Market dysfunction and central bank tools

Insights from a Markets Committee Working Group chaired by Andrew Hauser (Bank of England) and Lorie Logan (Federal Reserve Bank of New York)

Motivation

Episodes of severe financial market dysfunction eliciting large central bank responses have become more frequent and have occurred across a wider range of markets in recent decades. During such episodes, price discovery and matching between buyers and sellers are impaired and markets exhibit unstable dynamics.

The March 2020 episode when the Covid-19 pandemic first hit global financial markets was one recent example. Funding markets at the core of the financial system experienced dysfunction, inducing a range of central bank actions to restore functioning.

The events of March 2020 – against a backdrop of ongoing changes in market structure over recent decades that have altered the nature of liquidity provision across markets and increased vulnerabilities to shocks – underscored the need to strengthen resilience in the nonbank financial intermediation (NBFI) sector.

In response, the Financial Stability Board (FSB) developed a major work programme to examine and, where appropriate, address specific issues contributing to amplification of the shock; enhance the understanding and monitoring of systemic risks in nonbank financial institutions; and assess policies to address systemic risks in these institutions.[1]

At the same time, the Markets Committee at the Bank for International Settlements has been reviewing the tools available to central banks to address market dysfunction, including an assessment of the potential benefits and costs of their use. As mentioned in the FSB progress report on "Enhancing the resilience of non-bank financial intermediation" in November 2021, the objective of this work was not to promote intervention methods, but rather to identify the potential range of possible tools available to address severe dysfunction episodes that threaten systemic stability, in ways that do not exacerbate moral hazard. The work aimed to do so by developing a framework for assessing interventions and the associated tools that central banks can use to address dysfunction in core local currency markets and evaluating the related trade-offs. Having a range of possible tools is especially important given ongoing changes in financial markets and because country- and shock-specific circumstances do not allow for a one size-fits-all approach. In considering possible tools, the work took note of the fact that central banks often have to decide on whether and how to respond to severe market dysfunction under conditions of extreme time pressure and uncertainty.

A number of key insights emerge from that work.

[1] For a recent update on this work programme see Financial Stability Board (2021), "Enhancing the resilience of non-bank financial intermediation", *Progress Report*, November 2021, https://www.fsb.org/wp-content/uploads/P011121.pdf.

Benefits and costs of central bank interventions

In general, central banks have a strong interest in well-functioning financial markets, particularly for those lying at the core of the financial system, including government bonds and government-bond repurchase agreements, or 'repo'. Dysfunction in these core markets directly affects three key areas of central bank policy: monetary policy implementation, monetary policy transmission and financial stability. Market dysfunction has the potential to disrupt the flow of credit to the economy, thereby impacting real activity and price stability and, as a result, attainment of central banks' monetary policy goals.

Historically, central banks have used two broad types of tools to address dysfunction in core local currency markets: lending operations and asset purchases. Lending operations can be effective against core market dysfunction arising from funding liquidity pressures that would otherwise cause asset fire-sales or funding and market liquidity spirals. They can be implemented quickly and at scale with existing counterparties. Asset purchases can be effective at alleviating market dysfunction stemming from a broader range of causes than lending operations are able to address. In addition to providing liquidity, purchases act directly on market prices, affecting all holders of the relevant assets and helping to address breakdowns in price discovery due to asymmetric information. Asset purchases can also address dysfunction driven by balance sheet constraints, as purchases remove risks from market participants' balance sheets. In addition, they can be more targeted to specific asset classes or market segments.

Interventions to address market dysfunction are not without cost, and may expose the economic and financial system, central banks and government resources, to a range of risks. An overreliance on central bank interventions risks distorting market mechanisms and incentives as it can give rise to an underpricing of risk, and lead to moral hazard and potential increases in system-wide externalities. Interventions may also pose risks to central bank capital and taxpayers' funds. *In extremis,* central bank independence may also be at risk, especially for emerging market economies, if for example operations involving purchases of, or lending against government debt, lead to perceptions that a central bank's policy decisions may be unduly influenced by the government's financing needs (so-called 'fiscal dominance'). All these risks are typically greater for asset purchase programmes than for lending operations.

The downside risks and operational challenges of interventions to address market dysfunction differ for the two tools. Lending operations may entail sustained counterparty risk exposures, and when traditional intermediation channels are impaired, the effectiveness of lending operations may be limited as liquidity support provided by the central bank may not reach the affected market segment. For asset purchases, the potential to generate system-wide externalities and moral hazard, and risks to taxpayers' funds via the central bank balance sheet, are typically greater than for lending operations as the central bank acquires the full risk of purchased assets.

The backstop principle

In light of these considerations, the Markets Committee has assessed that the key overarching principle for central bank interventions aimed at restoring market functioning is that they should act as backstops. That means on the one hand, in

situations where it appears likely that market dysfunction will have a material adverse impact on the real economy, central banks should consider using their ability to expand their balance sheets and provide liquidity in order to mitigate this impact. On the other hand, it means that central banks should aim under normal market conditions not to (i) interfere with price discovery or market determination of the allocation of resources; or (ii) substitute for the primary obligation of market participants to manage their own risks, reinforced through appropriate macro- and micro-prudential regulation and supervision.

Research confirms the economic importance of the backstop principle: given the potentially large welfare costs of severe market dysfunction, providing central bank backstops can be optimal when dysfunction emerges. But these actions need to be combined with the appropriate degree of regulation and supervision to limit the distortions to market mechanisms and incentives as well as the aforementioned risks to central banks and government resources.[2]

In addition to ensuring the appropriate macro- and micro-prudential regulation and supervision, implementing the backstop principle in practice requires careful design of central bank interventions. One overarching consideration, for instance, is pricing, which may be used to make take-up unattractive to market participants in the absence of severe market dysfunction, limiting negative side effects and risks to the central bank. Another consideration for limiting negative side effects is that the timeframe of the intervention should broadly match that of the dysfunction or elevated risk of dysfunction. Tools can also be designed as a standing facility or as discretionary interventions, which brings various trade-offs and arguments speaking in favour and against the chosen direction. In general, effective communication is also paramount to the success of an intervention as it can reduce uncertainty, helping markets re-establish equilibria that support system-wide stability. This is especially important where dysfunction is driven by asymmetric information.

Open issues and policy considerations

While the Markets Committee work helps to throw light on cross-cutting issues, open questions remain whether, and if so how, central banks may wish to evolve their backstop tools. In light of large differences in market structures and central bank mandates, answers must necessarily be country specific. And given ongoing changes and trends in the market ecosystems, a full evaluation of the trade-offs associated with different tools is likely to require a long-run work programme. But currently a number of issues stand out that could benefit from further analysis and discussions.

For lending operations, a key question, and one that has received public attention in some jurisdictions in the last year, is whether the central bank should consider expanding access that would allow additional market participants to borrow from it directly. From a high-level perspective, the Markets Committee work points to a trade-off. On the one hand, expanding counterparty access may enhance the effectiveness of lending operations by allowing market participants that are unable to obtain funding via traditional intermediaries to have direct access to the central bank's balance sheet. On the other hand, any expansion may pose operational and

[2] See eg Keister, T (2016): "Bailouts and financial fragility", *Review of Economic Studies*, vol 83, no 2, pp 704–36; or Jeanne, O and A Korinek: (2020): "Macroprudential regulation versus mopping up after the crash", *Review of Economic Studies*, vol 87, pp 1470–97.

counterparty risks, and increase the potential for moral hazard and system-wide externalities. To reduce these risks, appropriate regulation and supervision have generally been long-standing pre-conditions for direct access; these also ensure a level playing field. In some cases, effective protections may already exist for potential additional counterparties. In others, they may need to be put in place before broader access can be contemplated. And some central banks may also be legally constrained in expanding access. Analysis of the balance of benefits and risks of alternative approaches, and the form of the protections judged necessary, will vary according to country characteristics and the types of counterparties to whom access might potentially be extended.

For asset purchases, an important operational question is whether there are ways to enhance central banks' ability to set quantities or prices to link purchases more directly to market dysfunction while adhering to the backstop principle.

How to manage the interaction with monetary policy is another important consideration for any intervention aimed at addressing market dysfunction. This is because, while their intended purpose may differ, the mechanics of operational tools for monetary policy and market functioning objectives can be quite similar. Additionally, the need to address dysfunction is often explicitly linked to monetary policy implementation and transmission. These interactions may be deleterious or beneficial, depending amongst other things on whether the policy objectives are aligned, and on the proximity of the central bank's policy rate to the effective lower bound. In all circumstances, expectations will need to be managed carefully via appropriate communication.

Cutting across all of these issues, the backstop principle provides an important foundation for this debate. As discussed, on the one hand, central banks should, in situations where it appears likely that market dysfunction will adversely impact the real economy, consider using their ability to expand their balance sheets and provide liquidity, in order to mitigate this impact. On the other hand, such actions must not be a substitute for the primary obligation of market participants to manage their own risks, reinforced through appropriate macro- and micro-prudential regulation and supervision.