Past financial crises, the current financial turmoil, and the need for a new macrofinancial stability framework

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Abstract:
While it is tempting to focus on new financial innovations in helping explain recent financial turmoil, more traditional causes should not be overlooked. As on many previous occasions, very rapid credit growth led to major increases in asset prices, which in turn encouraged consumption and investment decisions which could yet prove unsustainable. It is suggested in this presentation that the natural “procyclicality” of the financial system could be contained through the introduction of a “New Macrofinancial Stability Framework”. It is recognised that there are many practical impediments to realising such a suggestion, but there are also grounds for belief that these impediments could be removed.
Introduction

The last time Charles Goodhart invited me to address a conference at the LSE was in 1994, just after I had joined the Bank for International Settlements. I was supposed to talk about some aspect of derivatives markets and was terrified by a "known unknown": I was almost wholly ignorant of the topic in question. Today, in talking about the lessons to be learned from the current market turmoil, I am equally discomforted. However, it is by a different prospect, the possible emergence of an "unknown unknown". Virtually every day brings a new surprise in financial markets and, as a result, it does not seem improbable that still more unexpected events might be in the offing. This, together with the fact that the turmoil shows no clear sign of ending, also implies that any lessons drawn, based only on events to date, should be treated as highly preliminary.

Nevertheless, I am fortunate in that Charles has specifically asked me to "turn my attention to means of preventing such developments in the future". In this regard, I will evidently make some suggestions based on these recent events. But I will also build on the work on this specific topic carried out by myself, Claudio Borio, and other colleagues at the BIS over the course of many years. Those interested in the related publications can find most of them on the BIS website.

Perhaps the first and crucial point to make is that proposing solutions first demands agreement on the nature of the problem. What are the underlying causes of the current financial turmoil? Unfortunately, there are least two schools of thought in this regard, though they may in reality be complementary explanations requiring a wider set of solutions to respond to each. The first one I will characterise as the school of "what is different". The second, as the school of "what is the same". Since I sense the former school is currently in the ascendancy, let me today put more emphasis on the latter. Hopefully, this will help ensure that its important insights are given adequate attention. In addition, I must admit that such a bias is also consistent with my personal views. I, along with some BIS colleagues, have contended for years that the financial system is inherently procyclical and thus chronically prone to bubble-like behaviour. This has led us to the policy conclusion that we need a "New Macrofinancial Stability Framework" to contain such tendencies, measures which go well beyond recommendations to improve "what is different". The difficulties we face today in financial markets, with their potential to have significant effects on the real economy, indicate clearly that the costs of not having such a framework could be large.

What is different about the current market turmoil?

The school of "what is different" focuses on new developments in financial markets, particularly those that have given this period of turmoil a highly idiosyncratic flavour. Emphasis is put on the massive expansion of the subprime mortgage market in the United States, the growing use by banks of the originate and distribute model, the reliance on off-balance sheet vehicles, the development of new structured products, and the reliance on ratings agencies in marketing them.

These new elements, originally thought likely to produce a welcome spreading and diversification of risk bearing, seem instead to have materially reduced the quality of credit assessments and also led to increased opacity. The result has been the generation of enormous uncertainty both about how large the prospective losses from defaults might be, and about where those losses might be concentrated. In this environment, everyone has become suspect, including the large banks at the heart of the financial system. Market liquidity and funding liquidity dried up, and the interbank term market effectively closed down. Moreover, there were significant knock-on effects, initially on other markets that rely on the
interbank market for price fixing, but subsequently on a whole host of other markets where asset prices were considered to be richly valued.

Evidently, if it is these new market developments that have been responsible for the observed turmoil, then this suggests solutions that seek to preserve the benefits of the new products while reducing the unwelcome side effects. In the short term, this would imply injections of liquidity by central banks, and potentially other government agencies, to reliquify markets. It would also seem to justify efforts to quantify losses and to quickly reveal them so that uncertainty can be reduced, again with a view to reliquifying markets. Longer-term, such an approach would look for improvements with respect to each of the new financial trends referred to above. For example, the incentive structure to ensure “due diligence” within the originate and distribute model should be strengthened. Off-balance vehicles should face significant charges for backup liquidity lines provided by banks. And ratings agencies should be encouraged to recognise and publicise the difficulties inherent in providing ratings for structured products. Indeed, they should sometimes be prepared to turn down the fees offered to provide such ratings, on the grounds that they might be so prone to substantial change as to render them useless.

Measures of this sort to improve the functioning of the financial system, insofar as it is now “different”, must clearly be seen as useful. My concern, however, is that they do not go far enough and thus fail to guard against an old temptation. John Kenneth Galbraith has noted that, in the aftermath of most historical bubbles, the focus of attention shifted to new instruments and techniques and the role they played in the process, while the key factor – leveraged speculation – was commonly ignored. Evidently, it is more comfortable for all concerned to blame the essentially unpredictable side effects of new developments than to admit to having failed to see the build-up of all too traditional exposures. This brings me to the second school of thought.

What is the same about the current market turmoil?

We have had recurrent financial and economic crises over many centuries. Further back in history, they had mostly to do with sovereign defaults, commonly on debts incurred to finance wars. More recently, private sector defaults have been at the heart of things. Moreover, when we consider this latter set of crises (which would certainly include the Great Depression in the United States, Japan in the 1990s, Southeast Asia in the years following 1997, and the collapse of the Nasdaq in 2001), they have many common characteristics. In particular, there are clear similarities in what happened, why it happened, and when it happened.

Consider first what happened. In virtually every case, the crisis was preceded by very rapid credit expansion, which manifested itself in part in higher asset prices. These gains, of course, provided the collateral to justify even more lending. The euphoria generated by such gains also seemed to affect both the perception of risk and the appetite for risk-taking, on the side of both lenders and borrowers. As a result, leverage increased even as the general quality of credits deteriorated, although this was commonly not perceived at the time. In addition, given such a financial environment, there were often important changes in spending patterns. These changes affected investment, consumption and sometimes both, with levels and composition often showing marked deviations from long-term trends. At a certain point, usually when earlier expectations about profits or future income growth began to look unrealistic, this whole endogenous process went into reverse. In effect, boom turned to bust, with the economic damage on the downside commonly, but not universally, being aggravated by stress within the financial system. Evidently, not every episode was faithful in every way to the model described, but the general description of what happened seems appropriate.

As to why there seems to have been this bias to procyclicality, two very “human” traits can be identified. The first seems to have been (and remains) a persistent tendency to
extrapolate recorded returns and to discount risks inappropriately. Recently, to the extent that new instruments allowed risks to be pushed out into the tails of distributions, the discount became so great as to imply that risks had effectively disappeared. Consider, as recent examples, the widespread purchase of super-senior tranches of CDOs (since massively downgraded), the marked increase in the writing of out-of-the-money options (including CDSs), the participation in FX carry trades, and the use of SIVs by banks. All of these strategies involve obtaining steady returns upfront at the cost of incurring major exposure to low-probability but high-cost events, including reputation loss. The second failing has been the inability to forecast outcomes arising from processes where all the variables are highly endogenous. Since it is the endogeneity that produces the “fat tail” results, this failure has had a major impact on the capacity to properly assess risks in making investment judgments. Evidently, if we are talking about the influence of human nature in the past, these shortcomings might also have to be confronted today.

As to when the boom turns to bust, two observations can be made on the basis of the historical evidence. The first is that the moment of change generally arrived completely unexpectedly, with the trigger for the event commonly being far too inconsequential to explain the resulting mayhem. This is precisely because a “trigger” is not the underlying “cause” of the problem. A second observation is that the turning point was almost never preceded by any significant degree of inflation. In particular, prices were falling in the United States in the late 1920s, were rising only very slowly in Japan in the late 1980s, and averaged only around 4% in Southeast Asia when that crisis hit in 1997.

The current financial turmoil, and the period preceding it, share many of the characteristics of previous historical cycles. Whether one considers what has happened, why it seems to have happened and when it happened, many parallels become immediately obvious. Against this background, the apparent “illiquidity” in markets currently would be best judged as arising from a “Minsky moment”, a sudden recognition and recoil from underlying credits whose quality has in fact been worsening for years. Taken together with possible declines in the prices of many assets from unusually elevated levels, and the risk of a sharp rise in household saving rates from unusually low levels in many countries, the potential for a substantial impact on global economic activity should not be underestimated. Just as the real and financial sectors interacted on the way up, they might well do so on the way back down.

Can procyclicality be moderated?

Some of us at the BIS have been suggesting for some time that we need a new “macrofinancial stability framework” that would encourage both regulatory authorities and central banks to actively resist the natural procyclicality of the financial system. Indeed, due to the ongoing processes of globalisation, securitisation and consolidation in the financial system, it could be that such a framework is now even more desirable. Arguably, each of these trends has not only increased the likelihood of procyclical behaviour in the upturn, but has also increased the costs of downturns. The widespread adoption of fair value accounting in recent years adds further force to these arguments.

The first characteristic of such a framework would be a primary focus on systemic developments. In particular, attention would be paid to the dangers associated with many people and institutions having similar exposures to possible common shocks. The recognition of endogenous forces with potentially non-linear outcomes would be a further important theme. Evidently, this would not reduce the attention paid to the good health of individual institutions, but it would put such concerns into a broader context.

A second characteristic would be still closer cooperation between central bankers and regulators in assessing the build-up of systemic risks and in deciding what to do to mitigate them. What is needed is to find the point of optimal interaction between the more top-down...
approach of central bankers and the traditionally (though this is changing) more bottom-up approach of the regulators. Each perspective has much to offer. As an aside, such closer cooperation need not, though it could, imply a reversal of recent trends towards setting up independent regulatory agencies with responsibilities for both financial institutions and financial markets.

A third characteristic would be a much more “symmetrical” or countercyclical use of policy instruments. In this regard, the new framework would simply mirror the accepted wisdom for the conduct of fiscal policy: namely, that the good times should be used to prepare for the bad.

More specifically, monetary policy would lean against “booms” in the growth of credit and asset prices, particularly if accompanied by distorted spending patterns that opened up a real risk of subsequent reversal. This latter point is crucial if we are to distinguish between what is being recommended here and the quite different proposition of “targeting asset prices”. Regulatory policy would have a similar bias, with risk spreads (for expected losses), provisioning (for subsequent changes in expected losses), and capital (for unexpected losses) being built up in good times and run down in bad.

Technically of course, there are many ways in which this might be done. Indeed, Charles Goodhart has been making innovative suggestions along these lines for many years. One recent thought that came to me is that the calculation of capital for credit risk could blend “art and science”, similar to what is already being done for market risk. That is, the economic capital required for credit risk might be calculated for individual banks (the “science”) as currently suggested. But this requirement might then be grossed up (the “art”) using some formula based on estimates of system-wide increases in exposure. Here, the empirical work of my BIS colleagues (Borio and Lowe) indicates that some combination of deviations of the rate of growth of aggregate credit and asset prices from longer-term trends might well be a useful place to start.

**Impediments to making such a framework operational**

There are many practical impediments to making such a framework operational, but they could all be removed if there were the collective will to do so. In the current globalised world of finance, it would of course help to have an international agreement on the need for such a framework. On the regulatory side, this clearly implies building on the substantial international progress already made in suggesting risk management procedures under Basel II.

Let me note three sets of current impediments, before turning to ways in which they might be removed. I classify them as problems of acceptance, identification, and the will to act.

The acceptance problem is basic. Not everyone agrees that major financial and economic crises, including the current one, have the characteristics noted above. Even some of those who do argue would argue that bubbles cannot be identified ex ante but that they can be cleaned up afterwards without great difficulty. The contrasting view espoused here is that bubbles can be identified ex ante, and that cleaning up afterwards might not always work. Recall, for example, Keynes’ concern that monetary policy might be akin to “pushing on a string”, and Hayek’s view that even fiscal stimulus might make matters worse not better. Full acceptance will in some countries require a paradigm shift in their approach to public policy, and this will not happen easily.

Even given broad acceptance, it must be admitted that the tools we have for the identification of accumulating financial stresses are highly inadequate. In particular, if the underlying problem is that everything is endogenous, one can move very quickly from states where “all looks well” to a much more serious set of circumstances. Indeed, we have seen
such a process in recent months. One lesson from this is that we must not rely overly on “market-based” indicators to identify looming problems, if it is the market itself which is being overly optimistic. Moreover, the same logic indicates that using market discipline to encourage prudent behaviour might also have to be complemented by other kinds of incentives.

But the biggest practical impediment to making a macrofinancial framework operational is probably the will to act. History is replete with examples of clearly identified problems, with obvious policy solutions, where action was not in fact taken until policymakers were overtaken by a crisis. These impediments to action are sometimes of a general nature, but sometimes they are specific to the different worlds of central bankers and regulators.

The general problems impeding resistance to the bubble phase would include normal bureaucratic inertia, as well as vigorous lobbying (against reacting) from the many people being made rich by the process. Moreover, given shortcomings in the capacity to identify problems, it seems highly likely that resistance would be contemplated only at a fairly late stage in the process. Then those controlling the policy instruments would be naturally tempted to avoid using them, for fear that they would be blamed for the inevitable subsequent downturn.

As to those problems specific to different kinds of policymakers, central bankers would certainly worry about tightening policy if there were no overt inflationary pressures to deal with. Put another way, with inflation under control, monetary tightening might lead to an undershoot of implicit or (worse) explicit inflation targets. At the least, this would take some explaining. And for small open economies, monetary tightening might lead to a stronger exchange rate and to capital inflows, with each having significant downsides. The former raises issues of “external balance” while the latter could actually result in easier credit conditions (non-price terms of lending), aggravating the underlying problem.

As for regulators, their will to act would be impeded by their not having a long cultural tradition of concern for macroprudential issues; that is, a recognition of how problems in the financial system might have macroeconomic implications. And the will to act would be further attenuated should the build-up of credit exposures appear more threatening to the corporate or household sectors than to the financial institutions themselves. Whose problem is it anyway? It is also a fact that many regulatory authorities do not have tools that could easily be used for countercyclical policy purposes, and that others might resist the use of tools they do have. Consider, for example, the disapproval of ex ante provisioning for credit losses traditionally demonstrated by both the accounting and the tax authorities. Finally, with respect to regulation, it is a fact that wherever regulations are tightened or implicit taxes increased, there will be attempts at evasion. The recently observed use of SIVs and other off-balance vehicles to avoid capital charges under the Basel I regime is just one example of the genre. Fortunately, the improvements provided by Basel II in this regard show that there might still be ways of dealing effectively with such problems.

Could these impediments be removed?

The awareness problem is indeed, basic. Yet, while paradigm shifts do not occur overnight, it could be that the groundwork has already been laid. Consider, for example, the growing attention paid in recent years to issues relating to financial stability and the veritable explosion of financial stability reports. Consider, too, how many central banks have expressed concern about how to deal with worryingly large increases in asset prices, particularly for houses, in the context of continuing low consumer inflation. The idea that price stability, while highly desirable in itself, might not be “enough” to ensure macroeconomic stability is clearly gaining ground. Looking forward, it is at least possible that the current financial turmoil will persist and that the economic costs will continue to mount.
Suppose, too, that the standard macroeconomic responses, while useful, prove insufficient to turn matters around quickly and definitively. In such circumstances, a more profound re-evaluation of our policy paradigms might be more likely. While fervently not to be hoped, our current economic and financial difficulties could then provide opportunities as well as challenges.

The identification of problems as they build up is also a serious challenge, perhaps demanding a change in methodological procedures. Relying on high-frequency data and ever more complicated empirical methodologies might not provide the capacity for advance warning that we would like. In effect, both our data and our models might prove to have too many shortcomings to be reliable guides to potential non-linear outcomes. At the least, this empirical approach should be supplemented by low frequency analysis relying in large part on an interpretation of history. The fact that neither economic history nor the history of economic thought is taught today in many universities is surely a shortcoming that demands rectification. Sadly, this too will be very difficult and take a long time.

As difficult as it will be to remove these impediments to the introduction of a new financial stability framework, the will to act provides even more challenges. Yet these are not insurmountable. The biggest concern for policymakers, as they contemplate tightening in the face of credit boom conditions, is uncertainty about what the results might be. Could there be economic losses that might otherwise be avoided? Will the policymaker be blamed? This form of reasoning, however, is unfortunately similar to the short-sighted maximising behaviour which dominates private sector actions. For public authorities, it ought rather to be replaced by a maximising approach that would take more fully into account the possibility of extremely large losses (and subsequent blame) should the boom be allowed to run its course. Keynes, and more recently Mervyn King, have suggested the desirability of central bankers being thought of as workmanlike dentists. Perhaps they would do still better in aspiring to be like doctors who have taken the Hippocratic oath, which pays significant attention to avoiding doing harm.

Also impeding the will to act will be resistance from the private sector. However, history teaches us that this resistance can also be dealt with. Consider how much resistance there was to fighting inflation in the 1970s and early 1980s. It was contended that the costs of so doing would be very large, and unacceptable, because inflationary expectations were sticky and the short-term Phillips curve was flat. Both of these assertions were false, and it is of interest that they are being repeated today. In the light of this earlier experience, the conventional wisdom today holds that central bankers were right to reduce inflation and keep it under control subsequently. Such a radical change of views could well happen again. Moreover, just as the recognition that the authorities would fight inflation helped to stabilise inflationary expectations in the past, the recognition that credit and asset bubbles would be resisted might also help change private sector behaviour. Were the tendency to simple extrapolation of past price rises to moderate, induced by fears that the public sector might actively encourage mean reversion, speculative behaviour might itself become more stabilising.

The hesitancy of the authorities to act, as credit-driven imbalances build up, could also be countered in another way. The need for discretionary responses, and indeed the difficulties inherent in identifying the build-up of potential problems, could both be attenuated by the adoption of rules that ensured a more automatic response to the procyclical tendencies of the financial system. Of course, a greater reliance on rules would also demand a greater willingness to accept the underlying hypothesis about the nature of the problem. Unfortunately, nothing in life comes without a price.