Revisiting the Tinbergen Rule: use the macroprudential tools to maintain financial stability

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Capital flows to emerging market economies, which have intensified recently due to better growth prospects, interest rate differentials, and better risk perceptions, have the potential to destabilise financial systems in these countries which are typically neither diversified nor deep enough to absorb such flows. While tools to manage large capital flows are well known, the appropriate policy mix depends on country-specific circumstances. Fiscal policy, monetary policy, exchange rate policy, foreign exchange market intervention, macroprudential tools, and capital controls could be used to cope with the volatility of capital flows, but each of them entails some tradeoff. The challenge faced by central banks is to establish a framework that combines both price and financial stability as primary objectives and identify policy instruments to target both, even at times they seem to conflict with each other. In today's challenging financial environment, public authorities in Turkey have underscored four basic principles upon which the fiscal, monetary and regulatory policies would be built to maintain financial stability. These are (1) use of more equity, less leverage; (2) extending the duration of borrowing; (3) strengthening the foreign exchange position and use of local currency in borrowing; and (4) better management of foreign currency risk. This approach aims to use current global financial environment as an opportunity to strengthen the country's financial position and to support deepening of its financial system without jeopardising its health and stability.

More than two years after the collapse of Lehman Brothers, the dust over international financial system seems somewhat abated. Unprecedented measures taken by central banks and fiscal authorities have put financial markets back on a relatively steady course by late 2009. As economic activity has started to gain pace, risk perceptions gradually improved, notwithstanding heightened sovereignty risk in the Euro area, concerns over housing and labor markets in the United States, uncertainty regarding the health of financial institutions in advanced economies, huge influx of capital flows and associated risks in emerging market economies, and last but not least, questions surrounding the pace of demand rotation in the global economy. A long list of lessons on financial stability has emerged, though how to put them in practice is subject to an intense debate. The cooperation at a global scale is the key to solve current problems and addressing the future ones, but to maintain the spirit of cooperation among nations is getting more challenging as the memory of the crisis starts to fade away.

In the first part of this article, the challenges faced by the emerging market economies in the aftermath of the crisis are addressed. Next, the role of central banks to maintain financial stability is revisited. Finally, in the third part, the experience of the Turkish economy and the response of the monetary policy to recent challenges are discussed.

1| Outlook for emerging market economies

Capital flows to emerging market economies have intensified recently thanks to better growth prospects, interest rate differentials, and relative stability of financial institutions in these countries that proved their strength and flexibility to extreme shocks. Highly accommodative monetary policies in several advanced economies have played a major role in further accelerating this trend as well. As a result, emerging market economies today are facing a growing risk of asset bubbles, excessive borrowing and inflationary pressures –all of which are threatening their financial stability. The problems facing countries with current account deficits are much more challenging than those with surpluses, since they have to deal with both financial stability problems arising from the strength of capital flows and the risk of sudden stops.

As liquidity in the global financial system increases thanks to the rapid expansion of high powered money in major currency countries, central banks of small open economies face the risk of losing control over monetary conditions in their countries. The favorable environment for hedging maturity and interest rate risks, together with flatter yield curves are weakening the influence of central banks over the long end of the curve. Policy rate hikes to contain inflationary pressures and restrain credit expansion are likely to lead to further widening in interest rate differentials, thereby fueling even more capital inflows, more borrowing, higher asset prices and inflation. Moreover, credits extended by domestic banking system or foreign financial system in foreign currency would not be affected directly from the policy rate.

For the last two years, G20 countries have highlighted the importance of macroprudential regulations to address systemic risks in the financial sector and displayed unprecedented unity and cooperation to lay the foundations of a new financial system less prone to generating boom-bust cycles. Recently, as the volatility of capital flows has become a major source of concern in emerging market economies, the G20 has also recognised it as another systemic risk that has to be addressed collectively. Many emerging countries have already started implementing a wide range of measures to contain the credit growth and asset price bubbles, including policy rate hikes, enacting various macroprudential measures (such as increasing reserve requirement ratios, raising loan-to-value ratios, sector specific surgical tightening) and putting various restrictions on capital inflows. The adequacy of such measures has yet to be seen, but the swift and proactive response of policy makers is a positive step forward, since the most recent events have clearly demonstrated that it is likely to cost less to undertake preventive measures prior to a crisis than to clean up in its aftermath.

Capital flows that exceed the absorption capacity of emerging economies have the potential to destabilise financial systems in these countries. However, the adoption of capital controls in response to such risks would only derail the much needed adjustment process, shifting the burden of demand rotation disproportionately on the shoulders of emerging countries that are open to capital flows and thereby sowing the seeds of the next crisis. Addressing imbalances in the global economy to achieve strong, sustainable and balanced growth would require an adjustment in real exchange rates, either through nominal exchange rates or relative prices or both. Some policy makers favor the former channel, since it is likely to lead to a faster adjustment. As currencies of emerging surplus countries appreciate compared to those of advanced deficit countries, domestic demand would shift away from goods and services offered by the emerging markets in favor of the advanced economies. Critics of that view highlight the potential instability that may arise from disorderly movements (in terms of both speed and magnitude) in currencies and propose a demand rotation through a gradual change in relative prices. In that approach, inflation rates in emerging surplus countries would stay above those of advanced deficit countries in the short to medium term, thanks to rising purchasing power of households through higher wages, easier access to financial markets and better protection through social safety nets. Whereas nominal appreciation of currency would encourage solely redistribution of global demand (and possibly production capacity) without expanding its magnitude, boosting purchasing power in emerging economies would both lift the overall level of global demand and facilitate its rotation.

In principle, flows of capital from advance economies to emerging ones and the appreciation of the currencies of the latter over time are a mutually beneficial secular trend, supported by strong fundamentals, better growth prospects, and high productivity differentials. Rather than fighting against this trend through overly restrictive capital controls or excessive reserve accumulation, there is strong legitimacy in using macroprudential policies to mitigate the adverse effects of volatility in capital flows, especially those with a speculative nature, over financial stability. Of course, economic conditions and institutions differ across countries. An effective macroprudential tool in one country might not work in another country. Therefore, policy-makers need to take into account country-specific factors in designing their own framework and it is imperative for the academic world and international organisations to focus on this issue and develop a set of concrete policy tools that national authorities, at their own discretion, can use to identify, assess and manage systemic risks.

2| Financial stability and central banks

The critical importance of financial stability from a central bank's perspective is not new. Smooth functioning of the financial system and payment mechanism has been a concern of central banks since their foundation. In fact, that is the reason why they are called "the bank of banks" or "the lender of last resort" for financial institutions. However, over time as the financial system goes more complicated and expanded exponentially, its supervision and regulation has been partially transferred to other institutions. The challenge faced by central banks is to establish a framework that combines both price and financial stability as primary objectives and identify the policy instruments to target both, even at times when they seem to conflict with each other.

Central banks have typically calibrated short-term interest rates as their primary policy instrument to determine their monetary stance. Since policy rates are too blunt instruments that affect the entire economy, using them to achieve both of these targets may lead to unintended consequences. As the build up to the recent crisis has shown, the optimum interest rate level that achieves price stability at full employment may differ from the one that is optimal for the stability of financial markets. The "Tinbergen Rule" suggests that this one instrument could be employed to achieve only one target, which in our case is conventionally recognised as price stability. There is clearly a need for a second set of policy tools. This second instrument, in my opinion, may be in the form of macroprudential tools that directly address financial activities.

Should all authority and responsibility related to financial stability be centralised and vested in central banks? On the one hand, the benefit of vesting the decision making power and responsibility under one institution, which happens to be the central bank, is clear: no coordination problem, more effective communication under one voice, and swift response to emergencies.

There are also downsides to such approach. The distinction between "goal independence" and "instrument independence" lies at the foundation of what we call central bank independence today. If central banks assume all regulatory and supervisory activities regarding the financial system and becomes the only authorities responsible for its oversight, the instruments needed to achieve that goal may reach a point where the principles of democracy necessitate a much closer coordination and cooperation with the government, blurring central banks' independence. Expanding the role of central banks in the economy has the potential to create a strong and anomalous entity in a democracy that emphasises accountability and the responsibility of elected officials.

Central banks played a vital role in maintaining financial stability in the past and they are likely to do so in the future. The optimal use of policy rates and macroprudential tools to achieve both price and financial stability would define the criteria for assessing the success of central banks in the post crisis era. During the crisis, new monetary tools have been explored by the central banks. Now, in addition to continuing to explore such monetary policy tools, policy makers would have to elaborate on the uses of regulatory rules for limiting the risks threatening financial stability and designing the optimal institutional structure for that purpose. The perfect balance between the risk of losing central bank independence and the risk of creating coordination problems (between the central bank and the regulatory and supervisory agency) still has to be found.

3| Financial stability and monetary policy in Turkey

Turkey used to be one of the emerging economies with high volatility and particularly sensitive to global risk perceptions throughout the 1990s and early 2000s. However, this time the headwinds from the global crisis have remained relatively subdued thanks to the resilience of the financial system and prudent macro-policies. Of course, the growth rate of the economy has dropped sharply, but neither price nor financial stability has been seriously jeopardised. In fact, Turkey was one of the few emerging countries that ended up with higher credit rating than pre-crisis level.

A combination of several factors made the difference, but lack of excessive borrowing turned out to be the key. Unlike its peers, the leverage ratios in Turkey stayed at moderate levels during the period of excess global liquidity, thanks to the policies of the Banking Regulatory and Supervision Agency and the Central Bank of Turkey. In fact, most of those policies implemented in Turkey since 2002 are incorporated into the Basel III principles, such as countercyclical buffers (banks in Turkey are not permitted to expand unless their ratio is at least four percentage points above the legal minimum) and liquidity ratios (both in local and foreign currency). Debt level of the public sector was also reduced significantly thanks to a quite ambitious fiscal discipline that resulted in a primary surplus of five percent of GDP on average between 2002 and 2006. Acceleration of household credits to excessive levels was prevented through timely monetary tightening in 2006. All in all, although debt level of the private sector increased before the crisis, which was a byproduct of the country's convergence and the deepening of the banking sector, it never reached unsustainable levels that could threaten financial stability.

The real strength of the economy, however, came from the management of foreign exchange (FX) risks, which is the most critical aspect of a small, open economy. Thanks to prudent regulations and oversight, the overall FX position of the Turkish banking sector was balanced. Since FX loans to individuals were prohibited, but FX deposits were not, households carried a significantly large long position in FX. It was the corporate sector that carried a significant FX position, about 10 percent of GDP. However, since the duration of their assets was short, whereas the duration of liabilities was long, the short term FX position of the Turkish firms was almost balanced as well. As it turned out, low leverage and low currency exposure became a major source of strength that contributed to the resilience of the Turkish economy to the global crisis, which in turn provided ample space to the Central Bank of Turkey to implement front-loaded and aggressive monetary easing without compromising price stability objective. Since no rescue package was needed to support the banking system, the government was also able to enact modest but still quite effective counter-cyclical fiscal policies in the midst of global turmoil.

Since early 2010 due to anemic growth in external demand, current account balance has been deteriorating rapidly, whereas core inflation remains subdued and output gap persists. Recent surge in capital flows toward emerging markets, including Turkey, has the potential to exacerbate the divergence between the pace of recovery in the domestic demand

and external demand. If this pattern of growth coexists with rapid credit expansion and deterioration in the current account balance, it may lead to financial stability concerns. These developments make it necessary to utilise policy instruments other than policy rates more effectively. Consequently, in today's challenging financial environment, which is likely to persist in the foreseeable future, the Central Bank of Turkey underscored four basic principles upon which the monetary policies would be built to maintain financial stability.

The first one is to discourage excessive leverage and to keep the debt ratios of banks and the corporate sector at modest levels. To that end the required reserve ratios in the Turkish lira (TRY) assets were raised (in consecutive steps starting from September 2010, from 5 percent to close to 10 percent as of January 2011) and remuneration of required reserves was ended.

The second principle is to extend the maturity of capital flows and bank liabilities. This is important for improving the quality of the capital account and avoiding exchange rate misalignments. We decided to adopt a policy mix to deal with this situation. We lowered the policy rate and widened the corridor between overnight borrowing and lending rates so as to allow fluctuations in the short-term interest rates, when needed. This policy so far has been quite effective. We observed a significant drop in the short term speculative inflows. In addition, we differentiated TRY required reserve ratios according to the maturity structure of deposits in order to lengthen the maturity structure of liabilities and reduce the maturity mismatch.

The third principle is strengthening the FX position of both the public and private sector, which is usually the Achilles' heel of emerging deficit economies. To that end the Central Bank of Turkey has adopted a new system for FX reserve accumulation that provides more flexibility to the Bank, while raising uncertainty in the FX market in a controlled manner to prevent moral hazard problem. Also the required reserve ratio for FX assets has been raised three times in 2010 and kept above that of TRY assets. The Banking Regulation and Supervision Agency also applies various rules and mechanisms to keep FX position of banks in check and prohibits the use of FX denominated loans by households.

The fourth principle is better management of foreign currency risk by the corporate sector through instruments like the Turkish Derivative Exchange. The central bank is working together with supervisory agencies to encourage more widespread use of hedging instruments.

Although it looks quite complicated at first sight, the framework we adopt in spirit is not significantly different from the conventional inflation targeting framework. The only difference is that, previously our policy instrument was the one week repo rate, but now our instrument is a "policy mix" –which consists of a combination of short term interest rates, reserve requirement ratios and interest rate corridor. We seek to use these instruments in the right combination in order to cope with both inflation and macrofinancial risks. The monetary policy stance in this framework is not only determined by the path of policy rates, but as a mixture of all the policy instruments, as I just mentioned. Just like the conventional inflation targeting framework, the policy is forward looking and contingent on economic outlook. The course of the policy mix in the forthcoming period will depend on the factors affecting price stability and financial stability.

We are going through a period in which central banks policies have to be creative in dealing with the "new normal". In our part, we believe that a lower policy rate and a wider interest rate corridor combined with higher required reserve ratios may serve as an effective policy mix in dealing with rapidly increasing macro-imbalances driven by short term capital inflows.

Crises do not generate breaking points in history, say historians; they just highlight the existing trends which were less visible before. The recent crisis put front and center the rising economic power of emerging countries. It has also demonstrated the vulnerabilities within the global system, especially across financial markets. Significant steps have been undertaken to address the latter. However, there is still so much to do to tackle global imbalances, since that involves not only revisiting economic policies, but also economic and institutional infrastructure that shapes them. As the quest for a new global order continues both in theoretical and practical levels, the predictability, balance, and sustainability of the new global order will depend on the cooperative and coordinated efforts to establish a well-represented infrastructure.