



## Why Central Bank Independence Matters

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*Deep economic crises—the global financial crisis and the COVID-19 pandemic—have put some strains on, and rekindled an older debate about the costs and benefits of central bank independence. Central banks have been accorded more independence since the 1970s, which has helped bring down and keep inflation low and reduced the risk of fiscal crises. However, as their interventions in the economy with unconventional policies expand further beyond their original mandate, especially those pertaining to financial stability, critics have called for more oversight of their activities. That is because some of the central banks' newfound responsibilities such as financial stability do not have a precise and unambiguous target or measure, making accountability difficult. The evidence in support of central bank independence remains strong, as highlighted in this Brief. However, in light of the expansion of central banks' power, reforms should aim to institute oversight of the newfound powers.*

### The Bias toward Inflation and Pressures on Central Bank Independence

Monetary policy is one of the two main pillars of macroeconomic policy; fiscal policy is the other. Monetary policy must contend with a built-in political-economy bias towards inflation. That is, due to distortions such as taxes and market imperfections that keep output below its potential, the government has an incentive to deviate from its commitment over time and raise inflation to expand output and lower unemployment. This tendency—the so-called time inconsistency problem of monetary policy—has highlighted the importance of putting an independent central bank free from political pressure and interference in charge of the conduct of monetary policy.

Kydland and Prescott (1977), and then Barro and Gordon (1983), were the first to put forth the time inconsistency theory as an explanation for the high inflation observed in the 1970s. Subsequently, Rogoff (1985) showed that the inflationary bias stemming from the time inconsistency problem can be reduced if the conduct of monetary policy is left to an independent and conservative central bank. Conservative in this case means that the central bank puts a larger weight on stabilizing inflation than output because it is more averse to inflation. Without political interference, independent central banks are then able to commit to a clear monetary policy, anchor expectations, and better control inflation.

In recent years, with extended periods of ultra-low inflation rates in advanced economies, the prescription had shifted—at least before the COVID-19 pandemic—toward the need for more liberal central banks that would boost average inflation. But whether the central bank pursues conservative or liberal policies, its policy effectiveness remains linked to its degree of independence from political interference. In countries such as Argentina, Turkey, Venezuela, and Zimbabwe, the erosion of central bank independence (CBI) due to constant political interference has led to sustained periods of relatively high inflation.

### Assessing Central Bank Independence

The first attempts to measure central bank independence appeared in Bade and Parkin (1978, 1988) and were square based on laws and statutes governing central banks and their operations. These measures have been referred to as legal measures of central bank independence. Variants of the legal measures of central bank independence were also developed by Alesina (1988) and Grilli et al. (1991). However, the most cited legal measure of central bank

independence was introduced by Cukierman (1992). The author combined central laws and statutes with survey responses from various central banks to assess their legal independence from political interference.

Because legal measures of central bank independence do not indicate the degree of actual independence, Cukierman, Webb, and Neyapti (1992) argue that a better proxy for actual (or de facto) central bank independence is the turnover rate of central bank governors.

Figure 1 depicts these various measures. As the figure shows, central banks have become more independent. Panels a and b present the legal independence index from Garriga (2016) and Bodea and Hicks (2014). The average measure of legal CBI was around 0.4 in 1970, but reached 0.6 in 2012, according to the data from Garriga (2016). The same trend is apparent in data from Bodea and Hicks (2014). Similarly, as shown in panel c, the average turnover rate over a five-year period of central bank governors has fallen from well over 1 to about 1 from 1965 to 2020. Given that the average tenure of central bank governors is five years, this is an indication that most governors are now able to complete their term without being removed.

### Some of the Criticisms of Central Bank Independence

The increase in both legal and de facto central bank independence does not necessarily mean that frictions or conflicts between the government and central banks have been completely eliminated. Times of deep economic crises have often been sources of immense challenge for central bank independence as governments look for cost-effective ways to finance their stimulus spending. And in crises where monetary and fiscal policy coordination is not straightforward, like in times of supply shocks, this pressure on central bank independence can be exacerbated. Moreover, when the central bank's response to an inflationary development is to significantly raise the interest rate—making it more costly for the government to finance its deficit—this decision could lead to some frictions.

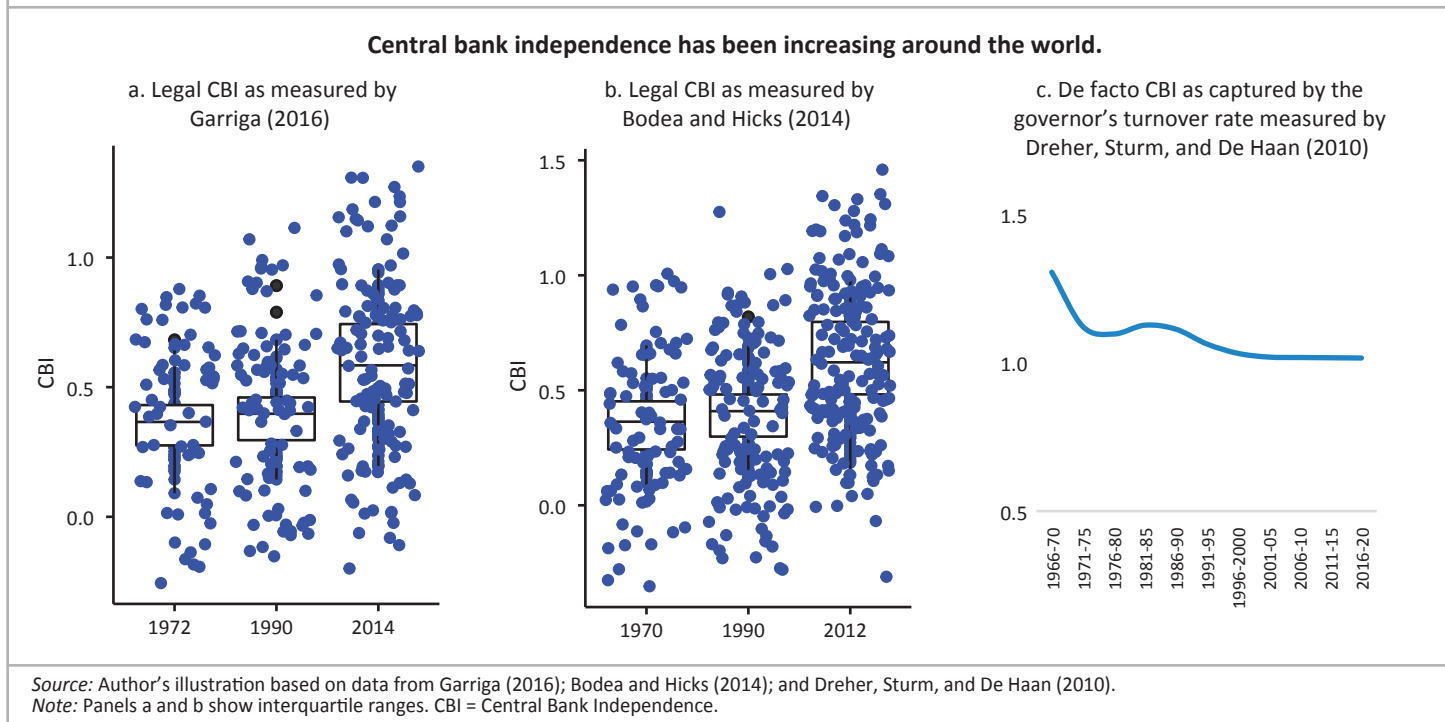
Central bank independence came under more scrutiny following the 2008–09 global financial crisis, when governments expanded the core tasks and responsibilities of central banks beyond their original mandate in an effort to contain the crisis (Balls, Howat, and Stansbury 2018; Rogoff 2019; Dall'Orto Mas et al. 2020). In terms of financial stability, for instance, before the crisis, central bank mandates mainly concerned the supervision of banks, which was done at the individual institution level. But the global financial crisis highlighted the

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Figure 1. Evolution of Central Bank Independence



importance of monitoring sources of systemic risks, so central bank's mandates in many countries were greatly expanded to include the broader objective of financial stability. This development, some argue, have made accountability of central banks more difficult because unlike price stability—which can be defined by a clear indicator such as an inflation target of 2 percent—financial stability has no clear and defined indicator (Balls, Howat, and Stansbury 2018).

The ongoing COVID-19 pandemic has reignited the debate and concerns about central bank independence. On the one hand, there has been concerns about some governments exerting pressure on their central bank to enact specific policies to mitigate the economic impact of the pandemic. In addition, inflationary pressure during recovery from the pandemic could further strain central bank independence. In the early 1980s, the Federal Reserve (Fed) had to raise interest rates close to 20 percent to combat inflation, but then public and private debt levels were relatively low, which limited the fiscal impact of the Fed's policy. Given the inflationary risk, a post-COVID-19 environment could be characterized by high inflation, high private and public debt levels, and persistent unemployment. As such, central banks' decision to raise interest rates high enough to curb inflation will likely not be without government and/or social discontent (Goodhard 2020). On the other hand, tasks and responsibilities that had become part of central banks' expanded mandate following the global financial crisis have suddenly become more urgent following the outbreak. To safeguard financial stability amidst the current economic downturn, central banks have enacted a wide range of policies such as blanket loan moratoriums that can have long-term implications for governments balance sheet.

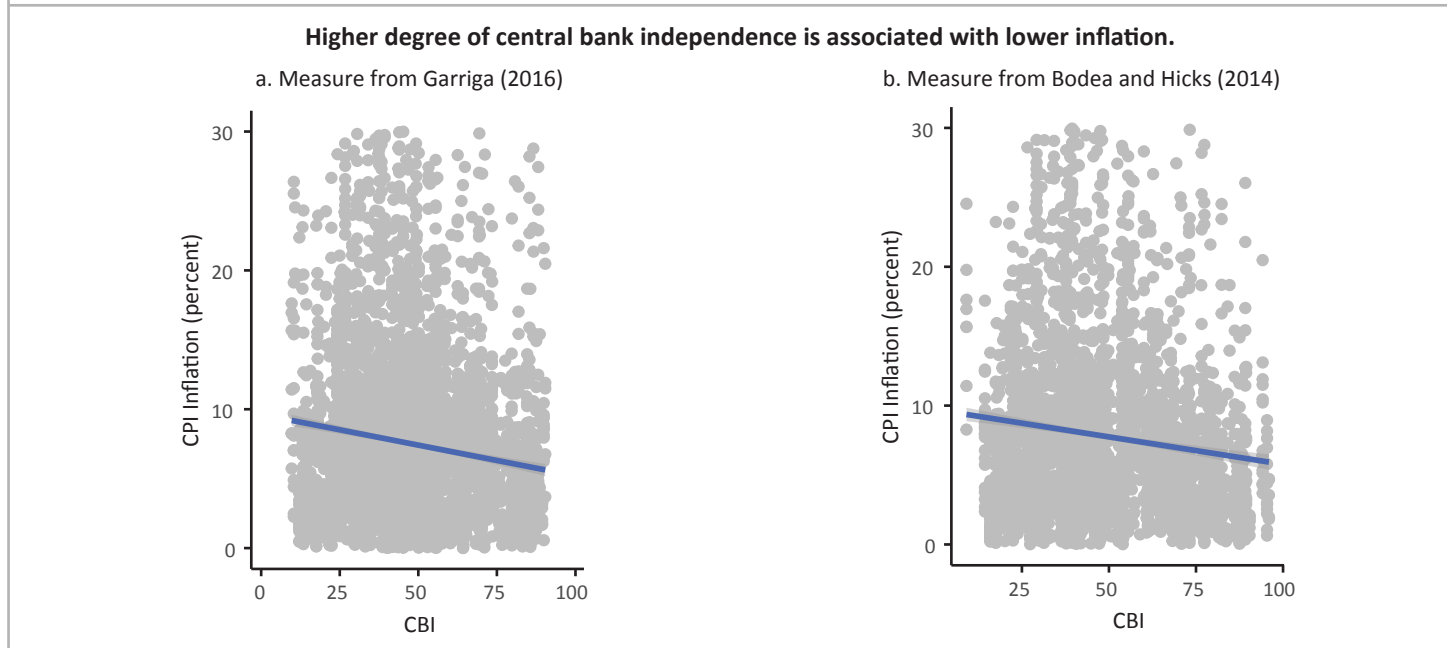
Furthermore, widening social inequities have led to the rise of populists leaders who have vowed to place more oversight over central banks and their operations. For instance, narrowly defeated legislation in the US Congress, would have required the Fed to set interest rates according to a predetermined rule and make monetary policy decisions go through a congressional review (Bernanke 2016). This would have significantly diminished the Fed's independence.

## Why Central Bank Independence Matters

*Central bank independence and inflation.* The first measures of legal CBI were accompanied by attempts to assess its impact on various macroeconomic outcomes—specifically, inflation because it is part of the central bank's mandate to stabilize inflation. As early as the late 1980s, a first batch of papers documented the negative relationship between central bank independence and the inflation rate. Notably, Bade and Parkin (1988) show that legal CBI and inflation are negatively related. Other more recent studies have arrived at the same conclusion (Brumm 2002, 2011; Garriga and Rodriguez 2020). These studies are all based on measures of legal CBI. The causal effect of de facto measures of central bank independence, as captured by governors' turnover rate, on inflation has been harder to document. This because in a country with a high turnover rate of governors, inflation can be high due to political interference by the government, leading to a more frequent firing of the central bank governor. But it can also be the case that the governor is fired because he/she could not keep inflation low. Despite this complication, an overview of the literature on central bank independence provides enough evidence that the negative relationship between central bank independence and inflation is quite robust (Berger, de Haan, and Eijffinger 2001; Klomp and de Haan 2010); and that indeed more independent central banks do deliver and maintain lower inflation, compared to less independent ones. In some countries such as Argentina, Turkey, Venezuela, and Zimbabwe the erosion of central bank's independence and credibility has led to high inflation rates. And once the conduct of monetary policy is greatly influenced by politics and the government, it is very difficult for the central bank to establish independence and credibility (Rogoff 2019).

Figure 2, panels a and b, plot measures of legal CBI against the inflation rate, as measured by the consumer price index (CPI). The negative correlation between the two variables is very apparent. Estimations from a fixed effect model and a dynamic panel model confirm the negative relationship between inflation and central bank independence (technical details available upon request). Based on the fixed effect model, the results show that an increase in the CBI index by 1 percent is associated with a 0.66 ppts decline in inflation rate. For

Figure 2. Central Bank Independence and Inflation



Source: Author's illustration based on data from Garriga (2016); Bodea and Hicks (2014); and World Bank World Development Indicators.  
 Note: CBI = central bank independence; CPI = consumer price index.

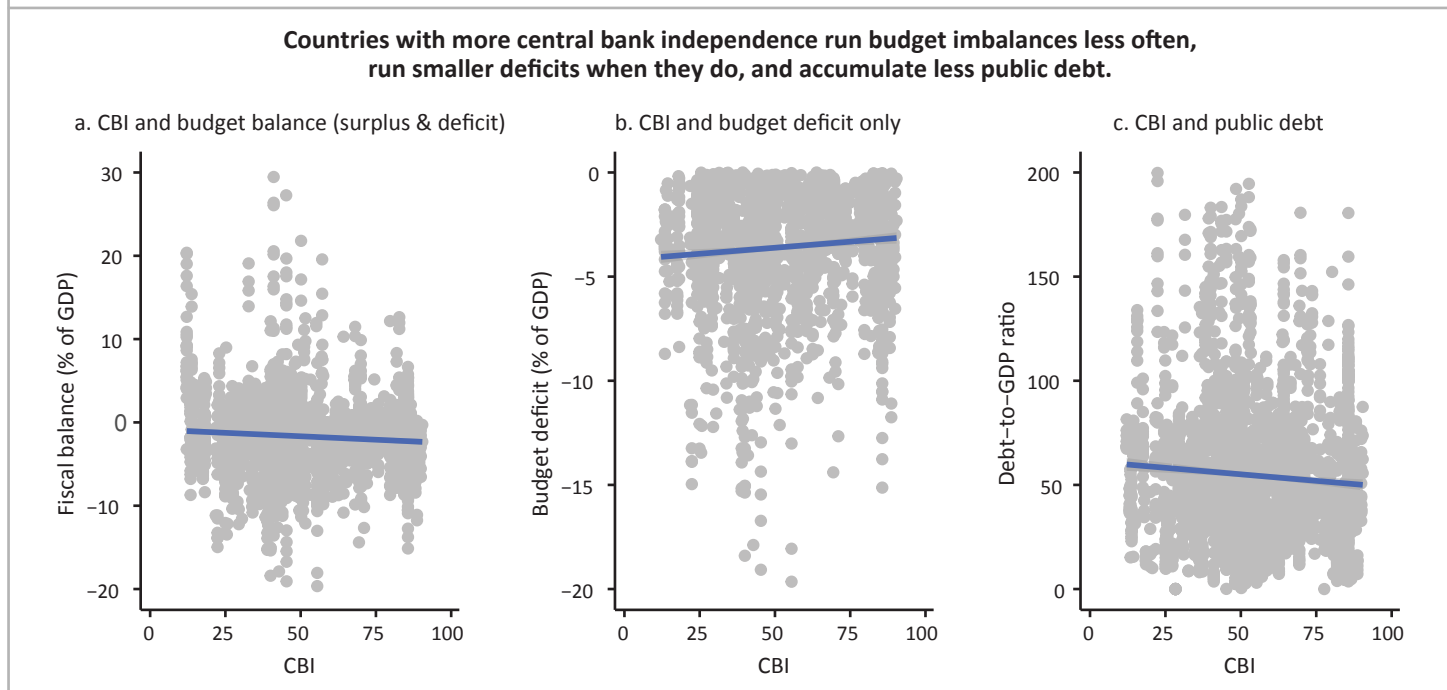
instance, an improvement in the CBI index from 27 to 42, which is akin to Sudan's CBI index in 2012, increasing to equal Ethiopia's, is associated with a 9.9ppts decline in inflation rate.

*Central bank independence and budget deficits and fiscal crises.* There is also sufficient evidence to suggest that there is a negative relationship between central bank independence and monetary finance of fiscal deficits. This boils down to the simple fact that less independent central banks are more subject to political pressure and interference, leading them to finance the government's fiscal deficit more often and in greater amounts. This relationship was documented as early as 1988 by Masciandaro and Tabellini (1988). Since then, several studies have arrived at the same conclusion. For

instance, Sikken and De Haan (1998) find a robust negative relationship between a de facto measure of central bank independence and monetary accommodation of deficits in a sample of developing countries. In a similar sample, Lucotte (2009) also finds a significant negative relationship between central bank independence and budget deficits.

Due to the difficulty of measuring monetary financing of budget deficits, I follow Lucotte (2009) and use budget balance/deficit as a proxy. Figure 3, panel a, shows that there is a slight negative correlation between central bank independence and the government's budget balance. However, when only countries and years with a budget deficit are considered, a positive correlation

Figure 3. The link between Central Bank Independence (CBI) and the Budget Balance, Budget Deficit, and Public Debt



Source: Author's illustration based on data from Garriga (2016) and the World Bank Development Indicators.

emerges between central bank independence and the budget deficit (see panel b). In other words, when countries run budget deficits, those with less independent central banks tend to be associated with larger deficits. Since monetary financing is easier politically compared to raising taxes on specific groups to finance deficits, larger deficits become more politically attractive when the central bank is less independent. Consequently, countries with less independent central banks are associated with higher public debt as a share of GDP (see panel c), which can stem from a partial monetary financing of deficits.

Estimations from a fixed effect model and dynamic panel model show that among countries running a budget deficit, those with a more independent central bank tend to run a smaller budget deficit. This result is in line with Sikken and De Haan (1998): less independent central banks are more likely to accommodate monetary finance of budget deficits. Based on the dynamic panel estimation, an increase in the CBI index by 1 percent is associated with a 0.02ppts decline in the country's deficit (as a share of GDP). This means that a rise in the CBI index from .27 to .42 (Sudan to Ethiopia) is associated with a 0.3ppts decline in the budget deficit.

Moreover, a robust and negative relationship between central bank independence and fiscal crises emerges from a probit model estimation where a fiscal crisis dummy is regressed on central bank independence and some control variables (technical details available upon request). The fiscal crisis dummy is from Medas et al. (2018) and is constructed based on four criteria: (1) credit events associated with sovereign debt such as outright defaults or debt restructuring; (2) large-scale financial support from the International Monetary Fund (IMF); (3) implicit domestic public default, for example via high inflation rates; and (4) loss of market confidence in the government. If any or a combination of these occur, then the fiscal crises dummy takes the value of 1 and 0 otherwise.

## The Need for Oversight of New Central Bank Powers

The ongoing COVID-19 pandemic has disrupted the global economy and is expected to leave long-lasting scars on the world economy. The aggressive fiscal and monetary policies enacted by governments and

central banks around the world have helped cushion the economic and social impact of the pandemic. Continued strategic coordination between monetary and fiscal authorities is crucial to ensure both policy effectiveness and central banks' autonomy (Cukierman 2020; Bianchi, Faccini, and Melosi 2020).

The benefits of central bank independence from political interference are undeniable. For one, central bank independence has delivered low inflation rates in countries around the world. For another, more independent central banks contribute to debt sustainability and lower the risk of fiscal crises. However, the criticisms and challenges to central bank independence ought not to be ignored either.

As already discussed, the powers of central banks have expanded beyond their original mandate. Plus, changes such as population aging and the adoption of crypto currencies are likely to impact the effectiveness of conventional monetary policy, thus leading central banks to rely more and more on unconventional policies that have fiscal and structural implications.

In light of that, perhaps it is time to rethink the current model of central bank independence to keep central bank powers in check. But what should a central bank for modern times look like? Balls, Howat, and Stansbury (2018) argue for a more nuanced approach in which operational independence of monetary policy and macroprudential policies is irrevocably conserved, while enhancing political accountability concerning the setting of mandates, the appointment of central bank officials, and the oversight of financial stability powers. The authors, for instance, propose that while the conduct of macroprudential policies must remain operationally independent from the government, oversight and prioritization of systemic risks can be conducted by an entity chaired by the government and composed of the central bank and financial regulators.

Regardless of the form that a new model takes, operational independence in monetary policy making must be safeguarded, for all the reasons and in light of all the evidence this Brief discusses.

## References

- Alesina, A. (1988). Macroeconomics and politics. In S. Fischer, *NBER Macroeconomics Annual* (pp. 13-52). Cambridge, MA.: MIT Press.
- Alesina, A. (1988, Volume 3). Macroeconomics and Politics. In S. Fischer, *NBER Macroeconomics Annual* (pp. 13-62).
- Bade, R., & Parkin, M. (1978). Central Bank Laws and Monetary Policies: A Preliminary Investigation. In M. Porter, *The Australian Monetary System in the 1970s*. Monash University.
- Bade, R., & Parkin, M. (1988). Central bank laws and monetary policies. *Working Paper, University of Western Ontario, Canada*.
- Balls et al., E. (2018). Central Bank Independence Revisited: After the financial crisis, what should a model central bank look like? *M-RCBG Associate Working Paper Series | No. 87*.
- Barro, R., & Gordon, D. (1983). Rules, Discretion and Reputation in a Model of Monetary Policy. *Journal of Monetary Economics*, 101-121.
- Berger et al., H. (2001). Central bank independence: an update of theory and evidence. *Journal of Economic Surveys*, 3-40.
- Bernanke, B. (2016, January 11). "Audit the Fed" is not about auditing the Fed. Retrieved from <http://www.brookings.edu/blogs/benbernanke>
- Bianchi et al., F. (2020). Monetary and Fiscal Policies in Times of Large Debt: Unity is Strength. *NBER*.
- Blanchard, O. (2020, April). Is there deflation or inflation in our future? *Vox EU*.
- Bodea, C., & Hicks, R. (2014). Price Stability and Central Bank Independence: Discipline, Credibility, and Democratic Institutions. *International Organization*, 69 (01).
- Brumm, H. J. (2002). Inflation and Central Bank independence revisited. *Economics Letters*, 205-209.
- Brumm, H. J. (2011). Inflation and central bank independence: Two-way causality? *Economics Letters*, 220-222.
- Cukierman, A. (1992). *Central Bank Strategy, Credibility, and Independence: Theory and Evidence*. Cambridge, MA.: MIT Press.
- Cukierman, A. (2020). COVID-19, Helicopter Money & the Fiscal-Monetary Nexus. *CEPR, DP14734*.
- Cukierman, A., Webb, S., & Neyapti, B. (1992). Measuring the independence of central banks and its effects on policy outcomes. *The World Bank Economic Review* 6, 353-398.
- Dall'Orto Mas et al., R. (2020). The case for central bank independence. *European Central Bank Occasional Paper Series, No 248*.
- Dreher, A., Sturm, J.-., & De Haan, J. (2010). When is a Central Bank Governor Replaced? Evidence Based on a New Data Set. *Journal of Macroeconomics*, 32, 766-781.
- Garriga, A., & Rodriguez, C. (2020). More effective than we thought: Central bank independence and inflation in developing countries. *Economic Modelling*, 87-105.
- Garriga, C. (2016). Central Bank Independence in the World. *International Interactions*.
- Goodhard, C. (2020, June). Inflation after the pandemic: Theory and practice'. *Vox EU*.
- Grilli et al., V. (1991). Political and monetary institutions and public financial policies in the industrial countries. *Economic Policy* 24013, 341-392.
- Klomp, J., & De Haan, J. (2010). Inflation and Central Bank Independence: A Meta Regression Analysis. *Journal of Economic Surveys*, 24, 593-621.
- Kydland, F., & Prescott, E. (1977). Rules Rather than Discretion: The Inconsistency of Optimal Plans. *Journal of Political Economy*, 473-492.
- Lucotte, Y. (2009). Central Bank Independence and Budget Deficits in Developing Countries: New Evidence from Panel Data Analysis. *HAL Working Paper 2009-19*.
- Masciandaro, D., & Tabellini, G. (1988). Fiscal deficits and monetary institutions: a comparative analysis. In H. Cheng, *Challenges to Monetary Policy in the Pacific Basin Countries*.
- Medas et al., P. (2018). Fiscal crises. *Journal of International Money and Finance* vol. 88, 191-207.
- Rogoff, K. (1985). The Optimal Degree of Commitment to an Intermediate Monetary Target. *Quarterly Journal of Economics*, 1169-1189.
- Rogoff, K. (2019). Is This the Beginning of the End of Central Bank Independence? *G30 Occasional Paper*.
- Sikken, B., & De Haan, J. (1998). Budget Deficits, Monetization, and Central-Bank Independence in Developing Countries. *Oxford Economic Papers*, vol. 50., 493-511.