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How to Manage a Financial Crisis from a Systemic Viewpoint

1 The Gordian Knot

In these times of debt crisis some observers have resorted to speaking of a "Gordian knot", implying that "cutting the knot" would put a quick and easy end to the problem. I must admit that this viewpoint leaves me surprised and slightly worried.

It reminds me of a story by the great novelist Manès Sperber: A figure in his writings is a boy, who was asked by the teacher: "What do you know about the Gordian knot?" The boy's answer is remarkable: "Nobody can solve the Gordian knot, including Alexander. But instead of admitting this, Alexander took the sword and cut the knot, what every stupid guy could have done. Henceforth, Alexander was called the Great." The teacher, who apparently admired historical heroes, was not amused: "Sit down; six", he said. Those times the marks ranged from "one" to "six", not from "AAA" to "D".

Another novelist, Erich Kästner, wrote in his essay *The Gordian Knot:* "If I had used my pocket knife to cut the knot of my shoestring my mother would have got angry." "You must not cut knots", she would have answered: "Shoestrings can be used again." Clearly, mothers have a better idea of how to deal with knots when they arise.

In my opinion, the moral of both these stories is similar to the lesson that can be learned from the current financial and sovereign debt crisis: There is no easy way to solve the crisis without tediously disentangling the knot, whether there is a sword or not. Cutting the knot is something different from solving it. And containing the crisis is something different from solving it.

2 The Loops of the Knot: Systemic and Fundamental Elements of the Current Crisis

Only a few terms have experienced such a surge in usage in recent years as the words *systemic* and *macroprudential*. But what is the difference between a systemic and a non-systemic event?

If an event is non-systemic it can be treated in isolation. In the case of the debt crisis, the debt problems of countries can and should be treated as a series of individual problems and not as a systemic problem affecting the euro area as a whole.



Things are different in the case of a systemic event, mainly due to the effect of contagion loops between the different sovereigns, the loops between the public sector and the financial sector, the contagion loops between different financial intermediaries and ultimately the feedback loops between the financial sector and the real economy.

The degree of financial integration in the euro area is such that if some sovereigns are pushed into a bad equilibrium this affects other countries. The banking system can become fragile. What starts as a liquidity problem can easily turn into a solvency problem. Strong externalities are created, mak-

ing it impossible to isolate the problem of one country from the rest of the euro area.

At the outset, the event might have originated locally, caused by local problems, in which case it might only be possible to solve it by addressing those root problems. In the meantime, however, we have seen how local problems can turn into a systemic problem.

For example, local problems in some countries arise from a low degree of competitiveness, unsustainable fiscal positions or a combination of both. The eventual solution is a gradual and steady improvement of their competitiveness and fiscal positions. There is no substitute for such an adjustment process at the local level. In the present situation, however, we may need additional instruments, for example firewalls or recapitalization measures, to address the systemic component.

Turning to another example, the interest rates of some countries proved too low during the first decade of the euro, leading to house price booms and credit growth in those countries. These two factors have contributed to the recent crisis. Again, local problems turned into a systemic problem. Here, the solution is a balance sheet adjustment of banks and households. And again there is no getting round this tedious approach. The instruments to address the systemic component that are now available may assist this process.

At the end of last year we saw clear signs of a systemic financial crisis. The provision of liquidity for a period of three years, together with measures to strengthen fiscal discipline and to restructure Greek debts in an orderly fashion, has managed to mitigate the stress to some extent; at least for some period of time. Recently, tensions in the market have renewed due to doubts of the solidity of the fiscal positions of

some countries. Moreover, market participants have realised that the loops of the knot between the public sector and the banking system in some countries have become tighter, not looser. This emphasizes the need for fiscal consolidation that is disentangling the knot.

3 Firewalls: A "Sword" for Cutting the Knot?

This characterization of the systemic component determines the rationale for a firewall and its design. Simply by building confidence, a firewall can prevent or mitigate contagion without actually having to be triggered. If triggered, it can help to prevent a country's liquidity problem from turning into a solvency problem. Moreover, it can buy time and serve as a tool for commitment to implement necessary reforms.

No doubt: A large and effective firewall can reduce the likelihood of being triggered. However, the major issue here is the risk arising from simultaneity of payouts. The greater the simultaneity, the less credible a firewall can be, because it cannot cover the financing needs of all countries simultaneously.

Thus, a firewall is limited by the capabilities of the individual contributors. In a crisis characterized by having a systemic component with a high degree of market integration and loops between the public sector and the banking sector the probability of coincident payouts seems to be high.

Proponents of a firewall to act as a "sword" for cutting the knot seem to ignore this fact. The challenge is considerably more complex. It requires a design that balances the confidence-building effects of an availability of sufficient funds where this is needed with the possibility that simultaneous payouts can overburden contributors.

Moreover, an appropriate design of firewalls has to take moral hazard considerations into account. In this context, moral hazard is a serious problem. As policies needed to generate a long-term solution are subject to complicated political processes, the political incentives to not follow through on those solutions can be strong. This would undermine what I consider to be the essential benefit of a credible firewall: Its potential ability to encourage prudent economic policies.

To summarize, financing by means of firewalls is no substitute for restoring solvency — or to go back to my original metaphor — it is not an effective sword for cutting the knot. This can only be achieved through economic adjustments and structural reforms, in which case a firewall may well be helpful.

4 Recapitalization: Another "Sword" for Cutting the Knot?

The loops that exist between the sovereign risks and the risks in the banking system in the current crisis make it necessary to address banking risks specifically. Capital buffers might offer an appropriate solution. The rationale for recapitalization was outlined in the Bundesbank's most recent Financial Stability Review. I quote:

"[...], in times of systemic stress, markets cease to make broad based distinctions because [...] it is almost impossible ex ante to forecast the position of an individual bank. [...] Given the high degree of interconnectedness and the risk of contagion, this challenge demands not just an adequate capitalization of national banking systems but also convincing solutions that are coordinated across Europe."

In principle, adequate capital buffers strengthen the resilience of the financial sector, because they interrupt the sequential failure of institutions and mitigate contagion risks. They can reduce the procyclicality present in the system as they create room for manoeuvre before risky assets and credit supply have to be reduced in case a systemic event occurs.

In an ideal world these buffers are set up during a boom period; they are to be used when a crisis emerged, which is the idea behind countercyclical capital buffers. However, if the buffers are low relative to the risks that are building up when the event has already occurred there is the risk of excess deleveraging and procyclicality. This is where public aid comes into play. This may assist the recapitalization of the banking system thereby counterbalancing excessive deleveraging pressure.

As you know, this is the strategy followed by the European and national authorities, combined with some moral persuasion to abstain from excess deleveraging. And it looks like this strategy



is going to be successful. At least this is what the capitalization plans of banks indicate. Most of them intend to adjust their liability side to a large extent, not their asset side.

Of course, in some countries there is nevertheless some deleveraging pressure; but this is, or was, due to the refi-

nancing needs of their banks and is not caused by the recapitalization plan itself. On the contrary, if a loss in confidence is a major reason for the refinancing problems, restoring confidence through publicly assisted recapitalization might be a key tool to mitigate excess deleveraging.

Moreover, deleveraging consists of both structural and cyclical components. It cannot easily be separated into "good" deleveraging which enforces the necessary adjustment of business models and "bad" deleveraging which implies a reduction of healthy business.

Again, publicly supported recapitalization is not a sword for cutting the knot, but rather an instrument to assist necessary adjustment.



5 Disentangling the Knot: Addressing Systemic Risks by the ESRB

The discussion so far has shown that in the modern-day financial system the loops of the knot are intertwined in complex, multidimensional ways. This calls for a coherent and systematic approach to addressing the problems. Since the beginning of 2011, with the European Systemic Risk Board (ESRB), Europe has had a new macroprudential oversight body for analyzing systemic risks with formal "warnings" and "recommendations" to be deployed as formal macroprudential instruments. The ESRB comprises all European and national supervisory authorities as well as central banks, with the latter playing a dominant role.

Given its institutional structure and the nature of its instruments, the comparative advantage of the ESRB lies not with crisis management. It lies less than ever with constructing "swords" for cutting the knot, but in crisis prevention and mitigation, that is in disentangling the knot.

At an early stage, the ESRB can identify fundamental and local factors with the potential to prepare the ground for a systemic event. It can also recommend counteractive regulatory measures. This gives it the chance to address potentially systemic risks at an early point in the cycle. Once successfully implemented it can unburden itself, for example, of its monetary or fiscal policy tasks. This allows policymakers in those areas to concentrate on their own targets, leaving it to those responsible for macroprudential oversight to safeguard financial stability.

For example, if it is the case that low interest rates lead to excessive leverage or to excessive risk-taking or to house price bubbles in some countries in a monetary union there is nothing that monetary policy can do about this. By contrast, once we have macroprudential instruments at our disposal we can use a leverage ratio or a loan to value ratio, just to mention two options. The ESRB has recognized the importance of having sufficient flexibility. In an open letter to EU authorities it states: "Macroprudential authorities at both Member State and Union level

need discretion to require additional disclosures and to tighten temporarily a diverse range of (Pillar I) calibrations."

Establishing a macroprudential policy framework in a monetary union reminds me of a complicated balancing act. That is, first, to find the right balance between a sophisticated system which is fine-tuned to any marginal change in systemic risk and an approach based on easy-to-implement rules. The second challenge is to find enough flexibility when implementing instruments without endangering the level playing field. So far the discussion is not completed and requires also some practical experience.

6 Conclusion

So what is the moral of my speech? Clearly, I have no sword to remedy the situation. And for those who wish they had such a sword, the idea of undoing knots may sound like "muddling through". But to my mind, this stony road of muddling through, this long-term disentangling of the knot, is vastly preferable to the alternative of cutting the knot. It means doing things the hard way and entails much future sacrifice and commitment. At the end of the day I have nothing to offer but "toil" and "sweat".

Nevertheless, thank you very much for your attention.