

The World Crisis: Reforming the International Financial System

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No one any longer doubts that this is the most serious crisis that the world economy has faced since at least the 1930s. Nor is there any remaining doubt that this crisis affects virtually all areas, developed and developing, with large reserves or small. (The only exceptions are a handful of countries, like Nigeria, that are not integrated into the world financial market, export overwhelmingly primary commodities, in which the central government receives most of the revenue, and that budgeted for prices that now appear realistic but seemed conservative a year ago.) It is a crisis that started in the financial sector of what was thought of as the country with the most-sophisticated financial system, and that has spread almost universally and with startling rapidity by virtue of either financial or trade interdependence or both.

Some of us thought that a number of the crises of recent decades (notably the East Asian crisis) better reflected the inadequacies of the financial system than of the victims. This time around no one doubts that the blame lies with the financial system and those who have operated it. Preventing a recurrence of this type of crisis, which is a quite different exercise from overcoming the present crisis, accordingly demands reforms to the financial system. The question discussed in this essay is: What reforms? What needs to change?

Diagnosing the Problems

A necessary precondition to designing reforms is to agree on the diagnosis of what went wrong with the system that gave rise to the crisis. In the most general terms, there seem to be three candidates: overly large banks, excessively expansionary policies, and a misguided system of regulation.

We had become accustomed to the doctrine that some financial institutions are “too big to fail.”¹ After Iceland, it seems that this doctrine has to be supplemented with a recognition that some banks are too big to be saved. Put the two together and one comes to the conclusion that some banks have become too big to exist. Martin Wolf put the same point in the *Financial Times* (March 4):

We are painfully learning that the world's mega-banks are too complex to manage, too big to fail and too hard to restructure. Nobody would wish to start from here. But, as worries in the stock market show, banks must be fixed, in an orderly and systematic way.

¹ Indeed, there was a rumor in the United States that Wells Fargo's main motive in bidding to take over Wachovia in 2008 had been a conviction that this would make it too big to be allowed to fail.

It seems that the Rockefeller/Standard Oil moment has arrived for finance. The policy implication is that, at the very least, we should aim at restricting the growth of banks. More radically, policy should try to break up the more monstrous of the financial superstores that now exist. This would indeed mark an abrupt and dramatic reversal of policy, which even in this crisis has been encouraging the continued amalgamation of banks, such as the absorption of HBOS by Lloyd's (to the obvious detriment of the latter). It would have made more sense (and been kinder to the shareholders of Lloyd's) for the British government to have nationalized HBOS and subsequently to privatize its components, calling them, say, the Halifax and the Bank of Scotland.

Second, it seems to be generally agreed that monetary policy in the United States and to a lesser extent also elsewhere remained too expansionary for too long. But while this may be agreed, the antidote is also generally agreed. In the memorable phrase of Chairman Burns, it is the duty of the central bank to remove the punchbowl just as the party is getting going. One reason for the current crisis is that this was not done during the preceding boom.

The one question that needs to be raised is whether the determination of the monetary authorities to obey Burns' famous dictum might be strengthened by resort to objective indicators of whether the system is becoming overheated. The answer depends critically upon whether one can identify sufficiently reliable objective indicators. We believe that this is possible, in particular by comparing asset prices with a norm based on historical experience. When equity prices are so high that price/earnings ratios are higher than they have customarily been, that is a pretty reliable indicator that the stock market is suffering from irrational exuberance. One possible reaction is to tighten monetary policy. When housing prices have risen so much that the ratio between house prices and incomes is out of line with historical experience, the central bank should worry that policy is too expansionary. No one imagines that it will prove possible to identify equilibrium prices with any precision, any more than it is possible to identify precise figures for equilibrium exchange rates, but our view is that it is possible to identify approximate estimates and to use these in the policymaking process.

Third, there is a lot more to be said about inadequacies of the regulatory regime, because we share the view of this year's Geneva Report (Brunnermeier et al. 2009) that this is fundamentally misconceived. The basis of supervision was the belief that the system as a whole is sound if each institution that comprises it is sound, in the sense that it is proof with high probability against a series of shocks drawn from a normal distribution. A key feature of the normal distribution is that it is generated by shocks that are uncorrelated with other shocks. But in fact shocks to the financial system are highly interdependent, so that banks face probability distributions with "fat tails." Market operators who had been seduced by the models that assumed that shocks were normally distributed complained that they had been faced by days with losses over 20 standard deviations above the average. The truth is that they had made wrong assumptions.

One of the facts about the present crisis is that before it started we were convinced that the banks were well capitalized. By the standards of Basel, they certainly were. Yet in fact we have witnessed a series of catastrophes due to banks' inadequate capitalization: not only to the US investment banks, but also to American icons like Citi and Bank of America and to European banks like Royal Bank of Scotland, UBS, and the Icelandic banks. The conclusion has to be that something is sadly wrong with the system of bank regulation.

The problem is that crises and booms are self-propagating. A crisis feeds on itself because, for example, a restriction of credit by one bank reduces the prospects of every other bank receiving

timely service of its loans. An increase in volatility means that those who have borrowed on margin face margin calls and are therefore forced to sell assets, which depresses asset prices, worsens liquidity, widens risk spreads, and leads to a further increase in volatility. Firesales of assets by one institution reduce the mark-to-market value of the assets held by other institutions. This particular crisis contained additional channels by which an intensification of the crisis in turn caused further difficulties, because of the prevalence of the “toxic assets” that had been created in the days of financial optimism. Subprime mortgages were securitized, insured via credit-default swaps (CDSs), given AAA credit ratings by credit rating agencies (for a fee), and then moved off balance sheets into special investment vehicles (SIVs) without capital requirements or further incorporated into collateralized debt obligations (CDOs). To reassure investors about the liquidity of these assets, the issuing banks gave contingent buy-back guarantees, which led to increased capital needs when they had to be honored. When defaults shot up in the subprime market as housing prices began their inevitable descent, no one could figure out what these assets were worth (they still haven’t figured it out) and hence trust evaporated. Without trust in the viability of the counterparties, the interbank market froze.

Reforming Regulation

We are in agreement with the Geneva Report that the system of regulation contains two crippling weaknesses. First, it is exclusively microprudential, containing not a hint of recognition that the major problems arise due to the correlation of risks. Indeed, the existing regulatory system not only fails to recognize that the dangers in the system are to a large extent due to cyclicalities, but itself tends to reinforce these procyclical tendencies. Second, it concentrates entirely on the composition of a bank’s assets, and neglects completely whether those assets are financed in inherently stable ways or by borrowing short term in the interbank market.

The Geneva Report proposes to tackle the first weakness by adding a system of macroprudential regulation to the existing system of microprudential regulation. This would increase banks’ capital-asset ratios (CARs) during booms and reduce them in periods of crisis, providing a deterrent to increasing credit when there is an abundance of credit available and an incentive to lend more at times when the system as a whole is short of lending.

The second fundamental change to the regulatory system it proposes addresses the observation that banks and other financial intermediaries engage in the risky practice of borrowing short and lending long. Some of the institutions that have gone bust in the crisis, like Northern Rock, had a quite exemplary asset side of the balance sheet, and were therefore judged to be just fine by the regulators. But they depended on borrowing from the short-term (interbank) market, and so when that dried up they were unable to continue financing all the loans they had made. The answer is to penalize maturity mismatches through increased CARs. This would build in an incentive to obtain finance that can be relied upon to be sustainable and would provide a deterrent to excessive expansion of credit.

Obviously these two proposals raise a number of questions. For example, it is not enough to decide that regulation should combine macro and microprudential elements, it is necessary to decide how they should be combined. The proposal in the Geneva Report is that they should be combined multiplicatively. The microprudential regulation should be a figure determined as

already agreed in the Basel agreement.² It should be multiplied by a figure (which might be greater than, equal to, or, as it ought to be at the moment, less than one) representing macroprudential provisions.

There has been a longstanding discussion as to who should regulate, the host country or the home country, when these differ. Consistent with the argument in the Geneva Report (though not spelled out there), we believe that a natural resolution of this dispute is to provide that macro regulation be undertaken by the host country and micro regulation by the home country. That is, the macroprudential figure would be chosen by the relevant authority (such as the central bank) in the host country, and the microprudential figure by the regulatory authority in the home country.³ This is because macroeconomic conditions differ across countries and one wishes to ensure that all the institutions operating in a particular country are subjected to the same macro incentives. Microprudential regulations are likely to be fairly similar across countries because of Basel, but the primary need must be to ensure that the whole institution is sound.

Another issue concerns the indicators that should be used to determine the macroprudential figure. The Geneva Report suggests leverage ratios, credit expansion, and maturity mismatches.⁴ The argument is that these variables tend to be strongly associated with excessive rates of credit growth, which is what one wishes to penalize. We wish to urge the virtues of using asset prices for this purpose, probably in addition to those variables but conceivably in place of them. It is true that one does not know at all precisely the equilibrium level of asset prices, and clearly one needs to compare actual with equilibrium asset prices in order to use asset prices as an indicator for setting the macroprudential figure. But even if precise knowledge is impossible, imprecise estimates are obtainable by comparing the ratio of housing prices to incomes or equity prices to those implied by a price/earnings ratio at average historical levels. And the use of asset prices in this connection has the same virtue as adoption of an inflation target in preference to a Keynesian policy of targeting unemployment at what is believed to be its natural rate: In most cases they give the same result, but inflation targeting provides a stabilizing feedback if the natural rate is misestimated. Similarly, targeting asset prices provides insurance against the possibility of a slow build-up of disequilibrium.

Turning now to the second proposal, it is of course true that a major purpose of financial intermediation in general, and banking in particular, is to provide maturity transformation. Banks take sight (or short-term) deposits and make relatively long-term loans. Presumably the way to square this circle is not to look at the legal term of financial intermediary liabilities, but to examine the probability that more than a certain percentage of deposits will be withdrawn. It would be important to use a reference period that is long enough to include financial crises and not to repeat the error of regulators in the past few years of building in procyclicality by using recent reference periods that had no crises and therefore eased regulation just when it should have been toughened. But if only 10 percent of assets had been withdrawn in a week, even in the worst week in the past 50 years, then presumably one should count the maturity of “sight deposits” as 10 percent on demand and 90 percent on longer maturities. This appears to be the appropriate way to give banks an incentive to build a base of deposits rather than relying on the interbank market.

² Basel II essentially focused on making this measure more sophisticated. Whether or not one believes that it did a good job in this, there can be no denying that it missed the main point.

³ It may well be that a corollary of this proposal is that one should prohibit foreign branches and require banks that wish to operate in more than one country to set up foreign subsidiaries.

⁴ It suggests that the numerical parameters be chosen after a regression analysis.

Another big issue is whether to penalize any security mismatch or only those above a defined threshold. The disadvantage of the latter is that bank A could lend to bank B for a period just below the threshold, and B make a somewhat longer-term loan (of the term of its loan plus the threshold minus epsilon) to C, which makes a similar structured loan to D, etc. The end result would be that the system as a whole would have engaged in maturity transformation even though no individual bank had a seriously unbalanced position. The right answer is probably to punish any maturity mismatch, even if small, but the issue bears consideration.

A third big issue is whether to have a maturity mismatch influence the macroeconomic stabilization figure or the microeconomic stabilization one. One ought to answer this question by asking whether a maturity mismatch primarily influences the danger of excess demand, or the danger that it would lead to insolvency for a particular institution. It was previously noted that maturity mismatches are one of the factors that the Geneva Report argued ought to help determine the macroprudential number, and we consider this to be logical. But what is relevant in this context is the average maturity mismatch that prevails in a particular country. The maturity mismatch in a particular company is clearly a microeconomic factor. In other words maturity mismatches have a role to play in determining both the macro and micro factors, but they would be taken into account in different ways. A firm would be directly affected by its own maturity mismatch through its microeconomic prudential requirement.

Although we regard the addition of a macroprudential requirement and the penalization of maturity mismatches as the two changes in the regulatory regime of fundamental importance to improving the performance of the latter, there are a number of other changes that ought to be made. For example, institutions originating mortgages ought to be legally required to keep a percentage of the value of the loan on their own books, rather than selling the whole loan on to third parties. This would have given the originators an incentive to continue caring about the performance of the loans they originated and avoid making loans that were in serious danger of going bad after a certain period of time.

Similarly, special investment vehicles (SIVs) ought to be required to hold the same CARs as the institutions that sponsor them. Since the only purpose of creating SIVs was to economize on regulatory capital, this would destroy the incentive for creating them.

Insurance companies should only be allowed to issue a volume of credit default swaps (CDSs) that they can be sure of honoring if all the claims are presented simultaneously. The practice of issuing massive quantities of CDSs that an inappropriate mathematical model assured would not be presented en masse (and booking the premia as a part of profits that thus enhanced managerial salaries) is clearly (post-AIG) irresponsible.

It is widely agreed that credit rating agencies (CRAs) had far too much power before the crisis. It is quite clear that, even if certain institutions are prohibited from buying assets that have been rated less than investment grade, the holder should not be compelled to sell them simply because the CRA decides to downgrade the issuer. This removes the responsibility of the purchaser for considering whether they are still the best use of its funds, and is one factor that makes the regulatory regime procyclical. Second, it makes sense to compel CRAs to hive off their consulting activities from their main activity of credit assessment, so that they cannot profit by telling an issuer that if only he asked the right person he could receive an AAA rating. Third, it is surely wrong to give this quasi-official role to CRAs while allowing them to escape all accountability for their actions. One may hesitate to compel them to receive a certification from some bureaucrat, but surely they need to be compelled to put their long-term record on public display for

comment and criticism. Fourth, the method of payment—by the asset issuers who were to be rated—was asking for trouble. It is the users of the ratings, those who may purchase the securities being issued, who should pay.

Yet another failure of the regulatory system that needs to be fixed concerns the over-the-counter (OTC) market in CDSs that originated from transactions between banks and their clients. An OTC market allows the tailoring of contracts to the particular needs of the clients, but at the cost of making the market more dangerous because there is no systematic recording of contracts, and certainly no netting. This is an unacceptably high cost except in those specific instances where there would be major advantages in tailoring. A charge on OTC contracts would provide an appropriate economic incentive, allowing individual agents to decide for themselves whether or not to use a standard, market-based contract or an OTC contract. Banks and other financial institutions should therefore be required to hold capital against their CDS liabilities, and at a higher rate against OTC contracts.

Capital Controls

One of the issues that arises from the crisis is whether it has implications for the advisability of adopting capital controls. The most pertinent evidence is the contrast between the fortunes of Eastern Europe on the one hand and East Asia on the other. By following the strategy of borrowing freely to finance large current account deficits, Eastern Europe made itself highly vulnerable to the crisis. In contrast, East Asia pursued a strategy of running large current account surpluses. It is not that this region enforced capital controls: Capital still flowed in⁵ but it was reexported, along with the proceeds of the current account surplus. The result was that there was less overhang of foreign debt to flee when world conditions turned adverse. The same result could have been achieved without the diversion of about 10 percent of resources from investment into the balance of payments needed to build up reserves, which reduced growth rates by about a third; but maintaining a safe reserve position would then have required capital controls.

Another question to ask is whether the presence of capital controls increased the freedom to respond to the crisis with measures that can be expected to limit its severity. At the moment the evidence on this issue seems to be overwhelmingly theoretical rather than empirical. The crisis has been transmitted to the emerging economies by the two channels of trade and finance. A loss of export markets is deflationary for output, the countering of which requires treatment similar to that in developed countries: fiscal expansion. Insofar as it was finance that transmitted the crisis, the effect has been to depreciate exchange rates (where exchange rates were free to adjust), which has tended to mitigate the output decline without the need for policy action. But the net effect everywhere, or almost everywhere, has been to reduce demand and therefore to create a case for fiscal expansion. One concern about fiscal expansion is precisely that it will encourage a payments deficit, by means of (i) the current account deterioration that comes about as a result of higher income, and (ii) the capital outflow produced by lower interest rates and investors' concerns about expansionary policies. Capital outflows can be curbed by resorting to capital controls, although one needs to recognize that some investors are also likely to be concerned by

⁵ Except in Thailand after the apparent fiasco of adopting capital controls that were then abandoned three weeks later. The interesting fact is that the capital inflow did not resume after their abandonment: Investors apparently took the temporary act of reintroducing controls as proof that Thailand was unsafe for foreign capital. In other words, the Thai controls achieved their objective.

the imposition of capital controls and weigh damage done to confidence by the latter against the direct relief occasioned by capital controls. It is this tradeoff on which one would wish to see empirical evidence rather than theoretical speculation. Although we know of no source of such evidence, we are reasonably confident of what it will in due course show.

The case for adopting capital controls as countercyclical macroeconomic policy, at least on some types of capital, has probably (in our view) been strengthened by the crisis.

Conclusions

Believe it or not, there were economists who claimed during the boom years that the social costs of crises, and those of unemployment in general, are negligibly small. This is hardly a tenable position to hold today. Even if this crisis is mastered as quickly as the optimists hope, it will have had a crippling (if temporary) effect on the level of output, as well as burdening the public sector with debt and causing a substantial and usually perverse redistribution of income.

It is important to try to make the system less susceptible to crises in the future. We have argued that this requires a three-point program: a reversal of the past policy of encouraging bank mergers and its replacement by a vigorous antitrust policy directed at the banking sector; a determination to make monetary policy anticyclical, aided by the adoption of asset-price indicators; and reform of the regulatory system. There are a large number of reforms that are desirable, but the key ones are addition of macroprudential regulations to the existing system of purely microeconomic regulation, and the penalization of maturity mismatches in the financial system.

References

Brunnermeier, Markus, Andrew Crockett, Charles Goodhart, Avinash Persaud, and Hyun Shin. 2009. *The Fundamental Principles of Financial Regulation*. Geneva: Geneva Reports on the World Economy 11.