

The Reaction of Central Banks to the Economic Crisis Caused by the Covid-19 Pandemic

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Abstract: The purpose of the article is to highlight the monetary policy measures adopted by the world's central banks as a reaction to the economic crisis caused by the Covid-19 pandemic. The monetary policy strategies and instruments used and the effects of their application have been analyzed separately at each stage of the pandemic and in different geographical areas, starting with 11 March 2020, when the World Health Organization (WHO) declared Covid-19 a global pandemic, continuing with the next strict shutdown two months to a gradual relaxation of restrictions and the attempts to economic recovery, ending my analysis with the second wave of infections spread from mid-July. The article presents how the central banks' monetary policy measures and its different transmission channels have responded to a rapidly growing global demand for liquidity. In the addressed issue we used a quantitative research method based on the collection of a large number of numerical data from a wide variety of statistical sources, their classification, and calculations made with them. The results are presented in graphic form and show the cause- effects relationship between the studied variables.

Keywords: monetary policy; monetary policy rate; liquidity; swap line; credit flow

JEL Classification: E41; E43; E52; E58; F01

1. Introduction

The reaction of central banks around the world, to the economic crisis caused by the Covid-19 pandemic, was a rapid one - characterized by the immediate implementation of both traditional and non-traditional monetary instruments to avoid global collapse. This rapid response is the result of lessons learned from the Great Financial Crisis (GFC) of 2007–2009, even the pandemic crisis is very different from past recessions when delayed measures have had serious economic consequences.

The majority of central banks currently apply their entire set of crisis management policies. Their main concern is to ensure the stability of the financial system and

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their first reaction to the present crisis is to inject liquidity in the banking system in an attempt to keep credit flowing, prevent market freezes, by offering new lending operations, expanding their short-term operations to address initial liquidity shortages, extending, in the same time, the asset purchase programs. There is, however, a fear that a massive injection of liquidity to stimulate economic growth, can lead to long-term inflation, stagflation, and possibly, a future economic depression.

Cheap credit and, also, the widespread deployment of long-term lending is promptly followed by lending operations as a response of central banks' for supporting the flow of credit to households and non-financial corporations.

If the interest rate falls not proving effective enough to get economies back on the move, as has been proven, central banks are also experimenting with other monetary policy strategies such as swap lines, purchases of government securities, large packages of measures that should improve the impact of the Covid-19 pandemic on the global economy.

Following the example of the world's major central banks which have implemented quantitative relaxation programs during the previous financial crisis, smaller central banks from Central and Eastern Europe, are applying this measure for the first time to protect their economies, banks, and firms from the impact of the coronavirus pandemic.

Central bank interventions were also accompanied by actions by governments to support the business environment. They have injected liquidity to counter the economic slowdown when companies have been and are under the influence of international quarantine measures.

2. Literature Review

Monetary policy is a core component of economic policy, with the main objective of ensuring price stability, as was suggested by Cassels and Keynes in the early 20s, alongside side full employment, economic growth, and equilibrium in the balance of payments.

In this respect, the monetary policy's main task is to regulate the amount of currency available in the economy so that it has sufficient liquidity to ensure its normal functioning and balanced development.

Today more than ever is valid the statement that the monetary policy has larger and quicker effects on the economy during economic crises than during normal times (Jansen, Pojagailo and Wolters, 2019) and, also, the interest rate channel and its role in sending monetary policy impulses are in continuous progress(Rădulescu & Dascălu, 2009). Central banks have to overcome the liquidity crisis by injecting

additional cash into the system using all its monetary instruments but without taking excessive credit risk.

The provision of liquidity is often carried out through transactions in the form of swap and repo lines against eligible assets, as well-established central bank instruments, and their importance is once again discovered due to the COVID-19 crisis.

However, interest rates are the dominant and the most known monetary policy transmission mechanism used by central banks to stimulate economic growth and reduce inflationary pressures, and a proper understanding of it is essential for knowing how monetary policy actions affect the real economy.

It is considered by Cerna (2014) the essential elements of the standard presentations of monetary policy and it is viewed by Taylor as the main vehicle for the transmission of monetary policy (Taylor, 1995), even if his claim is vehemently disputed by Bernanke and Gertler (1995) who give more importance to other relevant channels such as the exchange rate channel, the active price channel, the balance sheet channel, especially in open economies.

Even advanced economies, as high-income countries, and developing economies, as lower-income countries, are both in recession, they entered the crisis differently.

The first of them with historical low monetary policy rates, being more willing to use unconventional monetary policy tools, instead, the economies from the second group are limited to use conventional monetary policy tools (Benmelech & Tzur-Ilan, 2020).

The influences that spread from the monetary policy rate towards market interest rates and retail interest rates initiate a cascade effect known as interest-rate pass-through which describes how changes in reference rates are transmitted to bank lending rates (Gregora et al., 2019) and what are the channels of transmission of interest rates impulses (Frankel, et al., 2004).

We can conclude that monetary policy instruments and strategies, the content of the monetary policy, are in a process of continuous transformation, from standard approaches to the implementation of monetary policy decisions to a less conventional approach.

3. Research Aims and Methodology

The purpose of this research is to show how central banks from different countries are responding through their monetary policy to the economic Crisis Caused by the Covid-19 pandemic.

The objectives pursued during the research, answer the following questions:

- How the stability of the financial system can be ensured?;
- How central banks' monetary policy can support the economies by releasing more liquidity in the financial system?;
- Which monetary instruments, which transmission mechanism of monetary policy are suitable for this goal?;
- How central banks use their full range of crisis tools differently in emerging markets and developing economies and advanced economies?

In trying to answer these questions, the proposed approach combines descriptive research with explanatory research by obtaining information and evaluating them.

In the addressed issue we used a quantitative research method based on the collection of a large number of numerical data from a wide variety of statistical sources, their classification, and calculations made with them. The results are presented in graphic form and show the cause- effects relationship between the studied variables.

The study begins with the presentation of the general characteristics of the various monetary policy strategies and instruments adopted during the pandemic crisis, is continues with observations based on statistical data collected and processed starting with 11 March 2020, when the World Health Organization (WHO) declared Covid-19 a global pandemic, continuing with the next strict shutdown two months to a gradual relaxation of restrictions and the attempts to economic recovery, ending my analysis with the second wave of infections spread from mid-July.

Starting from the importance of monetary policy rate in providing liquidity to the financial system and to ensure the credit flow in the real economy, the analysis emphasizes the different approach to monetary policy strategies in emerging economies and in advanced ones, taking as example countries from Latin America, the United States, the Euro area and Canada.

The novelty of this approach is the multitude of statistical data collected, processed, and analyzed, which allows the presentation of a comparative study between EMDEs and AEs from the point of view of various monetary policy measures taken by their central banks.

4. Central Bank's Monetary Policy during the Covid-19 Pandemic

One of the first measures of the central banks was a reduction of policy interest rates to ease funding costs and, in this way, to support their economies, even some of the most important central banks, such as the European Central Bank and Bank of Japan have already lowered interest rates to zero or negative values. So, in many

countries, because of very low interest rates, even below zero, the central banks can't proceed to lower them further. As it is presented in Figure 1, according to statistical data provided by the Bank for International Settlement, in April 2020, the following countries, already had zero or negative key interest rates, levels maintained throughout the year.

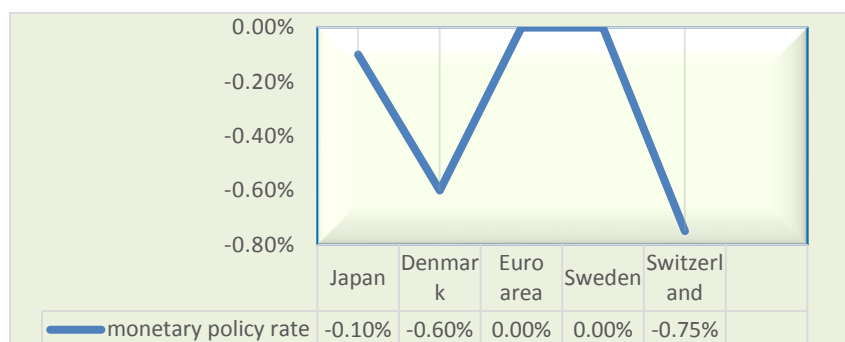


Figure 1. Countries with Zero and Negative Monetary Policy Rate (April 2020)

Source: Author – representation of the data from Statistical Data, available at Bank for International Settlements <https://stats.bis.org/statx/srs/table/11>

The countries with the highest monetary policy interest rates (Figure 2) are the ones whose central banks are trying to temper high inflation by lowering the money supply. Thus, the inflation rate in Argentina was recorded at 36,6% in September 2020, after ending last year with an inflation rate of 53,8%, at a difference of 17,2 percentage points, and the pandemic starts with 48,4%, even median inflation for the Latin American region as a whole was just 2,9 % in the second half of 2019. Also, Argentina experienced a depreciation of 22,69% during April and October 2020. As of November 6, 2020, one U.S. dollar (USD) was equivalent to 79,0445 Argentinian Nuevo Peso (ARS), in comparison to 1th of April, when one U.S. dollar (USD) was 64,4427 Argentinian Nuevo Peso (ARS). The containment measured since the beginning of the pandemic had a major economic impact, with a GDP contraction of 19,1% in the first half of 2020, an expected 12,5% economic contraction, one of the sharpest decline in Latin America in this year. But the 24,69 percentage point drop in the monetary policy rate was not enough to provide additional liquidity to the banking system. Also, other measures to encourage bank loans have been taken, such as a temporary easing of bank loan classification – extension by 60 days of the term by which a loan is declared non-performing; a temporary easing of bank provisioning needs and a stay on both bank account closures due to bounced checks and credit denial to companies with payroll tax arrears.

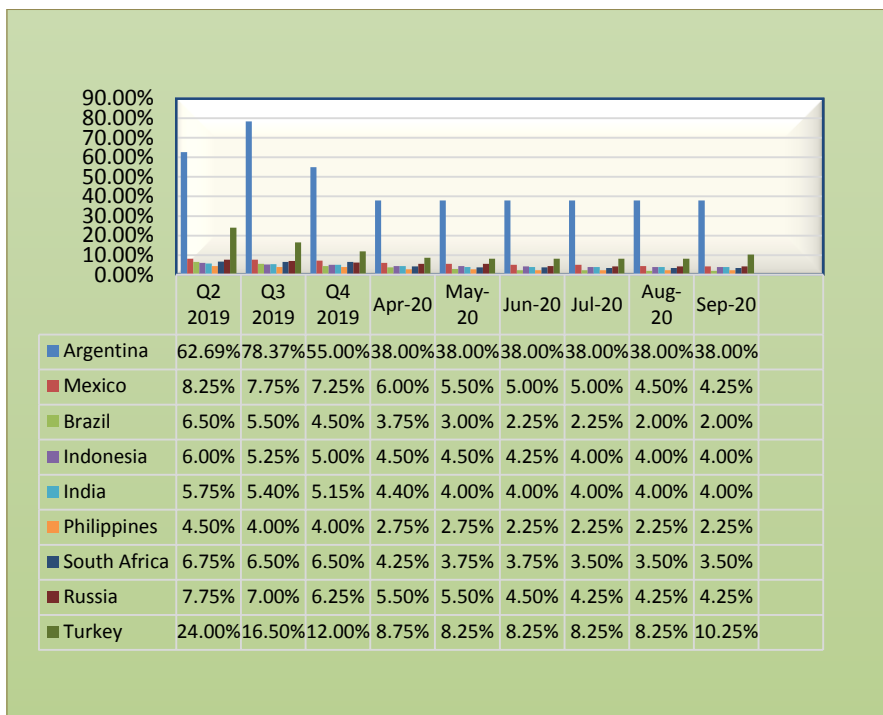


Figure 2. Countries with the Highest Monetary Policy Rates and their Decrease as a Result of the Monetary Policy Decisions of the Central Banks of these Countries (Q2 2019 – September 2020)

Source: Author – representation of the data from Statistical Data, available at <https://data.imf.org/regular.aspx?key=61545867>

Some central banks have proceeded to lower banks’ reserve requirements on time deposit in a move that releases more liquidity that could ultimately be redistributed in the economy, and also, are considering additional cuts in reserve requirements in the medium to long term, using reserve requirements as a liquidity management tool, even if the use of them is not enough to serve the liquidity provision goal.

For example, the Central Bank of Brazil, starting on March 16, proceeded to such reduction, to 25% from 31%, in an attempt to free up an estimated 49 billion reais (\$11.2 billion) of liquidity, giving much-needed relief to firms and households and encouraging lending. A new cut from 25% to 17% in required reserves on term deposits was made, and the released financial resources were used by banks for new loans, ensuring the liquidity flows from reserve requirements to smaller FIs (Financial Institutions) and businesses.

In the implementation of the monetary policy, the Central Bank of Brazil (BCB) uses as the key tool the monetary policy interest rate (SELIC). So, on October 28,

2020, the policy rate was lower to the historical low of 2% from 6,50% in Q2 2020 to increase liquidity in the banking system.

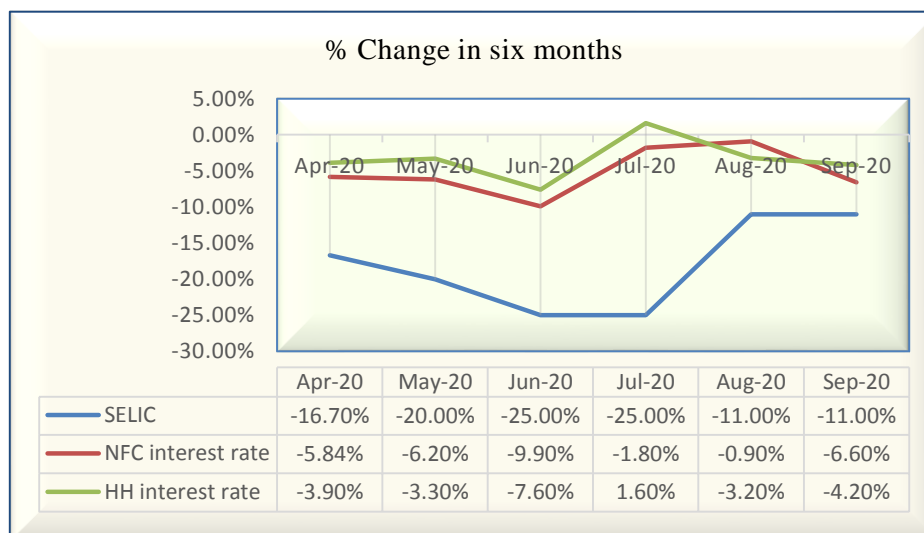


Figure 3. Monthly percentage changes in monetary policy rate (SELIC) and in bank interest rates on loans to households and non-financial corporation (April– September 2020)

Source: Author – representation of the data from Statistical Data, available at <https://www.bcb.gov.br/en/monetarypolicy/selicrate>

In Figure 3 it can be seen how repeated cuts in the monetary policy rate influence interest rates in the banking system.

Thus, the decrease in the monetary policy rate, which reaches a maximum of minus 25% in June, entails higher decreases in the bank interest rates on NFC loans (except August) compared to the decrease in the bank interest rates on HH.

The explanation lies in the central bank's attempt to temper the contraction of the economy by increasing accessibility to loans granted mainly to companies. This trend can also be seen in the chart below.

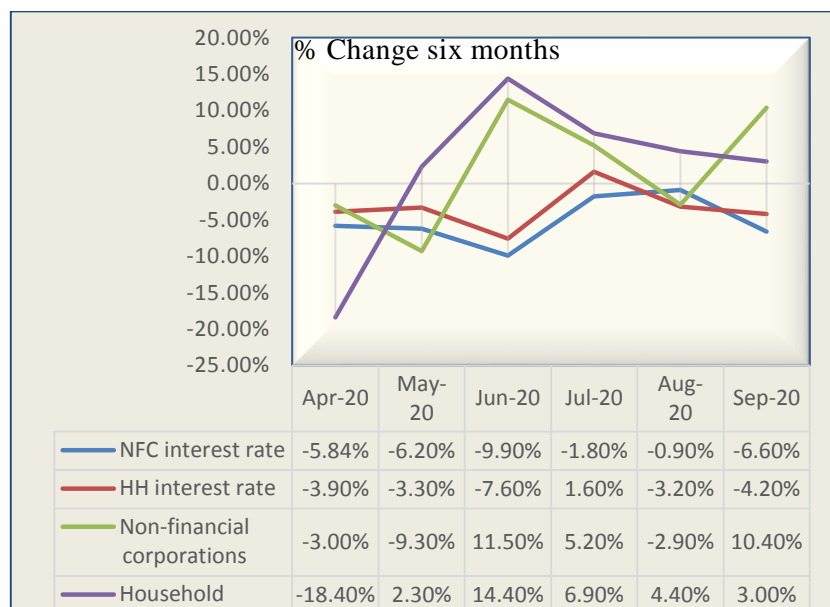


Figure 4. Monthly percentage changes in bank interest rates on loans to households and non-financial corporation and in total credit to households and non-financial corporations (April– September 2020)

Source: Author – representation of the data from Statistical Data, available at <https://www.bcb.gov.br/en/publications/bankingreport>

After NFC loans fell by minus 3,00% in the first two months of the pandemic, respectively by minus 9,30%, in June recorded a spectacular increase of 11.50% a month (when the interest rate has the biggest decrease, by minus 9.90%), and after the fall in August by minus 2.90%, in September they rise again by 10.4%, at a decrease in the interest rate of minus 6.6%.

The loans to households increased by 14.4% in June, outpaced the increase in loans to non-financial corporations, with the largest interest rate cut for those loans, by minus 7,6% (Figure 4).

Comparing the evolution of NFC loans and HH loans and their interest rates at the September level (the increase in NCF loans by 10.40% to a decrease in the interest rate by minus 6.60%; an increase in HH loans by 30% to a decrease in the interest rate by minus 4.20%, compared to the previous month), we can conclude that the central bank still wants to ensure the increase of household and business demand for liquidity, by increasing the accessibility of loans, mainly of investment loans to support the economy.

According to International Monetary Fund the real gross domestic product (GDP) will fall, until the end of the year, most dramatically, by minus 5,8% (in September by minus 9,7%), with expected growth in 2021 of 2,8%.

Total credit to corporations and households totaled in September 2020 BRL 6.5 trillion (90.7% of GDP).

At the same time, the central bank opened a facility to provide loans to FIs guaranteed by private corporate bonds, also proceeded to change the capital requirements for small FIs, allowed banks to decrease provisions for contingent liabilities provided the funds thus released are lent to the SMEs. US\$60 bn was provided to the central bank by the Federal Reserve through a swap facility that remains in place.

Central banks in advanced economies used their full and available range of crisis tools in a swiftly and forcefully manner, adopting rapid measures to stabilize the financial market, particularly in terms of liquidity, starting with conventional rate cuts by the U.S. Federal Reserve by 150 bps, followed by Bank of Canada with minus 150 bps, and the Bank of England with minus 65bps, to their zero low bound.

Central banks have been put in a position to experiment with other monetary policy strategies when interest rates appear to be insufficient to get economies moving.

Thus, the world's major central banks, including the U.S. Federal Reserve, facilitate access to U.S. dollars through swap lines to provide liquidity to global money markets, enabling foreign central banks to deliver U.S. dollar funding to institutions in their regions.

On March 19, 2020, the New York Federal Reserve announced the establishment of temporary U.S. dollar liquidity arrangements (swap lines) with an expanded list of central banks, including EMDEs: the Reserve Bank of Australia, the Banco Central do Brasil, the Danmarks Nationalbank (Denmark), the Bank of Korea, the Banco de Mexico, the Norges Bank (Norway), the Reserve Bank of New Zealand, the Monetary Authority of Singapore, and the Sveriges Riksbank (Sweden), facilities designed to help lessen strains in global U.S. dollar funding markets, mitigating the effects of these strains on the supply of credit to households and businesses, both domestically and abroad.

These new facilities will support the provision of U.S. dollar liquidity in amounts up to \$60 billion each for the Reserve Bank of Australia, the Banco Central do Brasil (as already mentioned during the paper), the Bank of Korea, the Banco de Mexico, the Monetary Authority of Singapore, and the Sveriges Riksbank and \$30 billion each for the Danmarks Nationalbank, the Norges Bank, and the Reserve Bank of New Zealand.

In the middle of March, the global demand for U.S. dollars has risen sharply amid concerns about a possible lack of funds due to the restrictions imposed by the Covid-19 pandemic. According to the Bank for International Settlements

estimates', the dollars were used to fund approximately \$ 17 trillion in assets globally.

At that time the dollar continued to surge against other currencies (the dollar index jumped 1.5% to 102.70%), the institutions and companies around the world rushed to draw down credit lines and sought dollars for funding needs.

As we can see in the chart below, during the past six months, demand for U.S. dollars swap lines has decreased, and one reason is the decline in trade flows whose reduction is estimated at 20%, and, also, due to financial system recovery after strict shutdown two months.

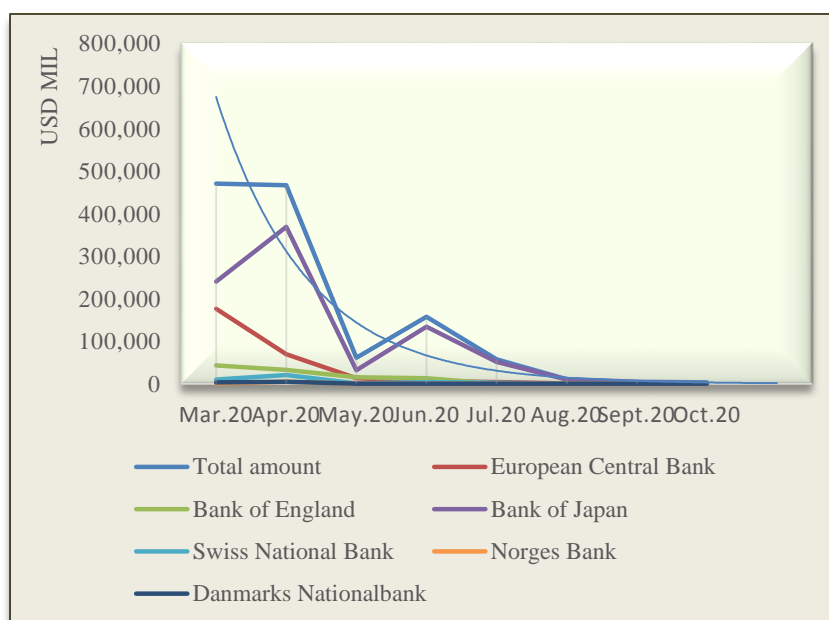


Figure 5. The Evolution of U.S. Dollars Liquidity Through Swap Lines (March – October 2020)

Source: Author – representation of the data from Statistical Data, available at <https://apps.newyorkfed.org/markets/autorates/fxswap>

With monetary policy interest rates already at a record low of 0% and the deposit facility interest rate at - 0.5%, also the lowest level in history, European Central Bank (ECB) opted to keep interest rates unchanged and decided to extend the asset purchase program (APP) at a monthly pace of €20 billion, and the purchases under the additional €120 billion temporal envelope until the end of the year.

To contribute to easing the overall monetary policy stance, BCE will continue its purchases under PEPP (pandemic emergency purchase program with a total envelope of €1,350 billion, around half of the total amount purchased under its

APP between 2014 and 2018, and will also continue to provide liquidity through its refinancing operations, supporting bank lendings to households and non-financial corporations.

ECB introduced a new liquidity facility (PELTRO), which consists of a series of non-targeted Pandemic Emergency Longer-Term Refinancing Operations carried out with an interest rate that is 25bp below the average MRO rate prevailing over the life of the operation.

Continuous broad money (M3) growth rate rise, reaching 10.4% in September, after 9.5% in August, 9.2% in June, 8.2% in April, and 7.5% in March 2020, reflects the dynamics of credit. The annual growth rate of total credit to euro area residents increased to 7.0% in June from 6.2% in May 2020.

Back in March, the Bank of Canada rapidly lowered three times during the month its policy interest rate to 1.25% from 1.75% in the previous month, for the first time, to 0.75% for the second time and to 0.25% for the third time, being at its lower bound.

This monetary policy measure added to purchase program that involved buying different types of assets (Canada Mortgage Bonds, corporate bonds, bankers' acceptances, provincial and federal government debt, commercial paper) helped to stimulate the credit demand and ensured access to credit and its continuous flow and provided liquidity.

Besides under the Insured Mortgage Purchase Program, the government will purchase up to \$150 billion of insured mortgage pools through the Canada Mortgage and Housing Corporation (CMHC); the federal government announced \$95 billion in credit facilities (including \$13.8 billion in forgivable loans) to lend to firms under stress, and Farm Credit Canada will receive support from the federal government that will allow for an additional \$5.2 billion in lending capacity to producers, agribusinesses, and food processors.

5. Conclusions

Unlike previous financial crises where the shockwave was coming from financial markets to the real economy, the severe containment measures imposed by the Covid-19 pandemic hit firstly the real economy and then propagated to the financial sector. This required urgent measures to increase liquidity in the financial system and increased central bank cooperation in providing so needed financial resources to countries that are suffering liquidity crises.

Between March and April, 2020, central banks used their entire set of crisis management policies by providing new lending operations, initiating or expanding asset purchase programs.

The first measure that has been taken, typical of periods of crises, was a successive reduction in monetary policy rates to ease funding costs and support aggregate demand, closely followed by lending operations.

To prevent market freezes and to improve liquidity conditions in money markets, central banks in this way, central banks proceeded to expanded short-term operations. At the same time, to support the flow of credit to households (HH) and non-financial corporations (NFC) long-term lending measures have been extended.

The transmission mechanism of monetary policy in most emerging markets and developing economies (EMDEs) are different from advanced economies (AEs). Central banks in AEs used their full range of crisis tools in a swiftly and forcefully manner while in EMDEs the interest rate channel seems to be more important compared to AEs.

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