare for certain professions. The education system is one of the most inclusive in Europe, according to Muskens (2009). Even more important, Swedes continue to study and improve their skills even when they finish the initial education phase. On average, 7 out of 10 Swedes aged 25 to 64 participate in formal and/or informal education, the highest ratio in OECD for men and women (figure 47).

Second, the education system is highly competitive. Individuals (e.g., parents) can start their own schools, the state will pay for the students, and if the schools manage these funds effectively enough they can generate profits. There’s no fixed curriculum or study plan. Instead, schools are
given a number of goals in each subject that students need to achieve. High-quality education matters a lot, because the smarter the employees, the greater is the management quality in the private sector.

Third, Sweden has fairly competitive product markets. Roseveare et al. (2004) underscore that in the 1990s Sweden was Europe’s pioneer in deregulating a number of sectors, including rail transport, domestic air traffic, postal, and telecom. Currently, Sweden’s overall Product Market Regulation score is around the EU average, while the barriers to entrepreneurship are the third lowest in the OCED, after the United Kingdom and the Netherlands (figure 48, in the appendix). Although the size of the state in the economy is substantial, the Swedish government is one of the most efficient in the world. Sweden ranks fourth in the World Bank Government Effectiveness index 2010, after Singapore, Finland, and Denmark. At the same time, the country recorded the second best score in the Corruption Perception Index 2010 by Transparency International.

Finally, a strong emphasis on equal opportunities makes the job market transparent and competitive. Equality and transparency makes the recruitment process fair, allowing the companies to find the best fit for a particular position. The labor market tends to be inclusive. Sweden has the best policies in Europe toward migrant integration, according to the MIPEX III ranking. The country also scored fourth in the World Economic Forum’s Global Gender Gap Index 2010. Transparent recruitment processes improve management quality, because family-run enterprises tend to be less successful in managing their resources (Bloom and Van Reenen 2010).

**Taking the example**

What can other countries learn from Swedish experience? An important problem with domestic management strategies is that they do not work as effectively as those in other countries. The findings of Newman and Nollen (1996) confirm that simple replication of national management styles across borders falls short in most cases. Successful managers need to adapt their strategies to local characteristics to be as successful as at home. If the management strategies are hard to replicate elsewhere, why look at the Swedish experience? The case of Sweden shows that policy makers can and may impact management quality to greater extent than it is usually thought. High-quality and inclusive education as well as contestable markets have a lot to do how well the private sector is managed. Finally, the Swedish example underscores that promoting excellence in management should start with the state, as efficient and transparent governments can become pillars of quality improvements.
Sources


Notes

2. Muskens compares 12 countries: France, Germany, Hungary, Italy, the Netherlands, Poland, Slovenia, Spain, Sweden, and the UK’s England and Scotland. On the scale from 0 to 7 (7=the most inclusive), UK Scotland’s score of 6 is the highest in the sample, followed by Sweden, Poland, Slovenia, and UK-England with scores of 5.
3. EU 19 average denotes average for countries that are members of the OECD and European Union.
4. The Government Effectiveness index reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies.
5. Corruption Perception Index 2010 (0=most corrupt, 10=least corrupt): tied for first with a score of 9.3 are Denmark, New Zealand, and Singapore; tied for fourth are Finland and Sweden with a score of 9.2.
6. MIPEX III assesses migrant policy integration. It covers following countries: Sweden, Canada, Belgium, Finland, Norway, Portugal, United Kingdom, United States, Luxembourg, Denmark, Netherlands, Estonia, Spain, Switzerland, Austria, Czech Republic, Germany, Italy, Cyprus, France, Poland, Ireland, Slovakia, Slovenia, Romania, Latvia, Lithuania, Malta, Bulgaria, and Hungary.
7. The higher the score, the smaller is the gender gap in a country.

Appendix

Figure 48: Product market regulation overall index and selected subindexes in France, Germany, Sweden, and average for EU19 members in OECD, reference year 2008

Source: OECD.
Management quality: The United States

Abstract

Over the years, the United States has emerged as a world leader in delivering management quality. Out of the top 10 best CEOs in the world, according to 2010 Harvard Business Review ranking, 7 work for American companies. Naturally, this might be because many successful global enterprises are located in the United States. Yet top-notch management quality may be exactly what gives these companies an extra edge on the global markets. How is the United States able to outscore any other country in the world? A cross-country study by Bloom and Van Reenen (2010) finds that great managers tend to become great when the broader policy environment gives them flexibility in doing business, permits a dynamic and deep labor market, and permits active competition from multinational firms that can allow for the import of new ideas and competitive practices (Bloom and Van Reenen 2010, 203–24). The United States scores very highly on each of these dimensions. First, competitive markets serve as an accelerator of management improvements. In 2008, product market regulation in the United States was the least restrictive among the OECD countries. Second, the United States is an unquestionable leader in people management thanks to its flexible labor markets. Its employment protection legislation is the least restrictive in the OECD, while labor mobility is high. Third, investing in education has paid off: two in five Americans attended tertiary education, while the United States is home to the best MBA programs in the world. Fourth, the United States is the major home for multinational firms. The presence of multinationals makes it easier for companies to adopt best management practices and accelerates the learning process.

Management quality is hard to measure. Its impact on country’s economic prosperity is even more difficult to see. Yet how companies are managed matters for innovation processes and impacts the economy as a whole. Recent findings of Bloom and Van Reenen (2010) suggest that differences in productivity across firms might be partly linked to management practices. Over the years the United States emerged as a world leader in delivering management quality. Out of the top ten best CEOs in the world according to 2010 Harvard Business Review ranking, seven work for American companies. Naturally, this might be because many successful global enterprises are located in the United States. But top-notch management quality may be exactly what gives these companies an extra edge on the global markets. How the United States was able to outscore any other country in the world?

World’s best managers

The United States can pride itself on the quality of its managers (figure 49). And management practices matter. Well-managed enterprises record greater efficiency and output. Findings of Bloom and Van Reenen (2010) indicate that thanks to effective people management, US companies were able to recorded higher productivity growth than their European counterparts. They also took greater advantage of IT improvements than their peers from the “old continent.” And although the American strength lays more in the people management than operational, the country is still a global leader in management quality.

How to be the best?

What made American managers outscore the rest? There are several possible reasons.
First, competitive markets serve as an accelerator of management improvements. In 2008, product market regulation in the United States was the least restrictive among the OECD countries. Thanks to greater competition, best practices spread quicker. At the same time, low-performing companies are pushed out of the market. Competition intensity is reflected in high annual turnover rates of firms, amounting to 10 percent for entry as well as exit from the market, according to the US Small Business Administration.

**Figure 49: Overall management practices score (1=worst practices, 5=best practices) in selected economies**

Second, the United States is an unquestionable leader in people management, thanks to its flexible labor markets. Employment protection legislation is the lowest in the OECD, while labor mobility is high. Labor turnover costs remain low, allowing American companies to tailor hiring processes according to their needs. A flexible labor market also indicates that managers are usually hired based on merit, not family connections. The latter is an important factor for management performance: badly managed companies often tend to be family managed.

Third, investing in education pays off. Two in five Americans attended tertiary education, one of the highest ratios in the OECD. Superb universities teach students how to combine individual performance with team work. The United States is home to the best MBA programs in the world. In the recent ranking by the *Economist* of MBA programs, 7 out of the world’s top 10 were offered by American universities. High tertiary education attainment, together with quality and quantity of migration, increase the employment pool for US companies. Why does education matter? Because well-educated managers, as well as employees, in general tend to be better at their jobs, thus improving productivity and output of an entire company.

Finally, having many multinational enterprises facilities the transfer of best practices from global to local market participants. In 2011, 12 out of 30 of the world’s biggest corporations were American, according to *Fortune Magazine’s* ranking of 500 biggest global companies. The
presence of multinationals makes it easier for companies to adopt best management practices and accelerates the learning process.

**Learning from the past, anticipating the future**

American companies undoubtedly lead in terms of management practices. However, according to Bloom et al. (2007), Swedish and German companies score better on operation management than their American counterparts. And as the competition on the global market gains on momentum, Asian companies record impressive improvements on the management side. Already more than 15 percent of Indian and Chinese firms are better managed than an average US firm, according to Bloom et al. (2007). Nevertheless, the way the Americans manage their companies is still appreciated across the globe. According to *Fortune Magazine’s* Survey from 2011, two-thirds of the 350 most admired companies in the world were American. What can others learn from the American example? The US case shows that there is plenty of room for policy makers to advance firms’ management practices, beyond improvements in the business environment. Providing enterprises with a contestable market pushes them to constantly improve their management practices and to effectively use IT advancements, and facilitates learning from the best. Allowing employers to hire and fire more easily maximizes the output of prospective managers. Finally, improvement on the management side needs to be inclusive, because how well particular countries are doing depends not on their best performers but how bad the group of underperformers is (Bloom et al. 2007).
Sources


Notes

1. The ranking assesses CEOs over their entire time at the helm of their companies. The sample includes close to 2,000 CEOs worldwide.
2. Authors use two micro-panel data sets to examine the performance of American companies in Europe. For empirical model specifications, see Bloom et al. (2010).
3. OECD Product Market Regulation aggregate score.
4. OECD, percentage of population aged 25-64, reference year: 2008. US: 41 percent; among OECD higher rates were recorded only in Canada (49 percent) and Japan (43 percent).
5. The Economist 2011 full-time MBA ranking.
6. Fortune Global 500 ranking, by revenue.
7. Fortune’s survey among business people on who they admired most (any industry).
Internal mobility: Ireland

Abstract

The Irish are the most mobile of all Europeans. Internally, Dublin has been the preferred place to which the Irish move. Regionally, the United Kingdom—as a large and familiar neighbor—has been the preferred destination. Internationally, it is the United States, where more than 10 percent of the population claims Irish ancestry. The reasons why the Irish are mobile span culture, geography, and labor laws. First, the Irish have reacted to big developments—both good and bad—by moving, and their cultural proximity to the United Kingdom and the United States has made them prone to leaving when times are tough. Second, Irish labor laws make it easy for enterprises to hire and fire workers: indices of economic freedom rate Ireland the freest economy in Europe, and the fifth freest in the world. Third, the national development strategy—including the use of cohesion funds—has promoted concentration around Dublin and made workers mobile by investing in their skills. Fourth, Ireland has kept barriers to immigration low. It did not impose quotas on workers from the new EU member states. And the quantity and quality of immigration is high—half all immigrants since 1998 had tertiary education. The current crisis has led to these movements being reversed. But the greater mobility of the Irish will help them deal better with the economic distress.

Ireland is the most mobile country in the European Union, internally and internationally. While most Europeans hesitate to move, the Irish seem to be exceptions. They are quick to move within the country, and many choose Dublin, the capital city. Currently, nearly a third of population lives in Dublin County. The Irish have not hesitated to move within Europe or beyond EU boarders. In the United States alone, nearly 37 million residents claim Irish ancestry.

The most mobile Europeans

Nearly 15 percent of Ireland’s population has moved within the EU (figure 50). One in five Irish has moved within the country. At the local level, nearly a half of the population (44.5 percent) changed their addresses. Irish change jobs more frequently than their advanced European counterparts. The average job tenure of around 10 years in 2006 was the second lowest in the EU15, after the United Kingdom. The country has also the second highest share of migrants born in the EU (9 percent), after Luxembourg (34 percent). Among European countries, in 2008 Ireland had the biggest share of noncitizens from the EU27 to total population: around 5 percent, compared with less than 2 percent for the EU15 as a whole.

From a historical perspective, Irish people have been on the move since 19th century. Due to the Great Famine of the 1840s as well as economic underperformance between 1820 and 1920, more than 4 million Irish migrated to the United States alone. The same was true in other parts of Europe during that period. Jacoby and Finkin (2004) indicate that Europeans were particularly mobile due to industrialization in the 18th and 19th centuries. It is estimated that Germany, in 1910, employed more than a million migrant workers. Between 1820 and 1920 around 50 million Europeans moved to the New World, mainly to the United States. The situation changed after the First World War, when stricter rules on mobility were implemented (e.g., regulation on passports, birth certificates), reducing mobility on the continent. Surprisingly, Ireland is an exception to this rule. How have the Irish managed to stay mobile?
Why the Irish are so mobile

First, mobility rates in Ireland are high because the Irish seem to respond to big developments by moving. In times of crisis Irish tend to emigrate abroad. When the economy is booming they search for opportunities at home. During the great famine of the 1840s, a million Irish emigrated from the country. More than a century later, in the 1990s and the first decade of the 2000s when Ireland came to be known as the Celtic Tiger (because of East Asia-like growth rates), the country became an attractive location for immigrants. According to the World Bank (2010), since 1998 the stock of foreign-born has increased fivefold, amounting to 12.6 percent of total population in 2008. And during the recent recession, Irish migrant flows reversed again. In 2009 the country experienced its first negative net migration since the mid-1990s. Current emigration levels have surpassed figures from the 1980s. An additional 100,000 people are expected to go abroad between 2011 and 2012, according to the Economic and Social Research Institute.

Second, keeping the labor legislation less restrictive allows for flexibility on the labor market. Keeney and Lawless (2010) found that Irish companies can tailor their labor costs thanks to the flexibility of pay and bonuses. According to the OECD’s Employment Protection Legislation Index, Ireland (1.11) is the second least restrictive country in the advanced Europe, after the United Kingdom (0.75). The Economic Freedom Index 2010 by the Heritage Foundation that measures government’s impact on economic relations ranks Ireland fifth worldwide, and first in Europe.

Third, Dublin and the eastern area of the country have long served as magnets of internal as well as external migration. Four out of ten jobs are located in the Dublin City region, according to the Dublin Chamber of Commerce. Even as early as 1971, it was the preferred destination for one-third of all intercounty migrants (Hughes and Walsh 1980). In the 1990s, the Irish used the Cohesion Funds to strengthen this characteristic by extensive investments in infrastructure that connected leading with lagging regions. A sizeable part of the EU funds were also invested in training and education, which gave the Irish necessary tools to find opportunities in other regions. The attainment of tertiary education for Irish aged 15 to 64 grew from 19 percent in 2000 to 33 percent in 2010, accompanied by the expenditure per student. Educated Irish seem to be more mobile. In 2009, 15 percent of all students enrolled in higher education studied in other EU27, European Economic Area (EEA), or candidate countries, in comparison to 11 percent in 1999.
Currently, Dublin is an important location for mobile workers; half of Dublin county’s population is aged between 10 and 39. This is relevant because younger individuals are more likely to move in search for better opportunities.

Finally, Ireland’s proximity to a much bigger economy—the UK—with which it shares a language must also be a stimulus for citizens to move. European integration has only strengthened this process. However, the Irish opened up their markets as well. Together with Sweden and the UK, Ireland did not restrict access to its labor market for people from the new member states during their accession in 2004. It is estimated that between 1998 and 2008, more than 400,000 foreigners came to Ireland. The country became a hotspot for migrants from the 12 new member states and, in 2007, they accounted for a half of total immigration. The Irish have preached what they practiced.

**Mortgages and mobility**

The recent housing boom and bust may pose constraints on labor mobility in the next years. Residential mortgage debt amounted to 90 percent of GDP in 2009, three times higher than in 1998 (26.5 percent). Mortgage debt per capita rose nearly fivefold, the second biggest increase in the EU15, after Greece (figure 51). This is important, as negative home equity and/or rising mortgage interest rates may lower mobility rates over time (Ferreira et al. 2010).

The debt burden is not the only concern for households. The crisis has left Irish banking and state finances weak. The economy will need time and policy reform to return to the levels of growth that will encourage people to move again. The IMF forecasts that GDP growth will exceed 3 percent only in 2015. Indeed, a slow recovery in 2011 and 2012 may prompt many Irish to search for opportunities abroad, while others might be tied down by their mortgages at home.

**Figure 51: Changes in residential mortgage debt per capita in the EU15 1998–2001 and 2001–09**

![Graph showing changes in residential mortgage debt per capita in the EU15 1998–2001 and 2001–09](source: European Mortgage Federation)

Nevertheless, the flexibility of the Irish workforce is its strength in tackling the crisis. Similar levels of mobility—facilitated by better labor laws and more developed housing markets—would serve the rest of Europe well. Given Ireland’s internal mobility and its record of successful job creation during the past two decades, Ireland’s outlook may be more hopeful than many believe.
Sources


Notes

1. The authors base their results on a survey of Irish firms undertaken as part of the Wage Dynamics Network (WDN).
3. E.g. M50 (Dublin Ring Road), M1 (Dublin-Belfast).
4. According to the OECD index (2000=100), the expenditure by tertiary educational institutions for all services per student increased from 66 in 1995 to 94 in 2007.
6. However, Ireland imposed some restrictions on migrants’ access to social security benefits.
7. This share dropped to 30 percent in 2008.
Internal mobility: The United States

Abstract

Labor mobility is much higher in the United States than in other developed countries. Over the past decade, three times as many Americans moved to find jobs and better lives than Europeans. On average, an American moves 11 times during his or her life. The reasons span culture and policy. This higher level of labor mobility partly reflects the culture of a country built through immigration. Americans consider mobility an essential ingredient to the pursuit of a better life. It also reflects policy, as housing and labor market regulations make housing turnover easier than other countries, allowing workers and employers flexibility. This mobility has direct and indirect costs: young Americans often live far from their families, and workers enjoy fewer protections than those in other developed countries. But they also benefit from the ability to negotiate wages, change employers quickly, and start businesses. Countries seeking to create jobs, nudge people back to work, increase earnings and economic growth, and make their economic structures more flexible should look how the U. S. policy environment has supported labor mobility.

Americans have long been known for moving to wherever the jobs are located. On average, an American moves 11 times in his or her life. Even in times of crisis, 37.5 million Americans changed their addresses. According to the Bureau of Labor Statistics, Americans born between 1957 and 1964 held on average 11 jobs a lifetime. Likewise, the business landscape is adjusting on the constant basis: 1 out of 10 American businesses disappears every year.

Moving across borders

Levels of mobility recorded in the United States in the past decade were much stronger than in other parts of the world (figure 52). In 2010, 12.5 percent of Americans moved, most of them within the county (69.3 percent). In 2010, one in ten Americans moved to a different state. These numbers were even higher before the 2008-09 crisis. In 2006, nearly 40 million people changed their addresses, according to the US Census Bureau.

Figure 52: Annual average labor mobility (% working age population) in Australia, Canada, EU15, EU27, Japan, and the US

Why Americans move

What makes Americans move more often than others? First, mobility has been embedded in American society from its beginnings. Jasper (2000) finds that in Virginia in the late 17th century more than half of inhabitants moved within a decade. The Articles of Confederation (1778) reinforced the nation’s mobility by granting all citizens a right to migrate among states. Incoming settlers and a territorial expansion that made the land available for settlement in the first half of 18th century only reinforced this process. Current legislation grants equal rights for all residents. The Supreme Court rulings banned hiring preferences for residents of a particular state and licensing for some professions at the state level (e.g., lawyers). Although social benefits across the states differ, they do not have direct impact on mobility patterns (Jacoby and Finkin 2004).

Second, Americans move because it is easy to do so. Between 2005 and 2010, nearly a half of all homeowners moved. The procedures involving buying or selling a property are simple and in most cases open to nonresidents. Foreigners can obtain mortgage loans (there might be higher requirements for the down payment) and receive mortgage insurance from the Federal Housing Administration. And the process of moving is easy. For example, once you change your address and report it to the national postal services, they will forward all the incoming mail to your new address.

Third, labor laws give employers the power to fire, hire, or relocate workers according to their needs. In 2006 the median employee’s tenure in the United States was four years; the average tenure in the EU stands at around 10 years. In addition, American employees are far less protected than their OECD counterparts (figure 53).

Figure 53: Overall strictness of employment protection in 2008 in selected economies

Wages are flexible, prompting people to relocate areas where the jobs are located. Card (1990) illustrates this mechanism with the example of the Mariel boatlift from Cuba that brought 125,000 Cuban immigrants to Miami between May and September 1980. They were mostly less-skilled workers. About half settled in Miami, adding about 7 percent to the local labor force and 20 percent to the local labor force of Cuban origin. Although some predicted that an inflow of low-skilled migrants would have negative effects on the labor market, the unemployment rate and wages were not affected by the newcomers. What is more, even for Cubans living in Miami there was no significant difference in wages and unemployment rate before and after 1980.
Fourth, the United States benefits from favorable demographics, partly due to immigration. In 2010, 13 percent of Americans were aged 65 years or older, while the share amounted to 17.5 percent in EU27 and 23.1 percent in Japan. This matters because young people are much more likely to move. In 2010, internal migration of Americans aged 50 years or more constituted only 13 percent of total internal migration. A high share of the population with tertiary education also contributes to greater mobility, because college graduates are more likely to move than students with secondary education (the National Longitudinal Survey of Youth).

Finally, mobility is a self-reinforcing mechanism. Kodrzycki (2001) finds that a student who went to college outside of state where he/she attended high school was 54 percent more likely to move again in the five years after graduation. Students that moved with their families between birth and high school were 17 percent more likely to move to another state than a person that had never changed the state before.

**Crises and mobility**

Due to the recent economic crisis, mobility rates dropped significantly. Many Americans who in the past would move to find jobs are now tied down by their mortgages and/or are unable to sell their houses. Chan (1998) examined housing market shock and its impacts between 1989 and 1994. His results indicate that mobility rates would have been almost 25 percent higher for four years after the shock had housing prices returned to precrisis trajectories. This trend seems to be reflected in the statistics following the recent crisis. Measured by the Case-Shiller US composite index, US house prices fell from 187 to 135 between 2007Q1 and 2010Q1. At the same time, the number of Americans that changed their address dropped by 5 million in 2010 compared with 2006. Lower labor mobility may make it more difficult to lower unemployment rates, which reached 10 percent in the last quarter of 2009, levels not seen in the country since the beginning of 1980s (figure 54).

**Figure 54: Unemployment rate (%) and the Case-Shiller US composite home price index in the US, 1988-2011**

![Figure 54: Unemployment rate (%) and the Case-Shiller US composite home price index in the US, 1988-2011](source: US Bureau of Labor Statistics, Case-Shiller Index.)

However, more recent analyses of the housing prices, mobility, and unemployment by Aaronson and Davis (2011) shows that there is no empirical evidence on the relationship between housing
prices and higher unemployment. Since 2008, there has been no significant difference in state-to-state mobility rates differentials between homeowners and renters. In fact, the greatest declines in mobility rates between 2009 and early 2010 were recorded in states with somewhat better housing price performance.

All things considered, the United States remains the global leader in internal mobility. Naturally, as populations age and become more affluent, the incentives to move for some societies might decline. Yet, the imbedded idea of staying on the move will probably shape American lifestyles and economic performance for years to come.
Sources


Notes

1 Estimates based on age structure and average rates of moving by age between 1990 and 1993.
3 State-specific licensing applies to around a fifth of total workforce in the US.
4 Homeownership rates in the US are lower than in many other advanced economies. This indicator can impact internal migration, as homeowners tend to be less mobile than those who rent. On the other hand, the EU27 average homeownership rate of 68 percent is only 1 percentage point higher than the United States rate of 67 percent, while the mobility rates differ significantly.
5 Internal migration excludes citizens that moved abroad.
6 The survey covers a nationally representative sample of about 6,000 persons aged 14 -22 in 1979. They were re-interviewed at the age of 31– 39 years. See www.bls.gov/nls/.
9 Authors use data from Survey of Income and Program Participation between 1984 and 2010.
Labor legislation: Denmark

Abstract

Every year, one of five Danes loses his or her job. But they don’t lose their incomes. Unemployment benefits replace close to two-thirds of their earnings, and the government helps them find work. This combination of flexibility for employers and income security for workers is called “flexicurity.” The arrangement has been in place since at least the 1970s, but it has evolved over time, principally in strengthening the active labor programs component. It seems to work well. Between 1995 and 2008, unemployment averaged 4.9 percent, compared with 8.5 percent the rest of the EU15. How does Denmark have both flexibility and security? First, employment laws have evolved from a system in which unemployment benefits were paid by labor and trade unions, not the government. Second, sensible adaptation: the arrangements were reformed in the 1990s after decades of high unemployment. Policies cut job protection, raised unemployment benefit coverage, and strengthened job search assistance. The OECD Employment Protection index for Denmark has fallen from 2.4 in 1983 to 1.5 in 2009. Unemployment insurance financed from contributions and taxes covers around 80 percent of the labor force. Benefits last up to four years, and replacement rates cannot exceed 90 percent of wages. After four years, recipients have to switch to social assistance, which means a reduction of between 20 and 40 percent of benefits. Active labor market programs like job search assistance and training nudge the unemployed back to work. The unemployment rate dropped from 10 percent in 1993 to 3.3 in 2008. The incidence of long-term unemployment—those without work for more than a year—fell from a third of the total to a tenth. Third, generous public spending: Denmark spent 4.5 percent of GDP on labor market programs in 2008, a good year. The Danes have flexicurity because of their history, and they can afford it because of participation rates of more than 80 percent. Others who want both flexibility and security should be mindful of this.

During the past three decades, the Danish labor market has gone through an impressive transition. In the 1980s, Denmark’s unemployment rate reached nearly 9 percent, higher than the average for Western Europe (about 7 percent). In the 1990s, unemployment stood at 8.5 percent, about the same as the Western European average. By the 2000s, unemployment was 4.3 percent, more than 2 percentage points below the average for Western Europe. The Danes were able to achieve all this while maintaining one of the most generous benefit systems in Europe. This note tries to explain how labor legislation contributed to this success.

Success in the labor market

Between 1995 and 2010, Danish unemployment rates averaged 5 percent, much smaller than in most of Europe (figure 55). The country has the second highest participation rate (80.7 percent) in Western Europe, after Switzerland (82.9 percent). At the same time, as of 2009, Danes enjoyed one of the most generous unemployment benefit systems in Europe. Despite high incomes for the jobless, Danes return to the workforce quicker than their OECD counterparts—the incidence of long-term unemployment in Denmark stood at 9.1 as opposed to the OECD weighted average of 23.5.

Because of its low unemployment rate, income security for workers, and economic freedom for employers, the Danish approach to labor market legislation has been receiving a lot of attention in Europe. How did the legislation helped to boost the labor market performance?
High rewards, low security

The Danish system is based on the concept of flexicurity, which combines high benefits for unemployed with the employers’ right to hire and fire workers at relatively low costs. These two pillars of flexicurity are not new—they have been in place since the mid-1970s. In the 1980s, generous benefits and high unemployment strained public finances. Given relatively high transfers and a weak economy, the incentives for the jobless to enter employment were weak. This led to changes in the system.

The new approach, called the “Golden Triangle,” combines the previous version of flexicurity with one additional component: active labor market policies. Broadly speaking, Denmark now provides stronger incentives for the unemployed to reenter employment. Benefits from unemployment insurance became available for a limited time and contingent on one’s efforts to find a job. The unemployed have access to training programs as well as assistance in job search (e.g., the Individual Job Plan). In general, out of €13 billion devoted in 2010 to labor market policy, around 75 percent was spent on active instruments.

The second pillar, flexibility of firing and hiring, has remained practically unchanged over the past several decades. Although the OECD Employment Protection Legislation (EPL) overall index in Denmark decreased in the past 15 years, it was moderate even in the 1980s. Currently, the Danish labor market is one of the most flexible in the EU (figure 56). Every year, one out of five Danes faces unemployment. Internal mobility rates are also high. Around 36 percent of Danes move within the country, the second highest ratio in the EU after Sweden (42 percent).

Danes change jobs frequently because they have a safety net to land on. In the Danish labor tradition, which derives from the “Gent system,” unemployment benefits are paid by labor and trade unions rather than the government. Unemployment insurance is financed from members’ contributions and taxes. It covers around 80 percent of labor force and the membership is voluntary. The benefits can be received for up to four years and cannot exceed 90 percent of wage over a previous year or regulatory cap (currently €2,173 per month). The jobless can also benefit from social assistance, financed from taxes and administered by local municipalities. How much an unemployed gets depends on income levels in the past and family situation. For example, an unemployed single parent with two children earning two-thirds of the average wage...
has a net replacement rate of 90 percent, while the same parent with earnings of 150 percent of average wage receives a net replacement rate of 64 percent.6

Figure 56: Strictness of employment protection in the EU15: overall, regular employment, temporary employment, and collective dismissals, 2008

Source: OECD.

The flipside of flexicurity

Although flexicurity has been praised for keeping unemployment low in Denmark, some reservations need to be mentioned. Andersen and Svarer (2007) point out that despite a decrease in the official unemployment rate since the mid-1990s, the gap between gross unemployment (includes unemployed, people in activation, early retirees, etc.) and official statistics remains high. Further, it is difficult to assess how much flexicurity contributed to the improved performance of the labor market, since other factors like macroeconomic performance count as well. Bredgaard and Larsen (n.d.) underline that competitive labor markets may exclude certain groups of employees that fail to meet expectations of employers. Finally, spending a lot on active labor market police becomes less effective if there are not enough jobs to go around—a likely problem in a protracted recession.

Even if the reduced unemployment rates can be attributed to flexicurity, it came at a high cost. The National Labour Market Authority assesses the costs of the current model to around 4.5 percent of GDP. In 2008 Denmark spent 2.6 percent of GDP for labor market programs, in comparison to 2.2 percent in Finland, 2.3 in the Netherlands, and 1.5 in Sweden (the OECD average is 1.36 percent). And the cost may be even greater in times of crisis, when benefits need to be paid to a growing share of unemployed people.

Finally, the Danish model cannot be replicated easily, if at all. Flexicurity in Denmark was not implemented by a one-time legislative decision but evolved gradually over many years. Moderate government regulation works in Denmark because it has a long history of self-regulation by labor market partners that goes as far back as the introduction of September Compromise of 1899.7

Variants of flexicurity, however, offer models that other countries could consider. The Danish experience provides lessons on how to balance the growing fiscal burden of current social security models with the contestability needed for efficiency and growth. But those considering flexicurity should be clear about the distinction between the general notion of flexicurity and the particularities of the Danish labor market.
Sources


Notes

1 All rates are annual averages for respective decades. Western Europe includes Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Norway, Netherlands, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.
2 The incidence of long-term unemployment (more than 12 months) as a share of total unemployment. Source: OECD.
3 Net replacement rate includes unemployment benefits, social assistance, and family and housing benefits in the 60th month of benefit receipt, all after tax. The computed values are averages of net replacement rates for six types of households earning an average wage: (1) single, no children; (2) married couple, one earner, no children; (3) married couple, two earners, no children; (4) single parent, two children; (5) married couple, one earner, two children; (6) married couple, two earners, two children. For married couples, the percentage of average wage relates to one spouse only; the second spouse is assumed to be “inactive” with no earnings in a one-earner couple and to have full-time earnings equal to 67 percent of average wage in a two-earner couple. Children are aged 4 and 6 and neither childcare benefits nor childcare costs are considered.
4 The higher the score, the stronger the protection of employment. The EPL rating in Denmark decreased from 2.4 in 1983 to 1.5 in 2009 as opposed to the OECD average of 1.94.
5 After four years of receiving unemployment benefits, an individual has to switch to social assistance. This usually means a reduction of income (according to Andersen and Svarer 2007 by 20-40 percent).
6 OECD estimates for initial phase of unemployment.
7 The September Compromise of 1899 established how to solve disputes between unions and employers associations.
**Labor legislation: The United States**

**Abstract**

*Labor legislation in the United States has tended to contribute to faster job creation rates than such legislation in most developed economies. Between 1995 and 2010, the average, annual unemployment rate in the United States was 5 percent, about half the eurozone’s average of 9.4 percent. Labor participation rates are higher in the United States, anchored by a society that values work, flexibility and competition. Employees can be hired or fired fairly easily—employment protection in the United States is low, as is union density. According to the OECD Employment Protection Legislation index, the overall rate for the United States (0.21) was the lowest among OECD members. Labor taxes are low too: the tax wedge on labor of 30 percent is among the lowest in the advanced world. Unemployment benefits are lower than in most European countries while net replacement rates for the long-term unemployed are the second lowest in the OECD. What are the pros and cons? On the whole, the system succeeded in delivering jobs and productivity growth. Firms and workers have more freedom to negotiate contracts that suit their needs. States and municipalities can add programs that their voters want and their local economies can afford. Countries seeking to promote productive employment would do well to look at the United States for ideas. But the absence of a universal health care system in the United States means that most Americans need a job if they want a good health care.*

Americans work on average 4.4 years for one employer and only 1 in 10 employees spends more than 20 years with the same employer. Many depict the US labor market as contestable and dynamic at the price of low safety nets for workers. Much of this description is true. Less stringent regulation makes it easier for employers in the United States to fire and hire. And the unemployed cannot count on benefits as generous as those in Europe. The US system puts some safety nets for the unemployed in place, however. And, above all, the American system has delivered jobs, keeping the unemployment rates lower than those in most of the advanced world.

**The focus on jobs**

Since the 1980s the US labor market has produced more jobs than most countries in the advanced world (figure 57). Between 1995 and 2010 the average, annual unemployment rate in the United States amounted to about 5 percent, nearly a half of eurozone’s average (9.4 percent). The country also has a high level of labor force participation; in 2009 the US participation rate was 74.6 as compared with an OECD weighted average of 70.7. What is more, the estimates of Albagli et al. (2005) indicate that the United States has one of the most flexible labor markets in the advanced world.²

This note investigates how the US labor market legislation contributed to these achievements.

**Working in America**

First, the US labor market is contestable and dynamic. Employees can be hired or fired easily, giving companies greater freedom than in other parts of the world. The employment protection is low, as is union density. According to the OECD Employment Protection Legislation index, the overall rate for the United States (0.21) was the lowest among OECD members.³ Tax wedges on labor of around 30 percent are one of the most competitive in the advanced world (OECD average: 37 percent).⁴
Second, regulation gives strong incentives for Americans to reenter employment, especially in the long run. In the initial phase of unemployment Americans receive lower benefits than most of their European counterparts, but higher than in Australia, New Zealand, or Britain (figure 58). This changes for the long-term unemployed. Among sample from figure 58, America recorded the second lowest net replacement rates for long-term unemployed, after Italy.6

Third, unemployment insurance (UI) is modest. On average, an unemployed American receives $309 from UI. Maximum weekly rates of benefits differ across states. In Hawaii an unemployed person will receive more than 50 percent of a weekly wage, while in Mississippi the same person would get only 30 percent. And in most states the unemployment insurance is granted up to 26 weeks a year.

Smaller benefits are not the only reason why Americans work. Because there is no universal health care system, employers provide health care coverage to around 55 percent of Americans.8 Thus, access to affordable health care is conditional on remaining in the workforce. However,
those that just lost their jobs are not left without options. Under the Consolidated Omnibus Budget Reconciliation Act of 1986, workers with employer-sponsored health insurance, who just lost their jobs, can continue in the existing coverage for the next 18 to 36 months. The only difference is that the employer stops paying his share and the unemployed person needs to pay the total premium.

Fourth, though not so generous, the unemployment insurance system seems to be well managed. In most states, unemployment insurance is granted up to 26 weeks a year, but it can be extended by the president in times of economic distress. Finally, labor market policies are also very flexible depending on the economic situation. In 2008 the United States spent three times less on labor market programs than did OECD members on average. When the crisis of 2008 hit the job market, the spending doubled from 0.43 percent of GDP in 2008 to 0.98 percent in 2009.

Fifth, American workers may be well less protected from being fired, but it seems to be applied equally across most professions. Because labor turnover costs are low and cannot be influenced by those already in the employment, the issue of being insider or outsider seems to be less of a problem. This benefits the employers, who in most cases can get the best for a job. And although this may lead to greater within-skill wage inequality (see next section), it also pushes employees to work longer (Michelacci 2008). The logic behind this is that if within certain profession incomes are more diversified, employees will work longer to get incomes from the upper side of the scale. Working longer helps also workers to acquire new skills and improve existing ones.

Risk, reward, and the price

By granting greater freedom for employers and employees, the American system undoubtedly delivered jobs. But it may also be the case that labor legislation did not contribute so much to lower jobless figures as it is assumed. Katz and Krueger (1999) point out that some factors behind the lower unemployment rate in the late 1990s and restrained wage growth had less to do with labor regulation and more with other factors, e.g., demographic changes in age structure and an increase in incarceration rates among men.

It may also be that the system that successfully kept the unemployment low also contributed to greater inequality on the labor market. The findings of Autor et al. (2006) imply that since 1980s US employment has started to polarize into low-wage and high-wage jobs, squeezing the middle out of the picture.

Keeping all the above-mentioned reservations in mind, the US labor maker fulfills its fundamental function and provides people with jobs. American solution cannot easily be replicated in other countries, due to many differences among advanced countries, including different understandings of government’s role in the labor market. Yet the American experience suggests, above all, that for employment to grow, labor markets need to be contestable.
Sources


Notes

1. US Labor Department estimates for 2010. The first figure corresponds to median job tenure.

2. The authors assess the flexibility of labor markets to structural shocks by building an index of labor market rigidity (the higher the index, the more rigid the labor market) using quarterly data on unemployment 1980:Q1–2000:Q4. The United States was ranked fifth (1st=least rigid, last=most rigid) after Hong Kong, Korea, Chile, and Mexico. The sample includes Hong Kong, Korea, Chile, Mexico, the United States, Canada, Netherlands, the United Kingdom, Australia, France, Belgium, Italy, Denmark, Austria, Germany, Spain, Sweden, and Colombia.

3. The higher the index’s value, the stronger is the employment protection in a country. In 2008 the highest ratios were observed in Turkey (3.72), Luxembourg (3.25), and Portugal (3.15).


5. The average for France in the 1980s corresponds to period 1983-89.

6. The low ratio for Italy derives partly from discrepancies in benefits for different family models, according to OECD. For example, long-term unemployed in married couple with one earner (average wage) and no children will get a net replacement rate of about 1 percent, while the same couple with two earners and no children receives a net replacement rate of 46 percent.

7. Net replacement rate includes unemployment benefits, social assistance, and family and housing benefits in the 60th month of benefit receipt, all after tax. The computed values are averages of net replacement rates for six types of households earning an average wage: (1) single, no children; (2) married couple, one earner, no children; (3) married couple, two earners, no children; (4) single parent, two children; (5) married couple, one earner, two children; and (6) married couple, two earners, two children. For married couples, the percentage of average wage relates to one spouse only; the second spouse is assumed to be “inactive” with no earnings in a one-earner couple and to have full-time earnings equal to 67 percent of average wage in a two-earner couple. Children are aged four and six and neither childcare benefits nor childcare costs are considered.


9. This applies for workers in the following situations: (1) they lose their job; (2) their hours are cut; (3) their employed spouse dies or divorces them; or (4) they are a student who graduates and loses parental plan coverage.

10. The OECD unweighted average in 2008 was 1.36 percent of GDP as compared to 0.43 percent of GDP in the United States. The US data is for 2007-8, as the fiscal year starts on October 1.

11. The authors assess the impact of within-skill wage inequality and unemployment in explaining the diverging evolution of hours per worker in the United States and the EU from 1970 to 2002. Results indicate that different labor market conditions contributed to divergence in working hours in the United States and the EU.

12. According to the authors’ estimates, changes in the age structure (due to maturity of baby boomers) accounted for a 0.4 percentage point decline in overall unemployment since 1985. Growth in incarceration rates contributed to a decline of the male unemployment rate of 0.3 percentage points since 1985.
Immigration policies: Sweden and the United Kingdom

Abstract

Europe has a declining population. However, the movement of labor is a politically charged policy area in a way that cross-border movements of trade and capital are not. Unique for this factor of production, imported labor comes with packages of political, social, and moral rights and obligations. Migrants may bring different values with them. Migrants may generate implicit or explicit claims for social protection that may result in net fiscal costs. European countries will need to adjust their immigration policies so as to attract talent and manage these social and economic externalities. A key challenge in this effort is to create an environment that allows foreigners to become members of local communities rather than outcasts. Contrasting the recent migration policies of Sweden and the United Kingdom gives some insight into different modulations for managing immigration and its accompanying issues. Immigration plays a big role in both countries: in 2008 foreign-born people accounted for 14 percent of the Sweden’s population and 11 percent of the British population. Both have fairly liberal policies toward migrants from the new EU member states, but they have different ways of assimilating foreigners. Sweden allows foreigners to access almost all benefits available to natives, setting clear rules on how to obtain citizenship. The United Kingdom’s appeal does not come from its migration policy. The country attracts highly skilled newcomers for a range of reasons: cultural diversity, low language barriers, metropolitan centers such as London, and the presence of multinational companies. If newcomers calculate the probability of obtaining a job, they will most certainly go to a country where the pool is bigger. With many minorities already in the country, an immigrant may easily find his or her ethnic group, work in the native language, and/or live close to native culture. European countries need models to learn from in managing immigration. Sweden and the United Kingdom offer contrasting examples, but both have aspects that deserve study, adaptation, and even emulation.

Sweden and the United Kingdom provide two successful yet different examples of how Europe can successfully manage migration. Sweden has the best migration integration policy in the world, according to its MIPEX III ranking. For its part, the United Kingdom was able to attract the continent’s second highest share of permanent highly skilled immigrants seeking employment (figure 59). Immigrants play an important role in both countries: in 2008 foreign-born accounted for 13.9 percent of the Swedish and 10.8 percent of the British population. The UK enjoyed the third highest inflow of permanent immigrants in Europe, amounting to 347,000 migrants in 2008. In Sweden the number of citizenship acquisitions per thousand of nonnationals living in the country was the highest in the EU27.

The UK and Sweden are among the few countries that did not impose any restrictions on labor from new EU member states at accession. According to Eurofound (2007), both countries enjoyed one of the most mobile labor markets in Europe. Finally, both attracted international students. In Sweden the entries of students increased since 1997 by 14 percent a year, while the UK had an annual average of 132,700 international students between 2003 and 2008.

Going to Sweden

Sweden’s being the first in the MIPEX III ranking is no coincidence, as the country has been shaping its integration policy for years (figure 60). Already in 1950 one in five employees of
hotels and restaurants was foreign-born. In the beginning of the 1990s immigrants accounted for around 9–10 percent of the population. In 2008 foreign-born accounted for 13.9 percent of the population, with Iraq, Poland, and Denmark being the top three sending countries.\(^4\) Out of 16,500 work permit applications, 85 percent were accepted, mostly for workers from Asia. Temporary migrants find employment in agriculture, while permanent residents work mostly in the IT sector.

**Figure 59: Inflow of migrants in OECD countries (% of permanent immigrants inflow to all OECD countries) and share of foreign-born population with tertiary education (2008)\(^5\)**

![Inflow of migrants in OECD countries and share of foreign-born population with tertiary education (2008)](image)


**Figure 60: MIPEX III ranking, top 15 countries**

![MIPEX III ranking, top 15 countries](image)


Migrants in Sweden have one of the most beneficial conditions in Europe. With two years of an initial visa, an immigrant has access to education and job market opportunities identical to those of Swedish citizens and the right to vote in local as well as regional elections. Newcomers can sponsor their family immediately, granted they deliver a proof of sufficient income and housing prior to family’s arrival. Refugees coming to Sweden must attend a course that explains the system and traditions of the country.\(^6\)
Immigrants coming to Sweden can receive a full range of programs targeted at their integration into the labor market, including assistance with recruitment processes or combining language classes and training with a part-time job. Most of the introduction focuses on the language skills that are crucial for a migrant to be successful on the Swedish labor market. Foreigners can also benefit from traditional employment support offered to Swedish citizens. According to Andersson and Wadensjö (2004), the temporary employment agencies, which facilitate short-term employment, seem to have successfully provided immigrants with the necessary professional experience to remain in the workforce. Some municipalities still provide asylum seekers with social assistance in the introduction period, but the government has recommended withdrawing such measures. Even with the best integration policies in the world, Sweden faces certain levels of segregation between native and foreign-born population, fueled by economic downturns, unemployment, and shortage of low-cost housing in bigger cities. According to MIPEX III (2011), the degree to which immigrants are covered by the education system depends on municipalities approach. In 2008 the employment among immigrants stood at 72 percent, compared with OECD average of 75 percent. Part of that can be contributed to the language barriers that do not apply in such a great extent in English-speaking countries. The OECD indicates, however, that language differences do not fully explain the discrepancy in employment and earnings between foreigners and natives. Findings of Behrenz et al. (2007) also suggest that second generation migrants whose parents migrated from Western and Eastern Europe earn more and depend less on the state than those with parents coming from Southern Europe or outside of Europe.

Going to the UK

In recent years the UK has been experiencing the highest level of immigration inflows in its history, with Poland, India, and Pakistan being the main sending countries in 2008. The main surge in immigrants came with the new member states joining the EU in 2004. According to HWWI (2007), between May 2004 and September 2007 around 730,000 people migrated to the UK from new member states. The main strength of UK migration is that people come there to work (figure 61). The employment rate among immigrants amounted to 80 percent, 5 percentage points above the OECD average. According to the estimates by the British Treasury, between Q3 2001 and mid-2006 migration contributed to the working-age population growth of 0.5 percent per year and therefore around £6 billion to output in 2006.

Figure 61: Permanent-type migration by category of entry to selected OECD countries (% of population), in 2008

![Figure 61: Permanent-type migration by category of entry to selected OECD countries (% of population), in 2008](source: OECD (2010)).
Due to large inflows of immigrants and possible threats to social cohesion, the government has been shifting its immigration policy in the past couple of years. By introducing a point-based system, the new coalition wants to focus more on the quality of immigrants. The general priority of the reform became to target the shortage occupations, highly skilled workers as well as workers with higher salaries. The new system consists of five tiers: tier 1 for highly skilled migrants, tier 2 for skilled workers required in certain sectors, tier 3 for low-skilled workers, tier 4 for students, and tier 5 for tourists, athletes, and musicians. A special cap of 21,700 for 2011–12 for non-EU work visas was introduced, limiting the number of economic migrants per year.9

According to MIPEX III (2011), the British immigration policies are not favorable toward integration. Recent changes cost the country 10 points less in the ranking, in comparison to previous edition (MIPEX II). Such a result stems partly from the fact that immigrants are excluded from certain social benefits.10 Family reunions are allowed but sponsors need to be at least 21 years old. The strong points of the British migrant policy are education, with a well-tailored living-in-diversity training, and antidiscrimination regulation, while one of the weakest elements is the substantial level of difficulty in obtaining permanent residence and nationality.

**Finding the balance**

There are many issues that policy makers in Europe face. In Sweden, high unemployment among migrants triggers social tensions and puts additional burdens on the state’s expenses. In the United Kingdom, the large numbers of migrants gave rise to a nationwide debate on social cohesion and the cost-benefit side of welcoming newcomers. The most basic issues concern the jobs that immigrants could possibly take from the natives. However, an analysis of the US labor market, which also faces migrant issues, does not indicate any large effect of migration on employment and wages for natives (Card 2001, 2007, 2009).

The main challenge of the policy makers remains the same: to create an environment that allows foreigners who do come legally to become members of local communities rather than outcasts. Sweden seems to provide a good example on how to accommodate and integrate newcomers. Its policies allow foreigners to access almost all benefits available to natives and set clear rules on how to obtain citizenship. Be that as it may, a well-tailored policy is not enough. The biggest factor of the United Kingdom’s attractiveness does not come from migration policy. The country managed to receive a high percentage of highly skilled newcomers, willing to work, due to a range of reasons: cultural diversity, metropolitan centers such as London, presence of multinational companies, and low language barriers. If newcomers calculate the probability of obtaining a job, they will most certainly go to a country where the pool is bigger. With the number of minorities already in the country, an immigrant may easily find his or hers ethnic group, work in the native language, and/or live close to native culture.
Sources


Notes

1 MIPEX III assesses migrant policy integration. It covers the following countries: Sweden, Canada, Belgium, Finland, Norway, Portugal, United Kingdom, United States, Luxembourg, Denmark, Netherlands, Estonia, Spain, Switzerland, Austria, Czech Republic, Germany, Italy, Cyprus, France, Poland, Ireland, Slovakia, Slovenia, Romania, Latvia, Lithuania, Malta, Bulgaria, and Hungary.

2 The UK has the second highest share of permanent immigrants with tertiary education, after Ireland.

3 After Italy (424,700) and Spain (391,900).

4 Measured as total inflows of foreigners.

5 The inflows include status changes (persons in the country on a temporary status who obtained the right to stay on a longer-term basis).

6 This applies only to refugees and does not include other types of migrants.

7 Temporary work agencies provide a bridge toward the labor market. They can combine and adjust several part-time jobs into one full-time job. They usually cover the recruitment and training costs and manage temporary employment to lessen the financial and organizational burden borne by companies when hiring inexperienced employees.

8 The introductory period can last in some cases up to three years, which can in effect discourage migrants from joining the labor market.

9 Migrants already in the UK are not subject to the cap. Migrants earning more than £150,000 are also excluded from the cap.

10 Social support for children of migrant parents born in the UK, on the other hand, is relatively strong.
Immigration policies: The United States and Canada

Abstract

In attracting talented people from around the world, the United States and Canada are exceptional, but for somewhat different reasons. The U.S. economy is powered by immigration, and more than a million people immigrate there every year. Canada also has one of the highest percentages of immigrants: one of five residents is foreign-born. The quality of immigration is high in North America. But immigration policy differs in many ways. The United States attracts migrants through its size, tradition as a country of immigrants, and its contestable labor markets and job opportunities. Off all the immigrants coming to the United States, more than a quarter have tertiary education. But the lack of a comprehensive policy can lead to undocumented migration and weak public institutions for integrating immigrants. Canada has a more comprehensive set of policies based on a “points” system to meet labor market needs and reunite families.

People migrate for different reasons: they flee from political oppression or move for economic or personal reasons. But the countries they migrate to are usually not chosen by coincidence. The United States and Canada both have large immigrant populations, although they approach immigration quite differently. More than a million people immigrate into the United States every year, and Canada has one of the highest percentages of immigrants among developed countries: one of five residents is foreign born. The quality of immigration is also exceptionally high in both countries. Of all the immigrants coming to the United States, 26 percent had a tertiary education.

Culture versus policy

Over the years, the United States has been a global magnet for immigrants. In 2008, foreign-born accounted for 12.5 percent of the US population. In 2000 one in four immigrants in the OECD lived in the United States (figure 62). The composition is diverse, with Asians constituting 40 percent of immigrants (figure 63). In 2009 and 2010, an estimated 1.13 and 1.04 million people, respectively, immigrated to the United States. The US Department of State received more than 13 million applications for the 2010 Green Card Lottery, whose winners are granted permanent residence in the country.

However, these statistics do not capture illegal immigration into the country. The US Homeland Security Department estimates that in 2010 there were around 10.8 million illegal residents in the United States (compared with 63,000 in Canada).

Coming to America

America owes its success as a destination for foreigners in part to its size, wealth, contestable labor markets and job opportunities. Thanks to its strong antidiscrimination policies, the United States enjoys relatively high diversity among immigrants. Permanent residents are allowed to work, run a business, or receive assistance from government agencies while searching for a job. Newcomers can also receive assistance with learning English. Bloemraad (2006) suggests that such classes can strengthen immigrants’ political and civic ties with the receiving country. However, US policies toward immigrants’ integration are only mildly favorable, according to MIPEX III ranking. The United States was ranked ninth, compared with first for Sweden, second
for Portugal, and third for Canada. Caps on visas for family members delay the reunification of families. In contrast with Canada, the definition of family under US law excludes individuals from sponsoring a visa for a same-sex partner.

Figure 62: Inflows of permanent migrants in OECD countries (% of inflows of all permanent-type immigrants in OECD countries) and share of immigrants with tertiary education

![Graph showing inflows of permanent migrants and educational attainment in OECD countries.](image)


Figure 63: Inflow of immigrants to the US in 2010 by region of birth

![Pie chart showing inflow of immigrants to the US by region.](image)


The Immigration Policy Center indicates that the current cap of 65,000 on H-1B workers limits the inflow of professionals, and the accompanying procedures may hinder the policy response to a changing demand for skilled labor. Prior to the recent recession, the H-1B quota was filled on the first day; the total number of visa holders stood at 727,000 in 2007, but was down to 477,000 in 2009. Due to the recession, many employers did not use the visas that they had applied for before the crisis. MIPEX III (2011) indicates that high fees and backlogs connected to immigration processes played a role. Finally, permanent citizens living in the United States have lower security than their counterparts in Europe or Canada. Immigrants working and living in the
going to Canada

In 2008, the foreign-born labor force in Canada accounted for 21.2 percent of total employment, compared with 16.5 percent for the United States. In 2009, the main sending countries were the United States, followed by Mexico, France, and the Philippines. About 20 percent of people living in Canada were foreign born, in comparison with 12.5 percent for the United States. In spite of the crisis, the inflow of foreigners was relatively stable. In 2010 there were 281,000 permanent immigrants coming to Canada, with 8.8 percent of them being refugees. The country has experienced a sharp rise in temporary worker inflow, from 116,540 in 2000 to 178,478 in 2009. Finally, between 15 percent and 20 percent of foreign students remain in Canada and start working.

According to the MIPEX ranking, Canada has one of the most attractive policies for migrant workers and their families. Gera and Songsakul (2007) suggest that Canada has proven to be especially attractive for high-skilled permanent migrants (figure 64).

**Figure 64: Permanent residents in Canada 15 years of age or older by gender and level of education (percentage distribution) in 2000 and 2009**

![Figure 64: Permanent residents in Canada 15 years of age or older by gender and level of education (percentage distribution) in 2000 and 2009](image)

Source: Citizenship and Immigration Canada.

Such results stem partly from favorable policies toward workers’ rights. Permanent immigrants have the same access to work opportunities as Canadian citizens, including setting up a business. The Canadian system is designed to treat all immigrants equally, regardless of ethnicity, race, religion, or nationality. Immigration policy provides stable solutions for fostering family reunion. Universal access to education for all children living in the country, regardless of their immigration status. Political participation is one of the few aspects of life from which permanent immigrants are excluded. Canada chooses whom to give a visa based on a score system that ranks candidates according to their profile (e.g., having a job offer or tertiary education grants additional points). In order to attract highly skilled labor, talented immigrants can be admitted to the country without having a job offer. Yet some professional qualifications are not fully recognized. In order to become an official citizen, one has to pass a citizenship test, which measures language abilities and basic knowledge about the country. According to MIPEX, Canada has one of the most professional citizenship tests from all countries included in the ranking.
European challenges, North American lessons

Despite differences in policies, the United States taps the largest share of immigrants coming to OECD countries. Immigration’s diversity makes it relatively easy for foreigners to find their niche. Over the years the immigrants became an important source of workers as well as consumers. It is estimated that immigrants in 25 US metropolitan areas (MAs) accounted for 20 percent of the population and contributed to 20 percent of economic output. Nearly a quarter of immigrants in the 25 MAs worked in managerial and professional occupations. Immigrants accounted for nearly 70 percent of those choosing a career in science or engineering, between 1995 and 2006. Finally, due to illegal immigration, some parts of the labor force are unaccounted for in the official statistics. The Immigration Policy Center (2010) indicates that leaving a large number of people without an official status might be partly a source of the socioeconomic gap.

Comprehensive solutions for drawing talent should probably start with streamlining the selection process for immigrants. For example, Canada with its scoring system of visa applications can prioritize certain features of the labor force crucial for the country’s future development. Those solutions need to take into account cultural and language differences among incoming migrants. The OECD estimates that on average 80 percent of British migrants coming to Canada are employed, whereas the rate for Chinese-born stands at 61.5 percent. Finally, policies are not the only important factor in the immigration decision. Such factors as a country’s size, diversity, or culture play also an important role. Many immigrants choose the United States due to what they describe as a “feeling of being free.” Fifty states within one country, each offering somewhat different regulations, provide a lot of choice.

All in all, in the era of ageing societies, only those who can draw and then make full use of the potential of newcomers will be able to compete on the global market. Hatton (1995) and Fertig (2001) suggest that while considering to migrate, individuals calculate the expected income, probability of employment abroad, and cost of moving. Thus, countries with booming economies and/or high levels of income are likely to remain the obvious destinations for immigrants from poorer backgrounds. However, using the right combination of policy, culture, and economy might be an important leverage in getting the brightest in the workforce.
Sources


Notes

1 OECD weighted average: 24.3 percent.
2 Numbers are from around 2000, according to OECD database based on national census information 1998–2002.
3 Immigrants are understood as those who obtained lawful permanent residence. Figure from U.S. Department of Homeland Security.
4 The Green Card lottery is aimed at granting permanent resident status to nationals of countries with low immigration rates to the United States.
5 Canada lacks official estimates of illegal immigration. According to auditor general Sheila Fraser, there were 22,000 immigrants facing deportation and additional 41,000, whose whereabouts remain unknown.
6 Immigrants understood as those who obtained lawful permanent residence.
8 Canadian Citizenship and Immigration Authority.
9 Canadian Citizenship and Immigration Authority.
10 An applicant needs to speak English or French.
Social security: Iceland

Abstract

The ageing of many societies around the world, both among the rich and the poor, challenges governments to design social security programs that do not break the bank. Due to the 2008 financial crisis and global recession, this problem has been exacerbated as many countries need to cut back on public spending just as returns on pension investment funds have fallen and populations begin to draw down on their public and private retirement funds. Iceland may show a way forward for countries looking to meet the twin challenges of fulfilling their social security promises and hold spending in check. Its system delivers one of the highest replacement rates in the world—97 percent for the average worker—at a low public cost of less than 2 percent of GDP, compared with the OECD average of more 7 percent. It helps that, for a developed country, Iceland has a relatively young population with high fertility rate. But there are other reasons. First, the system has had a pensionable age of 67 years for both men and women for several decades. Tax and other policy incentives encourage workers to stay in the labor force beyond the legal minimum, and the country has one of the world’s highest elderly participation rates. Second, benefits are means-tested. Third, a mandatory occupational pension scheme must deliver more than 50 percent of replacement wages for workers meeting the minimum tenure requirements. The pension system contributed to the development of Iceland’s financial system and has recouped most of the losses experienced during the country’s recent economic collapse.

Iceland’s pension system is good example of how to combine generous benefits with fiscal sustainability. The country has one of the most generous pension systems in the OECD while its public pension spending remains strikingly low. This note investigates how Iceland shaped its social security system.

More with less

Iceland’s population is relatively young, with 19.5 percent of the population over 65 (compared with the OECD average of 23.6 percent), a high fertility rate, and life expectancy of 81.7 years. For more than three decades, the pensionable age has been set at 67 years for both men and women. Icelanders work longer than most of Europe: the average effective age of retirement is 69.7 years for men and 65.4 years for women. The pension system provides retirees with one of the highest replacement rates among the OECD countries, amounting to 96.9 percent for average earners (figure 65). Somewhat surprisingly, such generous benefits come at a relatively low price of 1.9 percent of GDP, compared with the OECD average of 7 percent.

The system and its origins

Iceland’s social security system has its origins in the beginning of the 20th century and its design was partly based on New Zealand’s pension system from 1938. The current scheme consists of three pillars:

• The first pillar is a tax financed public pension scheme that starts to be withdrawn once a certain level of earnings is achieved.

• An important feature of the system is the mandatory character of the second pillar: the occupational or private (but publicly regulated) pension scheme. The mandatory occupational programs have their origins in 1969, when unions and employers’ organizations signed an agreement on pension schemes. Currently, the occupational pension funds are legally obliged
to secure a minimum benefit of 56 percent of previous pay, granted that a pensioner was contributing to the system for 40 years. Most of the funds follow a hybrid model of defined-contribution/defined-benefits schemes and provide pensioners with payments above the minimum level of 56 percent.

- The third pillar is a voluntary private pension fund involving, in most cases, defined-contributions schemes. Icelanders contributing to the third pillar are eligible for some tax exemptions.

**Figure 65: Gross pension replacement rates and gross pension wealth for median earners in selected OECD countries**

The system also incorporates incentives for citizens to extend their employment beyond the official pensionable age and, at the same time, punishes early retirement with lower future benefits. The benefits of staying in the workforce are particularly strong for low and middle earners. Consequently, the participation rates of elderly are among the highest in the OECD.

The Icelandic pension system is surprisingly inexpensive, when compared with other OECD economies (figure 66). Low public expenditure on pensions stems from the means-tested character of the system and has its origins in the development of the social security system in the country. Even the first old-age support fund that was set up in 1909 included a means-testing component. And when in the postwar years the social benefits grew in most of the Nordic countries, the Icelandic system retained its lean and means-tested character.

**Figure 66: Public pension spending in OECD34 countries in 2007**

Currently, higher benefits from the second and third pillars substantially decreased the taxed financed benefits. The OECD estimates that Icelandic private funds accounted for more than 60 percent of mandatory components of the pension system. However, a low expenditure ratio could also be a result of the county’s relatively young population, low unemployment rate, and high labor participation rate among men and women. Finally, the lean character of the pension system is strongly related to the Icelandic preference toward private and self-help solutions.

The system during the crisis

The system came under stress during the recent financial crisis. Private pension funds incurred significant losses in their stock and bond portfolios as well as in currency markets. For example, the currency protection contracts cost the funds up to ISK 73 billion in 2010. The funds came under even more stress when the government considered writing off mortgages of insolvent households amounting to US$2 billion (around 17 percent of GDP in 2009). Before and during the crisis, pension funds were involved in the mortgage market by granting fund members loans against residential housing and purchase of securities financing the state housing loan system. General write-offs of the mortgage would increase the existing losses and, therefore, decrease benefits for future pensioners.

As a result of the crisis, the net real return of the funds amounted to -22 percent, according to the Financial Supervisory Authority of Iceland (figure 67). This was partly the result of high inflation, corporate bond write-offs, and currency restrictions. However, only some pension funds cut the benefits due to the crisis, on average by 5 percent. In order to partially offset the impact of the crisis, the government temporarily allowed for the early repayments from the third pillar. These payments amounted to 2.5 percent of annual GDP between 2009 and April 2010. The pension system recouped most of crisis-related losses in 2009, with pension funds assets reaching the level of 118 percent of GDP.

**Figure 67: Net real return of pension funds in Iceland, 1999-2009**

![Graph showing net real return of pension funds in Iceland, 1999-2009](image)

Source: Iceland Financial Supervisory Authority.

Sustainability concerns

The Icelandic model manages to provide Icelanders with sufficient income and at the same time keeps the state’s fiscal burden in check. The growth of pension funds contributed also to the development of Icelandic financial market and, in some cases, started to become too
predominant. The performance of the pension funds is linked to the fluctuations in equity markets. As pension funds increase their holdings of equities, they become more volatile. Although, the 10-year average of net real returns in years 1999–2009 amounted to 1.8 percent, the variance was substantial (figure 67). High returns in 2003–06 contrast with periods of negative rates caused by the global downturns in equity prices in 2001 and 2008, amounting to -22.0 percent in 2008. The exceptionally good performance of the funds before the crisis derived partly from high returns on domestic stocks due to privatization of Icelandic banks as well as returns on domestic bonds (thanks to high interest rates). The risk of these fluctuations is mostly borne by the fund’s participants. Consequently, the choice of the fund, if possible, may determine future benefits. Due to nature of pension system, allowing customers to switch between funds according to their current performance could pose a threat to the long-term stability of the system. Finally, it also needs to be underscored that Icelandic model is a hybrid of a defined-contributions/defined benefits-model, thus the risk of falling contributions due to market fluctuations is smaller than in purely defined-contributions model.

In any case, sustainability is a common challenge for most of pension systems across the globe. The Melbourne Mercer Global Pension Index, which rates pension systems according to their adequacy, integrity, and sustainability, did not grant the best "A" grade to any country. Iceland switched to the funded model before issues connected to ageing societies became predominant. The implementation of the funded pension scheme in 1970s happened early enough to avoid substantial decreases in benefits.
Sources


Notes

1 According to the OECD methodology, it measures the relationship between incomes in and out of work.
2 In line with the OECD definition, pension wealth denotes the present value of the lifetime flows of pension benefits.
3 In terms of the means-testing component.
4 The public pension scheme incorporates a basic and supplementary pension, both means-tested. Earnings include pensions from other sources. However, the level at which the supplementary pension is reduced, is substantially higher than for other income sources.
5 The mandatory character of the schemes was introduced in 1974 for wage earners and in 1980 for the self-employed.
6 Minimum contribution to the occupation schemes is set at 12 percent of earnings (employer – 8 percent, employee – 4 percent).
7 There is a high change in wealth from working between 60 and 65. On the other hand, future benefits decrease by 7 percent for each year of early retirement.
8 OECD34 consists of Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.
9 Around US$0.6495 billion (according to the exchange rate quoted by Bloomberg, April 11, 2011).
10 From 1986 it is obligatory for the pension funds to buy some share of bonds issued by the Housing Financing Fund (formerly the State Housing Fund). In 2004 pension funds held 41 percent of all housing bonds issued by the HFF.
11 The compromise was reached between the government and pension funds, allowing a debt reduction for worst positioned households of up to 70 percent of the property value.
12 The character of the risk bearing depends on the type of the funds. In case of the employer-guaranteed funds, it is the employer who bears the investment risks, while the participants of the private funds share the investment risk collectively.
13 Due to differences in benefit rules across the funds (e.g., linear benefit formula versus age-related formula).
14 Iceland is not taken into account in the Mercer ranking.
Social security: Japan

Abstract

Japan has the oldest population in the world. The ratio of Japanese aged 65 and older to the working age population is 35 percent, compared with 25 percent for the EU15 and 20 percent for the United States. These demographics affect social security and public finances and are a drag on rates of economic growth. What is Japan doing, and what can aging countries learn? First, an aging society is a big fiscal burden, but it can be looked after by adjusting the system. Public pension spending in Japan is 10 percent of GDP, nearly 3 percentage points higher than the OECD average. But Japan still spends less than younger countries: for example, the ratios are much higher in France (13 percent), Greece (12 percent), and Germany (11 percent). The government has sought to modulate benefits to address its rising demographic burden, and the structure of the Japanese pension system has been adjusted several times: in 2004, for example, the government cut benefits for new retirees by 0.9 percent a year. Second, people need to work longer. Japan’s system punishes early retirement with lower benefits, and encourages later retirement with the lowest implicit tax on working beyond retirement age. Third, the elderly can be protected by making public pensions progressive, with lower replacement ratios for high-income retirees. Growing social and health care spending will become even a greater burden with time, and the country already has large amounts of public debt, well exceeding 200 percent of GDP. Japan may need to do even more: female work participation could be much higher and Japan may need more immigrants.

Japan is the fastest aging nation in the world. It has a median age of 44 years, and life expectancy at birth close to 83 years. The ratio of Japanese aged 65 and older to the working age population is 36 percent, compared to about 25 percent for the EU15 and 21 for the United States. These demographics affect social security, public finances, and may be a drag on economic growth.

Growth and demographics

There are significant changes in Japan’s GDP growth trajectory, especially after 2000, when accounting for demographics (figure 68). Basing on imputed growth rates net of a “demographic drag” in the 1990s, Japanese economic growth was less than US growth despite the correction. However, in the 2000s the imputed rates of growth are essentially the same (HSBC 2011).

**Figure 68: GDP growth in Japan and the US, accounting for demographics, 1990–2009**

Japan is coping with the demographic drag partly by raising productivity and partly by increased labor force participation. In 2000-05, productivity grew on average by 1.3 percent. According to McKinsey (2011), an increase in productivity growth of 80 percent is needed just to sustain past GDP growth rates. The participation of Japanese women in the labor force has also gone up and amounted to 62.9 percent in 2009 (compared to the OECD weighted average of 61.3 percent). The pensionable age, currently set at 64 for men and 62 for women, will be raised gradually to 65 years for both sexes. But Japanese already work longer: the average effective age of labor market exit is 69.7 years for men and 67.3 for women, one of the highest in the world. The OECD estimates that around 75 percent of Japanese between 60 and 64 years are still working. By comparison, the ratio for US men is about 60 percent and around 20 percent for French men.

**Pension problems**

An aging society puts a substantial burden on pension system expenditures. Public pension spending in Japan amounted to 9.8 percent of GDP, nearly 3 percentage points higher than the OECD average and less than in some younger countries: for example, France (12.5 percent), Germany (11.4 percent), and Greece (11.9 percent). Limited public spending together with large amount of retirees has led to one of the lowest wage replacement rates in the industrialized world (figure 69). Moreover, the system is highly progressive, with lower the replacement ratios for high-income retirees.

**Figure 69: Gross pension replacement rates for high and low earners, selected OECD countries**

Due to a rising demographic burden, the structure of the Japanese pension system has been adjusted several times. Currently, it consists of two principal elements: a basic, flat-rate scheme and an employee pension scheme. In order to be eligible for the basic pension plan, one has to contribute to the system for at least 25 years, and the full basic coverage is received after 40 years of contributions. The second element includes a flat-rate and earnings-related component; however, the flat-rate element for men will be withdrawn by 2013. Enterprises having 1,000 employees or more can partially contract out the earnings-related pension if they set up an employee’s pension fund. These funds are obliged by law to meet minimum yield requirements every year. From 2001, the government has also been advocating defined-contribution pension...
schemes as well as defined-benefit occupational pension schemes. In order to tame growing public expenditures, in 2004 the government cut benefits for new retirees by 0.9 percent a year.\(^2\) The system punishes early retirement with lower benefits. Later retirement is encouraged with the lowest implicit tax on working beyond retirement age.

With ever longer life expectancies, expenditure on pensions will increase. The already high gross public debt was mainly accumulated due to stimulus spending during the past two decades and rose again because of countercyclical measures during the recession of 2008. In 2010 the debt amounted to around 220 percent of GDP, and the IMF forecasts that it will reach 250 percent of GDP by 2016. Growing social and health care spending will become even a greater burden with time. Ihori et al. (2006) estimate that public health insurance benefits to GDP will grow by 1 percent every 10 years, reaching nearly 10 percent of GDP in 2050.

**Dealing with the shortage**

As the working population is forecasted to shrink further, Japan’s pension system will rely on a smaller base of contributors. The dependency ratio of 2.6 remains much lower than anywhere else (OECD average: 4.0). According to the United Nations World Population Prospects, the share of the working-age population will fall in 2050 to around 50 percent, considerably below its 1950 level of 59 percent. Japan needs more workers and production to support the pensioners. Observers believe that this can best be achieved by a combination of three measures: raising productivity, increasing the participation of women in the labor force, and greater immigration.

From 2000 to 2005, annual average productivity rose by 1.3 percent, but it was insufficient to make up for workforce shortages. Women’s participation in the workforce increased from 58.3 percent in 1994 to 62.9 percent in 2009 (figure 70). Although the participation of women in the workforce in Japan is higher than in other Asian countries, e.g., South Korea (53.9 percent), the gender wage gap of 31 percent remains the biggest among high-income countries.\(^3\) The differences are diminishing slowly; the gap in earnings has closed by only 4 percentage points since 1998.

**Figure 70: Female labor participation, 1994–2009, and inflow of foreign workers to Japan, 1999–2008**

![Figure 70](image)

Source: OECD.

The absolute number of foreign nationals entering Japan has been rising, amounting to around 8 million in 2008. Most of them seem to be tourists, as the actual stock of foreign workers has
declined substantially in the recent years (figure 70). In 2008, foreigners accounted for only 1.9 percent of population. Hayakawa (2010) estimates that around 900,000 foreigners were employed in Japan in 2010, 755,000 legally. Manabu and Oguro (2009) find that an inflow of 150,000 immigrants per year would be needed to improve the welfare of current and future pensioners. In 2009, legislation was adopted that allows the government to pay unemployed immigrants specified sums if they agree to go back to their country of origin after working for contracted periods. But the condition was that once they left, they would not be able to work in Japan again. Consequently, many stay in Japan illegally. For foreigners, the Japanese labor market remains one of the most difficult to enter. Workers are obliged to pass a language test that in 2010 only 3 out of 254 immigrants passed.

Japan is in a difficult position, with the combination of an aging society, sluggish growth, high public debt, and natural disasters. But it has managed to keep its expenditure on pensions relatively low. Karam et al. (2011) find the most effective solutions for aging societies involve raising the retirement age, and the Japanese already work much longer than their OECD counterparts. If recent developments are a reliable indicator of the reforms ahead, the country is more likely to focus on productivity growth and greater work participation among women. In the long run, however, the problems of aging will require more radical solutions than are currently being contemplated. Reforming social security systems will be more difficult as pensioners become even more politically influential. But if Japan tackles the problem of its aging population successfully, its experience will provide valuable lessons for other parts of the world.
Sources


Notes

1 OECD34 consists of Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

2 The process will continue until 2023.

3 According to OECD methodology, the wage gap is unadjusted and calculated as the difference between median earnings of men and women relative to median earnings of men.

4 The estimation is based on an overlapping generations simulation model of 16 countries and regions.
Social service delivery: Finland

Abstract

Countries experiencing demographic decline and tightening fiscal space often face difficulties in delivering high-quality social services. Yet Finland appears to be bucking this trend as service delivery has remained strong despite an ageing population and generous benefits levels. Finns are well educated but spend less on education than most OECD counties. And they live healthy lives. In 2010, Newsweek magazine named Finland the best country to live in. How does Finland deliver high quality social services at reasonable cost? The government uses “citizens as customers” approach that minimizes layers of bureaucracy between users and public decision makers. The education system is decentralized, with municipal authorities funding and schools that are responsible for daily management. The absence of layers of government between municipalities and the education ministry makes decision making more efficient and lowers costs. Students are encouraged to engage in self-assessments and taking charge of their learning schedules. Teachers are free to plan their classes, and choose textbooks. There are no national tests, so teachers are responsible for measuring the results. Health care services are lean and decentralized, with municipal government responsible for their delivery. Since 1990, the government has introduced several measures, such as user charges, to limit public spending on health care. And since 2006, “citizens’ offices” have improved communications between society and government.

Delivering high-quality social services becomes problematic when countries experience demographic decline and tightening fiscal conditions. Despite an ageing population, however, Finland appears to have maintained strong delivery and generous benefits levels. Finns are well educated yet spend on education less than most OECD countries (figure 71). They live healthy lives: life expectancy at birth amounted to 79.5 years. In 2010 Newsweek magazine named Finland the best country to live in, while in 2011 Monocle magazine named Helsinki the world’s “most livable city.”

Education: Getting the results

Education in Finland is a shining example of delivering value to citizens. Finnish students were rated third in the OECD 2009 PISA ranking that captures students’ capabilities in terms of reading, mathematics, and science. The basic and secondary education system reaches nearly all students, regardless of their social background. Public schools deliver a range of services beyond teaching, such as a hot meal for students and teachers, health services, and counseling. The country has also the highest ratio of youth enrollment in the tertiary education (43 percent) among OECD countries (average: 25 percent).

Surprisingly, young Finns spent less time in the classes than their international counterparts. The OECD estimates that a Finnish teacher in middle school teaches on average 600 hours per year in comparison with the average of 1,080 hours for an American one. The annual public expenditure per student on primary, secondary, and postsecondary nontertiary education in 2007 (US$7,216) was slightly under OECD average (US$7,572). Total public expenditure on education, as a portion of GDP, was 5.6 percent in 2007, compared to 7.1 percent in Denmark and 6.3 percent in Sweden. Finally, an annual salary of around US$57,000 for a mid-career teacher is not substantially higher than in other OECD countries.
The transformation toward a modern education system came gradually. Equal access to education was recognized as early as 1860 and in 1915 education became a civil right. The reforms that paved the way to the current system started after the Second World War, reinforced by political willingness and a commitment to reforms of all parties. The current system consists of basic, upper secondary, and vocational schools. Upper secondary schools are more academically oriented, whereas vocational schools focus on professional qualifications. Most schools in the country are small, up to 500 students, allowing the staff to know each child. The system is based on trust and community building, because most students go to local schools until they are fifteen years old. It is lean and decentralized, with municipal authorities funding and schools themselves responsible for their daily management.

Students are encouraged to engage in self-assessments and take charge of their learning schedules. The national core curriculum gives teachers a lot of freedom in planning their classes and choosing textbooks. There are no national tests, so teachers are responsible for measuring the results. They also receive high-quality training to identify children requiring additional help in the learning process. The profession is very prestigious: teachers are selected from the top 10 percent of upper secondary graduates. Before getting the teaching qualification, even primary school teachers are obliged to obtain a master’s degree. The professional preparation programs for teachers are run at the universities and include a two-stage recruitment process. In 2010, there were 6,600 applications for 660 slots in preparation programs for primary school teachers.

**Health care in transformation**

Finns live relatively long, with life-expectancy at birth amounting to 79.5 years (in comparison to the OECD average of 79.1) and one of the lowest infant mortality rates among OECD countries. They go to the doctor relatively seldom, on average 4.2 times a year. The government spends approximately 6.1 percent of GDP on health care, slightly lower than the OECD average (6.4 percent). Private spending accounted for 2.1 percent of GDP, adding up to total expenditure of 8.2 percent GDP.
The Finnish National Health Insurance is funded by state taxes and payroll contributions. Reforms in 2006 introduced a division in health care financing between medical care insurance and earned income insurance. Nearly three-quarters of spending on health care comes from public sources. Patients may switch to private providers with partial reimbursement of costs. The system is fairly decentralized, with municipal government responsible for the organization of the services. Since 1990, the government has introduced several measures, such as user charges, to limit public spending on health care. Although, these charges cannot exceed certain annual level, they remain relatively high with a lack of transparency in the pricing policies, pushing the out-of-pocket expenditure of households (figure 72).

**Figure 72: Out-of-pocket expenditure as a share of final household consumption in 2007 (%)**

![Figure 72](image)

Source: OECD (2009a).

**Citizens become customers**

Apart from education and health care, the Finnish government acts proactively in other areas of social services. Luo et al. (2010) found that Finland was the best among European countries in customs regime, regulatory policy, and information technology infrastructures. The Finnish authorities set up “Citizens Offices” that facilitate communication between the society and government. To boost international competitiveness, the government adopted a National Knowledge Strategy in 2006 and as well as the Finnish Productivity Program in 2007.

**Some limitation**

Yet the Finnish model has some limitations. On the education side, Finnish universities do worse than primary and secondary schools. As for health care, there are some pressures on the expenditure side. Increasing prices of pharmaceuticals and treatment methods will push spending even further. There are already significant discrepancies between the number of visits to the doctor between the wealthier and poorer Finns (figure 73).

Finally, recent states’ initiatives that embark on the creation of a knowledge economy should be followed by better execution, flexibility, and collective commitment, according to the OECD (2010b).
A model?

What others can learn from Finnish experience? The delivery of education is an unquestionable strength. Low spending together with top results of the students makes the Finnish model one of the most successful in Europe. In health care, the aging of the society and consequently the growing expenditure will be a tougher issue to tackle. Yet Finland seems to be much closer to providing its citizens with high-quality public services than many of its European counterparts. And in the end, it is the policy mix that counts.

Figure 73: Horizontal inequity indices for the probability of a general practitioner visit (with 95% confidence interval), 17 countries, 2000 (or nearest available year)⁷

Source: OECD (2009a).
Sources


Notes

1 Newsweek ranking takes into account health, education, quality of life, economic dynamism, and political environment. In its annual “most livable cities” metric, Monocle considers prevalence of crime, international connectivity, climate, quality of architecture, public transport, tolerance, environmental issues, urban design, business conditions, the pro-activity of policy developments, and the quality of medical care.
2 Including primary, secondary, postsecondary nontertiary, and tertiary education.
3 Annual expenditure in equivalent USD converted using PPPs for GDP. Expenditures include educational core services and ancillary services (transport, meals, housing provided by institutions).
4 Pursuing a tertiary education is possible after both schools.
5 Finland 2.7 as opposed to the OECD average of 3.9. Indicator: deaths per 1,000 live births. Reference year: 2007.
6 Paper includes 75 sample countries from Europe and Central Asia.
7 If the index is around zero there is no equity. Values above zero imply a preference toward high-income groups. Values below zero imply a preference toward low-income groups.
Social service delivery: Singapore

Abstract

Delivering value to citizens in times of tight budgets and global turbulences is not easy. Yet Singapore seems to be tackling this challenge quite well. The country delivers high-quality public services at a low cost. Government involvement in education and health care produced world-leading systems at public spending well below other high-income economies. Spending on education is less than 3 percent of GDP and health care spending is below 2 percent of GDP. The centralized education system produces top outcomes: Singapore scores in the top three in the TIMSS assessment measuring student performance in mathematics and science, and in 2009 the country was ranks 6th in the OECD PISA test to assess reading, math, and science (OECD 2009). The government creates strong incentives for performing well in national tests, and plays a direct role in hiring world class teachers. Singapore also has one of the most inclusive and efficient health care systems in the world. The system ensures universal coverage in a cost-effective way through compulsory savings and price caps, with mostly private sector provision. Life-expectancy is 81.4 years, and the child mortality is one of the lowest among the OECD countries, at just 2.2 deaths per 1,000 live births. Singapore’s efficient and effective system shows that it is possible to have high-quality social services without straining the treasury.

Singapore delivers high-quality public services at a low cost. Life-expectancy stands at 81.4 years. The child mortality of 2.2 deaths per 1,000 live births is one of the lowest among the OECD countries. Singapore scores in the top three in the TIMSS assessment measuring student performance in mathematics and science, and in ranked 6th in the OECD PISA test that assesses reading, math and science. All these results come with one of the lowest levels of public spending among OECD countries: 2.6 percent of GDP for education and 1.4 percent for health care (figure 74). In 2009, Singapore also topped the Waseda University Institute of e-Government ranking for e-governance. This note investigates how Singapore has managed to obtain so much marginal bang for its marginal buck of public expenditure.

Figure 74: Public expenditure on health and education (percentage of GDP, 2007) relative to GDP per capita

Delivering high-quality education

Singapore’s system is one of the most centralized in the world. The performance of schools is monitored at the national level every five years. It rewards schools that perform well with exemptions from certain exams, whereas those lagging behind are subject to greater control. Teachers provide additional assistance after class to those who need it. In some schools, there are special programs that set higher requirements for gifted students. Pupils under such programs are given different assignments than their colleagues, and they can choose additional classes e.g. creative writing. A government agency, the InfoComm Development Authority of Singapore (IDA), launches several competitions in the fields of IT, digital media, and programming. Singapore is also researching ways to innovate the education system in its classroom laboratories at the National Institute for Education.

A key part of Singapore’s success stems partly from the excellence of the teaching staff. The Ministry of Education is directly involved in recruitment decisions and chooses candidates from the top 30 percent of graduates through a complicated and rigorous process. The prestige of the profession is high. Teachers have 100 hours of paid training per year, and can benefit from a teachers’ network, and communities of practice.

Promoting responsible health care

Singapore has one of the most efficient health care systems in the world. It ensures universal coverage in a cost-effective way through compulsory savings and price caps on private sector provision. The health care system has three elements: Medisave, Medishield, and Medifund. Medisave is a personal account, introduced in April 1984, and is a part of a compulsory savings scheme. These accounts are used by patients to pay for their immediate medical expenses, but there is a limit on spending to avoid excessive and unnecessary expenditure. Around 50 percent of costs at public clinics are subsidized by the state, whereas the use of private clinics or additional features, e.g., upgraded accommodation, requires copayments from patients. The private sector accounts for approximately 75 percent of health care, leaving the 25 percent for the government.

Medishield is a voluntary, private insurance that can be financed from Medisave. This insurance covers costs of expensive treatments of catastrophic illnesses. There is an upgraded version—Medishield Plus—that covers higher ward classes and allows for larger withdrawals. The last part of the system, Medifund, was set up to provide health care financing to the poorest part of the society. There is also a special insurance, ElderShield, that was set up to protect the disabled.

Low public expenditures benefit from high savings rates, good quality of education, and a relatively young population. Many costly and experimental procedures are not covered by the insurance, placing the burden entirely on the patients.

Citizens become customers

Singapore’s government is increasingly focusing of adapting customer services to the demands of the technology era. In the early 1990s, the government created the Inland Revenue Authority of Singapore (IRAS) that is responsible for handling taxes. IRAS was transforming taxpayer services from papers to phones and later the Internet. Citizens were encouraged to file their tax statements online by, among others, granting special prizes. In 2002 1.8 million citizens filled their income-
tax returns paperless, which amounted to US$2 million savings for the government.\textsuperscript{9} Thanks to those efforts Singapore managed to tap the technological potential of its citizens (figure 75).

**Figure 75: The Waseda University Institute of e-Government 2011 ranking for e-governance versus fixed broadband Internet subscribers in 2008\textsuperscript{10}**

![Diagram showing e-governance index versus fixed broadband subscribers.](image)


There are also other public initiatives. In May 2006 the government introduced iGov2010, which aims at raising the quality of service, improving efficiency, and benefiting from synergies throughout government agencies. It is estimated that in 2010 citizens had access to approximately 150 mobile government services. Entrepreneurs can use the EnterpriseOne website, which includes all information gathered from 30 government agencies concerning setting up, licensing and running a business. Findings of Luo et al. (2010) indicate that Singapore was also the best among sample countries in port efficiency.\textsuperscript{11}

With the GDP per capita of more than US$43,000, a current account surplus, and gross national savings rate above 45 percent, Singapore certainly has a more favorable economic situation than many other OECD countries.\textsuperscript{12} Therefore, its social service delivery model cannot be fully replicated. Yet the government’s ability to respond to the challenges of the future and flexibility in doing so deserves to be noticed. Singapore constantly upgrades service delivery, experiments with innovative solutions, and encourages its citizens to follow recent technological trends. Most important, in its efforts to improve health care and education, the government managed to make their customers responsible and accountable partners.
Sources


Notes

3. There are special teaching groups for those getting the lowest results.
4. After CV screening, applicants have to pass assessment tests and, if successful, they are invited to interviews. Those who pass the interview process start an initial teacher training that assesses aptitude and personality. Candidates that do not match the key competences are removed from the training. On average, only 2 out of 10 applicants are employed as teachers. The higher the responsibility within the system, the tougher the recruitment process is. Principals are rewarded with a relatively high salary, but they are selected through a very demanding framework. The final stage lasts six months, when candidates perform different tasks, and only those representing the best combination of skills are hired afterwards.
5. Every employee contributes between 6.5 and 9 percent of a monthly wage to Medisave. The National Savings Scheme covers hospitalization, pensions, and mortgages.
6. In case of catastrophic illnesses, co-payments from the patients are required.
7. The eligibility is tested against income.
8. ElderShield disburses monthly cash allowances.
9. Paperless filling costs $2 less per statement than the paper process.
11. The study includes 75 sample countries from Europe and Central Asia.
Reducing public debt: Turkey

Abstract

Turkey halved the ratio of public debt to GDP from almost 80 percent in 2001 to less than 40 percent before the global crisis of 2009. Several factors helped. First, a revival of growth spurred by reforms at home, accession talks with the European Union, and seven years of global prosperity. Second, through greater fiscal discipline, Turkey generated primary fiscal surpluses between 2002 and 2005. Third, it granted more independence to the central bank and implemented better monetary policies, increasing the confidence of global markets in the lira. Fourth, it better managed public debt, leading to longer maturity periods and lower interest rates. And fifth, it prudently used privatization proceeds to repay sovereign debt. Turkey’s experience in reducing public debt can show others what is needed to bring levels of sovereign debt to levels that are favorable for economic growth.

The recent economic crisis has brought the problem of public debt to the forefront of policy discussions. Reinhart and Rogoff (2010) suggest that debt levels above 90 percent of GDP may slow economic growth. But dealing with public debt during times of financial distress is particularly difficult. Turkey may well serve as a good example on how to successfully reduce public debt to levels that are more favorable for growth, i.e., to eliminate a “sovereign debt overhang.”

What Turkey accomplished

Turkey suffered a serious crisis in 2001 that left it with a high level of public debt. In less than a decade it halved its gross public debt, from 77 percent of GDP to 39 percent in 2008 (figure 76). And even during the global economic crisis of 2009, Turkey’s debt rose only marginally to 41 percent of GDP.

The general government deficit fell from 15 percent GDP in 2002 to 3.5 percent in 2010. Turkey decreased its borrowing requirement from 12 percent of GDP in 2001 to almost zero in 2007. The inflation rate fell from 84 percent in 1998 to 8.6 percent in 2010. Macroeconomic stabilization improved Turkey’s credibility abroad: CDS spreads dropped from more than 11.45 basis points in mid-April 2001 to around 3 in January 2004.

Figure 76: Gross government debt in Turkey (share of GDP), 2000–10

Source: IMF WEO.
The aftermath of the crisis of 2001

In the 1990s, the Turkish economy was weak and volatile. Attempts to curtail rampant inflation by shifting toward domestic borrowing failed. Interest rates were volatile, and so was economic growth (figure 77). Turkey’s growth rates have remained among the most turbulent in the world.

Figure 77: Precrisis economic growth was volatile: real GDP growth (percent) in Turkey, 1980–2001

For an emerging economy, GDP per capita recorded disappointing growth in the 1990s (1.5 percent annually). A fragile banking sector and increasing indebtedness of the government made Turkey more vulnerable to external shocks. Total external debt grew from 43 percent of GNP in 1997 to 55 percent in 1999, with the private sector mostly responsible for the increase. Gross treasury debt shot up from 40.6 percent of GNP in 1998 to 100.8 percent in just three years (Moghadam 2005). Private banks financed their purchase of public debt with short-term loans from international capital markets. There were additional pressures in a highly concentrated banking sector: weak banking practices, poor regulation, and lax accounting rules.

To tame growing public debt and high inflation, the Turkish authorities negotiated an IMF Standby Arrangement in December 1999. In mid-2000, the government tried to make the Turkish regulatory framework more consistent with the EU regulations. Despite these measures, economic vulnerability remained high. For banks, maturity mismatches contributed to significant losses. Banks started to report negative return on assets as early as 1999; by 2001 nonperforming loans accounted for nearly a third of total loans. To avoid insolvency, banks started selling government securities. Additional liquidity from the monetary authorities put pressure on exchange rates.

To address these problems, the IMF provided financial assistance of US$10 billion conditional on the government’s actions to tackle problems in the banking sector. The World Bank provided another US$5 billion. The Turkish treasury together with the Banking and Supervision Agency offered to acquire most troubled banks. Although these interventions temporarily stabilized the economy, disagreements within the government on the scale and nature of fiscal adjustment prompted another surge in interest rates, which at one point almost reached 5,000 percent. Pressure on the exchange rate prompted the government to float the Turkish lira in February 2001. At the same time, public debt peaked at nearly 80 percent of GDP in 2001, due to the
restructuring of the financial crisis as well as the recognition of debt that had built up outside the official statistics.²

Deteriorating internal conditions pushed local as well as global authorities to act. The government prepared a set of structural reforms. The IMF revised its program with additional funds, as did the World Bank. First, the new stabilization program addressed the weaknesses of the banking sector. To withstand losses, troubled public banks were provided with additional capital, amounting to US$19 billion.³ The authorities embarked on transparent and true valuations of assets and losses. Shareholders were encouraged to invest in their own resources. The Bank Regulation and Supervision Agency put additional resources in for banks to recapitalize. The IMF and the World Bank assisted with asset management. The ratio of nonperforming loans to total loans dropped from nearly 30 percent in 2001 to 4.9 percent in 2010 (figure 79, in the appendix).

Though successful, the restructuring of the banking sector came at a cost of nearly a third of Turkish GNP.⁹ Government securities accounted, on average, for about 43 percent of private banks assets, making the soundness of government finances crucial for the long-term prospects of the financial sector.

How Turkey reduced its public debt

How did Turkish authorities control the exploding public debt? There were four main factors that helped: (1) renewed economic growth, (2) a primary budget balance, (3) real exchange rate appreciation, and (4) falling interest rates.

First, a well-tailored response to the crisis helped revive economic growth. Growth between 2002 and 2010 averaged about 5 percent. Strong economic performance, fuelled by set of reforms implemented during the crisis, allowed Turkey to grow out of debt.

Second, between 2002 and 2006 Turkey recorded, on average, primary budget surpluses of 3 percent of GDP. Fiscal consolidation adopted by the government addressed mainly the expenditure side of the budget. Embarking on transparency and predictability of public finances proved to be particularly beneficial.

Third, greater confidence in the economy and better monetary policies lead to appreciation of the lira after 2002. Between 1999 and 2007, the real exchange rate in Consumer Price Index (CPI) against the euro gained around 30 percent (Macovei 2009). The central bank, independent since 2001, succeeded in taming rampant inflation from 55 percent in 2000 to 8.6 percent in 2004. As a bulk of the public debt was denominated in or indexed to foreign currencies, the strengthening lira helped to reduce country’s indebtedness. Turkey has been also working on improvements in the investment and business climate. It established an advisory body (Investment Advisory Council), comprising of business executives, representatives of international institutions and multinational companies, that cooperates with the government on legislation. Opening of the accession negotiations with the EU further strengthened the confidence in the country’s prospects.

Fourth, falling interest rates reduced the cost of debt servicing. The government improved the management of public debt by optimizing the cost of borrowing through, among other avenues, extended maturities of debt issuance and borrowing in domestic currency at fixed rates. Together with the World Bank, it implemented structural reforms that improved transparency, financial...
planning, and execution. The World Bank program included changes in taxation, caps on public employment, and rationalization of public investment program. Finally, part of the revenues from privatization process was used to prepay country’s liabilities.

**Good prospects**

In 2009, the Turkish economy contracted by nearly 5 percent, mainly due to falling external demand. The slump in industrial production was greater than in 2001: from January to June 2009 the output of the automotive industry plunged by almost 50 percent. Yet the economy did not suffer as much as in 2001. GDP growth rebounded rapidly, reaching more than 8 percent in 2010, and the economy is forecast to grow by an average of 4 percent between 2011 and 2016.

The macroeconomic and financial indicators showed a new resilience. Banks did not experience the pronounced difficulties they had in 2001. The public debt was stable and is estimated to go down gradually to 33 percent of GDP in 2016. How well Turkey handled the crisis is also reflected in credit default swap (CDS) spreads, which have fallen from 2009 below Hungary’s spreads and since 2011 are more or less equal to spreads for Poland (figure 78).

**Figure 78 Credit swaps five-year spread in Czech Republic, Hungary, Poland, and Turkey, 2007-11**

Source: JP Morgan.

Turkey has many challenges ahead. Volatile GDP growth, low savings rates, growing external imbalances, and persistent unemployment will pose a threat to the economy for some time to come. However, the recent global crisis of 2008–09 showed how much more resilient an economy can become in just a decade and can be treated as a good basis for going forward.
Sources


Notes

1. This note will focus on comparing Turkey’s performance during two crises: 2001 and 2008 and will not take into account developments after 2009.

2. Government budget deficit understood as government structural budget, according to IMF WEO methodology.

3. Data on gross government debt as percentage of GDP prior to 2000 are not available at the IMF WEO.

4. Turkish banks accumulated a bulk of unhedged foreign exposures that made them vulnerable to exchange rate fluctuations.

5. The maturities of bank deposits shortened, and at the same time consumer lending increased (with longer maturities and fixed interest rates).

6. As a part of the program, a firm exchange rate commitment was introduced. Additionally, the monetary authorities were not permitted to sterilize capital inflows/outflows.

7. An example of debt not covered by official statistics prior to 2001 were exposures of public banks.

8. Restructuring of two state banks (Ziraat and Halk) lead to closure of 820 branches and layoffs of 30,000 employees between March 2001 and December 2003. One state bank (Emlak) was liquidated. The Savings Deposit Insurance Fund banks were merged, privatized, or liquidated.


Appendix

Figure 79: Nonperforming loans in Turkey have fallen significantly since 2001

Source: IMF FSI.
Reducing public debt: New Zealand

Abstract

In the aftermath of the global economic crisis, many countries have begun the struggle to bring public debts down. New Zealand’s experience in the past two decades can shed some light on how to tackle indebtedness in the public sector. Since the 1990s, the country has halved its public debt—from around 60 percent of GDP to 30 percent in 2010. New Zealand also led in fiscal prudence: it was second in the Stanford University’s Sovereign Fiscal Responsibility Index rankings in 2010. Difficulties experienced in 1991 pushed the government to adopt new and comprehensive measures. As a result, just 15 years later, the public debt level was brought down below 20 percent of GDP, with a primary budget surplus of more than 3 percent of GDP. How was New Zealand able to achieve such results? First, deep reforms in state finances helped return to primary fiscal surpluses in 1994, after two decades of deficits. The government focused on limiting expenditures, with spending cuts amounting to 7 percent of GDP. These fiscal reforms were comprehensive: the government set up a management framework for a sustainable fiscal policy using, for example, financial reporting standards similar to private sector accounting rules. Second, New Zealand used privatization proceeds of $NZ 14 billion in 1986–96 well, and made operations ranging from air traffic control to postal services competitive throughout deregulation. Third, these steps were part of a broader reform program that included reducing inflation from more than 8 percent in 1986–91 to 2 percent in 1992–97.

New Zealand has halved its public debt-to-GDP levels from around 60 percent at the beginning of 1990s to around 30 percent in 2010. It also leads in fiscal prudence: the country was second in the Stanford University’s Sovereign Fiscal Responsibility Index in 2010.

Lessons from the Pacific

New Zealand managed to reduce its public debt from ratios somewhat similar to the United States and Canada in 1989 to a level nearly three times smaller in just two decades (figure 80). And although the public-debt-to-GDP ratio surged in the past three years due to the global financial crisis, it still remains well below the OECD average.1 Finally, thanks to reforms at home, New Zealand’s foreign currency credit rating improved from AA- in January 2001 to AA+ in November 2010.2

In the 1980s New Zealand faced fiscal deficits and soaring borrowing needs that put the economy in a difficult state. Low tax receipts, increasing expenditures on benefits and high debt servicing costs were partly responsible for the high debt. Public debt peaked at 71 percent of GDP in 1985, while the budget deficit hit 5 percent of GDP. The consolidation measures adopted in the 1980s fell short in bringing debt levels down or restoring primary surpluses. The economy stagnated after 1987 until finally contracting by more than 1.5 percent in 1991. At the same time, the public debt grew again to around 62 percent of GDP in 1991–92, while the primary budget deficit reached 2.5 percent in 1991. Moody’s downgraded New Zealand’s foreign currency credit rating from AAA in 1977 to AA- in January 1991.

Reducing debt

The difficulties experienced in 1991 pushed the government to adopt new and comprehensive measures that brought public debt below 20 percent of GDP in 2007. How did New Zealand do
this? First, deep reforms of state finances in the beginning of the 1990s restored primary fiscal surpluses in 1994, after two decades of deficits. The government focused on limiting expenditure: according to OECD (2010), spending cuts amounted to 7 percent of GDP. These reforms were comprehensive, and set up a management framework for sustainable fiscal policy. For example, in the beginning of the 1990s the government increased transparency by adopting scrupulous financial reporting standards, similar to private sector accounting rules.

Figure 80: Gross government debt (% GDP) in Australia, Canada, New Zealand, and the US, 1989-2010

Second, lower interest rates reduced the costs of debt servicing significantly. In comparison to the beginning of the 1990s, short-term interest rates halved, from an average of 15.5 percent in 1986–91 to below 7.6 percent in 1992–97. Budget expenditures on net debt interest payments declined from around 4 percent of GDP in 1990 to around 1 percent in 1996. Declining interest rates were reinforced by the government’s commitment to put state finances in order as well as overall macroeconomic stabilization. Debt management also improved. A special office within the Ministry of Finance (the New Zealand Debt Management Office) was established in 1998, where trained public debt traders manage the government’s debt portfolio. The official strategy is aimed at reducing overall balance sheet risk. Thus, the share of debt denominated in foreign currency dropped from 43 percent in 1992 to 22 percent in 2001. Fixed-rate long-term debt increased marginally from 58 percent in 1992 to 61 percent in 2001.

Third, resources from privatization improved state balance sheets. In 1988 the government launched a privatization program that by 1996 brought in $NZ 14 billion. As a part of fiscal consolidation, many operations from air traffic control to postal services were deregulated and turned into competitive and profitable enterprises.

Finally, the reduction of public debt was part of a comprehensive reform program that addressed inefficiencies and improved overall governance in the country. New monetary policy brought the inflation rate down from an average of 8.3 percent in 1986–91 to 1.9 percent in 1992–97. The appreciation of real exchange rate between 1993 and 1997 could have helped too (figure 82, in the appendix).

Dealing with aftermath of the crisis

As a result of the recent crisis, public debt in New Zealand surged from 17 percent of GDP in 2007 to 31 percent in 2010 and is forecast to reach 36.5 percent in 2013. In 2009 the government
recorded its first budget deficit since 1994, reaching 6 percent of GDP in 2010. Interest rates remain higher than in Canada or the United States, despite lower debt levels in New Zealand (figure 81).4

Figure 81: Money market interest rates (period avg) in Australia, Canada, New Zealand, and the US, 1985-2011

![Diagram showing money market interest rates for Australia, Canada, New Zealand, and the US, 1985-2011.](source: IMF IFS)

Although debt levels surged after the recent crisis, they have not reached the OECD averages yet. The government has already adopted a new fiscal strategy that is supposed to cut operational expenditures across ministries as well as reduce net public debt to 20 percent of GDP by 2022. The IMF estimates that after a peak in 2013 gross government debt will decrease to 31 percent in 2016. Likewise, it is estimated that the surpluses on government structural balance will return in 2016.
Sources


Notes

1. General government debt (% GDP) in 2010 according to OECD stood at 30 percent GDP in New Zealand versus OECD nonweighted average (excluding Japan) of 51 percent GDP.
2. Standard & Poor’s.
4. Higher interest rates were also observed in Australia.

Appendix

Figure 82: Exchange rate index (1995=100), 1980-2010

Source: IMF IFS.
Green growth policies: Germany

Abstract

Germany is a pioneer in green growth policies. The country was one of the first to cut greenhouse gas emissions: in 2009, it decreased \( \text{CO}_2 \) emission by 23 percent relative to 1990 levels; energy consumption from renewables shot up fivefold from 1990 to 2010; and, the country has by far the largest solar energy capacity in the world. Germany shapes the debate on sustainable growth in Europe and will be at the heart of any serious multilateral effort to address environmental issues: the country’s response to the recent disaster at Japan’s Fukushima nuclear reaction was to begin phasing out all nuclear power in Germany. The country leveraged upon green technology to promote job creation and economic growth with the aim of energy policy being to contribute to exports and value added as well as sustainable living.

How has Germany done this and how can other countries follow? First, the political economy of energy and environmental sustainability has been favorable. The focus on environmental concerns and sustainable energy began early, during the late 1960s, when green policy was less controversial and politicized and gained momentum after reunification with East Germany when the discussion of the need to shut down polluting factories in the East became prominent. The electoral successes of the country’s environmental party—Die Grünen—reflect the public’s demand for more green policy and serves to keep the discussion on environmental issues in the policy mix in a way seen in few other countries. Second, the government directly encourages investment in renewable energy sources: regulators created a fixed feed-in tariff that forces utilities to purchase renewable energy at higher, fixed rates from independent sources. These incentives facilitated the development of a renewable energy industry. What others can learn from the German example? Germany shows that policymakers, businesses, and consumers can view environmental policies as a way to facilitate economic growth rather than a cost that slows economic development.

Germany has become a European pioneer in green growth policies. Together with Denmark and Sweden, it shapes the debate on sustainable growth in Europe. This commitment to green growth proved to be beneficial for the economy as well: according to the German government, employment in the renewable energy sector increased in 2010 by 129 percent in comparison to 2004, amounting to 367,400 jobs (BMU 2011a). This note tries to investigate how Germany married economic success with environmental policies.

German accomplishments

In 2009 Germany was able to decrease \( \text{CO}_2 \) emissions per capita by around 23 percent in comparison to 1990s levels.\(^1\) At the same time, the country increased total final energy consumption from renewable sources fivefold in just twenty years (from 1.9 percent in 1990 to 10.9 percent in 2010).\(^2\) Currently renewable energy sources account for a tenth of total final energy consumption, mostly biomass (7.7 percent), wind (1.5 percent), and hydropower (0.8 percent). Germany has 44 percent of the world’s existing solar photovoltaic (PV) capacity and the third biggest wind capacity in the world, after China and the US (figure 83).

Going green

There are several reasons why Germany became European leader in green growth.
First, Germany implemented environmental legislation relatively early. Since 1969, policymakers in West Germany focused on environmental issues. The oil crisis in the 1970s and subsequent public protests only reinforced these efforts. In 1971, the government put forward its first environmental program. In 1974, the Federal Environment Agency was set up in Berlin. In search of alternatives to fossil fuels, the nuclear program was expanded. Weidner (1995) indicates that the first environmental efforts were a result of the leadership and will of a few individuals rather than pressure from the society or an environmental disaster. According to the author, such a situation had certain advantages: because the environmental legislation was not yet controversial, policymakers were able to set quite ambitious targets.

The country’s commitment to sustainable growth was reinforced in the process of unification with East Germany, when most polluting factories in the east were shut down (Schreurs 2009). With increased global awareness, the German regulations in cooperation with the European Union addressed more and more environmental issues. While under Kyoto, the EU committed to 8 percent greenhouse gas emissions reductions by 2008-12 in comparison to 1990 levels, Germany committed to 21 percent. The subsequent legislation followed suit. The ecological tax reform introduced in 1999 and amended in 2003 increased taxes on energy consumption and the surplus was channeled to reduce employment costs. Knigge and Görlach (2005) estimate that the ecological tax helped Germany reduce emissions, boosted employment, and contributed to greater technological innovation.

Second, the government encouraged investment in renewable energy sources. Regulators created a fixed feed-in tariff that forces utilities to purchase renewable energy at higher, fixed rates from independent providers. These incentives facilitated the development of a renewable energy industry. In 2010, Germany was the world’s largest investor in new capacity in PV solar and biodiesel production, the second biggest in solar hot water/heat (after China), and fifth biggest for wind power (after China, India, Spain, and the U.S.).

Third, the German public became more and more aware of environmental issues. The environmental party - Die Grünen – received less than 2 percent of the votes during their first political campaign.
in 1980s and now holds 68 seats in Bundestag and has around 58,000 members. Although in the beginning Die Grünen focused mostly on an anti-nuclear agenda, they soon encompassed other environmental issues important for the German public such as industrial pollution and acid rain. Public awareness matters not only in the political sense, because environmentally conscious consumers create a demand for environmentally friendly products. It also forces businesses to use cleaner technologies and comply with environmental standards. At the same time, businesses in the area of green growth lobby for even more ambitious goals in terms of environmental policies.

**The policy and cost-benefit analysis**

Germany’s green agenda helped to internalize the cost of pollution and boost the renewable energy industry. The recent disaster at Japan’s Fukushima nuclear plant speeded up a nuclear phase-out in Germany. The planned phase-out is in fact so rapid that the International Energy Agency urged Germany to assess the implications of a quicker phase-out in terms of supply security, carbon emissions, and efficiency (IEA 2007). Also, the costs of subsidizing renewable energy are substantial. According to RIW (2009), subsidizing PV modules generates a total net cost of $73.2 billion for modules installed between 2000 and 2010. Partly as a result, the share of renewables in total primary energy output grew substantially in the past decade, though its role is still limited (figure 84). A greater share of energy from renewable sources also raises the question of electric grid management.

**Figure 84: Total primary energy supply by source (percentage of total), 1960-2010**

Through investment and government support, Germany was able to diversify its energy base and reduce the greenhouse gas (GHS) emissions by 23 percent in comparison to 1990 levels. At the same time, it sees green growth technology as major future export product and sets ambitious targets for the future. The country plans to cut GHG emissions by 80 percent by 2050, in comparison to 1990 levels. Renewable sources are set to deliver 60 percent of total energy consumption (SBESB 2011). What others can learn from the German example? Germany shows that policymakers, businesses, and consumers can view environmental policies as a way to facilitate economic growth.
Sources

- Schreurs, Miranda A. 2009. “Germany’s Environmental Transformation: From Pollution Haven to Environmental Leader.” American Institute for Contemporary German Studies Transatlantic Perspectives, December.

Notes

3. The same year the responsibility of addressing the pollution was transferred from the Ministry of Health to the Ministry of the Interior.
4. It needs to be underlined that German environmental policies are imbedded in the European Union’s ambitious environmental agenda. The European Economic Community implemented its first environmental regulations between 1960s and 1980s. See Fu (2008).
5. The rates are lowered once the technology becomes cheaper.
7. Germany is an important exporter of green technologies, yet it is facing increasing competition. China already has the biggest renewable capacity (including hydropower capacity) worldwide and it continues to invest more (REN21 2011).
Green growth policies: California

Abstract
The U.S. state of California is not only very large—it would be the ninth largest economy in the world were it a sovereign nation—but one of the most energy efficient: California consumes the lowest amount of electricity per capita in the country; the state generates 15 percent of the country’s total renewable energy; and, it has consistently led the country in setting tighter and tighter CO2 emissions standards. Through the “California effect” of imitation and legislation, the state has lifted up the environmental standards of the entire U.S. and even other countries that want to do business in this most populous and wealthy part of the U.S. What can other states and countries learn from California in the area of green growth? First, like Germany (see the Germany green growth benchmark), California started its drive towards green growth early: the state began pursuing environmental standards that exceeded federal minima in the 1940s and created the country’s first air pollution control districts in 1947. Early starters benefitted from less politicization and this then created its own political momentum that late starters may have to work harder to create when implementing greener policies. Second, direct and indirect regulations have made California’s energy prices the highest in the country. This has led to big efforts towards improvements in energy efficiency so that electricity bills as a portion of output are among the lowest in the country. Finally, the state is a hub of clean energy research and investment: the state hosts many of the world’s best research intensive universities and research centers; the state is the home of a highly skilled labor force, particularly in Silicon Valley; and, the state has played a role in helping venture capital find its way to energy efficient projects. California’s example shows how public intervention and private initiative can, at a sub-national level of government, push forward the agenda on green growth.

If the state of California was a country, it would be the ninth wealthiest in the world. It would also be one of the greenest. Its commitment to sustainable growth is nothing new, and dates to early 1940s. This focus on sustainable growth translated also into jobs: in 2008 employment in green establishments amounted to 163,616 (CCI 2010). This note tries to investigate how California became an American leader in green growth policies.

America’s greenest
The U.S. states have a lot of independence when it comes to setting carbon emissions standards. California used this flexibility to set one of the highest standards in the world. Since the 1970s, electricity consumption per capita in California remained flat, in contrast to the U.S. national average. Currently, those living in California consume the lowest amount of electricity per capita in the country: constituting half of the electricity consumption in state of Washington and one third of electricity consumption in Kentucky (figure 85). And although part of this divergence stems from the state’s warm climate and cleaner industry profile, environmental policies also contributed to this success. Around 12 percent of the state’s energy comes from renewable sources and California accounts for almost 15 percent of US total renewable generation.

How to be green
There are several reasons behind California’s leadership in green growth.
First, California’s emphasis on sustainable development stems from rich history of environmental legislation. Due to severe air pollution in the Los Angeles Basin and high population growth, in 1947 the state of California created the first county-level Air Pollution Control Districts in the United States. In 1963, California set the first emissions controls for new vehicles in the US. Legislation protecting the environment gained momentum in the beginning of the 1970s. In 1974 the California Energy Commission (CEC) was established to consider applications for new power plants. Gradually, the commission mandate was expanded and it published the first state appliance performance standards in 1976 (Rosenfeld and Poskanzer 2009). The state focused on energy efficiency, such as building and appliance standards, which brought around $56 billion in household energy savings between 1972 and 2006 (Mandell and Kelsey 2011). Among the panoply of energy efficiency measures, there were performance incentives in place for utilities that saved energy. California’s focus on efficiency was facilitated by the strong leadership of individuals such as Arthur H. Rosenfeld, former Commissioner of the California Energy Commission. Efficiency gains have been a significant part of green growth strategy that translated into savings and prevented the construction of additional power plants.

Second, indirect and direct regulations in California made the energy prices higher. Currently, California has one of the most expensive residential electricity prices in the U.S. (15.60 cents/kWh vs. U.S. average of 12.17). However, higher prices seem to have forced consumers to use energy more efficiently and made the electricity bills lower. In 2008, electricity bills as a percent of GDP in California were the forth lowest in the U.S., after Utah, District of Columbia, and Colorado (Next 10, 2010).

Third, the state has been investing in green technologies. In 2007-09, California registered the highest amount of green tech patents in the US. In 2009, it accounted for more than 50 percent of clean energy technology venture capital investments and more than two thirds in the second quarter of 2010 (BACEI 2010). Although venture capital is usually not suitable for energy technology, due to long-term character of such investments, California started developing venture capital specialized in clean technology. Investments allowed for the development of renewable energy sources, from hydro to wind energy (figure 86). The innovation process is
facilitated in the state’s wide base of cutting-edge companies. California is home to Silicon Valley, which thanks to network of innovative companies, skilled labor pool and financial capacity, is a leader in green innovation (CCI 2010).

**Figure 86: California’s renewable net energy generation in 2010 by energy source**

![Pie chart showing renewable energy sources in California](Image)

There are other factors at play. Rosenfeld and Poskanzer (2009) indicate that the combination of legislation with scientific knowledge facilitated by the state’s leadership in energy efficiency. California has some of the best universities in the world and environmental research produced by these schools can and is used globally. National labs at Berkeley, Argonne, and Los Angeles worked with the legislators on energy efficiency issues. In 1971 Berkeley opened its first graduate program on energy, the Energy and Resources Group. The California Energy Commission cooperated with research labs, granting funds for academic research, and using the results for energy efficiency regulation (Hanemann 2007).

Finally, California has demonstrated a constant commitment to environmental policies. When legislation was first implemented in the 1940s, 1950s, and 1960s a controversy arose over whether California should be able to set higher environmental standards than those set out by national policies. Thanks to California’s persistence, it was granted a special waiver (Hanemann 2007). Since then, California has been setting the standards higher and higher. By passing AB 32, the California Global Warming Solutions Act of 2006, the state committed to reduce GHG emissions to 1990 levels by 2020. As noted by Hanemann (2007), AB 32 is unique among green growth legislation because it is comprehensive and legally binding. California is committed to sustainable growth because a clean environment and high quality of life are the states’ assets that encourage people to move there. Additionally, having high-tech industry instead of more carbon-intensive industries gives California an important advantage.

**Going beyond states’ borders**

California’s policymakers still face some limitations and concerns over energy supply. Mandell and Kelsey (2011) point out that long application processes for new plants hampers the expansion of energy supply. The authors also indicate flaws in the deregulation process, implemented in 1996, that gives an opportunity for traders to inflate energy prices.
Through more stringent regulations and strong leadership, California became the national leader in green growth policies that might serve as a model to other U.S. states and countries. Thus, some researchers talk about “California effect” – tougher regulations in California facilitated convergence in regulation in other states.\textsuperscript{13} The effects could be international as well. Perkins and Neumayer (2011) investigate cross-country automobile emission standards and find that developing countries, which export automobiles and related components to countries with stricter emission standards, tend to have more stringent standards as well. However, estimates of Fredriksson and Millimet (2001) suggest that influence of California legislation on other states was minor, if any.

What others can learn from California’s experience? California’s case shows the role of strong leadership in shaping and implementing environmental policies. Investing in clean technology now could become an engine of economic growth in the future. California’s experience also illustrates that states and regions can go beyond national policies in promoting sustainable economic growth.
Sources


Notes

1 Measured as GDP in current USD. California has a GDP of $1,901.088 billion in 2010 (Source: Bureau of Economic Analysis). Comparisons to GDP data for the world in 2010 (Source: IMF WEO).
2 In 1947 the state of California created first county-level Air Pollution Control Districts. See: Mandell and Kelsey 2011.
3 This relationship is called the ‘Rosenfeld curve’ or ‘Rosenfeld Effect’. See: Rosenfeld (2008).
4 Kandel et al. (2008) suggest that California’s green growth policies help explain smaller electricity use in California. Authors use data on per capita electricity use in the US and California. Sudarshan and Sweeney (2008) estimate that for 2001 around 23 percent of the difference between California and the United States electricity consumption could be due to policy measures.
7 All US states listed with exception of District of Columbia.
8 For a comprehensive review of legislation on energy efficiency see Hanemann (2007).
9 Served as Commissioner of the California Energy Commission between 2000 and 2010.
10 U.S. Energy Information Administration.
12 In other states GHG emissions reductions are either not legally binding or apply to limited sectors e.g. only to electric power generation.