South African Reserve Bank Special Occasional Bulletin of Economic Notes

Special OBEN/24/01

South African Reserve Bank Special Economic Notes are a collection of descriptive and critical economic analyses with recommendations written for internal SARB discussion. They are written by staff members or fellows of the Economic Research Department and, on occasion, by consultants under the auspices of the SARB. They are released publicly on an occasional basis. This series features summaries of discussions that took place at the 2023 SARB's Biennial Conference.

Authorised for publication by:

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February 2024

South African Reserve Bank

SARB Special Occasional Bulletin of Economic Notes
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Special OBEN 2401* – February 2024

Resilience in the face of large shocks: challenges that await central banks in emerging market economies

***Pierre L. Siklos*[1]**

Abstract

A series of large shocks since 2008 have upended the previous era's macroeconomic stability. Policymakers, among others, yearn for a return to the so-called Great Moderation that saw lower and less volatile inflation together with consistently positive economic growth. Central banks and other institutions can deal with threats of greater instability by seeking to become more resilient to shocks, both small and large. This note provides a definition of resilience and explains how central banks, especially in emerging market economies such as South Africa, can deliver economic resilience. That said, other challenges remain that may well test a country's resilience to future economic and financial shocks.

1. Introduction

The seemingly endless series of large shocks[2] over the past decade and a half have naturally prompted policymakers to yearn for a return to macroeconomic stability. Developments over this period pose challenges for all central banks. This note will identify a few for emerging market economies.

Part of the desire for a return to macroeconomic stability stems from a wistful attachment to the period of the so-called Great Moderation. This was an era when inflation became much less volatile in the United States (US) while economic expansion remained largely uninterrupted.[3] This era is generally thought to have begun in the early 1980s and ended on the eve of the so-called Great Financial Crisis (GFC) in 2008. The timing of the Great Moderation likely varied across countries, but the phenomenon was largely global.

In general, the pursuit of price stability is one explanation for the emergence of the Great Moderation. Inflation targeting is the policy framework that spread most quickly around the world

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2 By definition, a shock is an unexpected event. Since economists work with models when discussing shocks, the timing and size of shocks will be model dependent. Alternatively, one can think of a shock as an event whose impact was not expected by individuals (e.g., households, firms, professional forecasters). Economists like to think that expectations of these groups are formed as if they had a model in mind although, of course, it is unobserved.

3 The era that precedes the Great Moderation is often referred to as the period of the Great Inflation. Bernanke's (2004) speech provides an excellent summary of the US experience.

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throughout this period, especially during the 1990s. Indeed, the South African Reserve Bank (SARB) has been tasked with targeting inflation in a range of 3% to 6% since 2000. If the GFC and, later, the Eurozone sovereign debt crisis shattered both economic and financial stability, the COVID-19 pandemic would eventually undo inflation stability.

Since shocks are unpredictable, aiming for macroeconomic stability has instead turned into a search for resilience in the face of repeated threats to inflation and economic performance. This note will argue that resilience is necessary to achieve macroeconomic stability. Moreover, resilience comes in at least two forms: economic and political.

What is resilience? The concept is understood to refer to an economy's ability to be less susceptible to shocks. Alternatively, one can define resilience as developing policies that are designed to reduce an economy's vulnerability to both domestic and global shocks. Given the economic challenges facing emerging markets, including South Africa, institutional capacity is a critical ingredient to achieve macroeconomic stability as this is the principal mechanism that can deliver resilience.

This note begins by defining resilience in greater detail. Next, I identify critical challenges faced by central banks in emerging markets. I then briefly summarise what we know about the macroeconomic effects of shocks, before concluding with implications for South Africa.

2. Resilience and macroeconomic stability: two sides of the same coin

When economic shocks are small, and policy strategies are well designed, stability is the natural outcome. At the high point of the Great Moderation, Stock and Watson (2003a) asked whether the era had brought about a change in the nature of the business cycle. One of their most striking conclusions is that monetary policy played a small role. Instead, a substantial reduction in the size of global shocks was the main culprit.[4] This finding is especially relevant for emerging markets, including South Africa, which tend to be open economies. The implication is that best practices in monetary policy design may not guarantee stability unless there is also resilience to global shocks.

What then are the ingredients that define resilience? Table 1 highlights a few of its key elements.

Table 1: Selected elements of resilience

Economic resilience	Political resilience
Property rights: the ability to trade, manage and dispose of one's own property should allow for adjustment mechanisms to work more efficiently in times of crisis	*Extent of democracy:* democracies can absorb shocks more easily because of reallocation mechanisms[5]

4 A companion piece of theirs (Stock and Watson 2003b) concurs with this conclusion but also assigns about 20–30% of the explanation for the Great Moderation to "luck" in the form of favourable productivity and commodity price shocks.

5 For example, fiscal space can pick up the slack when monetary policy cannot or is inappropriate, and public policies can be modified to ensure continued economic growth, which also aids resilience.

<table>
<tr><td>Exchange rate type: the more flexible a country’s exchange rate regime, the greater its ability should be to adjust to external shocks</td><td rowspan="2">Executive constraints: more constraints on the executive means more veto points against bad policies</td></tr>
<tr><td>External openness: a country’s openness to trade and its openness to capital movements is associated with greater resilience</td></tr>
</table>

The column labelled economic resilience argues that protecting property rights is critical as it ensures that economic activity can proceed unhindered by arbitrary rules or interventions, notably by the state. Next, exchange rate flexibility is thought to be the best way to ensure that the domestic economy is insulated from external shocks. While this matters less when external shocks are small, when shocks are large then exchange rate flexibility becomes a more potent device to ensure resilience. It is important, however, to emphasise that exchange rate flexibility is insufficient. After all, if flexibility provides the ability to implement policies independently, the latter must be well designed. There are plenty of historical illustrations of countries with poorly designed domestic policies that did not exploit the advantages of the freedom of action provided by a floating exchange rate arrangement.[6] Finally, if external shocks represent a significant threat to macroeconomic stability, then the extent to which the domestic economy is open to such shocks will also matter.

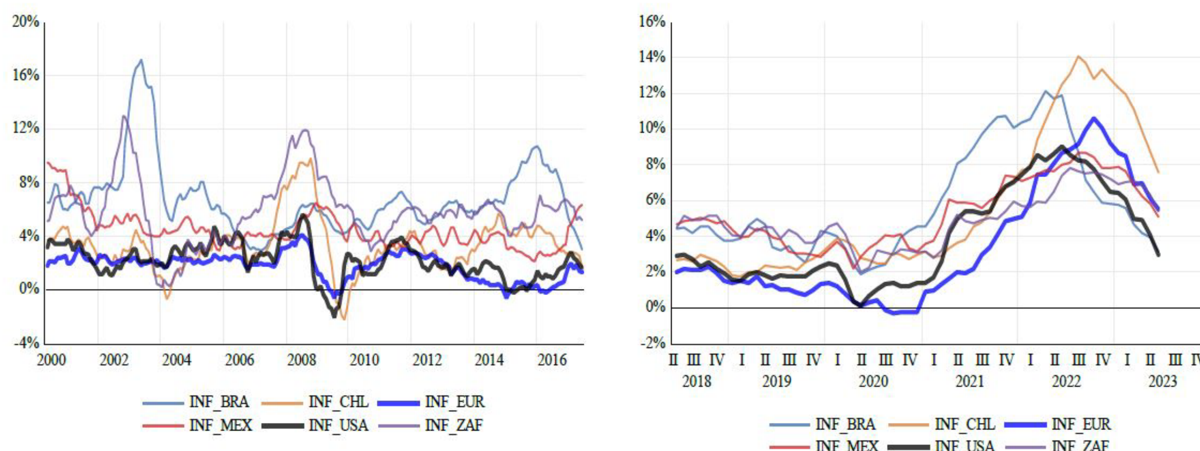
Turning to political resilience, there is considerable evidence that democracies are more resilient than alternative political regimes (for example, see Imam and Temple 2023). Similarly, checks and balances on the executive are thought to the best vehicles to ensure that fewer bad policies are implemented. Economic and political resilience are likely jointly determined. However, given limited space, this note focuses on the challenges that emerging markets face in seeking economic resilience.

3. Challenges facing emerging markets

Central banks are often judged by their ability to control inflation. In countries with an inflation target, that judgment can be assessed against a numerical value. Figure 1 plots headline inflation (that is, inflation in a consumer price index) for two advanced economies, namely the US and the eurozone, and four inflation-targeting emerging market economies. They are Brazil, Chile, Mexico and South Africa. The left-hand-side plot shows inflation for the period 2000–2017; the right-hand side shows inflation between 2018 and 2023.

[6] Canada during the 1970s and 1980s is one such example but it is not alone. See Bordo and Siklos (2022).

Figure 1: Headline inflation in select emerging and advanced economies



Note: Data are from the Bank for International Settlements (BIS) and are at annual rates. BRA=Brazil, CHL=Chile, EUR=eurozone, MEX=Mexico, USA=United States and ZAF=South Africa.

Three observations can be made about Figure 1. First, inflation in the emerging market economies has historically tended to be higher and more volatile than in the advanced economies. However, the inflation gap between these two types of economies has declined considerably since 2018. Second, recent inflation in the six economies follow similar trajectories, unlike in the 2000–2017 period. Third, the surge in inflation is evident everywhere in 2021, suggesting the global nature of the post-pandemic rise in inflation. The parallels persist when the reversal in inflation begins in 2022, although the reversal is slightly earlier in some emerging markets (e.g., Brazil).

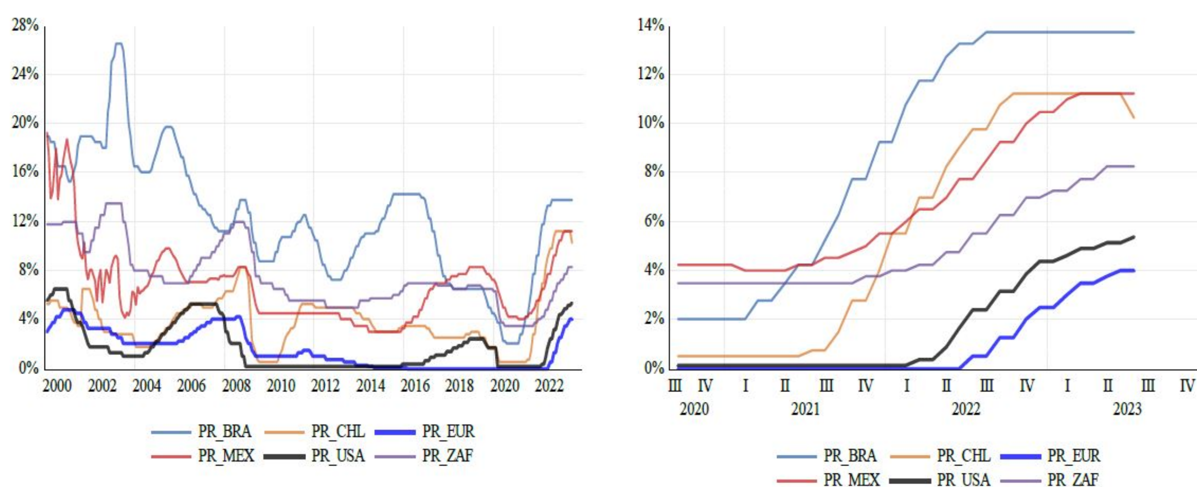
Developments since 2022 reflect the common shock that hit the global economy beginning in 2020.[7] Monetary policy played a role in the outcome. How were emerging markets capable of confronting this challenge? A floating exchange rate regime, combined with institutional capacity, assisted in addressing the inflation challenge.[8]

If a floating exchange rate regime buys resilience, what are the implications? For several decades the stance of monetary policy has been set via a policy rate. This is true in both emerging market and advanced economies. Figure 2 shows selected policy rates for the same economies as in Figure 1. The left-hand side plots the policy rates since 2000; the same data are plotted on the right-hand side since 2020.

7 Of course, this is not the first time a global shock emerged. As shown in the left-hand figure, there was also a synchronous and sharp decline in inflation in the wake of the GFC.

8 Ilzetzki, Reinhart and Rogoff (2019) concur that all of the emerging markets shown had floating exchange rate regimes.

Figure 2: Central bank policy rates in select emerging and advanced economies



Note: Monthly data from the BIS. See Figure 1 for country codes.

The following features stand out. First, policy rate rises in both advanced and emerging market economies have become more synchronous over time. This reflects commonality in monetary policy strategies around the globe. Next, focusing on the post-pandemic era, policy rates rose faster and earlier in the emerging markets shown than in the US or the eurozone. Exchange rate flexibility is one reason for the timely response to the post-pandemic surge in inflation. However, as we shall see, institutional factors were also at play. Central banks in Brazil, Chile, Mexico and South Africa were able to react by tightening their policy stances earlier than in the advanced economies.[9] Finally, while policy rates in emerging markets remain higher than in advanced economies, the left-hand side plot makes it clear that the gap in policy rates compared with the US and the eurozone are smaller than the historical norm. Once again, a policy strategy aimed at achieving low and stable inflation, assisted by an independent central bank, is part of the explanation.

Can we conclude anything from what we know about how shocks of various sizes and sources impact economies? Fortunately, a large empirical literature that examines how shocks impact economic performance in emerging market economies has reached some consensus.[10] First, important global shocks originate in the US. Shocks from the eurozone and China have been found to amplify and not offset US shocks. Second, a legacy of greater globalisation is that tighter monetary policy conditions in the US are transmitted globally. The stylised evidence discussed above (Figures 1 and 2) corroborates this interpretation. Finally, improving economic conditions in the US generate a positive spillover that benefits perceptions of the performance of central banks. What is the mechanism by which this happens? The answer is via enhanced central bank credibility.

[9] Indeed, Brazil is the first country shown to reduce its policy rate. This reduction has since continued. Chile has also begun to reduce its policy rate. If advanced economies hold policy rates at current levels, the gap in policy rates between advanced and emerging market economies might continue to decline. (This information was true at the date of writing.)

[10] See Bordo and Siklos (2022) and Chen and Siklos (2023) and references therein for more details.

This brings us to another challenge faced by central banks in emerging markets, namely the preservation of institutional capacity.[11] Institutional capacity is enhanced when there is greater credibility of and trust in the central banking institution. A simple but widely adopted definition of credibility is based on the evolution of misses in achieving an inflation target. Generally, the central bank will not suffer a credibility loss for small differences between observed and targeted inflation. However, persistent and large misses will threaten institutional credibility and, therefore, institutional capacity. This can largely explain the negative public reaction when inflation rose much faster than expected from 2021. Central banks around the world were at pains to explain that the 'exogenous' shock of the pandemic could not have been foreseen by their models, since they were not designed for shocks of this kind. Nevertheless, the insufficient timeliness of monetary policy responses, once the surge in inflation did not prove transitory, would show up as sizeable and persistent misses in the inflation target, thereby negatively impacting central bank credibility.

Institutional capacity requires more than credibility. Trust in an institution represents the accumulated impact of changes in credibility over time. The greater the trust in an institution, the greater the reservoir of institutional capacity available to be used when large shocks threaten the public's perception of the capacity of the central bank to control inflation. The available empirical evidence[12] suggests that credibility and trust, and institutional capacity, are the main determinants of central bank resilience.

To summarise, a floating rate regime, a well-designed monetary policy strategy and policymakers' response to global and domestic shocks are all necessary ingredients for economic resilience, but they are insufficient. Solid institutional capacity is also required.

4. Implications for emerging markets and South Africa

Emerging markets have dealt quite effectively with the monetary policy challenges they face. This includes South Africa. However, this development masks other challenges. Briefly, at least three stand out.

First, emerging markets face the problem of debt sustainability. Figure 3 illustrates the problem. The plots show the ratio of government debt to gross domestic product (GDP) in emerging markets and Organisation for Economic Co-operation and Development (OECD) countries.[13] While the ratio declined in emerging markets until 2014, it has risen almost inexorably in both advanced and emerging market economies during the 2000s. The sharp rise in 2020 everywhere reflects COVID-related spending. Although debt levels began to recede in 2021, they remain elevated. While the

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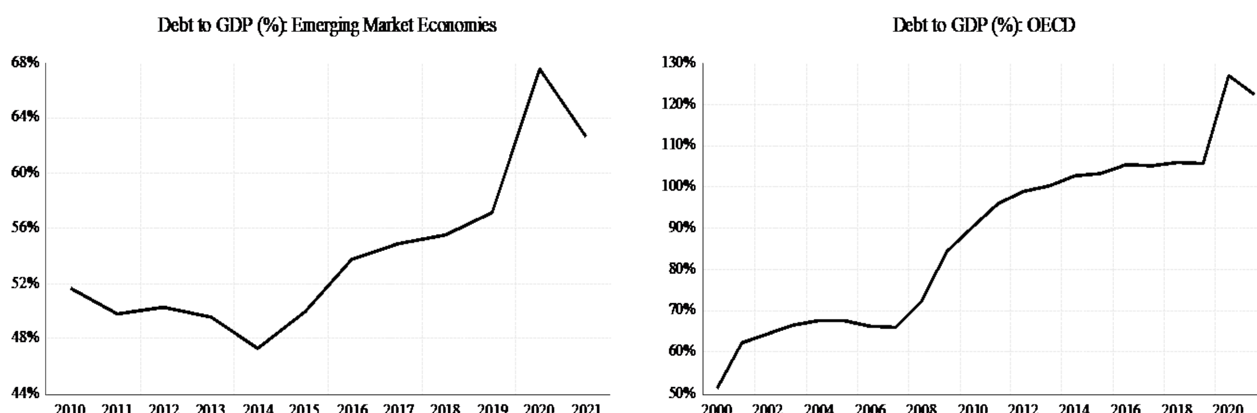
[11] There is no agreed-upon definition of institutional capacity. However, it is generally thought to represent the collection of country-specific economic and political characteristics that serve to protect a central bank's capacity to conduct monetary policy independently from government pressure. That said, it is the government's responsibility to set the mandate of the central bank.

[12] Hartwell and Siklos (2023) provide a survey and empirical evidence for a sample of over 100 countries.

[13] The group of OECD countries are considered advanced.

ratio for OECD members is almost twice as high as the one for emerging markets, this likely reflects in part the lower capacity of the latter economies to add more government debt.

Figure 3: Debt-to-GDP levels in emerging markets and the OECD



Note: Data from the OECD and the International Monetary Fund's World Economic Outlook databases, which also provides the complete list of emerging market economies.

The second challenge facing all economies is another old one, largely forgotten in an era where responsibility for macroeconomic stability was largely left to central banks: fiscal and monetary policy cannot work at cross-purposes for long. As debt levels remain elevated, and higher interest rates translate into higher debt-servicing costs, combined with a return to secular stagnation,[14] there is a greater risk that fiscal policy in both emerging market and advanced economies becomes unsustainable, prompting fears of another global financial crisis. As the International Monetary Fund (2023) has pointed out, the global economy faces a "trilemma" in the post-COVID world, namely the difficulty of ensuring debt sustainability when demands from climate change and other structural reforms generate economic and political pressure on policymakers. These will certainly test resilience achieved to date.

Finally, there is the imponderable impact of the slowing down and potential reversal of globalisation. While there are positive and negative aspects to globalisation, both emerging market and advanced economies, including South Africa, have benefited from the ability to trade and interact with economies around the world. A more resilient economy ought to be able to exploit the net benefits of globalisation but geopolitical risks have begun to create a backlash (Colantone, Ottaviano and Stanig 2022).

Engineers frequently argue that resilience also requires that systems contain redundancies. An important lesson for emerging markets and South Africa may be that macroeconomic stability requires more than just a flexible monetary policy aimed at achieving low and stable inflation. It requires that fiscal and monetary policies not place undue pressure on each other. This means that monetary policy should not be too loose for too long to avoid incentivising a loose fiscal policy, or fiscal policy should not force the hand of central banks to tighten monetary policy excessively to avoid macroeconomic instability. This may be the only way to avoid more large economic shocks and to provide an opportunity for a return to macroeconomic stability. Even if economic

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[14] 'Secular stagnation' refers to chronically weak economic growth and very low interest rates due to low aggregate demand.

resilience is enhanced, there is still the matter of political resilience not directly addressed in this note. Hopefully, there is a chance that if the former succeeds, the latter may also follow.

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