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## **X** Central Banking Operations

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## Opening Remarks Central Bank Response to COVID 19

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Good morning or afternoon, depending on where you are. I am pleased to welcome you all to the (digital) X Central Banking Operations Meeting. I would like to thank our speakers for setting aside some time from their hectic schedules. We appreciate your interest in sharing your experiences. In fact, there are 152 registered participants from 34 institutions. We certainly hope to see you in person once conditions permit. This time, we plan to spend three mornings presenting and discussing about the policies and facilities put in place by central banks in response to the COVID-19 crisis.

Just as we were starting to put the Global Financial Crisis (GFC) behind us, thinking about, for instance, how best to bring down the size of central banks' balance sheets (Logan, 2019), or whether the unconventional monetary policies (UMPs) would now become conventional, and so on, the Covid-19 crisis struck, regionally first, and then propagated globally at an alarming speed. Its impact has been, in many ways, unprecedented.

This crisis is, first and foremost, an extraordinary public health emergency. For many authorities, it has taken an enormous effort to effectively respond to the demand for health services by ensuring the appropriate supply of testing kits, swabs, medical personnel, personal protective equipment (PPE), and respirators. On the economic side, policy responses to COVID-19 have been led by the fiscal authorities (Blanchard, 2020).

Such policies have not only supported the public health responses directly by providing the necessary funding, but have also, in many cases, enabled the needed social distancing, isolation and other associated measures through the provision of the appropriate incentives for individuals, corporations, and businesses to do so (Levy, 2020). For example, fiscal support is needed to effectively incentivize individuals to isolate themselves.

It should be noted that this time around one should not think of the fiscal support as being of a traditionally Keynesian nature. Rather, making an analogy with monetary policy, it should be mainly seen as a temporary provision of liquidity.



Evidently, a global pandemic is not a monetary shock. This does not mean, however, that central banks have not responded to the crisis. On the contrary, they have played fundamental roles in the provision of liquidity to financial markets and in enabling the continued provision of credit to the economy.

To better understand a central bank's response to a liquidity shock, Bagehot's dictum is a good starting point (Bagehot, 1873). His recommendations for a central bank facing this type of shock are:

- *i) it should lend freely;*
- *ii) it should do so against good collateral; and,*
- *iii) ii should do so at a penalty interest rate.*

The implementation of these recommendations in practice entails addressing several issues. However, for the most part, it would appear that Bagehot's advice refers more to a micro-prudential type response.<sup>1</sup>

When facing the prospects of a *systemic crisis*, a **central bank needs to respond in a timely way, rapidly and forcefully**, that is, with a significant amount of resources. This is crucial, at least, for three reasons:

- ✓ First, a rapid and timely response is needed because liquidity in financial markets can "dry up" very quickly. In effect, it is well known by now that, under conditions of intense systemic stress, financial markets can "freeze" quite rapidly, as participants will have an incentive to act cautiously and, thus, to hoard liquidity as counterparty risk rises dramatically, possibly leading to very adverse equilibria. These equilibria are akin to that of a prisoners' dilemma strategic game, where, in the absence of some coordination device to reach the social optimum, each individual's incentives is to not cooperate (e.g., in our case, to hoard liquidity).
- ✓ Second, the amount of support should generate the perception that it is sufficient to face the impending crisis. Indeed, the amount of resources should send a sufficiently strong signal so that investors conclude that the prospects of maintaining their asset and liability positions in the economy are better than those of exiting them.
- ✓ Third, the transmission of financial stress can be particularly acute, given the nature of the liquidity and credit monetary transmission channels, their interactions, and the presence of significant negative feedback loop mechanisms.

Let me be a bit more specific about such channels. A crisis is characterized by reduced market liquidity, large risk premiums, elevated uncertainty, and a higher probability of defaults.<sup>2</sup> As a result, the common sources of liquidity and credit dry up. As banks lack their usual liquidity and credit sources, asset fire-sales can ensue. If the crisis deteriorates, banks could default.

<sup>&</sup>lt;sup>1</sup> Of course, there are significant differences between our economies, which should be acknowledged as well. To provide three well-known examples, consider the following ones. While in the European Union most corporate funding is from the banks, in the U.S. it is from capital markets. One key feature of the ECB is that it cannot, by law, be a Lender of Last Resort. In the case of emerging market economies (EMEs), it is not clear whether central banks could implement QE-type policies, given their current fiscal space and the history of fiscal dominance in a not so distant past. In sum, any analysis has to account for an economy's idiosyncrasies.

<sup>&</sup>lt;sup>2</sup> A crisis can affect the ability of financial institutions to assess the conditions and prospects of a given company. This makes the assessment of its credit risk more uncertain and difficult (Flannery, 1992).



Investment will most likely decline and corporate defaults will increase. This will adversely affect the demand for labor. These elements will feed into those factors mentioned initially, a situation that could spiral out of control (Bindseil, 2014). In short, a lack of liquidity and systemic risk can rapidly evolve into generalized insolvency.

This does not mean, however, that the authorities setting up these facilities and policies should not recognize that their implementation can lead to problems as well. A way of understanding this situation is to think that there is a chain of principal agent relations where, at the one end, there is the central bank as the first principal, with a commercial bank intermediating and, at the other, as the last agent, there is a company, business or individual, which or who is in need of liquidity and/or credit to be able to survive the pandemic. The design of policies and facilities needs to account for the appropriate incentive structure, in effect, it should try to mitigate moral hazard or adverse selection.

**Bagehot's Dictum tries to do this**. <u>However, under conditions of systemic stress, calibrating the</u> <u>policies or facilities' terms is much more complicated</u>. Indeed, central banks need to <u>strike a much</u> <u>finer balance</u> between the amount, price and other general terms of the facilities for these to be effective for mitigating the abovementioned risks. For example:

- ✓ When possible, there should be some restrictions on the use of resources. For example, in the case of commercial banks, obvious ones are that the financial support should not be used for stock buybacks or for the distribution of dividends.
- ✓ In the case of companies or businesses, those that are recipients of financial support should not be able to fire or furlough employees.
- ✓ Finally, there should be monitoring and supervision of the compliance with all conditions and restrictions included in the facilities.

All in all, as was said, the response needs to be quick, timely and forceful, that is, with significant backing. The main objectives are to avoid a systemic crisis and to facilitate the recovery.

In this context, central banks have had mainly two **intermediate** objectives: 1) the provision of liquidity; and, 2) the enabling of credit channels.

In terms of the provision of liquidity, one can consider two types: general policies and specific ones, the latter ones what one could call "precision shots," since they are aimed at assuring that the markets for some specific assets continue to function properly. Evidently, the appropriate provision of liquidity refers to both in local currency and, in most cases in the region, in US dollars. These policies can characterize the central bank all the way from acting as a sort of market-maker of last resort, to lender of last resort.

The implementation of policies and facilities to provide liquidity entail various kinds of measures. I would like to highlight three groups: collateral; local currency government yield-curve support, and FX market intervention.

✓ First, most facilities involve the use of collateral, a representative example being repurchase agreements, commonly known as repos. <u>During crises, what constitutes</u> acceptable collateral is usually modified in several ways, including its valuation, the universe of eligible assets that can be used as such, the set of institutions that can celebrate a contract entailing collaterals with the central bank, the maturity of the repos



where the central bank is the provider of liquidity, and the amount of resources that the central bank is willing to channel to support the facility in question.<sup>3</sup>

- ✓ Second, some central banks have opted for supporting the long end of their domestic currency government yield curve.<sup>4</sup> There are a several possible ways to do so.
  - a) A central bank can exchange (that is, swap) government bonds with different maturities. This generally implies that the monetary authority buys long-term government bonds in exchange for short-term ones. <u>Obviously, the fiscal authority can also implement maturity-transformation operations</u>. Two important differences reside on 1) whose balance will absorb potential ex-ante losses (or maybe even ex-post profits), and 2) which institutions will make the appropriate provisions to back the facility or policy in question. Additionally, 3) it is probably socially more transparent if the fiscal authority performs these operations.
  - b) **The central bank can offer interest rate swaps**, fixed for floating. For example, for those that hold nominal fixed rate long term government bonds, it can offer variable rates, thereby reducing maturity risk for the bond holders.
  - c) The central bank can buy government bonds in the <u>secondary market</u>. This is, nowadays, a measure implemented by the main central banks of advanced economies. In the case of Latin America, some central banks could face restrictions on doing so. In effect, even if central banks were limited to buying such bonds in the secondary market, that could require changing or modifying its charter, the need to coordinate with the fiscal authorities or, at the very least, to have a somewhat "liberal" or "flexible" interpretation of its mandate.
  - d) Of course, a central bank can buy bonds in the <u>primary market</u>, which means it would be <u>monetizing the deficit</u>. There could be many more risks and concerns when a central bank buys government bonds in the primary market, than if it does so in the secondary market. Moreover, for some central banks, there could be important legal restrictions that could prevent them from doing so. Perhaps the most important risk would be undermining central bank independence or even its autonomy. Also, whether a measure of this nature, even if legal, is feasible for the economies in the region, is something that remains to be seen. In this context, it is worth underscoring that it was not too long ago that some economies in the region underwent episodes characterized by fiscal dominance.
  - e) Another measure would be for central banks to buy corporate bonds. This raises the complex issue of valuation, default risk, and the rule for determining which corporate bonds would be eligible for purchase and which would not.
- Third, on FX market intervention, consider that in the aftermath of the GFC, low natural interest rates, reflected in the unprecedented accommodative monetary policy stance in the main AEs, among other factors, led corporations in EMEs to issue a significant amount

<sup>&</sup>lt;sup>3</sup> During a crisis, there is much uncertainty on how the value of collaterals will evolve. As credit quality requirements for collateral have been relaxed by the authorities, adds to this uncertainty. Moreover, if the borrower defaults, there would be uncertainty on whether the collateral would be sufficient to completely cover the loss, even when considering haircuts. If it does, there might be some administrative expenses.

<sup>&</sup>lt;sup>4</sup> A key question is the extent to which monetary authority should do so? There are several aspects to this question.



of foreign-currency denominated debt, mainly in US dollars. Although some of these corporations have so called natural hedges, such as export dollar-denominated revenues, and others use markets to acquire hedges, many can still be highly vulnerable to significant exchange rate depreciations. This could significantly increase systemic risk.

There are various other reasons that merit the provision of liquidity to FX markets in the case of EMs. Capital flow volatility and the reasons behind it are at the forefront. The nature of Global Asset Managers, the fact that the majority of trading nowadays is algorithmic and/or high-frequency and is mostly done through anonymous electronic platforms, has considerably increased liquidity risk in Emerging Economies financial markets, specially during episodes of intense systemic stress, as was the case in March and April during this pandemic.

Banks usually don't present these problems, as they are mostly subject to regulation that limits their foreign currency exposure.

FX interventions have been important for several economies in the region. There have been lively debates on central banks' FX interventions. For example, there are a number of approaches, including in the spot, (NDF) forward and derivatives markets, to name some examples. Another debate has been whether interventions should be either rules based or discretionary. They have been used mainly to provide US dollar liquidity, mitigating FX volatility.

Needless to say, coordination between central banks has been crucial for all of this. In particular, the Fed's bilateral dollar swap lines with some central banks, and its dollar repo facility for others, have been key for stabilizing some EMEs financial markets.

For their part, there are policies and facilities to enable the provision of credit. These have mainly involved regulatory forbearance such as temporary reductions in capital adequacy and liquidity requirements and in nonperforming loan provisions. Another instrument has been the reduction in reserve requirements for commercial banks. Their objective has been to "free up" resources for commercial banks to continue providing credit.

Also, several central banks have implemented facilities that are aimed at enabling the provision of credit to certain specific sectors. Two such cases are for small and medium sized firms and for individuals.

On the other hand, a key issue is to understand the reasons why in a crisis some of the credit facilities might not be tapped or used.

- ✓ First, one can think of them in terms of their optionality value. Their sole presence represents an option to those institutions that have access to them. This provides confidence to these, and perhaps to other institutions, in that they know that if financial markets deteriorate, the facilities will be available to them. This is particularly relevant for longer-term decisions. In a crisis, agents need assurance that the facilities will be there if financial conditions deteriorate. Similarly, maintaining policies and facilities during the crisis and for some time after it is relevant to maintain confidence, even if they are not accessed.
- ✓ Second, the decision of using a facility depends on the perceived nature of the shock. If the perception is that the shock is highly persistent over time, perhaps structural, liquidity or credit provision might be of little use. From an inter-temporal perspective, it might be more reasonable to liquidate the business than to borrow some resources for an unfeasible



business, even if they are available at a reasonable cost. The implicit assumption in the use of most these facilities is that the crisis' duration would be such that the business will be able to go back to operate profitably, even if at a reduced rate of activity.

✓ Finally, it is worth emphasizing again that the use of policies and facilities put in place should be closely monitored. It should comply with whatever rules they are based on.

For its part, the implementation of monetary policy during crises takes a somewhat different approach. This is because the central bank is now also aiming to affect liquidity and credit and, through them, their associated premiums and not only the policy rate itself. The market rate is a function of the policy rate as well as of the liquidity and credit risk premia. Thus, policies and facilities should be consistent, compatible and congruent with interest rate policy.<sup>5</sup>

More broadly, at the end of the day, what these measures are trying to achieve are:

- ✓ First, avoid a systemic crisis. That is, minimize the impact the crisis could have on the economy through financial markets. One element to do this is to share the burden imposed by the crisis over time, through a form of *ex-post* insurance for which no private market exists. In a general equilibrium model under uncertainty, a perfect risk-sharing arrangement implies that shocks to income are smoothed out so consumption should comove cross-sectionally. Risk-sharing across generations also leads to consumption smoothing through time.
- ✓ Second, to facilitate the recovery.

All in all, I have shown several elements that point to the importance for central bank authorities to respond <u>early</u>, <u>forcefully and decisively to the crisis</u>. These elements also provide the central bank with normative rationales to intervene.

Considering the above, it should be clear that central banks need substantial human capital and should take care of their human resources. In effect, policy design and implementation are not direct. Officials need to be acquainted with the available policy toolkit and its correct and rapid use.

I have made some sketches on a large canvas. Indeed, I have left much unsaid, but I expect participants to complement and extend these topics so we can all gain a better understanding of them and have a solid preparation for the vicissitudes we could be facing in the near future.

Thank you very much.

<sup>&</sup>lt;sup>5</sup> A related object is the term premium, which is the component that affects the interest rates associated with longer maturities. Most of what economic authorities can do regarding the term premium relates to indirect measures and medium- and long-term horizon policies. For example, one could aim to decrease the risk factors affecting the term premium. But this is not direct.



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