Unconventional Monetary Policy and Its Reflections on the Global Economy

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The recent economic crisis is one of the most significant macroeconomic phenomena experienced among industrialized countries after World War II. Many economies suffered from low investment rates, high unemployment, and production levels worse than that observed in any post-World War II downturn period. Financial markets not only triggered the crisis, but also played a big role in the transmission of shocks to the real economy. Collapse of major financial institutions, a sharp decline in several asset prices, lack of credit, and the loss of confidence in the building blocks of the financial system were indicators of the grave situation.

These exceptional economic conditions called for unconventional policy measures, particularly by central banks. Monetary policy in crisis-affected industrialized countries aimed to ameliorate the functioning of financial markets, and promote investment and production back again. In doing so, central banks in industrialized countries followed massive expansionary policies, which had global effects. International spillovers caused many emerging market economy (EME) policymakers to change their own monetary and economic policy.

In this essay, we will first elaborate on the practices of unconventional monetary policy in industrialized countries and briefly discuss the extent to which these policies were effective. Second, we will turn to the EMEs and sketch out the obstacles that their central banks are facing while conducting policy. Then, we will argue that unconventional measures that have been taken in industrialized countries have had serious consequences for EMEs. Among other EME central banks, the Central Bank of the Republic of Turkey (CBRT) stands out by its very active and somewhat unconventional approach, and deserves credit for its innovation. Later, we will highlight that exit strategies in industrialized countries will adversely affect the policy instruments available to EME central banks (including CBRT), and the need for further innovation on this front. Finally, we will draw attention to recent events in Turkey and its effects on CBRT's policy.

A New Era of Monetary Policy

Post-1945 monetary policy and practice moved from pursuing multiple economic objectives to overwhelming emphasis on a single objective— price stability. Prior to the crisis, the main policy instrument of central banks was the short-term interest rate, and this was in line with Tinbergen's famous principle that "the number of *independent* objectives must be less than or equal to the number of *independent* policy instruments."[1] A credible central bank and a transparent interest-rate rule were seen as capable of guiding expectations on long-term interest rates through a *well-functioning* financial sector.

The financial meltdown in 2008 not only caused a huge recession and outpaced conventional monetary policy response, but also damaged the transmission mechanism of monetary policy.[2] Therefore, unconventional policy actions were conducted to reset the malfunctioning financial intermediation and to provide further accommodation. Although these objectives are not independent from each other, this way of categorization (*i.e. (i)* to restore a functioning financial sector and *(ii)* to promote real activity) is useful in identifying the tools used by the monetary authorities.

To restore financial intermediation, central banks provided large amounts of liquidity to a select

number of institutions and specific markets, and acted as a lender of last resort. However, as Fed Chairman Bernanke pointed out, "Central Banks face a tradeoff when deciding to provide extraordinary liquidity support. A central bank that is too quick to act as liquidity provider of last resort risks inducing moral hazard; specifically, if market participants come to believe that the Fed or other central banks will take such measures whenever financial stress develops, financial institutions and their creditors would have less incentive to pursue suitable strategies for managing liquidity risk and more incentive to take such risks."[3] To mitigate this moral hazard problem, limitless funding was made available at longer maturity and against eligible collateral, such as in full-allotment Long-Term Refinancing Operations (LTROs) in the eurozone and in Term Auction Facility (TAF) in the U.S.[4,5] Similar programs that were introduced later on, such as Term Asset-Backed Securities Loan Facility (TALF) in the U.S., the Securities Market Program (SMP) and Outright Monetary Transactions (OMT) programs of the European Central Bank (ECB), and Comprehensive Monetary Easing (CME) policy of Bank of Japan (BoJ) are also in line with the aim of restoring intermediation and healing bank balance sheets.[6] To prevent bank-runs and ease borrowing costs, these central banks also bought some class of private assets (such as Mortgage Based Securities (MBS) by the Fed and corporate bonds, exchange traded funds, and real estate investment trusts by the BoJ) to support key asset prices.

To promote real activity in the economy and to affect/reduce longer-term interest rates, central banks performed bond purchasing programs[7] and tried to convince markets that low interest rates and expansionary policy will be operational for a sufficiently long period. Forward guidance measures such as managing market expectations and extensive monetary policy communication were rather helpful to flatten the yield curve in the U.S. However, the time inconsistency problem points out that it can be preferable for central banks to commit to an early exit from these policies despite their *ex-ante* commitment. To deal with this issue, several types of explicit policy rules, such as nominal GDP targeting and price level targeting,[8] have been discussed among central bankers.[9] The prevailing approach seems to be the *threshold-based guidance* that the Fed is currently using. The Fed announced that expansionary policy will continue "until the unemployment rate falls to 6.5 percent, provided inflation expectations remain subdued."[10] By doing so, the Fed has been trying to control market expectations based on the performance of the economy. Most recently, both the ECB and the Fed made further announcements on the commitment to low interest rates for an extended period of time.[11] This clearly indicates that they are trying to use forward guidance as an effective policy tool.

These advances in the field of monetary policy were mostly experiments conducted by policymakers, since the standard models used in academia were not suitable to predict the effects of most of these unconventional measures.[12] Lack of explicit economic modeling of such policies in the financial sector prevent studying the implications of problematic intermediaries. Therefore, the analysis of these policies should be conducted with caution.

Keeping these challenges in mind, several studies found that the Fed's purchase of Mortgage Based Securities (MBS) and Treasuries significantly brought down the yields.[13] Besides, the OMT program in the eurozone proved to be decisive in decreasing bond spreads of Southern European countries vis-à-vis Germany. However, despite the relative success of the OMT, credit allocation still proved to be problematic in the eurozone due to a lack of a common eurozone-wide macro-prudential regulatory mechanism as well as the depth of the recession in the peripheral European countries. The ECB's influence on financial intermediaries could be amplified if the eurozone proceeds with the establishment of a banking union in the area. Last but not least, a recent IMF publication summarizes the studies on the effects of bond purchases on the broad economy.[14] It estimates that GDP growth increased around 2 percentage points in the U.S. and the U.K. due to these purchases.

Although the literature mostly points to the constructive implications of the unconventional measures, these policies do not guarantee a permanent

alleviation of problems. Indeed, a past occurrence of a crisis does not imply that the risk of recurrence is low. Maintaining a balance between recovery and restructuring to decrease the risk of getting into a similar disaster in the future, should be the *sine-qua-non* component of new policymaking. Steps should be taken towards a healthier financial sector that facilitates lending for investment. Many central bankers of industrialized countries indicated that if conditions return to normal, they will start using their conventional short-rate as their single instrument, once again.[15] But the question is whether the structure of the world economy will be the same again.

Central Banking in Emerging Market Economies

Central banks in EMEs have been pursuing multiple objectives for many years. Most of them are also responsible for macro-prudential regulation, in addition to the price stability objective. The political context in which they operate often force them to promote GDP growth. Having only one instrument—the short-run interest rate—for multiple objectives, highlights their challenging task.

Besides, the constraints they face are not limited to a single instrument's capabilities. Lack of central bank independence, weak long-term fiscal discipline and underdevelopment of financial markets are other problems that monetary authorities face in many EMEs.

For example, a central bank under the influence of a country's government might not be able to commit to price stability. With the lack of independence, governments can assign duties to central banks that increase their popularity in the short-term at the cost of diverging from long-term goals. Moreover, having statutory independence does not secure operational independence. If the central bank is forced to choose specific instruments, it is again hindering its capability to achieve its optimal policy. For instance, the literature points out that attributing more weight to the aim of dampening exchange rate volatility would be a serious deviation from a policy focused on price stability.[16]

Many EMEs are subject to a lack of longer-term budgetary discipline, and this constitutes another serious obstacle for monetary policy in these economies. Fiscal policy is crucial for redistribution, but unsustainable budget deficits and public debt can force monetary authorities to step in and adjust interest rates accordingly, despite the previously set price level objective. Therefore, it also becomes very hard to manage inflationary expectations and to act as a credible institution.

Lack of deep and liquid financial markets points to an additional severe problem. Central bank policy in the absence of a well-functioning financial system might create asymmetric effects among different regions of an economy. Distorted transmission mechanism will dampen the impact of a central bank policy tool. Lags in the policy response and limited feedback from the real economy due to a malfunctioning intermediary sector can create additional difficulties to adjust market expectations and to implement necessary policy actions.

Last but not least, increasing openness in the capital account makes it very difficult for EMEs to conduct their monetary policy independent of external dynamics. Massive inflows and sudden stops can be very destabilizing, and neutralize the power of the monetary authority. Imposing some form of capital controls might not be sufficient to stabilize financial flows if there are strong incentives for investors to circumvent these controls.

Recent economic circumstances made it even harder to conduct monetary policy in EMEs. For instance, volatile food and energy prices complicate the question of which price index to focus on. The most common index being used, "core inflation", does not include food and energy prices. A central bank not responding to highly volatile food and energy prices therefore may not be able to achieve the most desirable policy outcome. In addition, unconventional policies carried out by industrialized countries' central banks not only altered the structure, but also increased the volatility of capital flows to EMEs. The quantitative easing policies in the U.S., the U.K. and Japan led to lower

bond yields, higher equity prices and appreciation of currencies in the rest of the world, through the availability of ample and low-cost liquidity.[17] Combined with weak external demand from industrialized countries, these imply an inefficient allocation of resources and growing imbalances for EMEs. Importantly, if a country runs a structural current account deficit (such as in Turkey), these implications aggravate the consequences by creating asset bubbles, increasing the amount of leverage and a further appreciation of the (overvalued) currency.

In this global environment, the CBRT has stood out with its new policy-mix to mitigate these adverse effects.

Alternative Tools of the Central Bank of Turkey

The Turkish Central Bank Law, which was amended on April 25, 2001, is a landmark in the history of central banking in Turkey. The amendment provided the Bank with the capability to manage the instruments that would help attain the inflation objective jointly determined with the government. Among other changes, maintaining financial stability was also described as an objective of the bank (combined with its primary mandate of achieving price stability). Therefore, CBRT's attempt to cope with the adverse effects of capital flows remained in line with its mandate.

Armed with instrument independence and accompanied by a supportive fiscal policy, the CBRT was extremely successful in reducing inflation from well over 40 percent to single digits over the last decade. General macroeconomic stability contributed significantly to Turkey's successful economic performance, with economic growth averaging above 5 percent. The CBRT's success in monetary policy was accompanied by measures that have increased transparency, including publication of regular reports on inflation and financial stability. In addition, the CBRT took an active part in Turkey's global engagement in the area of global financial stability: Turkey became a member of the Financial Stability Board (FSB), the Basel Committee on Banking Supervision and the Group of Governors and Heads of Supervision in 2009. In 2013-2025 Turkey will participate in the FSB Steering Committee. The CBRT will also contribute up to $5 billion to IMF resources, to be counted as part of its international reserves. [18]

However, the global financial crisis adversely affected the Turkish economy just as it did to other EMEs, and the CBRT took several actions to counter the difficulties. As pointed out by CBRT Governor Basci, "in addition to the policy rate, complementary tools such as *reserve requirement ratios* and the *interest rate corridor* are also used in order to cope with financial imbalances. These policies aim to ensure sounder economic growth in a gradual way without hampering the medium-term inflation outlook. Accordingly, policies are pursued to prevent excessive deviation of the exchange rate from economic fundamentals, while the necessary measures are taken in collaboration with other regulatory institutions, to avoid excessive credit growth."[19]

The degree of policy predictability has been very important for the central banks of industrialized countries to manage market expectations. Basically, the CBRT has introduced the term "interest rate corridor" for degree of policy predictability as an additional tool. When capital inflows are stronger than usual, the aim is to decrease policy predictability, generating a disincentive for short-term capital inflows. Whereas when capital inflows are thin and risk appetite of investors is lower, the CBRT's aim becomes to increase policy predictability. In this setting, the degree of policy predictability is adjusted by expanding/contracting the interest rate corridor.[20] For instance, in the period between November 2010 and August 2011, due to escalating uncertainties in the eurozone, capital inflows were stronger than usual. Consequently, CBRT widened its interest rate corridor by moving its lower bound further to discourage short-term carry trade. Simultaneously, foreign exchange buying auctions were held to take advantage from inflows by expanding reserves. CBRT announced that these measures decreased the pressure on ap-

preciation of the Turkish Lira and diminished credit growth. Conversely, in the period after August 2011, concerns over the global outlook intensified the risk aversion and capital outflows from EMEs started to grow. The CBRT reacted to this in a similar fashion, but in the reverse direction: the interest rate corridor was narrowed by moving the lower bound upwards, and Turkish Lira reserve requirements were set to be met by banks at a lower cost.

The mechanics of an expansion in the interest rate corridor is as follows: when the interest rate becomes more volatile, financial intermediaries price the interest rate risk and consider it in their loan rates. This facilitates the dampening of credit growth. Moreover, short-term capital inflows are discouraged due to increased uncertainty on policy rates. Shrinking the corridor is expected to have the opposite results.

These policies are innovative and provide further monetary adjustment to the changing dynamics of the world economy. However, the CBRT has also been criticized for complicating the task of a central bank. A central bank acting too much as a Banking Regulation and Supervision Agency can diverge from its main objective of preserving price stability. Increasing the frequency of interest rate revisions might have adverse effects on financial intermediaries. Imposing a withholding tax could be as effective as expanding the range of the interest rate corridor in order to adjust capital flows. But it is still too soon to conclude the exact effects of the alternative measures followed by the CBRT.

Exit From the Unconventional Policy Era and Its Possible Consequences

For advanced economies, an orderly exit can be challenging and undermine recovery. We also partially witnessed this rigidity when Chairman Bernanke announced that the "Fed could slow the $85bn-a-month pace of asset purchases 'in the next few meetings' if the labor market is strong." In response, stock market indices declined and yields of 10-year government bonds soared again. Investors' perception lay in the possible unfavorable real outcomes of an exit from unconventional measures.

When central banks start to shrink their balance sheets, several interest rate spreads might move unexpectedly. There is not much knowledge on the consequences of monetary policy when the monetary authority's balance sheet is as large as the ECB's or the Fed's—as is presently. It is possible that long-term interest rates will increase abruptly and destabilize the economy.

To mitigate possible adverse effects, further unconventional policies such as pushing nominal policy interests below zero can be deployed. However, these policies might create further problems. Although negative rates have been experienced in some countries (e.g. Denmark), such moves still carry the risk of incentivizing excessive cash hoarding by banks and households, and possible interbank-market failures.

For the EMEs, an exit could trigger large and volatile capital flows. Recipient countries should introduce macro-prudential policies to bolster their financial sector and mitigate the adverse effects of capital flows. Regulatory interventions and strengthening lending standards will play a crucial role in EMEs than the use of their monetary policy.

Our evaluation of the latest CBRT policy is in line with this aspect of counter policy reactions. In addition, the political instability in Turkey's geographical region may add further risks to its economy. Combined with the risk borne from possible exit strategies of the central banks of industrialized countries, further need for monetary policy tightening can be felt in Turkey. Pressure on the CBRT not to use its available instruments, such as increasing short rates to tighten its policy stance, has increased in this volatile internal and external political environment.

To be more specific, the Prime Minister and other ministers blamed the "interest rate lobby" for recent protests triggered by the government's apparent intention to build a complex

of hotels and a shopping mall in the Gezi Park near Taksim Square in central Istanbul. Other factors, however, played a dominant role, worldwide. When Chairman Bernanke made his now famous statement regarding an eventual tightening of the Fed's monetary policy in the future if the U.S. economy continues its recovery, Turkey was one of the EMEs with open capital accounts that were affected by capital outflows. As pointed out by Gürsel, the injection of domestic politics in the debate ran the risk of taking the central bank's monetary policy hostage, since it became difficult for the central bank to increase interest rates in response to external market developments.[21] It took a meeting of the Economic Coordination Board (ECC), which is chaired by the Prime Minister and whose members include ministers responsible for economic policy, apparently to *"allow the CBRT"* to announce its intention to enlarge its interest corridor by moving the upper bound upwards. The statement by the ECC emphasized the globally integrated nature of financial markets and the inevitable dependence of Turkey on fluctuations in these global markets.[22] It must be hoped that the CBRT will be able to retain the "instrument independence" it gained in 2001, and that Turkey's monetary policy will not be strongly affected by short-term political pressures.

The situation in Turkey and the difficulties faced are an illustration of how interdependent the world economy has become.

References

Bagehot, Walter (1873). *Lombard Street: A Description of the Money Market*, London: King. Reprint, Gloucester, U.K.: Dodo Press, 2006.

Başçi, Erdem (2012a). "Opening remarks at 17th International Conference of Banking Supervisors", September 13. Istanbul: Central Bank of the Republic of Turkey, Banking Regulation and Supervision Agency. (http://www.tcmb.gov.tr/yeni/duyuru/2012/Baskan_BankaDenetim.pdf).

Başçi, Erdem (2012b). "Monetary Policy of Central Bank of the Republic of Turkey after Global Financial Crisis", *Insight Turkey*, 14(2).

Bernanke, Ben S. (2008). "Liquidity Provision by the Federal Reserve", Speech at the Federal Reserve Bank of Atlanta Financial Markets Conference, Sea Island, GA, May 13. (http://www.federalreserve.gov/newsevents/speech/bernanke20080513.htm)

Derviş, Kemal (2012). "Should Central Banks Target Unemployment?" *Project Syndicate*, December 19. (http://www.project-syndicate.org/commentary/why-the-ecb-should-emulate-the-fed-s-unemployment-target-by-kemal-dervi).

Friedman, Benjamin M. (2013). "The Simple Analytics of Monetary Policy: A Post-Crisis Approach", *NBER Working Papers*, No. 18960. Cambridge, MA: National Bureau of Economic Research.

Hammond, Gill, Ravi Kanbur, and Eswar.S. Prasad (2009). "Monetary Policy Challenges for Emerging Market Economies", *Global Economy and Development Working Papers*, No. 36. August. Washington D.C.: The Brookings Institution.

International Monetary Fund (IMF) (2013a). "Do Central Bank Policies Since the Crisis Carry Risks to Financial Stability?" In *Global Financial Stability Report*, Chapter 3, April. Washington, D.C. (http://www.imf.org/external/pubs/ft/gfsr/2013/01/pdf/c3.pdf).

International Monetary Fund (IMF) (2013b). "Unconventional Monetary Policies – Recent Experience and Prospects", *IMF Policy Papers*, April. Washington, D.C. (http://www.imf.org/external/np/pp/eng/2013/041813a.pdf).

International Monetary Fund (IMF) (2013c). "Summary of Informal Discussions with Central Bankers and Other Officials of Unconventional Monetary Policies", April. Washington, D.C. (http://www.imf.org/external/np/pp/eng/2013/042913.pdf).

Krishnamurty, Arvind and Annette Vissing-Jorgensen (2011). "The Effects of Quantitative Easing on Interest Rates", *Brookings Papers on Economic Activity*, 43(2). Washington D.C.: The Brookings Institution.

Ozhan, Galip Kemal (2009). "Welfare-Based Evaluation of Alternative Loss Functions for Small Open Economies", Mimeo. Bilkent University.

Tinbergen, Jan (1952). *On the Theory of Economic Policy*. North-Holland: Amsterdam.

Woodford, Michael (2012). "Methods of Policy Accommodation at the Interest-Rate Lower Bound", Speech at the Federal Reserve Bank of Kansas City Economic Symposium, Jackson Hole, WY, August 3. (http://kansascityfed.org/publicat/sympos/2012/mw.pdf).

Endnotes

[1] See Tinbergen (1952).

[2] Many post-crisis papers argue that optimal monetary policy was indicating a negative nominal interest rate. The zero-lower-bound (ZLB) on the interest rate constrained the interest rate instrument.

[3] See Bernanke (2008).

[4] See Bagehot (1873).

[5] Policymakers' verdict was that most financial institutions are solvent but illiquid. To that end they responded by expanding liquidity. This poses moral hazard risks; in case the verdict is wrong in the sense that highly leveraged financial intermediaries are indeed insolvent, expanding liquidity would lead to excessive forbearance, debt hangover and zombie lending as the Japanese experience in 90s show.

[6] For details of these programs, see http://www.newyorkfed.org/markets/talf.html, http://www.ecb.int/press/pr/date/2012/html/pr120906_1.en.html and http://www.boj.or.jp/en/statistics/boj/fm/ope/index.htm.

[7] Bond purchases mostly held in the U.S., the U.K. and Japan to stimulate aggregate demand.

[8] Price-level-targeting differs from inflation-targeting when the inflation target is missed. For instance, if inflation drops from its target rate for an extended period, the price-level-targeter will aim for a greater inflation rate in the next period to return the price level to original path, which will alter the beliefs of market participants.

[9] Among many others, see Woodford (2012).

[10] See Derviş (2012).

[11] On July 4th, the ECB started to use forward guidance by announcing that "it expected interest rates to remain at or below their current levels for an extended period of time."

[12] Many standard models in the literature predict an occurrence of massive inflation, after unconventional policies being applied (as happened in Germany after WWI and in Hungary after WWII). However, we have not observed such an inflation rate yet.

[13] Krishnamurty and Vissing-Jorgensen (2010) argue that asset purchases lowered MBS spreads with Treasuries by 150bps. IMF (2013b) finds out that the cumulative effects of government bond purchase programs are estimated to be between 90 and 200 bps.

[14] See IMF (2013b).

[15] See IMF (2013c).

[16] Among many others, see Ozhan (2009).

[17] IMF (2013b)

[18] Başçi (2012a)

[19] See Başçi (2012b).

[20] Interest rate corridor consists of overnight lending and borrowing rates. CBRT's main policy tool, short-run interest rate is one-week repo lending rate.

[21] See Gürsel (2012a).

[22] See Gürsel (2012b).