

# NORDICS IN GLOBAL CRISIS

## Vulnerability and resilience

Thorvaldur Gylfason, Bengt Holmström, Sixten Korkman,  
Hans Tson Söderström, Vesa Vihriälä

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## PREFACE

The world is experiencing its worst slump since the Great Depression in the 1930s. The Nordic countries have, with the exception of Norway, been hit harder than most. Due to its sharpness and depth, the crisis is opening up or reviving a broad agenda of important policy issues. This report raises a number of the issues and discusses the scope for economic policies to contribute to the resolution of key economic problems.

The report can be seen as a sequel and as complementary to an earlier report on the Nordic Model, presented two years ago by a team including three of the authors of the present report. While the earlier report was focused on structural issues, the one at hand is about macroeconomic and financial issues.

The members of the team are eminent economists and authoritative experts on the issues covered. The report is a joint product, reflecting extensive discussions and cross-comments on individual contributions.

The efficiency and speed of the editing by Kimmo Aaltonen and Laila Riekkinen is without comparison.

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Helsinki 19 January 2010

Sixten Korkman



## THE AUTHORS

**Thorvaldur Gylfason** is Professor of Economics at the University of Iceland and Editor of the *European Economic Review*. A Princeton Ph.D., he has worked at the International Monetary Fund and taught at Princeton, and was long associated with the Institute for International Economic Studies at Stockholm University. He has published over 100 scholarly articles and fifteen books, including seven collections of essays in Icelandic as well as *Understanding the Market Economy* (with Isachsen and Hamilton, 1992), available in 17 languages, and *Principles of Economic Growth* (1999). He has lectured extensively around the world. He writes a weekly column for Iceland's largest daily newspaper, *Fréttablaðið*. His current research is mostly in the field of economic reforms and growth. His most recent publication is "Seven patriotic songs" for mixed choir in *Skírnir*, the Nordic countries' oldest literary journal (est. 1823).

**Bengt Holmström** is the Paul A. Samuelson Professor of Economics in the Department of Economics at MIT. He has a joint appointment with MIT's Sloan School of Management. He has worked on the theory of the firm, particularly in the areas of contracting and incentives. His recent research has focused on the demand and supply of liquidity in financial markets and the financial crisis. Holmström is a fellow of the American Academy of Arts and Sciences, First Vice President and fellow of the Econometric Society, and fellow of the European Economic Association and the European Corporate Governance Institute. He is a Research Associate of the National Bureau of Economic Research (NBER) and a member of the executive committee of the Centre for Economic Policy Research (CEPR). He has served on the board of Nokia Oyj since 1999.

**Sixten Korkman**, pol.dr., has since 2005 been managing director of the Research Institute of the Finnish Economy (ETLA) and the Finnish Business and Policy Forum (EVA). He has previously served as Head of Office at the Bank of Finland (1983–1988), as Director General in the Ministry of Finance in Finland (1989–2005), and as Director General in the secretariat of the Council of Ministers in the European Union (1995–2005). He has written articles on macroeconomic and other policy issues and a book on the economic policies in the European Union.

**Hans Tson Söderström** was from 1970 until 1984 Research Fellow, Senior Fellow and finally Deputy Director at the Institute for International Economic Studies at Stockholm University. Between 1985 and 2002 he served as President and CEO of SNS – the Swedish Center for Business and Policy Studies. From 1985 to 1995 he was chairman of its Economic Policy Group presenting annual reports on Swedish economic policy. Since 1992 Söderström has served part time as Adjunct Professor of macroeconomic analysis and policy in the Department of Economics at the Stockholm School of Economics (SSE). Between 2004 and 2006 he was responsible for the school's executive education branch, first as President and CEO, then as executive chairman. Professor Söderström's main area of research is macroeconomic policies in small open economies. He has produced a number of scientific papers and textbooks in the area and has also served widely as policy advisor.

**Vesa Vihriälä** is, since February 2004, State Under-Secretary in the Finnish Prime Minister's Office and Secretary General of the Economic Council. He received his Doctor of Social Sciences (Econ.) degree from the University of Helsinki, where he also worked as a researcher. In addition, he has studied at the Massachusetts Institute of Technology. Dr. Vihriälä had a long career at the Bank of Finland, where he worked on monetary policy and financial market regulation in the 1980s and had a central position in the crisis management activities of the central bank during the banking crisis in the early 1990s. He has also served as Economist at the OECD (1989–1991) and as the Managing Director of Pellervo Economic Research Institute (1997–2004). In his current position Dr. Vihriälä has focused on Finland's globalization strategy, labour market issues and ageing policy.

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# 1

## INTRODUCTION AND SUMMARY: PUTTING THE CRISIS INTO PERSPECTIVE

The global crisis opens up a broad agenda of policy issues

During the past two years, the world has experienced its most severe slump since the Great Depression in the 1930s. As so often is the case, the financial sector has played a key role in the unfolding of the crisis, even though the root causes may lie elsewhere.

Due to its sharpness and depth (figure 1.1), the current crisis has initiated a wide debate on the supposed self-correcting properties of the market economy, on the need for more effective regulation and supervision of financial markets, and on the role of macroeconomic stabilization policies. It has led to a re-evaluation of the doctrine that monetary policy should be geared only to price stability (in a narrow sense), without the ambition to prevent or attenuate the inflation of asset price bubbles and financial fragility. It has revived the view that active or discretionary fiscal policy will occasionally be needed to complement the workings of automatic stabilizers. The crisis throws new light on the costs and benefits of the welfare state and its risk-sharing mechanisms. It calls into question the virtues of unfettered globalization and underlines the need for global institutions and cooperation to develop in parallel with economic integration and interdependence. In short, the crisis is opening up a broad agenda of essential policy issues for renewed consideration.

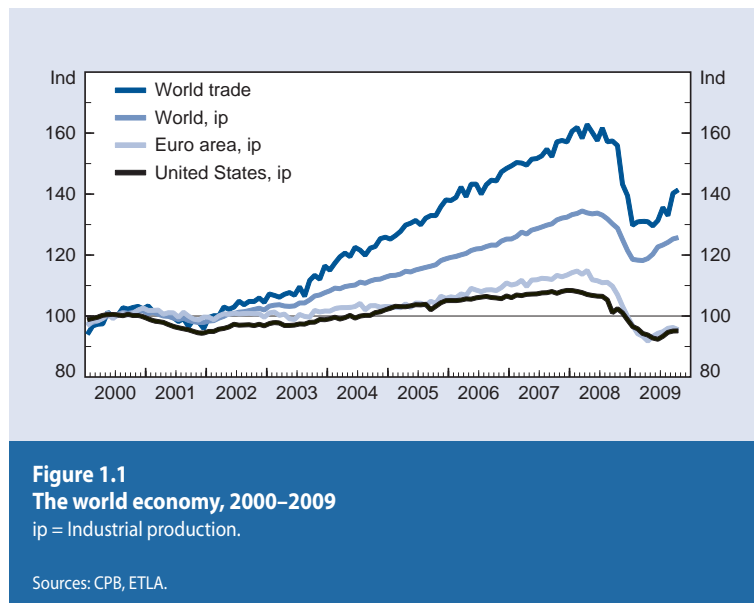
This is a report on the global crisis and the Nordic economies

This is a report on the global financial and economic crisis from the point of view of small open economies with particular reference to the Nordic countries.<sup>1</sup> The Nordics are among the

champions of free trade and globalization, and they are now hard hit by the global downturn (with the exception of Norway). The stakes are high for these countries; a stable global framework is essential, as is the capacity of their economies to adjust to changing world markets.

Why were the Nordics hit so hard by this crisis, which apparently had little if anything to do with the stability of their own financial systems or with their competitiveness in global markets? What have the Nordics done and what could they do to alleviate the domestic consequences of the crisis? What are the lessons of the crisis with regard to monetary policy and the different choices of monetary regime across the Nordic region? Is there need and scope for expansionary fiscal policy in small open economies even though fiscal multipliers may be small and large budget deficits may threaten public debt sustainability? How can fiscal consolidation and a resumption of economic growth best be reconciled? Should the Nordic countries reconsider their outward-looking growth model in view of a more unstable global economy? Is the Nordic socio-economic model an asset or a liability in the light of the crisis?

Why were the Nordics hit so hard, what should policy makers conclude and do?



Important decisions, with effects far into the future, must be taken

These and many other questions are raised in this report. While definite answers may not come forward, we feel that it is useful to put the issues and problems into perspective and discuss what economic research can contribute to their resolution. Important policy decisions, affecting our economies and societies for years to come, are and have to be taken every day (including decisions not to act). These decisions should ideally be enlightened by sound arguments drawing, *inter alia*, on economic analysis.

This chapter sets out the main themes that are dealt with more fully in the ensuing chapters. Both the global perspective and the issues faced by small open economies are covered, with the emphasis being on the latter. The development of macroeconomic stability is looked upon in the light of broad historical facts, and the lessons of the crisis of Sweden and Finland in the early 1990s are recalled. The ways and means of safeguarding financial intermediation are examined, as are the requirements that need to be met by a more robust financial system. Special attention is paid to an extreme Nordic case: the rise and fall of Iceland. The strengths and weaknesses of fiscal and monetary policies in this crisis are covered, as are the merits and drawbacks of the different exchange rate arrangements adopted by the Nordics. Finally, we offer some reflexions on ways of limiting vulnerability and increasing resilience of small open economies in a global crisis such as the current one.

## 1.1 PANIC STRIKES: WAS THE GREAT MODERATION A GREAT ILLUSION?

Panic struck like lightning from a clear sky

While the term “Great Moderation” is often used to refer to the past two or three decades, it may usefully be applied to the whole post-war era, which, in a historic perspective, was a period of brisk growth and relative stability. There were admittedly a number of crises and shocks, but these were local (such as “Asian” or “Nordic” financial crises) and/or related to specific problems (such as the oil price shocks or the IT bubble). By and large, growth was satisfactory and the global economy did not suffer from major or

systemic disruptions comparable to the Great Depression. The developed world seemed pretty confident that global financial crises or depressions were things of the past – until the current crisis erupted like lightning from a clear sky, causing a dramatic downturn in the global economy.<sup>2</sup>

With the benefit of hindsight, it is obvious that financial developments before the crisis were for many years characterized by global imbalances, excessive credit expansion and unhealthy increases in leverage. These were feeding both consumption and investment and the build-up of asset price bubbles. There was too little equity in the balance sheets of homeowners, corporations and financial institutions. There was inadequate understanding of the risks of complex financial instruments, of the role played by “shadow banking”, and of the interconnections of markets. These all contributed to building up bubbles and spreading their consequences once they had burst.

Regulation was not up-to-date, supervision was inefficient, rating agencies made serious mistakes, and the incentive schemes faced by managers of financial institutions encouraged excessive risk taking. Given the role of securitization and innovation in the emergence of what is now seen as obvious financial excesses, it is not surprising that banks and other financial institutions have been subjected to criticism. However, while much criticism may be warranted and there is room for many improvements in the financial area, the bashing of bankers should not stand in the way of thorough analysis of the systemic problems behind the crisis.

Financial excesses were building up dangerous bubbles

## 1.2 BASHING BANKERS IS NOT ENOUGH: THE MACROECONOMICS OF LOPSIDED GLOBALIZATION

Financial factors were certainly important proximate causes of the problem, but the underlying causes of the crisis are less obvious and will be the subject of analysis and debate for years to come. Our favoured interpretation of the crisis is that it resulted from a

The dynamics of globalization can result in unsustainable financial imbalances

conjunction of global macroeconomic imbalances and the workings of financial markets.

The process of globalization has in the past couple of decades been very rapid but also lopsided. Hundreds of millions of workers, mainly from Asia, have entered production geared to international markets. This process has improved, *inter alia*, the lot of poor Chinese and Indians workers, while at the same time helping to keep down prices of manufactured goods and moderating global inflation. While this process of globalization and productivity growth has increased the *supply* of goods and services in world markets, it has not to the same extent increased the global *demand* for goods and services.

The saving rate in Asian countries, notably in China, is extremely high (roughly half of GDP), and the financial markets of these countries are not able to offer attractive assets to households and companies with financial surpluses. While the investment rate has been high, it has nevertheless been substantially lower than the saving rate. This has resulted in a “savings glut” looking for safe and liquid investment opportunities in countries with a shortage of domestic saving and developed financial markets, notably in the US.

Big money chasing high returns encourages excessive leverage and risk taking

The large financial flows looking for investment outlets contributed to keeping real interest rates low world wide. The abundance of liquidity and low interest rates encouraged financial institutions and holders of assets to try to raise the rate of returns on their asset portfolios by increased leverage at the cost of higher (and underestimated) risks. The large current account deficit of the US and other developed countries was not only a reflection of low household saving and lack of fiscal responsibility in these countries but also of the large Asian (and Middle-East) supply of financial saving. This is why the large US budget and current account deficits did not raise interest rates nor trigger a plunge of the dollar.

The way the financial markets have functioned in key countries has contributed to the asset market bubble, fragile financial structures and the eventual disruption. Financial innovation created highly complex instruments and avenues of intermediation (“shadow banking”), which made it easy to borrow and attractive

to invest in seemingly low-risk assets. This facilitated and encouraged higher leverage than had been possible in a financial system with more adequate regulation and supervision.

The tensions inherent in the unbalanced globalization process were more or less hidden as long as American consumers and the federal government were willing to spend more and borrow more. And this borrowing could go on for a long time without apparently causing problems, precisely because China (and Arab countries) was willing to buy US government bonds and other debt instruments at low interest rates. The problem emerged only when it became only too obvious that the build-up of borrowing and of asset price rises was coming to an end, as became the case in light of high and rising interest rates and prices of oil and other raw materials in 2006–2007.<sup>3</sup>

The errors committed by the management of financial institutions as well as the shortcomings in regulation and supervision of banks and other financial institutions are undeniable, but they are not at the root of the issue. The global crisis emanated from the conjunction of widespread financial fragility and a lopsided globalization process, proceeding rapidly amidst large financial imbalances.<sup>4</sup>

What cannot go on forever, will come to an end

### 1.3 THE GREAT STABILIZATION PREVENTED A REPETITION OF THE GREAT DEPRESSION

Once the increase in asset prices was reversed, the financial system rapidly found itself in serious difficulty with write-downs and distress selling of assets as well as lack of liquidity and capital. And once lower leverage became a main ambition of households and firms in the US and elsewhere, global demand in the world economy started shrinking. The financial and real effects triggered mutually reinforcing chain reactions. The panic of in the autumn of 2008 caused such disruptions to financial intermediation around the globe that even companies in basically sound position were forced to cut back on spending due to lack of short-term credit. Suddenly all factors pulled the world economy in one and the same direction: downwards.

The world economy started declining when American consumers stopped buying



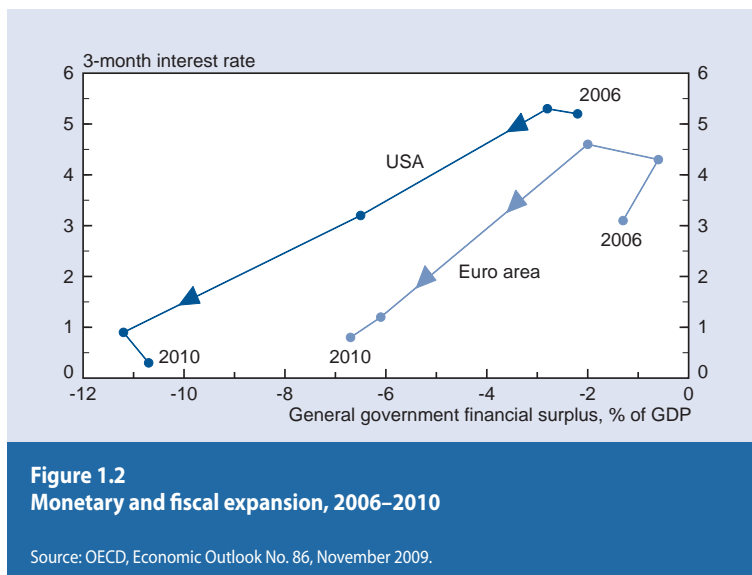
What went down comes up, but slowly

Global policy reactions were quite different from those in the 1930s – fortunately

However, the past couple of years have been a period of many surprises. While the sharpness and synchronization of the decline in the world economy in late 2008 and early 2009 was a surprise, so was the stabilization achieved as early as in the middle of 2009. The recession has now been declared over in many countries, and a recovery – albeit weak and hesitant – seems to be underway (figure 1.1). If the recovery is confirmed and gathers strength, then this is clearly a crisis which did not end in a second Great Depression. Such a quick turnaround of this global financial crisis would set it apart from much of historical experience, which suggests that severe financial crises are usually followed by quite prolonged downturns.

There seems little doubt of the explanation: policies matter. In the 1930s policies were either passive or contractionary when they should have been expansionary. This time policy reactions have been quite different: starting from the autumn of 2008, authorities have demonstrated unprecedented policy activism. First, central banks – led by the Federal Reserve – slashed interest rates and, when short-term rates approached zero, expanded their balance sheets by “quantitative easing”, i.e. by unconventional purchases of securities. Second, authorities undertook a number of measures to save and prop up individual financial institutions and to safeguard the functioning of financial systems. Third, automatic stabilizers were complemented by large-scale discretionary fiscal stimulus in the US, most European countries and China. The path of recent monetary and fiscal expansion in the US and the euro area is illustrated in figure 1.2, with short-term interest rates and the public sector’s financial surplus as indicators of policies pursued (such that a movement downwards or to the left indicates an expansionary stance).

It would be premature to claim that the danger is over and that stability has been restored. The recent problems in Dubai are but one reminder that many financial institutions are still over-leveraged, and that there may be more to come. Nevertheless, recent experience gives comfort and confidence. It testifies to the capacity of policy makers to take largely adequate action with speed and determination in crisis conditions.



## 1.4 REGULATION AND STABILIZATION: DO WE NEED MORE?

There is no doubt that economic crises have been much less frequent and less severe in the postwar period than during the interwar period or the 19th century. A comparison of macroeconomic policies and frameworks of financial regulation over this long period suggests that macroeconomic stability may be seen as resulting from a confluence of financial regulation and macroeconomic stabilization. The Great Depression in the 1930s is here the watershed: it initiated an era of tight financial regulation and active macroeconomic stabilization policy. This, arguably, is the main source of reduced volatility in the world economy since World War II.

Then came a backlash. Financial regulation was relaxed over the years, notably in the US, while at the same time financial innovation increased the complexity of financial instruments, institutions and markets. By consequence, regulation and supervision of the financial system became increasingly out of date and

Reduced volatility reflects the confluence of financial regulation and macroeconomic stabilization

Financial regulation was relaxed and increasingly out of date

increasingly insufficient to identify and cope with the ever bigger risks involved.

Also, the nature of macroeconomic policies was changing, partly as a result of previous policy failures and partly as a consequence of developments in macroeconomic theory and empirical research. It was widely agreed that the fine-tuning ambition of earlier Keynesian policy had created more problems than it had solved. The resulting doctrine claimed that independent central banks should have price stability as their dominant or sole target, while fiscal policy should abstain from activism and be content with the functioning of the automatic stabilizers. Furthermore, there was for many years little if any interest in issues of international policy coordination.

Market fundamentalism is out, as is belief in comprehensive state interventionism

As the crisis illustrates, it is illusory to think that markets can always be safely left to correct themselves. Governments had to prop up the financial system, and Keynesian activism in fiscal policy has been a useful complement to monetary expansion by central banks. However, these are exceptional actions in an emergency and they do not signal the return of a more prominent and interventionist role for the state in running the economy in normal circumstances.

Wish list: better regulation, stabilization and international coordination

What the world needs now is more effective regulation and supervision to reduce the likelihood of financial instability and/or better access to macroeconomic stabilization tools in times of crisis. However, this is not a call for going back to the policies and regulatory structures adopted after the Great Depression. New circumstances require new approaches and solutions. The point is rather that the work presently going on with a view to creating a better framework for regulation and supervision of financial systems, acknowledging also the need for more international coordination, should be pursued with determination. More stringent regulation may come at a cost in terms of economic efficiency foregone in financial intermediation and financial innovation, but even so a shift toward more stability is clearly justified.

It is also important to examine the scope for central banks in safeguarding not only price stability but also in preventing asset price bubbles and reducing systemic financial risks. Furthermore, the crisis has given renewed impetus to the search for ways in which

fiscal policy can best counteract a collapse in domestic demand. Finally, the need for international macroeconomic policy coordination – and well-functioning institutions to handle it – became evident from the global character of the present crisis.

## 1.5 SOME ECONOMIES SUFFERED MORE THAN OTHERS

While the epicentre of this crisis is the US, many other countries were hit as hard or even harder. Many of these countries were small open economies, naturally vulnerable to global developments.

Authorities of small countries cannot be entirely absolved from responsibility, however. All shocks were not external in origin, and domestic institutions and policies are also relevant for the aftermath of shocks.

Some of the more extreme cases, such as Ireland and Iceland, had predominantly homemade crises that were only ignited by the global developments. They had for years been pursuing lax or expansionary policies and did far too little to ensure adequate regulation and supervision of their financial systems. In retrospect it is clear (and, according to many observers, not only in retrospect) that these countries allowed credit expansion to proceed and a real estate bubble to build up in an unsustainable fashion. The decisive impulse for the collapse may have come from overseas, but these bubbles were waiting to burst. On the fiscal side, lax policies were not only unfortunate in allowing the bubbles to develop, but misplaced also in leaving too little room for accommodating or expansionary policy to alleviate the consequences of the crisis once it had erupted.

Some countries allowed a build-up of bubbles, waiting to burst

## 1.6 LESSONS FROM NORDIC EXPERIENCES

The report considers experiences and lessons of the Nordic countries of, two episodes in particular. One is the financial crisis experienced by Sweden and Finland in the 1990s, the other is the Icelandic saga.

The story of Iceland is stark and conveys many messages

In the past decade the economy of Iceland first went through the roof and then through the floor; its collapse is one of the worst in recent European history. Also, the story about Iceland in the past decade is not only about serious mistakes in economic policy, though there were many such mistakes, but also about bad governance and lack of political accountability. The Iceland story is not representative of developments in the Nordic area more generally. However, the sequence of events in Iceland is of interest not only for their own sake, but also because they bring out in stark form lessons that are relevant for countries far away from the shores of Iceland.

For the other Nordics, a financial crisis is nothing new, though this one was not homemade

Finland and Sweden were badly hit by the current crisis, mainly because of their high degree of openness and their dependence on exports of investment goods, for which the decline in global demand was particularly pronounced. Nevertheless, the mental shock caused by the crisis may have been smaller than in many other countries, mainly because a financial crisis was not a new experience (there was a distinct feeling of *déjà vu*). This is because the two countries suffered an equally severe crisis in the early 1990s, although that crisis was largely homemade while the current crisis is not.

Sweden and Finland learned a lot about how to handle a banking crisis

The crisis in the early 1990s was a traumatic experience with many lessons, even if the two countries interpreted the lessons slightly differently. First, Sweden and Finland became aware of the difficulties and the importance of safeguarding the process of financial intermediation, and they learned a lot about the ways in which a banking crisis can or should be handled. One of the lessons learned is that the first signs of financial fragility must be taken seriously and policy planning should be based on a worst-case scenario. Both liquidity and solvency issues will need to be handled in a solid crisis management framework. A blanket government guarantee is a straightforward way of restoring confidence, but it raises a host of problems of moral hazard. Fresh capital will need to be injected into undercapitalized financial institutions, and precautionary capital injections with appropriate conditions may be useful. However, the government should not shy away from taking over institutions in which most of the capital is needed to cover expected losses. A transfer of assets into a “bad bank” is fraught with valuation difficulties, but can still be a useful way of managing impaired assets.

Many of these experiences and lessons are relevant for decisions recently taken or under consideration around the world.

A second key lesson was that a fixed but adjustable exchange rate, in a world of free capital mobility, is a recipe for disaster. This is why both countries opted for a floating exchange rate at the time, but it is also a main reason why Finland later adopted the euro. A third lesson was the importance of maintaining credibly sustainable public finances so as not to be forced to undertake fiscal tightening in a severe downturn but instead to leave room for expansionary fiscal action. These lessons made the two Nordic countries relatively well prepared for the global financial crisis, and their experiences of the banking crisis were helpful to other countries as well. The issues are set out below and discussed extensively in ensuing chapters.

Finland and Sweden drew different lessons for the monetary regime

## 1.7 THE WORLD NEEDS A MORE ROBUST FINANCIAL SYSTEM

An important contributory factor in practically all major crises is excessive risk taking and high leverage of both financial institutions and non-financial entities. Action to reduce the risks of financial fragility and instability should be taken in the area of regulation and supervision, and the action should be subject to international harmonization or coordination.

Action on many fronts is called for to create a robust financial system

Many reforms are needed. Capital requirements should be strengthened by, *inter alia*, raising their overall level, broadening their coverage and mitigating their tendency to pro-cyclicality. Existing rating arrangements need reform to eliminate incentive problems. Where executive pay is linked to performance, its measurement should have a rather long-term orientation. Ways need to be found to deal with the “too big to fail” problem to avoid weakening the incentives for prudent behaviour of big financial institutions. However, there should be no illusion of a perfect regulatory solution.

Supervision should focus on systemic issues in addition to individual institutions, which requires both sufficient powers and

International coordination with clear responsibilities in supervision of cross-border banking is essential

coherence of action of authorities within a country and across national borders. Regulatory reforms under preparation both nationally and internationally, including the EU, address many of these issues. However, there remain pressing problems concerning the adequacy and allocation of powers in cases with serious risks of solvency problems, notably so in situations where cross-border activities of financial institutions are significant. There is little ground for complacency or for assuming that reforms presently foreseen will suffice to ensure that new problems of financial stability can be avoided.

## 1.8 EXCHANGE RATE FLEXIBILITY IS NO PANACEA

The Nordics have opted for different monetary regimes

One of the most important macroeconomic policy decisions that a country takes is the choice of monetary and exchange rate regime. The options in this regard are rather different within and outside the European Union. While the Nordics are in many ways quite similar (history, public institutions, culture) and interdependent, they have made different choices with regard to their relations to the European Union and also with regard to their monetary regime. A comparison of Finland and Sweden is particularly interesting, almost a laboratory experiment, as Sweden has chosen a floating exchange rate in conjunction with an independent central bank geared to price stability, while Finland has joined the European monetary union. Who made the better choice?

The Swedish krona fell in the crisis, improving the competitiveness of Sweden, not least relative to Finland

The krona was mostly stable in relation to the euro, and developments in Finland and Sweden were strikingly similar during the first decade of the euro, but this was a period of favourable global conditions. The last two years have been trying times. Once the crisis erupted, the krona fell significantly relative to the euro. It has subsequently risen somewhat, but its exchange rate is still relatively low. This has strengthened the price competitiveness of Sweden relative to Finland and the euro area in general. One might think that this should help Sweden to come through the crisis at less cost than Finland and other euro area countries. A lower exchange rate reduces real income and thereby domestic

demand, but the improved competitiveness should improve net exports. If so, one might argue that Sweden is benefiting at the expense of its neighbours by capturing market shares from its closest competitors, notably Finland.

The decline in exports and output in 2009 was indeed smaller in Sweden than in Finland, and output is forecast to recover somewhat faster, but the differences do not seem large. In particular, manufacturing output shows little response to the change in competitiveness. GDP has declined less than in Finland (though more than in the euro area), but unemployment is rising in parallel with developments in Finland. Either the effects of the improved competitiveness are relatively modest, or the lags are long. One conclusion might be that a depreciation of a floating currency has less effect on export and output volumes than a devaluation of a pegged currency used to have, because companies are reluctant to react to uncertain and maybe temporary variations in the exchange rate. If so, the depreciation of the currency should be reflected in higher profit margins, which may benefit companies in the longer run. At any rate, the floating exchange rate does not seem to insulate the economy against external shocks. The economic differences between the two exchange rate regimes seem smaller than claimed in the often heated debate about the EMU.

The floating krona has not insulated Sweden from the crisis, the exchange rate may matter less than often thought

## 1.9 THE EMU IS INCREASINGLY SUBJECT TO STRAINS

Staying outside the euro area may not be a great advantage for the Swedish economy as compared to the Finnish, but this does not mean that all is well in the euro area. One particular problem, which has become much more visible in the crisis, is the persistent divergence between North and South (with Ireland being a separate case): the countries in Southern Europe have for years been losing competitiveness as well as running large and persistent deficits in public finances and the current account. The problems have piled up in the past decade, partly because the euro has reduced the political pressure for corrective policy actions by

Divergence is increasingly a problem within the euro area



protecting these countries against negative financial repercussions of growing public debts in the form of exchange rate tensions or interest rate hikes. The big decline in interest rates on, inter alia, government bonds experienced by these countries upon joining the euro was not used to strengthen public finances but rather to increase public expenditure. The Stability and Growth Pact was meant to prevent such developments but the pact is lacking teeth and is not effectively implemented.

Financial markets have started to require risk premia for borrowing by countries with weak public finances

As a consequence of the crisis and increased risk awareness, countries with weak economic prospects and weak public finances have increasingly been confronted with rising interest rates on their bonds. Financial markets are now taking over the function which the Stability and Growth Pact has been unable to fulfil. This may be conducive to fiscal discipline, but it may also lead to painful economic developments and tensions with regard to policies, including the monetary policy run by the European Central Bank. Anyway, the present risk premia on bonds issued by Greece and other countries in Southern Europe (and Ireland) are a reminder that markets are highly uncertain about how these countries are going to be able to achieve economic growth and improved public finances without a mechanism for improving competitiveness more quickly than through wage moderation.

## 1.10 FISCAL POLICY MAY NOT BE ALL THAT POWERFUL BUT IT IS STILL ESSENTIAL

The effects of fiscal policy on demand are open to doubt, notably in highly open economies,

There is little doubt that financial crisis management has been essential to prevent financial meltdown and to safeguard the functioning of the financial system. Also, there is agreement on the important role played by central banks by slashing policy rates and in ensuring liquidity of the banking system and beyond. The role of fiscal policy is more controversial, particularly as concerns the significance to be attached to discretionary action of fiscal stimulus. Some believe that fiscal expansion has been of key importance to support growth of demand and output, while others think that the effects of expansionary fiscal policy are trivial and more likely

to be harmful than useful. Both theoretical considerations and empirical estimates give rise to wildly differing assessments for a number of reasons. For small and open economies, in particular, one may doubt the power of fiscal expansion as an instrument of demand management.

Nevertheless, there remain arguments in favour of fiscal accommodation and/or expansion in times of crisis. First, expansionary fiscal policy may be a useful and effective complement to expansionary monetary policy in conditions where the zero interest bound is constraining monetary policy and/or when a dysfunctional credit system reduces the effectiveness of monetary policy. Second, targeted fiscal action may be helpful in avoiding or alleviating particularly problematic consequences for, *inter alia*, long-term or youth unemployment. Third, allowing automatic fiscal stabilizers to operate is useful not only from the point of view of macroeconomic stability as such, but perhaps even more so because it allows the government to avoid resorting to hasty and potentially quite harmful decisions because of time pressure. Trying to prevent growing budget deficits in a steep downturn would imply drastic expenditure cuts or tax increases that could seriously undermine confidence among citizens. Fiscal policy gives time to plan and to undertake measures of adjustment to alleviate problems and to reignite growth in an orderly manner.

but fiscal expansion can alleviate problems and allows the social contract to be respected

## 1.11 WE NEED BOTH GROWTH AND FISCAL CONSOLIDATION

The crisis is giving rise to large budget deficits and is thereby weakening public finances, which moreover in many countries are unsustainable as a consequence of ageing populations. Ensuring sustainable public finances is essential so as not to tilt the income distribution unduly in favour of the present generation and to the detriment of future generations. Also, sound public finances are a precondition for credibility and effectiveness of fiscal policy in future downturns. There is therefore a need for fiscal consolidation in the years to come. Yet, it is also important that fiscal consoli-

Sustainable public finances must be restored,

dation does not slow down the return to brisk economic growth. Ways and means must be found to combine economic growth and fiscal consolidation.

Fiscal policy is often thought of as an instrument for managing domestic demand and thereby influencing economic activity in the short run. However, competitiveness and the supply side are in small economies of more significance for growth and jobs than the aggregate demand effects of fiscal policy. Ensuring growth-friendly tax and expenditure structures can therefore be instrumental in reconciling economic growth and fiscal consolidation, which therefore need not be conflicting objectives.

which calls for more efficiently provided government services or expenditure cuts, tax base broadening through higher employment rates,

There are several routes to restoring public finances. First, public consumption and transfer payments may be cut or the composition of expenditure twisted in a growth-friendly direction. Provision of an adequate communication infrastructure, running a well-functioning and encompassing education system, and funding of research are examples of expenditure likely to support growth. While difficult, there are also many ways of enhancing efficiency in the provision of public services. Second, the tax base may be broadened by measures to raise the employment rate, particularly by prolonging the length of working careers. A key part of the problem for public finances of aging populations is increased longevity, and the natural recipe for that problem is a higher effective retirement age. We live steadily longer, better and healthier lives, and we should on average be able to stay in the workforce somewhat longer.

and more growth-friendly tax systems, including lower taxes on productive activity

Third, there is some scope for changing the structure of taxation with a view to encouraging economic growth. In practice this means reducing the share of taxes that fall directly on productive economic activity, taxes on companies and labour, while raising the share of taxes falling on consumption, natural resources and real estate. Reducing the rate of corporate taxation is, given increasing cross-border mobility, useful in both enhancing investment and in attracting the entrance of new companies.

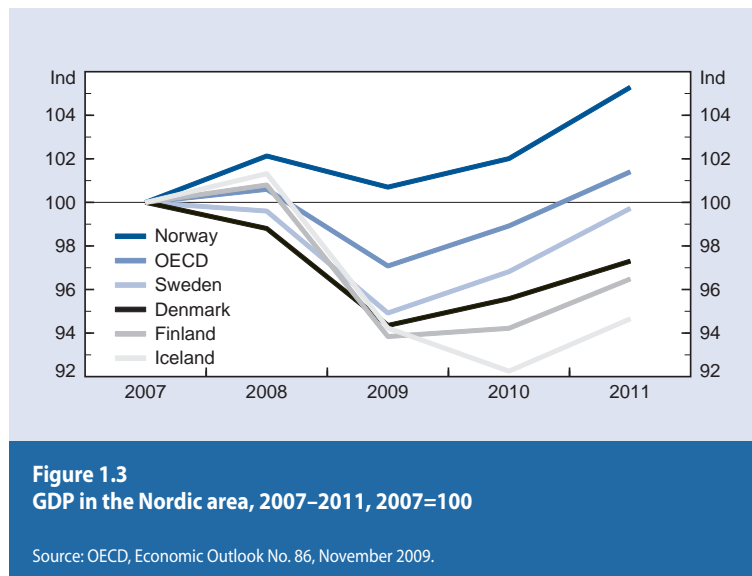
While there are arguments for stronger international tax coordination, these arguments are not compelling and such cooperation does not seem to be a realistic scenario. Small countries, such as the Nordics, should in these circumstances decide their

tax policies on the basis of the effects on their national economies and policy objectives.

## 1.12 THE NORDIC MODEL IS BOTH VULNERABLE AND RESILIENT

The Nordic countries have been hit harder by the crisis than the OECD countries on average, with the exception of Norway (figure 1.3). This is no coincidence but a consequence of the economic strategy of these countries, which is oriented toward exploiting globalization as a means of raising productivity and income. But while beneficial, the globalization process is also fraught with risks and problems, as the current crisis so clearly demonstrates. Assuming that the world may be more unstable in the future than in the past, due to increased financial complexity and the strength of mutual interdependence, where does this leave the Nordics with their emphasis on openness?

The Nordics are vulnerable to global economic shocks



Globalization and sophisticated financial markets are here to stay, shocks cannot be fully avoided

Economic integration will, there is reason to hope, proceed in spite of the current difficulties. As historical experience shows, protectionism easily degenerates into a downward spiral of mutually harmful actions. Similarly, there is a genuine need for the services provided by a well-developed financial system, without which a modern economy is inconceivable. Globalization and sophisticated financial markets are here to stay, and more or less serious shocks will continue to impact the world economy. The issue is not insulation against them but alleviating their consequences for the domestic economy, and improving the prospects for adjusting to changes as smoothly as possible.

Not all shocks are external, and domestic vulnerability can be reduced

The vulnerability of the domestic economy to external developments will depend on a number of domestic factors. As already noted above it is obvious that many countries for a number of years allowed a build-up of housing bubbles that were bound to burst. While far from easy, there nevertheless is always scope for policies to reduce financial fragility and reduce the risk of serious disruptions resulting from such vulnerability. The composition of balance sheets is of importance. In addition to action in the field of regulation and supervision, many other factors influence decisions of firms and households concerning their balance sheets, including the system of capital income taxation. Strong balance sheets are helpful in reducing the repercussions of falling cash flows.

Financial buffers, private and public, are a first line of defence

Another and even more important financial buffer is provided by fiscal policy. Strong government finances allow automatic stabilizers to operate in a recession, thereby softening the blow for households and firms and the economy as a whole. Strong government finances will also permit the government to undertake discretionary fiscal action to stimulate aggregate demand when there is a decline in economic activity and to address specific problems that call for action. Another aspect is that strong public finances allow the “social contract” to be respected in times of difficulty, which helps maintain confidence of the public.

Jobs lost in a recession are often gone forever – adjustment is unavoidable

Even temporary crises will have long-run consequences; many of the unemployed will never return to permanent employment and jobs lost in a recession will in many cases be gone forever. For the economy to recover and grow, to be resilient, it is crucial

for relative prices and costs to adjust in a way that enhances competitiveness and the reallocation of labour and capital from less to more profitable uses. This second line of defence depends on the functioning of the labour market and wage formation, the exchange rate system, the incentive effects of tax and transfer systems, regulation of markets and competition policies.

Aggregate real wage flexibility is obviously essential, notably so for countries that cannot rely on the exchange rate to improve their competitiveness. Given the strong role of labour unions in the Nordic countries, the wage moderation called for is difficult to achieve without some wage coordination, formal or informal. Flexibility in decentralized decisions on working hours is a related option of facilitating adjustment.

A high level of investment in human capital and a well-educated labour force, one of the attributes of the Nordic model, facilitate adjustment to changing circumstances by making it easier to upgrade skills through additional training. The comprehensive safety net is also valuable, particularly in times of crisis. The Nordic model is robust in the sense that entitlements are not directly conditional on the fate of individual companies or particular markets or capital market developments, as risks are widely shared in society through collective risk-sharing arrangements. Provided that governments are able to take the decisions needed to safeguard competitiveness and the sustainability of public finances, the Nordic model can be both robust and resilient. The Nordic welfare state, the labour market institutions and the educational system are not the source of current problems. Quite the contrary, the Nordic model, rightly implemented, is part of the solution.

In our view there is a lot that small economies can do to reduce their vulnerability and improve their resilience. But in the end a fundamental dilemma remains due to the gulf between the global economy and local politics. The world has been shrinking for quite some time, and the mutual interdependence of countries is stronger than ever. Yet, most policies continue to be determined by governments of nation states, and the framework for global cooperation is weak. There is a need for stronger international cooperation in areas such as trade policy, financial regulation and supervision, macroeconomic policy and actions to prevent climate change.

The Nordic model,  
wisely implemented,  
is robust and resilient

The global economy  
needs more than local  
politics

The crisis has revived interest in international coordination in financial regulation and supervision as well as in the area of macroeconomic policies. Stronger multilateral institutions within a well articulated system of global governance are in the interest of all, as no country is anymore large enough to be insulated from the effects of world economic tensions and disruptions. For small open economies like the Nordics, a system of well-functioning multilateral institutions of global reach is of particular importance.

## ENDNOTES

- <sup>1</sup> While much of the analysis in this report is relevant for all the Nordic countries, we nevertheless deal rather little with Denmark and even less with Norway (which is, because of oil, a case of its own).
- <sup>2</sup> While financial stress was visible already in the summer of 2007, the starting point of the crisis is 15 September 2008, the date when Lehman Brothers went bankrupt. As discussed in chapters 2 and 3, this event quickly triggered strong reactions on international financial markets.
- <sup>3</sup> There was at the time discussion of the American twin deficits, referring to the current account and federal budget deficits, which were assumed to put strong downward pressure on the dollar. This analysis turned out to be inadequate or misleading, because the deficit was driven more by foreign financial inflows into the US than by American excess demand for goods and services. Furthermore, when the crisis erupted, the dollar initially strengthened because of the “safe-haven” effect.
- <sup>4</sup> The process of development and industrialization is typically associated with capital inflows to finance domestic investment exceeding domestic saving. Industrialization is in this case associated with a current account deficit or domestic imports exceeding exports. This means that foreign countries, which supply the saving financing the current account deficit of the country undergoing industrialization, benefit from the possibilities of expanding exports during the process. In the case of China, by contrast, industrialization has been strongly based on export-led growth resulting in large current account surpluses.



# 2

## THE CRISIS AND THE GLOBAL POLICY RESPONSE

The world is experiencing a global financial and economic crisis of exceptional magnitude. Being small open economies (SOEs), the Nordic countries are highly dependent on international developments, including policy action at the global level, which they themselves are largely unable to influence. As the focus of this book is on SOEs and notably the Nordics, this chapter gives only a very brief characterization of the global setting and of the responses of American and European policy makers during the crisis. The bottom line is that active and internationally coordinated policy action prevented the crisis from escalating into a fully fledged depression. The chapter ends with some observations on the timing of the exit: when and how should monetary and fiscal stimulus be withdrawn?

### 2.1 THE DOWNTURN WAS EXCEPTIONALLY SHARP AND SYNCHRONIZED

The financial crisis, the causes of which will be examined more closely in chapter 3, emerged from the combined effects of macro-economic imbalances and the workings of the financial system. The large and persistent current account deficits of the US and some other developed countries were due not only to domestic

factors but reflected also the need for surplus countries, such as China, to find safe outlets for their financial savings. The American financial system, not least in the form of shadow banking, exploited its capacity for finding innovative ways of channelling the surpluses into seemingly safe financial assets, but at the cost of huge and seriously underestimated risks. The savings glut of emerging markets and the operation of modern finance in countries with sophisticated financial systems jointly contributed to producing a sudden and widespread collapse of financial intermediation.

While financial unease emerged already in the summer of 2007<sup>1</sup>, this is a crisis that has a particular date attached to it: 15 September 2008, the date when Lehman Brothers went or was allowed by the US authorities to go bankrupt (see chapter 3). The reaction on financial markets was immediate and dramatic: spreads in interbank lending rose sharply and within weeks panic erupted in financial markets around much of the world. The sharpness and high synchronization of this development must be seen against the background of widespread financial fragility as well as large cross-border holdings of financial assets and banking flows.<sup>2</sup>

Similarly, the downturn in the real economy was sharp and synchronized. Economic activity declined strongly, whether measured by trade, industrial production or GDP. The volume of world trade declined by even more than in the first years of the Great Depression in the 1930s, partly because of negative effects of the financial turbulence on the availability and conditions of trade finance. The fall in industrial production has been widespread (figure 2.1), and the decline during the first year of the crisis was as strong as in the Great Depression in the 1930s (figure 2.2).

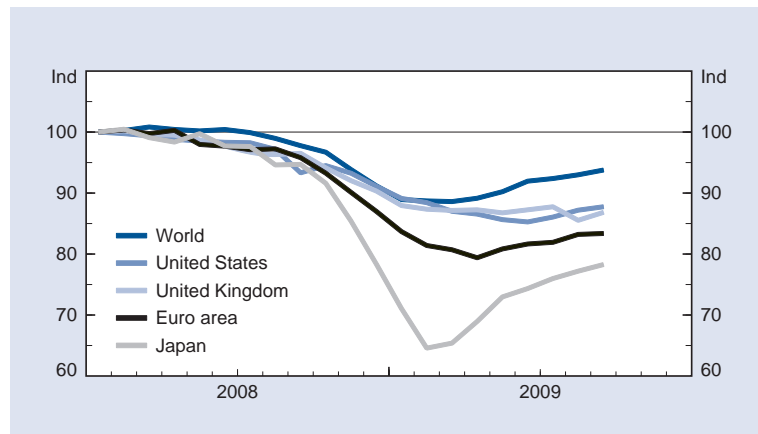
The crisis experience can perhaps best be understood in the light of its main monetary and financial transmission channels.<sup>3</sup> First, financial system stress drove up the cost of funding, raising the required rate of return and reducing investment. The cost of private credit (when available) was in 2008 increasing even as policy rates were falling, while declining equity prices raised the cost of obtaining funding through the stock market. Second, the crisis reduced the availability of credit both through the lending

The crisis has a date: on 15 September 2008 Lehman Brothers went bankrupt

World trade fell more than in the early phase of the Great Depression

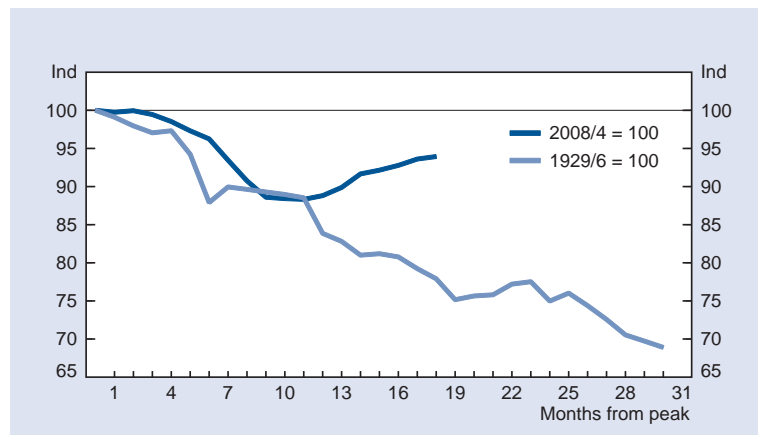
Effects of financial stress were transmitted through both banks and securities markets

channel and through securitization, as banks tightened their lending standards significantly and a sharp rise in investors' risk aversion had similar effects. Third, declines in stock and real



**Figure 2.1**  
World industrial production, 2008–2009, 2008/1=100

Sources: CPB, OECD, ETLA.



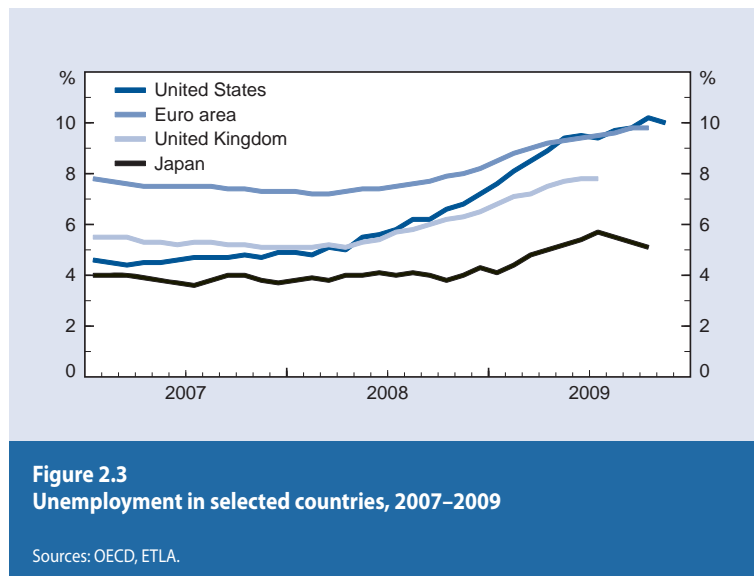
**Figure 2.2**  
World industrial production during the Great Depression in the 1930s and the current great recession

Sources: League of Nations, CPB.

estate prices reduced net worth and therefore the quantity of collateral to back loans of both firms and households. The fall in household wealth also increased household saving, including retirement saving (to compensate for the decline in asset values for individuals in defined contribution schemes). Further effects materialized through changes in exchange rates and notably as a consequence of the negative impact on and via confidence in the private sector as a whole. As from the autumn of 2008 all these channels pushed the world economy in the same direction: downwards.

Many factors pushed the economy in the same direction: downwards

Financial markets have subsequently returned towards more normal conditions. Also, recent data for industrial production and total output suggest that the world economy has stopped shrinking and that some degree of recovery is now under way (figure 2.1). Nevertheless, unemployment is still increasing and expected to continue rising for some time in both the US and Europe, most countries ending up with unemployment at or above a level of 10 per cent (figure 2.3). Not surprisingly, inflation has been very subdued if not negative during the past two years.

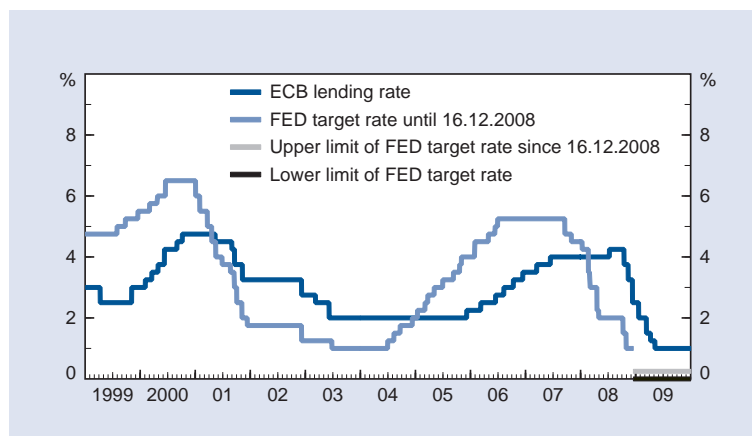


## 2.2 UNPRECEDENTED POLICY RESPONSE

Not only has the speed and magnitude of the crisis been exceptional, but so has been the scope and coordination of policies undertaken by global actors. This is the case notably for monetary policy and to some extent also for fiscal measures and actions aimed at financial crisis management.

Central banks slashed interest rates,

*Monetary policy* has, on the whole, reacted swiftly and with great determination to enhance liquidity and ease financial conditions. The US Fed reduced its central bank rates in a series of steps by altogether more than 5 percentage points to almost zero between September 18<sup>th</sup> in 2007 and December 16<sup>th</sup> in 2008. The ECB was slower to react, but reduced its key rates by a bit more than 3 percentage points between October 8<sup>th</sup> in 2008 and May 18<sup>th</sup> in 2009 (figure 2.4). Because of differences in intervention techniques, the difference in short-term interest rates between the US and the euro area is in fact smaller than the difference in policy rates. In particular, the ECB has on several occasions offered the banks the opportunity to borrow unlimited funds for one year at its main policy rate of 1 per cent. As a consequence of ample liquidity,



**Figure 2.4**  
Central bank rates, 1999–2009

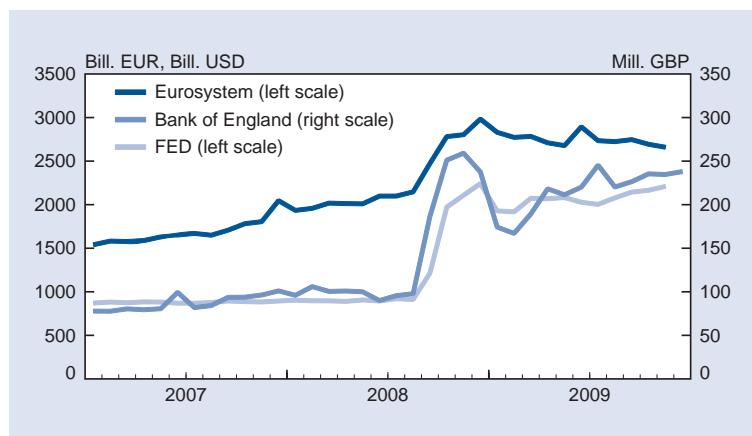
Sources: ECB, Federal Reserve, ETLA.

the short-term interest rates in the euro area have typically tended towards the deposit rate of 0.25 per cent rather than the 1 per cent lending rate. It appears that monetary policy in most of the advanced industrial countries reduced interest rates as much as possible without attempting to go beyond the zero bound.<sup>4</sup>

Exchange rates, an important transmission channel of monetary policy, have been influenced by differences in interest rates and economic developments more generally as well as by attitudes to risk. Initially the crisis was reflected in a flight to the US dollar and the Swiss franc, considered to be “safe haven currencies” as compared to the euro and many other currencies, including notably the British pound and the Swedish krona. Subsequently and as risk aversion has decreased to more normal levels, the value of the dollar has declined.

The Fed has expanded its balance sheet markedly through its actions of “quantitative easing” (figure 2.5), reflecting purchases of various financial assets with a view to enhancing liquidity in securities markets that normally are outside the direct influence of central banks. The scale and scope of central bank action during this crisis has been unprecedented in a historical perspective,

and expanded their balance sheets strongly by purchasing assets



**Figure 2.5**  
Central bank assets in domestic currencies, 2007–2009

Sources: Bank of England, ECB, Federal Reserve.

Authorities have undertaken many actions, involving large financial commitments

a reflection of the awareness of central banks of the dangers of a dysfunctional credit system. These unconventional measures were resorted to because conventional monetary easing was assessed by the Fed to have a limited impact on financial conditions. In a similar way, the ECB has made purchases of covered bonds, though on a quite limited scale. Also, the ECB has from the start of the crisis accepted a wide range of collateral for its lending to banks.

*Financial crisis management* has taken the form not only of liquidity provision by central banks, but has also involved unprecedented measures to ensure the solvency of banks and other financial institutions. Until October 2008, government interventions were directed to individual troubled institutions, like IKH in Germany, Northern Rock in the UK and Bear Stearns in the US. The panic unleashed by the collapse of Lehman Brothers led to further rescue operations in September 2008: credit lines to the insurance conglomerate AIG in the US, and recapitalization of Fortis and Dexia in Europe etc.

These piecemeal actions did not manage to calm the markets; neither did the first more systemic measures. In the US, a scheme called the Troubled Asset Relief Program or TARP, was set up in early October 2008 to buy toxic assets from financial institutions for up to USD 700 billion. Extensive recapitalisation and guarantee schemes were announced in the UK on 8 October. Yet the panic continued.

On Friday 10 October 2008 the G7 countries declared that the governments would “use all available means to support systemically important institutions and prevent their failure”. Two days later this general statement was backed up more concrete action in Europe. An extraordinary eurogroup summit in Paris, at the level of Heads of State or Government, agreed on a concerted European programme to inject capital into the banking system and to provide government guarantees to banks’ medium-term funding. Following the EU, the US authorities agreed to inject USD 125 billion of capital into 9 major banks. These measures finally arrested the worsening of panic in the global financial markets, even if risk premia remained high and liquidity weak into much of 2009, and the conditions still remained abnormal in the autumn of 2009.

The overall support commitments by the authorities are very large. In the EU they amount to some 30 per cent of GDP and in the US to over 20 per cent. Most of the commitments are nevertheless in the form of promised guarantees for funding, of which only a small fraction has been exercised, in the EU worth some 8 per cent of GDP and in the US less than 3 per cent. Direct capital injections amount to much less, 1.5 and 2 per cent of GDP in the EU on average and the US, respectively. Nevertheless, in some countries the total legally binding government risk bearing amount to very large shares of GDP: over 200 per cent (mainly debt guarantees) in Ireland, and over 25 per cent in the UK, the Netherlands, and Belgium.<sup>5</sup> In Iceland, the recapitalization of the central bank alone cost the taxpayers the equivalent of 18 per cent of GDP, and the recapitalization of commercial banks another 18 per cent of GDP. All things considered (see chapter 7), Iceland's gross public debt is scheduled to rise by about 100 per cent due to the collapse of the banks.

to ensure the liquidity and solvency of financial institutions

*Fiscal expansion* has been a quite visible part of the policies to combat the crisis. The fiscal stimulus decided upon by the Bush and Obama administrations is of an exceptional size, and most European countries also adopted significant packages of fiscal expansion (see chapter 9). And as the public sector is much bigger relative to the overall size of the economy in Europe, automatic stabilizers play more of a role in Europe than in the US. Furthermore, quite large investments in infrastructure projects have been undertaken in China. In all, both discretionary fiscal expansion and the operation of automatic stabilizers have been of exceptional size recently, and this policy stance is reflected in rapidly increasing budget deficits and rising public debt levels.

Exceptional fiscal stimulus was undertaken in the US, Europe and China

## 2.3 THE US AND THE EU ARE DIFFERENT, BUT IS THERE (SOME) CONVERGENCE?

As already noted above, there are significant structural differences between the US and Europe. The banking system plays a much more important role in financial intermediation in Europe



as compared to other financial institutions and securities markets. The level of social security and taxes is much higher and the size of the public sector as a whole is much bigger in Europe than in the US. There are other differences, notably in the reaction pattern of monetary and fiscal policies, which seem to have been less pronounced recently. The transatlantic differences are long-standing and unlikely to disappear, but some degree of convergence may be emerging.

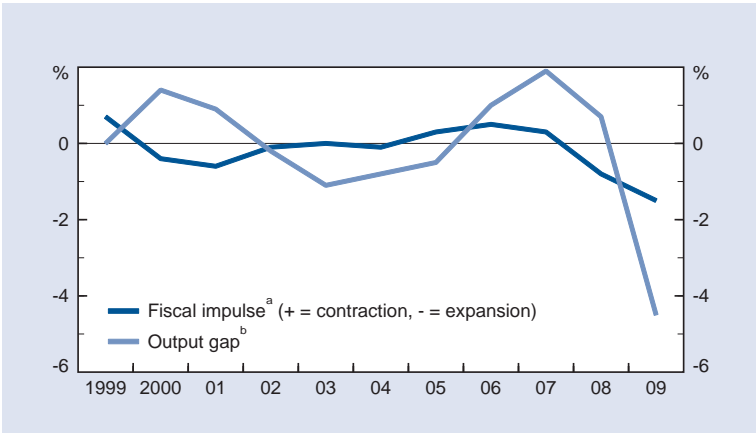
Fiscal policy in Europe has been passive, orthodox and procyclical,

*Fiscal policy* in the euro area has been markedly passive and often procyclical in character, which in figure 2.6 is reflected in a slightly negative correlation between the fiscal stance and the output gap: there has typically been a discretionary easing of policy in “good years” (a small or positive output gap relative to trend) and a discretionary tightening in “bad years” (big output gap). In particular, fiscal policy in the euro area was expansionary in 2000–2001, when output was above trend, and fiscal policy was neutral or expansionary in 2003–2005. However, fiscal policy was tightened somewhat in 2006–2008, when output was above trend, and policies were eased significantly once the recession had started.

while American fiscal policy has been active, Keynesian and countercyclical

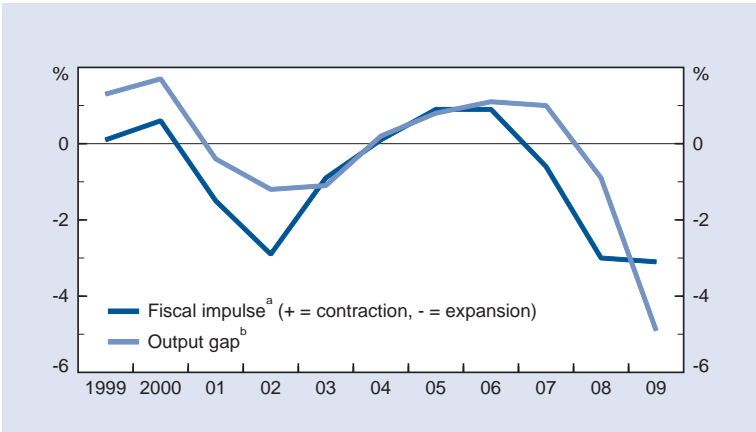
In the US, by contrast, fiscal policy has by and large been both actively used and consistently countercyclical, which is reflected in a strikingly strong positive correlation between the fiscal stance and the output gap: fiscal policy has been tightened when the activity level is high and loosened in recessions or years of weak activity (figure 2.7). The explanation for this difference between American “Keynesianism” and European “orthodoxy” (passive or procyclical policy) is not obvious. (Needless to say, the difference between the US and Europe is reduced somewhat if account is taken also of the automatic stabilizers.) Some role may have been played by the EU’s Stability and Growth Pact, which sets a ceiling on budget deficits for member states. This rule may impart a bias towards fiscal restraint in a recession, as automatic stabilizers increase the deficit. More generally, decision makers in Europe seem on average to be more concerned with budget deficits in the short run than American authorities.

However, it is of relevance to note that the tendency to follow a procyclical fiscal policy in the EU and the euro area differs



**Figure 2.6**  
**Fiscal policy in the euro area, 1999–2009**  
 a = Change in cyclically-adjusted budget balance, per cent of potential GDP.  
 b = Deviation of actual from potential GDP.

Source: OECD, Economic Outlook No. 86, November 2009.



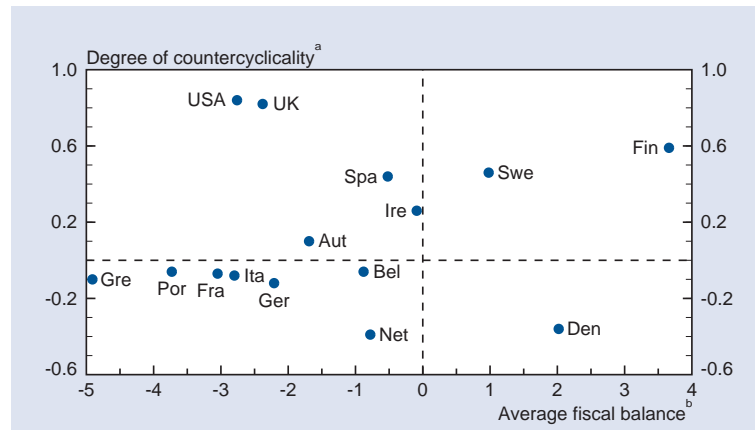
**Figure 2.7**  
**Fiscal policy in the United States, 1999–2009**  
 a = Change in cyclically-adjusted budget balance, per cent of potential GDP.  
 b = Deviation of actual from potential GDP.

Source: OECD, Economic Outlook No. 86, November 2009.

Only the Nordics, among the EU15 countries, have been pursuing fiscal consolidation and countercyclical policy

between its member states. In particular, the pro-cyclical bias seems to go hand in hand with a low level of ambition for fiscal consolidation. This is demonstrated by figure 2.8, which shows the average general government financial surplus in 1999–2008 (horizontal axis) and the degree to which discretionary fiscal policies were countercyclical in that period. (This degree is measured by the correlation between the output gap and the change in the cyclically adjusted budget balance.) Fiscal policies have been countercyclical not only in the US but also in the case of most of the Nordic countries. With the exception of the US, these are also the countries that have on average been running general government financial surpluses over the period 1998–2008. Countries pursuing pro-cyclical fiscal policies, by contrast, have typically been running general government financial deficits (as is the case, for instance, for Germany, France, Italy, Portugal and Greece), in some cases of significant size.

In this crisis the difference in policy reaction has been smaller: fiscal expansion of exceptional magnitude was undertaken in 2009



**Figure 2.8**  
**Fiscal policy and consolidation, 1999–2008**

a = Correlation coefficient of output gap and fiscal impulse measured by change in cyclically-adjusted budget balance, per cent of GDP.

b = General government financial balance on average in the period, per cent of GDP.

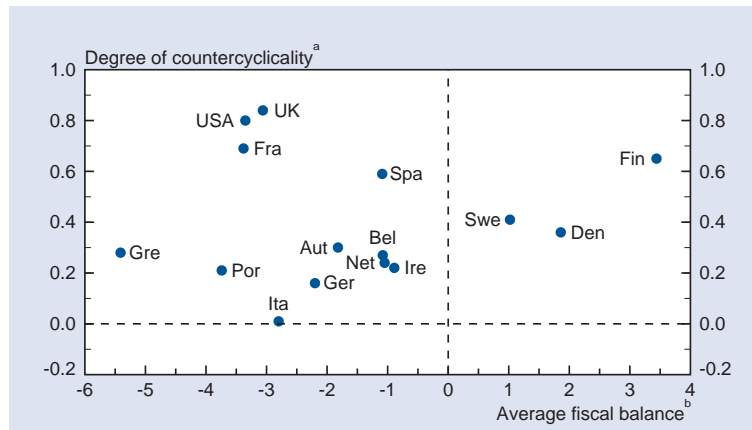
Source: OECD, Economic Outlook No. 86, November 2009.

in almost all EU countries. Adding just the year 2009 therefore increases the number of countries perceived as having pursued to some extent countercyclical policies (figure 2.9).

Looking ahead, concern with the sustainability of public finances is likely to become prominent on both sides of the Atlantic. Given its low overall tax rate and the ambitions of the present administration, this may in the US lead to some rise in tax rates and the size of the public sector. In Europe, however, the scope for further tax increases must be considered limited and more of the pressure of restoring public finances is likely to be on reduced spending.

In *monetary policy* the differences between the US and Europe would appear to be smaller than in fiscal policy: central bank reactions have in practice been countercyclical in both cases (figures 2.10 and 2.11). The main difference is that the Fed has reacted more rapidly and has undertaken much larger interest rate changes as compared to the ECB, which has a preference for reacting gradually and with smaller steps. While the Fed has received praise for its swift action in the present crisis, reservations have been

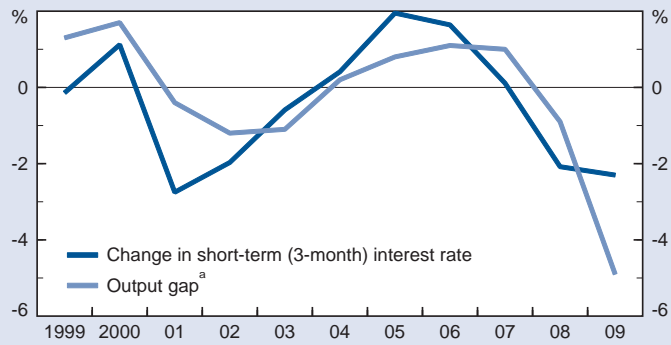
Monetary policy reactions by the US Fed have been faster and stronger than those of the ECB – for better or worse



**Figure 2.9**  
**Fiscal policy and consolidation, 1999–2009**

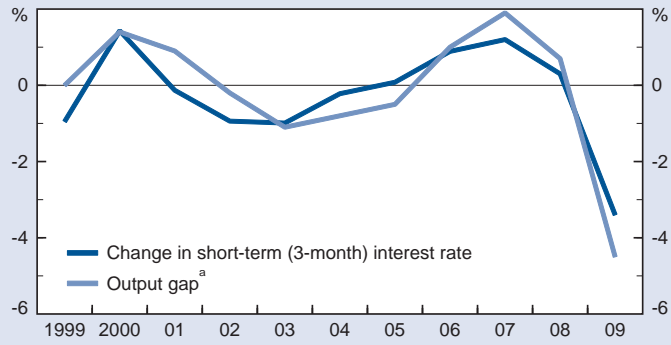
a = Correlation coefficient of output gap and fiscal impulse measured by change in cyclically-adjusted budget balance, per cent of GDP.  
 b = General government financial balance on average in the period, per cent of GDP.

Source: OECD, Economic Outlook No. 86, November 2009.



**Figure 2.10**  
**Monetary policy in the United States, 1999–2009**  
 a = Deviation of actual from potential GDP.

Source: OECD, Economic Outlook No. 86, November 2009.



**Figure 2.11**  
**Monetary policy in the euro area, 1999–2009**  
 a = Deviation of actual from potential GDP.

Source: OECD, Economic Outlook No. 86, November 2009.

expressed with regard to its actions in previous years. In fact, it is widely argued that US monetary policy was too loose for too long in the first years of this millennium, thereby contributing to the subsequent build up of the bubbles.

In the current crisis the policy reactions have been of similar magnitude, when assessed in terms of short-term interests on financial markets. The global crisis has underlined the need for close cooperation between central banks and the importance of giving due attention not only to price stability but also to broader issues of financial stability. Both the Fed and the ECB are henceforth likely to give more attention to asset market developments and to play a more prominent role in macroprudential supervision.

## 2.4 WAS THE GLOBAL POLICY RESPONSE EFFECTIVE?

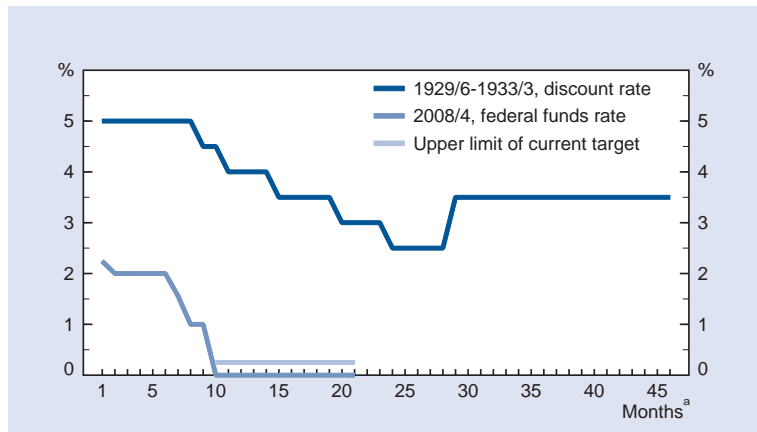
As noted above, the slump in the real economy has so far been as severe as during the Great Depression in the 1930s. However, there are increasingly signs that the world economy is stabilizing and started to recover already during the second half of 2009. If so, then this crisis will go down in history as the serious crisis which did not turn into a Great Depression. There is little doubt that the unprecedented and synchronized or internationally coordinated policy actions played a key role both in preventing financial meltdown and in mitigating negative feedback loops between the financial and real sectors.

*Monetary policy* has run into the zero bound<sup>6</sup>, meaning that interest rates cannot be reduced to below zero. Yet, central bank rates are now at a much lower level in nominal and real terms than in the early years of the Great Depression (figures 2.12 and 2.13). While the freezing of credit markets has hampered the effectiveness of monetary policy, authorities have been able to enhance the functioning of credit and securities markets by resorting to unconventional measures (purchasing of financial assets). The role of monetary policy must be deemed to have been crucial in containing the crisis.

This is the crisis that did not turn into a Great Depression

thanks to expansionary monetary policy,

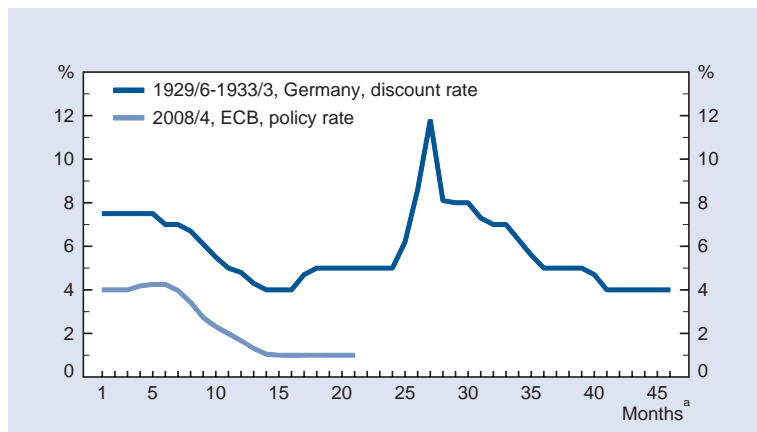
It is more difficult to evaluate the role of *financial crisis management*. Some of the measures undertaken have probably been essential for restoring confidence in the banking system, as



**Figure 2.12**  
**Policy rates of the United States Fed**

a = Running from 1929/6 and 2008/4 respectively.

Source: Federal Reserve.



**Figure 2.13**  
**Policy rates, Europe**

a = Running from 1929/6 and 2008/4 respectively.

Sources: ECB, NBER.

governments have made it clear that they will do what it takes to safeguard key financial institutions. However, the functioning of credit markets is still to some extent impaired and risk premia for many private borrowers still high. A continued need for bank deleveraging will constrain the supply of bank credit. Not enough has been done to recognize or deal with the losses from impaired assets, nor to strengthen the capital base of banks. As underlined by the IMF, this is particularly the case for Europe.

action to safeguard the operation of the financial system,

The effectiveness of *fiscal policy* action is a controversial issue. Some economists (including Paul Krugman) consider fiscal expansion to have played a significant role in averting the crisis from escalating into a depression. Other economists (including Robert Barro) think fiscal expansion is irrelevant or harmful. (Some of the reasons for the differences in view are discussed in chapter 9 below.) An intermediate position is that fiscal expansion has been a useful complement to monetary policy in conditions where the effectiveness of the latter has been constrained by a dysfunctional credit mechanism and the zero bound on interest rates.

and discretionary fiscal expansion, a useful complement to monetary policy in extreme circumstances

## 2.5 TIME FOR EXIT?

The prospects for global economic growth remain foggy and uncertain, but it is widely assumed that the world economy has stabilized and is recovering. This perspective has led to a reassessment of the priorities of policies and a renewed emphasis on longer term issues. The question is increasingly put: should expansionary policies be withdrawn and a less interventionist and more neutral stance adopted? The answer to this question is fraught with difficulties; policy dilemmas are unavoidable.

The issue of exit is fraught with policy dilemmas

In the area of *financial crisis management* there is an obvious need to restore conditions of normality. Exceptional measures to support banks and other financial institutions have been essential in the crisis, but they are associated with great problems of moral hazard (and they are deeply unpopular among citizens and voters). In fact, some spontaneous exit from crisis management is already under way, as banks have been able to raise capital in private markets and use it to repay funds injected by the government.



Exit of fiscal policy is called for to contain budget deficits

As to *fiscal policy*, the scope for maintaining an expansionary stance is rapidly declining as structural budget deficits are large and/or increasing and the credibility of government policies risks evaporating. Ageing populations constitute a significant burden on public finances in all countries during the decades to come. Many European countries are already running budget deficits that are deemed to be unsustainable to such an extent that they have no scope for fiscal expansion (see chapter 9). There is a risk that government debt will not find willing buyers unless long-term bond rates rise significantly, which would add to budget deficits and undermine longer term growth prospects.

Exit of monetary policy is called for to contain risks of excessive liquidity

For *monetary policy* the concern is that quite large amounts of liquidity have been injected into the financial system. If the recovery comes more rapidly and is stronger than presently expected, that liquidity could again fuel investments based on (unjustified) expectations of continued low interest rates, and it could also build up new asset bubbles and inflationary pressures. Much of the recovery of stock markets since early 2009 is probably related to the abundance of liquidity and the low level of interest rates. While monetary support to asset markets is appropriate in current circumstances, central banks need to be concerned about the ultimate consequences of their policy stance as conditions change.

The policy mix is better if fiscal policy exits first

As different countries are in different situations, there is an obvious case for some degree of international coordination within international fora (such as the G20 and the IMF). There is also a need for coordination between monetary and fiscal authorities. Experience during the Great Depression, as well as in Japan in the 1990s, strongly cautions against premature tightening of policies, notably of monetary policy. Such a tightening could risk the recovery and might lock in an unfortunate macroeconomic policy mix with relatively tight monetary policy and persistently loose fiscal policy, resulting in weak growth and continuously rising government debt levels. Early exit of fiscal policy is called for to prevent the debt spiral from gaining undue strength, not least in a number of euro area countries (see chapter 9). Also, the stance of monetary policy can technically be reversed quite swiftly as the need arises. Both the timing and the sequence of the exit are relevant, and

there is a case for fiscal policy to exit before significant monetary tightening is undertaken.

While premature exit of demand supporting policies should be avoided, there is no doubt that the policy focus is and should increasingly be shifting to longer term issues. Internationally agreed reforms are needed to create a new financial architecture with appropriate regulation and supervision of banks and other financial institutions, including macroprudential supervision of systemic risks. Vigilance is called for to prevent protectionist pressures from undermining open markets and free trade. A more effective coordination of macroeconomic policies would be desirable to help rebalance demand growth globally with a view to avoiding big and persistent current account imbalances, unless these can be deemed structurally justified and compatible with stable growth. The character and effects of current account imbalances may be difficult to assess, but they should not be neglected: experience suggests that large and persistent imbalances may in due time pose great dangers to global macroeconomic stability.

Focus is, and increasingly should be, on systemic and long-term issues

## ENDNOTES

<sup>1</sup> In August 2007 interbank markets experienced strain caused by the valuation difficulties of instruments based on subprime mortgages. The US Fed and the ECB reacted by injecting exceptional amounts of liquidity into the banking system. Large financial institutions increasingly faced financing difficulties in the same autumn and the next spring. However, there was still rather widespread confidence that the problems would not pose major difficulties for economies with “sound” financial systems and reasonably balanced macroeconomic conditions.

<sup>2</sup> A number of studies point to the international interbank market as a source of contagion and global transmission of shocks; see, for instance, Davis (2008). Rose and Spiegel (2009) review much of the literature on international linkages. However, in their empirical analysis of trade and financial transmission channels, they do not themselves find strong evidence of financial contagion to other countries from the presumed epicentre of this crisis, the United States.

<sup>3</sup> See Cecchetti, Kohler and Upper (2009).

<sup>4</sup> Buiter (2009a, 2009b) argues (rather convincingly) that the zero bound need not be binding, that monetary authorities could have set short nominal policy rates at negative values. The problem is not so much technical feasibility as lack of interest among policy makers for measures apparently considered too extreme for serious consideration. It may be noted that the Swedish Riksbank is paying a slightly negative (-0.25 per cent) interest rate on bank deposits in the central bank.

<sup>5</sup> The classification of different types of support varies. The numbers given here are based on “DG Competition’s review of guarantee and recapitalisation schemes” of the European Commission (August 2009), and the BIS Paper No 48 “An assessment of financial sector rescue programmes” (July 2009).

<sup>6</sup> It is common to assume that central banks cannot set nominal interest rates below zero, the rate of return on cash. As already noted in footnote 4 above, there are ways in which the zero lower bound could be overcome, but in practice this route has not been tried. While the Swedish central bank has recently lowered its deposit rate to a rate of -0.25 per cent, only a very tiny fraction of bank liquidity is actually remunerated at this rate.



# 3

## THE PANIC OF 2007–2008: A MODERN BANK RUN

The remarkable effect of Federal deposit insurance

Before the current financial crisis erupted, the US was widely regarded as having the most developed and secure financial system in the world. There had been brief periods where some part of the financial system had come under pressure and even failed, but in the seventy-five years following the Great Depression, there had been no system-wide panic.<sup>1</sup>

This seventy-five year “Quiet Period” in banking stands in sharp contrast to the years preceding the Great Depression (see chapter 4).<sup>2</sup> The Federal Deposit Insurance Corporation, set up in 1933 to protect the deposits of small investors, put an end to all bank runs. Or so we thought, until the panic of 2007–2008 broke out.

Why did the “Quiet Period” end? We need to look beyond Wall Street greed and bad incentives for the answers

What brought the quiet period to an end so unexpectedly and abruptly, threatening the unimaginable: a massive meltdown of the whole global financial system? It will take a long time to sift through all the evidence and form a reasonably reliable explanation of the causes of the crisis. But it is not too early to offer an interpretation that goes deeper than just blaming greedy Wall Street bankers. No doubt Wall Street was partly responsible for making the crisis as severe and threatening as it was. But greed and incompetence alone is not what brought the system to the brink of collapse.<sup>3</sup>

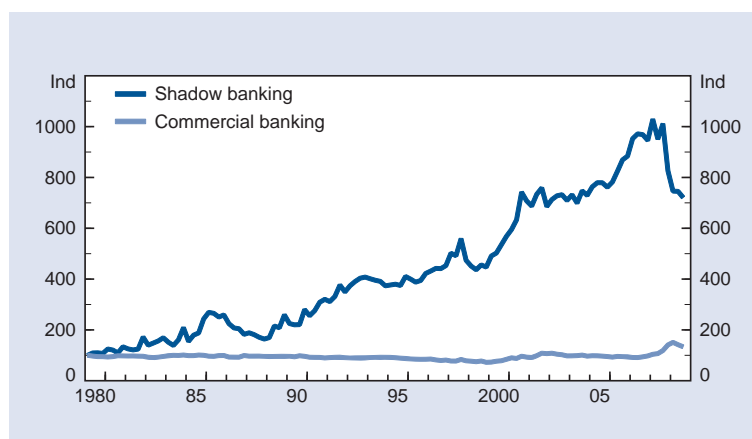
In our view the current crisis is best seen as resulting from the interaction of large and persistent global financial imbalances on

one hand, and an innovative, but ultimately too fragile and unregulated, market-based, US shadow banking system on the other. This chapter will describe and explain some of the complexities of the modern financial system, the logic of the system and the weakness in it that we see as most critical in having caused the crisis.

### 3.1 THE EMERGENCE OF SHADOW BANKING

The short explanation for the financial crisis is that there was a modern day bank run, not on traditional banks, but on the so called shadow banking system. Shadow banking – comprised of investment banks, hedge funds, money market funds and other market-based financial institutions – had been growing exponentially over the last thirty years, transforming fundamentally the intermediation of credit (see figure 3.1). In 1980, the value of assets in the shadow banking system was less than 10 per cent of the value of assets in traditional banks. By 2007 shadow banking had overtaken traditional banking as a source of credit (see figure 3.2).

In less than twenty-five years, shadow banking overtook traditional banking as the most influential intermediary of credit



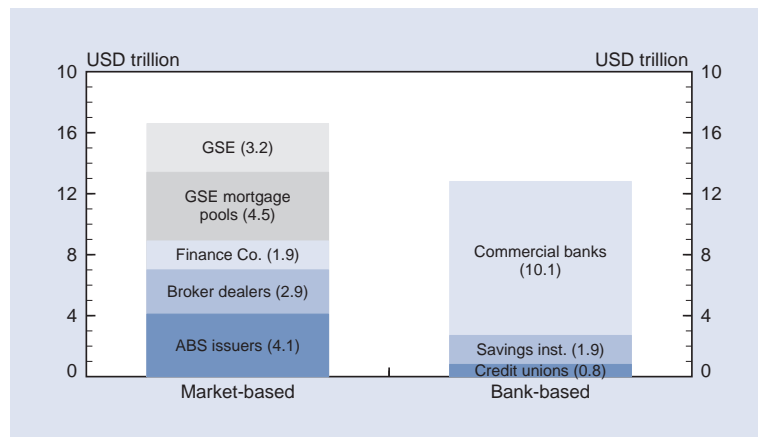
**Figure 3.1**  
Growth of shadow banking (brokers) assets vs. commercial banking assets, 1980–2009, 1980/1=100, per cent of household assets

Source: Federal Reserve, Federal funds statistics.

Securitization of loans made shadow banking explode

The profound transformation in the banking sector was a consequence of securitization and the rise of structured finance. Historically, commercial banks had issued and kept mortgages on their own books until they were paid off. In the 1980s banks began switching to an originate-and-distribute model. They would originate mortgages as before, but then sell them in the market as tranches of collateralized debt obligations (CDO) created from a pool of mortgages in a process known as securitization. Structured products were also created from pools of other loans – auto loans, credit card loans, home equity loans and student loans, to name some of the main categories. The enormous increase in the volume of structured products that were issued, especially since 2000, lies behind the explosive growth of shadow banking.

So what drove the growth of structured products? This is the critical question we want to focus on. Those who see Wall Street as the cause of the crisis, tend to see the pooling and tranching of various types of assets as the machinations of unscrupulous investment bankers, who profited from transaction fees and the excess prices they could charge buyers, who were unable to assess the true risks of the opaque structured products that they were buying.



**Figure 3.2**  
US financial intermediaries, total assets, 2007/II

Source: Adrian-Shin (2008).

We are looking for a rationale where shadow banking and structured finance can be seen as a reasonable response to economic forces, but with system flaws that in the end had catastrophic consequences. The main ingredients in our interpretation of events are four: (i) global imbalances and the search for new, relatively safe savings instruments; (ii) securitization as an ingenious way of creating attractive structured investment products; (iii) the repurchase market as a surrogate deposit institution; and (iv) the ultimate fragility of the shadow banking system, which allowed a shock to a relatively small part of the banking system (the subprime mortgage sector) to morph into a major panic.

The main ingredients that provide a plausible explanation of the rise and stumble of shadow banking

### 3.2 GLOBAL IMBALANCES IN DEMAND AND SUPPLY OF ASSETS

A plausible explanation of the rapid growth of structured finance in the US has to do with the strong global demand for riskless assets, much of it from emerging markets. The rest of the world had a hard time satisfying this demand on terms that were competitive with those offered in the US.

Global imbalances in current accounts were large and persistent in the first decade of this millennium. As seen in figure 3.3, the EU and Japan were close to balance, but the US, Australia and the UK combined were running large deficits, financed mainly by countries in the Middle-East and Asia.

A key driver: global imbalances and the savings glut

The process of globalization has in the past couple of decades been very rapid but also lopsided. Hundreds of millions of workers, mainly in Asia, have entered production geared to international markets. This process has improved the lot of poor Chinese and Indians workers and at the same kept down prices of manufactured goods, moderating global inflation. While this process of globalization and productivity growth has increased the *supply* of goods and services in world markets, the *demand* in emerging markets has not kept up the pace.

The savings rate in Asian countries, notably in China, is extremely high (roughly half of GDP), but the financial markets

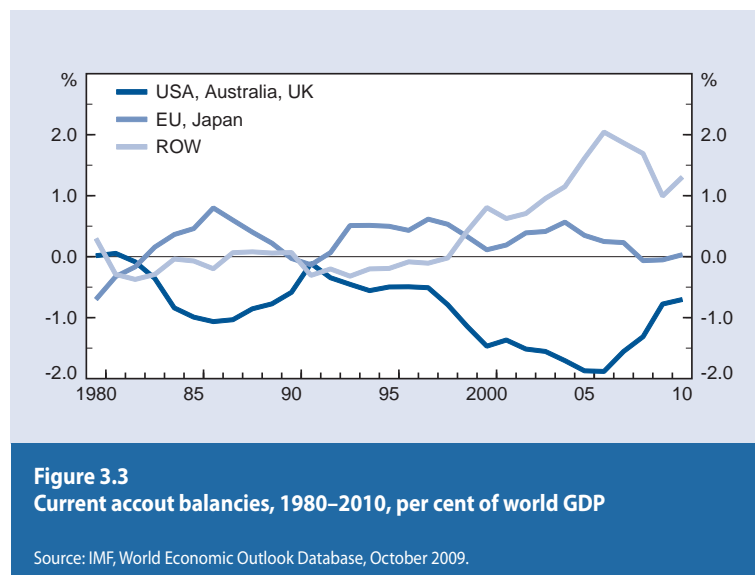


Foreign money was seeking a safe parking place in the US

of these countries are still underdeveloped and unable to offer sufficiently attractive investment instruments for households and companies with financial surpluses. While the investment rate has been high, it has nevertheless been substantially lower than the saving rate. This has resulted in a “savings glut” looking for safe, liquid investment opportunities in countries with a shortage of domestic saving and developed financial markets. In light of the crisis it may seem paradoxical, but the US received much of these funds, because of the perception of these markets being the strongest, deepest most reliable and innovative.

How do we know that the huge US current balance deficits in figure 3.3 were due to foreign money seeking parking space in the US rather than the US consumers seeking foreign funds to satisfy their great appetite for goods and services? A compelling answer is provided by the behaviour of interest rates (figure 3.4). If the demand for funds had driven the inflow, we should have seen interest rates increase, but just the opposite has happened, which is consistent with the money pushing its way into the US.<sup>4</sup>

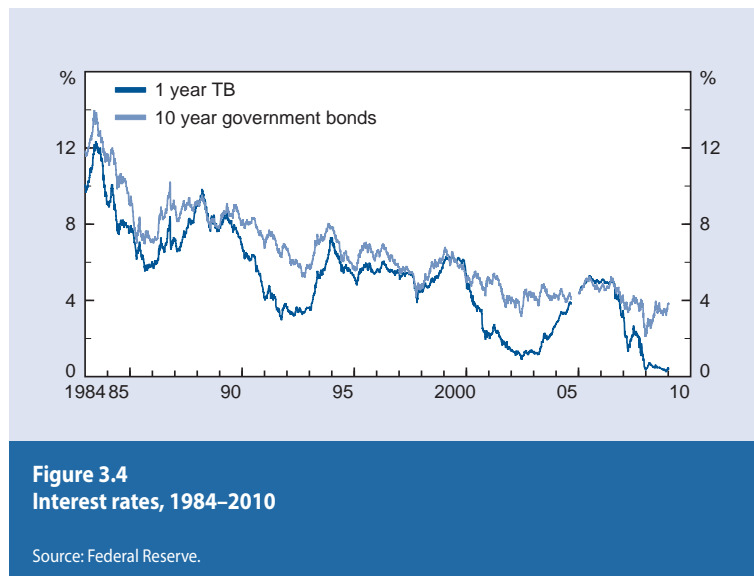
The US government and Congress played an important role, too, by subsidizing mortgages to low-income households, mainly



through Fannie Mae and Freddie Mac, the two major Government Sponsored Enterprises set up to support the financing of mortgages. Wall Street saw the opportunity to intermediate between foreigners wanting to make safe investments in the US and the US government wanting to fulfill its long-standing dream to expand low-income home ownership. It grew much larger than anybody could have expected, driving the dramatic growth of the shadow banking system.

The US government was not an innocent by-stander

One may ask why few other developed economies (apart from the UK) joined the game and offered a home for emerging market savings. One answer is the willingness of the US consumer to get into debt, though household debt as a fraction of wealth grew no more than at the normal rate, thanks to higher home prices. The main answer must be that Wall Street provided the most liquid markets and was ahead of the others in developing innovative structured products that allowed the shadow banking system to absorb the huge incoming flow of funds. We turn to this innovation story next.

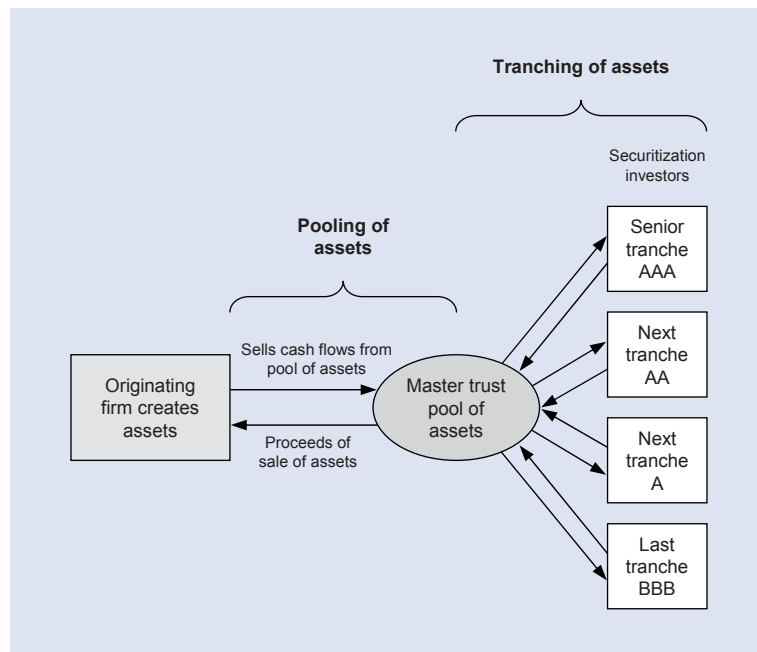


Behaviour of interest rates inconsistent with consumer greed

### 3.3 THE MAGIC OF SECURITIZATION AND STRUCTURED FINANCE<sup>5</sup>

The two stages of securitization: pooling and tranching of loans

Securitization takes place in two stages as illustrated in figure 3.5. In the first stage a large number of similar assets, such as mortgages, are *pooled* to form a Special Purpose Vehicle (SPV) or Master Trust. In the second stage, called *tranching*, a variety of financial claims are issued against the SPV. Tranches are defined by their claims on the cash flow produced by the SPV. If all tranches are identical, the structure is called a passthrough asset-backed security (ABS). When there is more than one kind of tranche issued against the SPV, the tranches are called *collateralized debt obligations* (CDOs).<sup>6</sup>



**Figure 3.5**  
Securitization process

Source: Gary Gorton, Andrew Metrick (2009).

As figure 3.5 shows, CDO tranches are given different credit ratings depending on their seniority in the “capital structure” of the SPV. The most senior tranche is paid off first and is given the highest credit rating (AAA in the picture). The most junior tranche is paid off last and has the lowest credit rating (BBB). In principle the rules for creating different tranches of securities can be arbitrarily complex. Also, almost any kind of asset can be used as an input. For both reasons, securitization is very flexible and the products versatile.

The ABS issuer would typically add cash or cash-equivalent securities as credit enhancements to the SPV. Over-collateralization creates a protective layer of equity in case some of the underlying debt defaults or payments are delinquent. Credit enhancements are also used to improve the rating of tranches, notably increasing the fraction of CDOs that get an AAA-rating.

Over-collateralization makes it also easier to tailor the tranches so that they match minimum standards of the desired credit grades. Because of tailoring, an AAA-rated asset-backed security is on average more risky than a representative AAA corporate bond. The rationale of using the same debt rating system for structured products as for corporate bonds and other single-name securities has been called into question and is under review.

Securitization serves several socially beneficial purposes. The obvious one is that investors with different appetite for risk can be offered securities with different credit ratings. This way risk gets distributed more efficiently, lowering the overall cost of funding. Mortgage backed securities issued in a competitive capital market benefit the home buyers by lowering the interest rate on their mortgages.

The most important benefit of securitization is that by pooling and tranching one can create AAA-securities out of assets that would not receive a AAA-rating as free-standing securities. This piece of alchemy is essential to understand, because it is both a source of great skepticism as well as exaggerated claims. Unfortunately, to appreciate the main point requires a bit of mental gymnastics. Those who want to be convinced should go through the example in box 3.1.

Tailoring structured products, especially AAA-bonds, so that they just met rating requirements, was misleading and dangerous

Securitization adds economic value by redistributing risk

**Box 3.1**  
**The alchemy of securitization**

Consider the following example. Take two identical bonds, each paying out zero if it goes into default and a dollar otherwise (the face value is a dollar). Each bond defaults one tenth of the time, regardless of how the other bond performs. Pool the two bonds into an SPV. The cash flow from the SPV is then zero one percent of the time (when both bonds default), two dollars 81 percent of the time (when neither bond defaults) and one dollar 18 per cent of the time (when exactly one bond defaults). Issue a senior and a junior bond (CDO) with face value a dollar, to be paid from the proceeds of the SPV. The senior CDO will be paid before the junior CDO. This means that the senior CDO pays a dollar to its owner 99 per cent of the time (when either one or none of the bonds default) and zero dollars one per cent of the time (when both bonds default). The holder of the junior CDO will be paid a dollar 81 percent of the time (when exactly one bond defaults) and zero the rest of the time.

Let us assume, for purposes of illustration, that a AAA-rated bond cannot default more than one per cent of the time. Then the senior CDO would receive a AAA rating, but the junior CDO would not. Note especially that the two underlying bonds that were the inputs into the SPV were far from AAA; each defaulted ten percent of the time. We have just created a AAA-rated bond out of two sub-par bonds. In fact, the fraction of the total value of the SPV (the sum of the value of the CDOs) that gets a AAA rating would be 55 per cent, since the value of the senior tranche is 99 cents, while the value of the junior tranche is 81 cents (and  $99/(99+81) = 55$ ).

The magic of producing AAA-rated bonds from junk bonds...

Pooling independent risks is very powerful thanks to the law of large numbers. As a further illustration, consider an SPV that holds a thousand bonds of the kind described in box 3.1, all with independent risks. If one were to issue again a senior and a junior tranche of securities against this portfolio, well *over* 90 per cent of the value of such an issue (the value of the senior CDOs) would carry a AAA rating. Compared with a senior CDO, which now defaults less than one per cent of the time, the underlying bonds are junk. Yet, put a thousand junk bonds into a bag and tranche it, and – presto – almost the entire bag is AAA. It does sound magical, doesn't it?

... and the high cost of getting it wrong

There is a catch, of course, and a very crucial one; else we would not be in the middle of a financial mess right now. In the real world risks are not independent and the amount of AAA securities that can be issued is highly sensitive to any correlation between

the individual securities going into the SPV. Securitization does nothing to eliminate systemic risk, that is, shocks that affect all of the individual securities at the same time. Suppose for instance that either all the bonds default or none default, because they only default in a financial crisis. Then no amount of pooling and tranching can improve on the riskiness of the underlying bonds. In this variant of our earlier example, no AAA-rated securities could be created.

Furthermore, one can show that it is the senior tranches that are most sensitive to an increase in systemic risk: their value (hence credit rating) erodes faster than the junior tranches as the correlation of the underlying assets increases. In fact, in case there are just two tranches, the junior tranche becomes more valuable with increased correlation.

Credit rating agencies were well aware of the problems with correlated risks and did try to take them into account. However, for rare systemic events, such as a financial crisis, it is hard to get a handle on such risk, especially if there has been no such crisis in 75 years. Where does one get estimates for that type of event, and how the bonds might perform in such events? No amount of statistical sophistication can substitute for lack of empirical data. All the same, it is essential to recognize the potential for creating excessive amounts of AAA-rated CDOs and in response to that, err on the safe side.<sup>7</sup> While it is impossible to tell what was reasonable before the crisis, in retrospect, the fact that over 70 per cent of the value of ABS issues were rated AAA, suggests that rating agents were not sufficiently cautious.<sup>8,9</sup>

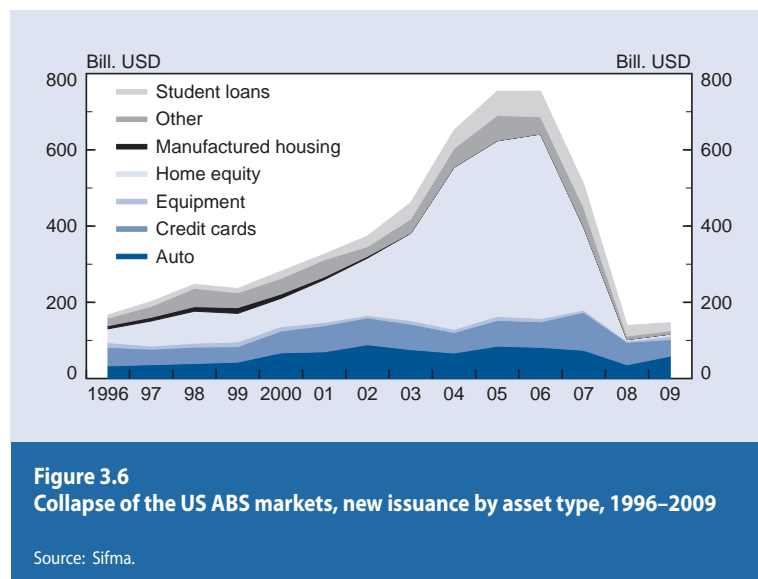
Empirically, investors also appeared to be unaware of the problem: AAA-rated structured securities were priced roughly in line with AAA-rated single-name securities even though their exposure to systemic risk was much larger and therefore should have been priced lower; a bond that defaults precisely when all other bonds default, should be discounted more heavily than a bond that defaults for idiosyncratic reasons.

The business of securitization, especially in CDOs backed by home equity loans (loans against a house that one already owns) was growing rapidly until the crisis erupted. There was roughly 11 trillion dollars of ABS bonds outstanding by the time of Lehman's

The problem of assessing systemic risk without empirical data

The growth and collapse of the ABS market

collapse. Then essentially all issuing activity stopped (figure 3.6). With structured products playing such a big part in the financing of auto loans, student loans, mortgages and credit card loans, the collapse of these markets has caused a big drag on the economy. The Fed has been actively supporting securitized markets, but it may take a long time before investor confidence in structured products will return.



### 3.4 THE SHADOW BANKING SYSTEM – COMPLEX INTERMEDIATION CHAINS

Market-intermediated credit involved long, complex and potentially fragile chains

Investors did not invest in structured products directly. Money flowed into these products through a chain of intermediaries, all part of an intricate web of institutions comprising the shadow banking system. As an illustration, a household might invest in a money market fund. The money market fund might use the money to buy asset-backed commercial paper (ABCP) issued by a Structured Investment Vehicle (SIV) – an off-balance-sheet entity of a

bank. The SIV would use the money to buy asset-backed securities (ABS) for the ABCP through a repurchase agreement (repo) with a broker-dealer (like Lehman). The broker-dealer could obtain the ABSs in a reverse repo from a bank (like Citicorp or JPMorgan), which would use the funds to originate the mortgages that underpin the ABSs. At the end of it all, money from one household has ended up funding mortgages of other households.

It is not obvious why the chain of intermediation is so long. A traditional bank would accomplish the same with just two kinds of transactions: one with the depositors and the other with the mortgage taker. The length of the chain could reflect economies of specialization that would allow a more efficient distribution of risk. On the other hand, the complexity of market-based intermediation creates risks of its own. Market risk (from a change in interest rates for instance), counter-party risk with each trade, and liquidity risk from an inability to trade, are all present in many steps of the chain.

It is also possible that the current level of complexity is a consequence of the relative immaturity of the shadow banking system and that the chain of intermediation is unnecessarily complex and partly responsible for escalating, perhaps even triggering the crisis. As a remedy, clearinghouses have been proposed to simplify the network of over-the-counter trades in the shadow banking system. Netting through clearing houses would show the aggregate exposure of risk, which could be much smaller than each individual participant in the chain may think, because she only sees the local action. This is one of the most important reforms to implement in order to make the shadow banking system more transparent. We note that the non-transparency of the transaction chains in the shadow banking is different from, but interacts with the non-transparency of the securities being traded. We will return to the latter issue at the end.

Clearinghouses would make the system more transparent and less fragile



### 3.5 THE REPO MARKET AS SURROGATE BANKING

Repos are the heart of the shadow banking system

Repurchase agreements, or repos, play a particularly important role in the shadow banking system. The volume of repo markets testifies to this. It is impossible to get exact information on repo volumes, because they are over-the-counter trades and not monitored officially. That said, it is estimated that the volume of repo trades before the crash reached 10–12 trillion dollars (with double counting).<sup>10</sup> After the crash the volume has dropped by a third, showing how severely the shadow banking system has been affected by the crisis.

#### Box 3.2 The ways repos work

A repurchase agreement is a peculiar-looking transaction at first sight. It works as follows. Party A buys a security from party B at a price below the market price. At the same time party B agrees to buy back the security on a future date for a pre-determined, higher price. Taken together, the two transactions look much like a secured loan that A extends to B. But there is a significant difference. Because A *buys* the security from B rather than having a claim on B's asset, A is in a much more secure position in case B defaults (i.e. cannot pay back the loan). If a secured loan defaults, A would have to wait for a bankruptcy court to decide how much she will recover along with all the other claimants. This is messy and takes a long time – a very costly prospect in a market where liquidity is highly priced. With a repo A owns the security and can immediately sell it if B cannot buy it back. This leaves A much less exposed to counter-party risk, a much valued feature of a repo.

Overnight repos are like demand deposits – with liquid markets providing “deposit insurance”

Many repo contracts have a one-day maturity (about 25 per cent of the total in 2006 and 2007). The bulk of these “overnight repos” are rolled over every day. This makes overnight repos function much like demand deposits. There is no deposit insurance, of course, but the safety provided by the outright purchase of the security and the right to sell it if the counterparty defaults are excellent substitutes (barring exceptional circumstances, as we will see). Moreover, banking deposits are insured only up to 250,000 dollars. This is a small amount for repos, which often are multi-million dollar transactions. For large deposits, the repo market is

unique in combining safety with the right to withdraw the money on demand.

This is the reason why repo markets are so central to the shadow banking system – and why shadow banking can be viewed as a form of banking. The securities firms (dealer-brokers) are intermediaries: they take “deposits” as just described and use the funds to provide financing for housing, autos, and so on, by buying asset-backed securities of the appropriate kind. However, unlike commercial banks, which largely rely on small, stable depositors for their funding, dealer-brokers (e.g. investment banks) are dependent on wholesale funding from well-informed, large investors. This makes an enormous difference in a time of crisis, as we will see, by exposing the securities firm to a modern variant of a bank run.

There are actually three kinds of risks associated with repo transactions. The first is counter-party or credit risk, which we already discussed. Note, though, that the legal terms of a repo protect principally the depositing party (the buyer of the security, party A). The borrower (party B) has no similar protection against default. If party A fails to deliver the security when party B wants to buy it back (something that is possible, since A often would use the security as collateral in another transaction), then the only option for party B is to seek redress in bankruptcy court. This was a problem for many hedge funds when Lehman collapsed.

The second risk is market risk. This leads to risk management problems of the same kind that interest rate risk does for banks.

The third risk is liquidity risk. If B cannot pay, A may want to liquidate the security to cover most of the loss. In normal times, that is not going to be a problem, provided the security is liquid and can be sold or offered for contract easily. A treasury bond, for instance, would be highly liquid. But if there is some chance that the borrower (party B) may not buy back the security *and* that it may be difficult to unload the security at its fair value, party A can protect herself by demanding a higher *haircut*.

The repo market is only for the big depositors

Three kinds of risk

Haircuts protect against liquidity dry-ups and counter-party risk

## 3.6 HAIRCUTS AND LEVERAGE

A 2 per cent haircut means that A pays 98 dollars for a security worth 100 dollars. The haircut protects A against a price drop in case B defaults.

Risk #1: The shadow banking system was highly leveraged – 40:1 on average

A 2 per cent haircut also means that B has less collateral value available for additional borrowing. Or, as is often the case, when she goes to buy a security worth 100 dollars, she has to put up 2 per cent of her own money, because A will only finance 98 per cent of the purchase price. The haircut determines B's maximum leverage. A 2 per cent haircut, for instance, allows B a leverage of 50. Security dealers in repo markets are much more leveraged than traditional banks. Leverage ratios of traditional banks would typically be around 10, while the leverage of security dealers may go as high as 40. Such high leverage ratios are possible, because there are no regulations covering the leverage of shadow banking in contrast to commercial banks, which are constrained by Basel II capital requirements. Instead, markets decided what is prudent. Empirically, the practice of prudence has resulted in highly procyclical leverage ratios for investment banks (the major category of broker-dealers). Leverage growth has moved roughly one-to-one with asset growth, when both are measured in percentage terms.<sup>11</sup>

Part of the explanation for the strongly procyclical leverage ratio has to do with the role of haircuts. In good times, the haircut for AAA bonds was typically around 2 per cent. Suppose asset prices begin to fall and markets get jittery. In response, the haircut is raised to 4 per cent to protect A against this uncertainty. This implies that the maximum leverage drops from 50 to 25. A drop in the price of assets is amplified by the drop in leverage. The effect on the borrower is dramatic. Suddenly B has only half of the funding capacity she used to have. Either she has to scale down her investment portfolio – sell assets to de-lever – or she must raise more own equity. In the analogy of banking, raised haircuts are equivalent to withdrawal of deposits.

Risk #2: The maturity mismatch kept increasing

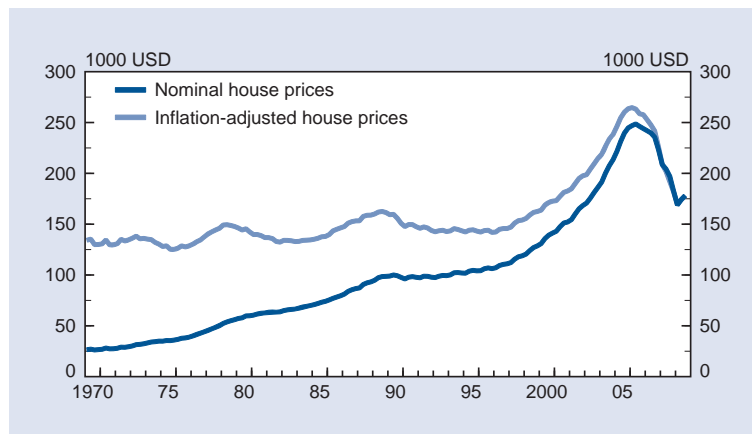
Overnight repos, which rose to become about 25 per cent of the funding of dealer-brokers before the crisis, posed significant risks for the shadow banking system. They provided great protec-

tion for the depositors, but exposed the intermediating banks to a rapid withdrawal of funds. This proved to be the Achilles heel of the shadow banking system.

### 3.7 THE PANIC

Initially, repos were used mainly with treasuries (e.g. the Fed used the repo market in conducting open market operations), because treasuries provide the best possible protection for depositors. However, as the flow of money looking for a safe parking space grew stronger, the supply of treasuries eventually ran out (or rather the cost of using them became excessively high.) A search for suitable substitute collateral led naturally to structured products, which fit the bill well, because AAA-rated bonds could be readily produced in large quantities using a variety of different assets as inputs in the securitization process. Because times were good, AAA-rated bonds, regardless of type, came to be accepted as the effective currency in repo markets. No one really asked what kinds of assets were behind the AAA rating.

AAA-rated bonds became the currency of repo markets – relying increasingly on asset-backed securities



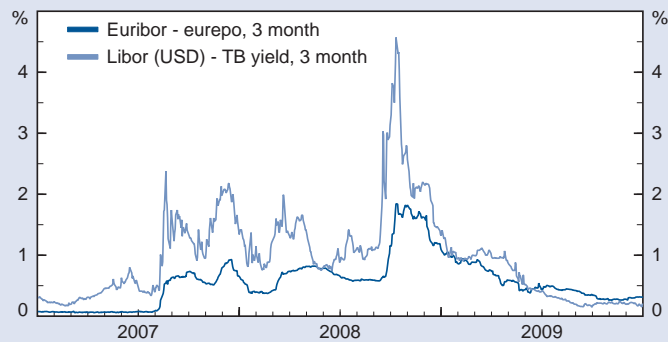
**Figure 3.7**  
Median United States house prices, 1970–2009

Source: <http://housingbubble.jparsons.net>.

Cracks in the armor as housing prices continue falling

We now know that all AAA-rated securities are not created equal. In the end, the collateral provided by asset-backed securities proved fragile. When the nominal price of US housing turned down significantly for the first time since the Second World War, eventually dropping over 30 per cent from its mid-year 2006 peak, uncertainty about the value of subprime collateral began to creep in (figure 3.7). It was a systemic event of the sort that structured products were especially sensitive to.

The first signs of problems showed up early in 2007 in the ABX market for synthetic mortgage-backed securities.<sup>12</sup> The spreads of all ABX indices below AAA began rising from the near zero levels they had had when they began trading (the market for ABX indices opened in early 2006). Interestingly, at this point in time the TED-spread did not react much and the Euribor-Eurepo<sup>13</sup> spread not at all, suggesting that subprime problems were seen early in 2007 still as an isolated concern that was expected to have limited effects on the overall financial system (see figure 3.8). However, in August 2007, when BNP Paribas suspended trading in three of their funds that were invested in subprime US mortgage-backed



**Figure 3.8**  
Money market risk in the United States and the euro area, 2007–2009, percentage points

Sources: Bank of Finland, Federal Reserve, US Treasury, ETLA.

securities, the TED-spread jumped sharply higher as did almost all indicators of market uncertainty.

The Bear Stearns failure in March 2008 caused further nervousness, until the government quickly orchestrated a subsidized sale of Bear to JPMorgan. This calmed the markets, as the rescue suggested that the government would not let any big investment bank fail. This set up the big shock: the failure of Lehman Brothers in September 2008. At that point, total panic broke out with spreads both in the US and Europe going sky-high (see figure 3.8). Within a short time span, the markets that were supposed to provide liquidity in case collateral had to be sold, either froze or were severely compromised, due to much higher haircuts. In the case of subprime structured products, haircuts went to 100 per cent, closing down all trade. The ingenious surrogate deposit insurance in the repo market had failed and a modern bank run – the first in nearly seventy-five years – was a reality.<sup>14</sup>

A dramatic de-leveraging began, fueled by negative margin and leverage spirals reinforcing each other and driving prices of assets down in fire sales.<sup>15</sup> The severe collapse of the shadow banking system had immediate and serious repercussions for the traditional banking sector as well, most directly through the SIVs. These were off-balance sheet vehicles that banks used to circumvent the capital constraints of the Basel II accord – an unfortunate and very costly incidence of regulatory arbitrage.<sup>16</sup> Of course, the indirect effects on traditional banking were big as well.

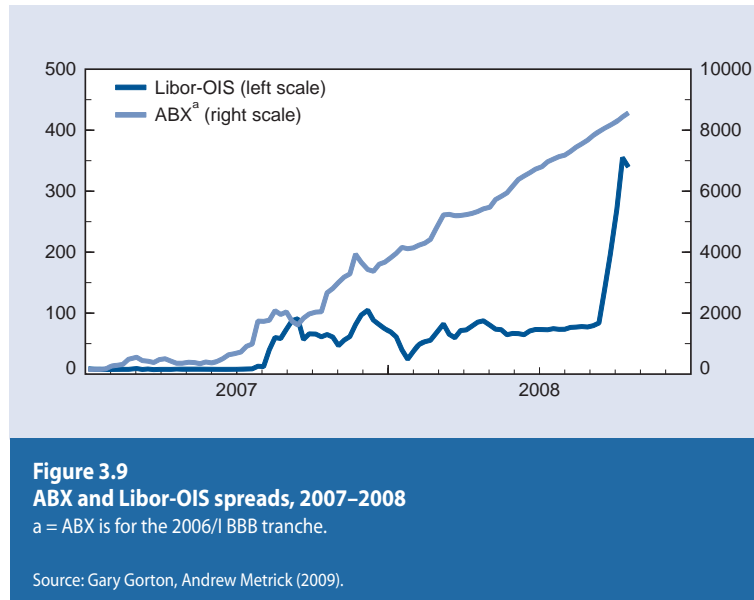
The speed and scope of the panic following Lehman's fall was surprising. It suggests that the complex structure of the shadow banking system as well as the complexity and variety of asset-backed securities and their novelty created enormous uncertainty about the credit-worthiness of counter-parties and the liquidity of securities.

There is a difference between concerns about structured products and concerns about the whole system, which is captured in figure 3.9. The figure shows how the ABX spread and the Libor-OIS spread behaved very differently over time.<sup>17</sup> The ABX spread reflected a steadily rising default risk in mortgage-backed securities, while the Libor-OIS spread reflected liquidity problems that can be viewed as proxies for the state of the overall bank-

The “deposit insurance” in repo markets breaks down. The first bank run in 75 years is a reality

Vicious feedback loops fueled the fire and spread the crisis

Complexity in the system was more problematic than the complex structure of asset-backed securities



ing system. The vertical rise at the end defines the moment of panic and provides clear evidence that the panic took everyone by surprise.

The panic is to be seen in the light of shadow banking, its use of structured products and its reliance on the repo market as the key link in the intermediation chain. The financial collapse was not caused by any single weakness in the behaviour of financial institutions or in regulation and supervision. The system had become too complex and sophisticated for anyone to understand, especially regarding the exposure to system risk that it entailed in times of economic stress. Just as importantly, shadow banking was a new system. Its early success and rapid growth suggested a level of efficiency and robustness that proved unwarranted in the harshest possible way.

### 3.8 WAS LACK OF TRANSPARENCY THE PROBLEM?<sup>18</sup>

As a consequence of the crisis there have been emphatic calls for more transparency in financial markets. Structured products are highly opaque. The toxic assets that we are dealing with now would be rather less toxic if it were easier to understand and price them.

Most people find it difficult to understand how a financial system can function at all without full transparency. Why would anyone buy opaque securities? Wall Street did and in large volumes. This was hardly the result of an attempt to disguise the true value of subprime assets. The parties that were dealing in these assets were profit-seeking, hard-nosed Wall Street traders. They might take risks, but they do not like uncertainty. So, it is safe to assume that they did not consider the products problematic despite their opaqueness.

To understand why, one needs to appreciate the special nature of liquidity providing markets, such as repos. They are high-volume, high-velocity markets where hundreds of millions of dollars of credit may be extended in a single trade. In such markets there is little time for background checks and therefore trading must be based on trusting one's counter-parties. The market would grind to a halt if background checks were needed. (This is exactly what happened when the panic broke out).

High volatility markets are liquid as long as there is symmetric information about the payoffs of the securities. Trust and market liquidity stem from a shared belief in the value of the securities one is exchanging. They suffer tremendously from asymmetric information and uncertainty about what the others know that may be relevant.

For this reason liquidity providing markets trade in securities that are information-insensitive, that is, instruments that minimize the need to gather information. Debt that is deep in the money fits the bill: One only needs to know that the assets supporting the debt are worth sufficiently more than what is owed – one does not need to know the precise value of the assets. This explains why struc-

Liquidity providing markets are low information markets that largely rely on trust

Symmetric information is essential for liquidity



Transparency does not guarantee symmetric information – on the contrary

tured products are built on debt rather than equity (even though there is nothing that would technically prevent the latter).<sup>19</sup>

People often equate information symmetry with full transparency and therefore insist on the greatest possible amount of transparency. But in reality transparency may often lead to more, not less information asymmetry. Consider a situation where two people try to figure out the value of a car neither has seen before. One is a mechanic and the other is a layman. Give them a minute to look at the car and the mechanic is not likely to be much better informed than the layman. But give both the opportunity to inspect the car for a longer period and the mechanic will almost surely become better informed, while the layman may stay as ignorant as before. More transparency in the sense of allowing parties to take a close look creates information asymmetry rather than reducing it.<sup>20</sup>

Collective ignorance can be bliss

Paradoxically, it is often much easier to achieve symmetric information by keeping everyone ignorant than by giving people a lot of information to digest. For this reason, transparency can be very bad for liquidity.

The way DeBeers sells wholesale diamonds is an especially relevant example for discussing the transparency of structured products.<sup>21</sup> They sell wholesale diamonds in bags that the buyers are not allowed to open and inspect. Buyers are only told the gross characteristics of the contents, such as the weight and the general quality of the diamonds inside the bag. The reason is two-fold. Inspection would slow trade. But more importantly, it would raise the suspicion that the bags left behind must be of lower quality. This fear would result in lower prices and possibly unsold bags – a form of illiquidity.

The opacity of structured products enhances liquidity...

The bag metaphor is apt for shadow banking. The underlying assets of structured products are figuratively speaking placed in a hard-to-inspect bag. Contractual characteristics of the underlying loans may not be available, but even if they are it would be exceedingly costly to figure out what the information means. Instead people rely on the coarse ratings of these products, akin to the buyers of diamonds relying on DeBeer's information about gross characteristics. A AAA-rating gives more than enough confidence that the payoff risk is minimal. And with no one

gathering information, because it is so costly, the instruments are very liquid.

Unfortunately, debt sometimes defaults and when that happens, the benefit of opacity turns into a liability. In default, debt turns into equity and becomes highly information-sensitive. Now the claim holders want to know what the securitized bags exactly contain. The incentives to invest in information end up creating asymmetric information between traders. The fear of adverse selection make the structured products toxic – not because they have dropped in value, but because some know more than others about the extent of the drop. The large-scale transition from information-insensitive to information-sensitive securities as a result of the drop in housing prices led to the crisis.

This discussion casts transparency in a rather different light. It explains why people in the current situation demand transparency; they want to get rid of the toxic bags that clog the system. At the same time it explains why transparency was not there from the beginning; relying on coarse information ratings made the products more liquid. There was little reason for anyone in the shadow banking system to look beyond the ratings until concerns about possible default emerged.

Should regulators demand more transparency? What is in the interest of individual players in the shadow banking system need not be socially optimal. The design of structured products affects the probability of default and eventually the chance of a systemic crisis, but the designer does not take into account the cost of a crisis for the rest of society, only for herself (if that). So there is an externality. The externality is made worse by the fact that structured products so effectively discourage information gathering. As a result, information about systemic risks will be very hard or impossible to extract from the prices of bonds. Transparency for the sake of minimizing systemic risk needs to be weighted against the benefits of market liquidity but the trade-off is tilted in favor of opacity when the decision is purely in the hands of private firms. Exactly how this can be corrected is still an open but important question.

... until the possibility of default becomes real

Private and public benefits from transparency do not coincide. So should the government demand or produce more information?

### 3.9 SO WHAT HAPPENED AND WHAT IS THE FUTURE OF SHADOW BANKING?

The panic of 2008 was a modern day bank run, a run on the shadow banking system. The shadow banking system, based on market-mediated credit rather than bank-mediated credit, had grown explosively. In less than twenty-five years it had overtaken traditional banking in size of assets.

The shadow banking system was a response to the enormous global demand for safe savings instruments that arose when emerging markets entered the world economy in force. The US financial system, with its capacity to innovate and engineer structured financial products, was uniquely positioned to meet the huge demand.

Deposit insurance had effectively prevented bank runs on the traditional banking system for the past 75 years. The shadow banking system appeared to have its own form of deposit insurance thanks to liquid markets. But the financial crisis revealed that for a system that relies in large part on wholesale, short-term funding, there is yet no effective system of insurance.

The shadow banking system is here to stay. It is an important step on the road to more efficient intermediation of credit. But the system needs to be made safer. This will require regulatory reforms. It is essential that these reforms are based on a clear understanding of the logic shadow banking and its strengths as well as weaknesses.

Focusing merely on the problems of complex, structured financial products and their lack of transparency is insufficient. Toxic assets are a huge problem right now, but their intricate structure is the key building block in a market-based system that had – and still has – the ability to greatly expand liquidity that is essential for a growing economy.

The biggest challenge is dealing with systemic risk. Unlike equity markets, where systemic risk is the major driver of asset prices, structured products are not openly traded. Even when the synthetic ABX markets opened for trade, they did not seem to pick up systemic risk. This suggests that one must look for other

ways to produce information about systemic risk and one needs to find ways to ensure that the systemic risk is properly distributed. In the current crisis, the over-leveraged banking system ended up holding too much of the systemic risk.

The high levels and strong pro-cyclicality of leverage, and the extreme reliance on short-term financing are issues that also need to be addressed. At the same time, we note that leverage has been steadily increasing as economies have grown. Leverage is a precondition for growth. But how fast should leverage grow? Where is the line between essential and excessive growth? How prudently should we experiment with high leverage and innovative intermediation? These are old questions that never find definitive answers. But they got a new face with the present crisis.

## ENDNOTES

<sup>1</sup> The savings and loan crisis in the eighties was a major disruption, but it never threatened the backbone of the banking system: the commercial banks. The 1987 portfolio insurance crash was restricted to the stock market as was the dot.com collapse in 2000. The Long Term Capital Management crisis in 1998 was more of a harbinger of what was to come. The situation looked quite ominous for a moment, but was quickly contained thanks to a liquidity injection by the Federal Reserve and coordinated actions by Wall Street banks.

<sup>2</sup> During the National Banking era 1863–1913, there were seven system-wide bank-runs that led to the suspension of convertibility of deposits; see Gorton (2009). The panics inflicted very significant costs on the real economy, as liquidity dried up and caused “currency famines” that limited commerce. The aggregate losses sustained by depositors were modest (well less than a cent per dollar deposited), but greatly feared, because the losses were unevenly distributed – a prerequisite for repeated bank runs.

<sup>3</sup> There is very little scholarly work on Wall Street incentives yet. Fahlenbrach and Stulz (2009) study whether a better alignment of the interests between bank CEOs and shareholders resulted in better performance and less risk taking in the period 2006–2008. They find no evidence of either. The time period is not ideal for analyzing risk taking, however, and it is well known that CEOs made a lot of money in the boom period. However, the paper’s results suggest that few CEOs sold their stakes before the crisis since they lost a lot of money too in the crash. Cheng et al. (2009) find some evidence of short-termism and excessive risk taking using a longer horizon, but this evidence is not overwhelming either.

One problem to note is that the system used to determine bonuses for investment bankers did not change much over the past 15 years, while investment banking became a totally different business because of securitization. A stronger emphasis on long-term incentives may well be warranted in the new environment, but old pay patterns are hard to change, as long as they appear to be working well.

<sup>4</sup> For more details and a model see Caballero et al. (2008).

<sup>5</sup> This section draws on Gorton (2008) and especially on Coval et al. (2009).

<sup>6</sup> The government was the first to issue passthrough mortgage-backed securities (MBS) in 1970. The first CDO was issued in 1987 by the investment bank Drexel, Burnham, Lambert.

<sup>7</sup> The problem grows exponentially when, as often happens, the lower rated tranches from hundreds of CDOs are pooled to create a new CDO (a CDO<sup>2</sup>). This, in fact, was a common practice. It is quite possible that rating agencies misjudged the compounding effect of correlated risks resulting in far too large amounts of AAA-rated asset-backed securities; see Coval et al. (2009).

<sup>8</sup> See Benmelech and Dlugosz (2009).

<sup>9</sup> According to a well-informed source, no CDO that was originally rated AAA has defaulted as of September, 2009, even though a substantial number of them have been downgraded. If true, that would support the rating industry view that they have been more prudent than generally believed.

<sup>10</sup> See Gorton (2008).

<sup>11</sup> Adrian and Shin (2008).

<sup>12</sup> An ABX index is a synthesized security that tracks the performance of a representative portfolio of subprime based mortgage-backed securities issued in a particular year with a particular rating. So, there is an ABX index for AAA-rated subprime MBSs issued in 2004, 2005 and so on. The index is in zero net supply, so for every long position there is someone taking a short position. Therefore, it is a market that is informative about the expected payouts from MBSs of different vintages and ratings.

<sup>13</sup> The TED-spread is the difference between the interest rates on interbank loans and short-term US government debt (“T-bills”). The interest rate on interbank loans is measured by the London interbank offer rate (Libor), the rate at which banks indicate they are willing to lend to other banks for a specified term of the loan.

The Euribor-Eurepo spread is the difference between unsecured and secured funding in the euro money market. Euribor (Euro Interbank Offered Rate) is the rate at which euro interbank term deposits are being offered by one prime bank to another within the euro area. Eurepo is correspondingly the rate at which one prime bank offers funds in euro to another prime bank if in exchange the former receives from the latter Eurepo GC as collateral (Euro-denominated General Collateral).

<sup>14</sup> See Gorton (2009).

<sup>15</sup> Brunnermeier (2009).

<sup>16</sup> By moving potentially risky CDOs off the balance sheet, capital requirements were reduced. However, the banks were still exposed to the risks of underperforming CDOs through liquidity backstops. The liabilities from the backstops were, in hindsight at least, significantly underestimated.

<sup>17</sup> The Libor-OIS spread is the difference between the London interbank offer rate (Libor) and an overnight indexed swap (OIS), an interest rate swap where the periodic floating rate of the swap is equal to the geometric average of an overnight index (such as a published interest rate) over every day of the payment period. OIS rates are in the US calculated by reference to daily Fed funds rates. The index is typically an interest rate considered less risky than the corresponding interbank rate, and the spread between OIS rates and Libor are considered an important measure of risk and liquidity in the money market.

<sup>18</sup> This discussion is based on Holmström (2008, 2009); see also Gorton (2009) and Dang, Gorton and Holmström (2009).

<sup>19</sup> Equity is highly information-sensitive. The owner of equity would ideally like to know everything about the assets of the firm and how they might perform in the future. There is a whole industry devoted to analyzing and forecasting the performance of share prices. There is nothing corresponding for debt. Rating agents are the main source of information for bond markets and the information provided by the agent is limited.

<sup>20</sup> This example is not as hypothetical as it sounds. Some used car auctions on the Internet are very fast paced, giving the viewers just a snap shot of each car. One reason may be the desire for speed. The other reason is that lengthier viewing would give sophisticated buyers an information advantage over less sophisticated buyers. This, it is well known, reduces the expected price of the winning bid.

<sup>21</sup> This example is described in Milgrom and Roberts (1992), page 148.

# 4

## LOOKING BACK AT VOLATILITY AND GROWTH

While this book deals with the global crisis that erupted in 2008, it is of interest to consider recent events in a historical perspective. As a matter of fact, economic instability used to be significantly more pronounced and more challenging before the Second World War than after the war. This chapter discusses the Great Depression and the Great Moderation of business cycles that followed in the postwar period and the contribution of two major policy undertakings to this development: macroeconomic stabilization and financial regulation.

Until World War II, economic volatility used to be the rule and stability the exception

Like war used to be the rule in Europe for thousands of years until 1945 and peace the exception, economic volatility used to be the rule and stability the exception. The key to ending war in Europe for all time was judicious design of public policy and institutions, specifically the deliberate advancement of democracy and the integration of the European economies, starting with the Coal and Steel Community in 1952 and culminating in the creation of the euro in 1999 and its entry into circulation in 2002. This institutional architecture was designed to foster widely shared prosperity and progress on the continent as well as to bind the European nation states together by merging aspects of their individual national sovereignty in ways that would render renewed military conflict within the EU unthinkable. An important recent offshoot of the EU's evolving aims in the spirit of the original vi-

sion of its founders was to have in place an effective institutional framework for welcoming the countries of East and Central Europe back into the mainstream of European life following the collapse of communism. This grand design has thus far proved successful in various respects and awakened general admiration around the world, encouraging plans for imitation. The African Union, which aims at free trade as well as a common currency for all of Africa by 2028, is a case in point.

## 4.1 THE GREAT DEPRESSION AND OTHER AVOIDABLE SLUMPS

But this chapter is not about war and peace. It is about economic volatility and growth. In the past, economic fluctuations used to be more pronounced than they are now. In the United States, Gross Domestic Product (GDP) per person fluctuated widely from the 1870s onward (the data do not reach farther back), frequently rising by ten per cent from one year to another and occasionally falling by five per cent or even ten per cent. Like epidemics, financial crises occurred with alarming regularity, every twenty years or so, usually preceded by speculation gone wild and often amplified by other factors, bad banking among them.<sup>1</sup> The U.S. crisis of 1792 was related to speculation in bonds. In 1819, another crisis occurred, following bank problems in the wake of the War of 1812; explanations vary. In 1837, speculation in cotton and land helped trigger a crisis, and in 1857 it was railroads and public lands. In 1873, it was railroads again as well as homesteading and Chicago buildings, and in 1893, silver and gold. In 1907, it was coffee, among other things. Speculation in securities, ships, commodities, and inventories did the job in 1920–1921. And then came the big one, in 1929, preceded by bubbly speculation first in land in Florida and elsewhere and then stocks.<sup>2</sup>

The Dow-Jones Industrial Average fell by 90 per cent during 1929–1933. The collapse of stock prices was exacerbated by serious mistakes in policy. Standing idly by as a series of bank runs took place, the Federal Reserve allowed the money supply

Like epidemics, financial crises occurred with alarming regularity, every twenty years or so

And then came the big one, in 1929: the Dow Jones fell by 90 per cent 1929–1933



In the US, unemployment rose to 25% in 1933 and in Germany, to 30% in 1932

The Great Depression of 1929–1939 triggered two important reactions: stabilization and regulation

The Tobin chart shows wild and recurrent swings in GDP per person before and during World War II and far milder fluctuations after the war

to contract by 25 per cent in 1929–1933. Congress compounded – and exported – the problem by a hefty increase in import tariffs in 1930 (the Smoot-Hawley Tariff Act). With imports down, exports also spiralled downward as America’s trade partners responded in kind. GDP fell by a third in 1929–1933, unemployment rose to 25 per cent of the work force in 1933, and tax receipts collapsed. President Franklin D. Roosevelt, apparently thinking that he was talking to a mathematician, was not particularly impressed by John Maynard Keynes’s plea for increased government expenditure at their meeting in the White House in 1934.<sup>3</sup> The big slump that started on Wall Street hit Europe with equal force. In Germany, unemployment reached 30 per cent of the labour force in 1932. Adolf Hitler came to power the following year.

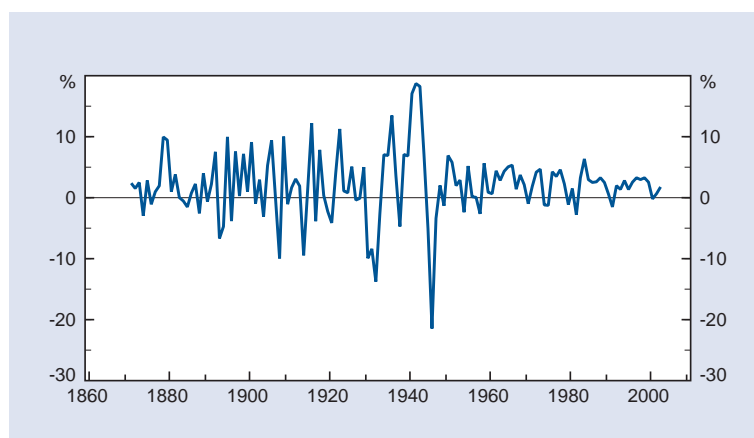
The depth and duration of the Great Depression of 1929–1939 triggered two important reactions in the United States and elsewhere with long-lasting consequences. First, fiscal and monetary policy gradually came to be used with deliberation to stabilize economic activity and to combat unemployment as Keynes had urged. Clearly, strong fiscal expansion on account of the entry of the United States into the Second World War inadvertently encouraged aggregate demand for goods and services, thus helping lift the U.S. economy and the rest of the world out of the slump. This was followed by the Employment Act of 1946 and then by the adoption of explicit stabilization policy in the spirit of Keynes beginning in 1961 with the Kennedy Administration, whose chief economic adviser was Professor James Tobin, of Yale University, one of America’s most distinguished economists and an influential proponent of Keynes’s theory of employment. Later, when Keynesian stabilization policies came under attack for being unnecessary or even counterproductive, or worse, Tobin responded by producing a chart akin to figure 4.1 showing changes in the real purchasing power of per capita GDP in 1990 international dollars.<sup>4,5</sup> Taken at face value, the Tobin chart says more than many words. It shows wild and recurrent swings in GDP per person before and during the Second World War and far milder fluctuations after the war. This general trend has been called the Great Moderation, and is clearly visible to the naked eye; no econometrics is really necessary. From this evidence, among other things, Tobin and others

concluded that fiscal and monetary stabilization policies had been broadly effective.

If the volatility of per capita GDP growth is measured by the standard deviation of growth, a common measure of dispersion, we find that the standard deviation of per capita growth in the United States in 1871–1945 was 6.4 per cent compared with 2.4 per cent in 1947–2003. This pattern is preserved if the war years 1914–1918 and 1939–1945 are excluded from the analysis and if the prewar period 1871–1913 and the interwar years 1919–1939 are considered separately as well as if the Bretton-Woods period 1947–1973 and the post-Bretton-Woods period 1974–2003 are likewise viewed separately. The standard deviation of per capita growth in the United States was 4.6 per cent in 1871–1913, 6.8 per cent in 1919–1939, 2.8 per cent in 1947–1973, and 2.0 per cent in 1974–2003.

These figures also suggest a marked reduction in output volatility after the Second World War.<sup>6</sup> Moreover, they do not suggest that the Bretton Woods period of fixed exchange rates during 1947–1973 offered unusual output stability. The growth of per capita GDP was 2.3 per cent per year on average 1871–1945, enough to increase national income per person by a factor of

The volatility of per capita growth in the US before World War II was nearly three times as large as after the war



**Figure 4.1**  
**United States: Growth of GDP per person, 1871–2003, per cent per year**

Source: Calculations derived from Maddison (2003); see [www.ggd.net](http://www.ggd.net).

There were recurrent crises also after the war, but they were not nearly as deep as before because they were met with deliberate monetary and fiscal action

Automatic stabilizers also helped

almost five over this period, and 2.1 per cent 1947–2003. A finer breakdown gives per capita growth of 1.9 per cent in 1871–1913, 0.9 per cent in 1919–1939, 2.3 per cent in 1947–1973, and 1.9 per cent in 1974–2003, suggesting more rapid growth with less volatility after the Second World War than before.

True, there were recurrent crises also after the war – in 1974–1975, 1979–1982, 1982–1987, 2000, and 2008 – but they were not nearly as deep and devastating as the ones that preceded them. Tobin and many others argued that the postwar crises were milder than their prewar predecessors precisely because they were met with deliberate and decisive monetary and fiscal action.<sup>7</sup> Policy makers had learnt their lesson from the Great Depression and from Keynes.

Automatic stabilizers also helped. Before the Great Depression, the United States government was small, and did not provide unemployment benefits and other forms of social insurance of the kind that had been introduced by Chancellor Otto von Bismarck in Germany in the 1880s. From 1870 to 1914, U.S. federal expenditures actually declined from five per cent of GDP to two per cent. At the outset of the Great Depression in 1929, federal expenditures had crept back up to five per cent of GDP. After the war, the U.S. government expanded little by little, levying higher taxes relative to income and assuming new responsibilities that automatically provided partial compensation through lower taxes and higher benefits to those whose incomes decreased in downswings. From 1945 to date, U.S. federal expenditures almost doubled from ten per cent of GDP to about 20 per cent.

## 4.2 THE CONFLUENCE OF STABILIZATION AND REGULATION

The Roosevelt Administration and Congress set up the SEC and passed the Glass-Steagall Act, launching the FDIC and separating commercial banking from investment banking

There is another reason for the greatly reduced volatility of per capita GDP in the United States following the Second World War. The Roosevelt Administration and Congress reacted to the Great Depression by, among other things, setting up the Securities and Exchange Commission in 1934 and passing the Glass-Steagall Act

in 1933.<sup>8</sup> This law, which launched the Federal Deposit Insurance Corporation, was designed to separate commercial banking from investment banking activities to increase the safety of depositors in commercial banks and to reduce the likelihood and scope of financial crises in the future.

Investment banking is inherently more risky than commercial banking and, therefore, or so the argument went, needs to be kept separate so as not to expose ordinary commercial bank customers to unnecessary and unwanted risk. A fire wall separating the two to prevent conflicts of interest in integrated banks was, therefore, considered necessary. A ban against speculative investment banking within commercial banks was written into law to protect ordinary bank customers from the vicissitudes of stock trades that they wanted no part of.

Further, because commercial banks borrow short from depositors and lend long to firms and households, the banks face big risks that the government felt it necessary to reduce and to share with them through national deposit insurance as well as through regulation of banks intended to limit the risks that they would otherwise be tempted take. The purpose was partly consumer protection and also, more importantly, protection of the general public against systemic breakdowns of the kind that occurred during the Great Depression. The government recognized that banks differ fundamentally from other businesses in that, once they are insured against the risk of bank runs, they are in a position to inflict damage on third parties as long as the government stands behind the banks. This is the quintessential case of moral hazard. Therefore, deposit insurance and regulation of the banks and other financial institutions had to go hand in hand.

This was done and the arrangement worked well. The first potentially major financial crisis to hit the United States after the Great Depression was the crash of 1987 when stocks equivalent to almost a quarter of U.S. GDP evaporated on Wall Street. The Savings and Loan crisis that preceded the crash of 1987 by a few years was a regional affair, confined mostly to California and Texas, and did not have significant economy-wide repercussions, even if the gross fiscal cost of the cleanup after the crisis was equivalent to four per cent of U.S. GDP.<sup>9</sup> The losses on Wall Street during the

The aim was to reduce risks and share them through deposit insurance and regulation to protect the public

The strategy worked: there were no major financial crises in the US from the end of the Great Depression until 2008

crash of 1987 amounted to only about two per cent of America's total national wealth, including human capital. The recovery, helped by a massive infusion of liquidity from the Federal Reserve System, was swift and sure (recall figure 4.1).

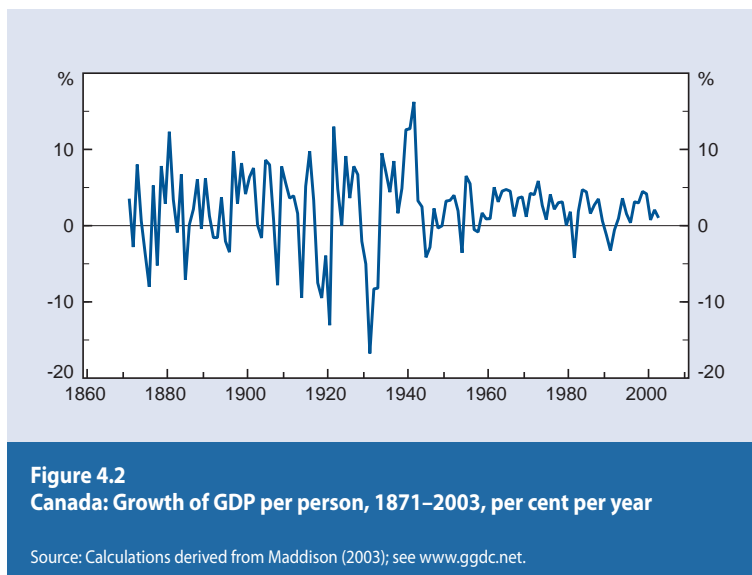
To recapitulate, increased macroeconomic stability in the United States in the postwar period resulted from two deliberate and major changes in government policy and public institutions: *viz.*, monetary and fiscal stabilization policy and comprehensive bank regulation. In retrospect, with proper stabilization measures as well as preemptive regulation, the Great Depression could have been averted. It would almost surely not have been so deep and lasted so long.

Stabilization and regulation proved successful also in Europe

The confluence of stabilization and regulation proved successful also in Europe. When active stabilization policy through easy money and deficit spending was later, in the 1980s, thought to have imparted an inflation bias to the monetary system, inflation was brought under control by, among other things, making central banks, by law, like the courts, more independent of – albeit still accountable to – political authorities. Also, limits were imposed on the government's ability to borrow from central banks. The aim was to depoliticize and, thereby, disinfect rather than discontinue monetary stabilization policies.

Unlike US banks, Canadian banks have been universal without encountering any major difficulties

Before leaving North America, it is interesting to note that Canada's GDP per person also exhibited much less volatility in the postwar period than before (figure 4.2). The standard deviation of per capita GDP fell from 6.6 per cent in 1871–1945 to 2.3 per cent in 1947–2003. Even so, economic growth remained about the same in the two periods, or 2.1 per cent in 1871–1945 and 2.2 per cent in 1947–2003. In the postwar period, active stabilization has been the norm, accompanied by close and careful federal as opposed to decentralized supervision of the financial system. During the Great Depression, only a few small banks failed in Canada, which helps explain why Canada did not establish its Deposit Insurance Corporation until 1967. Throughout, the financial system has remained sturdy, even during the current global crisis. Yet, unlike the banks south of the border, Canadian banks have been universal – that is, they have offered both commercial banking services and investment banking services – without encountering any major



difficulties. Accordingly, the erection of a firewall between commercial banking and investment banking along the lines of the Glass-Steagall Act in the United States has not been considered necessary in Canada, nor in Europe, to which we now turn.

### 4.3 CONTINENTAL EUROPE: SIMILAR STORY

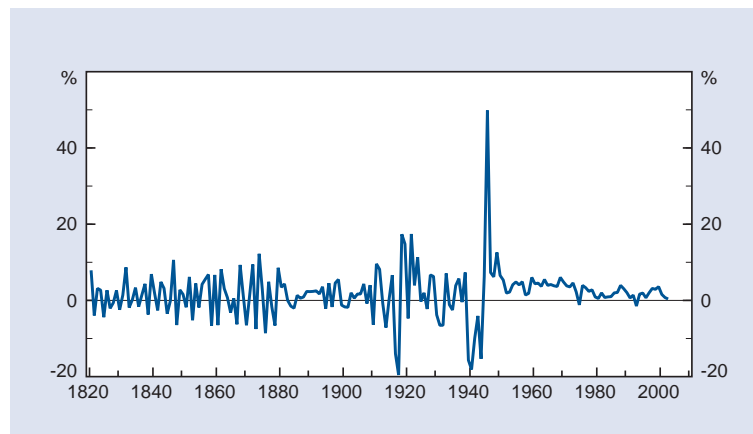
In postwar France, like in the United States and Canada, economic volatility was much less pronounced than before (figure 4.3). The standard deviation of per capita GDP growth in France fell from 6.3 per cent in 1821–1945 to 2.3 per cent in 1947–2003. Less volatility was accompanied by more rapid growth. This is a common pattern: around the world, economic volatility and long-run growth tend to be inversely related across as well as within countries.<sup>10</sup> France’s per capita growth rate of GDP rose from 0.9 per cent per year on average in 1821–1945 to 3.1 per cent in 1947–2003. Per capita GDP never contracted in the postwar period except in 1975 and 1993.

Around the world, economic volatility and long-run growth tend to be inversely related

Europe grew rapidly after the war in part because of reconstruction and capital replacement

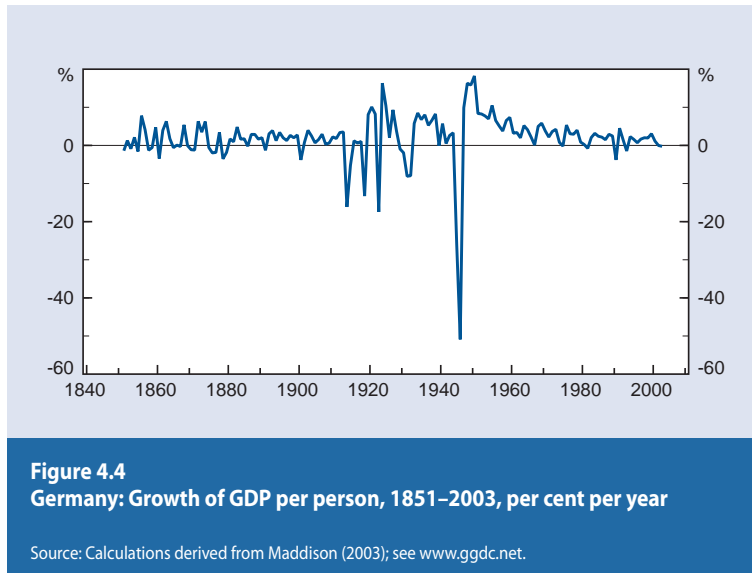
In postwar Germany, too, output was less volatile than it had been in the interwar period, with the standard deviation of per capita GDP growth declining from 5.7 per cent in 1851–1945 to 4.1 per cent in 1947–2003 (figure 4.4). Like in France, per capita output grew much more rapidly after the war, or by 3.9 per cent per year on average in 1947–2003 compared with 1.4 per cent in 1851–1945.

Encouraged by the Marshall Plan, Europe grew rapidly after the war in part because of reconstruction and capital replacement, but this effect petered out. The United States escaped war damage and did not experience a comparable postwar jump in growth despite reduced volatility. As in the United States, the diversification of production and increased openness to trade and later investment also contributed to postwar growth and stability. The ratio of trade – i.e., exports and imports of goods and services – to GDP did more than double in France and Germany after 1960, to 55 per cent and 85 per cent in 2006, and rose nearly threefold in the United States, to 27 per cent in 2005, up from 10 per cent in 1960. With time, more and better education also did a lot for growth.



**Figure 4.3**  
France: Growth of GDP per person, 1821–2003, per cent per year

Source: Calculations derived from Maddison (2003); see [www.ggdnc.net](http://www.ggdnc.net).



In Europe, active stabilization policy through easy money and deficit spending aimed at full employment, supported by peace and quiet in labour markets.<sup>11</sup> By strengthening automatic stabilization, the gradual expansion of the public sector contributed to increased stability. Unlike the United States, France and Germany did not abandon the universal banking model that permits banks to engage in commercial banking and investment banking side by side. Even so, following the example of the United States, European countries gradually introduced deposit insurance and comprehensive financial regulation. Since 1994, the EU requires all member states to have a deposit guarantee scheme covering at least 90 per cent of the deposited amount, up to at least 20,000 euro per person.

Looking further back, the stability of German output 1851–1914 is striking. That part of the Tobin chart for Germany echoes Stefan Zweig’s description of Austrian and German life in peace, prosperity, and harmony 1872–1914 in his evocative memoir *Die Welt von Gestern* (1942).<sup>12</sup>

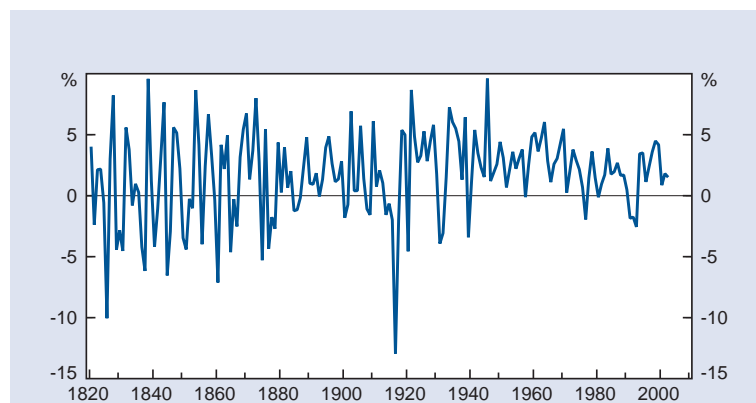
In Europe, active stabilization policy aimed at full employment



## 4.4 NORDIC COUNTRIES: MORE OF THE SAME

The Nordics all saw their per capita GDP oscillate much less and grow more rapidly after World War II than before the war

Like France and Germany, the Nordic countries all saw their per capita GDP oscillate much less and also grow more rapidly in the postwar period than before the war. In Sweden, under the influence of the Stockholm School (Gunnar Myrdal and Bertil Ohlin, in particular), deliberate stabilization policy in small doses was the order of the day from the early 1930s onward, before Keynes published his *General Theory* (1936), but as the doses were small, they were not especially effective. More effective was the decision of the Nordic countries to leave the gold standard in 1931. The standard deviation of per capita GDP growth decreased from 4.0 per cent in 1821–1945 to 1.8 per cent in 1947–2003. Meanwhile, per capita GDP growth almost doubled, rising from 1.3 per cent on average in 1821–1945 to 2.3 per cent in 1947–2003 (figure 4.5). Per capita growth in Sweden hit bottom at -4 per cent in 1931. Since 1945, Sweden has twice seen its per capita GDP drop, during the first oil price shock in the mid-1970s and during the banking crisis of 1991–1993. Apart from these two downswings, growth was fairly brisk.



**Figure 4.5**  
Sweden: Growth of GDP per person, 1821–2003, per cent per year

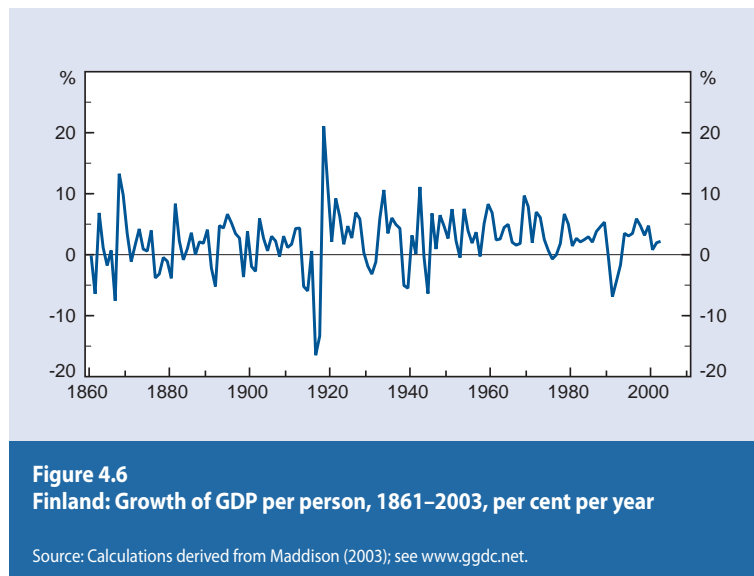
Source: Calculations derived from Maddison (2003); see [www.ggdnc.net](http://www.ggdnc.net).

Finland had a similar experience even if its national economic output was somewhat more volatile than Sweden's (figure 4.6). The standard deviation of Finland's per capita GDP growth decreased from 5.5 per cent in 1861–1945 to 3.0 per cent in 1947–2003, while growth almost doubled from 1.7 per cent per year on average to 3.1 per cent. Per capita growth stayed in positive territory for the most part throughout the postwar period with the exception of its deep plunge during the financial crisis in 1990–1993, when unemployment rose to unprecedented heights, nearly 17 per cent of the labour force.<sup>13</sup> Both countries emerged strong from the crises of the 1990s, joining the EU in 1995. Like in the United States, Canada, France, and Germany, increased trade contributed to growth and stability. The ratio of trade (exports plus imports) to GDP roughly doubled 1960–2006 to 83 per cent and 95 per cent in Sweden and Finland, and reached 101 per cent in Denmark in 2006, up from 67 per cent in 1960. Trade expanded especially rapidly after the crises of the early 1990s, with depreciating currencies and EU membership providing strong encouragement to exports.

Despite many similarities, Denmark, unlike Sweden, Finland, and Norway, had no banking crisis to speak of in the late 1980s or

Finland and Sweden emerged strong from the crises of the 1990s, joining the EU in 1995

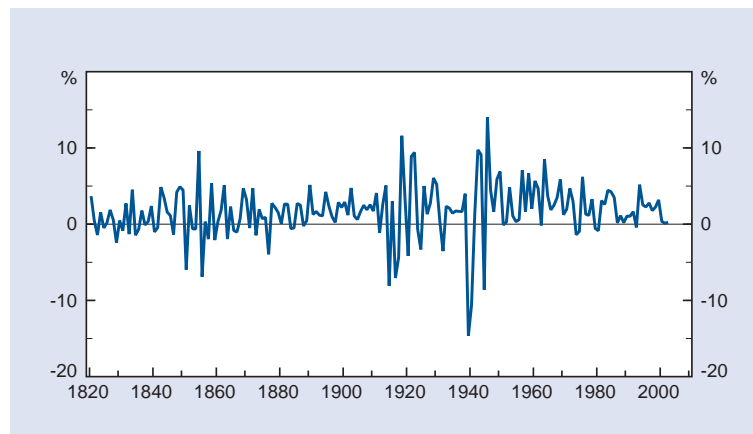
Denmark, unlike Sweden, Finland, and Norway, had no banking crisis to speak of in the 1980s or 1990s



The banking crisis of the late 1980s briefly brought the Norwegian economy to a standstill, but did not produce a deep slump as in Sweden and Finland

early 1990s – there were problems, yes, but not a full-blown crisis. The two postwar episodes of mildly negative per capita GDP growth coincided with the oil shocks of 1973–1974 and 1979–1981. The standard deviation of per capita growth in Denmark fell from 3.8 per cent during 1821–1945 to 2.3 per cent during 1947–2003, while per capita growth more than doubled from 1.2 per cent per year on average to 2.5 per cent (figure 4.7).

Norway followed a similar pattern, maintaining per capita GDP growth consistently in the interval between zero and five per cent throughout the postwar period, before as well as after discovering and starting to exploit its oil and natural gas deposits in the 1970s. The standard deviation of per capita GDP growth in Norway decreased from 4.2 per cent in 1831–1945 to 2.0 per cent in 1947–2003, while per capita growth more than doubled from 1.5 per cent per year on average to 3.2 per cent (figure 4.8). Yet, since 1960, the trade-to-GDP ratio in Norway has hovered around 73 per cent without a marked tendency to rise. Exports of oil and gas have thus crowded out other exports krone for krone. The banking crisis of the late 1980s preceded by a few years those of Sweden and Finland next door and briefly brought the Norwegian economy to



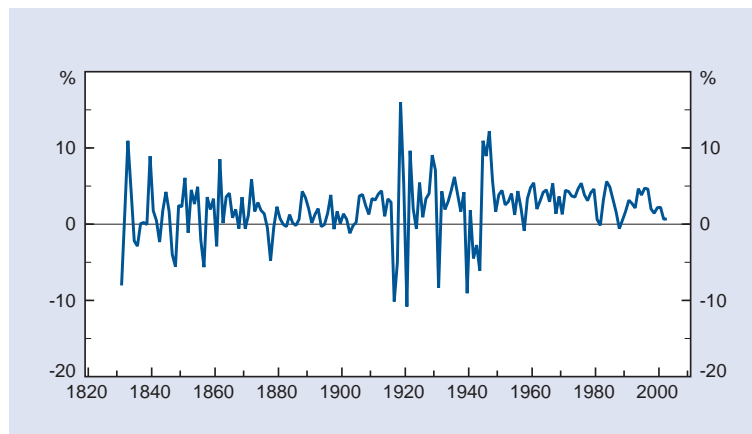
**Figure 4.7**  
Denmark: Growth of GDP per person, 1821–2003, per cent per year

Source: Calculations derived from Maddison (2003); see [www.ggdc.net](http://www.ggdc.net).

a standstill, but it did not produce a deep slump in per capita GDP as in Sweden and Finland. The gross fiscal cost of the cleanup after the banking crisis in Norway amounted to three per cent of GDP, compared with four per cent in Sweden and 13 per cent in Finland whose downturn was deepened by domestic structural problems as well as the collapse of the Soviet Union at the same time. For comparison, the gross fiscal cost of the cleanup after the financial crisis in Japan in 1997 amounted to 14 per cent of GDP. In Thailand, the cleanup cost after the crisis of 1997 was 44 per cent of GDP.<sup>14</sup>

The general pattern of reduced volatility and increased growth after 1945 was thus essentially the same in France, Germany, Scandinavia, and Finland. Iceland followed a somewhat different path (figure 4.9).<sup>15</sup> Because of Iceland's dependence on rickety fisheries for a large but gradually declining share of its exports of goods and services, per capita GDP was more volatile than elsewhere. The standard deviation of Iceland's per capita GDP growth rate decreased from 6.5 per cent in 1901–1945 to 4.3 per cent in 1947–2003. Iceland's per capita output has thus been considerably more volatile in the postwar period than it was even before the war in the other countries under review.<sup>16</sup>

The general pattern of reduced volatility and increased growth after 1945 was essentially the same in France, Germany, Scandinavia, and Finland



**Figure 4.8**  
Norway: Growth of GDP per person, 1831–2003, per cent per year

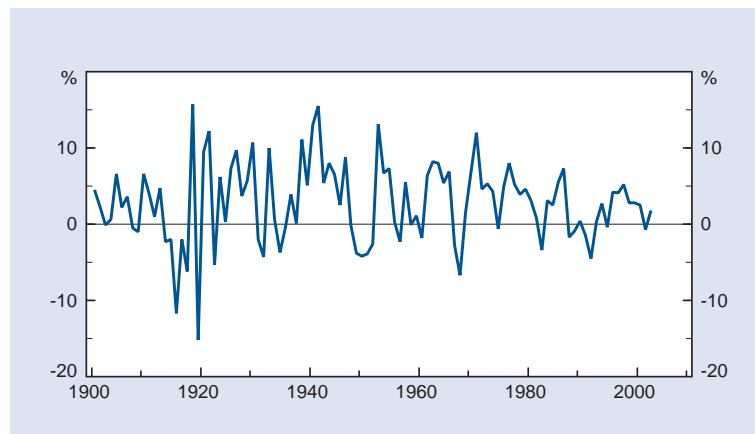
Source: Calculations derived from Maddison (2003); see [www.ggdc.net](http://www.ggdc.net).

The Icelandic economy took several deep plunges after the war

Per capita GDP growth in Iceland was higher before World War II than after the war

The Icelandic economy took several deep plunges after the war: in 1949–1952, when Iceland’s war boom under friendly occupation first by the British and then the Americans dissipated, the government having disposed of the gains from the war and herring catches having failed even if the Marshall Plan helped soften the blow; in 1967–1968, when precious herring stocks left Icelandic waters and catches failed again; in 1983, when the cod threatened to follow the herring and inflation shot up to 83 per cent; and in 1988–1993, when sweeping albeit selective policy reform could no longer be postponed, including the long overdue introduction of positive real interest rates and indexation of financial obligations to contain inflation.

Per capita GDP growth in Iceland was actually higher before the war than after the war, or 3.1 per cent per year on average 1901–1945 compared with 2.6 per cent 1947–2003. Since 1960, Iceland’s trade-to-GDP ratio has hovered around 73 per cent as in Norway without a tendency to rise over time, a remarkable stagnation in view of Iceland’s small population of 320,000. We return to Iceland and its spectacular banking collapse in 2008 in chapter 7.



**Figure 4.9**  
Iceland: Growth of GDP per person, 1901–2003, per cent per year

Source: Statistics Iceland, [www.hagstofa.is](http://www.hagstofa.is), [www2.stjr.is/frr/thst/rit/sogulegt/english.htm](http://www2.stjr.is/frr/thst/rit/sogulegt/english.htm).

## 4.5 GROWING TOGETHER

Table 4.1 summarizes the per capita GDP growth rates and their volatility in the nine countries under review before and after 1945–1946.<sup>17</sup>

Even if all these countries experienced less volatility in the postwar period than before the end of the war and all but two – the United States and Iceland – grew more rapidly after the war than before, the business cycles they faced were not tightly synchronized across the board. Yet, the simple correlation between per capita GDP growth rates in France and Germany increased from 0.13 before 1945 to 0.73 after 1946. Indeed, one of the unwritten aims of the EU must have been to make the old adversaries, France and Germany, more alike. This was accomplished. On the other hand, the simple correlation between per capita growth rates across the Atlantic was small and insignificant before 1945 and has remained so in the postwar period (unchanged at 0.16 for Germany and the United States before and after 1945–1946 and up from -0.10 to 0.04 for France and the United States).<sup>18</sup>

On the whole, the synchronization of economic growth among the Nordic countries did not intensify after the war. Finland and Sweden were always close: the correlation of their per capita GDP

The synchronization of economic growth among the Nordic countries did not intensify after the war

**Table 4.1**  
Growth and volatility before and after 1946, %

	Per capita GDP growth		Volatility of per capita GDP growth	
	Until 1945	1947–2003	Until 1945	1947–2003
United States	2.3	2.1	6.4	2.4
Canada	2.1	2.2	6.6	2.3
France	0.9	3.1	6.3	2.3
Germany	1.4	3.9	5.7	4.1
Denmark	1.2	2.5	3.8	2.3
Finland	1.7	3.1	5.5	3.0
Iceland	3.1	2.6	6.5	4.3
Norway	1.5	3.2	4.2	2.0
Sweden	1.3	2.3	4.0	1.8

For initial years for each country, see figures 4.1–4.9.

Sources: Calculations derived from Maddison (2003), Statistics Iceland.

The Nordics lead independent economic lives

growth rates rose from 0.58 before the war to 0.70 after the war. The correlation between Sweden and Norway declined from 0.36 to 0.13 which is not surprising: the two countries did not go their separate ways until 1905 when Norway declared full independence. The correlation between Sweden and Denmark has remained about the same throughout, up from 0.38 before the war to 0.40 after the war. The same applies to Denmark and Norway (0.26 and 0.29). The correlation between per capita growth in Finland and Denmark decreased from 0.51 to 0.20 and that between Finland and Norway from 0.36 to 0.10.

The point is that the Nordic countries lead independent economic lives. This is hardly surprising as they have, for one thing, taken different approaches to their involvement in European affairs in terms of both intensity and timing. Denmark joined the EU in 1973, 22 years before Finland and Sweden. Unlike Finland, Sweden decided in a referendum in 2003 against adopting the euro as will be discussed in Chapter 8. Iceland applied for EU membership in 2009, and Norway, awash in oil, shows as yet no interest in jumping on board.

Even so, the Nordic countries' business cycles have since 1947 moved more closely in tandem with those of Germany, but not France. Until 1945, the correlation between per capita growth in the Nordic countries and Germany ranged from -0.17 in Norway to 0.22 in Finland. After 1946, the ties became closer and the correlation between the Nordic region and Germany ranged from 0.26 in Sweden to 0.39 in Denmark. The growth correlations between the Nordic countries and France did not, however, change much: until 1945, they were in the range from 0.29 to 0.45, and from 0.21 to 0.45 after 1946.

## 4.6 LEARNING FROM HISTORY

Before the Great Depression of 1929–1939, the world economy was marked by unrelenting volatility that produced deep slumps in economic activity at regular intervals, every twenty years or thereabouts, striking down businesses, households, and occasionally governments. The Depression triggered a two-pronged policy

response that produced an effective and durable remedy: first, regulation of banks and other financial institutions, including government deposit insurance aimed at preventing bank runs and, second, stabilization of output and employment aimed at stemming economic fluctuations.

The historical record shows that this response produced, or at least coincided with, the intended result. The Great Depression remains the last disastrous world-wide slump in output and employment. Economists, however, disagree on whether government policy and institutional reform helped produce this outcome.

In the 1970s a group of academics began questioning the value of active stabilization policies. Their arguments were based on theoretical models that assumed rational expectations. These models gained significantly wider acceptance after the oil shocks 1973–1974 and 1979–1981 and the failure of traditional policies to deal with stagflation. Rational expectations models suggested that government efforts to stabilize an economy will eventually result in behavioral responses that may largely mitigate the intended effects of such policies. Game-theoretic analyses also suggested that discretionary monetary policies would for much the same reason eventually be self-defeating and kindle inflation. This led to increased reliance on monetary rules rather than discretionary policies as a way to establish a credible monetary regime and contain inflation.

The severity of the current crisis changed all this. A broad consensus quickly developed among economists that exceptional discretionary stabilization measures were needed. Most importantly, central bankers had the courage and determination to experiment with and implement an extraordinary range of policies to alleviate the stress in the financial system. These measures were accompanied by strong fiscal stimulus with promises of more to come if necessary.<sup>19</sup>

The current crisis was preceded by a lengthy period of deregulation in the United States. It was initiated by the Carter administration of 1977–1980, and continued apace in the Reagan and Clinton administrations in the 1980s and 1990s. Almost all sectors of the economy were substantially deregulated and much government activity was also privatized. Within the financial

The Great Depression remains the last disastrous world-wide slump in output and employment

Doubts about stabilization policies led to increased reliance on monetary rules rather than discretionary policies to contain inflation

Even so, the current crisis produced a broad consensus that exceptional discretionary stabilization measures were needed



Inadequate regulation and enforcement practices in the US and elsewhere clearly contributed to the severity of the current crisis

sector, the U.S. Congress progressively relaxed the Roosevelt-era regulations of banks and financial institutions, capping the process in 1999 by repealing the Glass-Steagall Act of 1933 that had separated commercial banking from investment banking (the Gramm-Leach-Bliley Act). This last step was less dramatic than it appeared: like so much of the process, deregulation had already taken place by relaxing the enforcement of the laws.<sup>20</sup>

While the existing regulations originally had enhanced the efficiency of financial intermediation, over time they may have held back financial innovation in the regulated banking sector.<sup>21</sup> Instead, financial innovation moved outside commercial banking in an effort to circumvent onerous regulatory constraints and to take advantage of the benefits of globalization of finance. The concern about regulatory arbitrage was a major reason for deregulation and leniency in supervision, although in hindsight there was excessive confidence in the self-correction capacity of financial markets.<sup>22</sup> Inadequate regulation and enforcement practices in the United States and elsewhere clearly contributed to the severity of the current crisis. As so often before, tranquil times made many discount the risks of financial instability, reducing their willingness to take precautionary measures and pay the associated costs in terms of lesser efficiency and lower bonuses.

## ENDNOTES

- <sup>1</sup> This account draws on Kindleberger and Aliber (2005). See also Reinhart and Rogoff (2009).
- <sup>2</sup> See Galbraith (1988).
- <sup>3</sup> True, the New Deal included some provisions for public works (e.g., the Tennessee Valley Authority Act of 1933), but even so fiscal conservatism was the order of the day. As Romer (2009, p. 5) points out, "In 1932, the Federal government passed the largest peacetime tax increase up to that point, raising revenues at a given level of income by nearly 2 per cent of GDP".
- <sup>4</sup> The 1990 international dollar is a hypothetical currency with the same purchasing power as the U.S. dollar had at home in 1990.
- <sup>5</sup> For the method used to Tobin's original chart showed changes in U.S. GDP at constant prices 1901–1976. See Tobin (1980), p. 47.
- <sup>6</sup> Early estimates of gross national product (GNP) in the United States have been shown to suggest an exaggerated volatility of GNP before the Second World War (Romer, 1989). The more recently compiled historical GDP data from Maddison (2003) reported here should not suffer from this defect. In this chapter, we use Maddison's data, also known as the Groningen data, because they reach farther back in time than the OECD data used elsewhere in the book.
- <sup>7</sup> See Romer (2009).
- <sup>8</sup> Carter Glass and Henry B. Steagall were Democratic Senators from Virginia and Alabama.
- <sup>9</sup> Source: Laeven and Valencia (2008), table 1.
- <sup>10</sup> See, for example, Aghion and Banerjee (2005), Mobarak (2005), and Ramey and Ramey (1995). See also Lundberg (1968).
- <sup>11</sup> See DeLong (1997).
- <sup>12</sup> See Zweig (1942).
- <sup>13</sup> Jonung and Hagberg (2005) report that Finland's output loss in the 1990s was larger than in any other peacetime crisis since 1860 whereas in Sweden only the Great Depression of the 1930s caused a larger output loss than the crisis of the 1990s.
- <sup>14</sup> The source of all these figures is Laeven and Valencia (2008), table 1. National sources may provide somewhat different figures that may or may not be comparable across countries.
- <sup>15</sup> Figure 4.9 shows the growth of per capita GDP in Iceland, not the growth of its real purchasing power in international dollars as in figures 4.1–4.8. Information on the purchasing power of Iceland's GDP before World War II is not available.
- <sup>16</sup> Barro and Ursúa (2008) report a similar finding: "The post-World War II period was remarkably calm for the OECD countries – only nine consumption crises, four of which were in Iceland (relating in part to shocks to the fishing industry). The largest outside of Iceland was 14 per cent for Finland in the early 1990s.."
- <sup>17</sup> Due to irregularities in the data on GDP for 1946 in some of the countries under review, 1946 is excluded from the calculations of growth and volatility throughout this chapter.
- <sup>18</sup> All correlations reported in the text accord broadly with cross correlograms with several lags and leads.
- <sup>19</sup> Listen to Blinder (2006): "Under normal circumstances, monetary policy is a far better candidate for the stabilization job than fiscal policy. ... That said, however, there will be occasional abnormal circumstances in which monetary policy can use a little help, or maybe a lot, in stimulating the economy – such as when recessions are extremely long and/or extremely deep, when nominal interest rates approach zero, or when significant weakness in aggregate demand arises abruptly. To be prepared for such contingencies, it makes sense to keep one or more fiscal policy

vehicles tuned up and parked in the garage, and perhaps even to adopt institutional structures that make it easier to pull them out and take them for a spin when needed”.

<sup>20</sup> See Black (2005).

<sup>21</sup> On this, Paul Volcker, Chairman of the Federal Reserve 1979–1987, said 8 December 2009 at a conference organized by the *Wall Street Journal*: “I wish someone would give me one shred of neutral evidence that financial innovation has led to economic growth – one shred of evidence”. He went on to add that in the United States the share of financial services in value added had increased from 2 per cent to 6.5 per cent, and then asked: “Is that a reflection of your financial innovation, or just a reflection of what you’re paid?”.

<sup>22</sup> In his testimony before Congress 23 October 2008, Alan Greenspan, Chairman of the Federal Reserve 1987–2006, said: “...those of us who have looked to the self-interest of lending institutions to protect shareholder’s equity (myself especially) are in a state of shocked disbelief”. The committee chairman sought clarification of the matter: “In other words, you found that your view of the world, your ideology, was not right, it was not working”; “Absolutely, precisely”, Greenspan replied. “You know, that’s precisely the reason I was shocked, because I have been going for 40 years or more with very considerable evidence that it was working exceptionally well”.



# 5

## DÉJÀ VU: THE CRISIS OF SWEDEN AND FINLAND IN THE EARLY 1990s

The present crisis is for many countries the worst experienced in the whole post-war period. Sweden and Finland, by contrast, experienced a crisis of comparable severity less than two decades ago. This chapter recalls some of the background and consequences of that crisis and offers comments on its relationship to economic policies and economic policy thinking as well as lessons learnt. The chapter ends by noting some of the similarities and differences between this and the earlier crisis.

### 5.1 TWO DIFFERENT POLICY APPROACHES CONVERGE IN FINANCIAL LIBERALIZATION

Despite their proximity and similarity of economic structure, Sweden and Finland have for many decades had very different economic policy traditions.

Sweden was for a long time a champion of fiscal policy activism,

Active stabilization policy has always played an important role in the Swedish economic model. During the Great Depression, in 1932, an incumbent Social Democrat government presented an expansionary fiscal package. Since then, Sweden has been regarded as a champion of expansionary fiscal policy as a means of keeping up economic activity. Throughout the Bretton Woods era Sweden was often considered a prime example of activist fiscal policy

within a fixed exchange rate regime. In addition to discretionary fiscal action, automatic stabilizers became increasingly important with the growth of the public sector and ever higher progressive income tax rates. The results appeared successful in achieving price stability, low unemployment, relatively rapid economic growth and public debt under control.

In reality, however, an active exchange rate policy has played a more important role than fiscal policy in creating favourable conditions for Swedish growth and employment over the last 80 years. Sweden was quick to follow Great Britain in leaving the gold standard in 1931. The floating exchange rate led to an effective devaluation of 25 per cent, which was the principal factor pulling Sweden out of the depression. Similarly, in September 1949 (before entering the Bretton Woods agreement), Sweden again decided to follow Britain with a devaluation of the Krona (relative to US Dollar) by no less than 30 per cent. This created a high profit share and a competitive advantage that lasted until the late 1960s, such that Sweden could maintain a fixed peg to the Dollar for more than 25 years, until after the breakdown of the Bretton Woods system.

There was a fairly broad consensus in Sweden on the conclusions to be drawn from the macroeconomic experiences of this half-century. They could be summarized in two points:

1. Large devaluations (like in 1931 and 1949) can be a helpful remedy in pulling the economy out of a depressed state (like in 1931) or out of a structurally unbalanced situation with serious competitiveness problems (like in 1949). The devaluation – if big enough – will “kick-start” the economy and set off a positive spiral of growth and employment with healthy profitability and sufficient margins for real wage growth.
2. In order to avoid falling into the trap of “devaluation cycles” with constantly rising inflationary expectations and compensatory wage demands, it is necessary to maintain an “irrevocably” fixed exchange rate to guide expectations and control wage demands after the devaluation. Only then can the devaluation be successful.

but exchange rate policy was more important for growth and jobs

This was indeed the philosophy behind the economic policy of the Social Democrat government that returned to power in 1982. A “jumbo devaluation” of 16 per cent was undertaken in early October 1982.<sup>1</sup> It was declared that this was the last devaluation that Sweden would ever undertake, and this declaration was supported by a consensus across the political spectrum and among parties on the labor market. Instead, economic policy would be oriented toward the supply side of the economy: dismantling industrial subsidies, cutting back on public spending, reducing transfers to households, reforming the tax system and deregulating markets, notably the credit market.

Finland pursued for a long time a policy of recurrent devaluations,

Relative to Sweden, Finland was a poor cousin. In 1950 the Finnish GDP per capita was some 60 per cent of that of Sweden, and in 1970 still only 75 per cent. Against this background, it was quite natural that growth rather than stabilization was the key policy objective. Exchange rate policy was used to restore cost competitiveness and profitability of the tradables sector whenever inflation had eroded competitiveness and caused current account deficits. Major devaluations took place in 1949, 1957 and 1967. The primary objective of these devaluations was to guarantee longer-term profitability, high investment and rapid growth. On the other hand, the exchange rate policy also increased economic volatility, giving rise to a “devaluation cycle”.

while fiscal policy was orthodox, aiming at budget balance

Fiscal policy was never an important policy instrument in Finland. Automatic stabilizers remained weaker, as the size of the public sector – despite secular growth – lagged behind that of Sweden. On top of that a very conservative balanced budget ideology dominated in Finland, irrespective of the precise composition of the governments. All in all, Finland succeeded even better on growth, gradually catching up with Sweden. However, in terms of inflation and instability Finland fared worse. Unemployment remained constantly at a higher level than in Sweden.

Following the collapse of the Bretton Woods system and the stagflation following the first oil crisis, the economic policy philosophies of Sweden and Finland converged. It turned out that cost inflation could not be controlled, and international competitiveness weakened continuously. Both countries resorted to minor exchange

rate adjustments through the late 1970s, and finally Finland like Sweden made a significant devaluation in 1982.

In Finland as well, the problems of recurrent devaluations were now increasingly recognised, and the stability of the currency as a policy objective gained support. The leading parties made the “stable Markka” a centrepiece of the programme of the government, and – following Sweden – emphasized supply side measures to achieve a “managed structural change”.

Also, the distortions and difficulties associated with the existing regulations of capital flows and domestic credit markets became increasingly evident both in Sweden and Finland from the early 1980s. As a result, both countries embarked on deregulation of financial markets from 1982 onwards. By 1987 significant steps had been taken on the “domestic” regulations, i.e. on quantitative and interest rate regulations.<sup>2</sup> Lifting of capital controls was a more drawn-out process in Finland, while in Sweden it was completed by 1989. In both cases, though, capital controls did not anymore put a major brake on capital flows towards the end of 1980s.

A credible exchange rate peg became a centre piece of policy

## 5.2 FINANCIAL LIBERALISATION WITHOUT STABILIZATION CREATES AN UNSUSTAINABLE BOOM

For a while the new policy orientations worked well in both countries. Growth was robust while inflation remained reasonably under control. Public finances tuned into substantial surpluses. Finland seemed finally to catch up its western neighbour economically, as even the unemployment rate came down to below 4 per cent. Some were talking of Finland as the “Japan of Europe”.

Towards the end of the 1980s it became clear, however, that the upswing was gradually turning into an overheating of both economies. The deregulation of the credit market resulted in a very rapid expansion of credit and a surge in real estate prices along similar lines in the two countries. There was some discussion on whether there was a bubble growing, particularly in the real estate market. But – after many decades of capital market regulation – it

Rapid credit expansion and a housing bubble ensued,



and could not be contained by monetary policy because of the exchange rate peg

was hard to judge to what extent the credit expansion was merely the result of a one-time adjustment from a previously “underleveraged” situation in the household sector or a migration of credit supply from the unrestricted “grey” credit market into the regular (and recorded) banking system.

As it turned out, it was indeed a bubble, fed by a number of factors: leverage-friendly tax rules, lax supervision, low capital requirements, and a complete absence of risk culture in the banks. A natural response to the credit expansion, the rapid appreciation of property values, and the overheating of the economy would have been a tightening of monetary policy. But the fixed exchange rate effectively limited this option. With foreign exchange controls reduced and eventually eliminated, both countries experienced what is now a well-known “trilemma”: no economy can simultaneously have free capital mobility, a fixed exchange rate and an independent monetary policy. Attempts by the central banks to raise domestic interest rates were immediately met by private capital inflows. Particularly in Finland companies borrowed heavily in foreign currency, mainly from the domestic banks. As long as the fixed exchange rate remains credible, monetary policy is unavoidably procyclical: overheating of the economy leads to rising inflationary expectations, which in turn implies declining real interest rates that further feed the overexpansion.

A tighter fiscal policy could of course have dampened the overexpansion, but with growing budget surpluses as the boom boosted tax revenue it was hard to get political support for a tighter fiscal policy.

### 5.3 EXTERNAL SHOCKS TRIGGER A BUST

Germany was re-united and the Soviet Union collapsed

By 1989 the overheating had increased inflation and created significant current account deficits. Competitiveness problems slowed exports. The stock adjustment in household leverage started finally to level off, and both stock and housing prices started to decline. Then the already cooling economies were hit by a series of external shocks. European interest rates rose as a result of the

German unification. The European currency unrest and soon also the eroding credibility of the fixed exchange rates meant that the domestic interest rates rose substantially above the European level. In Sweden a tax reform limited the deductibility of interest payments in 1990 implying that after-tax interest rates increased for households, at any nominal rate level. That added to the negative impact of higher nominal rates. In Finland export demand took a strong hit when all exports to the collapsing Soviet Union stopped in 1991. This represented a major shock as at their high point these exports accounted for over 20 per cent of Finland's total exports and still over 10 per cent in 1990.

Both currencies came under increasing pressure. In order to strengthen credibility, the previous currency basket was discarded and a unilateral tie to the ECU was established in Sweden in May and in Finland in June 1991, but to no avail. Depletion of exchange reserves forced a devaluation of the Markka by 14 per cent in November 1991. The Bank of Finland would have preferred to let the currency float for an extended period to find a sustainable market rate but the Government forced a new peg under strong political pressure in the parliament (opposition slogan: "the Markka floats and the Government drifts"). Finally, in September 1992, the Bank of Finland had to let the currency float indefinitely, and this time the government concurred. Further depreciation followed for a while.

In Sweden the Riksbank had decided to stubbornly defend the fixed exchange rate "at any cost". A lot of political prestige had been invested in this position, which was shared by the whole Swedish establishment. When Finland decided to let the Markka float on September 8, 1992, the Swedish policy rate was therefore raised to 75 per cent. During a brief period of calm on international currency markets the policy rate could be lowered to 20 per cent. But then came, on September 16, the decisions the Bank of England and the Banca d'Italia to let Sterling and the Lira float. To fight off speculation that Sweden would follow suit, the Riksbank raised the policy rate to an unprecedented 500 per cent. (When confronted with this figure and asked if Britain could not have been equally stubborn in its defence of the fixed exchange rate, Chancellor of the Exchequer Norman Lamont quietly answered:

The markka was first devalued and then allowed to float,

as was the Swedish krona, after a futile fight of defence

High interest rates sharpened the fall in domestic demand

“Yes, but we use common sense”.) Finally, on November 19 amidst widespread currency speculation, with foreign exchange reserves depleted and the interest rate weapon exhausted, the fixed exchange rate had to be given up and the Krona was left to float. It immediately depreciated by around 15 per cent, and continued to weaken for several months.

A collapse of domestic demand was by then well under way with strong repercussions on the financial sector. Compounding the rapid rise of nominal interest rates, a decline in domestic inflationary expectations caused a sharp increase in real rates. From levels below zero, the after tax real interest rate shifted to annual averages above 5 per cent. The real interest shock caused a sharp decline in prices of real assets, and firms and household started to have increasing difficulties to service debt. Fire sales of assets in desperate attempts to save balance sheets caused further declines in asset prices. Some financial institutions experienced problems already in 1990.

The financial accelerator went strongly into reverse. High interest rates dampened domestic demand. Weakening activity and profitability, and increasing unemployment increased debt service difficulties and reduced borrowers' creditworthiness. Accumulating non-performing assets and outright credit losses depleted banks' capital and reduced credit supply. Weaker cash flows and forced sales of assets reduced asset prices further, while decelerating inflation increased real interest rates and so on.

The result was the biggest slump among developed economies since the Second World War. The decline in quarterly GDP from peak to trough was 6 percent in Sweden and 13 per cent in Finland. The annual total unemployment rates (including the unemployed in the labour market measures) rose to over 15 and over 20 per cent in Sweden and Finland, respectively. The difference in depth of the two crises came mainly from the difference in the export shock. The disappearing Soviet trade was important only for Finland. Some model calculations suggest that the specific trade shock Finland experienced accounts fully for the difference in macroeconomic outcomes, see Gorodnichenko, Mendoza and Tesar (2009).

## 5.4 MONETARY EASING, FISCAL EXPANSION AND MASSIVE BANK SUPPORT

The floating exchange rates permitted a gradual lowering of interest rates. At first the reduction of policy rates was cautious, as fears existed that the depreciation might create strong inflationary impulses in the absence of a monetary anchor. That was rapidly resolved in both countries by the adoption of an explicit inflation target. Following that and evidence of strong deflationary forces, the policy rates came down substantially through 1993, and continued to decline – with some minor reversals – along with the German rates until 1995.

The considerable depreciation of the currencies improved external competitiveness rapidly and the weak labour market – assisted in Finland by broad incomes policy agreements – guaranteed that these gains would not be eaten up quickly by cost increases. As a result of improved competitiveness, export growth was unprecedented in both countries, and the share of exports in GDP increased substantially. The lower interest burden and the boost from the export incomes gradually helped to stabilize asset prices and domestic demand, paving the way for resumed growth.

In line with earlier tradition, fiscal policy played different roles in the two countries. In both, automatic stabilizers worked strongly to support demand. On top of that came discretionary fiscal spending hikes, in particular considerable amounts required for bank support. The general government accounts turned from a surplus into a deficit of more than 10 per cent of GDP. In Sweden, serious discretionary fiscal tightening did not begin until a recovery was under way in 1995. In Finland, on the other hand, the perception of unsustainable debt growth led to discretionary tightening already from 1992 onwards.

The impact on growth of the earlier fiscal tightening in Finland is hard to determine. The unquestionable direct negative impacts could have been partly compensated by a decline of the long-term interest rates. Before November 1991 the yield on 5-year government bonds was roughly equal between the two countries. After the Finnish devaluation in November 1991 Finnish long-term

The floating exchange rate alleviated the problems

Fiscal policy was tightened, earlier in Finland than in Sweden

interest rates had risen by approximately 200 basis points relative to Swedish, as might be expected. However, when the Finnish markka was left to float on September 8, 1992, the long-term interest rate differential between Finland and Sweden started to *shrink*. This continued after the floating of the Krona on November 19, and by September 1993 there was roughly long-term interest parity between the two countries. Thereafter Finnish long-term interest rates were actually *below* the Swedish rates. The more rapid decline of the long-term interest rates in Finland could perhaps be linked to the announcements of fiscal consolidation packages. At any rate, there was clearly no pay-off in terms of monetary credibility to the more durable and stubborn exchange rate defense in Sweden.

Once the recovery was underway, fiscal consolidation continued in both countries, but strategies differed. In Finland, there were cuts in government spending more or less across the board (the only major exception being spending on R&D). The improvement of public finances allowed lowering of Finnish tax rates, linked to broad incomes policy agreements. In Sweden, the cuts were mainly concentrated to items which had expanded rapidly during the crisis, such as social security spending and – in particular – bank support. A major part of Swedish fiscal consolidation was achieved on the revenue side, partly via automatic stabilizers, partly via discretionary tax increases.

## 5.5 SWIFT HANDLING OF THE BANKING CRISES

In both countries the banking sectors came under an enormous pressure during the crisis. Mounting credit losses and the loss of interest earnings from non-performing assets threatened the solvency of large parts of the banking system.

Banking problems were underestimated for a long time,

Initially the severity and extent of the banking problems were grossly underestimated. There was no experience of such crises in either country and also international experience of banking crises in developed countries was scarce. Although the financial sector had been in difficulties in neighbouring Norway for a couple of years, the situation there worsened seriously only slightly before

the banking problems truly emerged in Finland and Sweden. As furthermore no institutions existed to handle crisis banks, the response was initially necessarily improvised.

Nevertheless, quite soon systematic and comprehensive crisis management measures were taken. A first policy approach was to prevent bank creditors from suffering any losses, so that funding of banks (not least international funding) was secured, and domestic financial intermediation could continue with minimal disruption. To this end, both countries issued an unlimited “blanket” guarantee of bank debts in the form of parliamentary resolution, Sweden leading the way and in fact forcing a similar step to be taken in Finland.

After the initial shock it was recognised that the banking systems could not be kept operational without extensive recapitalisation of the banks. The problem was not only liquidity but in varying degrees also solvency and it quickly became obvious that the private sector was not in all cases able and/or willing to come up with the sufficient private funds.

In Finland the government capital injection schemes were divided into two. A general precautionary offer of capital injection into all deposit banks assessed to be fundamentally sound on the one hand and distress capital injection to failing institutions on the other. The idea of the former scheme was to bolster confidence in the banking system in the least distortive way and to prevent a need to cut lending due to shortage of capital, a “capital crunch”. In Sweden public capital injections were only made into banks that would otherwise have failed.

With the exception of the aforementioned Finnish general capital injection facility at relatively lenient terms, the crisis management policies had a lot in common:

- special authorities were created to manage failing banks and other financial institutions with, for all practical purposes, unlimited authorization to use public funds;
- owners of the failed institutions were made to bear the full burden of the losses (with some minor exceptions); the failed institutions were in fact nationalized (and their boards and top management replaced);

but then authorities entered a steep learning curve

The fiscal cost of the banking crisis was significant, notably in Finland

- management of impaired assets of failed institutions was done in generously funded asset management companies created for that purpose; importantly, these “bad banks” were only established for those financial institutions where the government had already taken full ownership responsibility, thereby eliminating the moral hazard problem;
- the failed institutions were restructured thoroughly. In Finland banking employment was cut by 50 per cent, and after a while a large part of the banking system ended up in foreign ownership. In Sweden a larger part of the banking sector could be restructured and recapitalized by the domestic private sector.

The final fiscal costs of the crisis management were relatively large in Finland, estimated at some 6.5 per cent of GDP. In Sweden the costs were much smaller, the estimates ranging from almost zero to 2–3 per cent of GDP (Englund and Vihriälä, 2009). The difference comes from the losses of the failed institutions which were much higher in Finland. To some extent this may be due to a better handled assets disposal process in Sweden. Probably more important, though, was that the failed Finnish institutions were simply in worse shape reflecting the bigger macroeconomic shock and very aggressive risk taking of some key institutions.

There is no doubt that the relatively successful handling of the banking crisis did contribute to stabilizing the macroeconomic situation, even if it is difficult to establish any credible counterfactual. Credit stock declined substantially and various survey indicators suggested tight credit conditions. However, it is difficult to assess to what extent these difficulties reflected reduced credit supply due to banks’ refinancing and capital problems. The existing evidence suggests that the effects of the combined credit and capital crunch was probably smaller than the squeeze on credit stemming from the weakened creditworthiness of the (potential) borrowers; see Englund and Vihriälä (2009).

## 5.6 LESSONS LEARNT

The crisis in the early 1990s was in both Finland and Sweden a traumatic experience with considerable consequences for thinking on economic policies. While much of the experience was common and many of the emerging views on policy orientations similar, there are also some interesting differences in what lessons were perceived to be the pertinent ones in these neighbouring countries.

As far as *financial crisis management* is concerned, it was already noted above that both countries considered it essential to safeguard the functioning of the banking system, if need be by capital injections by the government and by setting up bad banks. While the strategies adopted by both countries were broadly similar, the Swedish authorities were more straightforward in imposing responsibility on the owners of failed institutions and, in particular, they were more patient in waiting for asset prices to recover before disposing of the assets of failed institutions. These and other actions of financial crisis management are of interest in the context of the present crisis as well, and they are discussed more closely in the next chapter.

With regard to *monetary policy*, the experience was similar but the two countries seem to have drawn different lessons. As the Krona was left to float the Riksbank declared its intention to return to a fixed exchange rate “as soon as possible”, and in the meantime an inflation targeting regime was declared. It soon turned out that the floating regime was much more successful than had been expected (based on the experience from the early 1930s). Inflation was kept reasonably well within the band, and inflationary expectations gradually converged to the target as financial markets, labour market organizations and the general public became convinced that the Riksbank was always prepared to set interest rates so as to reach the target, without undue political considerations. Perhaps more surprising, it turned out that it was easier to keep wage demands under control with a floating than with a fixed exchange rate.<sup>3</sup>

The success of the floating regime with an independent central bank geared to price stability can serve as one of the explanations

The functioning of the banking system must be safeguarded

The free float was seen as successful in Sweden,

while the EMU seemed attractive to authorities in Finland



of Sweden's reluctance to join the euro. By the time of a Swedish referendum on EMU (September 2003) the inflation targeting regime was well established, and the Riksbank was seen as a role model for the clarity of its objectives and the transparency of its monetary policy procedures. At the time Sweden also had lower inflation, lower interest rates, lower unemployment, higher growth and a better fiscal situation than the euro group as a whole. The arguments in favor of joining did not seem overwhelming, and 56 per cent of voters said no.

While many of the early experiences of the floating exchange rate were similar in Finland, the outcome in terms of the political choice of the monetary regime for the future was different. Finland thought that joining the euro area offered a quicker route to credible monetary stability and gave less weight to monetary policy autonomy. Political considerations were important in both countries, notably so in the Finnish decision. In all, both countries learnt that a fixed but adjustable exchange rate is a difficult if at all possible regime, but from this they drew very different conclusions. The pros and cons of the choices are discussed in chapter 8.

For *fiscal policy*, the lesson was learnt in both countries that sound public finances are valuable, not least to make it possible for fiscal policy to support activity during a slump. In Finland the argument was that expenditure cuts may otherwise become necessary to avoid rising risk premia and interest rates, while in Sweden such constraints were not perceived as having reduced to any significant extent the scope for fiscal expansion in the crisis.

In terms of *structural policies*, there is again much common ground for the two countries, notably in the importance attached to improving the conditions for well functioning markets and in the weight given to "supply side" considerations. Action was undertaken to improve innovation policies by substantially higher public R&D expenditure<sup>4</sup>, state companies were privatized, barriers to competition were reduced both internally and externally, a major pension reform was undertaken in Sweden (partly emulated in Finland), taxes on companies and capital income were cut in Finland etc. The increased reliance on competition and openness is pertinent not least against the background of the widely shared perception that the crisis was caused by mismanaged financial

Strong public finances should allow fiscal policy action in a slump

Structural policies play a key role for growth

liberalization. Needless to say, EU membership increased exposure to European competition and made common European regulatory frameworks to bear more heavily on domestic policies.

The common line in the policy actions in the aftermath of the crisis in the early 1990s is a more determined emphasis on stability-oriented macroeconomic policies and structural reforms improving the working of the market mechanism and the supply side.

## 5.7 THIS TIME IS SIMILAR – AND VERY DIFFERENT

Despite their strong performance in the past decade on average, Sweden and Finland have not escaped the current global economic crisis. The GDP decline so far experienced is similar and in fact worse than it was in the beginning of the 1990s crises, as shown in figures 5.1 and 5.2.

Particularly Sweden is now hit much stronger than in the beginning of the 1990s crisis.

The very steep early decline of activity in the current crisis notwithstanding, there are grounds to believe that the slumps will not lead to similar economic catastrophes as in the 1990s. In the earlier crisis, the fundamental cause of problems was a combination of mishandled financial liberalisation and failure of macroeconomic policies. While external shocks certainly played a role, it remains a fact that the Nordic crisis of the early 1990's was predominantly homemade.

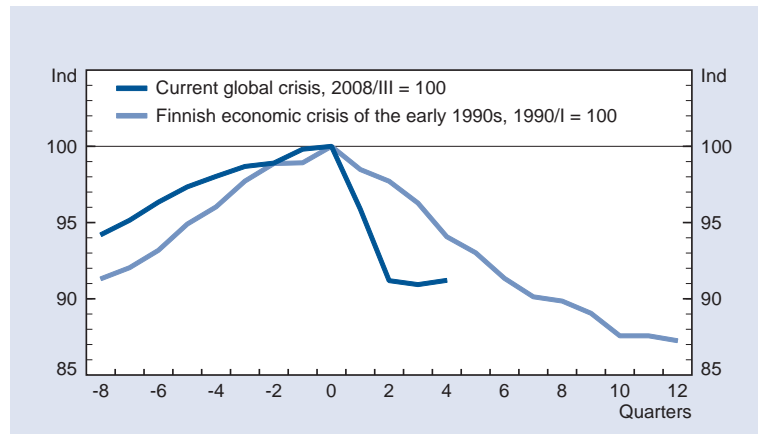
In the current crisis, the difficulties emanate entirely from abroad. In both countries, the financial systems are fundamentally sound.<sup>5</sup> The primary driving force of the recession is the collapse of export demand, particularly of export-oriented economies with above average share of investment and consumer durables in their exports. On top of the export channel, the disturbances in the integrated financial markets have had a direct negative effect on domestic demand as well.

Two other differences between the early 1990s and now are important. First, the corporate and household sectors are much less vulnerable to temporary income losses, as their balance sheets are much stronger. Second, the macroeconomic frameworks and

This time the shock is external, not home-made

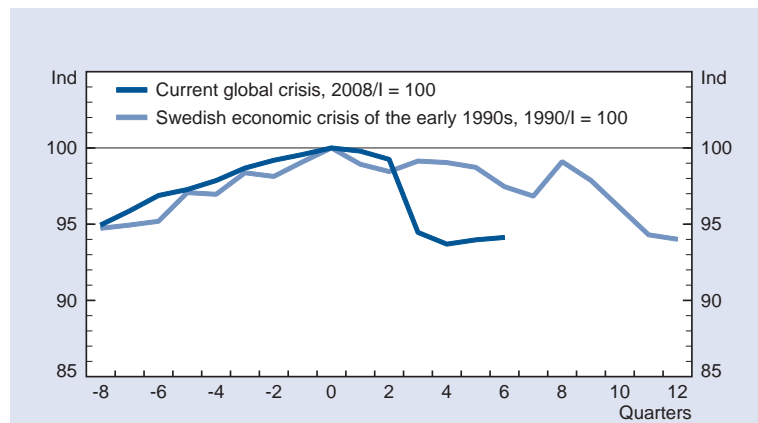
The economy is now more resilient, interest rates are low, and fiscal policy expansionary in both countries

policies do not contribute to the downturn. There have not been any harmful speculative attacks on the currencies, as Sweden has a floating exchange rate regime and Finland is part of the euro



**Figure 5.1**  
Finland: seasonally adjusted quarterly GDP levels in the two crises

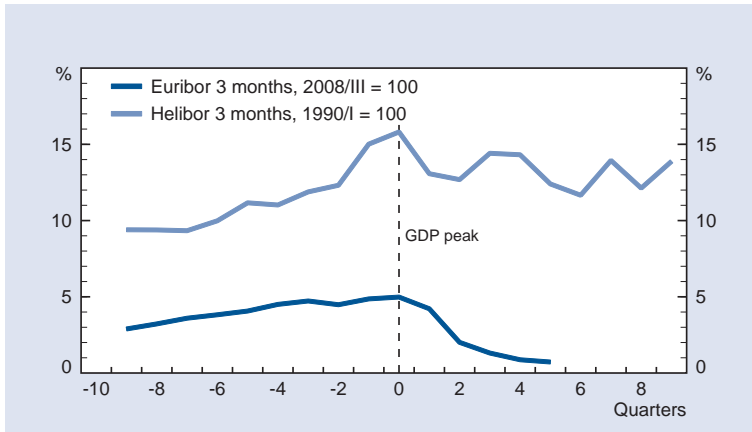
Source: OECD database.



**Figure 5.2**  
Sweden: seasonally adjusted quarterly GDP levels in the two crises

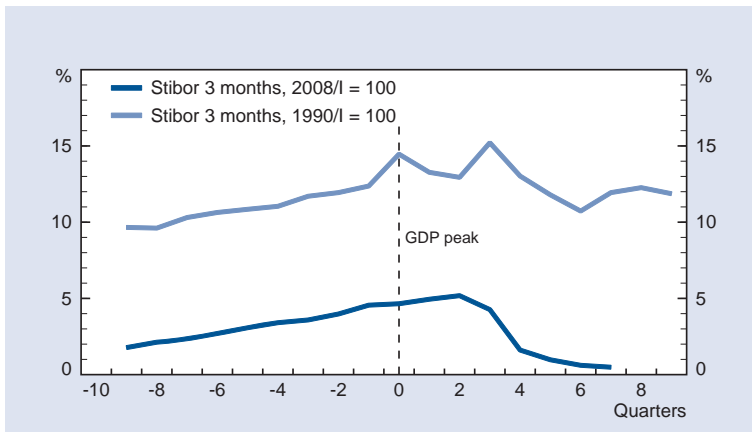
Source: OECD database.

area. Therefore, interest rate levels were much lower as the crisis erupted, and the cuts in the policy rates have resulted in broadly similar reductions in market interest rates (figures 5.3 and 5.4).



**Figure 5.3**  
Finland: short-term interest rates in the two crises

Source: Bank of Finland.



**Figure 5.4**  
Sweden: short-term interest rates in the two crises

Source: Riksbank.

While budget deficits have increased rapidly, public sector indebtedness has remained relatively low and the strong public finances have helped ensure that risk premia on government debt have remained small. Discretionary fiscal policy has been expansionary in both countries, notably so in Finland (see chapter 8).

Assuming that there is no major setback to the global recovery – no double dip – it is highly unlikely that Sweden or Finland would experience a crisis that would threaten the functioning of their domestic financial institutions. In other words, domestic demand will not be held back by domestic financial disturbances and public finances are unlikely to be weakened by a need for bank support expenditure.

But even so, the current crisis, like the one in the early 1990s, will have problematic consequences far into the future. Public finances have deteriorated significantly and consolidation measures will need to be undertaken in future. The deep recession will be associated with high unemployment and structural changes in the economy: some traditionally strong segments will be forced to scale down production permanently, new and more profitable activities need to expand. Flexibility of markets and mobility of factors of production will become key issues in this process. These problems raise difficult questions of policy, to be discussed in ensuing chapters.

## ENDNOTES

- <sup>1</sup> The devaluation was originally intended to be 20 per cent, but the figure was lowered to 16 per cent after a meeting at Arlanda airport between the new policy's architect, incoming Finance Minister Kjell-Olof Feldt, and the finance ministers and central bankers of the other Nordic countries, followed by a telephone conversation between Feldt and Karl-Otto Pöhl, Governor of the Bundesbank. The size of the devaluation nevertheless met with heavy resistance at the IMF and triggered a special consultation under Article IV (Ahlström-Carlson, 2009).
- <sup>2</sup> However, little progress had been made in Finland in modernizing bank supervision. Also, tightening of prudential regulations, most notably capital adequacy requirements were phased in very slowly in Finland. Furthermore, competition for bank deposits continued to be limited by tax legislation giving bank deposits the privilege of being fully tax exempt while at the same time prohibiting interest rates as an instrument of competition for bank deposits.
- <sup>3</sup> The explanation may be the following: With a fixed exchange the first-line victim of excessive wage increases is profitability in the tradables sector. Thereafter comes employment in that sector, which concerns a minority of wage earners. With a floating rate, however, the immediate response to excessive wage increases will be interest rate hikes. This will affect housing costs for all wage earners.
- <sup>4</sup> The increase in public R&D spending in Finland was particularly significant, as it started from a low level and took place at a time when practically all other public expenditure was cut. Much of the additional spending was allocated through Tekes (The Finnish Funding Agency for Technology and Innovation) to the ICT sector.
- <sup>5</sup> Some Swedish banks now have substantial exposures in the Baltics, and may suffer significant losses on their lending there. These losses are nevertheless considered to be too small to threaten the survival of the institutions in question. So far, they have been able to raise additional funding from their owners.

# 6

## SAFEGUARDING FINANCIAL INTER-MEDIATION: NORDIC LESSONS

The current and still unfolding global crisis has involved disturbances in the functioning of the global financial system not experienced since the 1930s. The problems and the fear of their escalation have led to massive government interventions in the workings of the financial system across the developed world. The support commitments of many countries reach over 20 per cent of GDP.<sup>1</sup>

While the problems have been unprecedented in absolute scale, their nature or the ways the governments have tried to address the problems are by no means new.<sup>2</sup> The Nordic financial crises of the early 1990s provide especially interesting precedents. Not only are these crises relatively recent and involve developed countries, but also their depth in terms of lost production and employment and the increase in public debt is similar (particularly in the case of Finland and Sweden). Furthermore, in all Nordic crisis countries, the governments resorted to very drastic crisis management measures, many of which have also been used in one way or another in the current crisis. The financial systems recovered relatively quickly and the macroeconomic performance of the Nordics was very good during the decade and a half following the crises.<sup>3</sup>

In what follows we discuss what we consider the central aspects in safeguarding the functioning of the financial system when problems start to emerge. Our focus is thus on crisis management rather than crisis prevention. The latter will be discussed in chapter

11. Our discussion is based on the Nordic crisis experience, but it does not recapitulate the Nordic policy measures in any detail. These have been described and analysed thoroughly elsewhere, most recently in Jonung et al. (2009).

## 6.1 PROBLEMS MUST BE RECOGNISED BEFORE ACTION CAN BE TAKEN

It is a rule that the likelihood and severity of financial crises is for a long time underestimated by basically all important players: professional forecasters, bankers, supervisors, regulators, governments, the corporate sector, and the public at large. There are many understandable reasons for this. First, financial crises are rare events. It is difficult to infer from past experience what would happen in an environment that has changed in many ways. Financial and economic booms are typically associated with financial innovation and changed market conditions.

Second, even when signs of distress start to appear, there are many mechanisms which impede the recognition of problems. Managers of both financial and non-financial companies tend to be inclined not to disclose information about likely but uncertain losses. Supervisors may lack the capacity to evaluate financial intermediaries' risk positions on a timely basis. Governments usually do not want to admit bad news about the economy.

Third, even when financial problems are evident, their reach, depth and consequences are difficult to assess. A case in point is the current global crisis. Many small countries with well-managed domestic economies and solid financial systems were long considered largely insulated from the subprime crisis that started in the US, as the very factors that previously had contributed to national financial crises were more or less absent. Nevertheless, the crisis has hit many such countries – including Finland and Sweden – hard through collapsing exports.

Fourth, the situation is always dynamic in that the facts change quickly. In particular, when confidence in financial institutions starts to erode, mistrust can shut down liquidity overnight.



The first signs of financial fragility must be taken seriously

A slow recognition of problems not only delays corrective action but in fact exacerbates the problems. Without adequate intervention, financial institutions may continue to operate even if their true net worth has declined to close to zero or even become negative and they may become unable to carry out their intermediation functions. Even worse, as the owners have little to lose owing to limited liability, the intermediaries may engage in a “gamble for resurrection” by taking large risks in the hope of recuperating the losses.

Institutionalising macro prudential analysis important

There is thus a clear case for taking the first indications of financial fragility seriously. A first precondition is that the authorities have access to all relevant information. Even more important is that the authorities have the mandate and capacity to analyse the situation in the financial system in a way that allows the decision makers to make realistic assessments. Assessing the risks of an individual financial institution in isolation is not enough; system-wide interactions are also important.

Policy planning should be based on the worst-case scenario

It is advisable to take the worst case scenario as a basis of policy planning. Erring on the side of too massive measures is unlikely to do much harm, whereas too timid action does. Experience from most if not all crisis is that the very first estimates undershoot the true scale and complexity of the problems by wide margins.<sup>4</sup>

There is no perfect early warning system

While a more systematic analysis can lead to a better understanding of financial fragility, it would be an illusion to think that a perfect early warning system could be set up. Forecasts are only as good as the assumptions on which they are based. For example, when global demand plummeted as a result of the market reactions to the collapse of Lehman Brothers, the macroeconomic and financial market outcomes for export-dependent economies necessarily changed radically from those forecast without a “Lehman shock”.

Economic theory based on assumptions of rational behaviour and economic motives tends to overlook psychological factors, which in some circumstances may have a significant impact on the outcomes. In particular, excessive optimism, even euphoria, and herd behaviour may lead to financial booms far beyond what hard facts would warrant, and the reversal of expectations may in turn exacerbate a slump following such a boom. These psychologi-

cal factors can be described and even their importance in some historical episodes verified ex post, but forecasting their evolution and impact in other circumstances is extremely hazardous if at all possible.<sup>5</sup> A reasonable conclusion is that one should not attach too much certainty to a given projection of economic developments but be ready to change the view as new facts unfold.

## 6.2 MAINTAINING CONFIDENCE IS KEY AND REQUIRES A SOLID FRAMEWORK FOR CRISIS MANAGEMENT

At some point, often after an initial slow increase of financial distress, confidence of some players in the financial systems typically unravels rapidly. In the current crisis the first triggering event took place on 9 August 2007, when a French investment bank BNP Paribas suspended three investment funds that invested in subprime mortgage debt, due to a “complete evaporation of liquidity”. Several similar panic events can be identified during the current crisis, the most noteworthy being the global evaporation of liquidity in the aftermath of the bankruptcy of Lehman Brothers on 15 September 2008.

Maintaining an orderly functioning financial system is basically about maintaining confidence in the capacity and willingness of key market players to meet their contractual commitments. A key problem for the authorities is that restoring confidence, when problems emerge, requires rapid action, while at the same time the first measures can be highly consequential for later steps and the whole outcome.

An important question emerges in any panic situation: is the issue primarily one of liquidity (unavailability of cash or other accepted means of payment) or is the solvency of some important market players under serious doubt (value of assets smaller than the value of liabilities)? The distinction between liquidity and solvency problems is by no means conceptually clear-cut. Liquidity problems are hard to imagine without any doubts about longer-term solvency, while a liquidity squeeze may

Maintaining confidence is the key issue

Decisions have to be taken under extreme time pressure

lead to insolvency if assets have to be disposed of at “fire-sale” prices. Nevertheless, making this broad determination is useful in practical situations.

“Pure” liquidity problems can be counteracted by increasing the *supply of short-term funding by the central banks*. Such liquidity provision, against good collateral and at penalty rates by the “lender of last resort”, has actually been in the central banks’ crisis management manuals since Bagehot’s “Lombard Street” in 1873. The hick-ups in the markets in August 2007 were clearly identified primarily as liquidity problems, as were several other instances of still higher risk premia later on. An unprecedented expansion of liquidity provision to banks and other parts of the financial system has indeed been a key policy response in the current crisis both in the US and in Europe. It is hard to imagine how a complete stoppage of intermediary activity could have been avoided without such liquidity provision.

Challenge: not only liquidity problems, solvency may be in doubt

Solvency problems are in practice a central element of all financial crises. While liquidity provision to clearly solvent institutions and more broadly against good collateral is relatively unproblematic for the central banks, *policy measures that eliminate doubts on intermediary solvency* are a complicated issue. The first question obviously is whether it really is necessary or even useful to prevent the collapse of an institution whose solvency is in doubt. In principle the cost-benefit analysis is simple: is the bankruptcy of an institution likely to create such havoc in the financial system and in the real economy that avoiding it is more important than the costs of bailing it out. The costs come in many forms but can conceptually be divided into direct fiscal costs to the public sector – taxpayers – and to the detrimental effects on financial sector efficiency and future stability.

Rescues may cause inefficiency, as high cost institutions are often having in the biggest problems. In the EU, the state aid rules limit but do not eliminate such negative consequences of support to failing institutions.

The future stability in turn is undermined when authorities reward risk taking, which causes moral hazard. An orthodox view is that governments should abstain from all kinds of rescue operations because of these incentive problems. A long history of bailouts

testifies to the fact that authorities have not shared this view but have instead emphasized the importance of avoiding potential disturbances in financial intermediation. The big institutions in particular have typically been rescued because their bankruptcy is likely to cause the most damage, but this response contributes to the expectation that institutions of some size are “too big to fail”. Until Lehman Brothers this proposition had not really been tested in developed countries for decades. For example, in the Nordic crises of the 1990s, no bank was allowed to go bankrupt. Understandably the cautiousness of the authorities has been increasingly criticised. The catastrophic consequences of the Lehman collapse nevertheless settles the issue for some time to come: there are institutions which are too big or too interconnected to fail.

Preventing a collapse of a financial institution raises a myriad of complicated issues. Therefore it is important that there is a solid framework for crisis management. By framework we mean decision making procedures including an agreement how the relevant authorities collaborate nationally as well as internationally (supervisors, central banks, ministries of finance, special authorities created for crisis resolution), the key principles of support, and the institutions responsible for managing practical support operations.

Central banks are typically constrained in providing solvency support, or such support may be completely prohibited. Therefore, fiscal authorities must play a central role in all financial crises. This underlines the importance of a clear division of labour and of good co-operation between fiscal and monetary authorities.<sup>6</sup> A necessary prerequisite for solvency support is that there is political will to provide such support. More often than not this has been lacking when the first crisis cases have emerged.

An important part of a functioning policy framework is that the authorities have wide powers to intervene in the operations of individual financial institutions at times of general crisis, even if an institution is not under an imminent threat of collapse. Otherwise shaky institutions can start playing risky games for resurrection, potentially increasing substantially the costs to the taxpayers. This form of immediate moral hazard is an equally noteworthy possibility as the long-term distortions of incentives caused by bailouts.

Well-considered decisions require a solid crisis management framework

The framework should be set up in tranquil times,

to ensure that authorities have the power to intervene

Unless the principles to be applied are clear, there is the obvious danger of ad hoc decisions which are not well considered. Decisions are then likely to be biased towards playing it safe, i.e. favouring a bailout at too lenient terms.<sup>7</sup> This bias is particularly likely if legislation or legal practices make the consent of the institution concerned necessary. A hasty and unnecessarily lenient bailout decision easily creates a precedent, after which a well-argued, consistent policy line is difficult if not impossible to restore. A related but somewhat different risk is that of excessive forbearance, i.e. the temptation to allow weak institutions to continue to operate by not enforcing a realistic assessment and valuation of their assets.

When the Nordics were hit by their crises, they did not have well prepared crisis management frameworks. However, institutions and principles of support as well as operating procedures were developed relatively quickly, and particularly the Swedish framework has been considered clear and transparent.

### 6.3 THERE ARE MANY WAYS TO SUPPORT CONFIDENCE

A blanket government guarantee is a straightforward way of restoring confidence in financial institutions,

The most drastic measure to assure market participants about the solvency of financial institutions is a *comprehensive government guarantee*. As far as retail deposits are concerned this has been implemented in all developed countries, partially through deposit insurance which ultimately relies on government backing. This is, however, clearly insufficient in most cases, as deposit guarantee covers only a part of bank debt. An effective guarantee must cover all commitments.

Sweden introduced a blanket government guarantee in November 1992 in the form of a parliamentary resolution. Although it was not a legally binding guarantee, it worked very well to restore confidence in the banking system and safeguard bank refinancing. The Swedish move triggered a similar decision in Finland a few months later.

During the current crisis Ireland has given the most comprehensive government guarantee. It covers all deposits including

those from other banks, covered bonds, senior debt and dated subordinated debt of the 6 biggest banks. The guarantee is legally binding and it has an end date (28 Sept. 2010). Other countries as well have given guarantees to a wide set of creditors at least for some institutions. In a sense, one may even argue that the declaration of the G7 countries on 10 October 2008 amounted to a blanket guarantee. The participants promised to “...use all available means to support systemically important institutions and prevent their failure” in effect, preventing the failure means protecting fully the creditors.

The obvious problem of a blanket guarantee is that it creates potential for extreme moral hazard by “socialising” all bank risk. As the counterparties do not then need to worry about the capacity of the institutions to honour their commitments, the scope for financing many kinds of risk taking increases substantially. At the same time, a harsh pricing of the guarantee is excluded because of the precarious financial situation of the banks. It is for this reason extremely important to limit banks’ risk taking by regulation and by creating incentives that counteract the willingness to take risk.

Another problem of a broad bank guarantee is that it renders substantial competitive advantage to the institutions covered. This factor played a role when Finland had to follow Sweden in 1992/93. The prospect of a forced chain reaction was also evident when Ireland introduced its guarantee in 2008. In recent years, market integration, notably within the EU, has gone further making the distortions to competition more serious than before. Therefore, in the EU, decisions on bank guarantees should not be taken without close consultation with other Member States.

A more modest way of improving confidence in the capacity of financial institutions to honour their commitments are *guarantees for given sets of liabilities* deemed crucial for the functioning of the institutions. In the current crisis, most EU countries have introduced such guarantee schemes for new medium-term market funding (as opposed to the stock outstanding).

The solvency problem is fundamentally a problem of too little capital on the balance sheet. Therefore, capital must be increased relative to the balance sheet at some point. As long as the capital

but it is problematic in creating incentives for risk taking,

and a blanket guarantee in one country can have domino effects

Shortage of capital is at the essence of the problem, capital injections one way or another are a must in a financial crisis

is still positive, reducing the balance sheet obviously helps. In an economic downturn, however, this sort of “credit crunch” is precisely what one wants to avoid. This leaves *capital injection* in one way or another into the intermediaries as the only real option to deal with the solvency problem.

From the taxpayers’ point of view, the best way of doing this is capital injection by private investors. However, the current owners may not be able or willing to provide such capital, and other private investors are likely to be even more hesitant to invest money, given high uncertainty about the asset quality and thus the true net worth of the financial institutions.

Creating incentives for raising private capital is an option,

Government can encourage the raising of private capital in at least two ways. One option is for the supervisory authorities to be as open as possible about the condition of the financial institutions, based on a thorough and realistic assessment of the institutions health in the form of the aforementioned “stress tests”. Such information reduces uncertainty about the value of the institution, thereby making investment decisions easier. Even more important is that the authorities make it very clear that the current owners will not be bailed out in the case of failure. That will create the right incentives for the owners to increase their risk taking and/or dilute their ownership as needed. The Swedish policy in 1992–1993 is an example of successful implementation of such an approach.

but private capital may not be available

However, in spite of such encouragement, private capital may not be forthcoming. Often the only realistic source of capital is the public sector, even when there is no imminent threat of failure. In the decision to invest capital into an individual institution the authorities face a host of problems of bailout policy: to which institutions, how much, in what type of instrument, what is to be done to existing equity, should the management be replaced and by whom, what objectives should be set for lending policy and restructuring? The principles applied in the recapitalisation programmes determine largely the success of crisis management.

Owner responsibility is a key principle of cost minimization,

Clearly, *owner responsibility* should be a key principle in minimising the immediate fiscal costs and avoiding distorted incentives. A decision not to allow an institution to go bankrupt should be accompanied by conditions that simulate to the largest extent pos-

sible the effects of a bankruptcy on the stake holders who influence the behaviour of the institution.

Owner responsibility implies that the expected losses should fully reduce the institution's capital before government capital is injected. Whenever most of the existing equity capital would be needed to cover losses realistically expected, a takeover and nationalisation by the government is the only sensible way to go. This is what in fact was done in Sweden and Finland with the worst cases. In Norway the principle of owner responsibility was taken furthest, when basically all troubled institutions were nationalised.

Similarly, to limit moral hazard, it is crucial to make the key decision makers of the troubled institutions bear responsibility. This can be considered particularly important when management has a very autonomous position due to a dispersed or even ill-defined ownership structure, as is often the case in various types of mutual institutions. In the Nordic crises, both the boards and managements were, as a rule, changed in the case of government take-over.

However, and as noted above, not all institutions are at the brink of collapse even in a deep financial crisis, at least not according to formal rules – and assuming no further major weakening of the circumstances. Nationalisation may not be the best option (if an option at all) in such situations. Taking over a financial institution can lead to significant disruption of its activities during the process with detrimental macroeconomic consequences. Also, management and reorganisation of a financial firm requires skills, which may not be readily available in a small country, particularly if many institutions have to be handled simultaneously. Thus, assuming that the troubles of the institutions are not too serious, marginal support to keep them operational with a deep government involvement may be appropriate. There is a case for what can be called *precautionary capital injection*.

The Finnish capital injection facility in 1992 is perhaps the clearest example of such a broad precautionary capital support approach. The facility offered capital to all fundamentally sound deposit banks (bank must meet the regulatory capital requirement) against a “preferred capital certificate”, a subordinated debt type of instrument. The instrument carried a relatively low coupon

best ensured by a straight government take-over of troubled institutions

Precautionary capital injections may be appropriate, with carefully considered conditions



rate, which nevertheless was increasing over time so as to create an incentive to replace the investment by other capital over time. The facility was available to all institutions meeting the soundness criteria according to bank size at equal terms to minimise competitive distortions. The total size of the offer was FIM 8 billion or 1.6 per cent of GDP, and in the end almost all the banks utilised the facility. The facility can be considered a success. It helped banks to continue normal operations while the cost to the public sector was small (0.2 per cent of GDP of the total final cost of some 6 per cent of GDP).

Precautionary capital injections have in the current crisis been used both in Europe and the U.S. The capital injection facilities decided upon by the European leaders on 12 October 2008 provide capital support to solvent banks typically against a preferred share or subordinated debt type of instrument, although the national applications vary substantially. In the U.S. the authorities injected USD 125 billion into 9 major American banks almost simultaneously, on 13 October 2008. Here too preferred share types of instruments were used.

However, it is unlikely that any precautionary facility can ever be big enough to make sure that all financial institutions have sufficient capital to avert serious distress and eventual failure. Therefore, at some point keeping all institutions deemed systemically too important to be allowed to go bankrupt requires *distress capital support* for the about-to-fail institutions. Such selective capital support in fact has been a central element of all major financial crises. Even in Finland, where the precautionary capital injection facility played an important role, the capital injections into the true problem institutions accounted for almost 90 per cent of the paid-out gross bank support. Similarly, in the current crisis for example in the UK most of the capital support given to the banks can be classified as distress support.

Given the many difficulties associated with out-right government capital injections, relieving financial institutions from the responsibility for impaired or “toxic” assets is often considered an attractive option. Such relief can take place through *government guarantee of impaired assets* or a transfer of such assets out of the institutions’ balance sheet into a separate *bad bank*”, without trans-

A precautionary facility will not be enough in a severe crisis

A transfer of assets into “bad banks” is fraught with difficulties of valuation of assets,

ferring the bank's own funds in amounts which would threaten the solvency of the remaining "good bank". Both methods have been used in the current crisis in a number of countries. Asset guarantees are in use for example in the US (the Troubled Asset Relief Program or TARP) and the UK. The obvious problem of such guarantees is, as with blanket liability guarantees, is that it is usually impossible to charge a fair price for the guarantee as the institution would not be able to afford it. Therefore such guarantees run a risk of substantial wealth transfer from taxpayers to bank owners.

Previously bad banks have been used for example in the American savings and loan crisis in the 1980s (Resolution Trust Corporation, RTC) and in the Swedish and Finnish crises of the early 1990s. Especially the Swedish bad bank constructs Securum and Retriva have been considered good ways of handling the troubled assets. One should, however, be careful when talking about the advantages of bad banks as a way to improve confidence in the financial institutions. The obvious merit is that the management of the troubled assets is separated from the normal banking business so that the former does not disturb the latter.

However, an issue of crucial importance is who shoulders the loss associated with the troubled assets. This depends on the value at which the troubled assets are transferred to the bad bank, and on who takes the financial responsibility for these assets. By definition, there is reason to suspect that the true value of the troubled assets is far below the book value. A transfer of the assets at or close to the book values is therefore likely to involve a transfer of wealth to the owners of the (remaining) good bank from those financing the bad bank. As long as the good bank and bad bank are in the same hands, this is of no consequence. However, usually the idea is to have the government take the sole or at least significant responsibility for the bad bank, just as in direct asset guarantee schemes. In such a case, the transfer price determines whether and to what extent the asset transfer leads to a transfer of wealth from the taxpayers to the bank owners. On the other hand, finding fair prices for the troubled assets – even for normally marketable securities – can be extremely difficult in times of financial distress, when uncertainty is high and liquidity scarce.

but bad banks can still be a useful way of managing impaired assets

Explaining the justification for measures undertaken to the public is necessary

Because of these considerations, bad bank constructs involving the government were in the Nordic banking crisis applied only to banks which had already ended up in full or almost full government ownership. Asset transfer was thus used purely for practical reasons to separate normal banking business from the management of troubled assets, not as a substitute for or a way of bank recapitalisation by stealth.<sup>8</sup> It is obvious that the bad bank arrangements financed from the TARP funds suffer from the wealth transfer risk, see for example Kotlikoff and Sachs (FT 6/4/2009).

Summing up, in our view the experience speaks for capital injections using equity or carefully designed hybrid instruments rather than for various impaired asset schemes as a way to improve the solvency of financial institutions.<sup>9</sup>

Many crisis management measures, and in particular those which involve providing solvency support to financial institutions, are not popular. “Saving the bankers or Wall Street” is unavoidably considered unfair when many borrowers are forced to bankruptcy, unemployment is rising fast and maybe also public services and social benefits are cut. Such public resentment can easily lead to action being delayed or to measures which do not really solve the problems. To arrive at good and timely decisions it is therefore useful if all unnecessary sources of resentment can be avoided, for example by setting temporary pay restrictions as conditions for support. On the other hand, the decision makers must spend time and effort to make the point that prevention of the collapse of the financial system is for the benefit of the society at large. It should not be considered a distraction but an essential part of successful crisis management.

## 6.4 ASSET DISPOSAL STRATEGY AND RATIONALISATION DESERVE SUBSTANTIAL ATTENTION

Whatever precise measures are taken in the phase of immediate crisis containment, the government usually ends up owning substantial financial assets. The *management and disposal strategy of government held assets* is crucial for the final fiscal cost outcome.

Two things appear particularly important. First, the management must be in competent hands with a clearly stated objective of value maximisation and appropriate incentive mechanisms in place. A further requirement is that the management should be clearly separate from the earlier management of the troubled institutions to ensure that all dubious deals come to daylight and public trust in the resolution process can be maintained.<sup>10</sup> Given that financial crises as a rule require decisions which by many are considered unfair, it is of great importance that public support for the necessary actions is not jeopardised by a perception of foul play.

Secondly, the government should have enough patience in asset disposal. The large amounts of funds tied up, in combination with substantial public sector deficits, create political pressures to sell the assets as soon as possible, but these pressures should be resisted. Asset prices tend to remain depressed relative to the prior-to-the-crisis period for quite some time following the burst of the bubble. This is likely to be particularly true for peripheral small countries, as foreign investors often withdraw from such markets in times of crisis and it may take considerable time before they return.

The final cost of the public intervention can be greatly affected by the timing of asset sales. For example, some calculations suggest that the estimated final cost of about 6 per cent of GDP could have been fully avoided if the Finnish authorities postponed by a few years the sale of the bank and Nokia shares they ended up owning as a result of the rescue operations.

When the authorities prevent the bankruptcy of a financial institution, they should not prevent the *restructuring of intermediary activity* that would have happened without such intervention. More often than not financial crises happen in situations in which there is overcapacity and substantial inefficiency in the financial system. In fact such overcapacity and weak underlying profitability may have been one of the factors having led to excessive risk taking.<sup>11</sup> Even when bankruptcy is ruled out as too costly to the economy, the authorities should therefore take care that excess capacity is slashed in the restructuring process. There is indeed evidence that strong consolidation and increased efficiency can materialize even if the authorities do not allow bankruptcies. The measures taken

Cost minimization requires avoidance of hasty asset disposal

When preventing bankruptcy of financial institutions, authorities should set stringent objectives for restructuring

in Finland in the aftermath of the banking crisis resulted in cutting the sector's employment by half.

A typical consequence of the restructuring triggered by a crisis is that the number of institutions decreases and their average size increases. This tends to reduce competition and make it even more likely than before that the typical institution is “too big to fail”. Therefore, an important aspect of restructuring should be the maintenance of as much competition as possible. This should be a factor in decisions on, for instance, to whom banks seized or their assets should be sold. In small countries, foreign buyers are often an attractive option from this point of view. However, it is also important to pay attention to domestic competition.<sup>12</sup>

## 6.5 SAVING THE INTERMEDIARIES IS NOT ENOUGH

In a financial crisis, the disruption of the intermediary process has a negative impact on the availability and cost of financing to non-financial enterprises and households. There is ample evidence of such financing difficulties both in the current global crisis and in the Nordic crises. Even though results of in-depth research on the current crises are not yet available, surveys of lending conditions support the view that obtaining financing has become much more difficult for non-financial companies (ECB 2009). In part this probably stems from the reduced supply of credit by the intermediaries. However, also the creditworthiness of the potential borrowers tends to decrease as a consequence of the recession, increased uncertainty and lower asset values.<sup>13</sup>

Direct measures to help meet financing needs of the non-financial sector may be useful,

This raises the question whether it is enough to support the functioning of financial intermediaries or if the government should also try to help borrowers directly in one way or another. There are two reasons why direct action should be considered. First, even though the various measures to support financial intermediaries work, they are unlikely to do so quickly. Second, to the extent that the problem lies with the customers' creditworthiness, even normally functioning intermediaries would not supply credit at nor-

mal terms. Yet avoiding some of the bankruptcies of the weakened borrowers could be useful to limit both the negative short-term effects on production and employment and unwarranted elimination of production capacity.

Nevertheless, a key limiting factor is that lending to small and medium-sized companies and often also to households requires a lot of information about the customers to limit credit risks. It is precisely because of this information intensity that the intermediaries play such an important role in the channelling of funds. Governments cannot at short notice create the expertise and information base needed for such lending.

Direct government action vis-à-vis borrowers could therefore best be done by widening the operations of the government agencies which already carry out intermediary functions and have the necessary capacities. Involving private lenders in the government schemes can also reduce the likelihood of financing companies which lack reasonable long-term prospects. There are good examples of such arrangements in the Nordic countries.

In Finland, the special credit agency Finnvera provides both export credits and guarantees and also credit to SMEs. During the current crisis Finnvera's operations have been expanded substantially. Export credit and guarantee authorisation have been raised and SME loan programmes have been expanded. In the latter field, a completely new type of product has been created to accommodate cases of increased risk in a risk-sharing arrangement with private lenders. Rapid increases of both export and SME credit operations experienced in the spring and summer of 2009 suggest that the expanded facilities filled a genuine gap. Towards the end of 2009 the applications for Finnvera guarantees and loans diminished, which is a sign of normalisation of credit conditions.

but should rely on existing government schemes or agencies rather than set up new ones

## ENDNOTES

- <sup>1</sup> For support commitments, see BIS (2009a) and EU Commission (2009).
- <sup>2</sup> Kindleberger (1982) is a classic historical analysis of financial crises. Reinhart and Rogoff (2009) provide a recent account of financial crises based on an extensive statistical data set.
- <sup>3</sup> Andersen et al. (2008) analyse the reasons for the good competitiveness of the Nordics in general while Honkapohja et al. (2009) discuss the growth performance of Finland since the 1990s crisis in particular.
- <sup>4</sup> When a high level task force made in January 1992 a first assessment of the likely losses of the Finnish deposit banks in 1992, the representatives of the deposit banks themselves came up with a ballpark figure of FIM 2 billion and considered the civil servants' projection of FIM 10 billion completely unrealistic. However, the true number was around 20 billion, and the cumulative losses during the crisis years amounted to over 60 billion. Wessel (2009) documents similar drastic revisions in the current US crisis.
- <sup>5</sup> The classic analysis of financial crises by Kindleberger and Aliber (2005) essentially explains the recurrent even if rare occurrence of the crises by psychological moods and herd behaviour. Akerlof and Shiller (2009) discuss the role "animal spirits" in a wider context, also in the most recent global crisis.
- <sup>6</sup> In practical situations central banks may be forced to provide also solvency support, particularly when there is not enough time to obtain the necessary authorization of spending taxpayers' money on rescue operations. In Finland, for example, the Bank of Finland had to bear a significant part of the costs of bailing out Skopbank. In the current crisis in the U.S., the Fed has engaged in support actions which can result in significant losses.
- <sup>7</sup> When an institution faces liquidity problems there is typically strong pressure on the authorities to "guarantee" that the institution will be able to service its debts. A blanket guarantee implies immediate responsibility for the solvency. On the other hand, if a given institution is given a guarantee, the immediate question is who else is or is not covered, which easily leads to an expansion of government guarantees. The events following the liquidity problems of the British bank Northern Rock illustrate this point very well.
- <sup>8</sup> It is perhaps of some interest that in Finland the passing of the required legislation was delayed in the political process by more than half a year because the original draft legislation did not explicitly rule out pricing which might have involved wealth transfer from the government to the bank owners.
- <sup>9</sup> See Philippon and Schnabl (2009) for a theoretical analysis of why, under asymmetric information (banks know better the quality of their assets than do the authorities), buying equity is a better option than purchasing existing assets or providing debt guarantees.
- <sup>10</sup> The failure of financial institutions may easily involve foul play by the managers, for example lending against deliberately overvalued collateral to personal friends or purchasing assets at excessive prices. Managing the troubled assets could then allow covering up some such things.
- <sup>11</sup> This argument has been made e.g. in the case of the US Savings and Loan crisis. There is strong evidence of such a risky "growing out of profitability problems" approach by the savings bank group in the Finnish crisis (Vihriälä 1997).
- <sup>12</sup> In the Finnish banking crisis, minimizing competitive distortions was one reason why a major failed bank in government ownership – the Savings Bank of Finland – was split between four domestic buyers in a rather complicated disposal arrangement.
- <sup>13</sup> In a theoretical analysis of disintermediation, Holmström and Tirole (1997) coin the term "collateral squeeze" to denote the effect of weak borrower balance sheets and contrast it with the effect of weak intermediary balance sheets, which give rise to a "credit crunch".





# 7

## FROM BOOM TO BUST: THE ICELAND STORY

The Iceland story is not representative of the Nordics, but it offers lessons that have relevance far beyond Iceland's shores

This chapter tells an Icelandic saga, albeit not one of the classic kind with more embellished heroes than villains. The story of recent events in Iceland is dramatic and stark, and it is not representative of developments in the rest of the Nordic region. However, the gross failures of policy, regulation, and governance as well as of politics in a broad sense in Iceland do point to a number of lessons that have relevance far beyond Iceland's shores. It will take years to establish what went wrong. The parliament's investigative committee is scheduled to publish its 1500-page report at the end of January 2010. Its findings were not known when this book went to print. Other reports on the Iceland story will no doubt follow.

The current financial crisis commenced in the United States in mid-2007, and reached its peak in September 2008, following the collapse of Lehman Brothers, the largest bankruptcy filing in U.S. history. The venerable financial firm, established in 1850 by a couple of Bavarian immigrants to Alabama, had fallen victim to excessive exposure to bundled mortgage securities, including subprime loans, dodgy assets that flooded the financial system of the United States and some European countries without attracting the timely attention of the Securities and Exchange Commission or other regulatory agencies. Warnings were issued, true, even within the highest echelons of the Federal Reserve, but to no avail.<sup>1</sup>

Confidence then crumbled as bankers began to grasp that they did not really know where all those noxious assets lay buried. Credit dried up when banks proved unwilling to lend to one another. The global financial system began to stall. Some feared the outbreak of another Great Depression. Those fears have since subsided, thanks in part to the concerted monetary and fiscal action taken by several governments inspired by the lessons from the 1930s reviewed in chapter 4.

## 7.1 FIRST TO FREEZE

The first country to freeze was Iceland, whose three main banks, all private, accounting for 85 per cent of Iceland's commercial bank assets, crashed within a week in early October 2008. At first, the banks, echoed by the government that had all along stood behind them (or rather beside them), blamed the fall of Lehman Brothers for their own demise, implying that had Lehman Brothers endured, they, too, could have survived the turmoil. This was a false excuse. The Icelandic banks had serious problems of their own making, problems with deep roots in Iceland's economic and political past. True, the collapse of confidence in world financial markets generated the spark that ignited the flames which quickly engulfed Iceland, but the house would have caught fire anyway though perhaps a little later.

The Icelandic banks had serious problems of their own making, problems with deep roots in the past

To understand Iceland and its broken banks, it is necessary to understand their history. In 1904, when Iceland was granted home rule by Denmark after more than 600 years under first Norwegian and then Danish rule, Iceland's per capita GDP was about half that of Denmark. The purchasing power of Iceland's per capita GDP in 1904 was similar to that of today's Ghana. Iceland was Ghana, with a difference: most of Iceland's impoverished population had been literate since 1800. Icelanders were thus well prepared for the modern age.

During the 20th century, Iceland's per capita GDP grew by 2.6 per cent per year on average compared with Denmark's 2.0 per cent (recall figures 4.7 and 4.9). This per capita growth dif-

In the 20th century, Iceland managed to catch up with Denmark and join Norway in the top position on the UN Human Development Index in 2006

Iceland entered the EEA in 1994, but, like Norway, did not follow Finland and Sweden into the EU in 1995

In mid-2009, after the crash, Iceland applied for EU membership

ferential of 0.6 per cent per year may seem modest, but over the course of a hundred years it enabled Iceland not only to catch up with Denmark but even to join Norway in the top position on the United Nations Human Development Index in 2006.<sup>2</sup> Mainly through hard work and improved education, Iceland had catapulted itself into an egalitarian and prosperous welfare state that felt at home in the Nordic family. For various reasons, including divisive squabbling and electoral laws that favoured rural areas over Reykjavík, Social Democrats had a relatively minor direct influence on Iceland's political development, but this did not seem to set Iceland apart from the Nordic countries. The distribution of income in Iceland was until the mid-1990s about as equal as in Scandinavia and Finland according to official estimates of the Gini index of income inequality.

In foreign relations, Iceland went along with its Nordic neighbours. With Denmark and Norway, Iceland became a founding member of NATO in 1949. Ten years after the others, Iceland joined the European Free Trade Association (EFTA) in 1970. With Finland, Norway, and Sweden (as well as Austria), Iceland entered the European Economic Area (EEA) in 1994, but, like Norway, did not follow Finland and Sweden into the EU in 1995. (Denmark had joined already in 1973.) Norway decided against EU membership in 1994 in a referendum, a replay of 1972. No referendum was held in Iceland, however, where the parliament, with highly disproportional representation from rural areas, was strongly against EU membership while unbiased, i.e., one-man-one-vote, opinion polls consistently suggested a popular majority in favour of membership.

In mid-2009, some months after the crash, the Icelandic parliament moved to apply for EU membership, the first time that parliament was able to muster such a majority reflecting long-standing public sentiment. However, since then, public sentiment seems to have turned against EU membership for reasons related to the insistence of the United Kingdom and the Netherlands that Iceland's taxpayers compensate them for about a half of the amount that they unilaterally decided to pay in compensation to depositors in British and Dutch branches of one of Iceland's broken banks, allegedly in accordance with European directives.

In domestic affairs, Iceland charted a course that was quite different from the Nordic norm. The main reason for this divergence appears to be the overrepresentation of rural areas in parliament that still imparts a provincial, protectionist bias to economic policy and to the structure and functioning of the economy. Throughout most of the 20th century, the number of votes needed to elect a member of parliament for the Reykjavík area was two, three, and up to four times as large as the number of votes needed in the rural electoral districts, in effect giving each farmer the ability to cast the equivalent of two to four votes in parliamentary elections. Until 2003, the provinces kept their majority in parliament even if nearly two thirds of the people now live in Reykjavík. The deliberate bias built into the electoral law resulted in a neglect of education in the provinces to slow down the migration to Reykjavík as well as a slow and lopsided transition from a rigid, quasi-planned economy toward a more flexible, mixed market economy, and in a similarly reluctant and slow depolitization of economic life, including the banks that were privatized only in 1998–2003, several years after the privatization of commercial banks in East and Central Europe and the Baltic countries.

From 1930 onward, the two largest political parties, the Independence Party and the Centre Party, could count on calling the shots with the support of about 60 to 70 per cent of the electorate between them in much the same way as the Liberal Democratic Party was able to rule Japan 1955–2009 except for eleven months. Every majority government in Iceland included one or both of those parties, with two small parties (Social Democrats and Socialists) sometimes included as junior partners. During 1930–1960, Iceland's economy was tightly regulated in favour of producers – farmers, boat owners, businessmen, wholesalers, merchants – more so than elsewhere in the Nordic countries at the time. Government interference and planning were the norm. Free enterprise and markets were viewed with scepticism if not hostility. Producers occupied the driver's seat, consumers sat at the back. The state owned the largest commercial banks and used them to allocate scarce funds and subsidized or undervalued foreign exchange to favoured industries and firms. With high inflation, well above interest rates, and an overvalued currency, bankers exercised significant power. The

The long-standing overrepresentation of rural areas in parliament imparts a protectionist bias to economic policy

Throughout the 20th century, government interference and planning were the norm and the state owned the largest commercial banks

The all-encompassing role of the political class was conducive to corruption

main political parties built themselves up as the arbiters of ordinary people's daily lives. The smaller parties went along. Apart from the black market, there was no way to get a loan to build a fence or buy a car or to obtain foreign exchange to go abroad except by going through the party functionaries in charge of rationing. This was, it should be added, rationing with a human face. Even so, the all-encompassing role of the political class was inevitably conducive to corruption, but this fact was never officially acknowledged, a state of official denial about the past that still prevails. Pervasive rationing always produces this outcome. Ask any East European.

Losses were passed on to a captive public

**Box 7.1**  
**"Socialism of the devil"**

The stories were legend. Party cronies usurped the agency for major foreign firms such as Coca-Cola and General Motors by convincing their American partners that other agents lacking the requisite qualifications – that is, political connections – would not be able to get hold of the dollars necessary to fulfill their obligations to their suppliers. Why not? – asked the baffled Americans. Because we allocate the foreign exchange permits, was the answer. This was during the Second World War and set the tone for the tight embrace between business and politics in Iceland for decades to come. It was also widely rumoured that the state banks were used to settle selected claims at the old exchange rate shortly before frequent devaluations of the króna, but none of these cases were ever pursued, not in the media and surely not in the courts.

Political leaders sat side by side on bank boards, looking after essentially bankrupt business interests, if business is the right word, and divvying up the spoils. Profits were channelled to favoured clients through low-interest loans which high inflation made it unnecessary to pay back in full. Losses were passed on to a captive public with no means of protecting their savings from inflation other than spending their income as fast as they could, on housing and other durables and such. Domestic saving dried up, necessitating external borrowing on a large scale because, for nationalistic reasons, foreign direct investment was kept at bay (and banned by law from the fishing industry, a ban still in force). This convenient bargain – privatizing the gains and nationalizing the losses – was referred to by critics as the "Socialism of the Devil".

The political opposition had representatives on the bank boards, and consequently had no interest in exposing the goings on. The papers were mostly party organs and stayed in line, as did the police and the courts. Several bank scandals, described in private letters now in the public arena as well as in published articles, were hushed up. The point of this unflattering review is that Iceland's glaring and long-standing lack of a culture of accountability and of checks and balances paved the way to the crash of 2008.

How, then, did Iceland manage to grow? The short answer is that

- Iceland’s political failings should not necessarily have been expected to stifle economic growth, even if growth might have been more rapid without those failings;
- Iceland did many things right, including the mechanization of the fishing fleet which was an important engine of economic growth. The gradual extension of the fisheries jurisdiction from three miles in 1901 to 200 miles in 1976 and the harnessing of the country’s hydroelectric and geothermal energy potential from the 1960s onward were also conducive to growth;
- We need to distinguish between stocks and flows. Iceland maintained a rapid flow of income per person by, among other things, running down fish stocks and accumulating foreign debts.

Even so, Iceland did many things right, mechanized the fishing fleet, and harnessed its hydroelectric and geothermal energy potential

## 7.2 LOPSIDED LIBERALIZATION

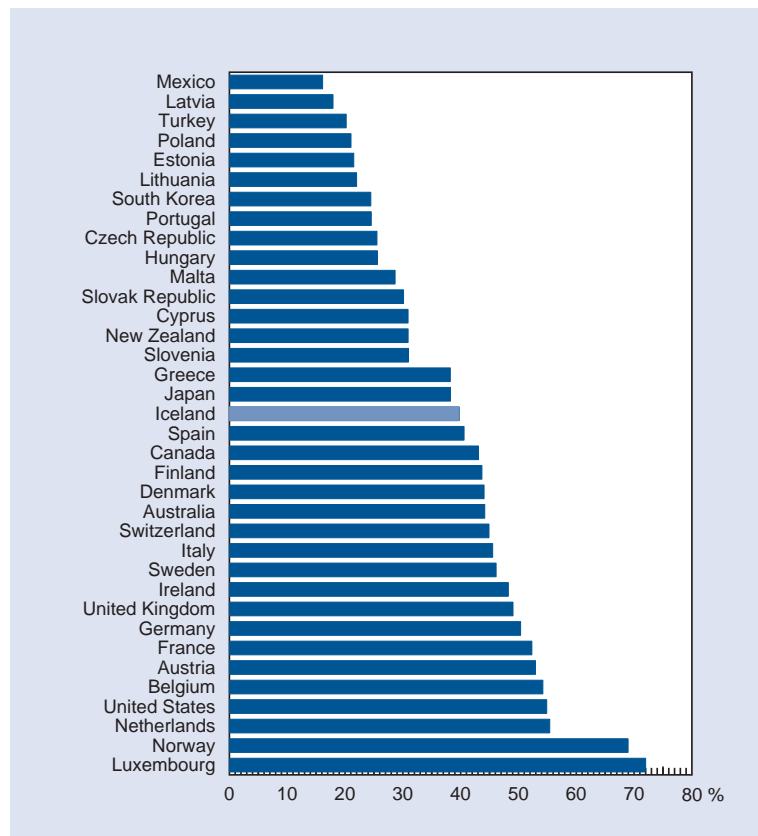
Two waves of major liberalization of the policy regime swept the country, but neither went very far. The first wave, in the early 1960s, helped modernize Iceland by devaluing the króna and by drastically reducing subsidies to the fishing industry – subsidies that had absorbed more than 40 per cent of government expenditure (this is not a misprint). Even so, the liberalization was incomplete. For one thing, it left the banks in the hands of the state. Also, it left in place the tight embrace of producers and the government.

In the late 1980s, a second wave of liberalization included deregulation of interest rates as well as indexation of financial obligations to prices. The result was to bring interest rates above inflation for the first time and reduce the scope for rationing of bank loans. Thereafter, the selective forgiveness of nonperforming loans took the place of credit rationing as a means of political and economic influence. The second wave also involved deregulation of foreign capital flows upon Iceland’s entry into the EEA in 1994, insuring free flow within the area of most goods, services, people,

Not until 1998-2003 were two of the largest state banks privatized

and capital (the four freedoms). A major component of the second wave of reforms was the privatization of commercial banks and investment funds during 1998–2003 when two of the largest state banks were sold. As originally envisaged, these reforms were necessary and long overdue. Before describing the privatization of the banks and its aftermath, however, a bit more background is required.

For starters, Iceland’s position at the top of the Human Development Index in 2006 beside Norway is misleading as far the



**Figure 7.1**  
**GDP per hour worked 2008 (USD at purchasing power parity)**

Sources: The Conference Board, Groningen Growth and Development Centre, Total Economy Database, January 2009, [www.conference-board.org/economics](http://www.conference-board.org/economics).

income part of the index is concerned. GDP per hour worked is a better measure than GDP per person because the former takes into account the work needed to produce the output. Figure 7.1 shows GDP per hour worked in 36 countries in 2008 based on the University of Groningen database that includes internationally comparable estimates of hours of work.<sup>3</sup> The figure shows that, in 2008, the purchasing power of income per hour worked in Iceland was USD 40 compared with USD 44 to USD 46 in Denmark, Finland, and Sweden, USD 55 in the United States, and USD 69 in oil-rich Norway. The Icelandic figure reflects the inefficiency (e.g., from excessive farm protection with food prices to match and lack of competition in some other areas as well, including banking) that continues to plague Iceland where it still takes long hours of work – like in Japan and the United States – to sustain a high level of GDP per person. High prices and high inflation reduce the purchasing power of households and compel wage earners to work long hours, and to borrow, to make ends meet.

In 2008, the purchasing power of GDP per hour worked in Iceland was \$40 compared with \$44 to \$46 in Denmark, Finland, and Sweden and \$69 in Norway

There are further reasons for the relatively low labour productivity in Iceland. First, there has been too little investment in machinery and equipment. For years, high inflation eroded the quality of capital. After 1995, investment in construction doubled relative to GDP, crowding out more productive investment in machinery and equipment.<sup>4</sup> In second place, despite great strides on the education front in recent years, the share of the Icelandic labour force (25–64 year olds) with no more than primary education is still twice that of Denmark, or 37 per cent in Iceland compared with 19 per cent in Denmark, 21 per cent in Finland, 23 per cent in Norway, and 16 per cent in Sweden.<sup>5</sup> The long hours of work also seem likely to lower productivity and living standards. Tired hands make mistakes. Third, the LSP agenda – liberalization, stabilization, privatization – of recent years was carried out in ways that allowed the banks and their debts to grow far out of proportion to the country's capacity to cope, with the Central Bank neglecting to raise reserve requirements as needed instead of reducing them to accommodate the banks and neglecting also to build up adequate foreign exchange reserves.<sup>6</sup> This left the Central Bank unable to guarantee the stability of the financial system, let alone stable prices, as required by law. In fact, the Central Bank faced



High inflation hurt productivity

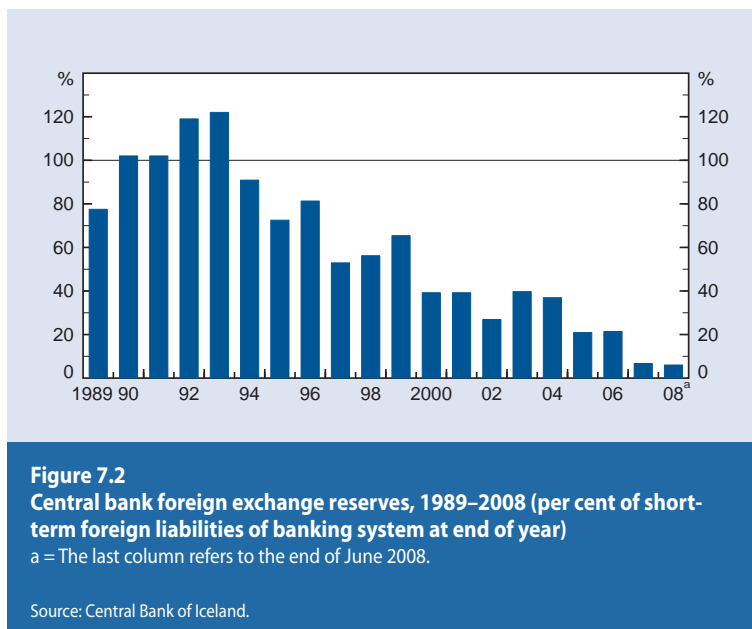
Since 1939, the Icelandic króna has lost 95.95 per cent of its value vis-à-vis the Danish krone

The Central Bank's gross foreign reserves dropped to 7 per cent of short-term foreign liabilities in 2007 as the commercial banks' foreign debts continued to mount

bankruptcy after the crash and needed to be recapitalized at a cost to taxpayers equivalent to 18 per cent of GDP.<sup>7</sup> Again, high inflation hurts productivity. Lax fiscal policy made matters worse.

There is another way to look at the undisciplined stance of monetary and fiscal policy in Iceland over the years. Since 1939 when the two traded at par, the Icelandic króna has lost 95.95 per cent of its value vis-à-vis its mother currency, the Danish krone. The reason, of course, is Iceland's inflation. High inflation for decades on end is always and everywhere a sign of shoddy policies and shaky institutions. Experience shows that countries with high inflation run up overseas debts, neglect important pillars of economic growth such as foreign trade, education, investment, and good governance and, therefore, tend to grow less rapidly than they would have with stable prices. Inflation tends to create a false sense of security, even hubris, by encouraging consumption and putting responsible preparations for the future on ice. Iceland fits this pattern, even if its economic growth sufficed to catch up with Denmark. Iceland's rapid growth from 1904 onward was not, however, the result of inflation. It was, rather, the result of an ocean tide of optimism and enterprise following Home Rule, the influx of new technology after 1940, mostly thanks to American presence in Iceland during and after the war, more and better education, hard work, plenty of fish within an extended 200-mile economic jurisdiction after 1976, and freer trade in two rounds after 1960 as well as after Iceland's entry into the EEA in 1994. But this was not enough.

To bring the gross foreign exchange reserves of the Central Bank back up above three months' import coverage (an old rule of thumb), the government in 2006 borrowed a billion euros.<sup>8</sup> However, no attempt was made to stem the decline of reserves relative to the short-term foreign liabilities of the banking system. The Central Bank's gross foreign reserves stayed at 20 per cent of short-term foreign liabilities in 2006 and then dropped to seven per cent in 2007 as the commercial banks' foreign debts continued to mount (figure 7.2). According to the so-called Giudotti-Greenspan rule, the gross foreign reserves of the Central Bank should not be allowed to sink below the short-term foreign liabilities of the domestic banking system. Failure to keep reserves at or above



that level invites speculators to stage an attack on the currency, a lesson learnt the hard way in Thailand in 1997 but grossly and deliberately ignored in Iceland.

### 7.3 PRIVATIZATION AMONG FRIENDS

Let us now return to the privatization of two of the largest state banks in 1998–2003, Landsbanki Íslands (est. 1885) and Búnaðarbanki Íslands (est. 1929), the latter of which, within months, became part of Kaupthing Bank, a private bank that had started out as an investment firm in 1982. The two state banks were sold both at once at a price deemed modest by the National Audit Office, which pointed out that by selling the two banks separately the state could have exacted higher prices. Further, the banks were sold not to foreign banks as was done in Eastern Europe – e.g., Estonia with 100 per cent foreign ownership – but to individuals closely linked to the political parties in power.

The two state banks were sold both at once at a modest price

As in the Baltic countries, foreign ownership of the banks, at least in part, would have been natural in view of the limited experience and expertise in international banking available locally as well as with a view to history. Exploratory meetings were held with Skandinaviska Enskilda Banken as a potential partner in Landsbanki, but other plans prevailed.

The bottom line is that the privatization of the Icelandic banks was deeply flawed, *à la russe*. In a celebratory essay on the Prime

### Box 7.2

#### Fathers and sons

A couple of major players in the ruling coalition of the Independence Party and the Progressive Party that privatized the banks either became rich – very rich – or kept their seats on the banks' boards after the privatization, or both. One of them was a politician whose private-sector experience consisted of running two small knitwear factories in the provinces in the 1970s, though only for a few months. On gaining partial control of one of the banks, he became an instant billionaire, and went on to buy the national airline. Another beneficiary of the banks' privatization flew in Elton John for a birthday celebration. A third had been handed a conditional prison sentence in the 1980s (and, later, an unfavourable verdict also in St. Petersburg, Russia), so, to be on the safe side, the obliging Icelandic parliament inserted a tailor-made five-year clause into the 2002 banking law to allow banks to be owned by persons who had not been convicted of crimes in the past five years. This person, together with his son, bought Landsbanki.

A few years earlier they had entered the brewery business in St. Petersburg, and then sold the plant to Heineken, Europe's largest brewery. Later, the son made his mark on the world stage primarily through lucrative privatization deals in the telecommunications business in Bulgaria and the Czech Republic. In 2006, his father leveraged his financial and business wealth into the ownership of West Ham, the British football club (this was a few months after Mr. Boris Berezovsky, the exiled Russian oligarch living in London, had failed in his bid to buy the club). The father consolidated his position at the top of Iceland's business elite by buying Morgunbladid, until recently Iceland's largest daily newspaper with close ties to the Independence Party, the largest political party until the crash, and he served as chairman of its board.<sup>9</sup>

In short, under the banner of free-market capitalism, Iceland privatized its banks in a way that bore an eerie resemblance to Russia. But this was not the first time. A local precedent had been set in 1984 when parliament decided to regulate fishing in Icelandic waters by handing out hugely valuable catch quotas to boat owners without charge even if Iceland's fish resources are a common property resource by law.<sup>10</sup> In mid-2009, to finish the story of the father-son duo, the father declared himself bankrupt in one of the largest personal bankruptcy filings on record anywhere (USD 750 million). The son remains solvent.

Under the banner of free-market capitalism, Iceland privatized its banks in a way that bore an eerie resemblance to Russia

Minister in 2004, presumably published with the subject's prior approval, the editor of *Morgunbladid* laid out his view of the privatization process. The editor wrote that, given that the Progressive Party, then the second-largest political party, had secured its claim to the second largest state bank, Búnadarbanki, the Prime Minister "considered it necessary that Landsbanki would land in the hands of persons within at least calling distance of the Independence Party." The Prime Minister's office has recently disclosed that the father-and-son team that bought Landsbanki borrowed from Búnadarbanki a significant part of the sum they paid the state for the bank. In turn, the buyers of Búnadarbanki borrowed a significant part of their purchase price from Landsbanki. The debt from the Landsbanki purchase remains unsettled and, through compound interest, has doubled since 2003.

In view of history, the main aim of the privatization ought to have been to sever the old ties between the political parties and the banks, but that was not to be. So, if by an emerging country is meant a country where politics matters at least as much as economics to the markets, a common definition, Iceland remains an emerging country and ought to be so classified. In this way, Iceland still differs markedly from its Nordic neighbours. Before they fell, the Icelandic banks faced no foreign competition in Iceland even if they had set up shop in several neighbouring countries, including Finland, Norway, and Sweden as well as Germany, Luxembourg, the Netherlands, and the United Kingdom. The lack of foreign competition led to significantly greater concentration of the banking industry in Iceland than elsewhere in the Nordic countries, which manifested itself, as always, in large spreads between lending rates and deposit rates at home.

The tight embrace between the political parties and the banks had another significant consequence. It programmed virtually the entire political class and civil service to think that it was not a good idea to get in the way of the banks. The government ought to have constrained the banks through special taxes, but it did not. You do not tax your friends, especially not when they fund your party directly and indirectly.<sup>11</sup> The Central Bank ought to have kept the banks on a leash through reserve requirements, but it did not. On the contrary, the Central Bank lowered its reserve requirements

The main aim of the privatization should have been to sever the old ties between the political parties and the banks

The government ought to have constrained the banks, but it didn't

in 2002 at the banks' behest, as was later acknowledged in public by senior Central Bank staff, and – astonishingly – abolished all reserve requirements related to the bank's deposit liabilities abroad that were piled up over the internet after credit lines began to dry up in 2007. Further, the Financial Supervision Authority (FSA) ought to have applied more stringent stress tests, tailored to local conditions and to the dubious quality of the banks' assets, but this was not done either. On a regular basis, the banks made lucrative job offers to FSA personnel, depriving the FSA of experienced staff and conveying a clear message to those FSA staff members who remained behind, a pattern of behaviour known also from the Securities and Exchange Commission in the United States and elsewhere. If an FSA staff member wanted a big salary increase, he had a clear incentive to do his regulatory job in a manner that won the approval of the banks. The banks were his clients, not the taxpayers.

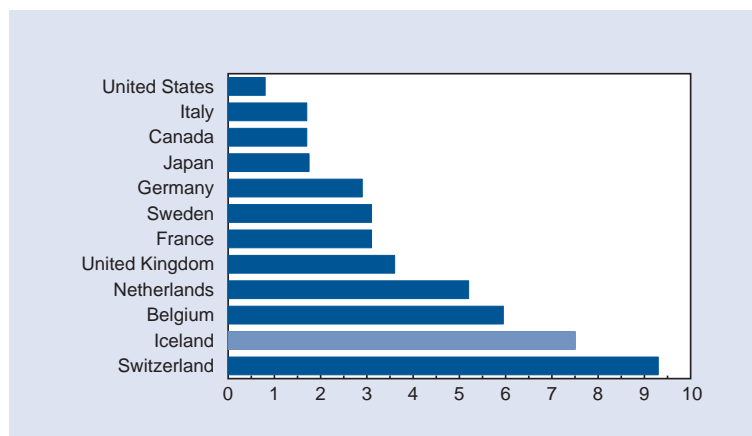
The assets of the banking system rose from 100 per cent of GDP at the end of 2000 to more than 900 per cent in mid-2008

Once free from government control, the banks kicked up their heels like cows in spring and went on an unprecedented borrowing and lending spree that increased the assets of the banking system from 100 per cent of GDP at the end of 2000 to more than a baffling 900 percent in mid-2008. Iceland's rapid growth of bank assets relative to GDP brought it to the top of the world rankings, roughly on par with Switzerland (figure 7.3). Iceland's banks had little else in common with Swiss banks and their long history. Their business model was, in essence, imported from abroad and operated by people with negligible experience of international banking and prone to "subprime" behaviour. With few questions asked, loan officers were rewarded according to the volume of loans they made and other transactions with emphasis on short-term profits. The banks even managed to convince unwitting customers in large numbers to borrow at low interest in foreign currency even if their earnings were solely in Icelandic krónur. The banks told their customers that, in their estimate, the króna was only modestly overvalued and that the downside exchange rate risk was small. Thousands of clueless customers signed the loans, thereby sealing their fate without realizing that at the 2007 exchange rate of the króna Iceland's 2008 per capita GDP was projected to be USD 70,000 compared with USD 42,000 in the United States. In

other words, the banks' belief that, in 2007, the króna was only modestly overvalued signalled their belief that the statement that the average Icelander had become more than 50 per cent richer than the average American was only a slight exaggeration.

For a number of reasons, Iceland has long been a high-exchange-rate country. This is not surprising in view of its persistent current account deficits and currency devaluations at regular intervals over the years (figure 7.4). First, high inflation is a common source of overvaluation because the exchange rate typically adjusts to prices with a lag, even under floating. Iceland is no exception. This helps explain why Icelandic exports have hovered around a third of GDP ever since 1870, while everywhere else in the OECD region exports have grown faster than GDP.<sup>12</sup> Second, mounting foreign debts produce an influx of capital that drives up the value of the currency. This mechanism was amplified by the carry trade before the crisis when Belgian dentists and Japanese housewives borrowed in Swiss francs and yen at low interest, purchased krónur, and placed the proceeds in high-interest accounts, accepting the currency risk involved in exchange for the interest differential. Third, pervasive protectionism reduces the demand for foreign

In Iceland, overvaluation of the króna has been the rule



**Figure 7.3**  
Ratio of bank assets to GDP at end-2007

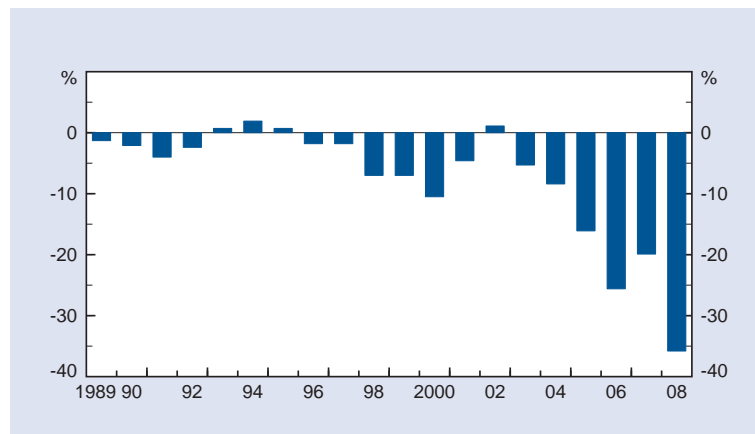
Sources: Swiss National Bank as quoted in *The Economist* (3 July 2008), Central Bank of Iceland.

With lower inflation, balanced books, and less protectionism, Iceland can expect a lower value of the króna in the years ahead

The banks claimed to believe that the state guarantees they had enjoyed while publicly owned remained in force after they had been privatized

exchange to purchase imported goods, thus imparting an upward bias to the currency. This is a consequence of extensive farm support and of government support for the fishing industry which, with direct or hidden subsidies, gets by with a higher exchange rate than it otherwise would. With lower inflation, balanced books, and less protectionism, Iceland can thus expect a lower value of the króna in the years ahead than before the crash. All things considered, it was not surprising to see the króna depreciate by a half in 2007–2009.

To return to the banks, the record shows that they claimed to believe, as did at least one international rating agency, that the state guarantees they had enjoyed while publicly owned remained in force after they had been privatized. The government did little to counter this impression. For example, the FSA allowed itself to be featured prominently in brochures from Landsbanki introducing the ill-fated Icesave internet accounts in the United Kingdom. These high-interest accounts were first offered to British depositors in 2006 and became a major source of capital for the bank in 2007 when access to foreign credit began to dry up, which should have rung the regulators' alarm bells. Similar accounts were offered



**Figure 7.4**  
Iceland: Current account balance, 1989–2008, per cent of GDP

Source: Central Bank of Iceland.

to Dutch depositors in May 2008 even after the Central Bank of Iceland, the FSA, and the government had been sternly warned by foreign Central Banks and at least one foreign government leader as well as by foreign and domestic experts that the banks were headed for collapse and that Iceland needed urgently to seek assistance from the International Monetary Fund (IMF).

During their brief existence, Landsbanki's Icesave accounts attracted 300,000 depositors in Britain and 100,000 in the Netherlands and elsewhere. Unlike Glitnir and Kaupthing, Landsbanki ran its offices in Britain and the Netherlands as "branches" covered by Icelandic deposit insurance rather than as "subsidiaries" – in which case they would have been secured by deposit insurance in the two host countries and subject to host-country financial supervision as well. Landsbanki disregarded repeated pleas to change its British and Dutch branches into subsidiaries, presumably to avoid unwelcome foreign financial inspection, which might have hindered the owners' reckless gambling. Also, money could not flow as freely from subsidiaries to headquarters in Iceland as from branches to headquarters.

The audacity is breathtaking: by this strategy, Landsbanki managed to make Iceland's population of 320,000 responsible for the deposits of 400,000 individuals and entities in Britain and the Netherlands, while its owners and managers appropriated the short-term profits. The courts will have to determine whether this deed constitutes breach of trust which, by Icelandic law, is punishable by two and up to six years in prison. When Landsbanki collapsed in October 2008, the foreign depositors were compensated – albeit not quite in full – by the British and Dutch governments which, in turn, insisted that Iceland pay a share – roughly half – of the compensation according to a formal deal between the three governments that the Icelandic parliament, after eight months of acrimonious debate, approved by 33 votes against 30. This did not settle the matter, however, because, for the second time in the history of the republic, the President of Iceland refused to ratify the law, thereby referring it to a national referendum according to the constitution.

There is more. As banks are wont to do, they borrowed short at low interest in foreign markets to finance long-term loans, includ-

Landsbanki ran its offices in Britain and the Netherlands as "branches" covered by Icelandic deposit insurance rather than as "subsidiaries"

Landsbanki managed to make Iceland's population of 320,000 responsible for the deposits of 400,000 individuals and entities in Britain and the Netherlands



ing even 25–40 year mortgages, thereby creating excessive maturity mismatches in their books and an increasing need for loan rollovers. Their entry into the housing market was intended to outcompete the government's own Housing Financing Fund. They offered attractive terms to customers many of whom seemed unaware that their mortgages were being financed by short-term loans and of the attendant risk that after the grace period ended they might have to pay significantly higher interest on the remainder of the principal or pay up. This is the Icelandic version of subprime lending. Besides, the banks sent their staff to peddle loans as well as complicated financial instruments to owners of fishing quotas and farm production quotas, using the quotas as collateral.

As another example of their aggressive tactics, the banks actively encouraged depositors to transfer their savings from ordinary accounts clearly covered by Icelandic deposit insurance to money market accounts bearing higher interest promising that

When Landsbanki collapsed, the UK and the Netherlands considered it necessary to preserve confidence at home by compensating the 400,000 depositors involved, and asked Iceland to repay them roughly half the amount at stake

### Box 7.3

#### The Icesave dispute

When Landsbanki collapsed, the governments of the United Kingdom and the Netherlands considered it necessary to preserve confidence at home by unilaterally and immediately compensating the roughly 400,000 depositors who were unable to withdraw their moneys from their Icesave accounts. Subsequently, Britain and the Netherlands asked Iceland to repay them approximately half the amount involved. Negotiations between the three governments produced an agreement by which Iceland must during 2016–2023 pay the UK 2,350 million pounds and the Netherlands about 1,330 million euros. The sum of the two figures is equivalent to about a half of Iceland's GDP in 2009, and seems, with reasonable asset recovery, likely to overstate by a significant margin the ultimate cost involved for Iceland. The Icelandic government expects to be able to recover between 75 per cent and 95 per cent of Landsbanki's deposit claims. The interest rate on the loan is 5.5 per cent per year.

After the Icelandic government entered into this agreement with Britain and the Netherlands, the parliament approved it, at first with unilateral reservations that the British and the Dutch rejected, and then again several months later with new language acceptable to all three governments. Having received a petition from over a fifth of the electorate, the president of Iceland refused to ratify the law, thereby, as the constitution prescribes, referring it to a national referendum scheduled to take place on 27 February or 6 March 2010. Only once before has the president refused to ratify a law from parliament, in 2004, but the parliament then retracted the law rather than put it to a referendum.<sup>13</sup>

the money market accounts were similarly insured which, in fact, they were not. This misinformation, preserved on bank tapes, may prove to have been illegal. The banks also provided loans without collateral to privileged customers who wanted to speculate on the foreign exchange market. For yet another example of the heads-I-win-tails-you-lose mentality and *modus operandi* of the banks, they lent members of their senior staff huge amounts to buy shares in the banks with the shares as sole collateral. These loans were written off after the crash in a controversial move that seems likely to be challenged in the courts. Several other transactions are under investigation to ascertain if they constituted illegal market manipulation.<sup>14</sup>

The banks provided loans without collateral to privileged customers who wanted to speculate on the foreign exchange market

A further problem was extensive insider lending that has come to light with the leak of a document describing the exposure of Kaupthing, the largest bank, to its largest owners and related parties. In mid-2009, this document appeared on a website that stores leaked documents (wikileaks.org), showing that huge loans were made before the crash to the owners of Kaupthing and to firms owned by them with little or no collateral. The leak is against the law, of course, as is perhaps also some of the insider lending exposed by the leak.

Extensive insider lending has come to light

The three banks copied each other's business model. Because they faced an insignificant home market, they decided that their choice was essentially to "evolve (that is, become international) or die". They chose the former only to suffer the latter because they faced no resistance: there was nothing to hold them back. Transforming themselves at a fast pace into international financial institutions, the three banks soon derived half their earnings from foreign operations through 31 subsidiaries in 21 countries (October 2007). Keynes would hardly have been surprised. He wrote: "A 'sound' banker, alas! is not one who foresees danger and avoids it, but one who, when he is ruined, is ruined in a conventional and orthodox way along with his fellows, so that no one can really blame him".<sup>15</sup>

The banks faced no resistance: there was nothing to hold them back

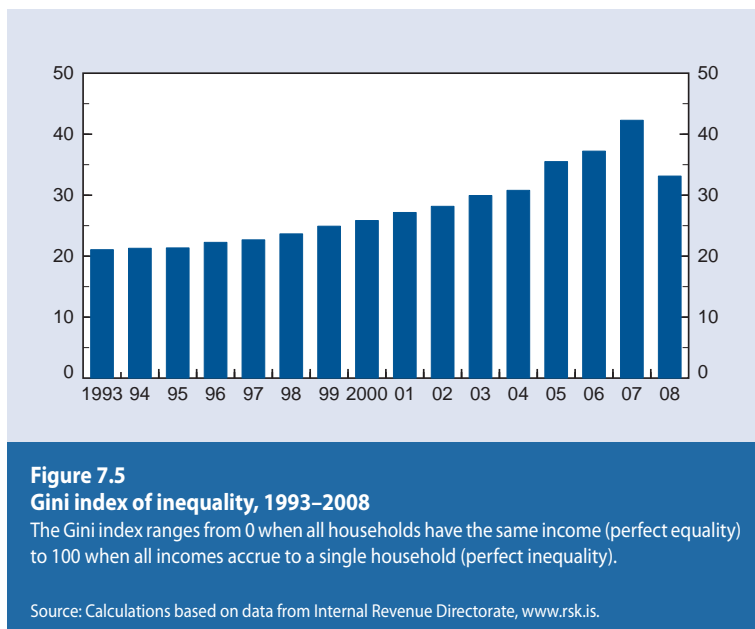
## 7.4 INCREASED INEQUALITY AND OTHER SIGNS

Inequality in the distribution of disposable income increased sharply from 1993 to 2007 due to a deliberate shift of the tax burden from the rich to the rest

The euphoria that swept Iceland during the boom was not shared by all. While bustling private jet traffic kept residents near Reykjavík airport awake at night and the streets were jammed by monstrous SUVs on aircraft tires, many Icelanders looked on in baffled astonishment. Of the country's 182,000 families, more than 100,000 have little or no debt; clearly, they were not invited to the party, or chose not to attend. At the other end of the scale, 244 families at the end of 2008 had debts in excess of USD 1.2 million, with assets that fall short of their debts. Further, 440 families have debts in excess of their assets – that is, negative net worth – to the tune of USD 400,000 or more. Of the 182,000 families, 81,000 have assets below USD 40,000, whereas 1,400 families have assets of USD 1.2 million or more.<sup>16</sup> These numbers suggest gross inequality in the distribution of wealth which is hardly surprising in view of the fact that inequality in the distribution of the disposable income of households increased sharply from approximate parity with the Nordic countries in the mid-1990s to parity with the United States in 2007, a dramatic change resulting from a deliberate shift of the tax burden from the rich to the rest (figure 7.5). Before the onset of the crisis, increased disparity of income and wealth was one of several signs that Iceland was headed for trouble. Increased inequality also preceded the Great Depression in the US 1929–1939.<sup>17</sup>

Equity prices rose by 44 per cent per year from 2001 to 2007, a world record

Another sign of pending trouble was the boom in the housing market. You only need to count the cranes, said Professor Robert Z. Aliber, a University of Chicago expert on financial crises, on his visit to Iceland in 2007 when asked to elaborate his prediction that Iceland would probably crash a year later, as it did.<sup>18</sup> Real estate prices rose by 11 per cent per year on average from 2001 to 2008. Yet another sign was the stock market boom that had seen equity prices rise by a factor of nine from 2001 to 2007, or by 44 per cent per year on average six years in a row, a world record. The three main banks accounted for 73 per cent of the stock market index in 2008. In short, Iceland was an accident waiting to happen. And then, within a week in October 2008,



following the collapse of Lehman Brothers, the banking system collapsed, and the IMF was asked to rush to the scene, the first time an industrial country asked the IMF for help since the United Kingdom did so in 1976.

## 7.5 ENTER THE IMF

As always, the economic reconstruction and stabilization program in place since November 2008 with the support of the IMF emphasizes monetary restraint, with a gradual reduction of the Central Bank policy rate, but it also contains some unusual features.

The program emphasizes the need for transparent restructuring of the failed banks. The floating króna is supported by strict but temporary capital controls intended, among other things, to prevent the owners of the glacier bonds left over from the carry trade, equivalent to about a half of GDP, from rushing to the exits. Were they free to exit, the króna might plunge to new depths,

The IMF program features strict but temporary capital controls to protect the króna

and might remain undervalued for a long time as happened, for example, in Indonesia after 1997. This aspect of the program differs markedly from the programs supported by the IMF in Asia 1997–1998.

The IMF program stomachs a government budget deficit in 2009 equivalent to 14 per cent of GDP, postponing discretionary fiscal restraint until 2010

The Iceland program also differs from the Asian programs in that it stomachs a government budget deficit in 2009 equivalent to 14 per cent of GDP, thus postponing discretionary fiscal restraint until 2010. The program envisages deep cuts in government spending from 52 per cent of GDP in 2009 to 43 per cent in 2014 and increased revenue from 38 per cent of GDP in 2009 to 44 per cent in 2014. A fiscal retrenchment equivalent to 15 per cent of GDP in five years is a tall order.

The IMF program is supported by the Nordics, Poland, and the EU

The financial support from the IMF is supplemented by the Nordic countries, Poland, and the EU; Russia pulled out. The government put all three banks into administration, splitting them into new banks and old banks. The new state banks took over deposits and provided uninterrupted banking services at home, no small feat under the circumstances, and received fresh injections of new capital. In keeping with the program, the old private banks were left with their dodgy assets and foreign debts that the resolution committees appointed to liquidate them will have to write off in large measure, triggering massive litigation from disappointed overseas creditors as well as investors and depositors.

The banks were first renationalized, and then two of them were reprivatized by exchanging their debts for equity

In effect, the banks were renationalized, based on the successful method behind the Nordic governments' handling of their banking crises of 1988–1993 as discussed in chapters 6 and 11.<sup>19</sup> Plans to reprivatize the new banks by exchanging their debts for equity, inviting at last foreign ownership, materialized rather quickly as Kaupthing and Glitnir passed into foreign majority ownership at the end of 2009. Landsbanki, however, the most problematic and now the largest of the three, must remain in government hands a while longer. The government has no plan to sell its 81 per cent stake in Landsbanki.

## 7.6 CHECKS AND BALANCES, AND TRUST

Iceland's economic crisis is considered to have destroyed wealth equivalent to about seven times GDP, an estimate that may come down if asset recovery goes reasonably well. The damage inflicted on foreign creditors, investors, and depositors amounts to about five times GDP, while the asset losses thrust upon Icelandic residents account for the rest. These figures do not include the cost of Iceland's increased indebtedness. The damage due to Iceland's tarnished reputation is difficult to assess. How could this happen?

Iceland's economic crisis destroyed wealth equivalent to about seven times GDP

The absence of checks and balances that had led to an unbalanced division of power between the strong executive branch and the much weaker legislative and judicial branches came to haunt the country when unscrupulous politicians put the new banks in the hands of reckless owners who then found themselves in a position to expand their balance sheets as if there were no tomorrow.

Just to give two examples: When the National Economic Institute, a decades-old institution set up to offer impartial economic counsel to the government, was no longer found obliging enough, it was disbanded on the grounds that the recently privatized banks' unfailingly optimistic economic departments, among others, could fill the gap. When the Competition Authority a few years ago raided the offices of oil companies that were later found guilty of illegal price collusion, the Authority was summarily abolished and then reincarnated under new, more compliant management.

The *primus motor* behind both decisions was Iceland's Prime Minister during 1991–2004, who went on to have himself appointed Central Bank governor and was summarily removed from the governor's office after the crash and shortly afterwards became editor of *Morgunblaðid* – roughly the equivalent of making Richard Nixon editor of the *Washington Post* to ensure fair and balanced coverage of Watergate.

These actions and events may help explain why the FSA looked the other way when the banks went amok. And this may also help explain why Statistics Iceland, Iceland's Statistical Office, looked the other way while Iceland's income distribution jumped off the Scandinavian pattern and headed toward that of the United

Iceland's predicament raises old questions about collective guilt and responsibility

States according to research conducted at the University of Iceland.<sup>20</sup> Iceland, increasingly, became not so much a scaled-down version of Scandinavia as a combination of Italy, Japan, and Russia with a dash of Scandinavia on top.

Iceland's predicament raises old questions about collective guilt and responsibility. Many wonder how taxpayers can be held responsible for the failures of private bankers. But taxpayers are also voters: many of them voted for the politicians who sided with the bankers; having abstained or voted for the opposition is clearly not a valid excuse. Guilty or not, many feel responsible as taxpayers, but not all. Opinion polls suggest that a majority of the electorate did not want parliament to approve the Icesave deal between Iceland, the United Kingdom, and the Netherlands by which Iceland agrees to repay the British and the Dutch about a half of the amount that the latter unilaterally decided to pay out in compensation to depositors in the Icesave accounts of Landsbanki.<sup>21</sup> The stakes are high because Iceland's agreement with the IMF appears to hinge on the parliament's approval of the deal with the British and the Dutch. As it turned out, even this is not enough, because the president chose to intervene by referring the Icesave law to a national referendum (recall Box 7.3). It is a matter of record that the stipulation concerning the deal on the Icesave accounts is part of the IMF-supported program at the behest of the Nordic countries, or at least some of them. Without their support the program, with less financing available, would require stricter adjustment of public expenditures and taxes. In other words, without a settlement of the Icesave dispute, Iceland's short-run crisis would deepen.

Without Nordic support the IMF program, with less financing available, would require stricter adjustment of public expenditures and taxes

In 2009, while the unemployment rate shot up to 9 per cent of the labour force, a very high rate by Icelandic – if not by European – standards, GDP fell by 7 per cent, and is not expected to be restored to its 2008 level until 2014 in local currency at constant prices. In dollars or euros, however, per capita GDP will take longer to recover enough to regain parity with the Nordic countries because the króna is not expected to rise in value for a number of years to come. Due to emigration, Iceland's population fell slightly in 2009 for the first time since 1889. Significant emigration over the next few years would weaken the tax base, thereby depressing the living standards of those who stay.

In view of all this, what Iceland now needs most of all is to rebuild cohesion, confidence, and trust. The people of Iceland have expressed their anger at the political establishment, banging their pots and pans loudly enough in the streets to sweep the Independence Party and the Progressive Party into opposition both at once for the first time in history. Even before the crash, opinion polls showed that only 30 per cent of the population had great confidence in the parliament or the judicial system that the political class created in its own image.<sup>22</sup>

Iceland needs to rebuild cohesion, confidence, and trust

Many think they understand perfectly well what happened: aided and abetted by politicians, the owners of the banks and their accomplices robbed them in broad daylight as described by Professor William Black in his 2005 book *The Best Way to Rob a Bank Is to Own One: How Corporate Executives and Politicians Looted the S&L Industry*.<sup>23</sup> And not just the banks: one of the largest insurance companies as well as the national airline suffered the same fate as the banks had to be nationalized at significant cost to the taxpayers, and no doubt others will follow.

A common attitude among the general public to the bankers, businessmen, and politicians responsible for the collapse and currently under investigation was neatly captured by writer Einar Már Guðmundsson in his account of a cannibal flying first class. When a stewardess hands him the menu, he looks at it and says: “Nothing here strikes my fancy. Could you please show me the passenger list?”<sup>24</sup> Most likely, though, when the truth about the goings on comes out, as it must, one way or another, some will react like French police captain Louis Renault in *Casablanca* who was “shocked – shocked! – to find that gambling is going on in here.”

## 7.7 PROSPECTS

Iceland now faces a heavy burden of gross public and private foreign debt equivalent to more than 300 per cent of GDP even after writing off private debts equivalent to another 500 per cent, a world record. The gross public debt, domestic and foreign, is estimated to increase by more than 100 per cent of GDP as a

Gross public debt, domestic and foreign, will increase by more than 100 per cent of GDP as a result of the crash



The EU membership application ought to signal that Iceland intends to clean up its act

result of the collapse of the banks, or from 29 per cent of GDP at end-2007 to 136 per cent at end-2010. In 2009, the government spent almost as much on interest payments as on health care and social insurance, the single largest public expenditure item. Some observers warn that the debt burden threatens to match or exceed that which the allies imposed on Germany at Versailles after World War I, with well-known economic and political consequences.<sup>25</sup> Others emphasize Iceland's strong fundamentals and resilience, convinced that the country will get back on its feet and rejoin the Nordic family in good standing within a few difficult years.

Iceland's recovery from the crash must rest on two pillars. First, the government must effectively implement the reconstruction program supported by the IMF, the Nordic countries, Poland, and the EU. There is no other way. The EU membership application ought to send an encouraging signal to the outside world that Iceland intends to clean up its act. Second, the authorities must uncover and squarely face the causes of the collapse, including the massive failure of policy and institutions and the absence of checks and balances.

For this to be done properly, Iceland would need an international Commission of Enquiry. The government, however, remains unwilling to appoint an international commission, preferring its own domestic parliamentary investigative committee and thus risking a deepening crisis of confidence if the committee fails to convince the public that it has adequately exposed the rot that caused the crisis. Many mistrust the domestic investigation which postponed until the end of January 2010 the publication of its report that was initially scheduled for release in November 2009.

Under pressure, the government accepted an offer of help from Ms. Eva Joly, a renowned French-Norwegian investigative magistrate who led what has been described as the biggest fraud inquiry in Europe since World War II, involving France's leading oil company, Elf Aquitaine, and resulting in four prison sentences for big fish as well as heavy fines. On November 13, 2009, the *Financial Times* of London quoted Ms. Joly as saying about the Icelandic investigation: "This is so much larger than Elf, but we don't know just how much larger. Not yet." The EU has promised to conduct an independent investigation. Britain's Serious Fraud

Office has launched an investigation into the British affairs of Kaupthing and Landsbanki.

The National Transport Safety Board investigates every civil-aviation crash in the United States. In Europe, national Civil Aviation Accidents Commissions perform this vital role. Their principal concern is public safety. Also, when commercial planes crash, there are usually foreigners on board, so the government owes full disclosure also to the outside world. There is a case for viewing finance the same way as civil aviation, in Iceland and elsewhere. This is why, when things go wrong, there needs to be a credible mechanism in place to secure full disclosure. If national governments hesitate, perhaps because they may have something to hide, the international community needs to consider mutually acceptable ways to fill the gap. If history is not correctly recorded, it is more likely to repeat itself with unpleasant consequences.

In finance as in civil aviation, there is a need for credible crash analysis

## 7.8 ELEVEN LESSONS

What can we do to reduce the likelihood of a repeat performance? – in Iceland and elsewhere. Here are eleven main lessons from the Iceland story, lessons that are likely to be relevant in other less extreme cases as well.

**Lesson 1.** We need effective legal protection against predatory lending just as we have long had laws against quack doctors. The logic is the same, and is derived from the idea of asymmetric information. The essence of the problem is that doctors and bankers typically know more about complicated medical procedures and complex financial instruments than their patients and clients. This asymmetry creates a need for legal protection through judicious licensing and other means against financial as well as medical malpractice to protect the weak against the strong.

Effective legal protection is needed against predatory lending

**Lesson 2.** We should not allow rating agencies to be paid by the banks they have been set up to assess. The present arrangement creates an obvious and fundamental conflict of interest, and needs to be revised. Likewise, banks should not be allowed to hire employees of regulatory agencies, thereby signalling that

by looking the other way, remaining regulators may also expect to receive lucrative job offers from banks.

**Lesson 3.** We need more effective regulation of banks and other financial institutions for the reasons discussed in chapters 4, 6, and 11; presently, this is work in progress in Europe and the United States.

Greater attention needs to be paid to warning signals, including signs of increased inequality

**Lesson 4.** We need to read the warning signals. We need to know how to count the cranes to appreciate the danger of a construction and real estate bubble (Aliber's rule). We need to make sure that we do not allow gross foreign reserves held by the Central Bank to fall below the short-term foreign debts of the banking system (the Giudotti-Greenspan rule). We need to be on guard against the scourge of persistent overvaluation sustained by capital inflows because, sooner or later, an overvalued currency will fall. Also, income distribution matters. A rapid increase in inequality – as in Iceland in 1993–2007 (recall figure 7.5) and in the United States in the 1920s as well as more recently – should alert financial regulators to danger ahead.

Banks must not be allowed to outgrow the government's ability to cope with them

**Lesson 5.** We should not allow commercial banks to outgrow the government and Central Bank's ability to stand behind them as lender – or borrower – of last resort. In principle, this can be done through judicious regulation, including capital and reserve requirements, taxes and fees, stress tests, and restrictions on cross-ownership and other forms of collusion.

**Lesson 6.** Central banks should not accept rapid credit growth subject to keeping inflation low – as did the Federal Reserve under Alan Greenspan and the Central Bank of Iceland. They must take a range of actions to restrain other manifestations of latent inflation, especially asset bubbles and large deficits in the current account of the balance of payments. Put differently, they must distinguish between "good" (well-based, sustainable) growth and "bad" (asset-bubble-plus-debt-financed) growth.

**Lesson 7.** Commercial banks should not be authorized to operate branches abroad rather than subsidiaries if this entails the exposure of domestic deposit insurance schemes to foreign obligations. This is what happened in Iceland. Without warning, Iceland's taxpayers suddenly found themselves held responsible for the moneys kept in the Icesave accounts of Landsbanki by

400,000 British and Dutch depositors. Had these accounts been hosted by subsidiaries of Landsbanki rather than branches, they would have been covered by local deposit insurance in Britain and the Netherlands.

**Lesson 8.** We need strong firewalls separating politics from banking because politics and banking are not a good mix. The experience of Iceland's dysfunctional state banks before the privatization bears witness. This is why their belated privatization was necessary. Corrupt privatization does not condemn privatization, it condemns corruption.

There is a need for strong firewalls separating politics from banking

**Lesson 9.** When things go wrong, there is a need to hold those responsible accountable by law, or at least try to uncover the truth and thus foster reconciliation and rebuild trust. If history is not correctly recorded without prevarication, it is likely to repeat itself.

There is a need for uncovering the truth about what went wrong to foster reconciliation and rebuild trust

**Lesson 10.** When banks collapse and assets are wiped out, the government has a responsibility to protect jobs and incomes, sometimes by a massive monetary or fiscal stimulus as described in chapter 4. This may require policy makers to think outside the box and put conventional ideas about monetary restraint and fiscal prudence temporarily on ice. A financial crisis typically wipes out only a small fraction of national wealth. Physical capital (typically three or four times GDP) and human capital (typically five or six times physical capital) dwarf financial capital (typically less than GDP). So, the financial capital wiped out in a crisis typically constitutes only one fifteenth or one twenty-fifth of total national wealth, or less. The economic system can withstand the removal of the top layer unless the financial ruin seriously weakens the fundamentals.

A financial crisis typically wipes out only a small fraction of national wealth

**Lesson 11.** Let us not jump to conclusions and throw out the baby with the bathwater. Since the collapse of communism, a mixed market economy has been the only game in town. To many, the current financial crisis has dealt a severe blow to the prestige of free markets and liberalism, with banks – and even General Motors – having to be propped up temporarily by governments, even nationalized. Even so, it remains true that banking and politics are not a good mix. But private banks clearly need proper regulation because of their ability to inflict severe damage on innocent bystanders.

Banking and politics are not a good mix, but private banks need proper regulation

## ENDNOTES

- <sup>1</sup> See Gramlich (2007). Edward Gramlich was Governor of the Federal Reserve Board 1997–2005.
- <sup>2</sup> The Human Development Index is an average of three indices representing the purchasing power of per capita GDP, life expectancy, and education, measured by a weighted average of adult literacy (2/3) and school enrolment (1/3).
- <sup>3</sup> See <http://www.ggdc.net>.
- <sup>4</sup> See Gros (2008).
- <sup>5</sup> See OECD (2007, Table A1.2a).
- <sup>6</sup> See Buiter and Sibert (2008) and Wade (2009).
- <sup>7</sup> The cost to the taxpayers of recapitalizing the commercial banks constitutes another 18 per cent of GDP.
- <sup>8</sup> This was a eurobond issue under the European Medium Term Note Program (EMTN). Repayment is due in December 2011.
- <sup>9</sup> Landsbanki did not act alone. The owners of the other two large banks, Glitnir and Kaupthing, also bought newspapers, a common feature of the buildup to financial crises (see Kindleberger and Aliber, 2005, pp. 194–195).
- <sup>10</sup> In 2007, the United Nations Committee on Human Rights, the international community's highest authority on human rights, ruled that the Icelandic fisheries management system, by its discriminatory nature, constitutes a violation of human rights and instructed the Icelandic government to change the system. The government's official reaction was that the UN Committee had misunderstood the matter. The UN Committee will make the next move. See Gylfason (2009).
- <sup>11</sup> Under pressure from The Council of Europe's Group of States against Corruption (GRECO), a new law on the financing of political parties and candidates was passed in 2006. Under this law, the Icelandic National Audit Office has disclosed that during 2002–2006 three of the four main political parties accepted huge contributions from the private sector in addition to similarly generous support from the government. During 2002–2006, the Progressive Party accepted private contributions equivalent to 202 dollars per vote cast for the party in the parliamentary election of 2007, not including contributions to individual candidates. The Independence Party accepted 77 dollars per vote, but this figure only covers payments, from undisclosed sources, to the party's central office and does not include contributions to other party organizations or to individual candidates. The Social Democrats accepted 65 dollars per vote, not including donations to individual candidates. The largest single donors to the three parties mentioned were the banks. The Left Greens took much less. As a rule, political parties in Denmark, Finland, Norway, and Sweden do not accept contributions from corporations.
- <sup>12</sup> In Finland and Sweden, for comparison, the ratio of exports to GDP rose from a bit more than 20 per cent in 1960 to 45 per cent and 52 per cent in 2007.
- <sup>13</sup> The last time a referendum was held in Iceland was in 1944 when Icelanders voted overwhelmingly to break all constitutional ties with Denmark by terminating the 1918 treaty by which Iceland had become a separate state under the Danish crown, with only foreign affairs remaining under Danish control, and to adopt a new constitution and establish a republic.
- <sup>14</sup> In the first verdict issued by Reykjavík District Court in a market manipulation case, two Kaupthing traders were sentenced in December 2009 to unconditional eight-month prison terms.
- <sup>15</sup> Keynes (1931, p. 76).
- <sup>16</sup> Source: Directorate of Internal Revenue, Reykjavík, 2009.
- <sup>17</sup> See Galbraith (1988, pp. 177–178). Long-term trends in the distribution of income in the United States are described in Piketty and Saez (2003).

<sup>18</sup> See Aliber (forthcoming).

<sup>19</sup> See also Jonung, Kiander, and Vartia (2009).

<sup>20</sup> Source: Various articles by Professor Stefán Ólafsson and others, see <http://www3.hi.is/~olafsson/>.

<sup>21</sup> According to the Icesave agreement, Iceland must during 2016–2023 pay the UK 2,350 million pounds and the Netherlands about 1,330 million euros. The sum of the two figures is equivalent to about a half of Iceland's GDP in 2009, and seems, with reasonable asset recovery, likely to overstate the ultimate cost involved. The interest rate on the loans is 5.5 per cent per year.

<sup>22</sup> After the crash, in March 2009, 13 per cent of the population expressed great confidence in the parliament. See [www.capacent.is/Frettir-og-frodleikur/Thjodarpulsinn/Thjodarpulsinn/2009/03/03/Traust-til-stofnana-og-embetta](http://www.capacent.is/Frettir-og-frodleikur/Thjodarpulsinn/Thjodarpulsinn/2009/03/03/Traust-til-stofnana-og-embetta).

<sup>23</sup> The title of Black's book has a distinguished precedent. In the *Threepenny Opera*, first performed in Berlin in 1928, Berthold Brecht has Mack the Knife say: "What is the burgling of a bank to the founding of a bank?" See also Akerlof and Romer (1993); again, the title says it all.

<sup>24</sup> See Gudmundsson (2009). For a detailed account of events before the crash and its aftermath as well as of some of the personalities involved, see Boyes (2009).

<sup>25</sup> Listen to Keynes (1919): "The policy of reducing Germany to servitude for a generation, of degrading the lives of millions of human beings, and of depriving a whole nation of happiness should be abhorrent and detestable, – abhorrent and detestable, even if it were possible, even if it enriched ourselves, even if it did not sow the decay of the whole civilised life of Europe. Some preach it in the name of Justice. In the great events of man's history, in the unwinding of the complex fates of nations Justice is not so simple. And if it were, nations are not authorized, but religion or by natural morals, to visit on the children of their enemies the misdoings of parents or of rulers." But clearly, there are differences. Civilized life of Europe is not at stake here. The similarity is that the burden on Iceland should be dictated by the country's ability to carry the burden and to prosper, to the benefit also of its trading partners.

# 8

## EMU AND THE CRISIS: BETTER TO BE IN OR OUT?

The Nordics have adopted different relations to the EU, and different monetary regimes

While they are in many ways quite similar and have pursued political discussions of close cooperation for decades, the Nordic countries have nevertheless ended up adopting different relations to the EU and different monetary regimes. Norway has so far remained outside the EU, while being a member of the European Economic Area, and Iceland has only now become an accession country in the midst of its economic and financial turmoil. Denmark and Sweden are both EU members outside the euro area, but with different monetary arrangements: Denmark has pegged its exchange rate to the euro, while Sweden has a floating exchange rate regime with an inflation target. It may be noted that Denmark has a treaty-based exception (“opt out”) from the monetary union, which is not the case for Sweden. Finland alone among the Nordics is a full-fledged EU member and part of the euro area.

A comparison of Finland and Sweden – almost a laboratory experiment

This lack of a common approach to European integration may by some be considered deplorable given that the Nordics have similar socio-cultural background and political traditions. A Nordic grouping with a coordinated approach could have become a strong voice in EU decisions making, furthering the interests of the Nordics as well as influencing the future direction of European integration efforts. On the other hand, this diversity of monetary arrangements makes for an interesting comparison, to be exploited in this chapter. A comparison between Sweden and

Finland is particularly pertinent, almost a laboratory experiment. It should shed some light on, inter alia, the following questions: Do exchange rate regimes matter? Is the crisis changing the balance of costs and benefits of the single currency? Will Sweden come through the crisis at less cost than Finland thanks to its monetary freedom? If so, is this at the expense of member states of the euro area such as Finland? What is the rationale of the present Danish monetary arrangement? These questions are dealt with in sections 2–8 below, while section 1 will first briefly recall the reasons why Finland and Sweden made different choices with regard to the euro in the past.

## 8.1 WHY FINLAND JOINED THE EURO AND WHY SWEDEN DID NOT

Finland joined the EMU for much the same reason that it joined the EU: first and foremost it had a strong wish to settle, once and for all, the country's geopolitical identity. Being located at the frontier between east and west, Finland has for long lived a life, occasionally awkward, in the shadow of the Soviet Union or Russia. Finland wanted to be acknowledged as a full and undisputed member of Western Europe by participating in the EU and its "core", thus also in the euro area. This political motive was more important than the economic considerations, though these also played a role.

Finland joined EMU  
not least for geopolitical  
reasons

Joining the euro means giving up monetary autonomy. This may have its cost in terms of increased macroeconomic instability if asymmetric shocks are significant, provided also that effectiveness of policy is underpinned by a credible commitment to price stability. In the case of Finland, however, experiences of monetary policy as run by the Bank of Finland were perceived as mixed at best: recurrent devaluations, followed from the early 1980s by a commitment to a pegged exchange rate, a peg which in the early 1990s had become unsustainable and had to be revoked, and all of this associated with significant macroeconomic instability. Like in Sweden (see below), the experience of a floating exchange rate



in the mid 1990s was positive: economic growth resumed, interest rates declined and price stability was maintained. While the floating markka worked well, it was nevertheless felt that establishing strong and sustained credibility for an autonomous monetary policy geared to price stability might, given the legacy of history, have been a challenging task. Joining the monetary union offered a quicker route to monetary credibility. Weight was also given to the expected microeconomic or efficiency advantages of the currency union.<sup>1</sup>

Sweden joined the EU with some reluctance, and the approach to EMU was perceived as a matter of convenience. The then prime minister (Göran Persson) was, when EMU was initiated, unwilling to push for membership, in contrast to his counterpart in Finland (Paavo Lipponen).

Sweden decided it could wait and see, possibly join later

A Swedish government commission, chaired by Professor Lars Calmfors<sup>2</sup>, divided the issue into three parts: efficiency, stabilization and political influence. The report acknowledged the efficiency advantages of a common currency, and it also assumed that full members in the monetary union would gain a stronger influence on European affairs. For these reasons it argued that it would be in the long-run interest of Sweden to adopt the euro. But the report also underlined the risk of asymmetric shocks, including mistakes in wage setting and/or fiscal policy. In particular, it argued that the precarious state of the Swedish labour market and public finances in the mid 1990s (after the deep economic and financial crisis of the early 1990s) spoke against joining at that time. The Calmfors report hence concluded that Sweden should join the euro only later if and when those problems had become less of a consideration. Sweden could wait and see.

In a referendum a majority said no

Subsequently, as economic and fiscal problems had subdued, the issue was brought to a referendum in 2003. In spite of a staunch pro-euro stance among a broad political alliance between all the main political parties and with the support of all major organisations of the labour market, the recommendation was rejected by a clear majority of voters. Since then, the issue is politically dead in Sweden until at least a few years into the next decade.

The political attitude to closer European integration, among the general public and politicians, could hence be seen as a key

factor in both Sweden and Finland, but with different attitudes leading to different outcomes.

Another important consideration was the fact that the inflation targeting regime with a floating exchange rate had functioned much better than anticipated. Around the time of the referendum Sweden had a higher rate of growth, lower inflation and unemployment, and a better fiscal position than the euro group as a whole (as was also the case in Finland). The Bank of Sweden had gained an international reputation for clarity of objectives and transparency of procedures, whereas the ECB had been criticised for failures in these respects. Against this background the euro option did not seem very attractive.

## 8.2 THE EURO IN ITS FIRST DECADE

The euro is now a little more than a decade old. The tenth anniversary triggered a number of evaluations of its performance.<sup>3</sup> The general perception is one of satisfaction with the functioning of the euro.

The euro has reduced transaction costs and exchange rate uncertainty with beneficial effects on economic integration. Intra-trade in the euro area has on average increased significantly more than trade with other partners<sup>4</sup> (but not much in the case of Finland), as has direct investment within the euro area. Financial integration has deepened and capital markets have become more liquid. EMU has supported developments of the euro area towards an economic union, though significant differences remain between national labour markets, tax systems and structural policies.

Price stability has been achieved and interest rates have been significantly lower than previously. While acting in a pragmatic fashion, the ECB has been able to establish credibility for its monetary policy, as evidenced by low inflationary expectations. The euro does not yet rival the dollar as an international transactions and reserve currency, but it is an international currency of growing importance. Monetary policy cooperation at the global level is of increasing importance, and the ECB is playing a significant

The euro has had positive effects on economic integration,

and the ECB has been able to establish credibility for its monetary policy

Growth was weak in the big euro area countries in the first decade of the euro

role in that cooperation; this could not have been achieved with a multitude of individual central banks.

While the performance of averages of groups of countries may not be very informative, it may be noted that the comparable “outs” (Sweden, Denmark, UK) have been more successful than the insiders in terms of growth, employment and the state of public finances. Growth was relatively sluggish in the first decade of the euro in the big countries (Germany, France and Italy) and unemployment remained high. However, there is a rather general perception that weak growth was caused by structural problems rather than by the monetary arrangements. As to public finances, budget deficits in many cases exceeded the ceilings set in the rules of the Stability and Growth Pact, yet were on average smaller than in the decade preceding the monetary union. While the euro has enhanced political cooperation, the EU shows few signs of developing towards a political union<sup>5</sup> (much hoped for and feared when the EMU was set up).

Critics of the euro have pointed, inter alia, to the monetary policy framework of the ECB (the so-called two pillar framework) and its definition of price stability (“below but close to 2 per cent”), making unfavourable comparisons with the policies of the Bank of England and the Riksbank, which allow symmetric variability around their 2 per cent target. Another source of concern has been that the ECB was not from the outset given the second big assignment of most central banks: responsibility for the stability of the financial system. One of the consequences of the crisis is indeed a reappraisal which is likely to give the ECB a more important role in the surveillance and mitigation of systemic financial risks in the euro area and the EU as a whole.

The euro enhanced stability but reduced incentives for adjustment and structural reform

Also, there is concern that the EMU does not provide sufficient incentives for policy makers to maintain budget discipline or pursue structural reforms. For a country with a currency of its own, the exchange rate and interest rates will react to imbalances and policies in a way which forces policy makers to act so as to maintain market confidence in the prospects for stability and growth of the country. When the exchange rate and interest rates are determined by developments in the monetary union as a whole, however, such feedbacks will be much weaker, if not totally absent.

The Growth and Stability Pact has been designed to replace the automatic feedback loops with peer pressure, but nevertheless the outcome is arguably that the EMU has so far weakened rather than strengthened budget discipline and willingness to undertake (politically painful) structural reforms.

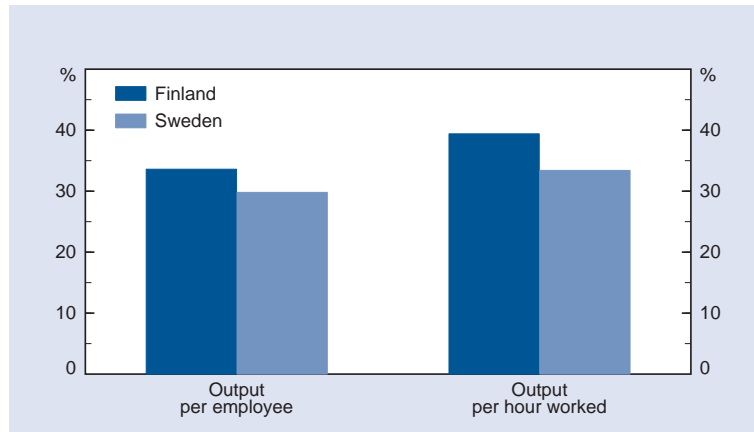
The first decade of the euro was a period of exceptionally favourable global conditions – a situation which changed dramatically soon after its 10<sup>th</sup> anniversary. It could therefore be claimed that favourable developments were due to the positive external environment rather than intrinsic virtues of the euro. While this difficulty of identification of causes is unavoidable, a comparison of developments in Finland and Sweden would seem particularly interesting. These countries are quite similar in terms of economic structure and level of GDP per capita as well as social conditions and political institutions. Differences in the economic fortunes of Finland as compared to Sweden might therefore be informative about the genuine significance of the euro. What does such a comparison suggest?

### 8.3 THE EURO HAS MADE LITTLE DIFFERENCE FOR FINLAND AND SWEDEN SO FAR

The simple answer is given already in the title of this section: the euro seems to have made surprisingly little difference. This is particularly the case for the first decade of the euro, which is the main focus in this section. (Developments since the eruption of the crisis are examined subsequently.) A first observation is that productivity, as measured by output per capita and output per hour (figure 8.1), has developed in quite a parallel way in Finland and Sweden. Productivity growth has in fact been more favourable in both countries than in most other European countries, whether inside or outside the euro area. Cumulative growth was slightly higher in Finland, which is perhaps to be seen as a catching up phenomenon; Finland's crisis in the early 1990s was deeper than Sweden's.

Unemployment was on average somewhat higher in Finland (figure 8.2) at the outset but declined more than in Sweden so

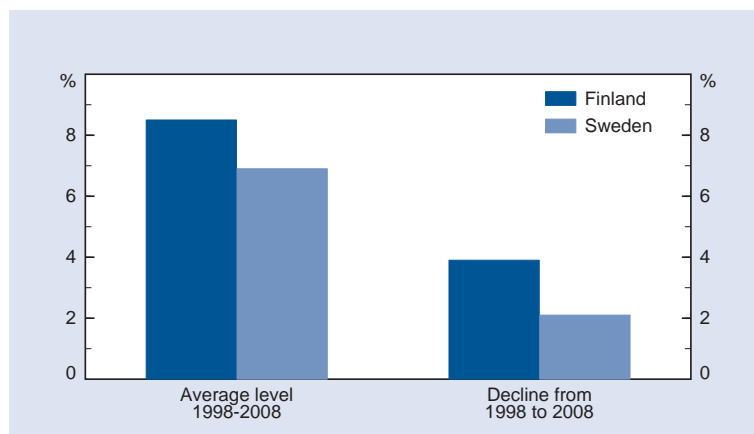
Developments in Finland and Sweden were very similar in 1998–2008,



**Figure 8.1**  
**Productivity growth, 1998–2008**

Increase of output in the private sector excluding financial intermediation and insurance.

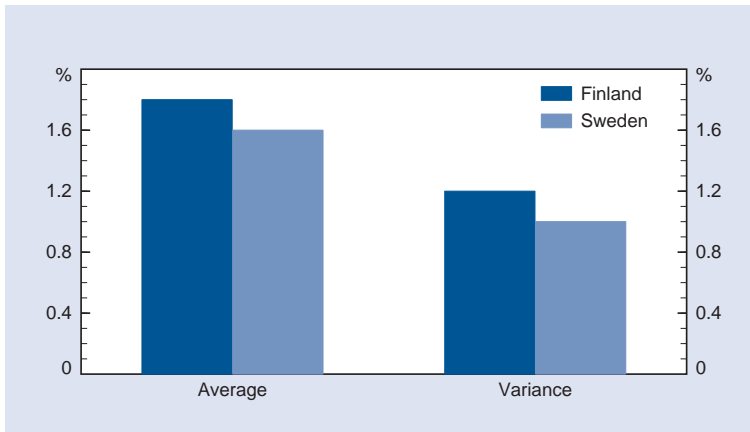
Source: OECD database, National Accounts.



**Figure 8.2**  
**Unemployment**

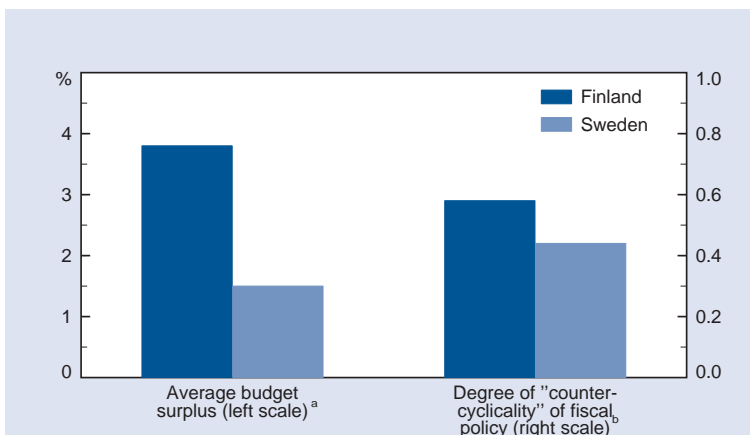
Unemployment as per cent of labour force, commonly used definitions.

Source: OECD (2009b).



**Figure 8.3**  
**Inflation, 1998–2008**  
 Increase in harmonized index of consumer prices, per cent change.

Source: OECD (2009b).



**Figure 8.4**  
**Fiscal policy, 1998–2008**  
 a = General government financial balance, per cent of GDP.  
 b = Value of correlation coefficient of output gap and change in cyclically-adjusted budget balance, per cent of GDP.

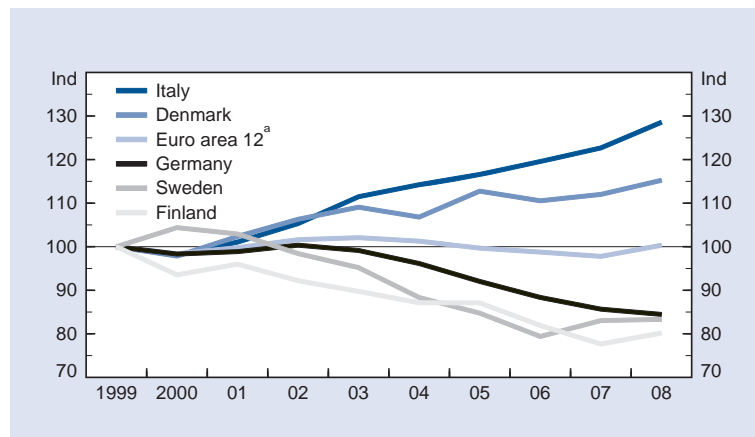
Sources: OECD (2009a, 2009b).

and developments in both countries were more favourable than in most other EU countries

both countries ended up with roughly the same level of unemployment before the current crisis. Inflation has been quite comparable between the two countries, slightly lower in Sweden both in terms of average inflation and its variance (figure 8.3).

Both countries have been running significant general government financial surpluses, thereby reducing net public debt, not only relative to GDP but also in absolute terms. As already seen in chapter 3, both countries also have been pursuing countercyclical fiscal policies, as indicated by the correlation between the output gap and the change in the cyclically-adjusted general government financial balance (figure 8.4).

Finally, figure 8.5 shows unit labour costs developing in a parallel fashion in Finland and Sweden, with smaller rises than in most euro area countries. In cumulative terms, Finland and Sweden improved their competitiveness significantly relative to the euro area average.<sup>6</sup> Decomposing the factors behind the relative performance of Finland relative to Sweden (figure 8.6) reveals that negative effects of wage developments and the exchange rate



**Figure 8.5**  
**Unit labour costs in manufacturing (Euros), 1999–2008, 1999=100**  
 a = Austria, Belgium, Germany, Greece, Finland, France, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain.

Sources: AMECO, ETLA.

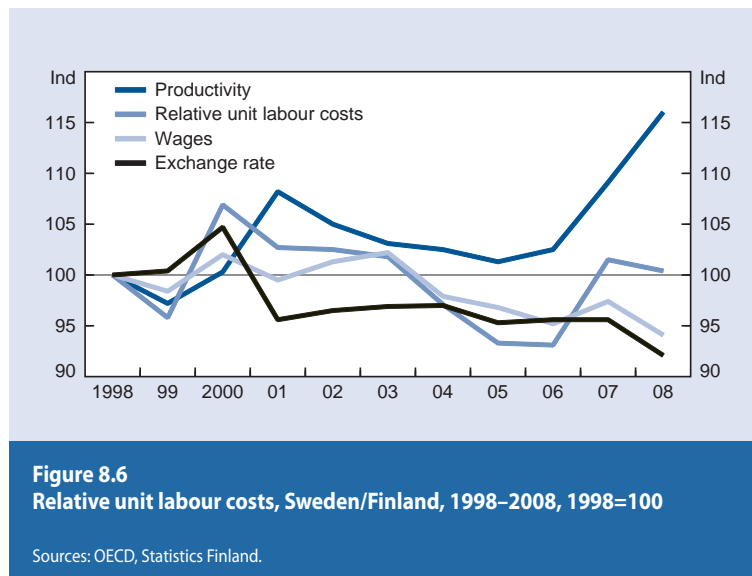
in Finland have been compensated for by more rapid growth in productivity, partly related to the bigger share of ICT in Finnish manufacturing.

Other information mostly confirms the impression that economic developments in Finland and Sweden have been favourable and quite similar. Even where differences can be detected, these can be explained by other circumstances than the euro. Needless to say, differences emerge in analysis of sectoral developments. However, the broad picture is one of similarity and of convergence.

What should one make of this seeming lack of significance of the euro and membership in the euro area? Several explanations are conceivable. To begin with, big differences were arguably not to be expected in the first place. The importance of EMU entry or non-entry was dramatized at the time by both proponents (overselling) and opponents (scaremongering). In reality efficiency gains materialize slowly; for them to become clearly visible may be a matter of decades rather than years.

Similarities are underpinned by the fact that Finland and Sweden share the same “Nordic model”, which has helped the Nordic countries benefit from globalization and technological

The debate on the euro: overselling and scaremongering





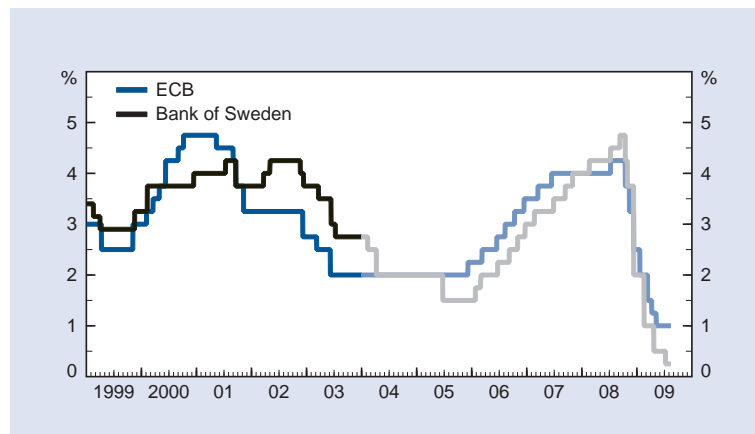
developments.<sup>7</sup> Policies in both countries continued for a long time to be coloured by the experiences of the severe crisis in the early 1990s, which made it easier to pursue both structural reforms and stability-oriented macroeconomic policies.

Asymmetric shocks were no big problem

As to stability, macroeconomic policies in both countries were in effect quite similar in the past decade. Most importantly, the period under review was not characterized by asymmetric shocks<sup>8</sup>, which economists had feared would create problems for the monetary union.

Monetary policy was similar and the krona was mostly stable against the euro

Monetary policy of the Swedish Riksbank was in these circumstances very similar in terms of its interest rate setting to the policy of the ECB (figure 8.7), even though the amplitude of Swedish interest rate changes after 2001 has been slightly larger than that of the ECB. The krona has since then remained stable in the 9.00 to 9.50 range against the euro until the onset of the current crisis in mid-2008 (figure 8.8, but note that the figure shows the value of the krona in terms of the euro). In all, a comparison of Finnish and Swedish experience in the first decade of the euro suggests that the euro has mattered little for relative economic performance.



**Figure 8.7**  
Central bank rates, 1999–2009

Sources: ECB, Bank of Sweden, ETLA.

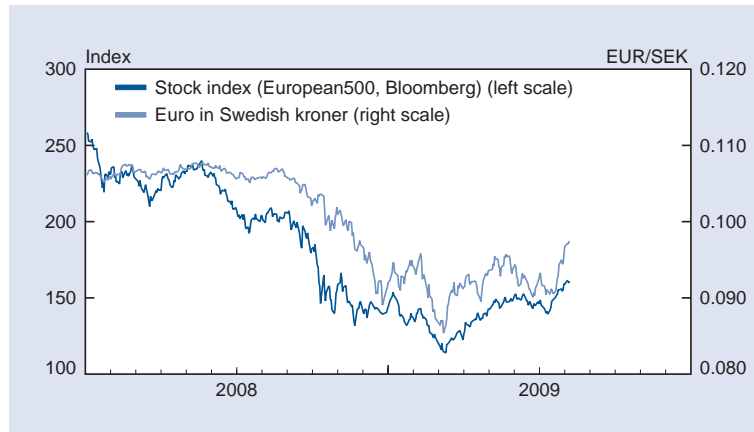


## 8.4 THE CRISIS AND EXCHANGE RATES: WHY DID THE SWEDISH KRONA WEAKEN SO MUCH?

While the first decade of the euro benefited from global growth and stability, the second decade has started in conditions of financial turbulence and crisis. Recent and prospective developments are likely to shed new light on the functioning of the euro in more difficult circumstances than those experienced in the past. What is the relevance of the euro for economic developments in Finland and Sweden in these turbulent conditions? How is the crisis affecting the costs and benefits of euro area membership?

The optimum currency area literature suggests that exchange rates should change mainly in response to asymmetric shocks and/or differences in macroeconomic policies. The global financial crisis must primarily be seen as a symmetric shock hitting all countries in a similar fashion. Thus, it need not give rise to any particular tensions within the euro area and, by the same token, it need not lead to big changes in the exchange rate of other currencies against

The crisis was mainly a symmetric shock, but it weakened the krona



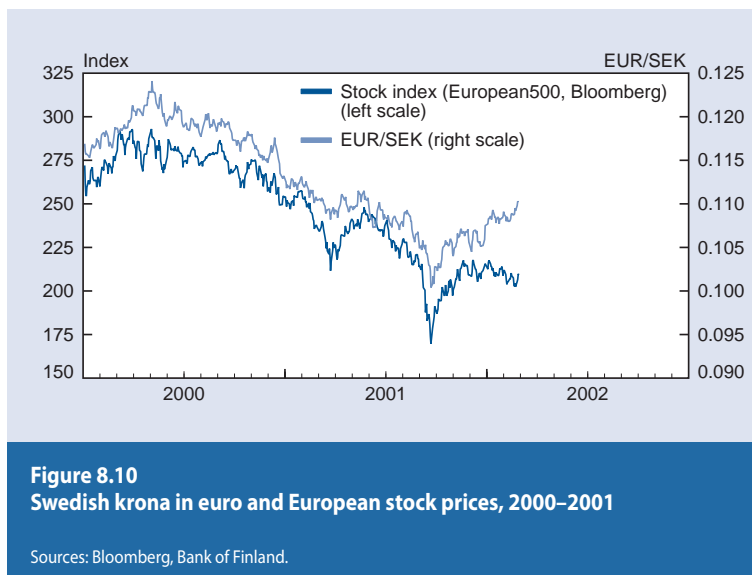
**Figure 8.9**  
Swedish krona in euro and European stock prices, 2008–2009

Source: <http://sdw.ecb.europa.eu>.

The external value of the krona is affected by sentiments in international financial markets

the euro. Yet, significant exchange rate changes have taken place in the past year and, in particular, the Swedish krona weakened strongly against the euro – as did the British pound. While exchange rate fluctuations may be erratic and subject to numerous forces, there are several conceivable reasons for this weakening that can be pointed to.

First, a key feature of the crisis is higher risk premia, which lead investors to shift out of risky assets, including assets denominated in relatively small currencies. As seen in figure 8.9, the recent weakness of the krona indeed started at the time of the onset of the financial crisis and the associated fall in stock markets. It subsequently stabilized in parallel with the recovery in the stock market. A similar development is visible during the high tech stock market turbulence in 1999–2001 (figure 8.10). These observations support the view that the krona is vulnerable to shifts of sentiments in international financial markets; the exchange rate is in the short run determined by portfolio decisions and speculative capital flows largely unrelated to competitiveness, fiscal stability or external imbalances. However, the external value of the krona has fallen in times of cyclical weakness, which should be helpful



for macroeconomic stabilization. The extent to which this is the case is examined below.

A factor of relevance for the risk assessment of the krona is the exposure of Swedish banks to credit losses in the Baltic area, which has been hard hit by the crisis. Even though most observers think that these losses do not pose any serious threat to the viability of the banks or the sustainability of Swedish public finances, uncertainty regarding the scope of exposure may have weakened confidence in the outlook for the Swedish economy and its currency.

A different explanation for the weakening of the krona is that Swedish exports are dominated by investment goods and consumer durables (including cars), and global demand for such goods has been particularly depressed in the present crisis and is likely to remain so for quite some time. The crisis may be asymmetric in its impact<sup>9</sup>, more severe for economies highly dependent of exports of investment goods and/or consumer durables such as Sweden (as well as Finland, Germany and Japan).

Finally, although the weakness of the krona has not been an element of official economic policy, Swedish policy authorities seem to have been quite complacent with regard to this develop-

Swedish policy authorities were complacent or pleased w.r.t. the weak krona

ment. Given a floating exchange rate regime with monetary policy geared to price stability, the value of the currency is determined by market forces. Yet the exchange rate is always influenced by domestic monetary policy (and expectations thereof) and by the central bank's "open mouth operations", notably so in volatile circumstances. The Swedish Riksbank has reduced its interest rate somewhat more than the ECB (figure 8.7 above). Also, one deputy governor of the Riksbank has flagged the option of active interventions to weaken the currency as a "fool proof" method to avoid deflation risks, while the finance minister has expressed the opinion that the weak krona helps Swedish exports and dampens the downturn in industry.

Whatever the reasons for the recent weakness of the krona, it raises important questions for policies. In particular, will it help Sweden to come through the crisis at less cost than Finland? Will Finns come to regret having joined the euro a decade ago, while Swedes have good reasons to be pleased that they stayed out?

## 8.5 DOES DEPRECIATION HELP?

Devaluations were in earlier decades often resorted to in Finland and Sweden

The usefulness of exchange rate changes as an adjustment mechanism or as a means of supporting export-led growth has been a contentious issue in policy debates, not least so in Finland and Sweden. As from the 1940s onward, devaluations were repeatedly resorted to in Finland, and later also in Sweden, as a means of stimulating exports and improving growth prospects. Subsequently it was argued that such policies were futile and only caused inflation and instability, not least because future devaluations were built into the expectations of private and government decision makers. It was concluded that the exchange rate should not be used as a tool facilitating adjustment to changing circumstances or enhancing growth. Instead, the exchange rate should be pegged (in terms of a single currency or a currency basket), such a peg constituting a useful constraint on policy discretion and serving as an anchor for inflation expectations.

During the 1980s the latter view became predominant in both countries as well as in Denmark, which adopted its policy of

a fixed exchange rate in 1982. However, the exchange rate pegs became increasingly difficult to maintain, partly because they were not supported by other economic policy, and they had to be abandoned in Finland and Sweden in the face of the severe crisis in the early 1990s. A fixed exchange rate, monetary autonomy and free capital movements arguably form an impossible economic policy “trilemma”. Unilateral exchange rate pegs are nowadays regarded as more or less impossible to sustain in conditions of free capital movements. (However, this has not prevented Denmark, with some support from the ECB, from maintaining a credible exchange rate peg against the euro.) The main options for EU member states are either to give up monetary autonomy and join the euro or to adopt a regime of free floating, hoping that the exchange rate will function as a useful mechanism of adjustment rather than as a source of instability.

The exchange rate peg had to be abandoned in the early 1990s, but the Nordics opted for different monetary regimes

The recent weakness of the Swedish krona makes sense from the point of view of economic policy, given the drastically falling volumes of exports and production. The help that depreciation can give to the economy as a whole is, however, open to question. The next section will first recall some of the historical evidence, according to which exchange rate changes and competitiveness have powerful effects on exports (and thereby overall growth). It will then review recent developments and forecasts, which suggest that growth will remain weak and unemployment will rise along similar paths in both Finland and Sweden in the near future in spite of very big differences in their competitive positions.

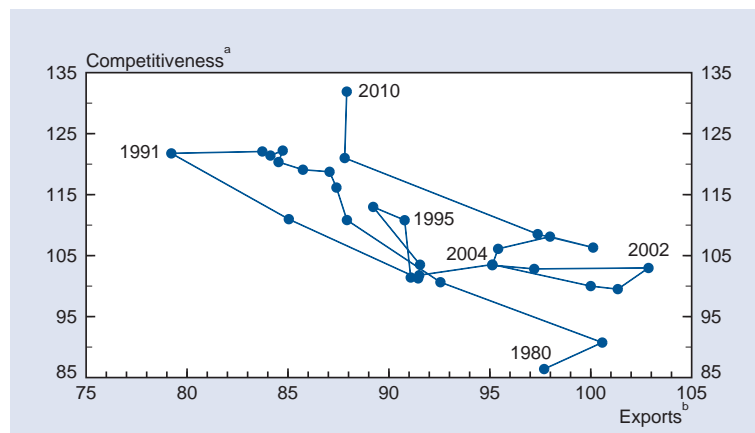
## 8.6 THE WEAK KRONA: WILL SWEDEN BENEFIT?

Small open economies have strong reasons to be concerned about their competitiveness on global markets: the maintenance of healthy growth requires sufficient market shares to be preserved. This suggests that the exchange rate is of great importance in economies such as the Nordic ones. Accordingly, macroeconomic models invariably include foreign trade equations with relative prices or relative unit labour costs as explanatory variables to cap-

Competitiveness is presumably a key issue in any small open economy

ture the effects of price competitiveness. Needless to say, export performance depends on a multitude of factors, including domestic demand and the composition of exports. Still, the relative export performance of countries may be expected to reflect their relative competitive position, particularly in the case of countries such as Finland and Sweden, which largely sell to the same markets and often compete in the same product segments.

Everything else equal, Swedish export performance should improve relative to Finnish exports if competitiveness of the former improves relative to the latter. As shown in figure 8.11, this presumption gets some support from empirical observations on past behaviour: total exports from Finland relative to exports from Sweden, is higher when unit labour costs in Finland are low relative to costs in Sweden and vice versa. Exports from Sweden increased more rapidly than Finnish exports for a number of years after the big Swedish devaluation in 1982, while Finnish exports developed more strongly in the years following the very large fall in the external value of the Finnish markka in the early 1990s.



**Figure 8.11**  
**Exports and competitiveness, 1980–2008**  
 a = Unit labour costs in common currency, total economy, in same year and preceding year (equal weights), Finland/Sweden, 2000=100.  
 b = Volume of total exports, Finland/Sweden, average of 1999 and 2000=100.

Sources: AMECO, ETLA.

As can also be seen from the figure, the relative competitiveness position of the two countries has thereafter varied within a fairly narrow range from 1997 until 2008.<sup>10</sup>

Historical evidence suggests that the recent fall in the external value of the krona should be helpful for Swedish economic growth but could also stoke up some inflationary pressure. Finland may, by the same token, suffer a deeper and more prolonged recession. The future will tell whether this is indeed the case. As of now, the available information on recent developments is scarce and hard to interpret.

The exchange rate of the krona in terms of the euro is assessed by the OECD to have been roughly 10 per cent lower in 2009 than its value in 2008, and it is projected to be some 5 per cent lower in 2010. These assumptions imply a significant improvement of the competitive position of Sweden, and a significant deterioration of the competitive position of Finland bilaterally, as well as compared to a basket of competitor countries (suitably weighted). While exchange rate forecasts or assumptions are highly uncertain, it seems safe to assume that Swedish competitiveness in this period will get a boost from the weak krona as compared to Finland and other euro area countries.

Manufacturing production is highly exposed to international competition and should be affected by changes in competitiveness. However, recent developments of manufacturing output in Europe do not indicate any major effects of the changes in competitiveness (figure 8.12): parallelism is the dominant feature. While output in Sweden is falling somewhat less than in Finland, the difference is not large and Swedish manufacturing output does not (so far) outperform Germany or the euro area average. It may be observed, however, that the decline in output from peak to trough is bigger in Finland, as is the decline in terms of annual averages.

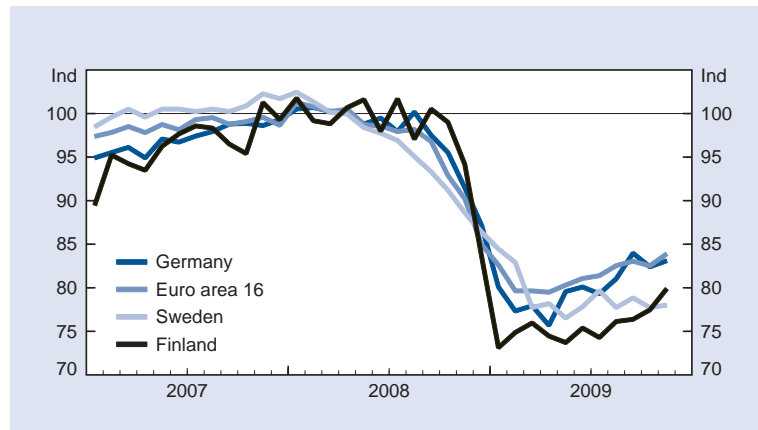
The development of GDP is rather parallel to that of manufacturing output (figure 8.13). The fall in GDP from the end of 2008 to the beginning of 2009 was even sharper in Finland than in Sweden, and the decline is again bigger in terms of annual averages. Much of this is due to the bigger fall of manufacturing and the large negative contribution of net exports (see below). The parallelism and coincidence in terms of timing suggests that this

Swedish cost competitiveness relative to Finland and the euro area has been boosted by the weak krona

Finland was hit harder by the crisis than Sweden,

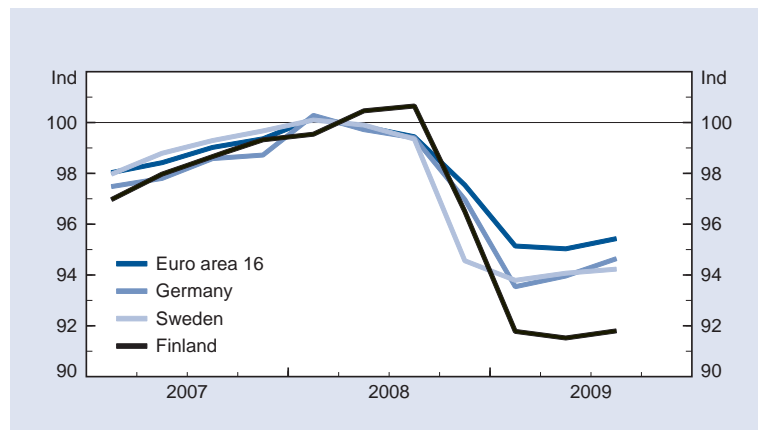


difference mainly reflects the higher cyclical sensitivity of Finland (due to its export structure) rather than effects of competitiveness. So far there is little to suggest that the Swedish economy would



**Figure 8.12**  
Europe – manufacturing, production index, January–June, 2007–2009, 2008=100

Source: Eurostat.



**Figure 8.13**  
GDP at market prices, January–June, 2007–2009, 2008=100

Source: Eurostat.

recover significantly more rapidly than Finland (or Germany or the euro area on average).

Conceivably, the effects of the gain in Swedish competitiveness are yet not visible in the reported data and will become bigger over time. Bearing in mind the uncertainty of forecasts, this section will use the recent forecast by the OECD as an estimate of future economic developments in Finland and Sweden. Some pertinent aspects of the OECD forecast are summarized in table 8.1.

The effects of competitiveness should serve to increase exports and reduce imports, thereby supporting growth of domestic output. As seen (first two rows of the table), there is indeed a large negative contribution of net exports to GDP in Finland

but it is not clear that the exchange rate has made much of a difference

**Table 8.1**  
**Economic development in Finland and Sweden in 2007–2011**

		2007	2008	2009	2010	2011
Contribution to GDP growth*						
– of net exports	Fin	1.4	1.0	-3.4	1.5	0.7
	Swe	-1.1	-0.5	0.1	0.5	0.7
– of final domestic demand	Fin	3.3	1.2	-3.4	-0.6	1.9
	Swe	2.9	0.6	-3.4	0.7	2.2
Growth of GDP, %	Fin	4.1	0.8	-6.9	0.4	2.4
	Swe	2.7	-0.4	-4.7	2.0	3.0
Unemployment, % of labour force	Fin	6.9	6.4	8.3	9.7	9.7
	Swe	6.1	6.2	8.2	10.3	10.1
Gen. gov. financial surplus, % of GDP	Fin	5.2	4.4	-2.3	-4.8	-5.2
	Swe	3.8	2.5	-2.0	-3.0	-2.0
Change in cyclically-adjusted balance, % of GDP	Fin	1.0	-0.1	-2.9	-1.7	-1.0
	Swe	1.4	0.2	-1.0	-1.3	0.2
Consumer prices, %	Fin	1.6	3.9	1.7	1.5	1.4
	Swe	2.2	3.4	-0.3	1.4	3.2
Export prices, %	Fin	0.5	2.9	-3.6	0.1	0.7
	Swe	1.8	4.5	0.6	2.0	2.3
Short-term interest rates, %	Fin	4.3	4.7	1.2	0.8	1.9
	Swe	3.6	3.9	0.4	0.3	1.6

\* As per cent of GDP in preceding year.

Source: OECD (2009).

Output growth is forecast to be weaker in Finland, unemployment to increase in parallel

in 2009, while such an effect is absent in Sweden. Much of this effect presumably reflects differences in composition of exports rather than competitiveness. Also, according to the OECD, the contribution of net exports is more favourable in Finland in the preceding and succeeding years. The contribution to GDP growth of final domestic demand is similar in 2009, while it is slightly more rapid in Finland in the preceding years and slightly more rapid in Sweden in succeeding years.

Overall growth of GDP is forecast in 2009 to be significantly more rapid in Sweden in the years 2009–2011, mainly because of more net exports, subsequently because of somewhat stronger growth of domestic demand. However, it has to be borne in mind that Finland historically has tended to have somewhat bigger cyclical fluctuations than Sweden, partly because of a higher concentration of its exports in a few key sectors: forest products, engineering, ITC. Over the five-year period 2006–2011, the cumulative growth difference is 2 per cent in Sweden's favour. Unemployment is forecast to increase at the same pace and to the same level in both countries.

Short-term interest rates are forecast to be slightly higher in the euro area than in Sweden throughout the period considered. However, in real terms the short-term interest rate was lower in the euro area than in Sweden in 2009, and real interest rates are forecast to be slightly negative in both cases in 2010. Nevertheless, monetary conditions no doubt eased significantly more in Sweden because of the weakening of the exchange rate. As far as fiscal policy is concerned, it may be noted that the general government financial balance has deteriorated more in Finland in 2008–2010, indicating a more expansionary stance of fiscal policy overall, and the same message is conveyed by comparing changes in cyclically-adjusted balances. This is in contrast to pre-euro experience, when Sweden has typically pursued more expansionary fiscal policies in times of rising unemployment.

In broad terms, the impression is one of similarity in the developments of Finland and Sweden – in spite of the significant differences in exchange rates and competitiveness. Economic growth in Finland is somewhat harder hit than in Sweden by the international crisis, but it is difficult to ascertain the significance

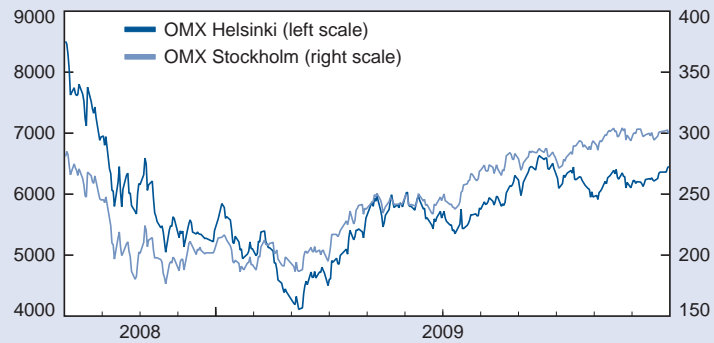
of the exchange rate developments in this context as compared to other factors. The decline in GDP is bigger than in the euro area also in Sweden, its manufacturing output has not been doing particularly well, and unemployment is projected to increase as much as in Finland. There are some differences but these seem, on balance, rather modest.

The OECD may be mistaken and Sweden may yet receive a bigger than forecast boost for growth by its strong competitive position. On the other hand, it may also turn out that the exchange rate has in present circumstances less of a role than might be assumed. It may be a mistake to infer from past experience of competitiveness effects that strong growth effects will materialize as a result of a weaker exchange rate. A discretionary change in a fixed but adjustable exchange rate is very different from a depreciation of a floating exchange rate. While a floating exchange rate may depreciate strongly and rapidly, it may also appreciate quickly. It is reasonable to assume that the recent weakness of the krona is largely temporary as it reflects sentiments on financial markets or other temporary factors as discussed above. Fundamentals in Sweden seem rather strong: competitiveness was good already before the weakening of the krona, inflation and inflationary expectations are low, public finance is under control, and the current account surplus (relative to GDP) is bigger than in any other EU country. All this speaks in favour of a return to pre-crisis levels of the krona exchange rate.

Given the likelihood of the depreciation being temporary, companies may hesitate to make investment and employment decisions based on current exchange rates. Correspondingly, they may not lower prices with a view to capturing market shares but may rather content themselves with reaping higher profit margins. Not surprisingly therefore, the depreciation has recently helped Swedish stocks to outperform Finnish stocks (see figure 8.14). It may also be noted that Swedish export prices are forecast to rise slightly in 2009, and also import prices are seen to rise only modestly (which is compatible with the “pricing-to-market” view of company behaviour). In local currency, Swedish export prices rise much more than Finnish export prices, and the Swedish terms of trade actually improves slightly in 2009–2010 in spite of the depreciation of the currency.

The overall effects of the weak krona are modest – or the lags are long

A depreciation of a floating exchange rate is quite different from past devaluations



**Figure 8.14**  
Finnish and Swedish equity indices since 1.9.2008

Sources: Bloomberg, ETLA.

Given expectations of a subsequent rebound of the krona and pricing to the market, the weak exchange rate may have less effect (than in earlier times and as compared to more fundamental and permanent factors) on decisions to enter new markets and undertake export promotion projects or to increase employment and investment. Berman et al. (2009) demonstrate theoretically and empirically that fixed costs to exports imply that notably high performance firms react to depreciation by increasing their export price rather than export volumes. Because of the importance of fixed costs and volatility, short-term exchange rate changes may matter less than before; indeed, large exchange rate fluctuations are arguably possible precisely because they have so limited effects on the real economy. If so, the exchange rate may be more a source of financial volatility than a useful adjustment mechanism.

While the size of the effects may be a matter of dispute, the exchange rate certainly still matters. For instance, even in the short term the cheap krona boosts tourism to Sweden and improves the balance in border trade with neighbour countries. Companies active in both Finland and Sweden, of which there are a lot, may temporarily switch some activity from the former to the latter in

There is a lot of anecdotal evidence of effects of the weak krona on neighbouring countries

order to benefit from the cost differences. For instance, the forest company Stora Enso decided to shut down a chemical pulp factory in Kotka and increase paper production in Nymölla in Sweden. Some of these decisions are likely to be irreversible even if conditions later change. There are gains and losses from such shifts in trade and production even if these were smaller than before.

On the other hand, exchange rate instability may also hamper long-term planning, notably of small and medium-sized companies, and may thereby affect long-term growth prospects negatively.<sup>11</sup> It is therefore at this stage not obvious that Sweden benefits significantly from the substantial weakening of the krona in terms of growth and employment (nor that it will suffer from delayed inflationary pressure). And if it does, then the question arises as to how those gains should be perceived by its partner countries in the euro area.

## 8.7 IS SWEDEN PURSUING A “BEGGAR-THY-NEIGHBOUR” POLICY?

The Swedish central bank is committed to price stability and its currency is floating. This setting leaves the exchange rate to be determined by market forces rather than policy decisions. Accusing Swedish authorities of pursuing beggar-thy-neighbour policies would therefore seem to be unjustified, at least as long as monetary expansion is not leading to significant overshooting of the inflation target. In a broader perspective, however, a neighbour country may still argue that a large depreciation of the Swedish krona may potentially have harmful cross-border effects.

One observation is that the expansionary stance of fiscal policy of Sweden is currently relatively modest in light of its strong public finances, its large current account surplus, the rapidly increasing rate of unemployment and its tradition of countercyclical policy. There is, needless to say, a large swing in the budgetary position because of the automatic stabilizers, but the size of the discretionary component of fiscal policy seems to be more modest than in Finland. While it may be noted that the Swedish

Sweden has a big current account surplus and strong competitiveness

government has recently announced an additional package of fiscal stimulus of 1 per cent of GDP, this action should probably be seen in the light of the forthcoming election rather than as a decision to change the macroeconomic policy mix (with a view to supporting the krona). The rather cautious stance may be due to uncertainty regarding future need for fiscal action and a concern of the government about long-term fiscal sustainability, but it may also reflect a preference to rely on monetary easing rather than fiscal expansion. If so, this may be rational from a Swedish point of view if fiscal multipliers are small and if monetary policy has strong effects through interest rates and/or the exchange rate. But from the perspective of neighbouring countries such a strategy may be put in question.

Sweden prefers monetary expansion to fiscal stimulus

The monetary union is a collective endeavour. It requires strong cooperation between nations to set up a mechanism for supranational decision making on monetary policy. The treaty of the European Union includes an obligation for member states, except for those with an opt-out (the UK and Denmark), to endeavour to join the monetary union and to do so when they meet the entry requirements. Sweden clearly meets the conditions *de facto* even if not *pro forma*, as some minor elements of central bank legislation have not been amended as required by the treaty.

Sweden does not have an opt-out from the EMU, it is politically, if not legally, renouncing its EU commitments

Arguably, it would have been in the interest also of Sweden to join the euro, if the alternative had been that all EU countries pursue a floating rate policy with a potential continent-wide loss of stability as a consequence. Many observers believe that Europe would have been faced with large and mostly harmful swings in exchange rates and pronounced uncertainty during the crisis in the absence of the euro. Such an assessment must obviously remain somewhat speculative and highly uncertain. Anyway, given the Community decision to create the euro it may still be better to stay outside, if such a unilateral decision is accepted. But by staying outside the monetary union Sweden is politically, if not legally, renouncing its commitments entered into through accession to the European Union. This has not triggered any major political accusations against Sweden in the EU, as other member states have understanding for the political considerations involved.<sup>12</sup> It would not serve the overriding purposes of the European Union to

drag Sweden unwillingly into the monetary union (and it is hard to see how it could be done).

The case for exchange rate changes obviously depends on the character of the shocks. In the case of asymmetric shocks, exchange rate changes may well be beneficial from the point of view of most or all countries, as they allow the differentiated response that the asymmetric shock is calling for. The floating Swedish krona should then be a source of satisfaction rather than criticism in both Sweden and the rest of Europe. However, the current crisis is largely the consequence of a symmetric shock, not least from the perspective of Sweden vs. Finland. This puts large depreciations of currencies of “outs” against the euro into a different light because of the presumption that the benefits for the country of the depreciating currency are likely to be at the expense of economic activity in member states of the euro area.<sup>13</sup>

The conclusion is that euro area member states could have reason to be dissatisfied with the existing monetary arrangements of Sweden. Indeed, the EU could invoke the relevant treaty article, which states that economic policies, including the exchange rate, are a “matter of common concern”, calling for coordination within the Council. However, criticism of Swedish policies has been muted or absent. As already noted (footnote 5 above), studies also indicate that euro outsiders have not been losing political influence in EU decision making. The attitude of euro area member states might change if the crisis persists and if outsider exports were to benefit extensively at the cost of exports of euro area member states. So far there is, however, little evidence of Sweden escaping the crisis at the expense of its neighbour countries.

Also, if the crisis were indeed to deepen and persist for a long time, then the euro may face more serious problems than those associated with exchange rate depreciations of the Swedish krona or the British pound. In particular, a potentially quite serious issue highlighted by the current crisis is the internal divergence which has already for some time been visible within the euro area, an issue which will be taken up in chapter 9 below.

The euro area has more serious problems to ponder



## 8.8 WHAT ABOUT DENMARK AND THE EURO?

The economic logic of the Danish monetary regime has often been questioned

This chapter is about Finland and Sweden in relation to the euro. However, some observations on the relation of Denmark to the euro are also called for. Denmark has since 1982 been pursuing a policy of keeping its exchange rate fixed first in terms of the D-mark and then in terms of the euro. The political logic of this situation is simple and clear: the Danes have rejected membership in the euro area in two referenda. But the economic logic of the Danish choice can still be questioned: Received wisdom is that a pegged but adjustable exchange rate is a bad choice, if feasible at all, as compared to either a free float or membership of a currency union. An answer to the question about economic logic has recently been provided by the Danish Economic Council (2009). Interestingly, their analysis seems compatible and complementary with the views on Sweden set out above.

Denmark has been able to establish credibility for its exchange rate peg to the euro

A main conclusion of the Council of Economic Advisers is that membership of the euro area would imply a net gain, though of modest magnitude, relative to the present solution of a permanently fixed exchange rate of the Danish krona in terms of the euro. The gain is modest because the fixed exchange rate regime already allows Denmark to benefit from the trade creation effects of the euro. Joining the euro would in addition safeguard these benefits by eliminating the risk that the present currency regime would have to be abandoned as a consequence of a speculative attack on the krona (though such an event is deemed unlikely).

The Council also considers the alternative of adopting – like Sweden – a floating exchange rate with an autonomous monetary policy geared to an inflation target. While such a comparison involves weighing numerous costs and benefits that are difficult to appreciate, the Council does not reach the conclusion that Denmark should choose such a regime. On balance it seems that Denmark and Finland are happy with the euro, while Sweden is pleased with its floating currency (as is Norway).

The Danish choice has an option value

A key point of the Council's assessment is that staying outside implies an option value in the sense that Denmark thereby retains the possibility to change its monetary regime, if later develop-

ments were to increase the gains associated with monetary policy autonomy. Joining the euro would seem to pose no problems for the Danish economy, but it is a decision not easily reversed if conditions were to change. The point of the Danish arrangement is to retain the option of choosing between the alternatives exemplified by Finland and Sweden.

The option is relevant if, for example, lack of fiscal discipline in the euro area were to push the ECB to pursue a policy leading to high and unstable inflation (in contradiction with its Statutes). Another possibility is a large asymmetric shock, calling for a different monetary policy in Denmark as compared to the euro area. The Council considers such developments highly unlikely. It also notes that currency fluctuations may, due to capital flows that are unrelated to changes in monetary policy or the real economy, in practice exacerbate rather than dampen economic fluctuations.

The bottom line of the Council's assessment is that there is a modest net gain of euro area membership as compared to the fixed exchange rate. But it makes no suggestion that Denmark should opt for a floating exchange rate. The Council concludes that full membership in the EMU is not an issue to be settled on the basis of narrow economic considerations, but rather on the basis of a political evaluation of the role that Denmark should play in the future European cooperation.

The bottom line: it's politics

## 8.9 CONCLUSIONS ON THE MONETARY REGIME

The choice of the exchange rate and monetary regime is one of the most important decisions in the area of macroeconomic policy that governments make. This is the main justification for the great interest attached to the euro, and this is also why differences between experiences of comparable countries with different monetary regimes merit attention. Some of the views emerging from the comparison between Finland and Sweden made above may be summarized as follows:

- (i) The euro has so far largely been considered a success in the sense of fostering trade and stability in Europe; however, a decade, and a stable one at that, is a short time

span to assess a monetary regime. The euro is only now being tested in turbulent conditions.

- (ii) The different choices with regard to the euro seem to have mattered little for the economic performance of Finland and Sweden during the first ten years of the euro.
- (iii) There is so far little indication of Sweden gaining significant macroeconomic advantages at the expense of euro members from the weakness of the krona in this crisis. Yet, if the crisis were to go on for several years, it may increase the attractiveness of monetary autonomy.
- (iv) Path dependency seems to prevail in the sense of a rather positive appreciation of the existing currency regime in both Finland, Sweden and Denmark. This presumably reflects an absence of major costs of the regimes chosen, as well as a compatibility of the choices made with prevailing political attitudes to European integration in general.

The comparison of Sweden and Finland points to a paradox: being in or out may matter less than many have thought

The most important and perhaps somewhat perplexing outcome of the comparison between Finland and Sweden is definitely the lack of any visible and major differences as a consequence of the choice of the monetary regime, neither in the short term nor in the longer term so far observed. This does not mean that macroeconomic choices or monetary policy are irrelevant or of little importance overall, though it does suggest that exchange rate changes give little protection against global shocks in the short run. The conclusion is rather that credible commitment to a framework of sound monetary and fiscal policies can be achieved in different ways, either within the euro area or outside. While no policy framework prevents shocks from causing output losses and unemployment in the short run, a stability-oriented framework may still be helpful by keeping interest rates down without fear of inflation, and by leaving more room for fiscal policy to alleviate unemployment and soften its consequences. Such benefits can be achieved both through a credible commitment to low inflation under a floating rate regime as well as by membership in the euro area. In this sense these two alternatives seem in effect to be more similar than different.

## ENDNOTES

- <sup>1</sup> For an evaluation of EMU by a group of Finnish economists see Pekkarinen et al. (1997).
- <sup>2</sup> See Calmfors et al. (1997).
- <sup>3</sup> See, for instance, Flam et al. (2009), Pisani-Ferry and Posen (2009) and the European Commission (2008).
- <sup>4</sup> For empirical assessments of the trade and investment effects, see Flam and Nordström (2006, 2007) and the Danish Economic Council (2009), which notes that Denmark, by maintaining a fixed exchange rate in terms of the euro, has gained almost as much in trade terms as the members of the euro area, in contrast to Sweden and the UK.
- <sup>5</sup> It has occasionally been argued that staying outside the euro would reduce the political influence of a country making that choice by harming its reputation and leading to exclusion from informal networks. However, research by Naurin and Lindahl (2009) shows that the “outs” (the UK, Sweden and Denmark) are highly ranked in terms of network capital. Euro area countries may disapprove of the choice of the “outs” but do not exclude them from cooperative activities.
- <sup>6</sup> Much of this improvement is due to rapid productivity developments, not least in the production of telecommunication equipment. As a counterpart, prices of such equipment has been on a declining trend, reflected also in the terms of trade of producer countries.
- <sup>7</sup> See our previous report Andersen et al. (2007).
- <sup>8</sup> The high tech bubble, which burst in 2000–2001, was an asymmetric shock, more negative for Finland and Sweden than most other countries, but it passed quickly and without causing significant macroeconomic problems.
- <sup>9</sup> Similar arguments can be made for Austria (exposure to banking problems in East Europe), Ireland and Spain (exposure to housing bubble) and the UK (size of financial sector).
- <sup>10</sup> While significant, exports are not the only channel of competitiveness; other channels include, inter alia, imports, actual and expected profitability as well as investment in export promotion, R&D or new production capacity. Through their direct and indirect effects, changes in competitiveness are likely to have significant consequences for overall economic developments. However, causality clearly goes the other way as well: competitiveness is affected by many factors, including exchange rates as well as wage and productivity developments. These will evolve over time in response to, inter alia, the level of capacity utilization and the state of the labour market. Given the feedbacks, the causality between overall macroeconomic developments and competitiveness is difficult to disentangle. This mutual interrelation is the starting point for the analysis of the so-called “devaluation cycle”, which refers to a growth cycle arising as a consequence of endogenous fluctuations in competitiveness, see Korkman (1978) and Jakobson (1997).
- <sup>11</sup> Another argument often invoked by Swedish critics of their monetary regime is the risk that monetary policy allowing the exchange rate to weaken in times of difficulties is too “soft” in the sense of giving insufficient incentives to structural adjustment in the company sector to the detriment of long-term growth. This argument presupposes a tendency for lax monetary policy over time, which would contradict the (credible) commitment to price stability.
- <sup>12</sup> It is not necessarily a common interest that all EU countries join the euro. Analysis based on the optimum currency literature might suggest that Germany, France, Austria and the Benelux countries are the most natural constituency of a monetary union. However that may be, the treaty stipulates an obligation to endeavour to fulfil certain criteria for membership. There is little doubt that Sweden fulfils these conditions to a higher extent than a number of euro area member states (such as Greece or Italy).
- <sup>13</sup> Even then, such depreciations may be defended from a European point of view if it can be claimed that the monetary policy of the ECB is too cautious or passive and if the exchange rate changes are seen as a mechanism putting pressure on the ECB to reduce its policy interest rates further. Eichengreen (2009) has argued that the competitive devaluations in the 1930s were not harmful but beneficial by inducing monetary authorities to ease monetary policy more than otherwise would have happened. However, it is far from obvious that such a case can be made in present circumstances.

# 9

## CAN FISCAL POLICY HELP?

While the scope for monetary policy differs depending on institutional choices and notably the exchange rate regime (as discussed in chapter 8), governments in all countries are in principle free to pursue independent fiscal policies. In particular, in a monetary union or under “irrevocably” fixed exchange rates, the only remaining tool of macroeconomic policy at the national level is fiscal policy. However, it is often thought that the effectiveness of fiscal policy as a tool of macroeconomic stabilization is quite limited. This chapter starts by surveying some of the reasons why this might be so. It then examines fiscal policy behaviour in the euro area, where the crisis has been associated with significantly larger cross-country differences in interest rates for government bonds. Analysis of this recent experience, which is in contrast to the notoriously small bond spreads in the first decade of the euro, suggests that public finance sustainability is indeed increasingly constraining the scope for fiscal policy as a tool of macroeconomic stabilization.

### 9.1 IS FISCAL POLICY EFFECTIVE?

There used to be a lot of optimism with regard to the scope for fiscal policy fine tuning

During the heyday of Keynesianism in the Bretton Woods era there was a lot of optimism regarding fiscal policy. Practical experience and empirical studies seemed to bear out that discretionary fiscal

policy, fine tuning, could keep the economy on a full capacity growth path without serious negative side effects. Fiscal multipliers were perceived as large, meaning that rather limited changes in public expenditure or tax rates could have substantial effects on aggregate economic activity. Both discretionary fiscal policy and the operation of the so-called automatic stabilizers were considered important.

The distinction between discretionary fiscal action and automatic stabilizers is important. By the latter is meant changes in tax revenues and public spending brought about by variations in economic activity without any new political decisions; an increase in economic activity will automatically raise tax revenues and reduce spending on, for instance, unemployment benefits and vice versa. Automatic stabilizers, therefore, are entirely countercyclical and their importance tends to increase with the level and progressivity of the income taxes as well as the level and scope of social safety nets.<sup>1</sup> Discretionary fiscal policy, on the other hand, refers to specific decisions taken by the authorities to change public expenditure and/or tax rates.

From the late 1960s there has appeared much scepticism about the potential of discretionary fiscal policy<sup>2</sup>. This increased scepticism has been a gradual process, drawing both on practical experience, new theoretical insights, and econometric evidence. For a couple of decades now, a widely held view has been that difficulties associated with discretionary fiscal actions imply that it is under normal circumstances best to rely only on the working of the so-called automatic stabilizers. However, the present crisis is clearly an exceptional situation and it has triggered exceptionally strong fiscal policy responses, including discretionary spending increases and tax reductions.

While estimates of the size of fiscal stimulus are quite imprecise<sup>3</sup>, there is no doubt that fiscal expansion of exceptional magnitude has or is been undertaken in 2009 and to some extent in 2010 in most of Europe and the US (and China). Changes in cyclically-adjusted and total general government financial balances (used as rough indicators of the fiscal stance), suggest that fiscal expansion in 2009–2010 is of the same magnitude in the US and the euro area, though the discretionary part (change in cyclically-adjusted balance) is bigger in the US (table 9.1). Overall fiscal expansion

Discretionary fiscal policy action differs from automatic stabilization

More recently, there has been widespread pessimism concerning fiscal policy activism,

but in 2009 big fiscal stimulus packages were undertaken in many countries

**Table 9.1**  
**Fiscal expansion in 2009–2010**

	Change in general government cyclically-adjusted balances		Change in gen. government financial balances	
	2009	2010	2009	2010
United States	- 3.1	+ 0.5	- 4.7	+ 0.5
Euro area	- 1.5	- 0.6	- 4.1	- 0.6
Germany	- 1.0	- 1.0	- 3.2	- 2.1
Denmark	- 2.6	- 2.0	- 4.8	- 0.6
Sweden	- 1.0	- 1.3	- 4.5	- 1.0
Finland	- 2.9	- 1.7	- 6.7	- 2.5

Source: OECD (2009).

(including the effect of automatic stabilizers) in Germany is of the same magnitude as in the US for the two years taken together, and fiscal policies in the Nordic countries are even more expansionary (as seen by adding the absolute values of the figures in the last two columns of the table).

The size of fiscal policy multipliers is uncertain and a controversial issue

While the size of the fiscal impulse is conventionally measured by the change in the cyclically-adjusted balance (a positive change indicating contractionary policy), its effects are difficult to assess and open to debate in several respects. The key issue is the size of “fiscal policy multipliers”, the change in GDP relative to the size of the fiscal impulse (both measured as percentage deviations from a baseline). Some economists claim that such multipliers are much above 1, implying that increased government spending, or tax reductions, will raise GDP by more than the amount of the initial government action.<sup>4</sup> This follows from the Keynesian text-book model underlining the positive interaction between spending on the one hand and output and income on the other, which implies that an original demand impulse is “multiplied” because of the additional spending that increases in income generate. Other economists are sceptical, claiming that fiscal policy multipliers should be expected to be much below one, if not close to zero (in some cases even negative). The differences of view relate not only to issues of empirical estimation but also to disagreements about the proper theoretical framework. Some of the principal considerations invoked in this debate are as follows:

- *Crowding out*. Fiscal expansion may for various reasons crowd out private spending which would otherwise have taken place. For instance, increased public borrowing to finance the budget deficit may tend to drive up interest rates, thereby reducing private consumption and investment.
- *Expectations*. Forward-looking behaviour of households and firms may mitigate the overall effects on output of fiscal expansion. In particular, private consumption and investment may be crowded out by negative effects on perceived private wealth caused by the expected increases in future taxes associated with budget deficits. Households may adjust to the reduction of future disposable income by a corresponding increase in private saving, which mitigates or eliminates the expansionary effect of deficit spending by the government (“Ricardian equivalence”). Multiplier effects of any significance arise, it has been argued, only in models with unrealistic expectation formation.<sup>5</sup>
- *Sustainability of public finances*. A similar but somewhat different argument is that fiscal expansion may be ineffective or even backfire unless there is a credible commitment to safeguard the sustainability of public finances. This consideration is particularly pertinent for countries with high debt levels and/or a bad track-record in their fiscal behaviour (see below).
- *Liquidity constraints*. Many households are unable to borrow and they could be expected to spend any additional income received as a consequence of government action. This consideration may be particularly important in times of a credit crunch.<sup>6</sup>
- *Monetary policy*. Fiscal expansion is obviously more likely to raise output if associated with an accommodating monetary policy, which prevents interest rates from rising (for some time) as a consequence of the increase in government borrowing.
- *The degree of slack in the economy*. For an economy operating at full capacity, the fiscal multipliers should obvi-



ously be zero, while they may be sizeable in a recession, when idle resources are available.

- *Focus of fiscal action.* Spending on government investment may have more direct demand effects than transfers or tax reductions, part of which would normally be saved.
- *Openness.* Small and open economies have high marginal import propensities, implying that much of any increase in demand will “leak” abroad and generate increased demand for production in other countries. Thus, fiscal policy is more effective as a stabilization policy instrument in large as compared to small (open) countries. Also, small but closely integrated countries may have an interest in coordinated fiscal expansion to reinforce the effects of action in individual countries. This case for policy coordination has figured prominently on the agenda of the EU, the IMF and G20.
- *The exchange rate regime.* The policy options are different for countries in the euro area as compared with those outside and having a floating exchange rate. In particular, expansionary fiscal policy may put upward pressure on the interest rate and induce an appreciation reducing exports. One might therefore expect countries with a floating rate (like Sweden) to rely on monetary policy for macroeconomic stabilization, while members of a monetary union (like Finland) at the national level can rely only on fiscal policy (see chapter 8).

For small and open economies, such as the Nordics, the fiscal multipliers are probably modest

The size of fiscal multipliers may obviously vary greatly as they depend on all these and other circumstances, including the length of the time period under consideration. For Finland as well as for Sweden, the fiscal multiplier for tax reductions and government spending is in very simple calculations typically found to be between 0.5 and 1 in the short run (one to two years), though it may be slightly above one if spending is targeted on construction and the marginal propensity is assumed to be high.<sup>7</sup> These estimates imply that fiscal expansion has a rather modest effect on output and employment and leads to a relatively significant weakening of the budget.

Fiscal action should be TTT rather than SSS

Not only is the effectiveness of fiscal policy a highly controversial issue, but also its practical implementation is fraught with

difficulties. Ideally fiscal action should be “TTT” (“timely, targeted and temporary”), meaning that action is undertaken quickly, is spent in productive and employment-generating ways, and does not add permanently to public deficits. In practice, there is always the risk that fiscal action is “SSS” (“slow, stupid and sustained”), meaning that the decision and implementation lags are long, funds are spent on inefficient projects, and actions decided upon create a permanent burden on public finances. After all, policy changes can not be implemented overnight (as is the case with monetary policy); changes in appropriations to public authorities and changes in tax rates can normally apply only in the next budget year. This is one of the reasons why the timing of discretionary fiscal policy action has in practice often turned out to be more or less procyclical, with expansionary measures having their main effects after an upswing has already started and contractionary measures set in so late as to aggravate and prolong the ensuing downswing.

Also, decisions on fiscal policy are not taken by benevolent planners with dictatorial powers but rather by politicians eager to please their constituencies and attract voters. Incumbent governments may exploit their position for an otherwise unwarranted fiscal expansion just ahead of general elections combined with a fiscal contraction as soon as an election victory has been secured thereby generating political business cycles. Narrow interest groups in parliament may succeed in favouring particular interests by well targeted public spending at the expense of the general taxpayer (the common pool problem). An outgoing government with little hope of winning the next election may prefer to favour the interests of its electorate by generous public spending (or well-targeted tax cuts), leaving the problem of a large public debt to their incoming political adversaries (so-called strategic behaviour). Most of these problems, well-documented in the empirical literature, rely on the realistic assumption of voter myopia; it is difficult for individual voters to “punish” undesired strategic behaviour and with a single vote to pass a judgement on past performance as well as to give a preference for future promises.

In all, there are many uncertainties and difficulties associated with fiscal policy, both purely practical and profoundly political.

Fiscal policy is often subject to “political failure”

Automatic stabilizers should be allowed to operate

However, this does not mean that fiscal policy cannot play a useful role in stabilization. For instance, government support for renovation of buildings or for construction of rental housing or infrastructure projects will add to domestic demand and employment, and action to expand education and training may be called for.<sup>8</sup> The timing of tax reductions (or increases) could usefully consider the cyclical situation, being implemented so as to generate countercyclical rather than procyclical effects. As a minimum, automatic stabilizers should normally be allowed to operate fully.<sup>9</sup> This will not only alleviate the fall in demand in a recession but will also allow the “social contract” to be honoured, meaning that social security will continue to provide a safety net for individuals and households losing their jobs.

While the effectiveness of fiscal policy with regard to output and employment may be limited, this need not necessarily pose a big problem for policy. It might be argued that it is just an argument for as strong action as it takes to achieve the desired results. However, decisions on policy need also to consider their drawbacks. For fiscal policy two problems are particularly noteworthy.

Big deficits raise issues of intergenerational fairness

First, fiscal expansion resulting in big deficits and high debt levels will tilt the intergenerational income distribution in favour of current and to the detriment of future generations. While the appropriate intergenerational income distribution may be difficult to determine, and while a case can be made for transferring some income from future (richer) to present (poorer) generations, considerations of fairness limit the scope for budget deficits.

Effectiveness of fiscal policy is conditional on credibly sustainable public finances

Second, fiscal expansion risks becoming ineffective (or even having negative effects on GDP) if it gives rise to deficits that erode confidence in the sustainability of public finances. Risk premia in bond rates would then drive up interest rates to levels that seriously harm investment and growth. This concern limits the scope for fiscal expansion even if its intergenerational consequences are left aside. It also implies that the scope for expansionary fiscal policy in the short run may be enhanced if the government simultaneously commits itself to action that safeguards the long-run sustainability of public finances.

A main difficulty with fiscal expansion in the present juncture is indeed that public finances are not on a sustainable footing,

partly because of budget deficits associated with the crisis, more so because of expected future deficits caused by the changing demographics (ageing populations). This is the case for the Nordic countries and even more so for most of the EU and the OECD<sup>10</sup>. Lack of confidence by households and nervousness of financial markets can be reduced by a credible framework and institutions of fiscal policy. Such a framework may include debt and deficit targets and fiscal policy rules or the setting up of an independent fiscal policy council to assess government policies along the lines adopted in Sweden. As will be seen in the next section, recent experience in the euro area supports the view that weak public finances will act as a constraint on fiscal policies. Also, the constraint may become more binding in times of crisis, just when fiscal expansion or acceptance of big budget deficits would be sorely needed.

Well-designed fiscal targets, rules and institutions can support credibility of public finances

## 9.2 FISCAL POLICY IN THE EURO AREA

One of the key features of the single currency is that euro area countries do not have a monetary policy (or exchange rate) of their own; fiscal policy is the only tool of macroeconomic stabilization. However, this should also mean that the budget constraint is harder for members of the euro area than for other EU member states. Countries owning their central banks retain the option of running the printing press (to generate inflation) if the public debt becomes too large; this is not an option for euro area countries.<sup>11</sup> An analysis of fiscal policy in the euro area may therefore be particularly illuminating with regard to the relation between public finance sustainability and the scope for fiscal policy.

Euro area countries cannot finance their deficits by running the printing press

As was seen in chapter 2, fiscal policy in the euro area has on average been procyclical, and particularly so in countries with a low level of ambition for fiscal consolidation. This section makes three additional observations concerning fiscal policy behaviour in the euro area. First, economic developments and policy behaviour have already for some time been diverging in important respects as between member states in the euro area. Second, risk premia in government bond rates have emerged, and they seem to be highly

Euro area developments are characterized by persistent divergence

sensitive to the degree of risk aversion in international financial markets in conjunction with the state of public finances. Third, recent experience suggests that highly indebted countries have or perceive themselves as having little if any room for fiscal stimulus in times of crisis, even if domestic output is falling and unemployment rising. Developments in the euro area therefore support the view that sound public finances are a precondition for countercyclical fiscal policy to be viable or effective.

As noted in chapter 5, the EMU was not hit by any serious asymmetric shocks in its first decade. However, member states have nevertheless tended to diverge in many ways, partly because of differences in policies. Idiosyncratic developments need not pose any problems for the euro area or its members, but they may do so if the differences concern competitiveness and growth or financial balances, and if the divergences are persistent and cumulative. One may also argue that there is or has been some inherent tendency to divergence in the euro area. Countries with weak public finances in Southern Europe benefitted substantially from (“imported”) lower interest rates upon joining the euro area. However, these countries did not use the benefits to strengthen their public finances but rather to relax their policies, which is one reason why the divergence persists and is accentuated over time. It was hoped that the EMU would impose some external discipline on member states with lax fiscal policies. In practice, the reverse seems to have happened so far. Worrying developments in the euro area include the following:

- *labour productivity* in the total economy barely increased at all in Italy and Spain in 1998–2008, while productivity rose significantly in Germany and by almost 20 per cent in Finland;
- the average annual rate of consumer price *inflation* in 1998–2008 was 4 per cent in Ireland and above 3 per cent in Spain, Portugal and Greece, while it was below 2 per cent in Germany, France and Finland;
- *unit labour costs* in manufacturing increased in the same period by 30 per cent in Italy and almost as much in Spain, while costs fell by 15–20 per cent in Germany and Finland (figure 8.5);

- *general government financial deficits* have been notoriously big in Southern Europe (Italy, Spain, Greece, Portugal) and are forecast to be between 6 and 12 per cent of GDP in 2009, while the countries in Northern Europe (Germany, Netherlands, Belgium, Austria, Finland) are foreseen to continue to have much smaller deficits; and
- *current account deficits* in 2008 were between 9 and 15 per cent of GDP in Spain, Greece and Portugal, while all countries in Northern Europe except Belgium had large or very large surpluses (between 1 and 9 per cent of GDP).<sup>12</sup>

By and large, the divergence in the euro area is between the South and the North, with the dramatic deterioration in the economic fortunes of Ireland being a case of its own.

While the divergence is a process that has been going on for some time, the crisis has made the problems associated with it much more obvious. As the crisis erupted and worsened, rising risk premia induced a flight to quality and safety in financial markets, which hit not only corporate borrowing extensively but also sovereign borrowing by member states with weak public finances.

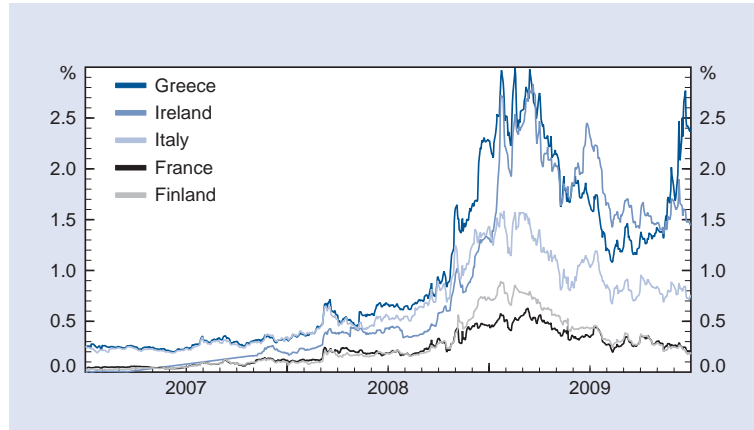
Figure 9.1 shows that interest rate differentials relative to German government bonds increased dramatically late last year after having been quite close to zero since the euro was initiated. Risk premia increased significantly for borrowers in Southern Europe and in Ireland, countries that have seen their sovereign credit ratings downgraded. Spreads have since then come down as the market situation has become more normal, but the premia remain higher than before the crisis and will – as can be seen in the case of Greece – rise again with growing problems of fiscal sustainability and changing sentiments on financial markets. It may be added that the Swedish bond rate (not in the figure) has at times been lower than the German rate, most likely because of a combination of relatively sound public finances and expectations of appreciation of the Swedish krona.

While many factors affect the creditworthiness and risk premia of sovereign borrowers (including exposure to banking problems), it is natural to look at the state of public finances as one of the main explanations. As seen in figure 9.2, the long-term

The crisis has increased risk awareness and risk differentiation

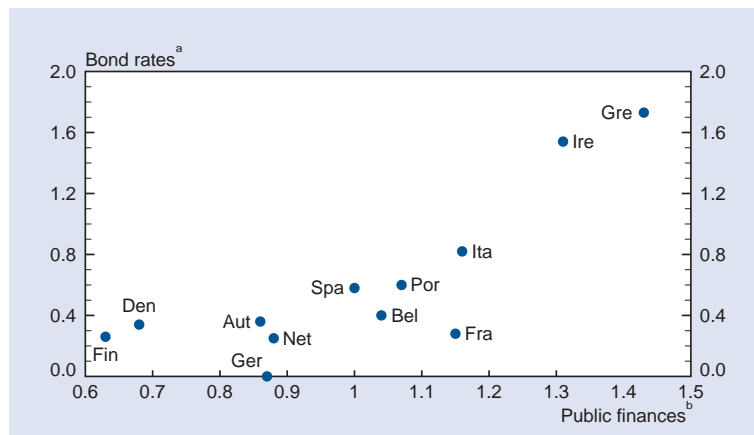
Bond spreads have risen a lot for Ireland and the PIGS (Portugal, Italy, Greece and Spain)

Weak public finances are a main factor behind high bond rates



**Figure 9.1**  
**Ten-year government bond spreads vs. Germany, 2007–2009**

Sources: Bloomberg, ETLA.



**Figure 9.2**  
**Government bond rates and state of public finances**

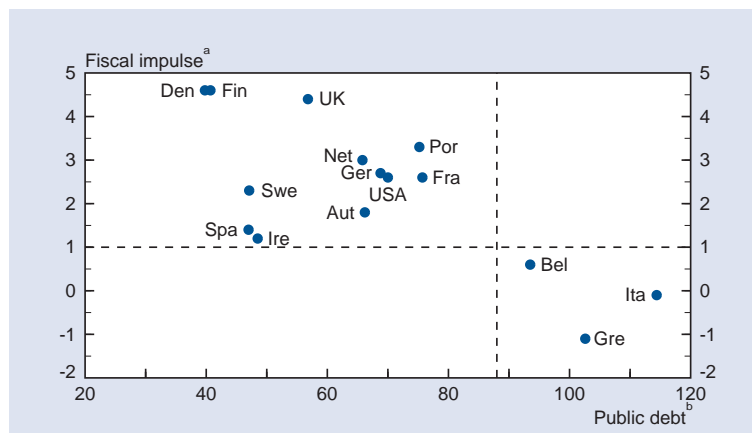
a = Long-term interest rates on government bonds in 4<sup>th</sup> quarter 2009.  
 b = Indicator of state of public finances, constructed as follows:  $0.5 \times$  gross public debt at the end of 2008 relative to the agreed ceiling of 60 per cent of GDP +  $0.5 \times$  gross general government surplus (OECD forecast) for 2009 relative to the agreed ceiling of 3 per cent of GDP.

Source: OECD, Economic Outlook No. 86, November 2009.

interest rate on government bonds tends indeed to be higher in countries with weak public finances, though the relation is not very strong. Big countries (such as Germany and France) seem to have lower rates than one would expect on the basis of their public finances, a difference which is partly explicable in terms of better liquidity in markets.<sup>13</sup> (As already noted, expectations of exchange rate appreciation may serve to lower the interest rates on Swedish and UK bonds.) The relation is conceivably a non-linear one, implying that risk premia rise rapidly if public finances deteriorate beyond some critical level, a view supported empirically in Haugh et al. (2009).

Highly indebted countries have less scope for using fiscal policy to soften the consequences of negative shocks. As seen in figure 9.3, the size of fiscal stimulus in the years 2009–2010 is expected to be clearly smaller in countries that had high government debt levels at the end of 2008. The countries with debt levels around or above 100 per cent of GDP were in fact forced to implement belt-tightening fiscal measures in the midst of the global down-

High-debt countries do not or cannot pursue fiscal expansion



**Figure 9.3**

**Fiscal stimulus and public debts**

a = General government cyclically-adjusted deficit, per cent of GDP, forecast, change from 2008 to 2010.

b = General government gross financial liabilities, per cent of GDP, end of 2008.

Source: OECD, Economic Outlook No. 86, November 2009.



swing. This is consistent with the observation that weak public finances risk leading to higher interest rates on borrowing, thereby constraining the room of manoeuvre of policies.

Ageing populations add significantly to fiscal sustainability problems

To alleviate the risks and improve the potential of fiscal stimulus in future downswings, governments should take action to improve the outlook for the long-term sustainability of public finances. While there are many ways to enhance public finance sustainability, the importance of ageing populations as a main source of the difficulties suggests action to prolong working careers and to raise the effective retirement age as a key part of the solution (cf. the next chapter). This is a matter which needs further attention and action in all the Nordic countries and particularly so in Finland, which has the lowest effective retirement age in the region.<sup>14</sup>

Divergence may create tensions, also w.r.t. monetary policy

Deteriorating public finances are a problem not only for fiscal but also for monetary policy. As far as the monetary policy of the ECB is concerned, there is a risk that rising risk premia could create or increase tension within the euro area and make it more difficult to maintain a high degree of consensus on the appropriate stance of monetary policy. In particular, countries with weak public finances might increasingly insist on unwarranted monetary easing in order to reduce pressure on their interest rates. Alternatively, risk premia in bond rates could rise all over the euro area if markets expected other governments to bail out a country close to default because of fear of contagion effects (through losses on government bond holdings). These are dangers that the Stability and Growth Pact (SGP) was intended to protect against, yet the SGP never had enforcement mechanisms powerful enough to deliver results<sup>15</sup>.

The financial feedback mechanism is problematic – but it could support the SGP

It is difficult to foresee how this problem of increasing divergence will evolve and how it will ultimately be resolved. Conceivably, rising national risk premia could improve fiscal discipline by making the costs of lax public finances more visible. The feedback of financial markets could help the SGP function in the intended manner. On the other hand, there is an obvious risk that these financial feedbacks will materialize too slowly and then become abrupt and difficult to manage. In the long run, possibly after painful experiences of financial distress by some heavily indebted member states, financial market behaviour in the form of varying

risk premia may serve to reinforce the SGP as a mechanism of fiscal discipline. For this to happen, it is essential that member states remain responsible for their government debts, i.e. that the no-bail-out clause of the EU treaty is respected.<sup>16</sup>

In all, public sector debts and deficits are reflected in cross-country interest rate differentials, particularly in times of financial crisis. Countries with large debts have not been able to pursue expansionary fiscal policies recently, but have rather had to cut expenditure and/or raise taxes. Public finance sustainability is therefore to be considered important not only for intergenerational reasons, but also as a precondition for countercyclical fiscal policy to be viable when really needed.

Public finance sustainability is essential for effectiveness of fiscal policy

## ENDNOTES

<sup>1</sup> For the US, Auerbach (2002) has calculated that each dollar decline in GDP induces an offsetting rise in the fiscal deficit of 35 cents, i.e. a budget elasticity of 0.35. For Sweden, Flodén (2009) has estimated the elasticity at 0.53. With a broader concept of budget elasticity, including spending on active labour market programs, the figure rises to 0.63. (This is still much lower than in 1999, when it was estimated by van den Noord (2000) at 0.79.)

<sup>2</sup> For a balanced account of the changing views of the potential of fiscal policy, see Blinder (2004).

<sup>3</sup> See, for instance, Saha and von Weizsäcker (2009) for estimates of the European stimulus packages for 2009–2010.

<sup>4</sup> Romer and Bernstein (2009) assess the fiscal spending multiplier in the US to be 1.6. Given their estimate of the size of fiscal stimulus, this would imply a rise in GDP by 3.6 per cent relative to the baseline in the fourth quarter of 2010, associated with some 3.5 million more jobs. (Christina Romer is presently Chair of the President's Council of Economic Advisers, while Jared Bernstein is Chief Economist of the Office of the Vice President.)

<sup>5</sup> See Cogan (2009) and Cwik and Wieland (2009), who use several "New-Keynesian" models, which typically combine forward-looking expectations and some wage rigidity, to assess fiscal policy effects in the US and Europe, respectively.

<sup>6</sup> See, for instance, Barrell and Liadze (2009) or IMF (2009). However, the uncertainty raised by the credit crunch could also serve to weaken consumption by increasing precautionary saving.

<sup>7</sup> See, e.g., ETLA (2009), Floden (2009) and Van den Noord (2000).

<sup>8</sup> For some illustrative calculations for Finland see ETLA (2009).

<sup>9</sup> This recommendation is not self-evident, however. On the revenue side it may be uncontroversial to rely on the level and progressivity of the tax system to mitigate the effect on disposable income of a macroeconomic shock. (Needless to say, a discretionary adjustment of tax rates may help to dampen the shock even more.) But on the spending side, it is not obvious that increased spending on unemployment compensation and active labour market programmes is unconditionally preferable to higher spending on, say, education or infrastructure. The standard recommendation "let automatic stabilizers work" should therefore be interpreted with some caution.

<sup>10</sup> See Andersen et al. (2007).

<sup>11</sup> This is a point that has been emphasized by McKinnon (1995).

<sup>12</sup> Even large current account imbalances need not be a source of concern if they are to be seen as reflecting sound incentives or preferences with regard to intertemporal allocation. For instance, they may reflect a transfer of real resources from countries with low expected return to investment to countries with a higher marginal productivity of capital. Also, countries with ageing populations may run large current account surpluses so as to build up of real and financial assets to ease the demographic transition. However, it is far from clear that the large current account deficits in a number of euro area member states are to be seen in this light.

<sup>13</sup> Differences in government bond rates in principle reflect exchange rate expectations or risk premia, liquidity premia and credit (default) risk premia. The exchange rate risk should be negligible within the euro area, while liquidity premia are a function of the size of markets for government debt. For an analysis emphasizing the liquidity premia and their sensitivity to financial turbulence see Beber et al. (2009).

<sup>14</sup> On the importance and means of prolonging work careers and raising the effective retirement age see Andersen et al. (2007).

<sup>15</sup> See Calmfors (2005).

<sup>16</sup> Politicians have suggested that euro area solidarity is needed to deal with the divergence. In particular, it has been suggested that euro area countries should issue "joint eurobonds", implying that the North would subsidize the South by all paying the same interest rate on government borrowing. This might enhance the liquidity of the euro bond market but would risk seriously undermining fiscal discipline through moral hazard effects on political behaviour.

# 10

## FISCAL CONSOLIDATION AND GROWTH

The Nordics have softened the effects of the crisis by pursuing accommodating and expansionary fiscal policies. Automatic stabilizers have been allowed to operate and discretionary measures have been undertaken to stimulate the economy. This policy response is eminently reasonable in view of the sharpness of the recession and the relatively low level of public debt inherited from the past. However, the crisis in combination with other challenges implies a considerable weakening of the outlook for public finances in the longer term. This is particularly true for Finland, where the effects of an ageing population will be felt more rapidly and strongly than elsewhere. The resulting sustainability gap in public finances must be addressed for reasons of both intergenerational equity and to safeguard the room for the operation of automatic stabilizers in future downturns. However, it is essential that fiscal consolidation be undertaken in ways that do not threaten or undermine a healthy economic performance: the challenge is to achieve both more growth and better public finances.

Three routes to fiscal consolidation: cut expenditure, broaden the tax base, raise tax rates

This chapter will make some observations on how fiscal consolidation and growth can be made to be complementary rather than conflicting objectives of economic policy. There are in principle three routes to reducing budget deficits: expenditure cuts, increases in the tax base and higher tax rates. The first two alternatives were extensively dealt with in an earlier report on the Nordic Model see Andersen et al. (2007), and will therefore

be dealt with only briefly next, while the role of tax policies in fostering growth is discussed somewhat more extensively in the subsequent section.

## 10.1 CUTTING EXPENDITURE AND STRENGTHENING THE TAX BASE

Most countries experience notorious difficulties in containing public expenditure growth. This is due both to political factors (referred to in the preceding chapter) and to two trends affecting the demand for and supply of public services. The first of these trends is often referred to as “Wagner’s law”, which states that the income elasticity of demand is high for many of the services that are traditionally provided by the public sector, such as education or health care and care of the elderly. This prevents an outright cut in the supply of these services. The second trend is the so-called “Baumol’s disease”, according to which productivity growth is typically lower in the supply of services than in the production of industrial and other goods. (It takes four to play a string quartet, and always did.) Given equal wage developments, unit costs therefore tend to grow faster in the production of public services, thereby increasing the need for tax financing if supply of the services is to be unchanged or grow.

As argued in the earlier report referred to above, the spending pressures call for actions that define the core activities of the welfare state, set limits for what the government is responsible for, and enhance efficiency in the provision of public services. A ceiling on pension contributions – or a move from a defined benefit towards a defined contribution system – can be helpful, provided it is backed up by a mechanism for adjusting pensions downwards in case of adverse conditions (cf. the Swedish pension system). The efficiency of public services can be enhanced by introducing competition via selective outsourcing of their provision as well as through use of vouchers and user charges. Equally important is that the efficiency potential of modern ICT is fully utilized. A prerequisite for this is that the technology platforms used in public

Cutting public expenditure is a task of tall order,

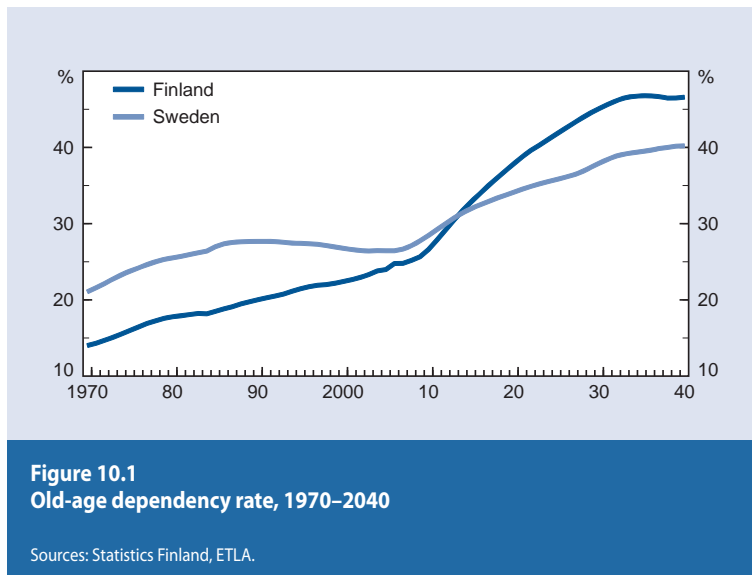
but there are many ways of increasing efficiency in the provision of public services

Raising employment rates by prolonging working careers is a key issue in face of a higher life expectancy

administration and in particular in the services such as health care are internally compatible, which calls for strong leadership by the central government. It would also be useful to clarify as far as possible what citizens can expect in the areas of publicly provided health and old-age care, as this would make it easier for both individuals and firms to reflect on the scope and need for complementary private solutions. While reigning in on public spending in general, Nordic societies should continue to have high ambitions with regard to social safety nets, investment in human capital and skills of the young.

The main cause of deteriorating public finances in the long run is the pressure on spending due to changes in the age structure of our populations. Accordingly, a main avenue for addressing the problem is to reduce benefit dependency and raise employment rates. Pension and tax policies should encourage the elderly to prolong their working careers as life expectancy rises. This calls for stronger incentives for late retirement as well as for indexing the pension system to longevity. We live longer on average, and the health of the elderly is much better than in earlier decades (as is the level of education); it should accordingly be possible for the average citizen also to work longer. Furthermore, the young should be given incentives to increase efficiency of time spent in tertiary education and to start their working careers earlier. Action to improve the functioning of labour markets and reduce the length of spells of unemployment is essential, including specific programmes and effective workfare elements to prevent e.g. school dropouts and immigrants from becoming marginalized.

While the average working life is already internationally rather long in the Nordic countries, there is scope and need for longer working careers – notably in Finland. As seen in figure 10.1, the rise in the old-age dependency ratio is dramatic in Finland in a historical perspective and much more pronounced than in Sweden. Not surprisingly, the OECD and the European Commission consider Finland to have a bigger sustainability problem of public finances than Sweden, Denmark or Norway. The sustainability of the Swedish pension system is furthermore greatly helped by the indexation of pension benefits to the contribution base.



There is no strong need for immediate action to raise the retirement age or to cut public expenditure. Higher statutory retirement age limits may have little relevance for the effective retirement age in conditions of high unemployment, and the continuing weakness of the economy still suggests that any significant fiscal tightening would risk being premature. The key point, however, is that there should be a credible basis for the sustainability of public finances in the long run. This can be achieved by adopting legislative decisions and/or strong political commitment across party lines to future action with a view to gradually improving spending discipline and increasing working lives. Such decisions should be adopted as soon as possible, though their implementation should take place only after a sustained economic recovery is in place.

The government should have a fiscal consolidation plan or programme



## 10.2 MORE GROWTH THROUGH LOWER TAXES?

Competitiveness policy is relatively more important than demand management in the SOE

Fiscal policy is less effective as an instrument for influencing demand and output in the small open economy (SOE) than in larger and less open economies. The converse is true for policy action that improves the competitiveness of the supply side; effects of supply side policies will be relatively strong in the SOE because of its heavy dependence on competitiveness in international markets. Fiscal action might therefore support activity more effectively if geared towards strengthening competitiveness rather than only domestic demand. Action to improve the quality of education and research as well as investment in infrastructure is important in this regard. Also, tax rates will influence incentives for economic activity. This section will consider the case for using tax policy as a means of enhancing the attractiveness of the SOE as a location for production in an environment characterized by internationally mobile factors of production.

### 10.2.1 TAX COMPETITION: MYTH OR REALITY?

Tax competition is a controversial issue,

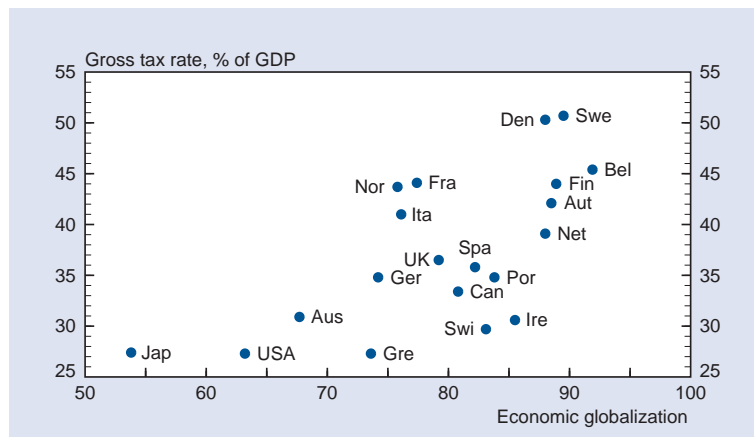
Factors of production are increasingly internationally mobile, and so are therefore tax bases. Each country has an incentive to set tax rates with a view to attracting mobile factors to its territory. Small open economies in particular may attract tax bases from their neighbours (or more distant countries) by cutting tax rates without too large revenue losses from taxes on internationally immobile activities, while the revenue loss from taxes levied on activities of domestic companies will be relatively more significant in larger and therefore more closed economies. Tax competition is accordingly viewed less negatively in countries like Luxembourg and Ireland than in Germany or France. While tax competition is a controversial topic and raises issues of international coordination, this section will focus on the role of tax policy from the national perspective.<sup>1</sup>

While important, tax competition is on the whole not a pervasive phenomenon. This argument is illustrated by the data in

figure 10.2, which relates the total tax rate in various countries to their overall degree of economic openness, as measured by a comprehensive index taking into account, inter alia, trade flows and relevant regulations.<sup>2</sup> One would expect tax competition to drive tax rates downward and the more so the more open the economy. This is the fear voiced by those expecting tax competition to lead to a “race to the bottom”, thereby eroding tax revenues and forcing societies to dismantle their welfare states. However, such an expectation is not born out by the data. On the contrary, there seems to be a positive relation between the overall tax rate and the openness of the economy (at least in this sample of countries). While the reasons for the correlation are not obvious, some conceivable explanations include the following.

First, openness and income per capita levels tend to be positively associated. In Europe the same holds for income levels and the size of the public sector, presumably reflecting a high income elasticity of demand for many of the services supplied by the welfare state, such as education and health care. The correlation of openness and tax levels may therefore just reflect a positive relation between both of these and the per capita level of income.<sup>3</sup>

but there is little evidence of any “race to the bottom”



**Figure 10.2**  
Tax rate and economic openness, 2005

Sources: OECD (2005), KOF, Economic globalization index (2005).

Openness and high taxes go hand in hand, as the Nordics illustrate

Second, openness may be associated with more risks for companies and individuals. Given the prevalence of risk aversion, voters may respond by demanding and politicians may respond by supplying more social security and income redistribution.<sup>4</sup>

Third, and partly reversing the causality of the preceding argument, the social safety net and, more generally, the welfare state may increase the acceptance among citizens of risks associated with openness to change, which, on the other hand, allows countries to reap the benefits of global markets and new technologies. The positive relation in figure 10.2 may therefore reflect a virtuous interaction between openness and risk sharing, an interaction which is conducive to favourable productivity developments. Needless to say, this presumes that tax revenues are spent wisely and in ways that cushion risks of citizens and enhance their capacity to adjust to changing circumstances.<sup>5</sup>

While the reasons for the positive association between tax levels and openness may be a matter for dispute, aggregate data nevertheless demonstrate that there is no clear-cut “race to the bottom” of tax rates and public spending. There are good arguments for reducing tax rates, including the effects of tax competition, but these are not so strong as to prevent countries from having considerable leeway in deciding on the size of their welfare state and public sector.

Some tax bases are more mobile than others,

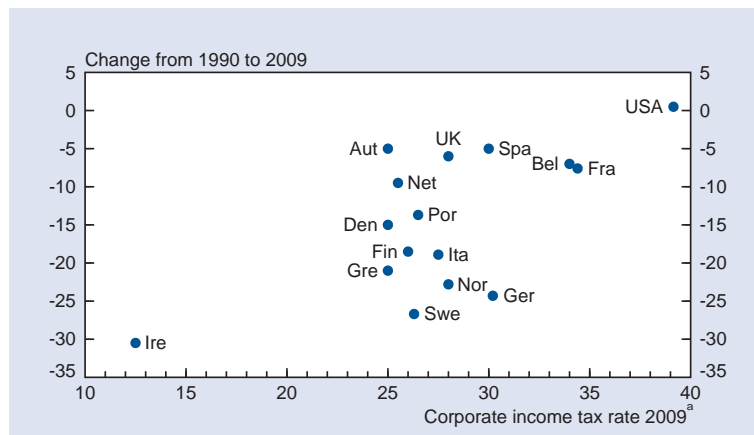
Obviously, the situation varies depending on the tax base in question. Many tax bases are internationally immobile. This holds not only for natural resources and real estate but, more importantly, also for much of the labour force; migration flows are not of such a magnitude as to seriously limit the scope of tax policies. For capital and companies, however, the situation is rather different and there is little doubt that tax competition is an important consideration. As will be seen below, it is also a noteworthy fact that most countries have reduced their top marginal tax rates on labour income during the past decade, be that because of tax competition or other harmful effects of high tax rates.

*Company tax* is levied – according to the source principle – in the country in which the company is located rather than in the country of the owner, as would be the case if the residence principle were applied. While the tax on company profits might be just one

component in a system of capital taxation based on the residence principle (and might matter just as part of the total tax on capital), in practice the residence principle is often difficult to implement fully. Many owners, notably institutions and foreign owners pay only the corporate tax on profits from domestic companies. The corporate tax is therefore undoubtedly one of the factors that owners and managers consider when deciding on company location.

Statutory corporate tax rates have been reduced dramatically during the past two decades (figure 10.3). In the OECD as a whole, the average statutory corporate tax rate declined from more than 40 per cent in 1990 to 33.6 per cent in the year 2000 and further to 26.3 per cent in 2009. The tax base has at the same time been broadened, and tax revenues have therefore held up rather well. It may also be noted that the corporate tax rate tends to be lower in highly open economies. In particular, it is low by international standards in the Nordic countries and in Austria, not to mention Ireland, while it is relatively high in Germany and the US. This is consistent with the view that SOE's have more to gain from tax competition, as the positive effect on the tax base is likely to be relatively large compared with less open economies.

and international competition for companies is a reality



**Figure 10.3**  
**Corporate tax rates**  
 a = Statutory corporate income tax rate.

Source: OECD, Tax database.

The company income tax rate effectively falls on the workers

Company taxes fall also on location-specific rents

There is indeed a strong case in principle for the SOE to apply a low tax rate to corporate income. This follows from the fact that the required rate of return after corporate tax on new investment – the risk-free interest rate plus an appropriate risk premium – is exogenously given, as it must equal the return on alternative investments in international financial markets. Raising the corporate tax rate will not change this required post-tax rate of return. Instead, it will cause an outflow of capital and a gradual reduction of the domestic corporate capital stock. To prevent a decline in investment, wages have to fall so as to raise the pre-tax rate of return (and restore the earlier post-tax rate of return) on domestic investment. This means that the incidence of the company tax is on internationally immobile factors such as labour.<sup>6</sup>

The apparent conclusion is that no income tax at all should be imposed on the corporation in the SOE. Yet, in practice all countries collect corporate taxes of some significance. One reason for the viability of the corporate tax is the benefits that public sectors provide to companies in the form of productive infrastructures. A related reason is that many companies may earn above-normal profits or “rents” based on country-specific advantages of location. Taxes on such rents are feasible as long as their reasons pertain to immobile factors, implying that the benefit of lower tax rates would mainly accrue to foreign owners and/or tax authorities in the country of residence of the owner. Such rents notwithstanding, tax competition is an important issue in the area of company taxation.

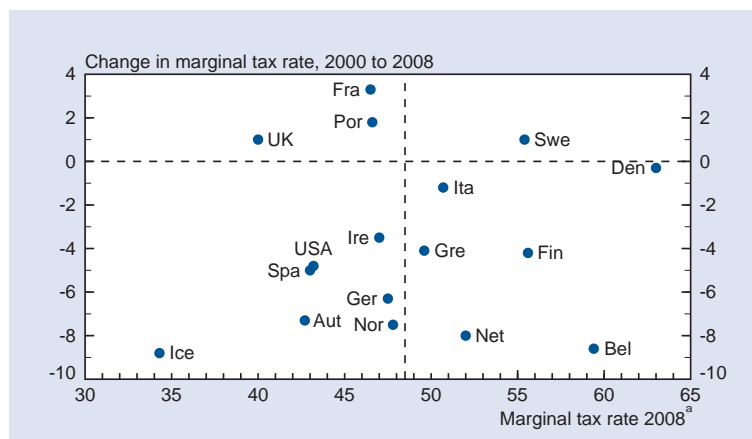
Turning to *taxes on labour*, it is obvious that labour is much less mobile than capital, and tax competition is accordingly less of a concern. Yet, tax treatment of “talent”, of highly educated labour is certainly an issue for countries having the ambition to be attractive locations for the economic activities of such labour. This is why (along with many other countries) Finland, Sweden and Denmark all have special tax schemes that relieve taxation of “foreign” experts for a limited number of years. In the end, however, special tax schemes will not resolve the problems associated with high marginal and average taxes on high income earners.

While international tax competition may not be the only or key reason, it is a fact that top marginal tax rates have in the past

decade been reduced significantly in most countries (figure 10.4), though less so if at all in the Nordic countries. Despite increasing budget deficits, there also are plans for further tax reductions for wage income in many countries (including Denmark and Sweden). Conceivably, the importance of human capital and deepening globalization will in coming years intensify the pressure towards lower average and marginal tax rates on labour income. High taxes are problematic for both high and low income earners, though with some difference of emphasis: low *average* tax rates are essential for workers at low income levels to seek work rather than benefits, while lower top *marginal* tax rates may help to increase work efforts and taxable income of those with high incomes.<sup>7</sup> Lower tax rates for high income earners might also enhance mobility and a better allocation of qualified labour as well as net immigration from abroad. However, there is only scant empirical evidence on the size of these effects of tax rates.

As seen in figure 10.4, the Nordics are still characterized by high top marginal tax rates, though these have been lowered

Top marginal tax rates have been reduced recently in most countries



**Figure 10.4**  
**Top marginal tax rate on wages**

a = Top marginal tax rate (including employee social security contributions) for single individual.

Source: OECD, Tax database.

significantly in the past decade in Norway, Iceland and Finland. Also, top rates become applicable at rather low income levels in the Nordic countries (as compared to most other OECD countries). There has been some tendency for tax reductions to be bigger in 2000–2008 in the countries that had the highest tax rates in the year 2000, but it is difficult to know whether this tendency reflects tax competition or other concerns related to the negative effects of high tax rates.

### 10.2.2 THE NORDICS APPLY A DUAL INCOME TAX MODEL

In the early 1990s Sweden, Finland and Norway introduced the dual income tax as their basic design for personal tax systems.<sup>8</sup> In this system personal income is divided into labour income and capital income, subject to separate taxation rather than forming a comprehensive tax base. While a progressive tax schedule applies to labour income, with top marginal tax rates being quite high, capital income is taxed at a relatively low flat rate.<sup>9</sup> However, there are differences in the extent to which corporate and personal capital taxation is integrated. Sweden is having a classical system of double taxation of dividends with an alleviation applied to dividends from closely-held companies. Finland gives a more extensive relief to recipients of dividends from non-listed companies, and Norway has introduced an allowance for dividends up to the “normal” rate of return to the owners.

As a consequence of the dual income tax, the Nordic countries typically have internationally high tax rates on labour but low tax rates on companies. It should be added though, that the total tax on domestic capital income, taking into account the tax on capital income of the owner, is also high in the Nordic countries (with the exception of Iceland).<sup>10</sup>

There are strong practical arguments in favour of the Nordic dual income tax model

Proponents of the dual model see both theoretical and practical arguments in its favour. Theoretically there is no reason for the tax rate on labour and capital income to be equal; the optimal tax rate on capital income is likely to be lower than on labour income, and it may under some assumptions be zero. Also, it is possible that the optimal tax rate on capital income may be flat.<sup>11</sup>

More important are the practical arguments. First and foremost, the dual model reflects the reality of tax competition: from that point of view the SOE can, without fear of heavy revenue losses, levy a high tax rate on labour income but not on companies or capital income. Second, a relatively low tax rate may be seen as an implicit way of accounting for inflation, which implies that the tax rate on capital income in real terms may be high even if the nominal tax rate is low. Third, a low tax rate makes it politically easier to achieve an inclusive and broad tax base. Finally, the flat tax rate is associated with advantages in terms of administrative simplification. Taken together, these advantages are felt to be more important than the loss of redistribution implied by abolishing progressive taxation of capital income.

Nordic experiences of the dual tax model have, by and large, been favourable. However, the experience gained so far has also raised one particular problem that has attracted much attention. This is the problem of income shifting, identified as the Achilles' heel of the system by Birch Sørensen (2000), arising as economic agents have an incentive to transform highly taxed labour income into less taxed capital income for tax purposes.<sup>12</sup> This problem arises notably in closely-held companies, where the entrepreneur has some leeway in reporting income as wage income or as company profits and dividends.

### 10.2.3 OVERALL TAX RATE VERSUS TAX STRUCTURE

Research on the effects of taxes on economic growth has not led to any unambiguous conclusions. One of the key reasons for this is obvious: the effects of a policy of high taxes depend on the way the revenues are spent. Spending on infrastructure and investment in human capital may, if efficiently allocated, enhance growth at a relatively low net cost in terms of taxes. On the contrary, spending on benefits and bureaucracy or inefficiently provided public services are likely to hamper growth.

While little can be said about the effects on efficiency and growth of the overall level of taxation, more can be concluded with regard to the relevance of the structure of taxation. As em-

Some taxes are more harmful for growth and jobs than others,



phasized in many contexts by the OECD, there are good reasons to believe that taxes on productive activity, such as taxes on labour and on corporate activity, are more harmful for growth than taxes on consumption and real estate. Also, mobility of the tax base and therefore tax competition is less intense for real estate and for indirect as compared to direct taxes. While indirect taxes are part of the overall tax wedge on labour, their negative effects on labour supply are somewhat mitigated by the fact that they are a burden also on those consuming out of transfer income and capital income or wealth.<sup>13</sup> Hence the recommendation is that growth can be enhanced by shifting the tax burden from corporations and labour towards consumption and real estate. (As will be seen below, a distinction needs to be made between taxes on corporations and taxes on the capital income of the owners.)

the company tax and labour taxes being at the top of the harmful ones

For labour income the recommendation is relatively straightforward but also difficult to implement because of the large importance of taxes on wages for total tax revenues. From the point of view of supporting economic growth and/or a high employment rate, the ambition should nevertheless be at least to abstain from raising taxes on wages and rather aim at lowering them if possible. As already noted above, this should probably be done over the whole spectrum of wage earners. Taxes on those with a low pay need to be reduced in order to “make work pay” or to encourage participation in the labour supply. Lower taxes on high income earners encourage work effort and accumulation of competence. Lower taxes on highly skilled labour may also be seen as part of a policy to enhance the attractiveness of the country as a location for highly qualified activities like R&D and headquarters of international companies as well as to reduce incentives for tax evasion. For corporate taxes, to be discussed next, the situation is more complex, as these have to be seen in conjunction with taxes on the capital income of the owners.

#### 10.2.4 REDUCING CORPORATE TAX RATES: HOW AND WHY?

It makes good economic sense for the SOE to opt for a low corporate tax rate

The corporate tax (being a source tax) is of particular importance for tax competition. Yet, investment decisions of domestic owners

will depend on both the corporate tax and taxes on the capital income of the owners. The classic system of double taxation amounts to first taxing corporate profits and then levying a capital income tax on dividends and capital gains at the level of the owner. However, a very high combined tax rate on the company and its domestic owner is problematic as it may tilt the structure of ownership of companies unduly in favour of non-residents (and institutions), and as it may also reduce the supply of capital to small companies without access to the international capital market.

There are many different ways of taxing corporations and owners, and many ways of alleviating double taxation at the level of the company or the level of the owner. At the company level, two main alternatives merit particular attention: the first is simply to set a low corporate tax rate, the second is to apply the so-called ACE model.<sup>14</sup>

*Reducing the corporate tax rate* obviously increases the attraction of the home country as a location for business companies, as lower tax rates leave more to be retained in the company as profits and/or to be distributed as dividends to the owner. All companies will benefit from the lower tax rate. The lower tax rate will encourage investment both at the “internal margin” in the form of increased investments of companies already in the country, as the tax rate on marginal investment is reduced, as well as at the “external margin” in the form of inflows of new companies from abroad, attracted by the lower average tax rate. (Another source of increased tax revenue is that international companies may shift more of their profits to countries with low tax rates to reduce their overall tax burden.) The main drawback is the loss of tax revenue, unless this is compensated for by a sufficient inflow of new investment. Furthermore, even a low corporate tax rate will not ensure neutrality of investment and financing decisions if it forms part of a classical system of double taxation.

*Introducing the ACE model* (denoting allowance for corporate equity) would mean that companies are given an allowance for corporate equity in computing taxable profits of the company, similar to the tax deduction given for interest on debt. The allowance would be based on an imputed return for corporate equity, set equal to the “normal” or risk-free rate of return as reflected

Reducing the corporate income tax rate is the straightforward option,

while the ACE model is associated with attractive neutrality properties

in, for instance, government bond rates. The allowance in itself reduces tax revenue, but above-normal rates of return or rents remain subject to tax. The ACE model has been shown to have a number of attractive neutrality features. Like the cash flow tax system, it ensures that there is no tax wedge on the marginal investment. The allowance therefore gives an incentive for additional investment.

The ACE would ensure tax neutrality at the company level of financing decisions between debt and equity. As compared to the present situation, in which debt is the financing alternative to be preferred for tax reasons because of the deductibility of interest on debt, the ACE would therefore give incentives for a higher share of equity financing. This may be advantageous for the economy as a whole as a stronger financial structure would serve to improve the resilience of corporations and the economy as a whole. The ACE will also allow neutrality between retained profits and other financing alternatives, if combined with accruals-based taxes on capital gains.<sup>15</sup> Enhanced neutrality would be helpful not only for economic efficiency but also from the point of view of avoiding excessive leverage, such as that which contributed to the present crisis.

Regrettably, there is little practical experience of the ACE model

Introducing the ACE model at an unchanged corporate tax rate would risk reducing tax revenues, the size of the loss depending on the size of the allowance and its effects on investment. Experiences in Belgium, the only country currently operating an ACE model, suggest a serious risk that multinational companies could exploit the asymmetries between tax systems in different jurisdictions so as to reduce their tax burdens. In the short term, the revenue loss could be reduced significantly by setting the initial equity base used for the dividend allowance at zero. Effectively, the tax advantage would accrue only for new equity. Obviously, this mitigating effect will diminish over time. Furthermore, the effect of the allowance would also depend on the definition of the normal rate to be applied for the allowance.

Reducing company taxes may not reduce tax revenues all that much

While every method for alleviating corporate taxation has its merits and drawbacks, the key issues are the effect on investment and economic activity as well as tax bases. There is a large amount of studies devoted to the empirical assessment of the effects of cor-

porate tax rates on the choice of legal form of firms, the choice of debt and equity finance, investment as well as decisions on profit shifting and location of multinational companies. These studies suggest that many of the tax effects are of considerable strength, notably for decisions of multinational companies concerning profit allocation and location of corporate activities. Clausing (2007) suggests that the maximum tax revenue is achieved at a tax rate of 33 per cent and there is evidence of growing responsiveness of capital mobility to taxation over time. In an extensive survey and meta analysis (covering more than 400 estimates of tax elasticities), de Mooij and Ederveen (2008)<sup>16</sup> conclude that studies on profit shifting yield the largest tax base elasticities, but that also international investment responses seem to be substantial, both via marginal investments and especially via discrete location decisions. These results are consistent with the observation that average effective tax rates are falling over time as governments engage in rather fierce tax competition to attract multinational profits and mobile capital.

The growing importance of tax competition may offer arguments in favour of tax coordination or harmonization to contain cross-border spillovers of tax policies, if governments are assumed to pursue policies in the best interest of their citizens. If, on the other hand, governments are assumed to have a bias in favour of excessive taxes and a too large public sector (“Leviathan”), then tax competition may be heralded as a welcome check on the abuse of political power. However, whatever the merits of international tax coordination, there is little prospect of it becoming reality; even within the closely-knit EU, member states strongly refuse to make concessions that would reduce their national power over taxes.<sup>17</sup>

By way of conclusion, fiscal consolidation reduces the growth of aggregate demand and thereby it may weaken prospects for growth and employment. However, there is scope for combining fiscal consolidation with growth by action to raise employment rates and by shifting the composition of spending and taxes in a growth-friendly manner. This should be a key element in the economic policy of the Nordics, for which international competitiveness or the supply side is more important than the demand effects of domestic policies. Longer working careers and a higher effective

There is a case for international tax coordination – but it will not happen

Bottom line: the policy strategy must combine growth and fiscal consolidation

retirement age are a main avenue for raising the employment rate and for increasing the size of the tax base. Action to improve efficiency in the provision of public services is essential and the scope of public responsibilities would be helpful. And as discussed above, the tax structure can be tilted in a direction which encourages growth and job creation. This would mean reducing the relative tax burden on companies and labour, while accepting a relatively high tax burden on, inter alia, consumption and real estate.

## ENDNOTES

- <sup>1</sup> It may be argued that tax coordination is needed in view of the cross-border externalities associated with national tax policies. These issues are the subject of extensive debate in the EU and the OECD. However, little progress in tax coordination has been achieved, and there is little prospect for binding international agreements on tax rates. Whatever the merits of tax coordination, it seems unlikely to happen. On the case for (and against) tax competition see, e.g., Birch Sörensen (2000).
- <sup>2</sup> For the economic openness index see Dreher, Gaston and Marten (2008).
- <sup>3</sup> Such a relation is discernible in Europe but does not seem to hold for the Anglo-Saxon countries; see Korkman et al. (2008).
- <sup>4</sup> See Rodrik.
- <sup>5</sup> This interpretation of the "Nordic Model" is elaborated upon in Andersen et al. (2007).
- <sup>6</sup> See Birch Sörensen (2009), Griffith and Hines (forthcoming) in which it is shown that the burden of the tax is even "more than fully shifted" to labour.
- <sup>7</sup> Reductions in average tax rates for low wage earners are important for the choice at the "external margin", i.e. for the choice to participate in the labour force rather than seek benefits; see, e.g. Kleven and Kreiner (2006). Holmlund and Söderström (2007) find evidence that a reduction of top marginal tax rates in Sweden might leave tax revenues broadly unaffected, possibly even increasing them.
- <sup>8</sup> In Denmark, capital incomes are to some extent subject to progressive taxation. In Iceland, the rate of capital income tax was brought down to ten per cent (the average tax on wage income is 37 per cent), a rate which is being raised by the new government to 15 per cent.
- <sup>9</sup> As almost invariably is the case, some forms of income receive special treatment or remain largely untaxed; this tends to be the case for owner occupied housing, pension saving and some capital gains.
- <sup>10</sup> Regular comparisons of taxes on capital income in most OECD countries, including the effects of corporate taxation as well as taxes on dividends and capital gains, are made, for instance, by the Swedish "Aktiespararna".
- <sup>11</sup> See Birch Sörensen et al.
- <sup>12</sup> This problem has attracted much attention in Norway, Finland and Sweden, and it seems particularly pertinent in Iceland, where the discrepancy between the rates of tax on capital and wage income is bigger than elsewhere.
- <sup>13</sup> The statement on the ranking of alternative tax bases in terms of their effects on economic activity and growth comes with some reservations. For instance, taxes on environmentally harmful activities may obviously be helpful in meeting important policy objectives. Also, taxes on actuarially fair benefits may have negative incentive effects similar to taxes on wages.
- <sup>14</sup> Other options include both radical proposals, such as the expenditure tax or the cash flow tax system, and various ways of relieving double taxation of dividends at the level of the owner. A particularly interesting alternative of the latter kind is the Norwegian "shareholder model", which gives an allowance to the owner for the part of dividends corresponding to the "normal" rate of return on riskless assets.
- <sup>15</sup> See Birch Sörensen et al. Furthermore, in the ACE model the marginal tax on above-normal rates of return is higher than the average tax rate, which reduces incentives for income shifting (from labour to capital income). Another advantage of the ACE model is that the timing of depreciation allowances would be without consequence. It also avoids the need for thin capitalization rules or restrictions on the use of debt to avoid cross-border profit shifting.
- <sup>16</sup> See also, e.g., Devereux and Lockwood (2006), Bellak and Leibrecht (2008), Bellak, Leibrecht and Riedl (2008) and Benassy-Quere et al. (2003).
- <sup>17</sup> National governments will thus have to strive for second best solutions, limiting international tax arbitrage for a given tax structure of other countries.

# 11

## BUILDING A MORE ROBUST FINANCIAL SYSTEM

Our interpretation of the origins of the current global crisis (chapter 3), of the experience of the Nordic crises of the early 1990s (chapters 5 and 6), and of the Iceland story (chapter 7), point to several policy conclusions to make the financial systems less prone to severe crises. None of them are truly new, but that does not make them any less important. This chapter sets out the key issues and lines of action that we deem essential to foster financial stability.

### 11.1 EXCESSIVE LEVERAGE AND RISK TAKING

It is obvious that in all these crises, as in so many other financial crises, a central facilitating factor has been excessive risk taking by the financial institutions. The precise forms of that risk taking vary. Nevertheless, it is typically linked to a rapid growth of credit to non-financial entities, the related expansion of financial institutions' borrowing against debt instruments and, as a result, high leverage of both financial institutions and many non-financial borrowers.

Excessive credit growth is a key ingredient in financial crises

An essential part of the credit expansion process is the positive feed-back mechanism – “financial accelerator” – by which more credit leads to higher asset prices, higher asset prices make

the balance sheets of both non-financial entities and financial institutions look stronger, which improves their financial muscle and creditworthiness, thereby contributing to further credit expansion. In the most recent crisis much of this credit expansion took place formally outside the traditional banking institutions (shadow banking), and the instruments and financial structures have become very complex (securitisation in many layers, explosive growth of various credit enhancement derivatives, extensive cross-border activities by large institutions etc.). As a result of such developments, both market participants and supervisors seriously underestimated the risk associated with the financial structures that had emerged.

Many factors have contributed to this risk taking, as we have discussed earlier. The analysis of the precise mechanisms and of the relative importance of various factors is still incomplete. Nevertheless, in our view a key issue is that lending has been financed excessively by debt, i.e. the financial institutions have become too leveraged. A sufficient role for equity in the financial intermediation process helps financial stability in three ways. First, it makes the intermediation more costly and thus works as a break on credit expansion. Second, when risks materialize, a high capital buffer makes debt holders less likely to suffer losses and thus reduces panic reactions. Third, sufficient equity helps to limit incentives for “gamble of resurrection” at the taxpayers’ expense.

## 11.2 LINES OF ACTION IN FINANCIAL REGULATION AND SUPERVISION

For these reasons *capital requirements* must be reassessed in several dimensions: the overall level, the composition of capital, coverage in terms of institutions, activities and instruments, and the procyclicality of the requirements. The current risk-based requirements appear too low and allow too much of the requirement to be met by other types of instruments than equity capital. The so-called shadow banking, which has largely escaped capital requirements, must be made subject to similar requirements as banking proper.

Capital requirements need to be reformed in several dimensions



While difficult, ways must be found to reduce the procyclicality of capital requirements.

It is clear that tighter capital requirements come at a cost: less financial intermediation will take place, implying that some socially beneficial activity will not materialize. Similarly it is clear that regulation always spurs innovation to escape the costs and constraints of regulation. These costs and dynamic consequences are, nevertheless, not a justification for soft regulation. They are rather a reason to design the reforms in appropriate ways, to be prepared to revisit regulations as needed, and to have a realistic view of how much can be achieved by regulatory reform alone.

Capital requirements should have a broad institutional coverage

Designing working and effective capital regulations is a complex issue and we do not make specific recommendations. However, it seems particularly important to impose sufficient capital requirements on all institutions that engage in financial intermediation involving information-intensive lending and creation of liabilities perceived safe and liquid by investors or depositors. A particularly important area is the aforementioned shadow banking in the form of purchases of securities financed by repos and backed by risky loans should not escape adequate capital requirements. The reforms of capital regulation now being contemplated in the international arena seem largely to go in the right direction, see for example BIS (2009b).

*Regulation of liquidity* also deserves more attention. Securitization has come to stay. Despite the debacle of the current crisis, the liquidity of financial institutions – their access to means of payment – will continue to depend on their possibility to sell marketable securities (to a higher extent than was the case before securitization took off). The potential disappearance of liquidity in these markets is a problem not taken into account in regulation. Ways need to be found for regulation to help ensure that intermediaries are less vulnerable to shocks affecting the liquidity of debt instruments.

Existing rating arrangements are inadequate

A special problem in the financial system that makes extensive use of marketable securities is the quality of their risk ratings. Both the investors in such assets and regulators rely on rating agencies for risk assessments. The current crisis demonstrates beyond any doubt that the existing rating arrangements are inadequate: in many instances the ratings have grossly underestimated the true

risks. A key problem is that the issuers of the securities pay for the ratings leading to the temptation to provide a high rating in order to obtain a high fee. Rating agencies also sell advice to the issuers about the appropriate design of complicated financial instruments which they then rate themselves. If nothing else, this creates an incentive to design the instruments so that they pass a given risk criterion at the least possible margin. Rather obvious solutions to these problems would be to prohibit the issuers from paying for the ratings and also prohibit simultaneous consulting and rating activities. Both prohibitions should be seriously considered, even if they are likely to reduce securitized intermediation.

In the public debate, *compensation of executives* has received a lot of attention. Executives have often been rewarded handsomely for what has turned out to be a quite bad performance. Legitimate outrage has been caused especially by bonus payments to executives in banks that have been able to survive – and pay out compensation – only thanks to support from taxpayers. It is obvious that performance-linked compensation has not been working as it should. A central problem appears to be that the measurement of performance has not been sufficiently long-term in orientation. In case boards are not able to look after shareholder interest in this respect, the problem needs to be addressed by regulation. It is less obvious that prohibiting stock options and other instruments of compensation would serve any useful purpose in securing future financial stability, provided these compensation methods are sufficiently long term (several years). Nor do we see any useful reason for setting absolute limits on the size of compensation packages. At any rate, setting legal limits to executive pay should not be seen as a substitute for adequate capital requirements and other regulations with direct impact on the degree of risk taking.

The high degree of integration of financial systems across national borders requires that capital regulation as well as most other types of regulation must be developed in close international cooperation. Financial regulation is increasingly harmonised in the EU. But obviously this is not sufficient. Similar broad rules must be applied in all financial centres. This requirement underlines the importance of coordination processes that take place in the BIS, the Financial Stability Board, the G20 and also the IMF. It

Legal restrictions on executive pay are no substitute for more effective measures

Supervision needs improvement as well, and sufficient powers

is in the interest of small countries like the Nordics that this co-operation takes place in institutional structures which allow their voice to be heard.

Regulation is only useful if it is adequately enforced, which calls for effective *supervision*. It is easy to identify shortcomings in this regard in the context of financial crises. In our view three considerations merit special attention, apart from the always relevant issues of competence and integrity: focus on system-wide issues in addition to individual institutions, coherence of action by different supervisory authorities within a country and across countries, and sufficient powers and readiness to intervene early on, when signs of excessive risks are detected. Regulatory reforms under preparation both nationally and at the EU level seem in fact to address at least the first two of these issues.

The establishment of the European Systemic Risk Board (ESRB) can provide a useful step to improve macro-prudential analysis of an increasingly integrated European financial system. By combining macroeconomic and financial sector analysis and covering all EU countries, the ESRB has the potential of identifying system-wide threats to financial stability. It should be realized, however, that – as financial systems evolve – even the best macro-prudential analysis may fail to recognize new stability threats. And, of course, sound analysis alone is not enough. The true test comes when a need to take action is identified. As the ESRS will not have any binding powers to impose measures on the Member States, there is obviously no guarantee that appropriate action will be taken.

International coordination is needed, and is advancing in the EU

Similarly, the European System of Financial Supervisors (ESFS) is a reasonable response to the need to better coordinate supervisory activities and crisis management actions of individual EU countries. The workhorses of the ESFS are three European Supervisory Authorities (ESAs), one for the banks, one for the insurance and pension institutions, and one for the securities markets. As each of the authorities (or the Commission) has the power to require national supervisors to take specific action under some circumstances, the ESAs can in principle facilitate an effective response to crisis situations with significant cross-border effects. In practice the scope of coordinated action may be more

limited. There is a safeguard clause which states that a decision by an ESA need not be implemented if it impinges on the fiscal responsibility of a Member State. Given that a financial crisis as a rule involves solvency problems, the way this clause is going to be applied is likely to determine the effectiveness of the ESFS in crisis situations.

One can still ask whether the authorities have sufficient powers to intervene when that is deemed necessary and kept accountable in case of non-interference. Application of the rule of law implies that as long as financial intermediaries fulfil the formal regulatory requirements on capital, liquidity etc., the possibilities to interfere in their activities are small. On the other hand, if there are system-wide stability threats, early intervention would be most useful. A way to square the circle might be to make the interventions conditional on the state of the financial system as a whole. Thus, if the competent authorities would take the view that an imminent systemic risk exists, they might be allowed to prescribe rules of conduct for the decision making of an individual institution even when that would not be legally feasible under normal circumstances.

There is also the highly relevant problem of “regulatory capture” i.e. a situation in which the regulators/supervisors start to take decisions in favour of the regulated institutions rather than to advance the public interest. To limit this possibility, there should be a legally binding “transfer period” concerning the time period after which employees of supervisory/regulatory agencies can be hired by private financial institutions that are supervised/regulated by these agencies. Three-year rules or five-year rules are common in comparable situations elsewhere. We do realize that a strict enforcement of such transfer rules would very likely make it necessary to raise compensation levels in supervisory/regulatory agencies. It would be money well spent.

One implication of the need for international harmonisation/coordination of regulation is that individual and particularly small countries can do relatively little on their own in this regard. In organising effective supervision, the outcome naturally depends much on national choices. However, for many small countries the effectiveness of their domestic financial supervision is of limited

There is a risk of “regulatory capture”

Cross-border banking raises special challenges

relevance, as a significant part of the intermediary services are provided by branches of foreign financial institutions not under their supervision. It is clearly in the interest of such countries that the host countries have good access to the information collected by the home country supervisors, and that host countries have some say on the actions to be taken with regard to institutions with significant cross-border activity.

The current crisis suggests that cross-border banking indeed creates special challenges for financial stability. It might be tempting to conclude that Swedish banks are at present faced with potentially excessive exposure in the Baltic countries rather than at home or in Finland or Germany, partly due to a lack of familiarity with new turf in the Baltics.<sup>1</sup> In principle, a way to address the problem would be to require banks by law – rather than merely encouraging them – to operate their overseas offices as subsidiaries, not as branches. The difference is that a bank subsidiary is, by law, treated as a local entity in the host country, whereas a branch is subject to the rules and regulations of the home country. This can be a crucial difference, as Icelandic taxpayers found out when they were suddenly held accountable for the deposits of foreign branches of Landsbanki in the United Kingdom and the Netherlands (as was described in chapter 7). This problem could have been averted had Landsbanki responded to repeated pleas to change its branches into subsidiaries. Had it been subject to British and Dutch supervision, Landsbanki presumably would not have had such a strong incentive to accumulate high-interest deposits abroad, and its ill-fated Icesave deposits would have been backed by the 77 million inhabitants of the United Kingdom and the Netherlands rather than by 320,000 Icelanders. Admittedly, a subsidiary status requirement does not square well with the idea of free movement of services, which is a central element of EU policy.

Ways need to be found to deal with the “too big to fail” problem

Also the *market structure* of financial intermediation affects financial stability. The current crisis has underlined the difficulties of letting large and highly connected financial institutions fail. This strengthens the “too-big-to-fail” perception of large financial institutions already firmly anchored in most countries, and it weakens the incentives for prudent behaviour in such institutions. Counteracting the implied moral hazard problems

and incentives to excessive risk-taking of such large institutions requires new measures. Administratively set limits to institution size would be arbitrary and impractical. A more natural approach would be to make regulatory requirements a function of the size of the institution. For example, the capital requirements could be more stringent for large institutions than for small ones.

Another interesting way to address the too-big-to-fail problem is the proposal to require, for sufficiently large institutions, “a living will” or an implementable plan to wind down the institution more or less overnight if necessary. Such a plan would not only make non-bailout less costly but also facilitate better risk assessment and supervision. Such a plan would reasonably include a compulsory conversion (on terms stipulated in advance) of some debt instruments into risk-bearing capital.

Many commentators have proposed that legislation should define the institutions which benefit from the public safety net and as a consequence must be regulated in a very narrow manner. The most extreme version of this argument is that public protection should be limited to “narrow banks” that accept liquid deposits from the general public and provide payment services. These banks would be required to invest their funds in government bonds or other assets of similar credit risk. They would be given a 100 per cent deposit guarantee, which would make the banks “run-proof”, while the safety of the assets would make the losses to the guarantor unlikely and small. The authorities would not regulate other institutions and would have no responsibility with regard to lenders to these institutions.

We find this proposal misguided. The simple reason is that it would leave a significant part of financial intermediation vulnerable to serious disturbances, which could harm the overall economy badly. Just keeping institutions that create the medium of exchange, money, safe would not be sufficient to avoid serious macroeconomic consequences of financial crises. It should be noted the largely unregulated shadow banking, while providing useful services to the economy, was also a main avenue for excessive risk taking. Lehman Brothers was not a deposit bank, yet the consequences of its bankruptcy were devastating. Similarly, a bankruptcy of the insurance conglomerate AIG would have had disastrous effects

The option of a “narrow bank” is a non-solution

in the immediate aftermath of the Lehman collapse. It would be wishful thinking to believe that the policy makers could stay idle in crisis situations even if only other institutions than the pre-determined narrow banks would be about to fail. Therefore it is better to prepare for that in advance by making such failures less likely and their consequences less damaging for the rest of the economy.

In small countries the too-big-to-fail problem is particularly serious. Their banking systems are typically dominated by a few large institutions, relative to the size of the economy. For such countries the only realistic option to reduce the dependency on such institutions is foreign competition. This can take place through fully owned subsidiaries, branches and also services provided across borders. In many small countries financial services controlled by foreign institutions have in fact become very important. This is particularly the case in several new Member States in the EU.

However, reliance on foreign financial institutions also makes the economy vulnerable to shocks originating outside the host country. During the current global crisis there have been indications that foreign institutions have to some extent withdrawn from peripheral markets. In some cases this tendency has in fact been reinforced by policy measures of the home country authorities. For example the requirements to expand credit supply to the domestic market included in financial rescue and support packages encourage such behaviour. There is thus a trade-off between limiting the dependency on a small number of domestic institutions – necessarily too big to fail – and limiting the vulnerability of being a peripheral market in times of crisis. This would suggest that the most robust system for small countries is a combination of foreign and domestic institutions.

### 11.3 THE IMPORTANCE OF MACROECONOMIC POLICY

Macroeconomic policy failures typically contribute to the emergence and the depth of financial crises. As far as handling of a crisis situation is concerned, a widely-shared consensus has emerged: both monetary and fiscal policy should be geared to mitigating the collapse of aggregate demand. In addition to that, however, little can be said by way of general policy advice.

The best policy mix depends very much on the circumstances. For example, the earlier Nordic crises of the 1990s highlight the problems of trying to defend an unsustainable exchange rate peg by high interest rates. In some other situations, when the currency is not grossly overvalued and other factors support the credibility of the current parity, putting emphasis on fiscal stimulus may be more appropriate. However, a high level of public debt may effectively limit the expansionary potential of fiscal easing, and severe sustainability problems may even force discretionary fiscal tightening in the midst of a crisis, as is presently the case in, for instance, Iceland and Ireland.

A more controversial issue is how much macroeconomic policy can contribute to financial stability *ex ante*, i.e. in preventing the crisis by containing the boom typically preceding the crisis. Mainstream thinking used to be that monetary policy supports financial stability best by targeting stable and low inflation, and that nothing else can or should be done. Similarly, fiscal policy should reduce short-term fluctuations in economic activity mainly through the operation of so-called automatic stabilisers. In particular, trying to prevent the growth of asset price bubbles by monetary or fiscal tightening has been considered inadvisable. Nobody really knows what development is going to turn out to be a bubble. Also, trying to deflate intentionally a perceived bubble with fiscal or monetary instruments may prove fateful, creating a crisis which would not otherwise have materialized.

In the light of the current crisis this line of argumentation may reflect an excessively orthodox view. Although identifying a bubble in the making is difficult, it does not mean that one should

Identifying “excessive” credit growth and asset price bubbles *ex ante* is difficult,

but “leaning against the wind” makes sense for monetary policy



not try, and that one should never take precautionary action. An acceleration of credit expansion in parallel with rapidly rising asset prices are obvious warning signs, as are risk premia and rapid changes in risk positions of individual institutions. Even though it is impossible to fix a simplistic rule, such as the “Taylor rule”, for combating bubbles, a certain degree of “leaning against the wind” would in such cases seem warranted. It is probably no coincidence that policy makers in countries that have had recent experience of boom-bust cycles prior to the current crisis have held a more positive view on the need and possibility of pre-emptive measures to limit credit and asset price booms.<sup>2</sup>

The automatic stabilizers of fiscal policy are helpful

For the member countries of the euro area and countries that have effectively linked their currency to the euro, obviously only fiscal measures are available for dealing with bubbles in individual countries. Given the difficulties to adjust expenditures rapidly, it would seem worthwhile to reflect on the use of taxation to limit bubble phenomena. But taking discretionary measures on a timely basis is very demanding. Perhaps the best means for fiscal policy to contribute to financial stability would be by strengthening automatic stabilizers. Income taxation and a comprehensive social safety net are obviously useful in that regard, though high progressivity and generous welfare systems create their own problems in terms of incentives, tax avoidance and international tax competition.

## ENDNOTES

<sup>1</sup> This is not a forgone conclusion, though. For example, Canadian banks have a long and successful history of operations in Caribbean island states such as Barbados without encountering serious problems there – or at home.

<sup>2</sup> See for example the intervention by the Riksbank Governor Stefan Ingves in Jackson Hole in 2007.

# 12

## VULNERABILITY AND RESILIENCE

While the world economy may recently have stabilized, the recovery is likely to be weak and slow. The current crisis will have long-lasting consequences for the economy and the society at large; high unemployment and public debts cast shadows far into the future.

The crisis is changing political perceptions of the role of regulation and macroeconomic policies. There is presently a will to strengthen regulation and supervision of financial markets, even at some cost in terms of financial market efficiency and innovation. There is a perception of an occasional need for macroeconomic policy going beyond automatic fiscal stabilizers and monetary policy geared to price stability. Politicians want to strengthen global institutions such as the IMF and international cooperation within the G20. Both global frameworks and national economic strategies are being reconsidered in the aftermath of the crisis.

The Nordic countries have been particularly hard hit by the global crisis. This is no coincidence but a consequence of the economic strategy of these countries, which is to exploit the process of globalization as a means of raising productivity and income. This strategy has a long tradition notably in the trade area, where the Nordic countries have overwhelmingly been in favour of global specialization within a framework of free trade. Since the 1990s this attitude has also extended to financial markets, with free inward

and outward flows of capital. But while beneficial, globalization is also fraught with risks and problems, as the current crisis has so forcefully demonstrated.

There can be no assurance that the world will return to the stability experienced in the decades preceding the current crisis. Conceivably, the future is more unstable than the past, due, inter alia, to the complexity of financial technologies and the strength of mutual dependency between economies. Does this perspective call for a fundamental review of the strategy of economic policy? What could such a re-evaluation imply in terms of policy conclusions? What are the lessons of the crisis for the economic policy strategy that the Nordic countries may wish to adhere to?

This chapter will put these questions in perspective and outline some elements of answers. It will argue that no insulation against shocks is available (sections 1 and 2), but that vulnerability to shocks can be reduced by appropriate policies (section 3) and resilience of the economy increased (section 4). Final sections will make some comments on the Nordic model in the light of the crisis (section 5) and reiterate the need for action at the global level (section 6).

The world economy may in the future be more unstable than in the past, which raises fundamental issues concerning the role of policies

## 12.1 STOP THE WORLD?

Participation in the *globalization* process has been highly beneficial to all, certainly to the Nordic countries, and this is most likely to be the case in the future as well. The degree of openness of the Nordics has increased significantly in past decades. More generally, the degree of mutual interdependence in the world economy is nowadays such that no country, certainly not a small European country, can expect to be unaffected by global shocks, as their effects are propagated widely through both real and financial channels. While important policy issues arise, these arguably concern ways to mitigate or attenuate the effects of shocks rather than mechanisms of insulation. There is no protectionist or semi-protectionist alternative; discriminatory and anticompetitive measures are in conflict with the rules of the WTO and of the EU's internal

Stepping out of the world is no option

market and anyway only harmful in the longer term. The benefits of fully participating in the international division of labour are an essential precondition for the economy to prosper.

Well-developed *capital markets* should in principle help economic agents cope with shocks, inter alia by allowing them to smooth consumption over time and by reducing risks through insurance and diversification. Foreign direct investment into and out of the Nordic area as well as cross-border equity portfolios have increased rapidly. However, capital markets may also be a source of disturbances or they may exacerbate fluctuations arising due to, e.g., macroeconomic imbalances. In practice, some firms or households will be liquidity constrained and unable to borrow in times of stress, and the credit system may function badly just when its services are in particular need. Financial system interconnections may significantly aggravate the effects of disturbances and broaden their impact.

We cannot do without the services of sophisticated financial markets

While capital market stability may be difficult to ensure, there will continue to be a genuine need for a well-developed financial system because of the great importance of the services it provides to firms and households. The financial system provides payment systems, channels saving into investment, allows smoothing of consumption over time, diversifies risk and allows corporate efficiency to be monitored. No country can afford to abandon the benefits of sophisticated financial systems, and the main parameters of financial regulation and supervision are anyway increasingly decided upon at the global level.

There is no insulation, but we must seek less vulnerability and more resilience

A first conclusion is therefore that globalization and sophisticated financial markets are here to stay, which is desirable, and shocks will continue to occur. The issue is not insulation against them but reducing, if possible, their frequency and amplitude, mitigating their consequences on the domestic economy, and improving the prospects for addressing problems with as smooth and rapid adjustments as possible.

## 12.2 SOME WERE HARDER HIT THAN OTHERS

While all countries have been affected, some were obviously hit harder than others when the crisis broke out. Some of the differences are brought out by table 12.1, which shows the direct contributions of exports and investment to the growth of GDP in 2009. Not surprisingly, the negative effect of *exports* was particularly pronounced for small countries, with Finland suffering the strongest decline. However, one needs to bear in mind that there are often close links between exports and imports and these links have been strengthened further by outsourcing parts of the production process across national borders. This suggests that it may be more useful to look at net exports. In this case as well, Finland suffered a particularly large negative effect, as did Germany.<sup>1</sup> The decline of exports in Sweden was much smaller, which raises the question of the effects of the simultaneous depreciation of the Swedish currency. As discussed in chapter 8 above, however, the bigger decline in Finland is probably due to differences in the structure of exports rather than effects of competitiveness (which normally take time to materialize).

Looking at total private *investment*, the contribution was negative in all countries and particularly big in countries experiencing domestic financial market developments feeding a housing bubble, associated with high leverage of households. This has been the case particularly in Iceland, Ireland and Spain, with significant contributions of residential investment in all these countries. Finland, Germany and Japan stand out as countries having suffered significantly from shocks to both net exports and private investment though mainly from non-residential investment.

Given that shocks with harmful effects will always occur, the real issue is how to reduce vulnerability or help the economy to withstand shocks at as low a cost as possible (to be discussed next) and how to improve resilience or enhance the capacity of the economy to recover from crises (to be discussed subsequently).

Exports declined everywhere, particularly in small and open economies

Private investment also declined everywhere

**Table 12.1**  
**Contributions to GDP growth of exports and investment in 2009, per cent of GDP**

	Exports <sup>a</sup>	Net exports <sup>b</sup>	Private <sup>c</sup> investment	Residential investment
Finland	-14.4	-3.4	-2.5	-0.4
Belgium	-10.6	-0.9	-1.0	-0.2
Austria	-8.3	-3.4	-1.4	-0.2
Netherlands	-7.5	-0.5	-2.6	-0.7
Sweden	-7.4	-0.2	-3.7	-0.6
Germany	-7.3	-3.7	-1.9	-0.1
Switzerland	-7.2	-3.4	-0.8	0.0
Italy	-5.7	-1.2	-2.6*	-0.3
Denmark	-5.5	2.0	-2.9	-1.1
Canada	-5.2	0.6	-2.5	-0.5
Spain	-4.1	3.7	-4.3*	-1.7
Japan	-4.0	-2.4	-3.1	-0.4
Greece	-3.6	3.1	-3.1	-1.6
Norway	-3.6	-0.1	-1.1	-0.5
France	-3.2	0.0	-1.4	-0.5
United Kingdom	-2.9	1.1	-3.3	-1.1
Ireland	-1.8	3.7	-6.2	-2.9
United States	-1.3	1.0	-2.8	-0.7
New Zealand	-0.3	6.1	-3.5	-0.8
Iceland	0.3	1.3	-9.3	-2.1
Australia	0.5	3.0	-1.0	-0.5

a Total exports of goods and services

b Total exports minus total imports

c Private total fixed capital formation

\* Gross fixed capital formation, including public investment

Source: OECD Economic Outlook No. 86.

## 12.3 LESS VULNERABILITY

Some countries had bubbles building up, which were just waiting to burst

As far as external shocks are concerned, there is not all that much that individual countries can do to reduce fluctuations in world demand. However, it is different with domestic investment and the housing bubble. The latter may have burst as a consequence of the international financial turbulence, but much of the problem was internal to the countries in the form of a prolonged build-up of leverage and large construction activity based on excessive optimism with regard to house price developments. With the benefit

of hindsight, it seems clear that countries like Ireland, Iceland and Spain (as well as the UK and the US) allowed a build-up of bubbles, which were just waiting to burst. While it may be far from easy, it nevertheless is possible to reduce the risk of such bubbles not only by monetary policy leaning against the wind but also by making sure that tax systems are not overly generous in their treatment of owner-occupied housing, household borrowing and debt finance of corporations as opposed to equity finance. There is scope for authorities to improve private sector behaviour by giving appropriate incentives in the tax and transfer system as well as by ensuring appropriate regulation and effective supervision of financial markets.

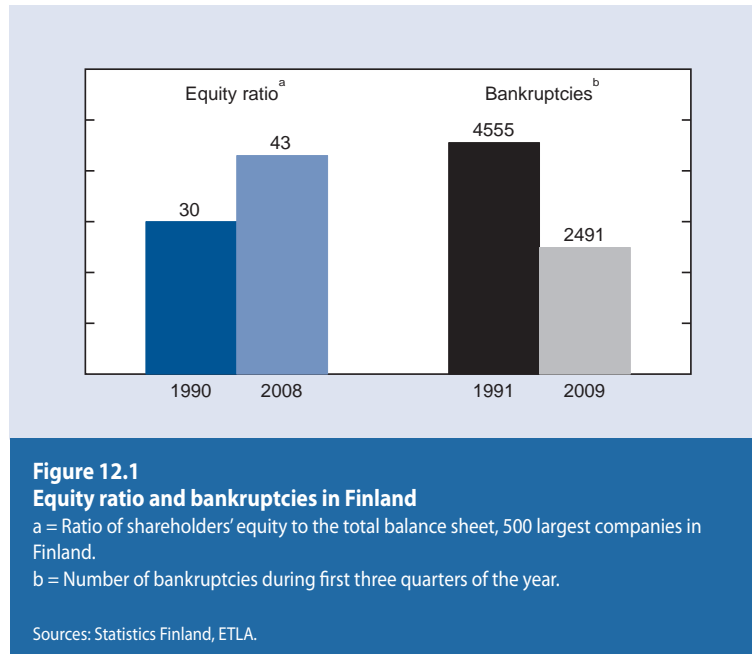
Modest leverage or *strong balance sheets* of companies and households are desirable not only from the point of view of reducing the risk of financial shocks but also with a view to moderating their repercussions on demand for goods and labour. Households with ample financial buffers are less likely to cut consumption quickly and sharply as a consequence of lower incomes, and companies with strong balance sheets have less need to abolish investment plans or shed labour as the cash flow declines and the economic outlook worsens.

It is interesting to note that the decline in output in Finland and Sweden in this crisis has been even sharper than in the first phase of the crisis in the early 1990s, yet unemployment has risen less (see figures at the end of chapter 5), particularly so in the case of Finland. One of the factors explaining this difference is certainly the strong financial position of companies recently as compared with the early 1990s; high leverage implies high vulnerability and, correspondingly, more equity finance reduces the risk of companies going bankrupt because of a weak cash flow. Some illustrative and pertinent figures for Finland are set out in figure 12.1.

Finnish firms now have a significantly stronger equity ratio than in earlier decades, and the number of bankruptcies in 2009 is only half of what it was in 1991 (and the number of employees affected only 40 per cent). The stronger balance sheets of companies more recently as compared to the 1990s are partly a consequence of lessons learnt then, but it is also due to a significant reduction in taxes on corporate income and dividends. A rather straight-

Strong balance sheets of companies are helpful in reducing the repercussions of falling cash flows





Strong public finances allow fiscal accommodation or action to be a first line of defence in times of crisis

forward policy implication is that vulnerability of companies and the economy can be alleviated by a design of capital taxation that does not unduly favour debt over equity.

Financial buffers are obviously valuable in times of crisis. This is the case not only for firms and households but is true also for the government. A first line of defence against economic instability in policy terms is therefore to pursue in normal times fiscal policies geared towards *sound public finances*. As seen in previous chapters, this has the great advantage of allowing automatic fiscal stabilizers to operate, thereby softening the blow for households and companies and the economy as a whole. Strong public finances will also permit the government to undertake discretionary fiscal measures to increase aggregate demand and to address specific problems that call for action. There may, for instance, be a particular need in a recession to undertake action by the government to alleviate long-term and youth unemployment with a view to reducing the negative long-term consequences for individuals and society.

It may rightly be objected that fiscal policy, notably in a small economy, is likely to have only limited effects on aggregate demand and employment, as the fiscal multipliers are for several reasons likely to be small (see chapter 9). While true, this to some extent misses the point: the objective of an accommodating fiscal policy in a recession, and notably of allowing the automatic stabilizers to operate, is not only to alleviate the consequences for unemployment, but also to ensure that the (implicit) “social contract” can be respected and confidence of the public maintained. The alternatives would be for the government either to cut drastically benefits and/or raise taxes, which would risk eroding confidence among citizens. Strong public finances are quite valuable in allowing time for a temporary shock to be accommodated without loss of confidence or for a persistent shock to be addressed by action prepared and undertaken in as orderly a manner as possible.

Accommodating fiscal policy allows the social contract to be respected and gives time for adjustment

Interestingly enough, a flexible exchange rate does not seem to have served as an effective mechanism for insulation of the economy against external shocks or for reducing significantly the vulnerability of a small open economy (see chapter 8) in the way or to the extent that is argued or implied in much of the optimum currency area literature. There remains the possibility, to be considered below, that a floating exchange rate may enhance resilience, i.e. the capacity of an economy hit by a shock to recover and regain strength.<sup>2</sup>

A floating exchange rate does not insulate the economy against shocks,

While the exchange rate may not protect countries from shocks, this does not mean that the euro can be given a clean slate. The problem of persistent divergence in cost developments and public finances, discussed in chapter 9 above, is potentially very serious. It remains the case that countries must have an adjustment mechanism for correcting imbalances, which otherwise risk becoming more and more difficult to handle. The high bond rates for a number of euro area countries testify to the widely felt concerns about the lack of well-functioning adjustment mechanisms.

## 12.4 MORE RESILIENCE

Strong financial buffers may be a useful first line of defence but are enough only if the crisis is temporary and has no persistent effects. In practice, however, even temporary crises will often have rather long-lasting consequences, and jobs lost in the recession may in many cases be gone forever. For the economy to recover it is therefore essential that costs and relative prices adjust in such a way as to enhance reallocation of labour and capital between alternative uses. This is an essential second line of defence in the face of a crisis. The need for reallocation may be between broad sectors, such as between production of tradeable and non-tradeable commodities, or it may affect a number of specific sectors and activities in various parts of the economy. While difficult to make operational, this distinction is of some importance for policies.

but a depreciation may facilitate adjustment if competitiveness is the problem

The adjustment problem is relatively straightforward if it consists in the open sector of a country being uncompetitive and therefore too small to be compatible with external balance at a satisfactory level of activity. Such a situation may arise because of an external shock of asymmetric character or because of excessive domestic inflation. The most direct mechanism for tackling a *generally insufficient level of competitiveness* of the open sector, in relation to other countries or in relation to the non-tradeables sector in that country, is for the currency to depreciate. This should increase net exports and investment (in exports or production competing with imports), thereby improving economic activity as well as prospects for positive trade developments. The alternative to depreciation is a decline in nominal wages (as is now being attempted in, e.g., Latvia under a stand-by arrangement supported by the IMF) or a reduction in unit labour cost achieved through a combination of wage moderation and growth of productivity. Given nominal wage rigidity under normal circumstances, it seems obvious that depreciation is a quicker route to improving competitiveness. (On the other hand, even a gradual reduction of wage costs may be enough to support confidence of the business community if wage moderation is expected to continue over years to come.)

While the depreciation of the Swedish krona has not insulated the Swedish economy from the effects of the crisis, it is nevertheless supporting profitability of the open sector and should thereby contribute to a recovery of exports and investment. As discussed in chapter 8, time will show whether Sweden will recover, thanks to its floating exchange rate, more swiftly from this crisis than neighbouring euro-Finland.

It is occasionally suggested that “internal devaluations” are needed in countries which do not have the option of a depreciation of their currency and if wages are not sufficiently flexible. The internal devaluation is thought of as a substitute for the outright depreciation, to be achieved through a shift of taxes or social security contributions levied on employers to (direct or indirect) taxes on wage earners or households. While it is not unusual for governments to undertake such measures in order to enhance the external competitiveness of the corporate sector, the scope for tax shifts is obviously limited, and the structure of taxes needs to be evaluated also on other grounds.

Given these constraints, aggregate wage moderation is obviously important for small countries that cannot rely on the exchange rate for relative cost adjustment. In countries with strong unions, such as the Nordics, this may be difficult to achieve without some sort of wage coordination, be it formal or informal.

In many instances the problem may not be so much an insufficient level of competitiveness of the open sector as a whole but rather a process of structural change and “creative destruction” in the economy as a whole causing a *need for cost adjustments between various activities spread widely in the economy*. It is in this case less obvious that a change in the exchange rate is the right response, as there is need for changes in many relative costs and prices as well as for shifts of resources both within and between sectors. In this case it is above all essential that wage formation should allow relative prices to change and that resources, labour as well as capital, should be mobile between sectors and companies.

One option of interest, notably in the context of companies in difficulties and confronting the alternative of closing plants down and/or shifting production abroad, is the idea to lengthen the weekly or monthly working time without any corresponding

There is only modest scope for “internal devaluations”

In the euro area there is no substitute for sufficient wage moderation

Longer working hours may support activity by reducing costs of firms without cutting wage income,

pay increase. This would allow a reduction in hourly costs without a decline in earnings of wage earners<sup>3</sup>, which may be a more acceptable way of cutting wages (per time unit) because it need not reduce the purchasing power of wage earners. Many German companies have in the past decade managed to improve their profitability by prolonging working time, occasionally in combination with commitments to maintain employment and make new investments.

while shorter working hours may help if lack of demand is temporary

Increasing working hours is obviously the opposite to what has happened in many countries during the crisis, when temporary layoffs and less working hours have been used by companies to avoid the need for firing workers. Given the lack of demand, assumed to be temporary, this as well can be seen as helpful, and such arrangements have often been subsidized by the government. There is no contradiction between these cases, as one other applies in a situation of a temporary deficiency in demand and the other concerns the need for a more permanent adjustment of the level of costs. While there is a case for flexibility of working times at the company level, there is also some need for coordination in setting standard working hours in light of, *inter alia*, the concern that decisions on working times at the company level may be unduly tilted in favour of shorter working times because of taxes (wage income is taxed while leisure is not).

The wage mechanism should facilitate reallocation of resources from less to more profitable activities

More generally, resilience of the economy requires wage formation to function in a decentralized manner and give the right signals to employees and employers with a view to facilitating the reallocation of factors of production from less to more profitable activities. This is not an issue related to a specific instrument of policy but conditional on institutions and broad policy areas, including labour market, tax and transfer as well as regulation and competition policies. These should be designed with a view to creating sufficient incentives for cost flexibility and resource mobility. It is from this point of view in most cases an advantage that labour markets in the Nordic countries rely on negotiations and agreements between organizations rather than on employment protection by law as elsewhere in Europe, but it is also essential that there should be sufficient room for wage setting at the company level. However, such wage formation should not mean that wages

are kept low in (otherwise) unprofitable companies and high in profitable ones, as this would serve to prevent the process of “creative destruction” which is essential for productivity growth.<sup>4</sup>

A high level of investment in human capital, one of the attributes of the Nordic model, is also helpful. A well-educated labour force can more easily adapt to changing circumstances and upgrade its skill through additional training when needed. Recessions are often associated with structural change and retraining of the labour force is obviously a major issue, as is recognized in the Nordic policies with extensive publicly financed retraining activities.

Growth is to a large extent conditional on the capacity for structural renewal. Strong government support for research and innovation policies may be motivated by externalities and should facilitate the development of new growth opportunities and production. The Nordics, particularly Sweden and Finland, have been quite active in this area.

One problem, however, is that government officials have no way of knowing how spending on research and innovation projects should be allocated. Trying to pick the winners is likely to fail, but spreading funds in all directions may not to achieve sufficient scale (to generate positive “spillovers” within a cluster of activities). An international expert panel recently recommended that research and innovation policies in Finland should aim at excellence and internationalization (through cross-border mobility and networks), and similar views have been expressed in a Swedish report.<sup>5</sup> Also, research and innovation policies should focus on creating new knowledge and giving new impulses for business activities and not be subordinated to other objectives such as supporting employment or regional development.

Another problem is that even extensive spending on R&D activities does not necessarily translate into genuine innovations. For that to happen, the research community and the business sector need to have sufficient incentives to commercialize promising ideas. This is an area where the Nordics apparently face big challenges because of, inter alia, high tax rates and cautious attitudes toward risk taking (including also social attitudes to business failure).

A well-educated labour force is more adaptable, and can more easily be re-trained

Government spending on R&D is helpful, but “picking the winners” cannot be done administratively

## 12.5 A CRISIS OF THE NORDIC MODEL?

The Nordics are vulnerable to global shocks,

As noted above, the Nordic countries have been hard hit by the crisis: export and/or investment shocks have been severe for all Nordic countries (except Norway). This is no coincidence; it is to be seen in the light of the relatively positive attitude of these countries to the globalization process from which they have so greatly benefitted for a long time. It is fair to say that the Nordics are more vulnerable than many other countries in the sense of being strongly exposed to the consequences of fluctuations in the global economy.

but they share features that support resilience

On the other hand, it may also be argued that the Nordics exhibit a considerable degree of resilience. This, as well, is no coincidence. As explained in Andersen et al. (2007), the essence of the Nordic model is to combine openness to globalization and new technologies with collective mechanisms for risk sharing, including the role of labour market organizations, the safety nets maintained by the public sector, and the high rate of spending on investment in human capital. These and other institutional features of the Nordic model, already referred to above, are helpful in fostering a positive attitude of citizens to international openness and the market economy in return for giving them some protection against otherwise problematic consequences of free markets.

The safety net, based on collective risk sharing, is valuable in times of crisis

The safety net includes not only unemployment benefits and other parts of social security but also active labour market policies as well as education and training, the purpose of which is to increase the geographic and occupational mobility of labour. The Nordic model is robust in the sense that the entitlements are not directly conditional on capital market developments and risks are widely shared in the society. By contrast, many individuals in the Anglo-Saxon countries have been hard hit by losing their jobs as well as much of their individual or company-based health care or pension plans.

Public finance sustainability must be safeguarded, which requires tough political decisions

While the benefits offered by the welfare state are very helpful as a cushion in the case of temporary shocks, they are more open to debate when shocks are permanent. Such shocks risk leaving the public sector with big budget deficits, which cannot be reduced

without opposition from strong vested interests (or without violating the perceived social contract). The Nordic model therefore requires strong public finances to be upheld, to give time to deal with shocks, and political capacity and skill to take the decisions needed to safeguard public finance stability – be it by reforming the pension system, raising the effective retirement age, cutting benefits or raising taxes. Such decisions will unavoidably be controversial because they may be perceived as promoting efficiency at the expense of equity.

Above all, small economies need to pursue policies that safeguard their competitiveness in international markets. While competitiveness is no insurance against risks in the short run, it will help avoid getting locked into persistent stagnation or slow growth. The meaning of competitiveness goes far beyond wage levels or relative unit costs; the overarching requirement is that the country should be an attractive location for workers embodying human capital and companies that generate value added covering the costs of highly educated and highly paid workers. Competitiveness may be enhanced by various factors contributing to such locational attractiveness, be it in terms of infrastructure, security, language skills, distance, climate, culture or taxes – but some of these factors are obviously more amenable to improvement by action by authorities than others.

Provided that the Nordics are able to generate the political decisions needed to safeguard competitiveness and the sustainability of public finances, their model has good arguments in its favour. The Nordic welfare state, labour markets or educational systems are not the source of the present problems, and neither is abolishing the key features of the model a precondition for recovery, far from it. Rightly implemented, the Nordic model is part of the solution rather than of the problem.

More generally, the crisis stimulates debate about socio-economic models and the role of the state. As the crisis illustrates, it is illusory to think that markets can always be safely left to correct themselves. Governments had to prop up banks and Keynesian activism has been a mostly useful complement to actions by central banks. However, these are exceptional actions undertaken in a situation of emergency; they do not and should not signal the

Competitiveness in a broad sense, locational attractiveness, is key

The Nordic model is no handicap, on the contrary

Market fundamentalism is out, but so is excessive state interventionism



return of a more prominent and interventionist role for the state in running the economy. Nevertheless, and as discussed in chapters 6 and 11, regulation and supervision of financial markets need to be reformed to better prevent the kind of excesses experienced in the run-up to the current crisis.

## 12.6 A GLOBAL ECONOMY NEEDS MORE THAN LOCAL POLICIES

Easy money and fiscal stimulus can prop up the economy for a while, but not for long

In the autumn of 2008 the world entered not only into a global crisis but also a crisis of globalization. At the origin were not only excesses in financial markets of individual countries but also persistent macroeconomic imbalances in the world economy, the effects of which were exacerbated by their financial repercussions (see chapter 3). The prolonged boom in the past decade owed a lot to the willingness of consumers in developed countries and notably in the US to increase borrowing and spending, but the process was too unbalanced to be sustainable. Once the crisis broke out, the global economy has been supported by easy money and willingness of governments to borrow with a view to supporting demand and activity. Given the size of public deficits, however, fiscal expansion is quickly approaching its limits. The risks of inconsistencies in the process of globalization are serious unless international cooperation can achieve a significant reorientation of the economic policies of key countries with a view to generating a more balanced and sustainable growth of demand in the world economy. The case for cooperation is similarly strong in the area of financial regulation and supervision.

A global economy needs more than local politics

While there is a lot that small economies can do to reduce their vulnerability and improve their resilience, in the end it is clear that part of the dilemma is the old one of global economy versus local politics. The world has been shrinking for quite some time, and the mutual interdependence of all countries is stronger than ever. Yet, most policies continue to be determined by governments of nation states accountable to national voters. Understandably enough, many citizens have difficulties in grasping the cross-bor-

der externalities at stake, and governments are overwhelmingly elected on domestic grounds rather than on the basis of their views of international issues and global cooperation. It is difficult to build the bridge between the reality of mutual international interdependence and the national orientation of identity and solidarity of citizens.

The current crisis will presumably give some impetus to a political process strengthening global institutions and international economic cooperation. This is in the interest of all, as practically no country is anymore big enough to be insulated from the effects of changing global economic conditions. While global cooperation, even if it could be improved, would be unlikely to eliminate shocks and problems, it could at least provide a framework for rational debate and negotiation with a view to tackling the problems on the level where many of them need to be tackled, the global level. The world needs stronger global institutions and for small open economies like the Nordics, a system of well-functioning multilateral institutions of global reach is of particular importance.

## ENDNOTES

<sup>1</sup> When considering net exports, however, one should bear in mind that imports are closely related to overall economic activity, which means that countries experiencing a deep slump tend to experience falling imports and therefore a positive contribution to GDP from net exports.

<sup>2</sup> The optimum currency area literature in the Fleming-Mundell tradition typically concludes that a small open economy with a freely floating exchange rate is unaffected by external shocks (to its exports), because the exchange rate adjusts so as to offset the effect of the shock on economic activity. Needless to say, the exchange rate does not eliminate the shock but neutralizes its effect on output. The distinction made in the text assumes (to be meaningful) that this effect materializes with a delay.

<sup>3</sup> See Calmfors, L. et al. (2005).

<sup>4</sup> Wage flexibility is likely to contribute to productivity growth within the company through incentive effects, but it may slow down the process of reallocation of labour from less to more productive units of production ("creative destruction").

<sup>5</sup> Reference to report Evaluation of the Finnish National Innovation System – Full Report (2009) and the Swedish Globaliseringsrådets Slutrapport.

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