Lessons from the Nordic Financial Crisis

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Introduction

In this report, the financial crises that erupted in the Nordic countries in the early 1990s are discussed in order to derive policy lessons for today. These lessons may be useful for any country subject to financial tensions in the future. As history demonstrates, financial crises are recurring phenomena; there will be new crises.

1 The stylized pattern of the Nordic crises

For a long time, high growth and full employment characterized the macroeconomic record of Denmark, Finland, Norway and Sweden – the Nordic or Scandinavian countries – during the post-World-War-II period.\(^1\) Prior to the 1990s, the Nordic countries were able to avoid the persistent mass unemployment common to the many European countries already in the 1970s. Denmark was the only Nordic country experiencing high unemployment in the 1980s. However, the image of the Nordic economies as successful was crushed in the beginning of the 1990s when Finland and Sweden faced a severe crisis and Norway a milder one.

The Nordic crises have their roots in the process of financial liberalization that was carried out in a monetary regime based on pegged but adjustable exchange rates. In the 1980s, the financial systems of Finland, Norway and Sweden underwent major deregulation. Financial liberalization set off a sustained lending boom, capital inflows, rising asset prices, rapidly increasing consumption and investment and an overheated nontradables sector while the exchange rates of the Nordic countries remained pegged. The boom turned into a bust around 1990, with capital outflows, widespread bankruptcies, falling employment, declining investments, negative GDP growth, systemic banking crises, currency crises and depression. Eventually, the central banks of Finland, Norway and Sweden were forced to move to flexible rates in the fall of 1992 in order to avert the depression.

The crisis in Finland, Norway and Sweden was a financial crisis occurring as part of a boom-bust cycle. It displayed the characteristics of a twin crisis, defined as the simultaneous occurrence of banking and a currency crisis. In fact, in Finland and Sweden the twin crisis turned into a “triplet” crisis when huge public budget deficits emerged as a consequence of the sharp decline in economic activity.

Financial liberalization and credit-fuelled boom. The financial liberalization of the 1980s

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\(^1\) Here Scandinavia is used as a synonym for the Nordic countries although strictly speaking it encompasses only Denmark, Norway and Sweden. The record of Iceland, a Nordic country as well, is not covered here.
affected the incentives of lenders and borrowers in a fundamental way. After decades of non-price credit rationing, banks were suddenly able to expand their lending without being hampered by regulatory restrictions. Banks entered into fierce competition for market shares by offering loans to households and firms. A lending boom started, channeling credit to asset markets – primarily to housing, to commercial real estate and to the stock market – causing asset prices to rise. Rising asset prices formed the basis for rising collateral values and increasing net wealth of households, further fuelling the credit expansion. Within a couple of years, the aggregate credit volumes were increasing at an unprecedented rate.

These financial developments impacted on the real economy. The macroeconomic outcome was a strong boom, first in the Norwegian economy, and later in the Finnish and Swedish economy in 1988-89, as Norway started its financial deregulation roughly two years earlier than Finland and Sweden. The boom was characterized by overfull employment, rising consumption, and falling savings ratios, which eventually turned negative. The current accounts worsened as export performance weakened and imports increased.

Due to the pegged exchange rate, monetary policy was prevented from mitigating the boom through interest rate increases. Fiscal policies were not tightened enough to choke off the boom although national budgets displayed large surpluses due to rising tax revenues from higher consumption, wages, property values and capital gains.

Financial deregulation, the key reason for the birth of the boom in all three countries, was pushed through without any serious parliamentary or public debate. Policy-makers argued that financial controls had become ineffective and were anyway largely evaded. For this reason, deregulation was not expected to have any major impact.

At this stage, policy-makers were not able to discern the risks inherent in the process of financial liberalization. Experts in the central banks and finance ministries were not much better informed. The economics profession focused on the beneficial long-run effects of deregulation, not on the possibility of short-run imbalances and crisis. This state of affairs was due to the lack of knowledge and experience of the consequences of financial integration, although a few voices warned of looming danger.

*Rising real rates and bust.* The boom in the real economy was eventually halted and turned into a bust by a combination of events, exogenous as well as endogenous. Real interest rates rose internationally as a result of the contractionary design of German monetary policy following German reunification. Rising German interest rates exerted strong upward pressure on the interest rates of the Nordic currencies, which were more or less formally tied to the German Mark when the Finnish, Norwegian and Swedish currencies were officially pegged to the *ecu,* the virtual European currency unit, in 1990-91. Previously, their exchange rates had been linked to baskets of currencies. An additional real interest rate shock occurred when the Finnish and Swedish central banks raised their nominal interest rates in attempts to defend their fixed exchange rates against recurring speculative attacks in 1989-92.
Other policy measures increased the real after-tax interest rate. In Finland, stepwise limitations in the tax deductibility of mortgage rates in the early 1990s increased the after-tax cost of servicing debt. The far-reaching Swedish 1990-91 tax reform, which lowered marginal taxes significantly and reduced tax deductibility of mortgage rates, raised real after-tax interest rates. In this way, borrowing turned less attractive while private savings became more attractive. A rapid and less than fully expected decline in the rate of consumer price inflation in 1990-92 contributed to the sharp rise in real interest rates in Finland and Sweden. Within a couple of years, the real after-tax interest rates rose to levels much higher than borrowers had expected a few years earlier.

The sharp increase in the real rate had a profound impact on financial markets. Asset price deflation kicked in when the value of real assets was reduced by rising real interest rates. Balance sheets turned fragile when asset values, primarily property prices, fell below collateral values. At the same time, the nominal values of debts remained unchanged. Wealth losses came to the fore, forcing an adjustment of portfolios, leading to falling private consumption, falling investments and rising private savings.

Investment fell, in particular within the construction sector. With declining prices for existing houses, demand for new construction evaporated. Unemployment soared. As the Finnish and Swedish currencies were overvalued due to high wage and price inflation during the preceding boom, the export sector encountered major problems in 1990-91. In Finland, the collapse of bilateral trade with the Soviet Union contributed to the domestic imbalances. Tax revenues declined and public expenditures rose due to the workings of automatic stabilizers. In Finland and Sweden, the government budget deficit and thus the ratio of government debt to GDP increased dramatically. Norway, however, did not experience any rise in government debt due to strong public finances stemming from revenues from the energy sector.

In 1992, the financial system of all three countries was rocked when the Finnish markka, the Norwegian krone and the Swedish krona were exposed to major speculative attacks. A European currency crisis erupted in September 1992. The Finnish markka was floated in September 1992. The Swedish krona followed suit two months later, in November 1992, despite fierce resistance by the Riksbank. Finally, the Norwegian currency was floated in December 1992.

Recovery. The floating of the currencies in the fall of 1992, with the ensuing depreciation and receding domestic interest rates, checked the downturn in the Finnish, Norwegian and Swedish economies. The recovery commenced in all three countries in the following year and lasted for more than a decade, although unemployment remained high for a long time. It did not start to decline until the mid-1990s, from which point it fell steadily. The main engine behind the recovery was an impressive growth in exports. Export shares rose

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2 In addition, Finland devalued the markka in the fall of 1991.
3 See chapter 4 in this volume for an analysis of the unemployment record of Finland and Sweden.
significantly in all three countries, most markedly in Finland and Sweden (Figure 1). This rise continued for more than a decade. The current accounts, previously in chronic deficit, turned to seemingly permanent large surpluses.

The Nordic rate of inflation stayed at a low level, around two percent per annum, throughout the period 1995-2007. Wages and prices remained surprisingly stable given the currency depreciation. Contrary to predictions made during the recession, the large exchange rate depreciations did not have any apparent impact on domestic price and wage levels. The high rate of unemployment contributed to wage moderation.

Post-crisis fiscal policies in Finland and Sweden were directed first towards reducing budget deficits, and later towards lowering national debt. The fiscal consolidation efforts were large and successful. Within five years, Finland and Sweden were able to move from deep deficits to some of the biggest surpluses in Europe. Norway is a special case due to the returns from the oil and gas sector.

The recovery after the boom-bust cycle turned out to be long-lasting – first until the downturn in worldwide economic activity around 2001. After a short break, rapid growth continued until 2008, then it returned in 2010. The Finnish, Norwegian and Swedish growth rates have remained consistently above the EU average since the depression of the early 1990s.

After the recovery. Financial integration profoundly changed the economic landscape in the Nordic countries, in particular in Finland and Sweden, the two countries worst hit by the financial crisis. These long-run effects have been overshadowed by the short-run impact of the financial opening, in other words by the dramatic events during the boom-bust cycle, and the post-crisis recovery. But once financial markets were opened up, this impacted on a large number of sectors both inside and outside the financial system.

The stock markets of Finland and Sweden expanded as part of the process of financial opening and integration. Foreign holdings of domestic stocks increased rapidly. Cross-border holdings of financial assets and liabilities grew as well, reflecting financial integration (Figure 2). Corporate governance changed once foreign ownership was admitted. Taxation was adjusted to international tax competition. The rules for monetary and fiscal policy making were reformed and adjusted. Inflation targeting was introduced. Eventually, Finland entered the euro area in 1999 as part of the process of European monetary unification. Norway and Sweden remained outside the euro area. In short, the financial integration that followed the crisis of the early 1990s pushed the process of globalization in the Nordic economies far ahead.

The strong post-crisis performance of the Scandinavian countries has created an international interest in the Nordic or Scandinavian model. It has been hailed as a paradigm for other countries to copy. As argued below, this recent focus on the Nordic record has probably not paid due attention to the impact of the financial crises and financial integration on Nordic developments.
2. Lessons from the Nordic financial crises

By now there is a substantial literature drawing lessons from financial liberalization and financial crises in emerging-market economies. Most of it deals with the experience of East Asia and Latin America in the late 1990s. A summary of the lessons from financial liberalization, from the ensuing boom-bust, and from the crises and the recovery in Scandinavia is lacking. Still, the Nordic record invites a number of lessons for policymaking that are at least as relevant as those from the emerging market crises which took place after the Nordic crises.

Lesson-drawing is not an exact science. It is, to a large degree, subjective. Bearing this caveat in mind, the financial history of the Nordics brings out twelve lessons. They are categorized below under three rough headings: first, lessons on how to liberalize without creating a financial crisis, second, lessons on how to deal with a financial crisis once it has surfaced, and third, lessons concerning the long-run effects of financial integration on the design of stabilization policies, on growth and efficiency, and on the distribution of income and wealth.

Many of the lessons presented below are closely related. In addition, some of them are more important than others. Most of them stem from one source: the lack of knowledge of the dynamics created by financial liberalization. Ignorance among policy-makers, forecasters, bankers, economists and the public about the powerful macroeconomic effects of the financial imbalances initiated by financial liberalization, explains much of the disastrous record of Finland, Norway and Sweden. Most of the remaining lessons are corollaries to this foremost conclusion.

2.1 How to liberalize without creating a financial crisis

First, we consider the lessons on how a financial meltdown may be avoided. In hindsight, these lessons may seem obvious but Nordic policy-makers were not aware of them prior to the outbreak of the crises.

Lesson no 1: The dangers of financial ignorance

If knowledge about the processes unleashed by financial liberalization is lacking, the policy response before, during and after financial liberalization is unlikely to be the most

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4 For lesson-learning from the crises of the 1990s, see for example Caprio, Honohan and Stiglitz (2001), Eichengreen (1999, 2002, 2003) and Isard (2005, chapters 4-5). The IMF and the World Bank have produced a set of studies drawing lessons from the crises of the 1990s.

5 There are studies concerning the lessons from individual Nordic countries and from particular aspects of the financial crisis of the 1990s, but to my knowledge there is no report concerning the general lessons from all the four Nordic countries. See also the individual chapters of this volume.
appropriate. This was the case in the Nordic countries. When financial deregulation started in Finland, Norway and Sweden in the 1980s, financially driven booms, busts and crises were unknown phenomena to policy-makers in the central banks and the ministries of finance, as well as to forecasters, to financial regulators, to the economics profession, to bankers and other actors in the financial system, and to the public at large. The thinking and thus the behaviour established by many decades of financial controls and regulations continued unchanged, without an understanding that financial liberalization was rapidly creating a new and financially more risky world that replaced the old risk-free environment.

Policy-makers viewed the steps towards financial deregulation in the mid-1980s as technical adjustments of no major consequence for economic performance. In addition, the first impact of the move towards liberalization was a lending boom with rising consumption and wealth. This upturn was initially appreciated by the parties in political power. Thus, no effective counteracting stabilization policy measures were taken to dampen the rapid growth in the volume of credit.

Official forecasts made within the Nordic countries as well as by international organizations, failed to identify the boom-bust cycle. Significant forecast errors emerged during both the boom and the bust phases of the cycle. The systematic collective bias in forecast performance contributed to the policy mistakes.

Economists at universities in Scandinavia were caught in a Keynesian world of flow variables, unfamiliar with the wealth, portfolio and balance sheet effects created by financial liberalization and by huge swings in the real rate of interest. As a rule, economists were in favour of financial liberalization as part of a policy of structural reforms aimed at improving growth performance, yet lacked an understanding of the dangerous imbalances that financial deregulation could bring about if not combined with proper counter-measures. Thus, hardly any warnings emerged from the economics profession when such advice would have been most appropriate.

Bankers and other actors on financial markets were ignorant about the consequences of financial deregulation. They had only experienced a financially closed and strongly regulated economy where financial risks were exceptionally limited. Thus, they did not understand the dangers of a rapid extension of credit. The same held for private individuals and firms. As soon as credit became freely available due to the deregulation, borrowers quickly entered deeper into debt. Thus, the credit boom was fuelled by lenders and borrowers with little understanding of the risks inherent in the deregulation process.

The policy lesson is straightforward. A thorough analytical and factual understanding of the workings of unfettered financial markets is crucial to make financial liberalization and subsequent financial integration successful. Financial knowledge should be as widely

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6 To my knowledge, no thorough study or forecast accurately projecting the macroeconomic consequences of financial deregulation was published in any of the Nordic countries prior to the financial crises of the early 1990s.
dispersed as possible, among policy-makers, regulators, official and private forecasters, economists, financial sector participants and, most importantly, the public at large. In the future, new risks are likely to build up through the emergence of new financial instruments, techniques, regulations etc. Of course, these cannot be predicted today, but financial literacy, including the proper learning from other countries and from history, helps in the successful planning and management of financial liberalization.

Lesson no 2: The dangers of backward-looking policy learning

In the crisis-ridden Nordic countries, policy-makers defended the pegged exchange rate against speculative attacks at high costs to society. They, as well as most economists, supported the pegged exchange rate regime until the bitter end. In hindsight, it seems as if central bankers and ministers of finance were not concerned about the costs to society of the hard currency policy although their economies were driven into deep crisis and soaring unemployment due to the defence of the pegged rate.7

This response pattern was due to the backward-looking learning process of policy-makers and economists alike.8 They had become convinced that the devaluations of the 1970s and early 1980s had not solved any problems in the long run, only masked them in the short run. Consequently, a strict adherence to a pegged exchange rate policy (a hard-currency policy) was viewed as a better strategy – as a method of breaking away from the devaluation cycles of the past. The argument was that a credible pegged exchange rate would act as a nominal anchor for a monetary policy intended to achieve low inflation and thus create a proper climate for growth and employment.

When confronted with the emerging crisis in the late 1980s and early 1990s, policy-makers looked back at the most recent crisis experience for lessons to guide their actions. As they had just learnt from the crises of the 1970s and early 1980s that devaluations (a soft-currency policy) and subsequent high price and wage rate inflation could and should be avoided by sticking to a hard currency policy, they stubbornly defended the pegged rate. However, relying on the lesson from the most immediate past crisis turned out to be a recipe for disaster when moving from a financially closed world into a financially integrated one.

The lesson is that policy-makers should not become prisoners of backward-looking

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7 Economists with a political economy background tend to argue that politicians are inclined to adopt expansionary policies in the short run that turn out to be inflationary in the long run – a phenomenon described as “inflation bias”. However, in Finland and Sweden the opposite pattern held in the early 1990s. Policy-makers were determined to carry out a contractionary policy in the short run – while bringing about a deep crisis – in order to avoid inflation in the long run. The long-run result of this “deflation bias” turned out to be a successful one in the sense that Finland and Sweden managed to keep a low rate of inflation for many years after the crisis of the 1990s.

8 See Jonung (2000) for a detailed analysis of the backward-looking learning process of policy-makers and of economists in Sweden during the 1970s, 1980s and 1990s.
learning by regarding the present crisis as identical to the most recent one. If they do, they run the risk of basing their policy actions on a faulty interpretation of the historical record. Instead, they should examine the evidence from crises further back in time as well as from other countries before determining the proper policy response.9

Lesson no 3: The dangers of rapid changes in the real rate of interest

The boom-bust episode 1985-93 in Finland, Norway and Sweden demonstrates the central role that rapid, large and unexpected changes in the real rate of interest, or more accurately in the after-tax real rate, may play in driving macroeconomic developments during the opening of financially closed economies with pegged but adjustable exchange rates.

Prior to financial liberalization, the real rate of interest in the three Nordic countries was low or negative, often in the range of minus 2 to plus 4 percent, as a consequence of prevailing internal and external financial regulations, the system of tax deductible interest payments on mortgage loans and high inflation and well entrenched inflation expectations. Negative real rates created extremely strong incentives for individuals and firms to accept more debt in the mid-1980s when financial controls were loosened or abolished, thus driving the demand for credit. Banks and other financial intermediaries responded by increasing the supply of credit.

Eventually, after major changes in the tax system, rising nominal interest rates and falling inflation, real after-tax rates turned positive. During the bust phase, real rates reached uniquely high levels. The huge and to a large extent unexpected rise in the real rate of interest created massive negative balance sheet or wealth effects, sharply reducing investments and consumption and raising savings as the private sector tried to rebalance the composition of its portfolio. These contractionary balance sheet effects undermined the entire financial system, the wealth position of the private sector and the budget of the public sector.

The policy lesson is straightforward. The monetary and fiscal authorities should avoid starting financial liberalization with the after-tax real rate substantially below the equilibrium rate, thus preventing pronounced and unexpected swings in the real rate when it moves towards the international level. A more gradual and cautious approach aimed at ensuring smooth movements in the real rate may restrain or even prevent boom-bust episodes from occurring during financial deregulation.

Lesson no 4: The dangers of procyclical stabilization policies

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9 That policy-makers as well as economists producing policy advice should be forward-rather than backward-looking is easy to advocate but harder to implement in practice as the public perception of the present crisis and of the appropriate policy action to take is strongly influenced by prevailing views concerning the most recent past crisis, regardless of its relevance for current circumstances.
Monetary and fiscal policies were procyclical during the Nordic boom-bust cycle. They reinforced each other in a way that destablized the economy.

Monetary policy: The Nordic episodes illustrate the crucial role played by the exchange rate regime during a process of financial liberalization. By maintaining and defending the pegged exchange rate of their currencies, policy-makers in Finland, Norway and Sweden created a procyclical monetary policy during and after financial liberalization.

During the boom phase, interest rates could not be raised sufficiently to counter the upturn in the domestic economy because higher interest rates would have induced additional capital inflows and thus added more fuel to the credit boom. Once the cycle started to turn downwards, the pegged exchange rate was defended by raising domestic rates, contributing to the recession. Eventually, the defence of the currency made the domestic crisis so deep that the peg was abandoned in all three countries.

The policy lesson is straightforward: keeping a pegged exchange rate during a process of financial liberalization runs the risk of making monetary policy procyclical, creating a conflict between internal and external stability. A more flexible exchange rate policy would likely have dampened the amplitude of the Nordic boom-bust cycle.

Fiscal policy: Fiscal policy, that is the design of taxes and government expenditure, played a key role during the Nordic process of financial liberalization. During the boom, it was as a rule procyclical. Fiscal authorities were commonly of the opinion that fiscal policy was countercyclical as the budget was in surplus. However, these surpluses were too small to effectively put an end to the boom. In hindsight, it is easy to conclude that fiscal policy should have been tighter during the boom stage of the business cycle. During the bust phase, due primarily to the workings of automatic stabilizers, budget deficits expanded extremely rapidly. The rise in public deficits induced far-reaching measures to reduce government expenditures and raise taxes in Finland and Sweden. Fiscal policies were thus procyclical during the bust as well.

Two conflicting interpretations exist as to what extent the contractionary fiscal policies in Finland and Sweden in the wake of the financial crises impeded or contributed to the recovery. One school of thought, proponents of fiscal restraint, argues that the rise in the budget deficit during the crisis was so large that it threatened to become unsustainable, creating expectations of an explosion of public debt with sharply rising interest rates, eventually leading to the monetization of public debt and to extreme inflation. To reduce these expectations and keep interest rates in check, policy-makers were compelled to tighten fiscal policy in order to stop a menacing growth of the deficit.

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10 This is an illustration of the "Walters critique". See Walters (1994).
11 This policy lesson is amply illustrated by the crisis experience of other countries as well.
12 This is the view of Henriksson (2007) when describing the Swedish budgetary consolidation program 1995-97 by the Social Democratic government that came into power in the fall of 1994 – well into the recovery phase of the crisis.
An alternative and opposing view suggests that the rise in budget deficits during the crisis reflected mainly the workings of automatic stabilizers. According to this school, the huge budget deficits were primarily of a cyclical, not of a structural, character. As a consequence, attempts to drastically reduce the deficits during the crisis by raising taxes and cutting government expenditures were counterproductive, and likely pushed the economy deeper into depression.

Economists who take this view commonly adhere to a balance sheet approach implying that fiscal policy during a financial crisis should prevent aggregate demand from shrinking further. In this case, the policy lesson is that in the event of a boom-bust cycle, fiscal policy should be based on a tax-smoothing strategy. It should be countercyclical, at least in the sense of letting automatic stabilizers work freely, restraining demand during the upturn and supporting it in the downturn. During the bust phase, budget deficits should be allowed to expand. In short, fiscal policy as well as other types of policies should aim at strengthening the balance sheets of the private sector during the bust.\textsuperscript{13}

\textit{Lesson no 5: The dangers of procyclical sequencing of financial reforms}

The Nordic record demonstrates that the sequencing of financial reforms, internally and externally, is of the utmost importance for the success or failure of financial liberalization. Financial markets were first deregulated internally in the mid-1980s, which set off a sharp lending boom fuelled by an inflow of capital while outflows were prevented by capital controls. Later financial markets were externally deregulated, allowing for an outflow of capital, roughly at the same time as the central banks were forced to defend the pegged exchange rate with higher interest rates. The pegged exchange rate was eventually abandoned when the crisis reached its peak. An earlier floating or an earlier adjustment of the peg would have dampened the boom-bust pattern – or even eliminated it if financial liberalization had been combined simultaneously with a more flexible exchange rate policy or a fully floating rate.

The sequencing of deregulatory measures also includes how interest payments on loans are treated by taxation. In the three Nordic countries, real after-tax interest rates were initially kept at low levels through favourable tax treatment of interest payments on loans. At a later stage, taxation was changed, significantly raising real after-tax interest rates. Thus, tax rules made a pro-cyclical contribution, first fuelling the boom and later exacerbating the bust. A better sequencing would have implied tax reforms at a very early stage of the financial liberalization process.

The policy lesson from this aspect is that policy-makers should closely monitor the short-run consequences on the economy of structural changes in regulations and taxes. Such steps may be highly recommendable in themselves as part of a policy for improved growth and efficiency but they may have decidedly undesirable cyclical effects when

\textsuperscript{13} As consensus is lacking concerning the role of fiscal policy during the Nordic crises, this topic remains a promising subject for future research.
interacting with other developments. Thus, policy-makers should pay careful attention to initial conditions when changing prevailing financial regulations and schemes of taxation.

Lesson no 6: The limits of micro-prudential financial supervision

Prior to the financial deregulation in the mid-1980s, the system of financial supervision was well developed in Finland, Norway and Sweden to handle the challenges arising within a financially restricted and closed system. However, it was not prepared to deal with the new risks and dangers arising in a internationally open banking sector. This competence was simply lacking. Still, there were no weak banks, no crony banking, no dubious links between banks and industrial companies, political parties or private families reflecting nepotism and corruption. In addition, no banks were dependent on state subsidies or state support prior to the financial opening. In spite of the existing financial supervision, the financial crises of the early 1990s brought the entire banking system close to collapse, forcing several banks into bankruptcy or obtaining support through government actions.

The policy lesson is that conventional micro-prudential financial supervision, adopted to monitor tightly regulated financial institutions, was not up to the task of preventing a strong boom followed by a deep crisis from developing once the financial system was opened up for competition and international exposure. The forces of boom and bust unleashed among the Nordics were simply too strong to be neutralized by financial supervision.14 Thus, it is imperative to reform the supervisory system prior to or simultaneously with financial liberalization.

Lesson no 7: Avoid financial repression

The roots of the Nordic financial crises originate in the extensive financial repression that was put in place after World War II. These regulations created huge imbalances as well as behaviour by banks and by the public that contributed to the boom-bust cycle once financial repression was eliminated by the process of deregulation. The transition from a heavily regulated financial system to an open one proved highly risky for Finland, Norway and Sweden in the late 1980s and early 1990s, eventually leading to a deep crisis.

If financial repression is avoided, there will be no call for financial liberalization. In this way, the risk of a financial calamity is reduced. Of course, financially deregulated systems may also undergo crises but for reasons other than deregulation.

The lesson is straightforward: stay away from financial repression. This, however, is a hard lesson to follow. It is difficult today to understand what type of regulations are

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14 The same lesson holds for deposit insurance. Finland and Norway had such a system. Sweden set one up as a result of the crisis. The crisis proved that deposit insurance was an insufficient arrangement. Instead, the government served as the ultimate guarantor of the stability of the banking system.
needed to keep the financial system "sound", "stable" and market-based moving it along an equilibrium path. Some measures may seem appropriate at any given moment in order to make the financial system work better, but in hindsight they may turn out to have contributed to the next financial disaster.

Lesson no 8: Financial liberalization can be crisis-free

To conclude this section on what lessons can be drawn from the Nordic experience on how to prevent the emergence of a financial crisis, the Danish case demonstrates that financial liberalization may be carried out without contributing to a financial calamity, contrary to the experience of Finland, Norway and Sweden. This requires a well-balanced policy approach. Monetary and fiscal policy should be geared towards macroeconomic and financial stability, the process of deregulation should follow a proper sequencing, and the banking system should be well-capitalized. In short, Denmark managed to steer clear of the mistakes that the other Nordics made when they opened their financial systems to the rest of the world.

The policy lesson is a basic one. Financial liberalization can be designed in such a way that it does not trigger a financial crisis. Thus, the benefits of a financially open system can be obtained while avoiding the costs that so many countries have paid in form of a financial meltdown.

2.2 How to deal with a financial crisis

Once the financial crises broke out in Finland, Norway and Sweden, policy-makers were faced with complex decisions concerning the appropriate measures to take to alleviate the impact of the financial turmoil. As the crisis was unexpected – no financial crisis had occurred among the Nordics since the 1930s – they were forced to improvise and experiment. Eventually, a number of policy lessons concerning resolution policies emerged from this experience.

Lesson no 9: The benefits of rapid crisis management

The process of financial liberalization set off a chain of events that threatened to wipe out the entire equity of many banks. At this stage, far-reaching steps were taken in Finland to support the banking system; the savings bank group was taken over by the government. In Norway, the three biggest banks were nationalized, eliminating private ownership completely. The government of Sweden offered blanket insurance for claims on Swedish commercial banks, nationalized the two clearly insolvent banks, and set up asset management corporations to take over bad assets of the remaining commercial banks.

The Swedish approach is commonly praised for being swift and resolute. It prevented

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15 See the analysis in chapter 8 in this volume on how Denmark avoided a financial crisis.
16 See chapter 3 on the resolution policies adopted in Finland and Sweden and chapter 7 on the case of Norway as well as Englund (1999) and Ingves and Lind (1996) on the
bank runs; it maintained the solvent commercial banks in private ownership and allowed banks to continue financial intermediation, it prevented any credit crunch to emerge, it kept moral hazard for shareholders at bay, and it was transparent. Eventually, the bad assets taken over by the asset management corporations turned out to be something of a financial success once the economy had recovered – or at least the losses turned out to be much smaller than initially expected.

The policy lesson is clear. Rapid, transparent and determined government actions to maintain public confidence in the strength of the banking system reduce the impact of a financial crisis, dampen any credit crunch and allow for a rapid recovery of the financial system and thus of the real economy.

Lesson no 10: The insufficiency of the lender-of-last-resort function

Traditionally, in the case of a liquidity crisis, the proper task of a central bank is to serve as the lender of last resort to the banking system by injecting liquidity into individual institutions or into the whole financial system. However, the financial crisis in Scandinavia turned out to be a solvency crisis for the banking system and thus much more severe than a liquidity crisis. The Nordic experience illustrates the standard view that during a systemic financial crisis, the lender-of-last-resort function of the central bank is inadequate to support ailing banks.

The Nordic central banks were squeezed from two sides during the bust phase: by a currency crisis and by a banking crisis. Their financial resources were simply insufficient in the midst of the financial turmoil when their foreign reserves were falling at the same time as the banking system wanted to borrow from the central banks. Instead, the ministries of finance stepped in to support insolvent banks in all three countries while the central banks stood on the sideline.

The policy lesson is that in the face of a deep systemic financial crisis, a solvency crisis, the government – not the central bank – must serve as the supporter-of-last-resort of failing financial institutions. Only the government can offer the blanket guarantees and capital injections deemed necessary to stabilize the financial system. The rescue of the banking system must be financed by fiscal measures, in other words by the taxpayer.

Lesson no 11: The insufficiency of the IMF's advice

Finland, Norway and Sweden were members of the IMF almost from its inception. One of its tasks is to give policy guidance to its member states. Judging from the Article IV consultations and other type of recommendations given by IMF representatives, the performance of the IMF was far from successful prior to and during the Nordic crises.17

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17 Swedish model of bank resolution.

The policy advice by the IMF during the East Asian crises and the Latin American crises has been the subject of harsh criticism, see Eichengreen (1999, chapter 7) and in particular Stiglitz (2002).
The boom-bust cycle came as a surprise to the IMF; it gave no early warnings of an impending crisis. Once the crisis broke out, the focus of the IMF's advice was on defending the pegged exchange rate by making fiscal policy more contractionary, even as the economy was sliding into recession.\textsuperscript{18}

The IMF's policy recommendations during the Nordic financial crises have yet to be thoroughly analyzed by researchers. At this stage, based on available documents and interviews with policy-makers in Finland and Sweden, much suggests that the IMF held the view that the Nordic crises had its main roots in lax fiscal policies which gave rise to large structural deficits. The IMF did not adequately observe the process of financial deregulation that started in the mid-1980s and eventually ended in the banking and currency crises, driving up public budget deficits as part of the depression and forcing the private sector to reconsolidate its balance sheet. The IMF's poor policy advice to the Nordics may have been due it drawing lessons from the Latin American debt crisis of the 1980s which it then projected on the Nordic financial crises.\textsuperscript{19}

The policy lesson for a member country of the IMF finding itself in a crisis is to take advice and guidance from many sources. Of course, the IMF has learnt from the global crisis experience of the 1990s but there is no guarantee that the lessons learnt will turn out to be the right ones in the future.

2.3 The long-run effects of financial integration

\textsuperscript{18} The recommendations for Sweden given by the IMF are revealed in the memoirs of Bengt Dennis, Governor of the Swedish Riksbank 1982-94. In September 1992, in the midst of the financial turmoil in Europe, a delegation from the IMF examined the state of the Swedish economy. According to Dennis (1998, p. 64), its recommendations could be summarized in three words: "consolidate the budget". The IMF delegation viewed the rising budget deficit as the main cause for alarm and thus recommended a tight fiscal policy. The Riksbank held the same view. For this reason, it used the IMF report to successfully press the government and the opposition to tighten fiscal policy in a joint fiscal and monetary austerity program announced in September 1992. The program succeeded in the sense that it postponed the floating of the krona until November the same year.

\textsuperscript{19} According to Eichengreen (1999, p. 109), the recommendations of fiscal tightening by the IMF in the Asian crisis in the late 1990s were the consequence of "blindly taking a page from its Latin American debt crisis cookbook" without paying proper attention to the differences between Latin American and Asian economic conditions. I conjecture that the IMF did the same when advising Sweden in the early fall of 1992. Eichengreen (1999, p. 110) summarizes the criticism of the role of the IMF in the Asian crisis in the following way: "The problem was that the Fund failed to adjust for the cycle. It failed to anticipate the severity of the Asian downturn or see that the restrictive fiscal policies it recommended would themselves make that downturn worse. Once this realization dawned, it modified its advice". The IMF gave the same type of advice concerning contractionary fiscal policy in Sweden as initially during the Asian crisis.
The Nordic experience of financial deregulation demonstrates that it has far-reaching long-run or structural effects on the design of stabilization policies, the growth potential of the economy, and the distribution of income and wealth in society. These systemic consequences of cross-border financial integration are briefly considered below.

*Lesson no 12: The long-run effects of financial integration*

*Stabilization policies.* Financial integration had a major impact on the stabilization policy regime in Finland, Norway and Sweden. The framework for monetary policy as well as for fiscal policy was changed fundamentally.

First of all, concerning monetary policy, the pegged exchange rate regime of the three countries was abolished as it proved to be inadequate as a nominal anchor during the process of financial liberalization. After the crisis, the pegged rate regime was replaced by inflation targeting in Sweden, announced in January 1993 to start in January 1995. This monetary policy strategy, based on openness, accountability, and communication through changes in the short-term interest rate set by the central bank, requires the existence of well-functioning financial markets. The financial liberalization of the 1980s and the subsequent financial integration created the prerequisites for a new type of monetary policy regime or policy framework that could not have existed when the Swedish economy was financially closed and heavily regulated with strong administrative controls of short and long interest rates in place.

Finland and Norway also moved away from the pegged exchange rate regime. Finland followed Sweden's approach by adopting inflation targeting in February 1993, as an emergency strategy, with the aim of achieving a 2 percent inflation rate by 1995. Later in 1999, Finland joined the euro area, thus adopting a permanently fixed exchange rate. After moving towards greater exchange rate flexibility in the 1990s, Norway eventually adopted inflation targeting in early 2001.

Second, concerning fiscal policy, as a consequence of the experience of large budget deficits during the crisis, the institutional framework for fiscal policy making was reformed in Finland and Sweden towards a rule-based approach. The aim was to reduce the scope for short-term discretionary fiscal policies by tying the hands of policy-makers through various restrictions. Finland and Sweden's accession to the European Union in 1995 made their fiscal policy subject to the budget rules set out in the EU institutional framework. Norway, on the other hand, due to its huge revenues from oil and gas, faced the challenge of managing extremely large budget surpluses.

The policy lesson here is a fundamental one. Once the domestic economy is financially integrated with the rest of the world, a market-based monetary policy like inflation targeting can be put in place. With increasing financial integration, the efficiency of fiscal policy is reduced, facilitating a move to rein in the scope for fiscal measures by various means.

*Growth and efficiency:* Financial liberalization is associated with boom-bust patterns in
numerous countries, ending in financial crises and deep recessions with negative growth rates. Given this record, many economists are sceptical of financial opening, instead proposing restrictions on capital flows. Others stress the positive relationship between financial development and growth, implying that financial liberalization enhances efficiency and growth by making the financial system more sophisticated. They claim that financial liberalization and subsequent crises have taken place in some of the most rapidly growing countries in the world. No consensus has yet emerged regarding the growth effects of financial liberalization and crises.\textsuperscript{20}

The evidence from Scandinavia, not commonly referred to in the international debate, may throw additional light on the relationship between financial liberalization and growth. In short, the Nordic record suggests that financial crises, triggered by a process of financial liberalization, are extremely costly in the short run in many dimensions: to society, to taxpayers, to owners of stocks and equities, and to politicians in power; but contribute to high growth for a long period following the recovery.

In a comparative perspective, the loss in terms of output, industrial production and employment due to the depression of the 1990s was remarkable. In Finland and Sweden, it was by far the deepest one in the post-World-War-II period.\textsuperscript{21} The fiscal cost of the crisis was enormous as budget deficits and public debt soared when tax revenues declined and government expenditures increased, largely due to the workings of automatic stabilizers. Government support for the financial system ballooned in the short run. The private sector, in particular holders of stocks in banks and other financial institutions, was hit by huge wealth losses. The political costs were significant as well. Governments in power at the start of the crisis lost popularity and were replaced in subsequent elections. Whether or not the policy-makers in power had designed the policies that led to the crisis, they were held responsible by the voters.

Turning from the short-run costs and looking at the long-run consequences of the financial crises of the early 1990s, a more positive picture emerges. The post-crisis growth rates of Finland and Sweden since 1993 have been high compared to the EU average. Much suggests that this growth pattern is associated with financial integration and the financial crises. They contributed to the transformation of the Nordic economies, by making them more dynamic, releasing Schumpeterian processes and raising their growth potential. Rapid developments in the financial systems of Finland and Sweden impacted positively on the growth prospects of the two economies as well.\textsuperscript{22} The crises served as a window of opportunity for policy-makers to carry out growth-enhancing structural reforms. However, it remains a task for future research to determine the exact channels through which the crises and financial integration influenced post-crisis

\textsuperscript{20} See Henry (2007) and Tornell and Westermann (2005) for recent surveys of the issues involved.

\textsuperscript{21} For Norway, see chapter 5 in this volume.

\textsuperscript{22} To my knowledge, there has been no attempt to estimate and compare the short-run welfare costs and the long-run welfare benefits of financial liberalization in any of the Nordic countries.
growth. Still, there is a policy lesson concerning growth: the process of financial liberalization has long-run benefits for growth and efficiency that should be compared to its short-run costs.

**Distribution of income and wealth:** Most of the discussion of the immediate impact of financial liberalization and financial integration is focused on the banking system and the financial sector. However, once the cross-border barriers of financial flows were eliminated in Finland and Sweden, pressure for policy changes emerged in areas other than the financial system such as the rules concerning foreign ownership of domestic real and financial assets, the taxation of income and wealth in a financially open economy, and the design of corporate governance laws.

In Sweden, primarily as a consequence of financial liberalization, gift taxes, inheritance taxes and wealth taxes were abolished in 2005-2008. These are radical changes for a country with a strong egalitarian tradition. Financial integration is thus likely to impact on the distribution of income and wealth. Recent empirical research suggests that periods of financial integration and freely working financial systems in Sweden are associated with growing differences in income and wealth.

The policy lesson here is simple. Once financial markets are integrated across borders, a pressure to adjust domestic regulations and institutions to international patterns emerges. These developments may not be as dramatic in the short run as the boom-bust cycle that emerged immediately following financial deregulation, but they are still dramatic in their own right seen in a long-run perspective.

To sum up this final lesson, the process of financial integration has changed the Nordic economies and thus also the Scandinavian or Nordic model in fundamental ways. These systemic effects have so far not been given the attention they deserve by researchers.

**3. Lessons for the crisis of today**

The current global crisis has its roots in the United States. It has then been transmitted to the rest of the world through finance and trade. The Nordic crises were different in character: they were generated domestically, and turned into a regional crisis, with no global impact. The Nordics were lucky in the sense that the rest of the world was not entering a deep depression, thus keeping up demand for Nordic exports. Due to these dissimilarities, all the lessons that have been derived above from the Nordic crisis experience of the 1990s are not of equal relevance for Europe today. The relevant lessons pertain primarily to the policy response once a financial crisis has broken out.

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23 This argument is made by among others Demirgüç-Kunt and Detragiache (2001) and Tornell and Westermann (2005). Of course, the lesson is not that financial crises should be created in order to reap long-run growth benefits, but rather that the cost of crisis should be compared to any long-run benefits from improved growth and efficiency.

Here the Nordic experience brings out some clear messages. First of all, as stated in lesson no 9, the benefits of rapid crisis management are striking. The Swedish model of bank resolution is now viewed as a successful one. Second, the importance of an expansionary monetary and fiscal policy once the crisis has developed should be stressed. The recovery started once monetary policy turned expansionary through depreciation and lowering of interest rates. Third, the crisis suggests that we should not expect much from micro-prudential financial supervision (lesson no 6).

4. Conclusions

The Nordic case of financial liberalization demonstrates that even rich market economies in Europe with a prior successful economic record, well-developed legal systems and strong democratic traditions may end up in deep financial crises. Here I have presented twelve policy lessons from the Nordic experience. The question arises: Are these Nordic lessons the same as the lessons from financial deregulation and crises in emerging market economies and medium-income countries? Judging from the vast literature on lesson-drawing from financial crises, the answer is a clear yes. The reason is that the Nordic pattern is similar to that of non-Nordic countries experiencing financial crises in the 1990s in spite of differences in per capita income levels, in political institutions and traditions, in legal structures, in the size of the economy and in historical circumstances.25

In short, given a framework of a pegged exchange rate, financial liberalization and credit expansion have proved to be major driving forces behind boom-bust cycles across the globe. The abolishment of controls on cross-border capital flows and the sequencing of policy measures have crucially influenced subsequent developments. Once the crisis has developed, the introduction of a floating rate and the ensuing depreciation has marked the end of the depression and signaled recovery. As such a pattern exists across most crisis-hit countries, it is tempting to conclude that the twelve lessons drawn here from the Nordic experience are valid for non-Nordic countries as well.

Still, there are differences. Due to a framework characterized by strong institutions regarding law enforcement, bankruptcy rules, and policy transparency, the Nordic financial crises were probably easier to rein in and manage than those in other parts of the world with weaker legal and political structures. Nepotism, corruption and deep political tensions are likely to make crisis resolution more difficult. On this account, the Nordic experience is different as crony capitalism was not a concern in Scandinavia. In addition, the Nordic crises did not emerge as a subject of major political dispute and controversies between the government and the political opposition, which facilitated and speeded up the resolution of the crises.


crisis may be difficult to export to developing countries due to country-specific features. The Swedish crisis was related to real estate, and not so much to corporations, making crisis resolution easier. The legal framework of Sweden was well developed to manage bankruptcy procedures. Emerging countries may aim to acquire these characteristics but it would be like aspiring "to having a Saab in every garage". Still, the World Bank report recommends some lessons from Sweden such as the fact that the Swedish government refrained from intervening in the management of private banks and financial institutions.

Financial crises in emerging-market economies in the 1990s inspired requests for changes in the international financial architecture, in particular in the policies of the IMF. As the Scandinavian countries did not receive any financial assistance from the IMF, global financial arrangements did not surface in the Scandinavian debate. The IMF did not come in for criticism either during or after the crises in the Nordic countries. This is another difference, albeit a minor one, between the Nordics and most other crisis-hit countries in Asia and Latin America.

To sum up: the Nordic experience of financial integration and of financial crises in the 1980s and 1990s adds to our understanding of the causes and consequences of financial crises. There should be no doubt that the financial opening up of Finland, Norway and Sweden was the main impulse that initiated a sequence of events that brought these economies into deep depression. The evidence from the Nordic crises generates a number of policy recommendations of a general nature, in this report summarized in twelve lessons. One important lesson concerns the long-run effects of the crises. They contributed to major changes and restructuring, which transformed the Nordics into some of the fastest-growing economies in Europe. These long-run effects of financial liberalization and integration are not as dramatic as the short-run effects, but they may prove to be of greater importance over time. The future will tell if these long-run benefits will balance or even outweigh the enormous short-run costs of the crises.
References


Figure 1. Ratio of exports to GDP in the Nordic countries, 1970-2006, per cent.

Source: AMECO.
Figure 2. Financial openness in the Nordic countries 1970-2004. Total foreign assets plus total foreign liabilities to GDP, per cent.

Financial Openness in Scandinavia -
(Total Foreign Assets + Total Foreign Liabilities) / GDP

Source: Data kindly provided by Philip Lane.