Focus
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The macroeconomic impact of banking crises

Banks are key players in the financing of economies and when their own financial position prevents them from performing this function, economic growth is compromised. For this reason, in all countries, plans to support the banking sector have been implemented. These plans weigh on public finances, but the slowdown in growth that could stem from a seizing up of lending would be potentially far more costly.

The shortfall in growth resulting from the banking crisis can be attributed to a number of factors or sometimes a combination of factors: the bursting of a stock market or property bubble puts banks into difficulty but also reduces simultaneously the wealth of other economic agents and affects private consumption. That is why it is hard to identify accurately the specific impact of banking crises. In the past, if we take account of all countries (including emerging economies), crises have lasted, on average, between three and four years. They have represented a cost for public finances equivalent to 13% of GDP and have resulted in a cumulative growth deficit, over the same period, of almost 20%.

These results have been taken from studies of past crises. They have no forward-looking value. In all countries, lessons have been learned from economic policy errors that, in the past, have considerably exacerbated the impact of banking crises. We now know that it is necessary to act rapidly and carry out the following tasks: first, recapitalise the banking system; second, restore the monetary and financial conditions necessary to ensure the financing of the economy; and, third, temporarily prop up activity through appropriate fiscal measures. All countries, industrialised and emerging alike, are currently adopting this line of action, which should make it possible to stabilise the economies and limit the cost and impact of the crisis.

A sound banking system is a prerequisite for economic development

Economic development is contingent on productive investment and the covering of a working capital requirement that depends on inventory investment and the length of the production process. The financing of productive activities via loans to companies, or consumption, via loans to households, is therefore crucial. This financing can be obtained through two channels: via capital markets or banks.

In modern economies, these two channels are complementary. But the role of banks is clearly central.

✓ Banks perform a maturity transformation function. Savers and especially households like to hold liquid investments, often in the form of cash, as it is easily usable and risk-free as a means of payment. Conversely, investors require long-term financing. Banks hold the short-term deposits of households and companies and are therefore in a particularly good position to carry out this transformation.

✓ Banks are equipped to assess the quality of borrowers' projects; there is generally an "asymmetry of information" between a potential lender and a potential borrower since, in principle, borrowers know more about their own situation and the risks they take than lenders; it is therefore by minimising this asymmetry that economic agents can be convinced to lend at a reasonable rate to those who have a viable project. When these asymmetries are too great there is a risk

of a lack of financing for projects (when in doubt, lenders refrain from lending), or, in times of exuberance, of financing projects that do not create wealth. Yet, it is the banks that, thanks to their close long-term relations with borrowers, are in the best position to reduce these information asymmetries.

Admittedly, large companies, which are regularly monitored by ratings agencies, can avoid borrowing through banks but we know the limitations of extending this type of direct market financing to the financing of SMEs or households via the pooling of loans; in this case, there is not a sufficient incentive to ensure that the quality of the loans is good.

A banking system in crisis cannot effectively carry out its intermediation role; new lending comes to a halt, which is known as a credit crunch. Two mechanisms can act:

✓ Low capital adequacy ratios of banks. Prudential rules set out the risks that banks can take in relation to their capital requirements. During economic and financial downturns, losses may appear that reduce banks' capital; this effect may be amplified by the accounting rules that require certain assets to be marked to market. In parallel, the risks, often measured on the basis of the credit agencies' ratings that are regularly downgraded during crises, increase and result in higher capital requirements.

✓ The shortfall of liquidity. When markets no longer function correctly and banks are not sure that they can obtain financing, they stop lending.

These two "channels" could combine and be mutually reinforcing, in particular in the case of build-up of non-performing loans in some institutions that sheds doubt on their solvency. This may lead to bank failures with the associated domino effects. The whole system then seizes up, and the financing of the economy is jeopardised.

The cost of banking crises

All banking crises are different even if they share a number of common characteristics. Generally speaking, they follow a period of significant credit expansion and a sharp rise in stock market and/or property prices in a largely self-sustained mechanism, since the increase in value of assets that may be used as collateral for loans is used to secure new loans, even if the intrinsic economic justification of the new loans is not uncertain. Any external shock that calls into question the value of these assets reveals the poor quality of these loans and the crisis erupts. Losses reduce the banks' capital, the most exposed banks become insolvent and while doubts persist over the extent and the distribution of the losses, the markets become totally illiquid.

Calculating the economic cost of a crisis is difficult. Ideally, actual growth should be compared with expected growth if a banking crisis had not occurred. Therefore, conventional estimates giving orders of magnitude must be made. The following table, which only concerns industrialised countries, is taken from an IMF working paper, notably analysing the impact on growth of systemic banking crises that occurred worldwide between 1970 and 2007.[1]

OECD countries	**Date of the systemic banking crisis (beginning)**	**Maximum share of non-performing loans** (% of total loans)	**Gross fiscal cost** (% of GDP)	**Growth shortfall** (% of GDP)	**Minimum GDP growth rate during the crisis** (%)
Spain	1977		5.6		0.2
Norway	1991	16.4	2.7		2.8
Finland	1991	13	12.8	59.1	-6.2
Sweden	1991	13	3.6	30.6	-1.2
Japan	1997	35	14	17.6	-2.0
United States (savings & loans crisis)	1988	4.1	3.7	4.1	-0.2

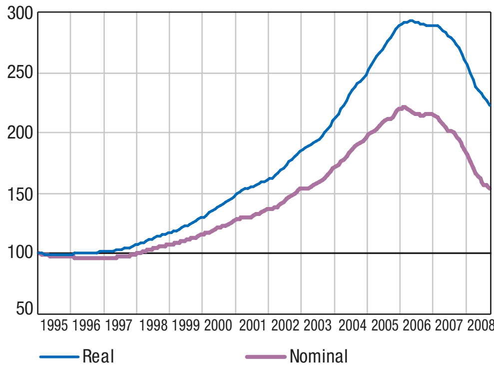
Source: Laeven and Valencia (2008).

1 See Laeven and Valencia: "Systemic banking crises: a new database", International Monetary Fund, Working Paper, No. 08/224.

Chart 1 – Trends in property prices

In the United States

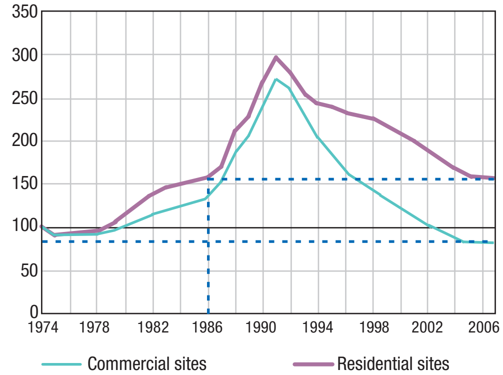
(SP-CS Composite index, basis 100 = January 1995)



Sources: S&P/Case-Shiller, Banque de France

In Japan

(Index 1974 = 100)



Source: MLIT

The varying magnitude of crises reflects the particular circumstances surrounding them, but also depends on the responses provided by the public authorities in terms of banking crisis management and macroeconomic policy. **The situation in Japan** during the 1990s is a textbook case in this respect. It reminds us that a crisis may be long and costly in spite of major fiscal stimulus and a drastic reduction in interest rates. In contrast, it also reveals the appropriate economic policy responses.

Between 1992 and 2002, Japan's GDP growth was below 1% per annum, whilst it had reached 3.8% between 1982 and 1992 and increased to 2.1% between 2002 and 2007. Yet, the beginning of Japan's "lost decade" was not dissimilar to the present situation:

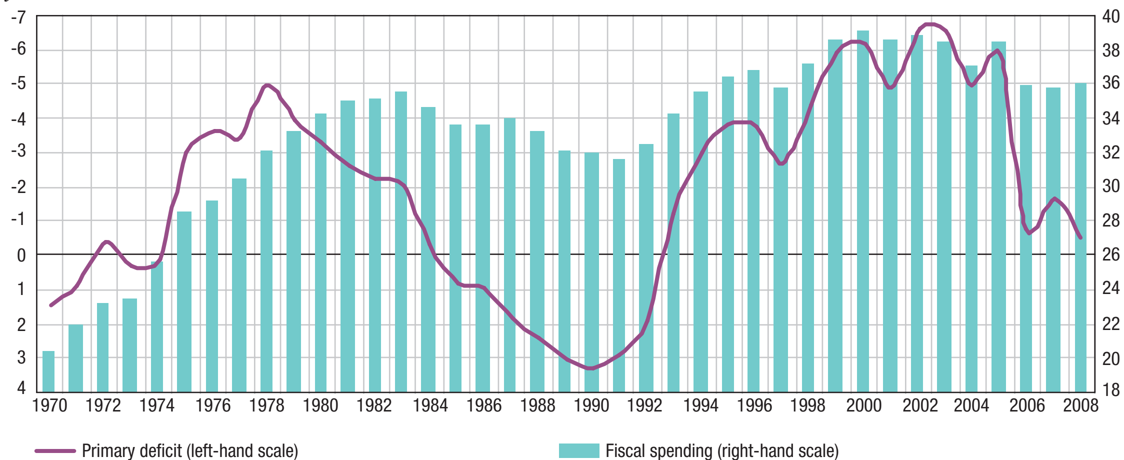
✓ a significant rise in stock market prices: between 1985 and 1989 Tokyo's stock market capitalisation jumped from 60% to 150% of GDP, i.e. 40% higher than the United States' stock market capitalisation;

✓ a sharp rise in property prices: between 1988 and 1991 property prices increased by 70% in Japan;

✓ fuelled by strong bank lending that increased from 90% of GDP in 1986 to 105% in 1989-1990.

Chart 2 – Fiscal policy in Japan

(as a % of GDP)



Sources: OECD, Banque de France

The Japanese government did not, however, remain idle.

✓ Between 1992 and 1999 nine fiscal stimulus packages were implemented without any notable effect other than considerably deteriorating the public accounts, which triggered another recession in 1998 when the government tried to put to its accounts back into order via an increase in taxation.

✓ Between June 1991 and June 1996 the Bank of Japan's key interest rate was gradually cut from 6% to 1%, then to 0% in March 1999, without any notable effect other than creating deflationary pressure and a liquidity trap.

These disappointing results stem from inappropriate public policies.

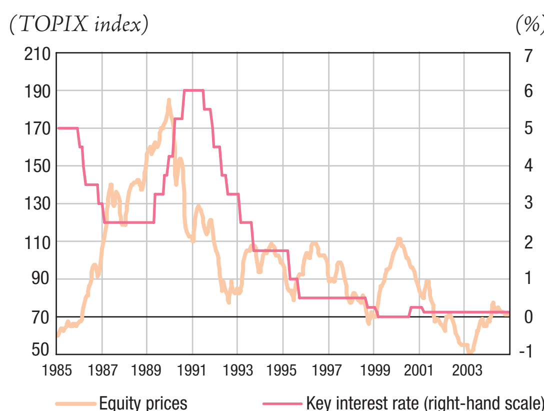
✓ The Bank of Japan's monetary policy appears to have been largely responsible for this economic crisis:[2] first, the policy was too accommodating, encouraging often unwise investments, fuelling inflationary pressures and facilitating property and stock market bubbles; then, monetary policy was tightened too suddenly, triggering the bursting of these bubbles, depressing the economy structurally and generating deflation; and rate cuts were then implemented too late.

- By cutting its key interest rate to 2.50% in early 1987, the Bank of Japan only factored in the effects of the oil counter-shock on headline inflation, while core inflation was rising.
- The Bank then implemented a policy that was too accommodating and when it hiked rates again in the second quarter of 1989, it did so too late and too vigorously (rising to 6% in the summer of 1990).
- The Bank then waited until 1991 before beginning to cut its key interest rate, whilst the stock market bubble had burst long before and inflation was already falling sharply. Subsequently, it merely reduced its key interest rate in line with falling inflation as far as zero, thus creating a liquidity trap that it had done nothing to prevent.

✓ The fiscal stimulus packages, for their part, were premature and not properly targeted.[3] They were criticised for providing too much aid to the construction and public works sector (around 50% of the amounts spent) which led to an increase in predominantly useless public infrastructure; furthermore, they were premature insofar as the financial system was too weak following the bursting of the stock market and property bubbles to efficiently pass on the fiscal injection.

Chart 3

Japan was late in cutting its keys interest rate



The BoJ reduced its key interest rate in line with falling inflation

2 See Bernanke (B.) (2000): "Japanese monetary policy: a case of self-induced paralysis".
3 See Makin (2008): "Japan's lost decade: lessons for the United States in 2008".

✓ The delay in restructuring an inefficient banking system with poor-quality assets was mainly responsible for the length of the crisis; it was not until 1998-1999 that massive rescue plans for the banking system were implemented, although its situation had been deteriorating since 1992.

- The main cause for the magnitude of the crisis in Japan was not in fact the lack of financing, since corporate investment remained at high levels throughout the period, but the combination of a sharp decline in total factor productivity and the untimely reduction in working hours (from 44 to 40 hours per week).[4]

- This sharp deterioration in total factor productivity is thought to result from a poor allocation of financing and notably from banks which, having financed the stock market and property bubbles, continued to fund insolvent and non-performing companies.[5]

- Such a deterioration of bank balance sheets was only possible because supervision was inadequate and mark-to-market accounting was not used. The latter would have helped to rapidly reveal the extent of the losses (while the banking crisis only erupted explicitly in 1997-1998) and ultimately to restore confidence faster and limit losses.[6]

The experience of previous banking crises therefore indicates that the nature, the speed and the order in which the public authorities implement measures largely determine the magnitude and the cost of the crisis. Restoring a banking system to good health, i.e. with high capital ratios and sufficient profitability is a prerequisite for triggering a recovery of economic activity via the usual macroeconomic policies such as the various kinds of fiscal stimulus measures and interest rate cuts.

The public authorities have learnt from the experience of past crises and have taken measures conducive to economic recovery before the end of 2009

We now know that when facing an economic crisis with the banking sector as a core component it is necessary to act rapidly and carry out the following measures: first, recapitalise the banking system; second, restore the monetary and financial conditions necessary to ensure the financing of the economy; and third, temporarily shore up economic activity through appropriate fiscal measures. This is precisely what is being done.

The deterioration of financial systems emerged rapidly and the public authorities' priority was to deal with this first, by quickly implementing measures to purchase depreciated debt securities, strengthen banks' capital ratios, and restructure and consolidate the banking system. More specifically, the response of the European authorities to the crisis was based on two clear commitments:

- to ensure that no financial institution will file for bankruptcy and therefore that depositors and savers will be totally protected;

- to ensure the proper financing of the economy, especially SMEs and households.

In practice, these actions take two forms. The first aims to strengthen institutions' capital in order to ensure their solvency. This is achieved via the purchasing by public authorities of securities issued by banks or by taking stakes, where necessary, in troubled banks. In France, a state-owned entity (*Société de prise de participation de l'État* –SPPE) with funds of EUR 40 billion, has been set up to purchase subordinated debt and preferred shares issued by French banks. Banks will thus be able to continue developing their lending activities, by increases in their capital, even if adverse market conditions prevent them from raising funds on financial markets. **Overall, the banking systems have been recapitalised to levels equivalent or higher than those prevailing before the crisis.**

4 See Hayashi and Prescott (2002): "The 90s in Japan: a lost decade".
5 This is the theory put forward by Caballero et al. (2006): "Zombie lending and depressed restructuring in Japan".
6 See Kobayashi (2008): "Financial crisis management: lessons from Japan's failure" VOX.

The second type of action consists in ensuring the proper financing of banks so that they can continue to finance the economy in the short and long term.

✓ Central banks have regularly adjusted their operational frameworks in order to provide the banking systems with all the liquidity that they need:

- the maturity of financing was extended in order to give renewed impetus to the money market beyond the very short-term segment. The Eurosystem thus considerably strengthened the quantities available in the 3-month refinancing segment and introduced a 6-month maturity;
- the range of eligible counterparties was extended to enable the maximum diffusion of liquidity in the system;
- the scope of eligible collateral for refinancing was enlarged to provide more flexible access and make larger quantities available; in the Eurosystem the refinancing potential of counterparties was thus almost doubled;
- the refinancing procedures were also radically modified: quantities are no longer limited and are agreed at a fixed rate (instead of a system of variable rates via auctions);
- the international co-ordination was intense in order to ensure that actions taken by each central bank were coherent with the overall strategy, while taking into account the specific characteristics of each country. This co-ordination enabled the very rapid implementation of tools to provide the banking systems with foreign exchange liquidity.

✓ For their part, governments have extended public guarantees to banks so that they can secure long-term financing more easily. In France, a fund has been set up (*Société de financement de l'économie française* –SFEF) to issue debt securities under State guarantee, with maturities of up to five years, and on-lend the money raised to credit institutions; the ceiling for these issues has been set at EUR 320 billion.

Overall, all European banks now have unlimited access, at a fixed rate, to short-term liquidity denominated in euro and dollars; they also have easier access to medium to long-term financing.

These measures have been taken in conjunction with rapid and significant key interest rate cuts by the central banks to help substantially reduce financing costs. Central banks throughout the world have eased monetary policy without waiting for the onset of deflation by combining concerted actions with, in particular, a co-ordinated 50-basis point cut in key interest rates by six central banks (the US Federal Reserve, the ECB, the Bank of England, the Swiss National Bank, the Bank of Canada and the Bank of Sweden) on 8 October, as well as individual actions adapted to the situations of each country or area. Overall, massive reductions in the cost of refinancing have been implemented everywhere.

Fiscal stimulus measures are only to be taken as a third step. These measures must be massive in order to have a significant and rapid effect on the economy. They must also be temporary, in order to avoid a structural deterioration of public financing that would push up savings (households are then said to be "Ricardian", i.e. they anticipate a future increase in taxation and therefore save a significant share of the extra income generated thanks to the fiscal stimulus); the measures must be aimed at households with the highest propensity to consume and be the most structuring for the future; and finally they must be co-ordinated so as to minimise the flow of capital, via an increase in imports, to countries that are not stimulating their economy.

Note that in all of the countries affected by the crisis, industrialised and emerging economies alike, major stimulus packages are being prepared. The stimulus package recently presented by the European Commission fits into this framework. It corresponds to a total amount of EUR 200 billion, i.e. 1.5% of EU GDP; each Member State is expected to contribute 1.2% of its national GDP, the remaining 0.3% being contributed by the EIB. "Exceptional circumstances" provided for in the Stability and Growth Pact could be evoked in 2009 and 2010, allowing a temporary increase

in fiscal deficits above the 3% threshold. The target of a return to a medium-term balanced budget, expected by 2010 at the latest, has now been deferred indefinitely.

Restructuring of the banking system, interest rate cuts and fiscal stimulus are the measures being taken in a coherent manner so as to avoid a repeat of mistakes made in the past. Since we have been witnessing, in recent months, the reversal of the oil and food price shock, which took a considerable toll on the economy during the first half of the year, inflation is expected to slow down markedly, which should spontaneously provide households with extra purchasing power, thus contributing to a possible recovery in consumption.

Overall, these developments should make it possible to stabilise the economies and limit the cost of the banking crisis, enabling economic growth to resume before the end of 2009.

Benoit Mojon, Robert Ophèle,
Edouard Vidon and Pierre-François Weber
co-operated in the drafting of this document.
Contact: robert.ophele@banque-france.fr