Economic Research note

Lessons from the 1990s Scandinavian banking crises

- **The lending boom of the late 1980s in Scandinavia was followed by huge deleveraging**
- **Severe recessions followed, especially in Finland**
- **Scandinavian experience shows the importance of both overextension and policy**
- **In general, overextension now is milder and policy is more responsive**

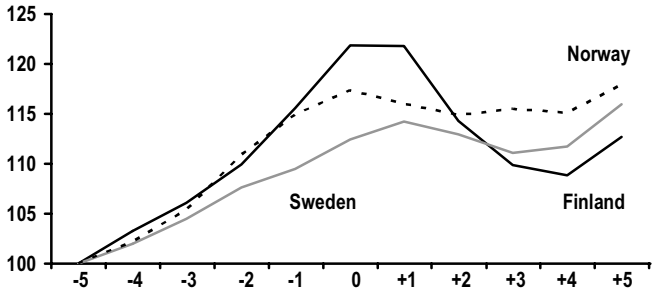
Much analysis of the aftermath of asset price and credit cycles has focussed on the Japanese experience of the 1990s. However, Scandinavian economies experienced even larger asset price and credit upswings in the late 1980s, and more severe macro downturns after the asset price and credit cycles turned. The industrialized country that has come closest to reliving the great depression in recent decades is not Japan, as is often thought, but Finland.

The financial crises of the early 1990s in Sweden, Norway, and Finland were dramatic events that culminated in severe losses in output and employment. A common feature of the buildup to the crises was a rapid rise in credit, boosted by the liberalization of financial markets and procyclical macro policies. The dramatic rise in leverage that occurred in the late 1980s increased the fragility of private-sector balance sheets. A shift towards restrictive policy at the turn of the decade, and the appearance of country-specific shocks, led to a quick reversal of the credit and business cycles, which was deepened by sharp falls in asset prices. The resolution of these crises entailed a significant policy effort, encompassing monetary and fiscal easing, the abandonment of currency pegs, and significant injections of public-sector capital into the banking systems.

The Scandinavian experience can be used to gain an understanding of the current situation. When gauging the macro consequences of a turn in the credit cycle, three things are critical: the degree of overextension at the peak of the credit cycle, which determines how vulnerable the economy is; the magnitude of the shocks that trigger the downswing in asset prices, credit, and the broader business cycle; and the responsiveness of policy once the downturn is under way. The rise in indebtedness and asset prices in the buildup to the Scandinavian financial crises, and the overextension of households and corporates, was more dramatic than what has been seen recently in the US, the Euro area and the UK. Moreover, at the peak, the policy tighten-

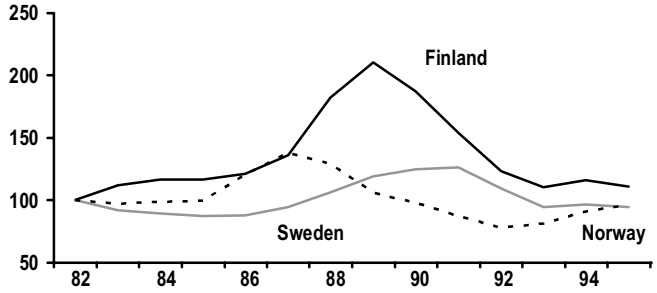
Real GDP level

Index, Year 0 = asset price peak



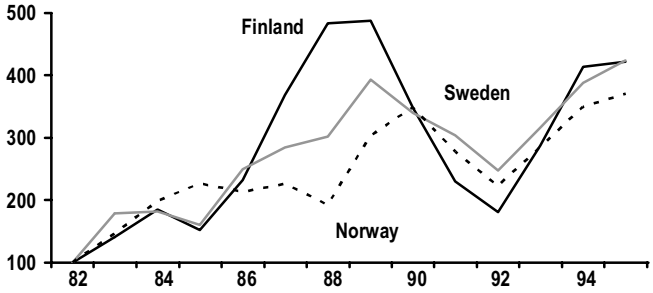
Real house prices

Index, 1982=100



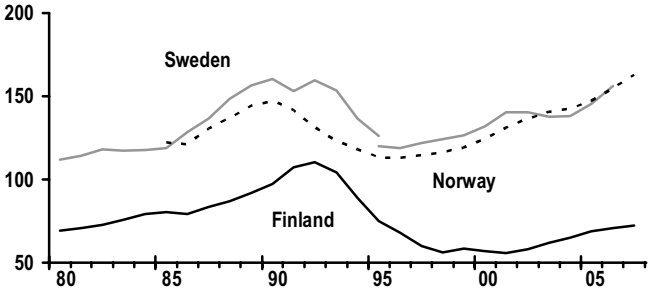
Real equity prices

Index, 1982=100



Private sector debt as % of GDP

Percent



Note: split in Swedish series is due to national accounts definitional changes

ing in Scandinavia was substantial and the fixed exchange rate regimes ensured that a tight monetary stance was sustained for an extended period; monetary policy was focussed on maintaining a steady exchange rate rather than on domestic cyclical conditions. In the current environment, even though there has only been dramatic policy easing in the US, policymakers everywhere seem sensitive to growth risks. The Scandinavian experience shows that things can get pretty bad when asset and credit cycles turn down, but the risks of a repeat performance in the current environment are small.

The credit upswing

Scandinavian financial markets in the early 1980s were dominated by a set of regulations that limited banks' ability to set interest rates and extend credit. The radical financial liberalization of the mid- to late 1980s removed caps on lending and interest rates, spurring a significant rise in credit. Increased competition among financial institutions led to a race to secure market share. Banks did not have enough time to develop appropriate procedures to evaluate and manage risk, and governments reduced supervision to create a free-market environment. The removal of limits on international capital flows further boosted credit supply, as banks could obtain foreign funding with low risk in an environment of fixed exchange rates.

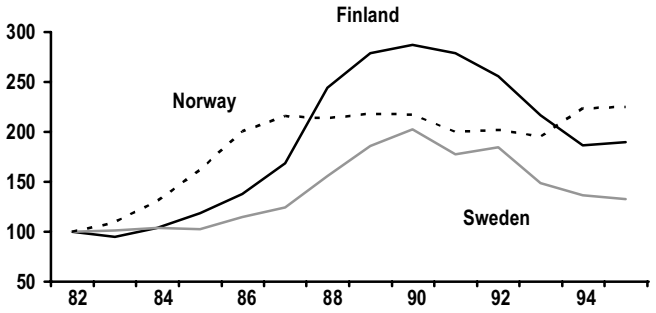
The rise in asset prices in Sweden, Norway, and Finland in the mid- to late 1980s was steep. House prices in the five years to their peaks roughly doubled in nominal terms. In real terms, the sharpest rise was in Finland, where house prices in the five years to the peak rose 80%, compared to 44% in Sweden and 38% in Norway. Equity prices also rose sharply in nominal terms, by around 200% in Sweden and Finland and by around 100% in Norway. In real terms, the steepest rise was again in Finland, where real equity prices rose 164% in the five years to the peak.

The rise in asset prices triggered a significant increase in leverage. Credit demand rose as borrowers' net worth increased, and credit supply was more ample as collateral values and bank balance sheets improved. Nominal private nonfinancial sector debt in the five years up to the peaks rose 87% in Finland, 67% in Sweden and 52% in Norway. The rise was broadly based across households and nonfinancial corporates. When just looking at credit extended by banks, the growth rates in Finland look even more pronounced than in Sweden and Norway.

The rise in credit contributed to rapid growth of consumption, residential investment, and capital spending, which increasingly pushed level of spending beyond the level of

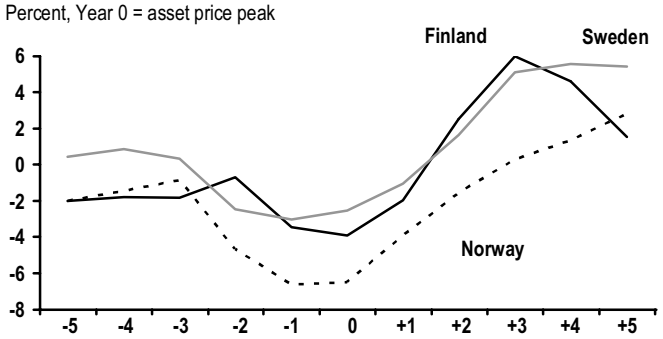
Real bank loans

Index, 1982=100



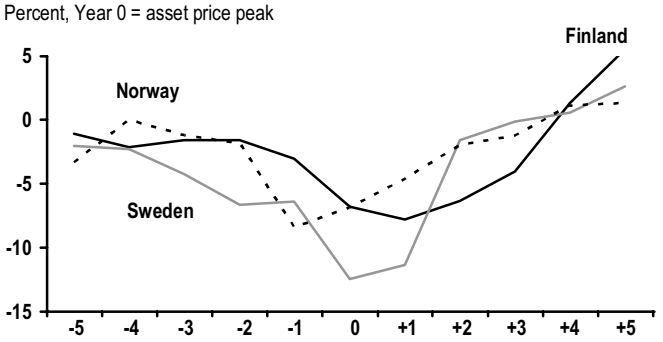
Household net lending as % of GDP

Percent, Year 0 = asset price peak



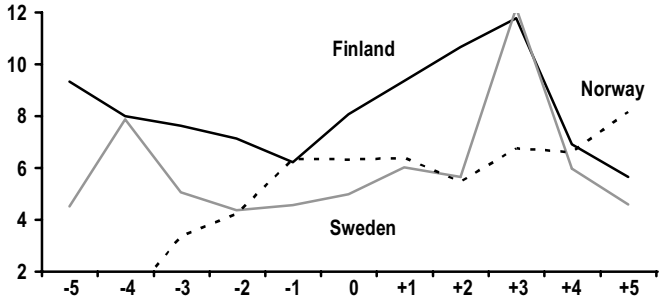
Non-financial corporate net lending as % GDP

Percent, Year 0 = asset price peak



Real policy rate

%p.a., Year 0 = asset price peak



income. This process was encouraged by procyclical macro policy. Constrained by fixed exchange rate systems, monetary policy failed to respond to overheating and building inflationary pressure in a timely way. Moreover, fiscal policy was expansionary in Sweden and Norway and in all three economies contributed to incentivizing debt creation through the tax deductability of interest expense. Increasingly, households and corporates became overextended, which was most evident in large net borrowing positions. At their extremes, household net borrowing positions as a percentage of GDP were -3.0% in Sweden, -6.6% in Norway, and -3.9% in Finland. Nonfinancial corporate net borrowing as a share of GDP reached troughs of -12.5%, -8.4% and -7.8% respectively. In each of these economies, financial corporates were running financial surpluses at the time, which suggests that the pressure on corporates overall was less than the nonfinancial corporate data suggest on their own. Nevertheless, economic overheating, excessive debt creation and large net borrowing positions left the Scandinavian economies very exposed to shocks.

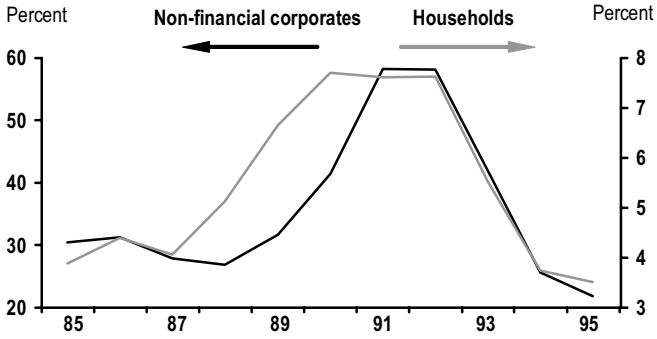
Shocks trigger the downturn

Policymakers eventually responded to overheating pressures, but only after significant overextension had taken place. Thus, the shock that turned the credit and business cycles was a tightening of monetary policy across the region and fiscal policy in Sweden and Finland.

The first economy to turn down was Norway. Monetary policy started to tighten in 1986 as the government strived to contain inflationary pressure and maintain confidence in the fixed exchange rate system. Policy tightening was quickly followed by a decline in asset prices and a turn in private-sector behavior. Households and corporates turned more cautious and started to consolidate their financial positions, likely encouraged by tighter credit availability as banks struggled with nonperforming loans. A recession began in 1988, which lasted two years and comprised a 4.2% fall in the level of mainland GDP. The economy was stagnant for the following two years as policy remained tight in order to support the currency peg. The 1990 move in the currency peg from a basket to the ecu reinforced this due to the pressure from German reunification. During this period of crisis, the unemployment rate rose 4% points.

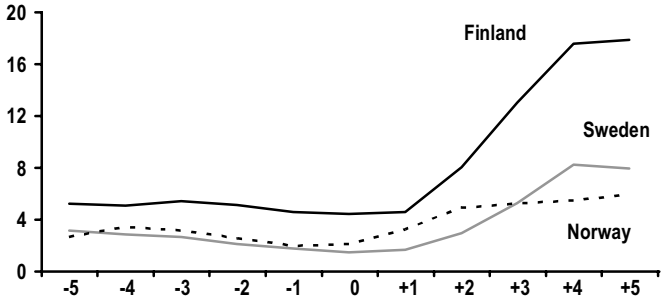
The credit and business cycles lasted longer in Sweden and Finland and continued to accelerate through the second half of the 1980s. As the output gap moved firmly into positive territory, inflation pressures began to build. Monetary policy tightened, a process that was then amplified by the fixed exchange rate regimes. Debt servicing costs rose significantly, which forced cutbacks in other spending. Fiscal

Finland: interest cost as % of gross disposable income



Unemployment rate

Percent of labor force



policy also tightened in both economies. In both economies, this further amplified after-tax debt servicing payments by reducing the marginal tax rate deductible on interest payments. The policy tightening provided the shock to turn the credit and business cycles, a process that was then amplified by declining asset prices. Households and corporates began to retrench and credit availability likely declined as nonperforming loans increased dramatically. The Swedish recession began in 1991 and lasted two years; the peak to trough move in the level of GDP was 5.8% and the unemployment rate moved up 6.8% points. The Finnish recession began in 1990, lasted just over three years and involved a much deeper contraction; the level of GDP fell 13.3% and the unemployment rate rose 13.4% points.

The downturn in Finland was particularly deep, more than twice what was experienced in Norway and Sweden. The gains in asset prices and borrowing were greater in Finland, especially in real terms, which likely made the economy more vulnerable to the policy shock that eventually came. In addition, it appears that banks played a greater role in the Finnish credit cycle, which could have amplified the downturn given the key role of banks in the economy. Certainly, the collapse in the Soviet Union played a major role in worsening the downturn in Finland as exports collapsed. The subsequent devaluation of the currency eased the pressure on the export sector, but worsened the financial crisis,

as many had borrowed in foreign currency because of the fixed exchange rate system.

Resolution of the crises

The policy response to the downturns in the credit and business cycles was ultimately substantial, involving significant monetary and fiscal easing and abandonment of fixed exchange rate regimes. Monetary policy eased around 600bp in Norway and Sweden and around 800bp in Finland. Judging by movements in the cyclically adjusted primary balances, fiscal policy eased around 6% points of GDP in Finland, 7% points in Norway and 9% points in Sweden. Following the abandonment of the currency pegs, Sweden's currency fell 19%, Finland's fell 13% and Norway's 2%.

In addition to these dramatic moves in conventional policy measures, there were significant injections of public-sector capital into the banking systems. A significant amount of the debt that had accumulated during the upswings was backed by property and, as asset prices fell, nonperforming loans built on banks' balance sheets. Initial bank losses were reported as early as 1988 in Norway, 1989 in Finland, and 1991 in Sweden. Banks facing solvency issues initially appeared to be isolated cases but the banking crises soon spread and reached systemic proportions in 1991 in Norway and Finland and in 1992 in Sweden. At the peaks, nonperforming loans reached around 10% of GDP across the region, more than wiping out the equity capital of the banking sectors.

The governments ultimately had no choice but to intervene dramatically to save the financial systems, injecting significant amounts of capital into banks and taking over some of the problem banks. In Sweden and Finland, the governments issued blanket creditor guarantees that covered not only deposits but also any other bank creditors. Although equity holders of bank capital bore significant losses, the direct fiscal costs of the public recapitalization of banks were large. According to a 2004 Norges Bank study, the fiscal cost of banking recapitalization amounted to 8.9% of GDP in Finland, 3.9% in Sweden, and 2% in Norway.

Where we stand now

The Scandinavian experience suggests that in order to gauge the macroeconomic impact of a turn in the credit cycle we need to focus on the overextension of asset prices and borrowing, the magnitude of the shocks that trigger the turn in the cycle, and the responsiveness of policymakers as the downturn develops. The depth of the downturns in Scandinavia in the early 1990s was determined by the extreme degree of overextension at the peak in the cycle, the large size of the shocks that turned the cycle, and the slow response of monetary policy, which until 1992 was focused on exchange rate targeting.

Vulnerability: Scandinavia in the early 1990s and the current cycle
% changes for asset prices and leverage, % of GDP for flow of borrowing

	Asset price gain		Net lending		Macro leverage	
	Equity prices	House-prices	Corpo-rates	House-holds	Corpo-rates	House-holds
Sweden Early 90s	218	88	-12.5	-3.0	91	54
Norway Early 90s	141	96	-8.4	-6.6	52	
Finland Early 90s	206	107	-7.8	-3.9	79	84
US Current	44	51	-2.5	-3.8	43	62
Euro area Current	69	39	-2.5	2.1	32	45
Spain Current	119	79	-8.6	-2.0	131	139
UK Current	65	60	0.3	-4.1	66	69
Sweden Current	115	57	2.2	2.7	19	71
Norway Current	286	54	2.1	-4.7	56	74

Asset price gains are the cumulative percent increases in the five years prior to the peak or current level. OFHEO house price data are used for the US; the most recent gain in the Case-Shiller was 75%. Net lending refers to the respective sector's financial position as a % of GDP at the peak; for corporates this refers to nonfinancial corporates only. To the extent that financial corporates generally run a financial surplus, the data in the table may overstate the pressure on corporates in general. Macro leverage is the percent change in nominal debt over the five years prior to the peak or current level. The single figure for Norwegian macro leverage in the 1990s refers to private nonfinancial sector debt as a whole; Norwegian net borrowing calculations are based on mainland GDP.

There are many differences between these earlier Scandinavian crises and the current situation across the major economies. In general, the recent overextensions have been more modest. The policy tightening up to last summer was limited, although the repricing of credit risk itself is acting as an additional shock. Although some policymakers are constrained by concern about inflation risk, in the US there has been a dramatic easing of both monetary and fiscal policy. There are always ugly tail risks for growth when the credit cycle turns, but currently they are probably not as large as some commentators have assumed.

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