Linkages between macro-prudential and micro-prudential supervision

KEY POINTS

- Measures to achieve micro-level stability may not bring macro-prudential stability.
- In a bust, if regulators should try to reduce official requirements (because macro-prudential measures should be contra-cyclically expansionary), the market will determine, via enhanced risk aversion, much higher requirements.
- The author is in favour of the current extension of central bank powers to achieve greater financial stability despite the difficulty in delimiting the boundaries of appropriate central bank action and the resulting more complex constitutional position of the central bank.

Spotlight

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Linkages between macro-prudential and micro-prudential supervision

In this article, Professor Goodhart highlights some of the failings of the new European regulatory regime. He grapples with the questions "what should be done?" and "who should do what?".

WHAT WENT WRONG?

The Great Financial Crisis (GFC) taught us to appreciate the analysis developed by Hy Minsky (1982, 1988) that macro-economic stability did not necessarily entail financial stability. Certainly the period 1992–2007 was characterised as one of macro-economic success and stability, and was christened the Great Moderation. Nevertheless this successful period ended in a major collapse of financial imbalances, especially in the housing market and banking. Similarly, the Great Depression in the US, 1929–1933, followed a period of unparalleled success and stability in that country during the 1920s; and the lost decades in Japan, started in 1992 and continuing, also followed a period of extremely successful growth and stability in their macro-economy during the 1970s and 1980s. As Hy Minsky taught, the very fact that the economy seems both successful and stable suggests to investors in financial markets that risk has declined and there is a growing likelihood of ever-increasing asset prices. This generates euphoria in financial markets, and amongst financial intermediaries, notably in banks. Again, because risk appears to have declined, the royal route to greater returns lies through higher leverage. So stability and success in the macro-economy has often the side effect of generating unstable speculative booms in financial markets, whose subsequent collapse then punctures the prior calm in the economy.

There is, however, also a second lesson, which has been less frequently appreciated, which is that measures to achieve micro-level stability in financial intermediaries and financial markets (putting the "house in order") may not similarly entail macro-prudential stability.

There are several reasons for this point that micro-prudential management and supervision does not necessarily bring with it macro-stability for the system as a whole. Let me take two such reasons in particular:

- Micro-prudential measures are commonly designed to require everyone to behave in a similar way to those that are generally considered to be "the best" of their kind. This approach, however, quasi-consciously enhances self-similarity, ie that everyone will have the same portfolio and act in the same manner. Such self-similarity, on the "best", will, indeed, strengthen those involved, in particular the banks, against *idiosyncratic* shocks – but, by reducing diversity, will actually weaken the system as a whole against general *systemic* shocks. And the latter are much more important for the economy as a whole. This line of argument has been deployed among others by W Wagner (2011) and A Persaud (2000).
- For any individual agent, whether an individual investor or a bank, the best way to ensure the maintenance of the value of their portfolio holdings, assuming that they are acting in isolation and with market values taken as given, will be to sell their holdings of those assets declining in value and to buy those assets rising in value. A sophisticated form of such behaviour was known as portfolio insurance, as developed for example by H Leland (1980). Furthermore, the standard method for maintaining value, when an investor knows that he does not have some special knowledge (as is the common case under the Efficient Market Hyposthesis (EMH)) is to buy the index. Many, perhaps most, passive investors buy index-tracking funds, but the problem here is that this again is simply another version of momentum trading, buying the assets rising in value and selling those that are declining. *The Financial Times* ran a study on this on 16 August 2015. If enough agents are undertaking momentum trading simultaneously, then macro-disaster in financial markets can easily follow, as in October 1987, 2008 etc.

This problem of one-way, momentum, trading in financial markets was made much worse in 2007–2009 by a run-down of own-asset-liquidity in the belief that funding liquidity, via borrowing and wholesale markets, would always suffice. When these markets froze, then there was no alternative to selling assets, thereby amplifying the down-turn. Had liquidity been much more plentiful, those institutions which could see that asset prices had been falling through their long-term equilibrium could have met any withdrawal of funding by investors in themselves by allowing such liquidity to run off. Without liquidity, volatility in financial markets will get amplified.

In essence, in the period up to 2007, most of those operating in financial markets, whether as principals, agents, or regulators, subscribed to three interrelated myths:

- That macro-stability would entail financial stability.
- That financial stability, in concert with adherence to the Basel II Capital Adequacy Requirement (CAR), would entail assured solvency.
- That Basel II solvency would allow for funding liquidity from wholesale markets always to be available.

As became apparent, none of these myths was correct. We had macro-stability, but it did

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not entail financial stability. Although Basel II was generally met, not least by failing banks, such as Northern Rock, this did not prevent banks meeting their CARs from failing. The equity requirement under Basel II was both insufficient and badly designed. Although virtually all banks met their Basel II requirement, other informed agents in financial markets could see that their solvency was at risk and withdrew funding through wholesale markets from them. As financial asset prices weakened sharply, it became less clear which banks were certainly solvent, and many of these wholesale, interbank, markets collapsed altogether.

WHAT SHOULD BE DONE?

Especially following a financial bust, such as the Great Financial Crisis (GFC), micro-prudential requirements will be greatly reinforced, so there is likely to be even more self-similarity. Equity ratios needed to be vastly increased, and have been so. But the manner in which such equity ratios have been raised in Europe has been unfortunate. Rather than requiring banks to raise additional equity, the authorities in Europe have allowed senior bank officials to achieve the higher ratios in whichever way they thought fit. You can increase the ratio of equity to total assets either by increasing equity, (the numerator), or by decreasing the total amount of assets held (the denominator). With equity markets weak, and bank officials and their shareholders focussed on their Return on Equity (RoE), their preference was to cut down the volume of total assets by deleveraging. The authorities in each country pressurised their own banks to cut assets sited abroad, so cross-border banking declined dramatically. Such deleveraging has had a severe depressing effect on the European economies.

Furthermore, the equity ratios were defined in terms of Risk Weighted Assets (RWAs); this may be appropriate at the micro-level, but not so much at the macro-level. This has led, among other effects, to a massive carry trade in government debt by banks, especially in the weaker southern European nations, using the liquidity provided by the ECB to load up on their own government debt. This was encouraged by the zero risk weight applied to government debt, and has further reinforced the loop between the default risk on government finance and on the banks in each country (the so-called "doom loop"). Similarly, the housing bubble, which played such a large role in the GFC, has been supported by the politically-induced low-risk weight applied to residential mortgages.

In addition, it was appreciated, at long last, that there was a need for requirements, on banks and other intermediaries, to hold appropriate asset liquidity on their own books. It has been argued that central banks can purchase any asset, so long as they can assess the appropriate price and risk margin on it, so there should be no need for banks to hold required categories of high quality liquid assets. The problem with that position is that central banks may find themselves faced with a sudden and urgent need to provide liquidity to banks on the basis of dubious assets and uncertain solvency. In some respects the requirement for banks to hold such high quality liquid assets is to provide protection to central banks, to give them time to assess the position, without being forced almost at gunpoint either to bail-out a bank running out of liquidity, or force it to close with potential serious implications for contagion. Thus, I think of the Liquidity Coverage Ratio (LCR) as a "be kind to central banks" measure.

Another failing of the new regulatory measures is that they should be assessed holistically in relation to each other, whereas in practice they are generally introduced individually. Thus the greater the capital strength of a bank, the less need it has for liquidity, because its assured solvency will give it greater access to wholesale financial markets. Equally, the more liquidity a bank has the less need it has for capital strength because it could meet a run-off of depositors by allowing its liquidity to fall. Thus, capital and liquidity requirements should be seen as interacting, whereas that does not take place in practice.

During a boom, macro-prudential measures *may* tend to be introduced in a contra-cyclical fashion to mitigate the speculative euphoria, alongside possibly with tighter micro-prudential measures. While this is what should be done, in practice the confidence that a boom brings with itself leads to macro-prudential measures being far less than necessary, and also tends to leave people to believe that micro-prudential measures are less necessary, because the system is more stable. Thus, some of the best macro-prudential measures that were applied in the boom prior to 2007, such as the Spanish Dynamic Provisioning System were beneficial, but were simply overwhelmed by the scale of the subsequent financial disaster. Similarly, the belief that we had entered a period of continued stability, an end to boom and bust, generally led to financial regulation becoming light-touch, in pursuit of greater efficiency. So neither macro-prudential nor micro-prudential measures are likely, in practice, to be applied with sufficient force in the preceding boom, partly because it is very rare when in a boom to recognise that it may well collapse. Indeed, if observers did appreciate that a boom was unstable and bound to collapse, it could not continue.

While those problems of trying to apply sufficiently strong macro-prudential and micro-prudential measures in a boom are serious, and have not been overcome, the problems for macro-prudential measures in a bust are even greater. In a boom, macro-prudential and micro-prudential supervisory incentives work together. In a bust, micro-prudential measures are bound to be tightened very severely; everyone will cry "that must never happen again" and will reinforce tough micro-prudential measures. In a bust, macro-prudential measures should be contra-cyclically expansionary, but how could one do that? Even if the regulators should try to reduce official requirements, eg on margins and capital requirements, the market will determine, via enhanced risk aversion, much higher requirements. So what can, and should, a central bank do to offset a bust?

It can undertake Lender of Last Resort (LOLR) measures to enhance liquidity, but against what assets and to which financial institutions? If the lending is Last Resort, then it signals weakness, and the identification of a borrower who needs to apply for such LOLR assistance can lead to a contagious run from it by other creditors. In other words, LOLR identification implies serious stigma. Alternatively, and with less danger of stigma, the central bank can provide more liquidity by swapping more liquid for less liquid assets, as was done under the Special Liquidity Scheme (SLS) in the UK. Thus commercial banks can transform a set of their less liquid assets, eg Mortgage-Backed Securities (MBS) for various kinds of Treasury Bills. As an extreme version of

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this, a central bank can engage in Quantitative Easing (QE) by buying assets, in return for liquid claims on the central bank itself. Finally, the central bank can take over from frozen wholesale and interbank markets by becoming a market-maker of last resort, which can be termed, as Bernanke called it, credit easing or CE.

Such extended operational measures take the ambit of central bank activities outside their normal limits and this raises the question of what are, or should be, the limits of central bank action in pursuit of financial stability? Indeed, macro-prudential measures frequently involve measures impacting on institutions outside the banking system, and markets outside those for public sector debt, such as bringing about changes to required loan-to-value ratios (LTVs) and loan-to-income ratios (LTIs) in housing markets. Some of the measures to influence non-bank institutions, such as insurance companies and asset managers, and additional markets, go beyond the normal areas of central bank operation and in some cases have fiscal implications. Moreover, such actions can involve the central bank both in gains and losses which influence the return, in the form of seignorage, which the central bank may provide to the Treasury and beyond that to the general taxpayer. So what involvement and conjunction should the central bank have in this respect with the government and the wider fiscal authority? Does the wider extent of central bank actions imperil the maintenance of operational independence in their standard monetary actions for the maintenance of price stability?

WHO SHOULD DO WHAT?

Central banks have been criticised for failing to see, or to prevent, the GFC; though they have been properly praised for moving with both speed and force to limit and to offset the subsequent virulence of the resulting financial contagious crisis. Yet they have now been given, by governments, a reinforced and wider mandate to handle financial stability. As a generality, central banks have become much more powerful, with a wider range of responsibilities, duties, and instruments. Thus the ECB has been given responsibility for running the Single Supervisory Mechanism (SSM) in the Eurozone, and with that the ECB is inevitably going to have a major influence on the adoption and utilisation of macro-prudential instruments, though its relationships with the European Banking Authority (EBA) and the European Systemic Risk Board (ESRB) remain to be clarified. Similarly, the Bank of England has recovered its role as the main micro-prudential supervisor, which it lost in 1997, by being given the responsibility for running the Prudential Regulation Authority (PRA) and runs macro-prudential policy through the Financial Policy Committee (FPC). Finally, the Federal Reserve System has been given the lead responsibility for both micro- and macro-prudential management under the overall control of the Financial Stability Oversight Committee (FSOC).

This provision of both micro- and macro-prudential powers to the central bank is not a necessity. For example, in Sweden these micro- and macro-prudential responsibilities have been given to their Financial Stability Authority (FSA) rather than to the Riksbank. There are a number of complications in trying to separate the activities of the central bank from that of the micro- and macro-prudential authority. In particular, it is widely believed that the central bank now should both have, and take, responsibility for maintaining financial stability. But if it has the responsibility, should it not also have the powers, in part through macro-prudential measures, and the information, via its running of the micro-prudential supervisory mechanism, to enable it to carry out such responsibilities.

Then again, can any institution but the central bank provide essential liquidity? The provision of liquidity is the key to the prevention of contagious crises. If so, the central bank must be at the heart of macro-prudential management during a bust. How can that be undertaken by any other institution? Moreover, if one is going to undertake such measures, one has to have the necessary information for doing so, and that can only be provided by hands-on micro-prudential supervision of the individual institutions.

Willem Buiter (2014, 2015) has argued against the extension of central bank powers, and would prefer the Swedish approach, but I find it difficult to see how the greater emphasis now attached to financial stability can be achieved effectively by any other route, except by expansion of central banking powers in the way that has been commonly done. However, this does, indeed, lead to a major problem of how, under this new regime, one can delimit the boundaries of appropriate central bank action, and clarify the constitutional position of the central bank under this new system. This remains unfinished business. ■

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- The regulatory powers and purview of the Bank of England: pre- and post-crisis [2013] 10 JIBFL 636.
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