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The concept of independent central banks began receiving enormous attention starting with the 1970s, with the development of theories on the optimal design of monetary policy institutions. In this context, Kydland and Prescott (1977) and Rogoff (1985) have argued that only an independent policymaker can implement credible monetary policy, which is crucial for avoiding the risk of inflation and ensuring price stability.

Yet, since the global financial crisis, the pillar of central banks’ institutional design—their autonomy from the legislative branch—has come under increasing pressure. A growing number of central banks around the world are facing political pressures that have called their operational independence into question. For example, in July 2018, US President Donald Trump complained that the US Federal Reserve had gone “crazy” by tightening monetary policy. In December 2018, the governor of the Reserve Bank of India resigned after the government moved to exert more control over the bank’s regulatory powers and the distribution of its dividends. In Argentina, an attempt in 2010 by the government led by Cristina Fernández to transfer USD 6.6 billion from the central bank’s regulatory powers and the distribution of its dividends also received a lot of academic attention. A first step in this endeavor was the creation of indices that measured the degree of independence of central banks. Grilli et al. (1991) were the first to develop such indices of central bank independence (hereafter, CBI) by focusing on the legal statutes of central banks. Employing these measures, an extensive empirical literature began examining the relationship between CBI and inflation, economic growth, and other macroeconomic variables (see for example Arnone et al. 2009; Crowe and Meade 2008; Arnone and Romrelli 2011).

This literature generally tends to support a negative correlation between the level of CBI and inflation rates, suggesting that assigning more independence to central banks is indeed associated with lower and less volatile inflation. For example, in a meta-analysis of 57 empirical studies, Klop and de Haan (2010) find that the negative relationship is particularly strong during the 1970s and for OECD countries. However, many studies that have revisited this issue by looking at different time frames, samples of countries, or measures of CBI suggest that the CBI-inflation nexus is not always consistent (Posen 1995). Several empirical challenges are generally emphasized. First, various measures of CBI assign different degrees of importance to certain characteristics of central bank design, which can result in a wave of reforms to central bank institutional design. In this brief report, we provide an overview of the evolution of central banks’ institutional design and discuss how reforms that led to central banks’ increased operational independence over the past four decades came about. We then highlight the present and future challenges that central banks face, and why they might mask the functioning for decades to come.

FORTY YEARS OF CENTRAL BANK INDEPENDENCE

What accounts for the worldwide changes in central bank design over the past four decades? How can we explain the timing and pace of reforms in central banking across countries? Romelli (2018) tries to answer these questions by introducing a large cross-country database on the timing of legislative changes in central banking for a set of 154 countries during the 1972–2017 period. He constructs a dynamic measure of CBI (dubbed ECBI index) that allows for a precise determination of the timing and magnitude of reforms in central bank design. This dynamic index builds on the two most common measures of de jure central bank independence. First, reforms that increase CB independence and second, reforms that decrease CB independence. REFORMS IN CENTRAL BANK INDEPENDENCE OVER THE PAST FOUR DECADES

Figure 1 compares the level of CBI proxied by the ECBI index in 1972 (or the first year available) and in 2017. As most countries cluster above the 45 degree line, it is clear that the evolution of central banks’ institutional design has been a continuous process over the past four decades. The correlation between the level of CBI and inflation is generally assessed using static indices of independence, i.e., measured at a given point in time. Most studies generally compute a measure of CBI at two different points in time: at a given point in time, which may mask the important dynamics regarding the evolution of the institutional design of central banks and how this relates to economic outcomes (Crowe and Meade 2008). As such, understanding the process through which central banks became more independent is crucial for political scientists and economists alike who would have acknowledged that monetary policy independence remains of the highest importance, and it is important that we preserve monetary policy independence to help foster desirable macroeconomic outcomes and financial stability.”

Stanley Fisher (November 2015)

“The only problem our economy has is the Fed. They don’t have a feel for the market.” Donald Trump (December 2018)

Prior to the global financial crisis, there had been much agreement about the optimal institutional design of monetary policy authorities. Economists and policy observers alike would have acknowledged that monetary policy is best left in the hands of independent central banks with a clear mandate of price stability. These inflation-targeting central banks were seen as the solution to the problem of high inflation and were credited with the period of great moderation that saw low levels of inflation and moderate output fluctuations (Alesina and Stella 2010).

Yet, since the global financial crisis, the pillar of central banks’ institutional design—their autonomy from the legislative branch—has come under increasing pressure. A growing number of central banks around the world are facing political pressures that have called their operational independence into question. For example, in July 2018, US President Donald Trump complained that the US Federal Reserve has gone “crazy” by tightening monetary policy. In December 2018, the governor of the Reserve Bank of India resigned after the government moved to exert more control over the bank’s regulatory powers and the distribution of its dividends. In Argentina, an attempt in 2010 by the government led by Cristina Fernández to transfer USD 6.6 billion from the central bank’s regulatory powers and the distribution of its dividends also received a lot of academic attention. A first step in this endeavor was the creation of indices that measured the degree of independence of central banks. Grilli et al. (1991) were the first to develop such indices of central bank independence (hereafter, CBI) by focusing on the legal statutes of central banks. Employing these measures, an extensive empirical literature began examining the relationship between CBI and inflation, economic growth, and other macroeconomic variables (see for example Arnone et al. 2009; Crowe and Meade 2008; Arnone and Romrelli 2011).

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line, there is a clear tendency toward adopting higher levels of CBI. A country with one of the highest levels of independence is Finland, while the lowest is in Macao. The largest drop in independence was recorded in Vietnam, after a reform that took place in 1997. Similarly, Figure 3 shows the evolution of the average index of CBI by regional clusters. Several regions appear to lag, as the level in the reform process, such as South and East Asia, the Middle East, and North Africa. This figure indicates an overall increase in the degree of CBI, but it also highlights the heterogeneous distribution of the degree of CBI across space and time.

These differences in the level and pace of reforms suggest that, while most countries have converged toward a higher level of independence, the institutional path towards this convergence is still shaped by factors endogenous to each country. The political economy literature has suggested several drivers of reform processes, which could also be useful in understanding the determinants of the degree of CBI across space and time. This non-linear relationship is highlighted between past levels of CBI and the probability of reforms. This suggests that countries are less likely to reform at very low or very high levels of CBI, where they exhibit a strong status quo bias. Regional convergence is also an important driver of reforms, as countries farther away from the average level of independence in their region are more likely to reform. External pressure to reform also comes from international institutions, as countries receiving an IMF loan or becoming a member of a currency union are also more likely to increase the independence of their monetary policy institutions. Finally, there is also some evidence that financial crises influence the reform process, as the occurrence of a systemic banking crisis is likely to be followed by reforms that decrease the level of CBI. This result is also echoed in Masciandaro and Romelli (2018), who document an increase in supervisory roles for central banks following financial crises, which is generally associated with lesser independence as financial and price stability objectives can sometimes lead to competing policy responses.

Central banks are often involved in the resolution and supervision of financial crises. This “learning” from past experience can take different forms. For instance, countries might converge to an ideal level of CBI, say full independence. If so, policy changes might be driven by how far countries are from this desired level, i.e., the distance between the status quo and the desired level of independence. But learning can also be influenced by foreign factors. Evidence of spatial or regional clustering is often found for various reform processes such as democratic and liberal economic policies. As such, countries might also reform their central bank design when other countries in their region are adopting higher levels of independence. In this case, a proxy for regional learning could be captured by the difference between the average level of independence of neighboring countries and a country’s own degree of independence. Conventional wisdom also suggests that “it takes a crisis to reform.” If so, various types of economic or financial crises, such as a systemic banking crisis, hyperinflation episodes, or deep recessions, could effectively contribute to boosting reforms in central bank institutional design. Finally, reform processes could also be driven by external pressures from international institutions. For instance, agreements with international lenders like the IMF or the World Bank often require countries to commit to a set of policies, which include granting more independence to their central bank.

The results presented in Romelli (2018) provide support for the view that most of these political economy factors matter to various degrees. Learning and external inducements have the strongest effect on the likelihood of reforms in central banking. In particular, a non-linear relationship is highlighted between past levels of CBI and the probability of reforms. This suggests that countries are less likely to reform at very low or very high levels of CBI, where they exhibit a strong status quo bias. Regional convergence is also an important driver of reforms, as countries farther away from the average level of independence in their region are more likely to reform. External pressure to reform also comes from international institutions, as countries receiving an IMF loan or becoming a member of a currency union are also more likely to increase the independence of their monetary policy institutions. Finally, there is also some evidence that financial crises influence the reform process, as the occurrence of a systemic banking crisis is likely to be followed by reforms that decrease the level of CBI. This result is also echoed in Masciandaro and Romelli (2018), who document an increase in supervisory roles for central banks following financial crises, which is generally associated with lesser independence as financial and price stability objectives can sometimes lead to competing policy responses.

Overall, the analysis in Romelli (2018) points to some important drivers that have shaped the institutional design of central banks over the past few decades. Yet, the level of independence has seen a downward trend in many countries around the world, one could expect that the reform process of central banks is coming to a halt. However, this might not be the case. Masciandaro and Romelli (2019) investigate the reform process in a restricted sample of 65 countries that experienced low inflation during the 2000-2014 period. They find that macroeconomic shocks such as political, labor market, or currency shocks are still associated with an increased likelihood of central bank reforms.

Furthermore, several important trends in banking supervision and macroprudential policies that have mainly been the result of the 2008 financial meltdown suggest that the institutional design of central banks is likely to continue evolving. In the following section, we highlight the new roles of banking and macroprudential supervision that central banks have taken on in recent years and discuss how these interact with their independence.

Central Banks as Financial Sector Gatekeepers

In 2017, 96 percent of central banks around the world had a clear objective of price stability. However, as we saw during the run-up to the global financial crisis, price stability did not necessarily guarantee financial stability. Historically, many central banks have also been involved, to various degrees, in the regulation and supervision of the banking sector. However, as they gained more independence, the supervisory responsibilities were generally assigned to separate bodies outside the central bank. Economic theory does not provide a clear answer as to whether assigning supervisory roles to central banks or other independent institutions is socially optimal. Masciandaro and Quintyn (2015) highlight two conflicting views regarding the merging of monetary and supervisory functions inside the central bank. An integration view underscores the informational advantages and economies of scale derived from bringing all functions under the authority of the central bank (Peek et al. 1999; Bernanke 2007). Alternatively, a separation argument highlights the higher risk of policy failure, as financial stability concerns might impede the implementation of optimal monetary policies (Goodhart and Schoenmaker 1995; Ioannidou 2005; Berger and Klößner 2013). The empirical literature that has investigated the relative merits of putting sector supervision in the hands of central banks also yields mixed results.

Yet, following the 2008 global financial crisis, many countries have actually increased the involvement of central banks in financial sector supervision, suggesting a sort of “great reversal” towards putting prudential supervision in the hands of central banks (Masciandaro and Romelli 2018). A classic example of this reversal is the evolution of the supervisory architecture in the United Kingdom between 1997 and 2013. In 1997, when the UK parliament voted to give its central bank operational independence with a clear objective of price stability, the responsibility for banking supervision was transferred from the Bank of England to the Financial Services Authority. However, the supervisory failure of this authority during the recent crisis led to its dismissal in 2013, with the supervisory powers being assigned to the newly established Prudential Regulation Authority, as a part of the Bank of England. Within the euro area, the creation of the single supervisory mechanism (SSM) in 2014 assigned banking supervisory responsibility to the ECB. However, the macroprudential supervision of other financial intermediaries, such as insurance companies, and financial markets, is still conducted outside the central bank.

An overview of how the role of central banks in financial sector supervision has evolved over the past few decades is provided in Masciandaro and Romelli (2018). They create a new dataset containing information on the authorities responsible for the oversight of the financial sector (banking, insurance, and financial markets) in a large sample of 105 countries over the 1996-2013 period. Using this data, they develop a new index of Central Bank Involvement in Supervision (CBI Index) that captures the degree of central bank involvement in supervising all, some, or none of the various financial sectors.

Figure 4 shows the level of this index in 2013, with darker colors corresponding to a higher number of sectors that fall under the central bank’s supervisory responsibility. A closer look at how this index has evolved over time reveals a clear tendency towards
assigning more supervisory powers to central banks, in particular since the global financial crisis.

Masciandaro and Romelli (2018) also try to understand the determinants of reforms that increase the involvement of central banks in supervision of the entire financial sector. They find that past systemic banking crises significantly increase the probability that a country will reform its supervisory structure. This result is specific to financial sector turmoil and not to other types of crises, such as currency crises or economic recessions. They also show that crises are followed by reforms that generally increase the involvement of central banks in financial sector supervision, but not by those that decrease it.

Given this result, a natural question arises: in the absence of random shocks to the financial sector or an optimal institutional setting, what shapes the supervisory architecture of a country? Their study also documents an important “peer” effect among countries that explains the evolution of financial sector supervision. In particular, they show that countries are more likely to change their supervisory architecture when there is a larger share of countries undertaking reforms around the world or on the same continent. The degree of CBI also influences the decision to concentrate financial sector supervision in the hands of monetary policy authorities. Specifically, greater CBI is associated with less central bank involvement in supervision. This is also shown in Meleky and Podpiška (2013), who investigate the determinants of unified financial sector supervision, albeit not necessarily in the hands of the central bank. Thus, greater independence not only suggests more decentralized supervision as Meleky and Podpiška find, but it also suggests less involvement of central banks in oversight of the financial sector. This is in line with the view that granting unified supervisory power to an already highly independent central bank might increase the risk of bureaucratic misconduct. This is because increased oversight of financial institutions, i.e., greater microprudential regulation and supervision, might put a different type of pressure on a central bank’s goals (Reis 2013). For instance, if central banks lack a clear policy rule forbidding the bailout of systemically important financial institutions, it will always be optimal to do so to avoid larger crises. However, if banks expect to be bailed out, this will increase their ex ante incentive to become larger, take on more risk, and correlate their exposure, making themselves systemically important. As a result, recent attention has also been directed towards the role of central banks in macroprudential oversight that aims at reducing systemic risk arising from excessive financial procyclicality (Cerutti et al. 2017).

Cerutti et al. (2017) are among the first to document the use of macroprudential policies in a set of 119 countries over the 2000–2013 period. Their paper shows that these policies are widespread, however, emerging economies tend to implement macroprudential policies more related to foreign exchange, while advanced economies focus on borrower-based policies (such as loan-to-value and debt-to-income ratios). One important point they found is that macroprudential policies are generally associated with reductions in the growth rate in credit, but this effect is less evident in more developed and financially open economies.

Finally, they highlight an asymmetric impact of these policies, which seem to work better in booms as opposed to the bust phase of a financial cycle. Bruno et al. (2017) also analyze the effect of macroprudential and capital flow management policies for a sample of 12 Asia-Pacific economies over the 2004–2013 period. Their findings suggest that capital flow management policies are effective in slowing down banking and bond inflows. They also find a certain degree of interaction between monetary policies and macroprudential policies, suggesting that macroprudential policies are a better complement to monetary policy tightening than to its loosening.

CONCLUSIONS

Following the 2008 global financial crisis, central banks have not only extensively used unconventional monetary policy tools, but have also acquired deeper regulatory and supervisory powers over banking and financial intermediaries. Monetary activism coupled with a higher degree of involvement in financial regulation and supervision has reopened the debate on the optimal design of central banks. Going forward, central banks might face a number of pitfalls associated with the increased tasks and responsibilities they have received since the beginning of the global financial crisis. The coordination between monetary policy and either micro- or macroprudential policies might indeed threaten the credibility of central banks.

In this context, central bank transparency and accountability can sometimes be powerful tools for managing expectations and improving central banks’ ability to effectively pursue their mandate. Yet how this information should be communicated and its impact on expectation is not perfectly understood. An active research agenda is investigating whether enhanced central bank communication is actually benefiting the public. (Haldane and McKaheon 2018). A recent illustrative example is the gradual unwinding of the USD 4.5 trillion balance sheet that the US Federal Reserve has accumulated through quantitative easing since 2008. The process was supposed to be automatic and, as for the chairman of the Federal Reserve Janet Yellen described it as a “watching paint dry” (The Economist 2019). Yet communications about the process from Jerome Powell, the current Fed chair, have spooked the markets, which interpreted such messages as a signal of broader monetary policy.

What challenges does the institutional design of central banks face in the future? The first is increased political pressure due to the rise of populist movements across the world, which could threaten the hard-won independence of these policy institutions. Second, the benefits of CBI might be questioned in times of low and stable inflation. Third, the increased supervisory role that central banks have recently adopted, as well as the myriad of unconventional policies that followed the global financial crisis, might challenge their credibility in pursuing their mandate of price stability. All these challenges have brought the issue of central bank independence to the fore front of academic policy debate and might still trigger significant reforms to central banks in the near future.

REFERENCES


