

How Have We Handled the Economic Crisis and What Do We Do Now?

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I feel honoured to have been invited to give this year's Félix Neubergh Lecture. The list of previous speakers is impressive. Many of the earlier lecturers are people with much practical experience of economic policy-making. I am not quite sure how to interpret the invitation to me against this background, but I would guess it reflects my involvement in policy advising, which is an activity in between policy-making and research.

Thinking about it, policy advising is not a bad thing to do. When criticised by practitioners for giving bad advice, one can always find some sophisticated research to back up one's position. And when criticised by academic colleagues for lack of rigour, one can instead claim that they base their arguments on naïve perceptions of the real world. So policy advising can sometimes be a rather comfortable activity, combining the best of two worlds – for the adviser, that is.

But, more seriously, policy advising is important. It is particularly important that there be good interaction between pressing real-world problems and academic research. This interaction can sometimes work very well and sometimes it can fail. I shall come back to this.

The title of the lecture is: How have we handled the economic crisis and what do we do now? An obvious question is what is meant by “we” in this context. Most of the time, I will mean economic policy makers in the world in general. Sometimes I will mean Swedish policy makers. And towards the end, “we” will refer to “academic researchers” and “policy advisers”. I hope the meaning will be clear from the context.

I shall structure the lecture like this:

- First a few words about the nature of the crisis.
- Then I shall try to evaluate the handling of the crisis.
- And finally I shall discuss what policy strategies should be followed from now on, both in the short run to deal with the acute problems and in the long run to prevent similar crises in the future.

The nature of the crisis

Most of us probably have a fairly good idea of why the crisis arose, so I shall not spend time on the details. It all started with what looked like a rather ordinary downturn in the US in 2006/07 and then turned into a full-blown global financial crisis in the autumn of 2008. The first phase involved falling house prices and the subprime loan crisis in the US. The financial crisis was then transmitted to the rest of the world after the Lehman Brothers collapse in September 2008 when interest rate spreads exploded and interbank lending ground almost to a

halt. This started a process of deleveraging and credit contraction which resulted in the deepest global downturn since the 1930s.

The depth of the downturn can be illustrated in many ways. As can be seen in Figure 1, the OECD estimates that there is now a negative output gap in the whole OECD area of around 6 per cent of potential GDP. The biggest impact has been on world trade, which was down by more than 30 per cent at the beginning of 2009 (Figure 2).

Figure 1

Figure 2

Turning to policies to deal with the crisis, one can talk about three lines of defence:

1. Emergency measures against the acute financial turmoil were the first line of defence.
2. The second line of defence has been monetary policy.
3. The third line of defence has been fiscal policy.

Emergency measures in response to the financial crisis

Across the world, the emergency actions in response to the pure financial crisis have encompassed a number of measures:

- liquidity provision and crisis loans from central banks;
- government support for bank take-overs;
- government take-overs of insolvent banks;
- higher deposit insurance to prevent bank runs;
- government guarantees of bank lending to get the interbank market to function again;
- government capital injections into banks; and
- government bail-outs in the form of both ring-fencing (guarantees to cover bank losses above a certain level, as in the UK) and purchases of toxic assets (as in the US).

I shall not analyse the various measures in any detail, but just make the general evaluation that central banks and governments on the whole – after a confused start – reacted with impressive speed and a reasonable degree of co-ordination. This has yielded results. Interest rate spreads (illustrated by the difference between three-month interbank interest rates and overnight rates in Figure 3) have come down again to almost the same levels as before August 2007. Similarly, as shown in Figure 4, corporate bond yields have decreased again. Bank lending

has ceased to grow, but on the whole it has not fallen (Figure 5). This means that a serious credit contraction process has been avoided.

Figure 3

Figure 4

Figure 5

Monetary policy

Let me now turn to the second line of defence: monetary policy. Over the last decades, there has been a worldwide trend towards making central banks independent of the political system. The idea has been to secure low inflation. There has been a worry in many circles that this could make central banks unresponsive to the need for monetary stimulus in downturns. But this has certainly not been the case in the crisis. On the contrary, central banks took down their policy rates very quickly to almost zero when they realised the depth of the crisis.

Figure 6

Central banks have also instituted a number of *unconventional measures (quantitative easing)* to prevent a contraction of money supply, including purchases of government and commercial bonds as well as lending to banks against lower-quality collateral and on longer than normal maturities.

The monetary policy actions of central banks to deal with the acute crisis must also be judged very favourably. In fact, the central banks' response was much faster and much stronger than most observers believed *ex ante*. Perhaps it was a lucky coincidence that the head of the Fed in the US, Ben Bernanke, had devoted much of his academic career to doing research on the Great Depression and the role in it played by credit contraction and debt deflation.

This favourable judgement of monetary policy is fairly universal. It includes also the policy followed by the *Riksbank* in Sweden. It is true that the *Riksbank* made a very peculiar move in early September 2008 when it raised the repo rate by 25 interest points at a time when everyone else realised that a serious downturn had started, but this policy was quickly reversed.

Fiscal policy

Fiscal policy, which I have labelled the third line of defence, has undergone the most re-thinking. In recent years, conventional wisdom has downplayed the role of discretionary (active) fiscal policy as a stabilisation policy tool. There have been several reasons for this:

- The long decision lags for fiscal policy compared to monetary policy, which follow from the fact that fiscal policy decisions are genuinely political ones, with important ramifications for income distribution. Hence these decisions have to be taken by parliaments.
- The risk of political misuse of fiscal policy, which can result in *political business cycles* – expansionary policy before elections – and a *deficit bias* in general, because expansionary policies in downturns are always more popular than contractive policies in booms.
- Doubts about the effectiveness of fiscal policy. According to one view – usually labelled *Ricardian equivalence* – tax cuts and transfer increases may fail to raise aggregate demand, because households will expect the resulting deficits to be covered by future tax increases and transfer reductions. This will leave lifetime incomes unchanged and should therefore not induce forward-looking consumers to adjust their consumption plans: households will then just save any temporary income rise from a tax cut to use it for paying the higher future taxes. Alternatively, increases in government deficits could drive up long-term interest rates so that the direct aggregate demand effects are offset.

Before the current crisis, there was a consensus that monetary policy should be the prime stabilisation policy tool and discretionary fiscal policy should be avoided. If fiscal policy were to be used, policy makers should rely on the *automatic stabilisers*, that is, the variations in tax revenues and various expenditures (such as unemployment benefits and social assistance) that occur automatically over the business cycle when output and employment vary. These automatic stabilisers do not require any active decisions that can go wrong.

Policy makers should also be given credit for rapidly abandoning conventional wisdom in the current crisis. It was realised very quickly in the autumn of 2008 that the situation was so *extraordinary* that the normal principles could not apply, mainly because monetary policy came up against the zero interest rate bound, that is, the problem of reducing nominal interest rates below zero. This means that in a situation with very low inflation, or deflation, it is not possible to reach the strongly negative real interest rates desired to stimulate the economy.

Negative nominal policy rates are not completely impossible – a central bank could charge a fee on the reserves held in it by banks and could in principle also pay banks a subsidy for borrowing from it: both measures would induce banks to lend to the private sector. But such measures are likely to be much less effective than ordinary interest rate changes. They are also uncharted territory that no central bank has actually dared to enter.

Against this background I was positively surprised by the willingness of governments to rethink their fiscal policy strategy. Figure 7 shows that most governments have both allowed the automatic stabilisers to work and on top of that, added discretionary fiscal policy stimulus measures. These discretionary measures have involved measures both on the expenditure side and on the tax side. This has been wise, given the huge uncertainty about the size of various fiscal policy multipliers.

Figure 7

Academic economists usually teach that fiscal multipliers are larger for government consumption than for taxes and transfers to households, but there is no consensus on this in empirical research. It does suggest, however, that Ricardian equivalence does not hold, so one should expect tax cuts and transfer increases to households to have an effect, although the effect is likely to be larger the more such measures can be targeted on low-income groups. These groups will to a large extent be rationed in the credit market, which implies that they have limited possibilities to reallocate consumption over time: in other words, low-income groups borrow and spend less than they want and can therefore be expected to spend most of any income rise.

However, there are also huge problems with the expansionary fiscal policies in many countries. This is because many countries entered the economic crisis with weak public finances, giving them limited room for manoeuvre.

Table 1 shows the likely 2009 and 2010 government budget deficits in a number of countries according to the OECD. The deficits are low in Sweden, but there are several countries with deficits around or above 10 per cent of GDP, including the US and the UK, but also Greece, Ireland and Spain, Latvia and of course, Iceland.

Table 1

The large deficits imply very large rises in government debt. In the whole OECD area, gross financial liabilities are projected to increase from around 73 per cent of GDP in 2007 to around 103 per cent in 2011. The situation varies among countries. Japan is expected to reach a gross financial debt of above 200 per cent of GDP in 2011. But the situation is very serious also in the US, where the 2011 gross debt ratio is forecast to be 100 per cent.

Figure 8

There are basically two problems with these developments: a long-run problem and a short-run problem, but the problems are interrelated.

I shall first discuss the long-run problem. All agents – also governments – have to respect an *intertemporal budget constraint*. A government must be able to service its debt: either by paying it back or rolling it over and paying the interest on it. To do this, future primary budget surpluses – the difference between tax incomes and government expenditures excluding interest – must at least be as big as the current outstanding debt. Otherwise the government is insolvent and no sensible lender would lend to it.

To calculate the sustainability of public finances, the standard method is to assume unchanged tax rates, unchanged transfer systems and unchanged government consumption per capita and then plug expected demographic developments into the model. Something called the *S2-indicator*, which shows whether or not taxes have to be raised (or government expenditures cut) if the government is to stay solvent, is often computed. A positive value indicates a need for fiscal consolidation.

Table 2 shows the latest such calculations by the European Commission. With the exception of Denmark, all the S2-values are positive. The aggregate values for both the EU27 and the euro area are around 6. The interpretation is that the amount of consolidation needed is the equivalent of an immediate and permanent rise in annual tax revenues of around 6 per cent of GDP. This is a very large number.

The need for fiscal adjustment is much greater for some countries: 15 per cent of GDP for Ireland, 14 per cent for Greece, 12 per cent for the UK, and 10 per cent for Latvia. These are staggering numbers.

Table 2

One might think that the main explanation for these sustainability gaps is the current economic crisis. But it is not. The main explanation is demographics: the expected future increase in old-age dependency ratios from an ageing population because of the gradual labour market exit of the baby-boom generation and increased longevity. The debt increases in the current crisis come on top of this demographic problem, which most countries have not even started to address adequately.

These long-run problems may also have an impact on the short-run effectiveness of fiscal policy. If lenders begin to worry about the long-run sustainability of public finances, they will demand a risk premium. This will drive up long-term interest rates and could offset the direct demand stimulus effects of the expansive fiscal policy.

It is very clear that there exists such a relationship between government debt and long-term interest rates. Figure 9 shows that historically higher government debt has co-varied with higher interest rate spreads between long-term and short-term interest rates. Within the euro area, such increases in long-term interest rates have now occurred in some of the countries considered to have the most serious fiscal problems.

Figure 9

Figure 10

Alternatively, one can reason in Ricardian equivalence terms: the more pressing the debt problems are, the closer in time future tax rises (or transfer cuts) are likely to be. This makes households more likely to take them into account and they may then hold back their consumption in anticipation of such measures. There is a fair amount of empirical evidence that tax cuts and transfer increases have less positive demand effects, the higher deficits and debt rise, so these considerations are not just theoretical.

To sum up this part, the big sustainability problems in some countries – including the US and the UK – raise serious doubts as to how long they can continue an expansionary fiscal policy and how effective it will be.

Fiscal policy in Sweden

What about Sweden? Here, I make a rather different judgement. After the economic crisis in the 1990s, Sweden underwent a very thorough fiscal consolidation process. Figure 11 shows that Sweden entered the economic crisis with quite low government debt.

Figure 11

Also sustainability calculations show a favourable situation for Sweden compared to most other countries: according to the Commission's S2-indicator, the need for permanent tax rises (transfer cuts) is only 1.8 per cent of GDP. This is the consequence mainly of two factors: the limited deficits in the current situation and the earlier pension reform which has turned our pension system into one of *defined contributions* instead of defined benefits, implying an automatic adjustment in pension benefits when the old-age dependency ratio increases (provided that the rules are followed).

This means that Sweden has much more room for an expansionary fiscal policy than most other countries. Because of the size of the government sector, we have strong automatic stabilisers, so by just letting them work Sweden has provided a large fiscal stimulus. Everyone agrees on that. But, as is well-known, there has been disagreement on how much discretionary fiscal stimulus there should be in addition to the automatic stabilisers.

In the government's Budget Bill for 2009 – which was published in September 2008, before the depth of the crisis was known – there was a discretionary fiscal policy stimulus of around one per cent of GDP (measured as the reduction in the cyclically adjusted fiscal surplus, that is, in the fiscal surplus in a normal cyclical situation). This is shown in Table 3. But when the crisis deepened in the autumn of 2008 and the first half of 2009, the government was very reluctant to add more stimulus: there was a little bit more, but not much. According to the 2010 Budget Bill, the amount of stimulus provided in 2009 is of the same magnitude as originally planned in the 2009 Budget Bill.

Table 3

Many economists, including myself, argued for more stimulus in 2009: primarily a temporary increase in central government grants to local governments to allow them to keep up employment despite falling tax revenues, but also other stimulus measures targeting low-income groups.

For a long time, the government was very reluctant to do this. It seems it was very afraid to run into a similar fiscal crisis as the previous liberal-conservative government did in the early 1990s. My view is that the government was overcautious and did not take due account of the differences to the situation in the early 1990s.

These differences include both lower government debt and public finances that look much more sustainable than in the early 1990s. The differences also include a political consensus on strong public finances. This is reflected in a strong fiscal framework (with a top-down budget process, a government expenditure ceiling, a surplus target for the consolidated government sector and a balanced budget requirement for local governments) which reduces the risk of fiscal credibility problems, as does the good Swedish track record of fiscal consolidation from the 1990s.

In the new Budget Bill in September 2009, the government suddenly changed foot and added stimulus measures for 2010 of around another one per cent of GDP. This might be a reasonable fiscal stance. But from a purely economic point of view it is not easy to understand the sudden change. And it is certainly not easy to understand why the government did not at least *announce* these stimulus measures for 2010 earlier, as *expectations* of them would likely have had positive demand effects already in 2009.

My only disagreement with Swedish fiscal policy for 2010 is that so many – around two thirds – of the demand-increasing measures are *permanent* (an additional earned income tax credit, a tax cut for old people and some expenditure increases) rather than *temporary*, such as the grants to local governments. It would have been more in line with the government's earlier focus on fiscal discipline to try to avoid permanent budget deteriorations. One does not have to be Einstein to suspect that both the overall change in fiscal stance and the allocation between permanent and temporary stimulus measures might have something to do with the election next year.

To sum up this part, I believe that the Swedish fiscal policy stance has been reasonably good, but it could have been even better. The government was probably so influenced by the conventional wisdom of avoiding discretionary fiscal policy that it took a bit too long to adapt to a new situation.

There is, however, one point on which the Swedish government's fiscal policy deserves a lot of credit. This is perhaps not so appropriate to say in Gothenburg, though it would probably be even worse in Trollhättan. I do think the government deserves credit for so far not having resorted to selective subsidies. I am thinking of the automotive industry in particular. It is true that the automotive industry has been especially hard hit by the crisis, but if one had given selective support to this sector, it would have been very difficult not to extend it to other sectors as well. This could have opened the floodgates for the future. It is also very hard to believe that the Swedish car industry would not have to contract in the long run.

I also think the government has been right to give support to local governments only in general form, but to avoid additional selective support to local governments particularly hard hit by the crisis. Selective support here – in addition to what is already built into the “municipal equalisation system” (*det kommunala utjämningsystemet* in Swedish) – would carry large moral-hazard risks by signalling that individual municipalities that run into problems will be bailed out by the government.

What do we do now?

Let me turn to my second main question: what do we do now? I shall split this discussion into two parts. The first part deals with the short-run issue of how to deal with the ongoing crisis in the coming years. The second part deals with long-term system changes that could help us avoid future crises.

The catchword for policy in the next few years is *exit strategies*. Extraordinary measures have been used and they must over time be dismantled. The difficult questions are at what pace they should be dismantled and how exit strategies for the various policies should be coordinated. These are very difficult problems since we do not have any similar experiences for comparison.

Emergency measures in financial markets

Let me again begin with the emergency measures in financial markets. I will be briefest here for the simple reason that this is the area where I have least expertise.

The trade-off is, however, very clear. On the one hand, it is important not to dismantle the emergency measures so fast that serious new financial market problems arise. On the other hand, maintaining the measures involves serious moral hazard problems: too much support will encourage irresponsible behaviour in the future.

My gut feeling is to err on the side of caution. I am more afraid of dismantling the emergency measures too soon rather than too late. The experiences from Japan in the 1990s show how an incomplete rescue of the financial system can lead to a very long stagnation period. Moral hazard problems would rather be exacerbated if the emergency measures are first abandoned and later have to be re-introduced. So, I would like to be quite confident that the financial system has been consolidated before the emergency measures are cancelled.

But, as I said, I should warn you about my lack of expertise in this area. For example, I at first thought it was a good idea to let Lehman Brothers go bankrupt and show financial markets that such a thing could happen. In retrospect this judgement does not seem so wise.

The exit strategies for fiscal and monetary policies

I shall now turn to the exit strategies for monetary and fiscal policies, which are an issue I feel more comfortable with. What exit should come first? Here there are obviously two potential problems. On the one hand, there is the worry that monetary policy may stay expansionary for too long and that this could sow the seeds of a new financial crisis in the future. Many economists believe that too expansionary a monetary policy after the IT bubble burst was an important cause of the current crisis. On the other hand, we have the sustainability problems for fiscal policy. Which problem is the gravest?

For most countries (not Sweden, I shall come to Sweden later), I would worry the least about monetary policy. This is not because I do not see substantial risks here, but rather because I am even more worried about fiscal policy. The reason is the fast build-up of government debt that is now occurring.

Economists like to analyse government debt dynamics with the help of the following difference equation:

$$d_t - d_{t-1} = p_t + (i_t - n_t)d_{t-1} / (1 + n_t)$$

d = government debt as a percentage of GDP

p = the primary fiscal deficit as a percentage of GDP

i = nominal interest rate

n = growth rate of nominal GDP

The equation shows how the change in debt relative to GDP equals the primary fiscal deficit (government expenditures, excluding interest payments, minus tax revenues, all as a per cent of GDP) plus a term which is approximately the difference between the nominal interest rate and the growth rate of nominal GDP times the preceding period's debt ratio.

The worry is that large deficits will drive up the interest rate, which will make debt grow faster (the second term). If a higher interest rate then causes lower growth, the discrepancy between the interest and growth rates increases even more and debt rises even faster, which could raise the interest rate again, which then depresses growth even more and so on. It is easy to see how one could get a snowball effect, ultimately causing government insolvency.

This would obviously be very bad. But there are also bad ways of avoiding such a development. One such bad way is to inflate away government debt. A period of high unanticipated inflation (such that nominal GDP growth rises relative to the nominal interest

rate on outstanding government debt) would obviously reduce the real value of the debt. This is a method which historically has been used over and over again. The problem is that OECD countries went to large pains in the 1980s to get the then high inflation down by accepting high unemployment, which to a large extent later became persistent. So, if one lets inflation loose again, one might again have to incur the large costs of getting it down, once the process of inflating away government debt is completed.

So the method that remains is to reduce the primary fiscal deficits. How ambitious should the goals be? According to the tax-smoothing theory of government debt, it is optimal to accept a *permanent* increase in the debt ratio in the event of an adverse *temporary* shock to public finances, provided that the debt ratio moves from one level to another and then stays there in the absence of future shocks. It would be worse to raise taxes rapidly to balance the budget, because this would involve large distortionary costs. It is more efficient to smooth tax rates over time. According to this reasoning, taxes should be raised permanently only so much that they cover the increased interest costs for the debt accumulated during the crisis period.

But as I argued, the problem now is that the current deficits come on top of the demographic sustainability problems. One would also want to have safety margins in public finances for the future in case we get new deep crises that require extraordinary measures.

The best is if governments can credibly *commit* to a *future* strengthening of public finances. This would reduce the risk that the recession is deepened by too early withdrawal of the fiscal stimulus. In fact, such commitment could even enhance the efficiency of the current stimulus. If, for example, governments can induce *expectations* that future government consumption will be cut, anticipated future taxes will be lower and anticipated lifetime incomes higher. This should lead households that are forward looking to increase consumption already now.

But credible commitment is difficult to achieve. Sweden succeeded in the 1990s when policy makers decided on an *unconditional* path of fiscal consolidation: the government formulated goals on how the deficit should be reduced that were to be reached independently of how the economy developed. This would be difficult to recommend to most high-debt countries now as there is the risk that such a policy could kill off the upswing. This is why many economists recommend a *conditional* consolidation path, where the amount of consolidation would depend on how fast the economy picks up. But almost by definition such conditional fiscal consolidation is likely to be less credible than an unconditional one.

There are also other things that could be done. Decisions now on future rises in the retirement age would improve public finances in the long run, but probably not have adverse

consequences on current aggregate demand. Such decisions might be quite credible, since most people would likely understand that increased longevity must go hand in hand with more work years.

Still there is a great risk that credibility problems may force many countries to begin tightening fiscal policy while still in a deep recession. Ireland has already been forced to do so. So has Latvia (and Iceland, of course). This is very likely to happen in the UK and the US as well and in some euro countries. If so, monetary policy probably needs to stay expansionary much longer than fiscal policy.

There is a lot of worry that the unconventional monetary policy measures have led to a huge expansion of central bank balance sheets because of the scale of lending to banks and purchases of various securities. This can be seen in Figure 12. Personally, however, I am not so worried about this.

Figure 12

What happened during the financial crisis is that the normal process of credit creation in the banking system ceased. Central bank debt forms the base for credit creation in the banking system through lending and borrowing. As a consequence, money supply is a multiple of that debt. But when credit creation stalled, central banks had to substitute more debt for the ordinary credit creation in the banking system to prevent a severe contraction of money supply. This in itself should be no reason for worry. It ought to be possible to reduce that central bank debt in an orderly fashion when credit markets return to normality.

My main worry about monetary policy is rather that central banks, as in the past, will focus too much on reaching their inflation targets (and stabilising output) in the short and medium term and will pay too little attention to asset price developments. I will get back to this.

The policy mix in Sweden

But I want first to emphasise that my discussion about exit strategies so far has not concerned Sweden, but countries with large deficits. The Swedish situation is different. We do not have to exit from fiscal stimulus as fast as high-deficit countries. So the policy mix in Sweden could be different. For us, it might be wise to tighten monetary policy earlier than in many other countries to prevent property prices from rising too much.

The problem for Sweden might rather be to adjust to what other countries do and to how the world economy reacts to that. There is a risk that the recovery in the world economy could take a very long time either because large countries such as the US are forced to exit from expansionary fiscal policy quite early or because this policy becomes ineffective by driving up world long-term interest rates. If so, Sweden may have to carry on with stimulation policies longer than we would otherwise have to.

System reforms to prevent future crises

Let me then turn to the *long-run* issue of how to reform our systems to prevent similar crises from arising in the future. This issue obviously deals with three aspects of policy:

- financial regulation
- the monetary policy regime
- fiscal policy institutions

But the issue also deals with our thinking on macroeconomics in general and on academic research, so I shall comment on this as well.

Financial regulation

I shall start with financial regulation. A number of reforms to limit excessive risk taking are on the way. Restrictions on bonus payments have received the most attention, but that is probably the least important reform. More important are moves such as:

- higher capital requirements to make banks and financial institutions less vulnerable;
- more inclusive regulations so that large parts of financial markets are not left unregulated;
- more international co-ordination of regulation so that the overall level of regulation is not suboptimally low because of regulatory competition among countries in order to attract financial business; and
- more focus on the overall macroeconomic systemic risks rather than on just the micro risks of individual financial institutions.

Other important reforms could deal with the role of rating agencies and setting limits on the extent to which loans can be repackaged and resold, thus transferring risks from the original lender to other agents.

All these reforms seem worthwhile. One is inclined to say that it is probably impossible to do too much, but there are also ideas to which I am more sceptical. Such ideas are narrow banking, that is, to try to limit the scope of banks to reduce risk-taking, and limiting the size of banks to avoid the too-big-to-fail problem, that is, the moral hazard problem arising from the fact that governments cannot let big financial institutions go bankrupt. I am not convinced that these are good solutions, since they might add to the lack of transparency in financial markets, which has been at the centre of the problems, by increasing the number of agents and (opaque) transactions between them.

Nor am I sure that it is a good thing to impose rules according to which the debts of banks and other financial institutions in distress could be transformed into equity capital bearing a larger risk. I cannot see how this would avoid the problem that credit to such financial institutions could dry up.

The monetary policy regime

The part I find the most interesting is the relationship between financial regulation and the monetary policy regime. Since the early 1990s, the prevailing monetary regime has been one of independent central banks with a transparent mandate to pursue an inflation target. This regime has been regarded as very successful as it has kept inflation low and stable.

But the system has also been seen as successful in another respect: macroeconomic volatility in general was believed to have been reduced. Indeed, up till the autumn of 2008, there was a lot of talk of what was labelled the *Great Moderation*. Most “up-to-date” textbooks still contain sections on this Great Moderation, discussing how the existing monetary policy regime had reduced the cyclical swings in the economy. This, of course, now looks silly.

A better characterisation of the performance of the current monetary policy regime is instead this. Independent central banking with a clear inflation target can indeed be expected to maintain low and stable inflation as well as to smooth the cycle for most of the time. But precisely this policy may also allow large imbalances to develop, involving unsustainable asset price hikes, overexpansion of credit and excessive risk taking, which may every now and then cause very large crises like the current one. (We should also remember that there was a predecessor to the current crisis from which we had a very narrow escape, the bursting of the IT bubble in 2001, so unsustainable asset price developments have not only occurred once but twice over the last decade).

This points to a fundamental problem with the current monetary policy regime: “it takes care of the mosquitoes but ignores the camels” (to attempt a free translation of the Swedish expression “*att sila mygg och svälja kameler*”). The regime seems to even out smaller disturbances most of the time, but allows disasters to occur at more infrequent intervals. When these disasters happen, a lot of co-ordination between governments and central banks is needed, so there is a risk that such crises compromise the political independence of central banks, which is the cornerstone of the current system.

So the crisis raises fundamental questions about the viability of the current regime. My conclusion is that it is probably a far too simplistic approach to focus only on inflation targeting (and cyclical stabilisation) in the medium term. Successful inflation targeting and cyclical stabilisation in the *long run* seem to require a lot more than achieving these targets in the medium term. The only solution I can see is to broaden the objectives of monetary policy to also include objectives of preventing excessive credit growth and excessive asset price swings.

One should, of course, be aware that there would be a number of problems with such a broadening of central bank objectives. A first problem is how to define “excessive” credit growth and “excessive” asset price increases. There are no obvious definitions and no obvious way of deciding the difference between sustainable and unsustainable developments. One may have to be content with a strategy of “leaning against the wind” when there is fast credit growth and large asset price rises.

Another problem concerns the balance between objectives and instruments. It has sometimes been difficult enough for central banks to stabilise both inflation and the output gap with only one instrument: the repo rate. Policy choices would become even more difficult with more objectives.

This is another way of saying that with more objectives, central banks would need more instruments. The most obvious instrument to add – and which has been discussed – is to vary capital adequacy ratios (how much equity capital the banks should have relative to their loans) over the cycle. These ratios could be raised in booms and lowered in downturns to smooth credit growth over time. It would seem that central banks – rather than financial supervisory authorities, whose remit is more to monitor individual institutions – are best suited to take decisions on this, since it involves basically macroeconomic considerations and there is an obvious need of co-ordination with interest rate policy.

Another observation concerns the tendency in recent decades for central banks to focus only on the repo rate and to forget about other monetary policy instruments already at their

potential disposal. I am old enough to remember that earlier central banks regularly used instruments such as liquidity and cash ratios and also tried more regularly to affect long-term interest rates through the sales and purchases of government bonds. It seems desirable that central banks also expand their tool kit in more normal times.

A broadening of the objectives of central banks could have ramifications for the delegation of monetary policy. The more simple and transparent the objective(s) of the central bank are, the easier it is to verify whether or not the objective(s) have been attained and to hold the bank accountable. With more – and less transparent – objectives, this would become more difficult.

Summing up the arguments, I still believe there is a case for a fundamental change in the monetary policy regime. There are drawbacks with a broadening of the objectives – and one needs to do a lot of thinking on how it should be done – but the costs of continuing as before are likely to be even higher. We cannot have a system that results in an economic catastrophe every ten years or perhaps even more often.

The fiscal policy regime

What about fiscal policy regimes? As I have already discussed, a fundamental problem is that so many countries entered the crisis with weak public finances and had done so little to prepare themselves for the future demographic challenges. In the EU, one has tried to deal with the problems through common fiscal rules – on deficit and debt ceilings as well as on so-called medium-term targets – in the Treaty and in the Stability and Growth Pact. But this has not worked as well as one hoped. Initially, in the run-up to the euro when these rules were also entry criteria for the monetary union, the rules seemed to bite.

But later on, there were a number of violations and a few years ago the whole rules system broke down when France and Germany started to violate it. As a consequence, the stability pact was modified in 2005, which implied a serious weakening.

My conclusion is that fiscal discipline requires complementing the EU fiscal rules with *national* rules, which still are likely to command more legitimacy. Here the Swedish system with a fiscal balance target over the cycle, an expenditure ceiling and a balanced-budget rule for local governments is a good system. Many other countries could benefit from adopting it. There is a fair amount of evidence that such rules – especially expenditure ceilings – do increase fiscal discipline.

My recommendation does not contradict the need to improve Swedish fiscal rules. There are now possibilities to circumvent the expenditure ceiling – by the use of so-called tax

expenditures, as practiced by earlier governments in particular, or by paying out expenditures for one year in another year, as practiced both by the current and by earlier governments – that should be closed. There is also a need to define more clearly what the current fiscal target of a surplus of one per cent of GDP over the cycle actually means. And decisions on pension rules and fiscal targets could be better co-ordinated, since they are alternative ways of reaching the same target of long-run sustainability.

As chairman of the Fiscal Policy Council in Sweden, which has the government's remit to make an independent evaluation of whether fiscal policy is consistent with long-run sustainability and how it relates to the business cycle, I am naturally in favour of outside monitoring of fiscal policy. There is also some empirical evidence that increased transparency, which such monitoring contributes to, promotes fiscal discipline. There seems to be a growing international interest in such monitoring institutions, not least in the EU. The Tories in the UK have proposed an independent Office for Budget Oversight modelled on the Congressional Budget Office in the US (and on a similar body in Canada). Fiscal policy councils have been, or are now being, established in Hungary and Slovenia and there are discussions in other countries as well.

Our general thinking on macro economics and academic research

My last point concerns the role of our thinking on macro economics in general and academic research in the area. A common question to economists these days is why we could not have foreseen the crisis better. I think it is demanding too much that we should have forecast it, but whether we could have identified the risks better is a relevant question.

Could we have done that? A first answer is that there were indeed warnings. There was a consensus among macro economists that house prices in many countries had increased too much and had to come down, and that this would reinforce a downturn. There was of course also a lot of worry about the huge American current account deficits. They implied that Americans were borrowing around eight per cent of GDP from the rest of the world every year. Many economists pointed to the risk that there might at some point be a sudden reversal of capital flows causing a “hard landing”, which was the term used.

So there were warnings, but when the economic crisis came, it came largely in ways other than those discussed. It was a surprise that the degree of risk taking in financial markets was so excessive, and that what had been hailed as diversification of risk instead meant fast transmission of the financial crisis between markets.

Why did economists not understand this better beforehand? One reason is that macro economics and finance have to a large extent developed as two separate fields. Macro economists – like myself – were not sufficiently aware of what was going on in financial markets and we have not built phenomena such as excessive credit creation, asset price reversals and debt deflation into our workhorse models.

But one should also criticise economists in finance. They have not been sufficiently interested in the general equilibrium effects of financial markets on the macro economy. Instead they have focused too much on partial equilibrium questions such as the choice of optimal portfolios for individual agents and the pricing of various instruments.

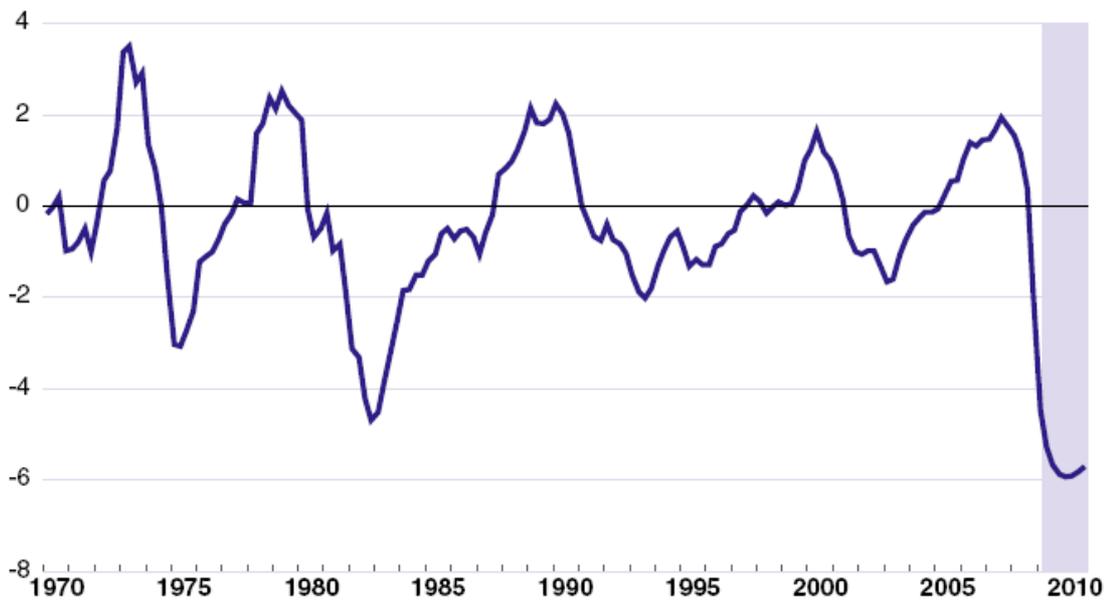
So, one can criticise the discipline of economics with some justification. There has been a systemic failure on the part of economists in the sense that financial aspects have not been sufficiently integrated into mainstream macro economics. This is something we need to improve.

It is probably also a relevant criticism that economists may have taken assumptions on rational expectations and rational behaviour – which are very powerful analytical tools that help us construct consistent and theoretically rigorous models – too far. We should probably be more open to less rigorous and less elegant models that to a larger extent take empirical generalisations from economic history or generalisations regarding non-rational behaviour from psychology into account. But one should be aware that finding the proper trade-off between theoretical rigour and such aspects is very difficult: the balance between realism and sloppy thinking is often very thin.

Concluding remarks

To conclude, I believe we can do a lot better as economists. But economic policy makers – both governments and central bankers – can certainly also do much better now if they apply the knowledge we already have. This relates mainly to how we should devise the systems to avoid crises like the current one in the future and, if they arise, be better prepared to deal with them. But given the situation when the financial crisis started, I think we need to give policy makers good marks for their handling of the acute crisis thus far. However, the jury is still out on how the exit from the extraordinary crisis measures will be made.

Figure 1 The OECD output gap in per cent of potential output



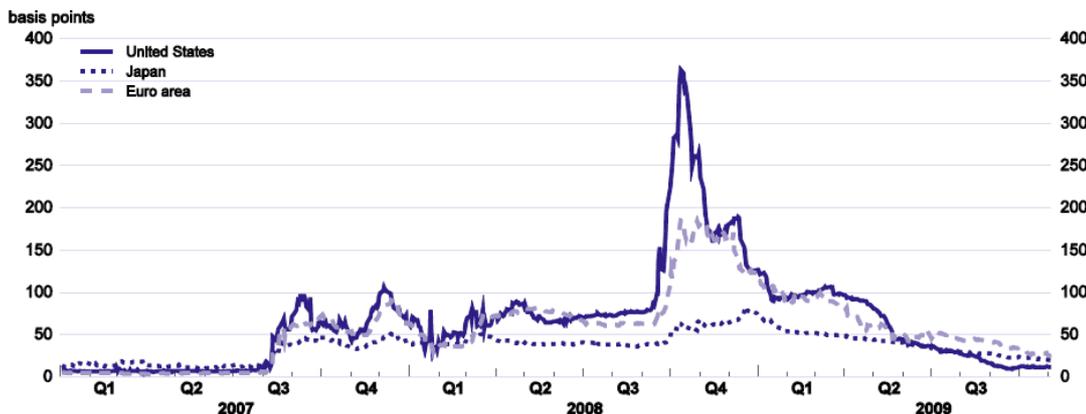
Source: OECD.

Figure 2 World trade growth, quarterly annualised growth rate



Source: OECD Economic Outlook, November 2009.

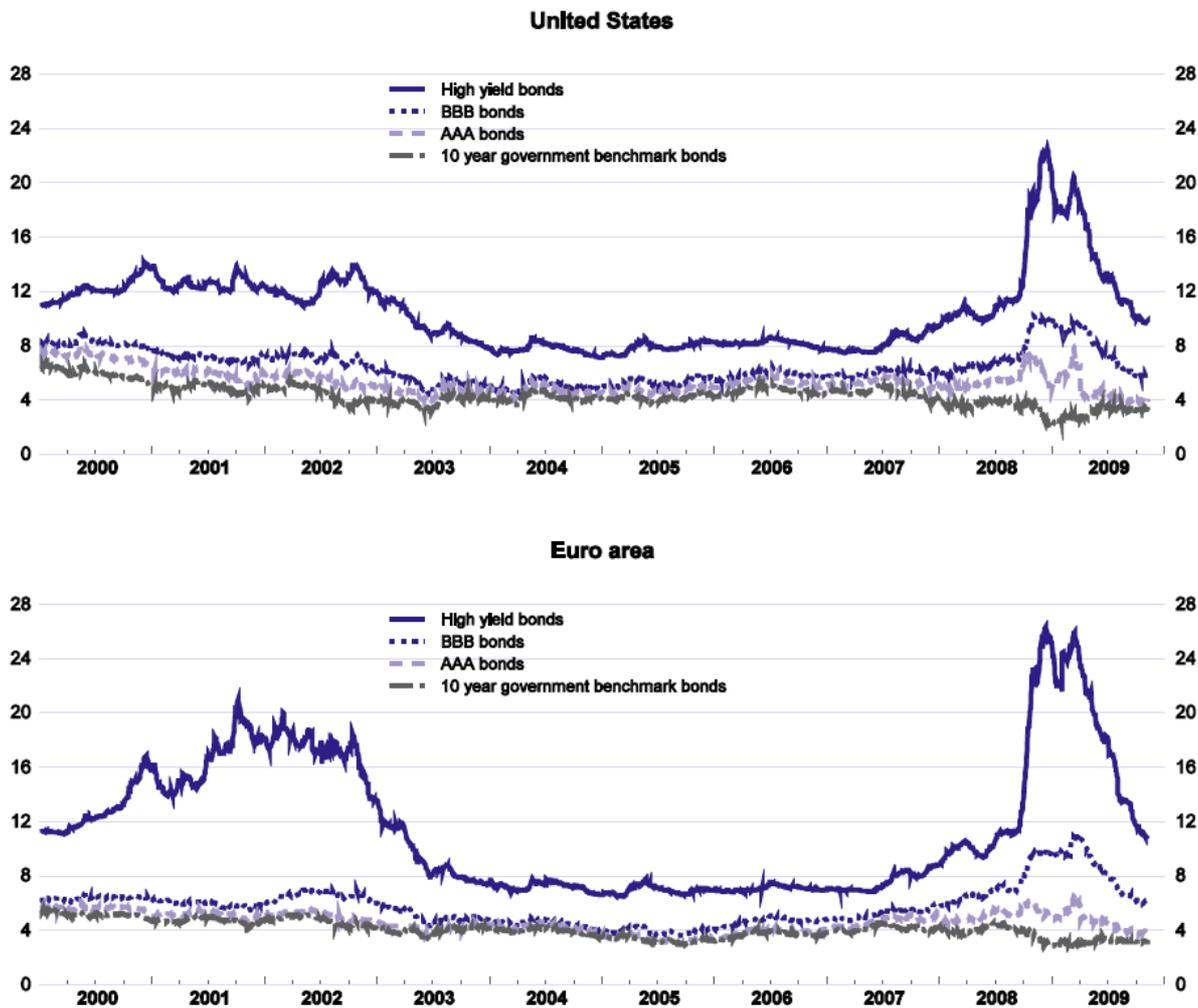
Figure 3 Money market conditions, three-month spreads



Note: Spread between three-month EURIBOR and EONIA swap index for euro area; spread between three-month LIBOR and overnight indexed swap for the United States and Japan.

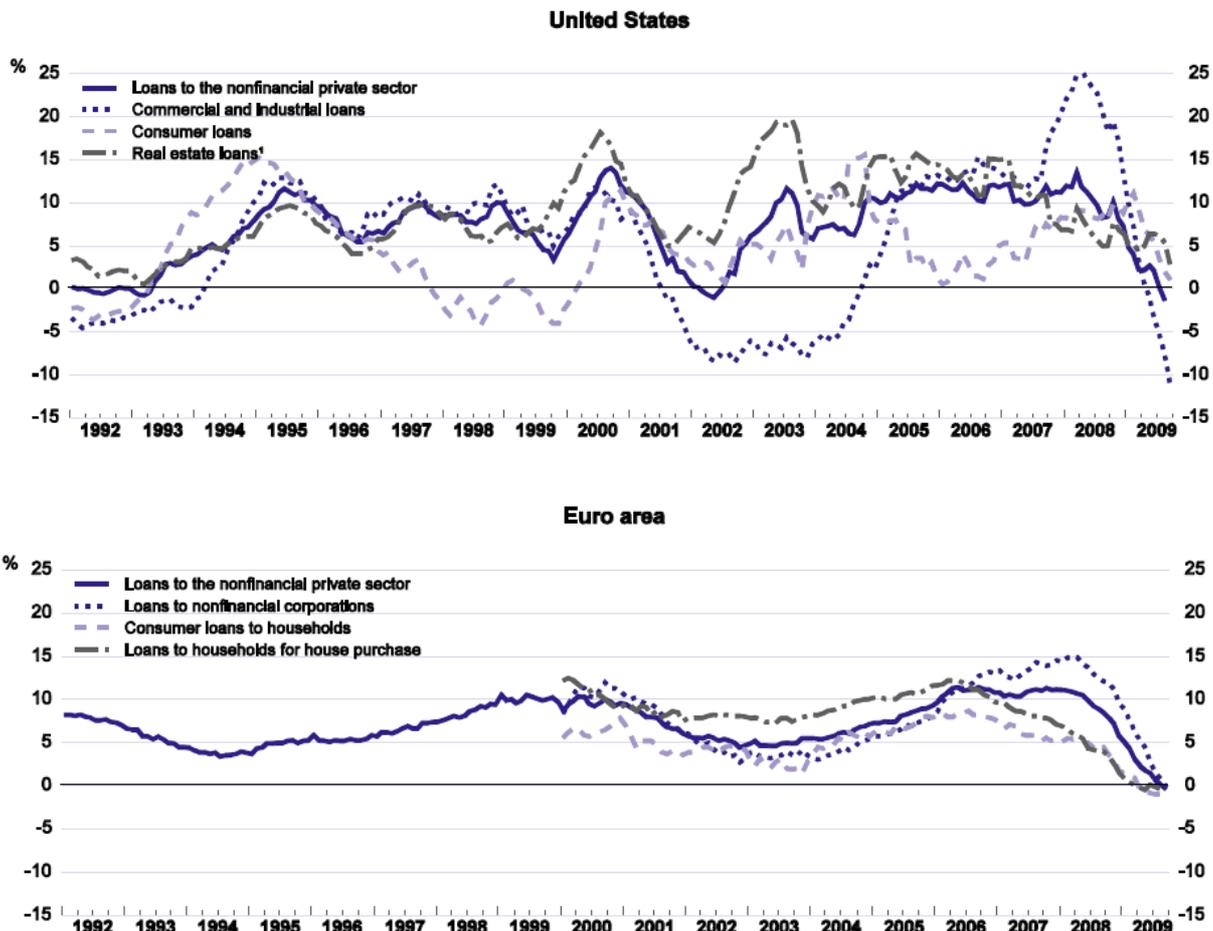
Source: OECD Economic Outlook, November 2009.

Figure 4 Corporate bond yields



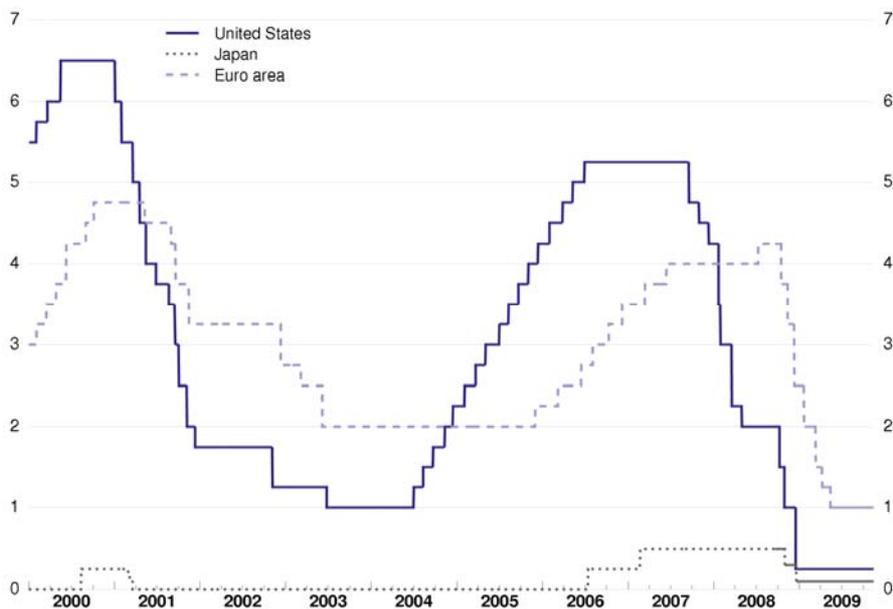
Source: OECD Economic Outlook, November 2009.

Figure 5 Bank lending, year-on-year growth rate



Source: OECD Economic Outlook, November 2009.

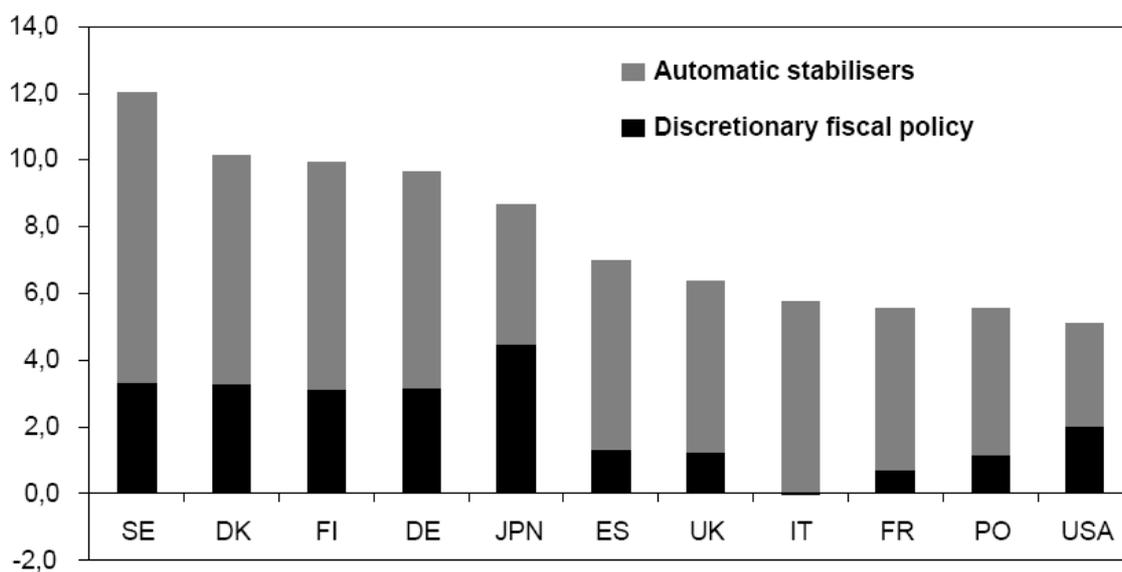
Figure 6 Central bank policy rates



Source: OECD.

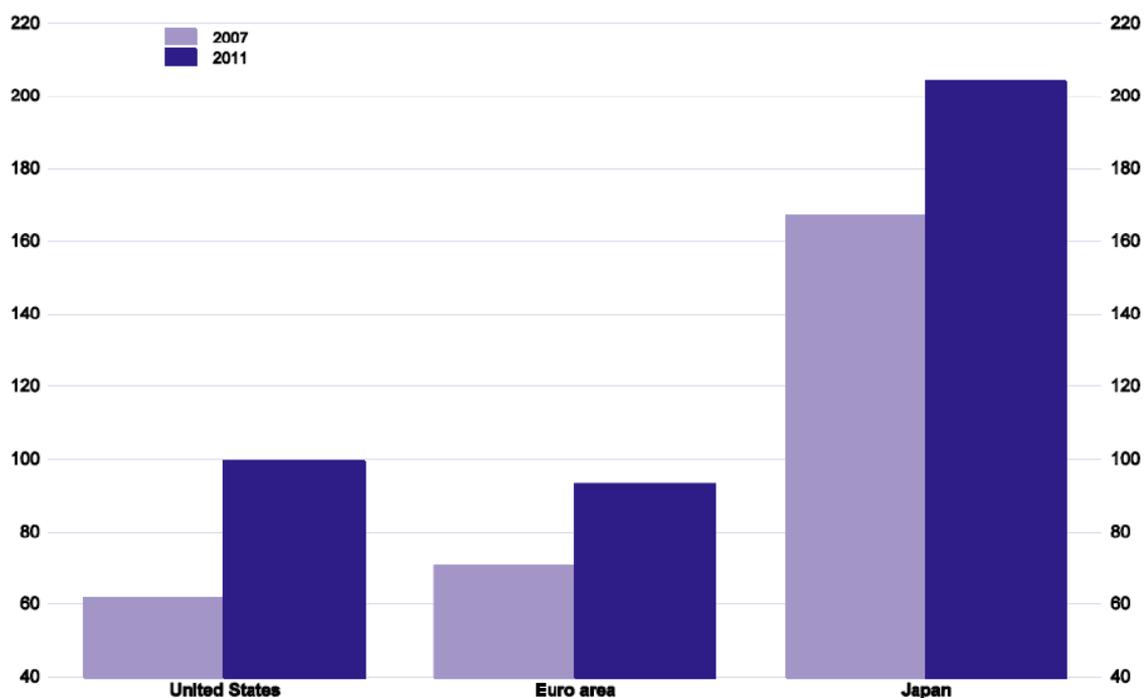
Figure 7 Size of the fiscal stimulus packages and automatic stabilisers 2009 and 2010

Per cent of GDP



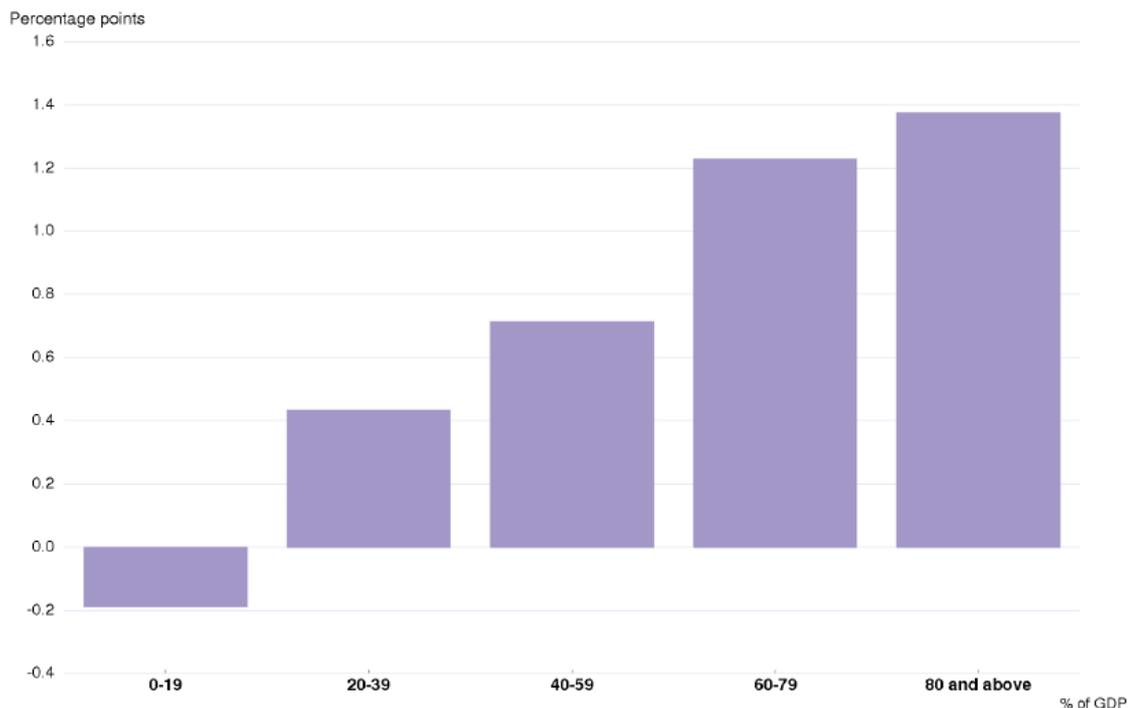
Source: OECD.

Figure 8 Government debt levels in per cent of nominal GDP



Source: OECD Economic Outlook, November 2009.

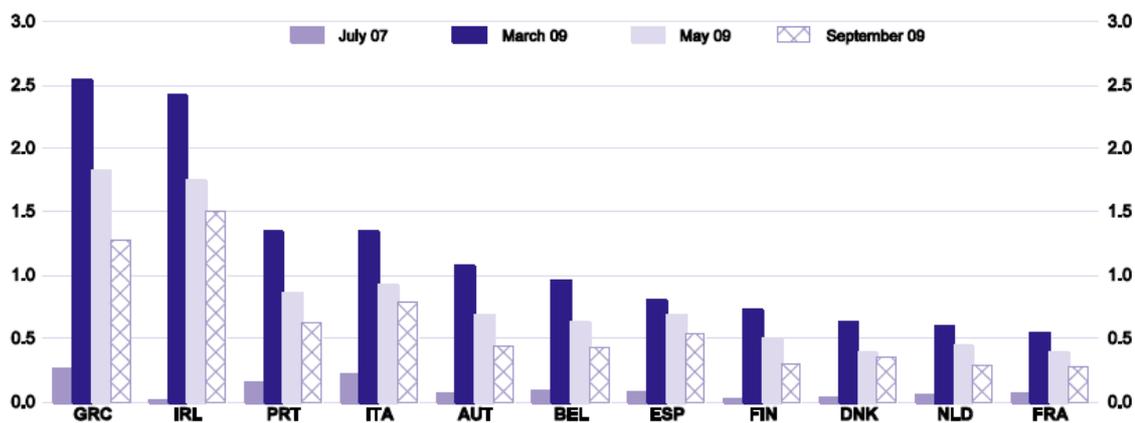
Figure 9 Spread between long-term and short-term interest rates versus gross government debt in per cent of GDP



Note: Bars represent average across all OECD countries for which data are available over the period 1994 to 2008. Short-term interest rates are typically rates on 3-month Treasury bills and long-term interest rates those on 10-year government bonds.

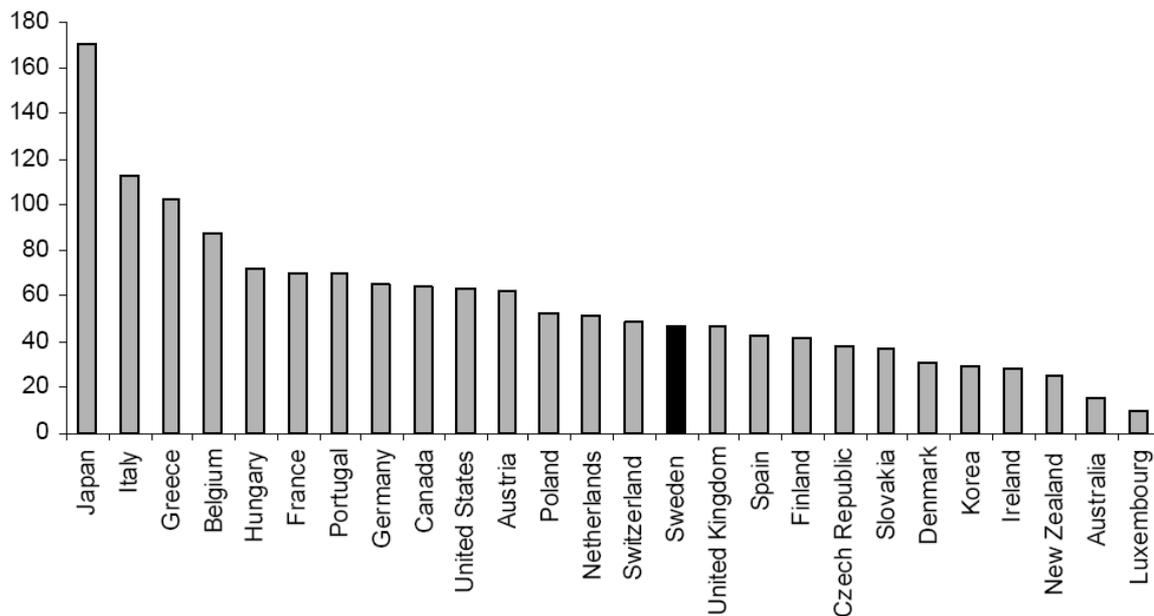
Source: OECD.

Figure 10 Sovereign bond spreads with German yield, percentage points



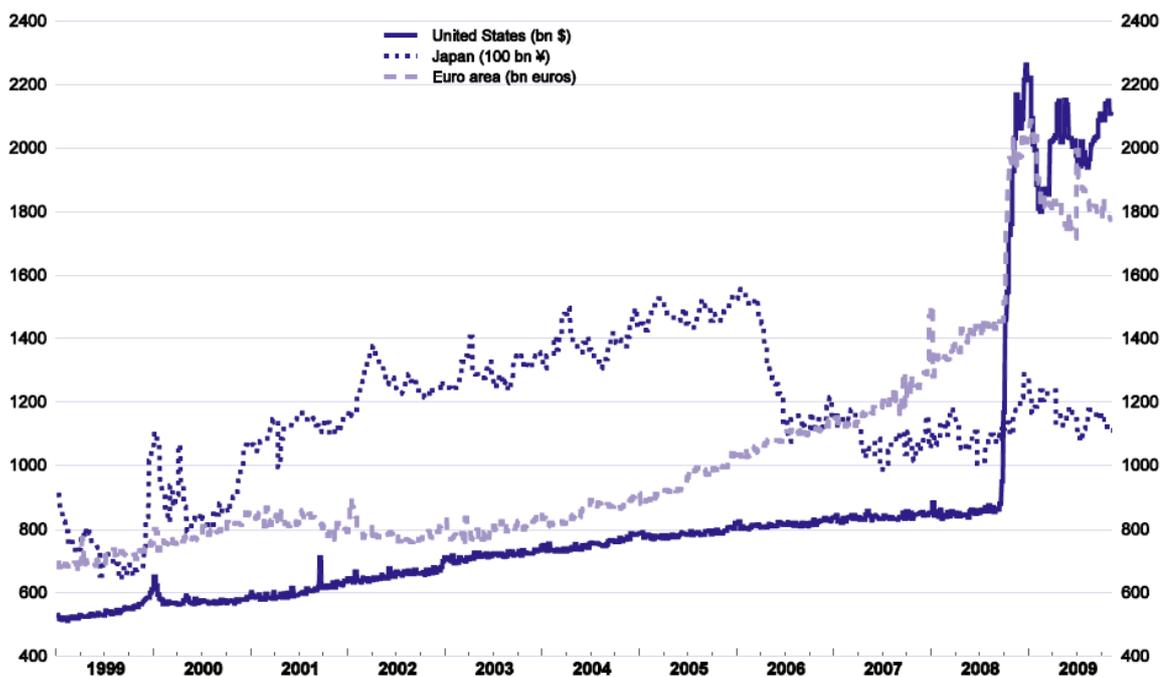
Source: OECD Economic Outlook, November 2009.

Figure 11 General government gross debt in per cent of GDP



Source: Swedish Fiscal Policy 2009, Swedish Fiscal Policy Council.

Figure 12 Central bank balance sheets



Source: OECD Economic Outlook, November 2009.

Table 1 Fiscal balance, per cent of GDP

	2009	2010
Denmark	-2.5	-5.4
Finland	-2.3	-4.8
Greece	-12.7	-9.8
Iceland	-15.7	-10.1
Ireland	-12.2	-12.2
Italy	-5.5	-5.4
Japan	-7.4	-8.2
Spain	-9.6	-8.5
Sweden	-2.0	-3.0
United Kingdom	-12.6	-13.3
United States	-11.2	-10.7
Euro area	-6.1	-6.7
Total OECD	-8.2	-8.3

Source: OECD.

Table 2 The S2-indicator on fiscal sustainability

Belgium	5.3
Denmark	-0.2
Estonia	1.0
France	5.6
Germany	4.2
Greece	14.1
Ireland	15.0
Italy	1.4
Latvia	9.9
Lithuania	7.1
Netherlands	6.9
Spain	11.8
Sweden	1.8
United Kingdom	12.4
Euro area	5.8
EU27	6.5

Source: The 2009 Fiscal Sustainability Report, European Commission.

Table 3 Change in the cyclically adjusted fiscal balance (net lending) in Sweden

	2008	2009	2010
2009 Budget Bill	0.7	-0.9	0.3
2010 Budget Bill	0.7	-0.9	-1.2

Sources: The 2009 and 2010 Government Budget Bills