Financial stability in a crisis: What is the role of the central bank?

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Financial crises are costly and complex. Authorities have limited tools to deal with a crisis once it has broken out: there is little they can do other than attempt to limit the damage to the rest of the economy. This makes prevention as important as treatment. Central banks have traditionally focused on treating financial crises, but they also have an important role in helping to prevent them.

Preliminary: treatment and prevention

The monetary policy rate is a blunt instrument that is not well-suited to resolve distortions in the financial system. But there is a growing consensus around the design and use of macroprudential tools, which are more flexible and can be targeted at the particular spots of the financial system that are creating distortions. Specifically, central banks could use cycle-adjusted capital requirement ratios, loan loss provision ratios and lending-to-asset-value ratios to discourage speculation in markets where a potential bubble is forming.

Central banks could also reduce systemic risk through improvements in the payment and security settlements systems and providing incentives for certain derivatives transactions to be settled in central counterparty institutions.

Another way in which central banks can help prevent financial crises is by designing procedures to deal with the failure of systemically important institutions. The ad hoc manner in which this issue was dealt with during this crisis exacerbated uncertainty and damage to the system. Ideally, central banks could establish resolution procedures analogous to those of the US Federal Deposit Insurance Corporation so that systemically important institutions cease being too big to fail.

Central banks could also reduce the probability of a crisis by designing intervention procedures to avoid large misalignments in the real exchange rate whose reversal could be too costly and affect the stability of the financial system.

Finally, central banks should work with financial institutions so that they issue contingent capital certificates. These are debt securities that would be converted into capital once a threshold is reached and so provide automatic recapitalization in the event of a crisis.

What are the financial stability objectives in a crisis?

A central bank's main objective during a financial crisis is to contain the damage and limit the impact on the real economy. The first imperative is to restore calm in financial markets. Market panics create the equivalent of a financial heart attack by cutting off the flow of credit even to healthy institutions. This amplifies the damage in the financial system and is one of the main transmission channels through which a panic affects the real economy. Central

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banks must therefore reduce uncertainty, ensure that markets for short-term credit function properly, and prevent the collapse of financial institutions due to liquidity restrictions. As long as there are no resolution mechanisms to ensure that the financial system is not damaged by the failure of a systemically important institution, central banks should also prevent the collapse of these even if they are insolvent.

What are the appropriate central bank tools for financial stability in a crisis?

The first measure that central banks use to achieve these objectives is to offer extensive liquidity support against good collateral at a penalty rate. This is part of a central bank's traditional role as a lender of last resort, as prescribed by Bagehot (1873). However, the offer of this support has been limited to banks. When non-bank intermediaries are important, as is the case in the US financial system, central banks should also lend to these institutions under the same conditions.

The second tool is the monetary policy rate. Authorities should reduce the policy rate aggressively in response to the projected decrease in aggregate demand so as to move the neutral level of the observed real policy rate closer to its new equilibrium value.

If the second tool is exhausted (the policy rate is close to the minimum), central banks should also consider non-conventional measures as a third, complementary tool. One such measure is making an explicit commitment to keep the policy rate at a low level for an extended period of time, thus reducing uncertainty and potentially reducing interest rates at greater maturities. The effectiveness of this measure depends on a central bank's credibility. If it is not enough, monetary authorities may also offer unlimited financing to the banking system (against appropriate collateral) at the policy rate at a longer maturity than is usual. Another non-conventional measure is direct intervention in financial markets: the outright purchase of financial instruments to affect the yield curve or stimulate a systemically important credit market.

When necessary, central banks may use flexibility as an additional tool. They may relax their collateral requirements and lend against a wider variety of instruments. They may also arrange cross-currency swaps with foreign central banks to provide liquidity denominated in foreign currency.

Finally, central banks may cooperate with fiscal authorities when a crisis calls for additional support in the form of government insurance or capital infusions.

What are the implications for monetary policy?

The monetary policy framework will most likely expand to consider asset prices – and perhaps the growth of monetary aggregates and credit, as well – in some way. The high cost of the current crisis has highlighted the importance of preventing crises, and this suggests that monetary policy will shift from a "clean up after the bubble" stance towards a more active "lean against the wind" stance to deter the formation of asset price bubbles.

However, this will be anything but easy to implement in practice. There is a trade-off between responding aggressively and responding conservatively to potential bubbles. The former has a greater likelihood of preventing bubbles but may also cause instability and distortions in financial markets as a consequence of excessive intervention. It is also likely to garner considerable political ill will. Responding conservatively is less controversial, but it may allow a real bubble to grow and provoke a financial crisis. One should bear in mind that the

justification for a "clean up" policy stance was that bubbles are hard to identify. This observation has not become any less true; it is simply less important now that we have witnessed the potential consequences of not intervening.

As the details of the issue are important, the discussion has focused on how to include asset prices in the monetary policy framework. One possibility is to include the prices of financial assets and housing as separate arguments in the Taylor rule. Another method that has been discussed is including these prices in a broadened measure that would replace the consumer price index as the main measure of relevant inflation.

Given the complexity of financial markets, asset prices should be considered by central banks on a more discretionary and judgmental basis. Monetary policy is too blunt an instrument to control an asset price bubble. There may also be occasions in which the interests of price stability (reducing output gaps and leading inflation towards the target rate) and the interests of financial stability (controlling asset price bubbles and other distortions in the financial system) may be at odds – for instance, the case of a supply shock that creates a boom in asset prices but deflation in the prices of goods. Central banks cannot satisfy both objectives effectively with only one policy instrument. A second objective requires a second policy instrument. Furthermore, giving objectives to the central bank that go beyond price stability and financial stability most likely will end up reducing its effectiveness to achieve these two key objectives.

The instrument best suited to maintain financial stability is macroprudential regulation. It may be a straightforward instrument to wield when the central bank is also the main regulatory and supervisory authority for the financial system. But for the many instances in which that is not the case, macroprudential policy will have to be jointly implemented by the central bank and several other agencies. It will be crucial, then, to have explicit collaboration between all the relevant regulatory authorities and the central bank. Special attention must be paid to the institutional framework to ensure that they will have the incentives to do so.

Macroprudential regulation should have a dual purpose: reduce the incentives for financial institutions to increase leverage during a boom, and make the financial system more robust during a bust. It includes the use of procyclical capital requirements and loan provisions to moderate lending during a credit boom, placing larger requirements on systemic institutions to account for the incentive to become "too big to fail", and increasing the risk weights attached to riskier lending during a boom.

Making use of these tools to "lean against the wind" will increase pressure on central banks. A pertinent example is the US boom in mortgage lending and housing prices that came before the current crisis. Before it proved to be unsustainable, the boom seemed to benefit everyone: low-income families could obtain easy financing terms, the construction industry saw increased activity, the financial system earned large revenues, and political authorities enjoyed a higher popularity. Attempts to intervene would likely have been met with fierce resistance.

Central banks' institutional framework must be strengthened to ensure that they retain their autonomy. On the other hand, one cannot ignore the public's desire for accountability. There is understandable opposition to the idea of a powerful institution – and the central bank surely is one – that is not accountable to political forces. Transparency and disclosure must be improved to satisfy the desire for accountability. If they are to retain their independence, central banks must earn the public's good will.

With regard to the existing policy framework, the current crisis has not cast doubt on the use of inflation targeting (IT). Countries have been affected regardless of whether they had implemented inflation targeting. The United States, which was the epicentre of the crisis, does not use inflation targeting.

However, the crisis does leave some lessons for the implementation of IT policy. In the IT policy framework, the monetary authority should act when there is a steep decline in the

output gap ($q - q^*$) and a decrease in expected inflation that puts the target in jeopardy. Given monetary policy's problematic ineffectiveness when the policy rate is near zero, this may require higher targets in the future.

In addition, central banks will also have to work on several other initiatives. They must prepare emergency response guidelines to deal with a crisis, both to reduce moral hazard and to diminish the influence of special interest groups. They must broaden their portfolio of policy instruments and the policy channels through which they inject liquidity during a crisis. They must cooperate with other supervisory agencies to ensure that there is adequate leadership to deal with emergencies. They must cooperate with their counterparts in other countries. And they must avoid creating implicit insurance for systemically important institutions and strengthen prefinanced deposit insurance.