

# Central bank independence under threat?

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Table 1. Has central bank independence changed during the crisis?

	Governors		Academics	Chi-sq.	
	All	AEs		vs. all	vs. AEs
<b>CB independence was ___ during the crisis (NG=54, NA=158)</b>				<b>34.8***</b>	<b>15.0***</b>
Gained	13	0	5.1		
Neither gained nor lost	79.6	93.8	43		
Lost a little	1.9	6.3	40.5		
Lost a lot	1.9	0	4.4		
Difficult to say	3.7	0	7		

Notes: The question asked was: How much independence do you believe your central bank either relinquished, saw taken away from it, or gained during the crisis? Percentages of number of responding governors or academics. \*\*\* denotes significance at the 1% level, calculated using Chi-squared tests for the independence of responses of governors and academics. AEs is advanced countries. NG/NA denotes number of responding governors/academics. Source: Blinder et al. (2017).

## I. Introduction

Central bank independence (CBI) means that monetary policy is delegated to unelected officials and that the government's influence on monetary policy is restricted. According to Willem Buiter (2016), central bank independence is under threat. In his view this threat

*"comes both from the wider political and social climate - the rise of populism and of anti-establishment, anti-expert and anti-technocratic sentiment - and from developments specific to central banks. Since the start of the Great Financial Crisis (GFC) in mid-2007, central banks in most advanced economies have become more powerful and political. They have not become more accountable. Their mandates have expanded far beyond monetary policy narrowly defined." (Buiter, 2016: 3).*

Blinder et al. (2017) asked both central bank governors and academics about their views regarding the extent to which central bank independence has changed due to the financial crisis. Table 1, which is copied from Blinder et al. (2017), suggests that central bank governors felt that little had changed, but that academics were slightly more worried.

## 2. Why is CBI important?

The theoretical case for CBI rests on countering such inflationary biases as may occur -- for various reasons -- in the absence of an independent central bank (Fischer, 2015).<sup>1</sup> One reason for such a bias is political pressure to boost output in the short run for electoral reasons. Another reason is the incentive for politicians to use the central bank's power to issue money as a means to finance government spending. The inflationary bias can also result from the time-inconsistency problem of monetary policy making: this problem is, in a nutshell, that policymakers are not credible, i.e. they have an incentive to renege in the future on the promise they make today, in order to keep

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1 There always have been critics of this view. For instance, Stiglitz (2013) argues that the "notion of the desirability of an independent central bank was predicated on the belief that monetary policy was a technocratic matter, with no distributional consequences. There was a single policy that was best for all—a view to which the simplistic models that the central banks employed may have contributed, but which was not supported by more general models. There does not, in general, exist a Pareto superior monetary policy. That in turn implies that delegating the conduct of monetary policy and regulations to those who come from and reflect the interests of the financial market is going to result in policies that are not necessarily (and weren't) in society's broader interests."

inflation low.<sup>2</sup> By delegating monetary policy to an independent and conservative (i.e. inflation averse) central bank, promises to keep inflation low are more credible. In the words of Bernanke (2010):

*“a central bank subject to short-term political influences would likely not be credible when it promised low inflation, as the public would recognize the risk that monetary policymakers could be pressured to pursue short-run expansionary policies that would be inconsistent with long-run price stability. When the central bank is not credible, the public will expect high inflation and, accordingly, demand more-rapid increases in nominal wages and in prices. Thus, lack of independence of the central bank can lead to higher inflation and inflation expectations in the longer run, with no offsetting benefits in terms of greater output or employment.”*

It is important to realise that in the model of Rogoff (1985), which is the theoretical basis for the views outlined by Bernanke (2010), the time inconsistency problem of monetary policy can only be reduced if monetary authority is delegated to an independent *and* conservative central bank. Conservative means that the central bank is more inflation averse than the government. If the central bank had the same preferences as the government it would follow the same policies as the government and independence would not matter. Likewise, if the central bank were fully under the spell of the government, its inflation aversion would not matter. Only if the central bank is more inflation averse than the government and can decide on monetary policy without political interference, can it credibly promise to keep inflation low (Berger *et al.*, 2001). It is the combination of central bank independence (CBI) and central bank conservatism (CBC) that matters. The optimum level of inflation can be realised under several combinations of CBI and CBC.<sup>3</sup>

What determines central bankers' conservativeness? In economic models, the central bank's conservativeness is usually an assumed given, but Adolph (2013) comes up with an interesting approach, making it endogenous, arguing that many of the influences on bureaucrats' preferences are bound up in their observable career paths. Career backgrounds shape policy ideas (career socialisation). In addition, policies are shaped by bureaucrats' desire to move their careers forward

(career incentive), which makes them respond to the preferences of perceived future employers, be it the government or the financial sector. Bureaucrats respond to these 'shadow principals'. Using central bankers' career paths, Adolph (2013) comes up with an index of Central Banker Career Conservatism (CBCC), which depends on how long the central banker had 'conservative' jobs, where four types of jobs are considered, namely financial sector, finance ministry, central bank and government. According to Adolph, the first two are 'conservative', while the latter two are 'liberal'. This classification is based on regressions of inflation and career components, controlling for CBI. It turns out that CBCC is strongly related to inflation. Adolph's regression results suggest that a one standard deviation increase in central banker conservatism leads to a point and a half decline in inflation in advanced countries and a single point decline in developing countries, where the effect is stronger in countries with an independent central bank.

An alternative way to measure central bank conservativeness has been proposed by Leveuge and Lucotte (2014). They use the so-called Taylor curve, showing the trade-off between the variability of the inflation rate and the variability of the output gap, which is derived from the minimisation of a central bank's quadratic loss function. The index is based on the value of the angle of the straight line joining the origin and a given point on the Taylor Curve. Once rescaled to [0, 1], this angle measure constitutes the central bank's inflation aversion. The authors calculate their index for 32 OECD countries for the period 1980-98.

Most empirical evidence on the impact of CBI on inflation does not explicitly take central bank conservatism into account, which — from a theoretical perspective — is a serious shortcoming. There is strong evidence for a negative relationship between CBI measures and inflation. Countries with an independent central bank have, on average, lower inflation than countries where the central bank is controlled by the government. In their meta regression analysis, Klomp and de Haan (2010a: 612) conclude that their evidence “corroborates the conventional view by finding a significant ‘true effect’ of CBI on inflation, once we control for a significant publication bias. The effect is strongest when a study focuses on OECD countries, the period 1970–1979, considers the labour market, and when the relation is estimated using a bivariate regression.”<sup>4</sup>

<sup>2</sup> Seminal references are Kydland and Prescott (1977), Barro and Gordon (1983) and Rogoff (1985). Alesina and Stella (2010) provide an excellent review of the models used in these papers.

<sup>3</sup> Eijffinger and Hoerberichts (1998, 2008) examine this trade-off between CBI and CBC in more detail.

<sup>4</sup> The political economy literature suggests that political and economic institutions significantly influence the extent to which an independent bank will reduce inflation. For example, Franzese (1999) shows that the effect of central bank independence on inflation is conditional on several political and institutional factors, such as government partisanship and labour market organisation. For a discussion of this line of research we refer to Berger *et al.* (2001) and Fernández-Albertos (2015).

Although there is a strong case for instrument independence, i.e. the ability of the central bank to decide on the use of its instruments without political interference, this is not so when it comes to goal independence, i.e. the ability of the central bank to set its own goals for monetary policy. The argument against goal independence is that, in a democracy, the government is accountable to the electorate. As central bankers are not elected, the ultimate goals of monetary policy should, therefore, be set by the elected government (Mishkin, 2011). Indeed, it seems that a “broad consensus has emerged among policymakers, academics, and other informed observers around the world that the goals of monetary policy should be established by the political authorities, but that the conduct of monetary policy in pursuit of those goals should be free from political control” (Bernanke, 2010). Central banks, in other words, have a delegated authority to achieve their legally mandated objective(s) and have instrument independence to reach their objective(s). This requires that the central bank is protected from what Sargent and Wallace (1981) call a regime of fiscal dominance, i.e. a regime in which the central bank is forced to support government’s fiscal policy.

### 3. What has changed since the financial crisis?

However, things have changed since the onset of the financial crisis. First, during the crisis central banks had to intervene on a grand scale to maintain financial stability. And, as pointed out by Blinder (2012), during a financial crisis the monetary and fiscal authorities have to work together more closely than under more normal situations for several reasons:

*“when it comes to deciding which financial institutions shall live on with taxpayer support (e.g., Bank of America, Citigroup, AIG,...) and which shall die (e.g., Lehman Brothers violently, Bear Stearns peacefully), political legitimacy is critically important. The central bank needs an important place at the table, but it should not be making such decisions on its own. If the issue becomes politicized, as is highly likely, the Treasury, not the central bank, should be available to take most of the political heat—even if the central bank provides most of the money.”*

Since the financial crisis, many central banks pay major attention to financial stability, sometimes because they have been given explicit responsibility for macro-prudential supervision, and sometimes because they now construe financial stability as essential to the traditional pursuit of macroeconomic stability (Cerutti et al., 2016).

Second, nowadays the inflation problem in most leading economies is that inflation is too low, not too high. This has led to the use of different monetary policy instruments. Before the crisis, monetary policy makers in most countries primarily relied on short-term (e.g., overnight) interest rates to maintain price stability. Under this framework, policymakers would announce a desired level of the policy rate and enforce it relatively easily with liquidity management operations. Thus, monetary policy could be, and was, implemented without large changes in the size of the central bank’s balance sheet. But the depth of the recession, following the financial crisis, pushed short-term nominal interest rates up to, or near, their effective lower bound (ELB), rendering the traditional policy instrument almost useless. In response, many central banks turned to forward guidance and/or a variety of unconventional monetary policies, such as lending to banks (and sometimes even to nonbanks) in huge volume, and large-scale asset purchases (“quantitative easing”). In both such cases, the central bank actively uses its balance sheet to affect market conditions. According to Bernanke (2010),

*“there is a good case for granting the central bank independence in making quantitative easing decisions, just as with other monetary policies. Because the effects of quantitative easing on growth and inflation are qualitatively similar to those of more conventional monetary policies, the same concerns about the potentially adverse effects of short-term political influence on these decisions apply. Indeed, the costs of undue government influence on the central bank’s quantitative easing decisions could be especially large, since such influence might be tantamount to giving the government the ability to demand the monetization of its debt, an outcome that should be avoided at all costs.”*

The new responsibilities and instruments of central banks have two important consequences. First, financial stability and unconventional monetary policies of central banks have stronger distributional implications (Fernández-Albertos, 2015). Of course, decisions by central banks will always affect relative prices and therefore their decisions will have redistributive effects. But financial stability and unconventional monetary policies have much stronger distributional consequences than conventional monetary policies and this has potential implications for the central bank’s independence. Second, it may have changed the regime from monetary dominance to fiscal dominance. In their seminal work Sargent and Wallace (1981) highlighted how a central bank might be constrained in determining inflation by a fiscal authority that counts on seigniorage to service its debt, a situation referred to as fiscal dominance. For a long time, it was rather treated as

a theoretical caveat, at least in the case of advanced economies, but, with the rise of government debt to levels unseen for decades, the risk of fiscal policy dominating monetary policy has become real.

The notion of the financial independence of the central bank gained importance after the financial crisis, when major central banks saw their balance sheets and their financial risks increase. Hall and Reis (2015) define new-style central banking as the strategy pursued by many advanced economies' central banks, where they borrow large amounts of funds from commercial banks in the form of reserves and invest these in risky assets with different maturities. The new strategy is in sharp contrast to the old-style central banking, under which central banks were mostly holding low-risk short-term government bonds. According to the authors, this new strategy has important implications for the financial position of central banks. In one explosive scenario, central banks either have to engage in a Ponzi scheme or have to apply to the government for fiscal support. In both cases the central bank can no longer remain an independent financial institution and cannot pursue its goal of price stability. Hall and Reis (2015) argue that different central banks currently face different types of risks. The Federal Reserve faces mostly risks connected to raising interest rates. An interest rate increase would imply higher payments on reserves owed to commercial banks, while at the same time it would also reduce the value of the Fed's portfolio on longer term bonds. The European Central Bank faces the same kind of interest rate risk, but more important for its situation is the default risk connected to the bonds of the peripheral countries of the Eurozone. The default risk is connected to direct holdings of bonds as well as to the indirect exposure which comes with accepting government bonds as collateral from commercial banks. The third type of risk, faced by the central banks of small open economies such as the Swiss National Bank, is exchange-rate risk. Hall and Reis (2015), using historical data, also calculate the financial strength of the three aforementioned central banks. According to their calculations the actual risk of any of those banks becoming insolvent is small. However, Del Negro and Sims (2015) argue that the use of historical data to extrapolate the future risk of insolvency for central banks may be misleading. Therefore, they consider a theoretical model to study whether the lack of fiscal support may imply that the central bank is no longer able to control inflation. The authors distinguish between fiscal support and fiscal backing, where the latter is defined as in Cochrane (2011), i.e. a commitment of the fiscal authority to set fiscal policy in line with the inflation target of the central bank (see also Reis, 2015). The model may have self-fulfilling equilibria in which the public's

belief that the central bank will resort to additional seigniorage to cover its losses is enough to cause a solvency crisis. The calibration of the model to reflect the current balance sheet of the Fed shows, however, that insolvency is only possible under extreme scenarios. Nevertheless, a guarantee by the government that it will make automatic fiscal transfers, if the central bank incurs losses, could eliminate the threat of insolvency altogether. The same effect could be obtained by holding the central bank's risky assets in a separate account guaranteed by the government, as is the case for the Bank of England.

#### 4. Has central bank independence changed since the crisis?

An important question therefore is whether these changes have made the pendulum swing in another direction: has CBI decreased since the financial crisis? To examine CBI one needs an indicator of the extent to which the monetary authorities are independent from politicians. Most empirical studies use either an indicator based on central bank laws in place, or the so-called turnover rate of central bank governors (TOR). The most widely employed legal indicators of central bank independence are (updates of) the indexes of Cukierman *et al.* (1992) and Grilli *et al.* (1991). Even though these and other indicators are supposed to measure the same phenomenon and are all based on interpretations of the central bank laws in place, their correlation is sometimes remarkably low (Eijffinger and De Haan, 1996). Furthermore, legal measures of CBI may not reflect the true relationship between the central bank and the government. Especially in countries where the rule of law is less strongly embedded in the political culture, there can be wide gaps between the formal, legal institutional arrangements and their practical impact. This is particularly likely in many developing economies. Cukierman *et al.* (1992) argue that the TOR may therefore be a better proxy for CBI in these countries than measures based on central bank laws. The TOR is based on the presumption that, at least above some threshold, a higher turnover of central bank governors indicates a lower level of independence. There are, however, some theoretical objections against using governor turnover as a proxy for CBI. The most important objection is that a high tenure of the central bank governor could also reflect that the governor behaves in accordance with the wishes of the government.

### 4.1 Legal independence

Bodea and Hicks (2015) have expanded the Cukierman *et al.* (1992) index of central bank independence for 78 countries, from the end of the Bretton Woods system until 2010. The result is an original data set that codes independence annually and covers legislation changes in the last twenty-five years. Table 2 shows the average level of legal CBI before and after the start of the financial crisis for several groups of countries (based on IMF classifications). The table does not suggest that CBI has decreased after 2007.

Table 2. Legal CBI before and after the Global Financial Crisis

IMF-Aggregate	1995-2007	2008-2010
Advanced economies	0.57	0.59
Commonwealth of Independent States	0.6	0.7
Emerging and Developing Asia	0.46	0.59
Emerging and Developing Europe	0.67	0.83
Latin America and the Caribbean	0.63	0.66
Sub-Saharan Africa	0.41	0.42

Source: own calculations using the data of Bodea and Hicks (2015), which are available at: <http://www.princeton.edu/~rhicks/data.html>. The classification of countries follows that in the IMF's World Economic Outlook.

### 4.2 Turnover rates

Even central banks that have a high degree of independence are not immune from political pressure. Politicians seeking to influence monetary policy may, for instance, choose to undermine CBI by filling important positions at central banks with individuals who they believe are favourably predisposed towards their preferred policies. The evidence of Klomp and de Haan (2010b) suggests that governor turnover is lower following the implementation of central bank reform which strengthens CBI. Table 3 shows average turnover rates for different groups of countries, before and after the Global Financial Crisis. The results do not suggest that the number of central bank governor turnovers has changed since the Great Financial Crisis. This holds both for the total number of turnovers and for irregular turnovers (when the governor is replaced before the end of his/her legal term in office).

Table 3. CB governor turnover rates before and after the financial crisis

Average annual turnover	1995-2007		2008-2013	
	Total	Irregular	Total	Irregular
Advanced economies <sup>1</sup>	4.4	2.7	4.2	1.3
Commonwealth of Independent States	1.2	0.9	1.2	1
Emerging and Developing Asia <sup>2</sup>	4.2	2.9	2.7	2
Emerging and Developing Europe	1.8	0.8	1	0.5
Latin America and the Caribbean <sup>3</sup>	6.6	4.8	4.3	2.7
Middle East, North Africa, Afghanistan and Pakistan	2.1	1.7	2.7	2.2
Sub-Saharan Africa <sup>4</sup>	4.1	2.2	3.8	2.5
Total	24.3	16	19.8	12.2

<sup>1</sup> Including ECB.

<sup>2</sup> Including Macau.

<sup>3</sup> Including Aruba, Bermuda and Cuba.

<sup>4</sup> Including "Bank of Central African States" and "Central Bank of West African States".

Source: own calculations using Axel Dreher's turnover data. The classification of countries follows that in the IMF's World Economic Outlook. See Dreher *et al.* (2010) for details.

## 5. Conclusion

The traditional argument for CBI is based on the desire to counter inflationary biases. The recent financial crisis and the following European debt crisis have put much pressure on central banks and changed monetary policy. The altered role of modern central banks is evident in the large set of new unconventional monetary policy measures employed during the rest of the decade. The new tools and responsibilities of the central banks come with new challenges for central bank independence.

Firstly, in an environment of global debt hangover the balance of power between fiscal and monetary policy changes. With high public debt levels, fiscal authorities may be tempted to rely on monetary policy to generate additional inflation to alleviate the debt burden. As opposed to previous decades, the threat of fiscal dominance might be particularly strong in the developed world, which has seen remarkably strong increases in sovereign debt levels.

The second risk to central bank independence stems from the consequences of central bank policies. The unprecedented size of the central bank balance sheets has far reaching implications for the

financial dimension of independence. Theoretical studies differ in their assessment of the financial risk faced by central banks. Even if it is small, the financial risk should not be underestimated, as a lack of financial independence and reliance on government financing of the central bank would strongly undermine the credibility of a central bank. Credibility, in turn, is crucial for controlling inflation and inflation expectations. This calls for a very careful consideration and design of exit strategies by the central banks, i.e. policies aiming at the reduction of balance sheets to more conventional levels.

Finally, the last threat to central bank independence is also associated with the set of unconventional monetary policies employed during the crisis. Crucial for any arguments in favour of CB independence is the assumption that monetary policy has little or no redistributive consequences. The recent policies employed by central banks threaten, however, to undermine this argument, as they are far more redistributive than traditional monetary policy.

Although economists have expressed serious concerns that CBI is under threat, central bank governors are less worried. Our analysis of CBI indicators before and after the financial crisis suggests that, so far, little has changed. But it may be too early to put the worries outlined by Willem Buiter (2016) aside.

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