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HANDLE WITH CARE! POST-CRISIS GROWTH IN THE EU

by **Jean Pisani-Ferry**

Director of Bruegel
jean.pisani-ferry@bruegel.org

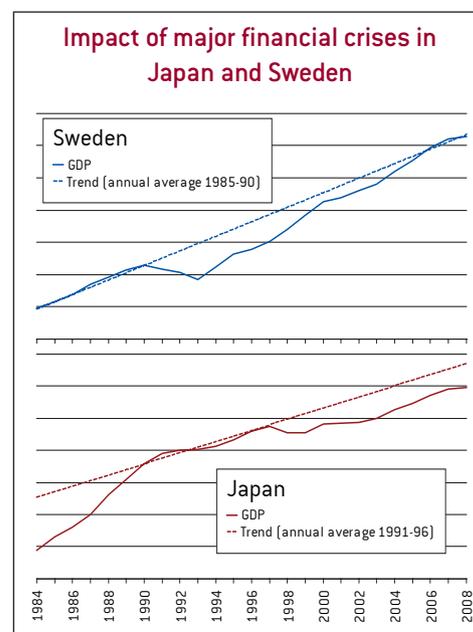
and **Bruno van Pottelsberghe**

Senior Research Fellow at Bruegel
Professor at the Université Libre de
Bruxelles
bvp@bruegel.org

SUMMARY As long as the crisis was expected to be short-lived, Europe could afford not to reflect on its potential consequences for medium-term growth. Urgent tasks ahead and the longer-term agenda could remain disconnected. This is no longer justified. Indeed, the seeds of future growth performance are sown – or not – during crises. Countries that have gone through deep crises have found that the loss in output is generally not recovered rapidly, if at all, and that medium-term performance depends on the choice of crisis management measures. Five factors can either help or harm medium-term growth: the size and duration of stimulus packages; their content; labour market policies; bank restructuring and lending behaviour; and research and development expenditures.

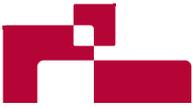
POLICY CHALLENGE

Policies that can improve medium-term performance should be prioritised. This leads to six policy recommendations: i) governments should explicitly announce state-contingent, not time-contingent, budgetary strategies; ii)



Source: Bruegel.

stimulus packages should put more emphasis on pro-growth policies such as education and innovation; iii) bank restructuring should be speeded-up; iv) employment support should be temporary, economy-wide, and should avoid favouring particular firms or sectors, or taking people out of the labour market; v) support to large firms in traditional industries should be conditional on restructuring; vi) the pro-cyclicality of innovation efforts should be addressed in order to limit the fall in R&D intensity during the crisis and sow the seeds of productivity gains when recovery starts.



ALTHOUGH THE CRISIS ORIGINATED IN THE US, Europe's outlook has deteriorated more sharply, as indicated by revisions of the International Monetary Fund's forecasts over the last twelve months. Industrial production indices in the US and the three largest EU countries confirm that Europe is being hit at least as hard as the US, and that this crisis is worse than any of the severest downturns observed during the post-war era (Figure 1).

The latest monthly figures give hope that the bottom might be in sight. The questions are then how to stimulate the rebound, what type of recovery can be expected, and what the crisis's longer term consequences will be. Experience indicates that the answer to the last two questions depends crucially on policy choices made while managing the downturn.

1 LESSONS FROM PREVIOUS CRISES

In recent decades four developed countries have been hit by

financial crises that led to deep recessions: Finland, Japan, South Korea and Sweden, all in the 1990s.

Figure 2 illustrates the main lesson from these episodes. As a rule, deep crises result in permanent loss of output: after the shock, the economy resumes growth at the same rate, but labour input remains lower, and thus also the growth path. This lesson from crisis episodes in four advanced economies is confirmed by the experience with crises among a wider sample of countries over a longer period (Cerra and Saxena, 2008; Reinhart and Rogoff, 2008).

But national policy choices matter in determining the outcome. The clearest contrast here is between Japan and Sweden. Japan's actions turned out to be weak, belated and ill-designed. Banks were allowed to hide losses for too long and, as a consequence, they survived for an extended period without being able to perform their economic role. As a result, Japanese households and

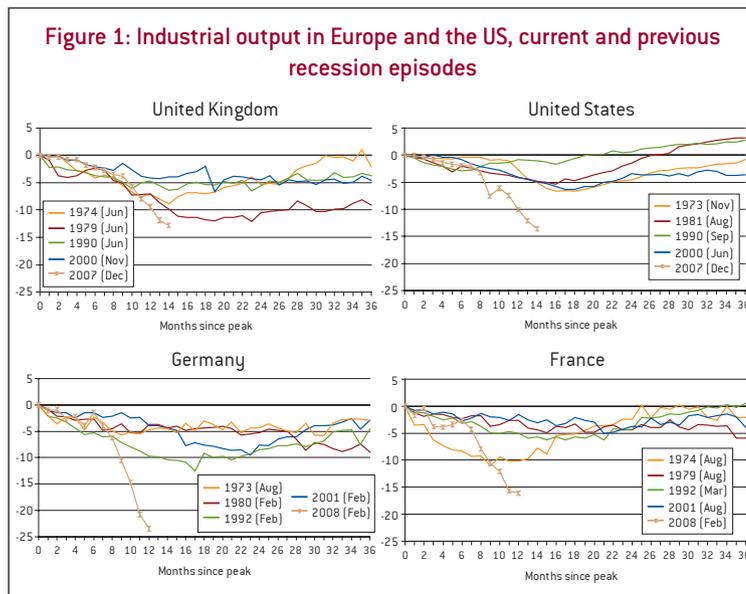
businesses, and ultimately public finances, suffered major losses. By contrast, Sweden reacted swiftly. It recapitalised the viable banks, nationalised the insolvent ones and used the recession as an opportunity for economic transformation. In the years that followed the crisis, productivity slowed in Japan, whereas it accelerated markedly in Sweden. Eventually, Japan settled for a lower growth rate while Sweden was able to recoup the output loss entirely (Frontpage figure and Table 1).

What these opposite cases illustrate is that policies implemented during a crisis and in response to it can have a major bearing on long-term growth. This is because a deep crisis involves hysteresis. It leaves its mark even after it has passed because workers may – or may not – remain jobless, and because innovation may falter – or thrive. Policymakers must therefore systematically assess the longer-term consequences of the choices they make in response to the needs of the moment.

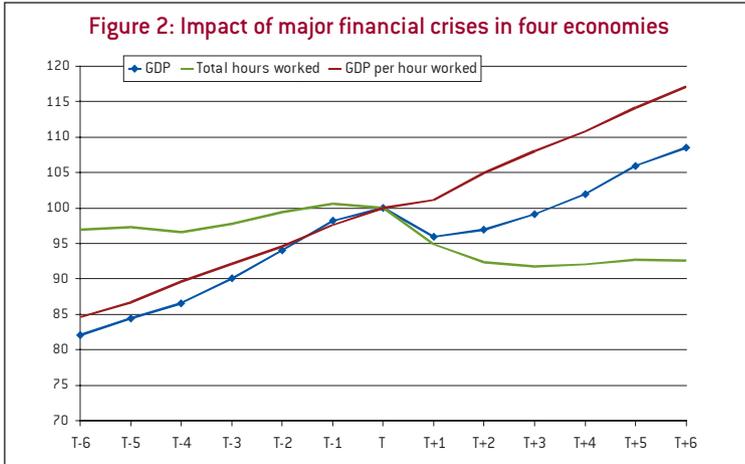
While managing the crisis, governments need to target three closely related objectives:

- Eliminate the output gap produced by the crisis,
- Avoid a permanent loss of potential output resulting from a contraction of the labour force, and
- Keep productivity gains on track.

Section 2 of this Policy Brief investigates five channels through which crisis measures can either help or harm medium-term growth: the size and duration of stimulus



Sources: National statistical agencies, Bruegel calculations



Source: Bruegel calculations. The graph depicts the unweighted average of GDP, total hours worked and GDP per hour before and after the major financial and economic crises that occurred in four countries: Japan in 1997, Sweden in 1991, Finland in 1991 and South Korea in 1997. 'T' stands for the year of the crisis.

Table 1
Labour productivity growth before and after the crises in Japan and Sweden

		All sectors	Manufacturing	Construction	Wholesale and retail trade, hotels and restaurants
Sweden	1984-1990	1.46%	1.73%	1.21%	1.23%
Sweden	1991-1997	3.61%	7.72%	3.25%	4.53%
Sweden	1998-2005	2.49%	6.94%	-0.31%	3.55%
Japan	1984-1990	3.73%	4.56%	4.99%	5.89%
Japan	1991-1997	0.99%	2.65%	-4.57%	2.94%
Japan	1998-2003	1.41%	3.73%	-0.57%	-1.01%

Source: GGDC 10-sector database, Bruegel calculations.

packages; their content; labour market policies; bank restructuring and lending behaviour; and research and development expenditures. Section 3 concludes and makes policy recommendations.

2 FIVE POLICY CHANNELS

a. The size of stimulus packages

Recourse to budgetary policy became necessary in autumn 2008 when demand was collapsing and that the dire state of the banking system was rendering monetary policy partially ineffective. It was justified because macroeconomic conditions were precisely those in which budgetary

stimulus can be effective.

Governments in Europe responded with unequal speed and intensity. For the EU as a whole, the budgetary response in 2009 may be estimated to be of the order of 0.95 percent of GDP (Saha and von

Weizsäcker, 2009). This is significant, but markedly less than advocated by the IMF (two percent of GDP) and also less than what the US stimulus is expected to deliver (about two percent of GDP in 2009). This remains true even when automatic stabilisers are taken into account. According to Bruegel's calculations, the automatic increase in spending as a result of the crisis will only add 0.2 percent of GDP to the Europe's discretionary stimulus. Quantitatively, Europe is delivering a timid Keynesian response to a very Keynesian situation.

Two factors are behind the relatively weak EU response, both related to its fragmentation. First, for any given EU country a large part of the benefits of a stimulus accrue not to itself but to its trade partners. Second, although the public debt ratio on the eve of the crisis was roughly the same in the US and the EU, individual fiscal situations vary significantly within Europe. Italy, for example, is cautious because its public debt ratio already exceeds 100 percent of GDP and its rating is only A+, not AAA as for Germany and France.

Looking beyond the short-term response, what budgetary policy can or cannot do depends on the

Table 2
Policy objectives and policy channels

	Eliminate output gap	Avoid permanent potential output loss	Keep productivity on track
Size stimulus package	Dark red	Light red	Light red
Content of stim. pack.	Light red	Light red	Dark red
Labour markets	Light red	Dark red	Light red
Bank restructuring	Dark red	Light red	Dark red
R&D	Light red	Light red	Dark red

Note: column headings indicate objectives; row headings indicate policy channels. Dark red indicates primary effect, light red indicates secondary effect.



nature of the shock. Budgetary support is an appropriate response to the extent that it helps to offset a temporary demand shock and replace private demand by public demand at a time when private agents cannot rely on impaired financial markets to absorb shocks. Beyond its immediate impact on product and labour markets, budgetary support may prevent lasting damage, such as the failure of profitable companies and the writing-off of precious human capital. But in the case of a longer term shortfall in supply, it would be a major mistake to use budgetary policy in an attempt to lift output above potential.

As a consequence, budgetary support should be maintained as long as a temporary demand shock prevails. But it should be withdrawn as soon as the recovery is strong enough to be self-sustaining, even if the post-recovery growth trajectory turns out to be lower than it was before the crisis.

This analysis implies that judgement must be exercised regarding the underlying economic situation

and the reasons why output is lower than previously expected. It also requires public spending itself to be sustainable. Sustainability-enhancing reforms of the type discussed in Pisani-Ferry et al. (2008) and improvements in the institutional framework of national budgetary policies are needed to ensure that this is the case.

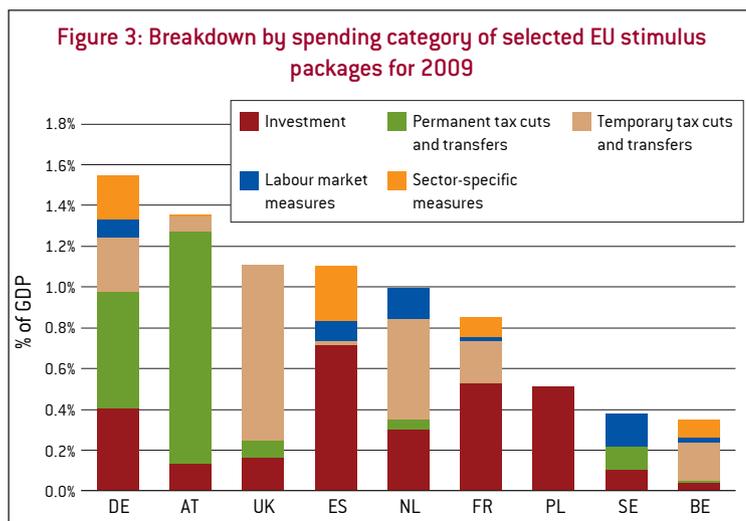
b. The content of stimulus packages

The composition of stimulus packages matters for medium-term growth. Public spending on education and innovation can help build a platform for sustained productivity gains in the long term. Properly targeted spending can also help overcome resistance to efficiency-enhancing labour and product-market reform.

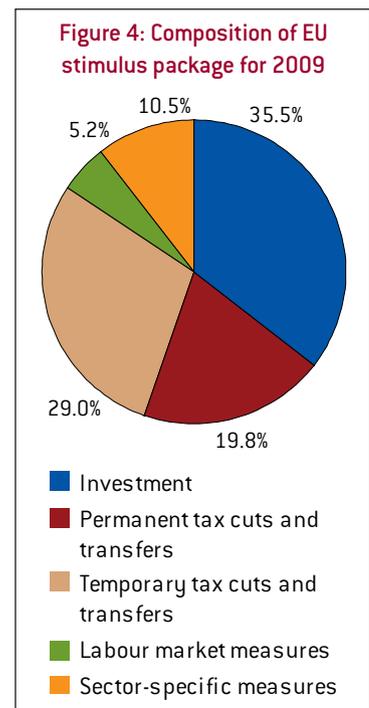
Choices made at end-2008 were in some cases directed at pure demand-side effects. The best examples are perhaps the United Kingdom and Austrian stimulus packages, which rely mostly on tax cuts. Other countries made different choices, sometimes more supply-side oriented, and the

result is that packages differ widely as regards their composition (Figure 3). Evidently, national choices were not made in accordance with an agreed EU medium-term strategy.

For the EU as a whole, about half of the stimulus goes to tax cuts (Figure 4), with the aim of boosting demand (few packages include genuine tax reforms). The other large share (36 percent) goes to public investment, most of which benefits non-traded domestic sectors such as construction. This is often justified by reference to foreign trade 'leakage'. However, such a choice is open to criticism: first, it is essentially non-cooperative; second, as indicated in Figure 1, manufacturing suffers most from the crisis, not the trade-sheltered sectors; third, low supply elasticity in some non-traded goods sectors, such as public works, may in fact result in higher



Source: Bruegel, Saha and von Weizsäcker (2009).



Source: Bruegel.



prices in these sectors, a form of leakage that undermines impact. Finally, the contribution of public investment to future growth may be low in Europe, where infrastructure is already well developed. Japan's experience with bridges from nowhere to nowhere in the 1990s should serve as a reminder of the potential cost of politically determined public investments.

One important way in which the stimulus packages could be aligned with the promotion of growth is by supporting research and innovation. While many of the packages contain some such elements, the diversity of the measures makes any assessment of the total research and innovation content of the stimulus packages far from straightforward. But it would be hard to characterise the European stimulus as innovation-friendly. If one takes a narrow view that excludes indirect support such as construction and research subsidies to mature industries, the proportion devoted to innovation might be as low as one percent. If a broader view is taken, including the large construction component for educational institutions in Germany and innovation subsidies for mature industries, spending on innovation could be in excess of 10 percent. Whatever the measure, this is unlikely to deliver the innovation boost that was called for in the EU's Lisbon strategy.

c. Labour market policies

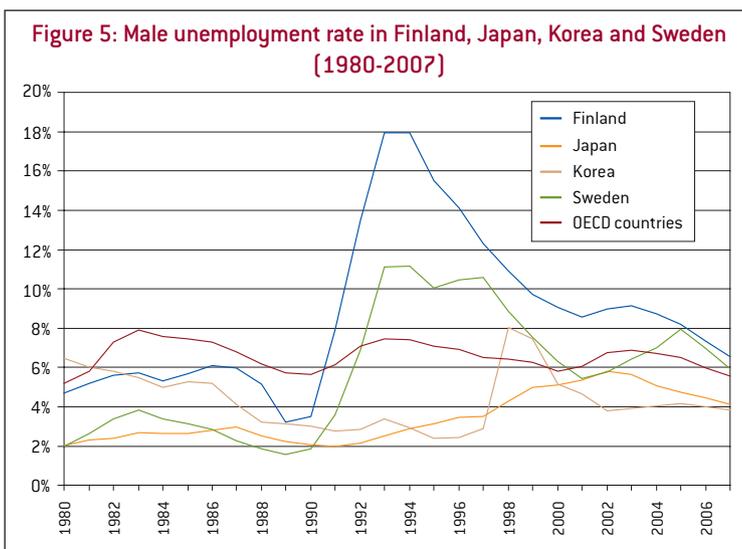
Figure 2 shows that labour markets play a key role in determining whether crises have lasting effects. Policymakers are in this respect confronted with unusual

choices. It is relatively straightforward to deal with collective redundancies and bankruptcies in the case of an individual company or a sector-specific shock. The key is to smooth the transition into new jobs for those workers who are laid off. The three typical policy mistakes in such circumstances are: (i) large subsidies for ailing companies in order to keep them alive against any economic logic; (ii) labour market and unemployment benefit regimes that excessively prolong the transition time in unemployment; (iii) early retirement schemes. All these mistakes have been committed in the past. Early retirement policies in particular were used during the 1980s in several European countries, triggering a major drop in the participation rate in the 55-65 age bracket. This proved to be a socially controversial, fiscally costly and economically inefficient choice.

But the question now is what to do when confronting a deep, across-the-board recession. The four countries witnessing significant

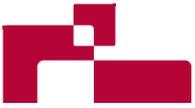
crises in the 1990s reacted differently. Sweden and Finland saw a sharp increase in the unemployment rate and a slight decrease in the participation rate. Japan and to a lesser extent South Korea had more stable unemployment and participation rates (Figure 5)¹. So Japan, and to a smaller extent South Korea, retained idle workers within companies more often than their European counterparts. But the two Nordic countries relied on active labour market policies to avoid laid-off workers exiting the labour market altogether.

Appropriate policies depend on domestic labour market institutions but there are common principles. Early retirement is clearly ill-advised as it overburdens the pension system with people who should be active and in many cases would like to work again. The same applies to all other measures having a permanent effect. However, there can be a case for temporarily discouraging immediate payroll adjustment. In a severe crisis, allowing redundancies to occur and subsequently



Source: Bruegel, based on OECD data.

¹ We focus here on male employment and participation rates (female labour market data is more difficult to compare owing to differing social trends between countries).



retraining workers may not be efficient if impaired markets block the reallocation mechanism. Instead, keeping employees active in some form may be efficient.

Such employment support should be delivered through labour market measures, for example government-subsidised short-time work, such as the *Kurzarbeit* scheme in Germany. Temporary work-sharing arrangements and flexible working hours, which allow overtime when business is strong in return for additional leave when business is weak, may have a similarly positive effect. In general, forms of labour-market flexibility that do not have the negative side-effect of accelerating the rise of unemployment in the crisis can contribute positively.

Rather than acting through labour market instruments, there will always be a political temptation to rescue particularly large industrial companies using government funds. Such operations pose problems from the design stage and may be difficult to end. In addition, there is a real risk of precipitating a low-growth scenario as occurred in Japan, where a significant proportion of the economy consisted for a lengthy period of zombie companies kept alive only at the discretion of the government. They stifle economic growth, while preventing reallocation of resources to sectors with higher growth potential.

d. Zombie lending and productivity

A natural response to the collapse in demand and credit restrictions resulting from the state of the banking sector is to extend credit

to companies in order to avoid bankruptcies. In a financial crisis, the Schumpeterian ‘cleansing’ effect of recessions does not apply correctly because financial markets are unable to foster efficient capital reallocation. On the contrary, companies first hit are the younger, cash-poor firms that often have good growth potential. It is therefore appropriate to use available channels to extend credit to firms that are viable but at risk through liquidity shortage. As distressed banks tend to curtail credit, there is a case for requesting lending commitments from them as a counterpart to capital injections.

However, there remains a risk of distorting incentives. Big companies employ workforces that no government wants to see on the streets. Young innovators bring ‘only’ potential change and have by definition little lobbying clout. Political pressure and risk aversion can interact with each other, resulting in banks favouring companies they perceive as too big, or too politically protected, to fail. The more the banks are themselves dependent on government support, the more they may be inclined towards such behaviour.

These risks are illustrated by Japan’s ‘lost decade’ example. As indicated in Figure 6, bank rescue operations in Japan extended over more than a decade, whereas they moved much faster in Sweden. Throughout that period many Japanese banks behaved as ‘zombies’ and discriminated against small enterprises.

Such behaviour has been identified as a key cause of Japan’s low productivity growth in the 1990s

[Ahearne and Shinada, 2005]. This phenomenon is noticeable in aggregate productivity figures (Table 1), and the significance of this channel can be verified at the microeconomic level. In the case of Japan, Caballero *et al* (2006) have found that the higher the proportion of zombie firms in a given sector, the lower the investment ratio of non-zombie firms. They also noted a correlation between the density of ineffective firms in a sector and its total factor productivity (TFP) growth.

The victims of a dysfunctional credit system are typically young innovative companies (‘YICs’), an efficient means of improving long-term growth prospects. The negative impact of the crisis on YICs extends far beyond the direct impact on their survival and the breakthrough innovations that YICs generate. As these companies often trigger innovation by incumbent firms, their indirect effect is also significant. But they combine the disadvantages of small scale, a short credit history, lower retained earnings and more risky projects, and are more likely to be financially constrained. Public policy should thus provide better access to finance for entrepreneurial projects typified by the activity of YICs, as proposed in Veugelers (2009). And policy should first and foremost expedite banking system restructuring.

e. The cyclicity of R&D expenditures

Notwithstanding the importance of YICs, large firms conduct most R&D. Their investments are driven by (expected) returns, and will therefore be reduced when



(expected) profits are lower (van Pottelsberghe 2008), such as in periods of economic crisis³. Entrepreneurs' ability to finance innovation typically depends upon their cash flow, which is in turn affected by the aggregate state of the economy: it is typically lower in recessions than in booms.

The evidence confirms that business R&D outlays are highly procyclical. The quantitative analysis performed by Guellec and van Pottelsberghe (2003) suggests that the long-run elasticity of business R&D outlays with respect to GDP is about 1.5 (ie, a one percent increase in GDP induces a 1.5 percent increase in business R&D outlays). This relationship is illustrated in Figure 7, which shows the growth rates of GDP, privately funded R&D and government-funded R&D over the past 25 years. The pro-cyclicality of business R&D is clearly apparent, with a much higher volatility than GDP.

This negative impact of aggregate volatility on innovation calls for countercyclical government action. For instance, governments

can increase demand for innovative products in recessions, so as to mitigate the negative impact on firms' incentives to invest in innovative activities in the first place. Governments can also subsidise firms in recessions to help them to refinance innovative activities in spite of tight cash flow. During the crisis of the 1990s Japan actually succeeded in preserving a high level of R&D intensity, despite a drop-off in economic activity. This policy allowed the country to stay specialised in high-tech industries and to avoid a more abrupt economic collapse than would otherwise have been the case.

3. CONCLUSIONS

As long as the crisis was expected to be short-lived, Europe could afford not to reflect on its potential consequences for medium-term growth. Urgent needs of the moment and the longer-term policy agenda could remain disconnected. And until now they have been.

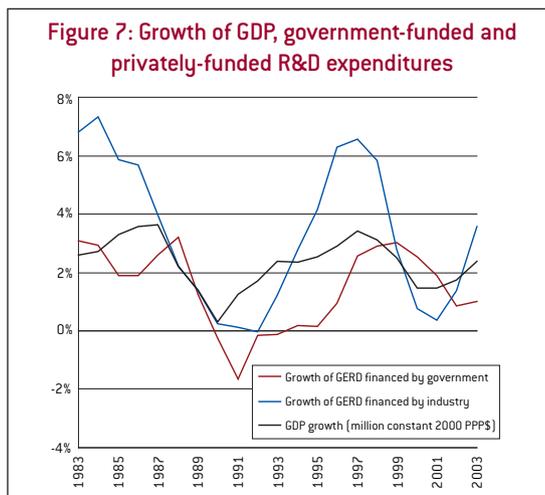
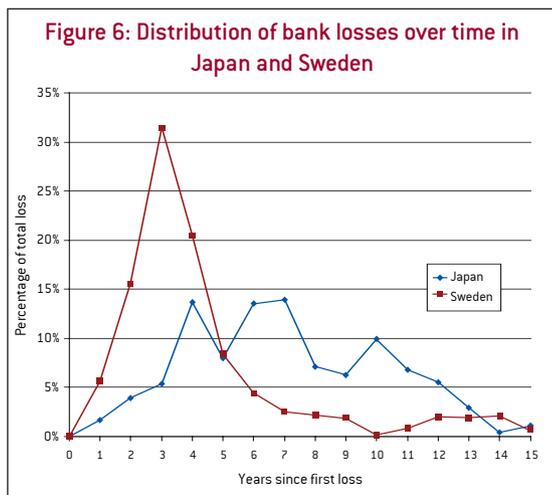
But this disconnect is no longer tenable. It is during crises that the seeds of future performance are

sown – or not sown. In a situation where the duration and depth of the crisis remain uncertain, the acid test for all policy is twofold:

- Is the policy course sustainable even if recovery is delayed?
- Does the policy course contribute to medium-term economic performance?

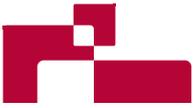
This analysis leads to the following recommendations:

1. **Budgetary policy:** governments should formally announce that stimulus measures will remain in place as long as economic conditions require, even if the duration of the crisis turns out to be longer than expected. This in turn implies ensuring medium-term public finance sustainability through enacting reforms (for example of pensions) that improve the inter-temporal budget balance and investing in the quality of policy institutions to enhance the credibility of commitments to future retrenchment. By the same token, governments should announce that stimulus measures will be removed as



Source: Figure 6: Hoshi and Kashyap (2008), Bank of Sweden, Bruegel calculations. Figure 7: Bruegel, from OECD/MSTI, three-year rolling averages in constant 2000 USD PPPs. GERD: Gross expenditure on research and development.

³ The reverse could however be argued, based on inter-temporal substitution: the opportunity costs of achieving growth are lower in recessions, and hence firms have more incentive to undertake R&D in downturns and launch new products in upturns. This is, however, rarely observed.



- soon as economic conditions show sustained improvement, even if the pace of growth is less than pre-crisis. In other words, measures should be accompanied by an exit strategy and be made state-rather than time-contingent. They should be accompanied by sustainability-enhancing reforms of public finances.
2. **Stimulus packages:** for 2010, to be revised to put greater emphasis on priorities that are consistent with structural improvements to Europe's growth potential. Currently, EU priorities for education, innovation and other pro-growth policies have not been sufficiently reflected. This is a missed opportunity.
 3. **Financial system:** if dysfunctional, there is a high medium-term economic cost for productivity and employment. Thus, bank restructuring should be speeded-up, to avoid zombie behaviour and the associated misallocation of capital.
 4. **Employment support:** should be implemented through labour market policies and designed in a way that minimises the risk of lasting damage. This implies avoiding all measures that take workers out of the labour market altogether, and avoiding support for labour markets through direct aid to firms. Governments may instead provide temporary, across-the-board incentives for companies to retain employees.
 5. **Large firms in traditional industries:** any aid should be conditional upon restructuring. Financial support to the business sector should be reserved to a significant extent to young innovative firms that inherently face severe credit constraints.
 6. **Innovation:** procyclical behaviour should be countered through specific tax incentives or subsidies in order to limit the fall in R&D intensity during the downturn and prepare the ground for productivity gains in the recovery.

Consistent with the EU's Lisbon strategy, it is the task of the European Commission and the EU Council presidency to monitor national initiatives, assess their effectiveness and promote debate on the medium-term impact of crisis management policies.

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Bruegel - Rue de la Charité 33, B-1210 Brussels - phone [+32] 2 227 4210 info@bruegel.org

