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Populism, Economic Policies and Central Banking

Edited by

Ernest Gnan and Donato Masciandaro

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A. Introduction and Overview

1. Populism, Economic Policies and Central Banking: an Overview

Ernest Gnan and Donato Masciandaro[1]

There seems to be general agreement that "populism" has been on the rise over the past decade, and that it has implications for election outcomes and economic policies. Against this background, SUERF and the BAFFI CAREFIN Centre at Bocconi University brought together a group of experts for a one-day conference in Milano on 8 November 2019. The starting point for the project were ***three groups of questions:***

- *First,* ***what is "economic populism"?*** *Is it actually a new phenomenon? Is it confined to specific political camps? How would it be classified in more conventional economic categories?*
- *Second, what are the* ***sources of the rise in populism? Can economic policies contribute to a rise or decline of the current rise of populism****?*
- *Third,* ***how could the rise of populism affect central banks?*** *Conversely, can independent central banks make a difference in helping prevent or moderate economic populism?*

This article synthesizes major insights from the conference, embedding them in a broader overview of populism's interactions with economic policies and central banking. Section 1.1 discusses what "economic populism" might mean, and proposes a comprehensive definition. Section 1.2 offers some economic lines of reasoning for the rise of populism. Section 1.3 summarizes some ways how economic policies may counter populism. Section 1.4 explores how populism and central banking may affect each other. Section 1.5 summarizes and concludes.

1.1. What is economic populism?

There seems to be general agreement that the last decade in Europe and the US was characterized by the spreading of "**populism**". The broader phenomenon of populism has been analysed in detail in social sciences, political sciences, sociology, history and even psychology. The definitions and the historical overview provided e.g. in the German and English versions of Wikipedia already illustrate the diversity of approaches to analysis and connotations associated with the term

[1] OeNB and SUERF, Bocconi University and SUERF, respectively. The contributions in this book were all prepared prior to the COVID-19 crisis. If anything, it would appear that the challenges created by this crisis will exacerbate populist pressures and their impact on economic policies and central banks.

"populism". For the sake of space, we do not develop the broader aspects of populism here. We just note that populism is by no means a new phenomenon and has many faces. What are takeaways with regard to a definition of "**economic populism**"?

Let us start with a somewhat vague and cynical description of the term populism as a "generalised, pejorative term of abuse applied to **any political party of the (extreme) right, or left, that does not share the main economic tenets of the liberal, central establishment**" (see Goodhart and Lastra, 2018). In this reading, economic populism would be more or less equated with "**heterodox**" economic thinking, as long as it were meant by the extreme right or left to appeal to the masses. As this definition obviously lacks precision, the authors then narrow the definition down to "involving a major disagreement with the central liberal tenet that allowing the free movement of labour, capital and goods and services between nations would be both generally beneficial and desirable in almost all circumstances… [Thus,] a **populist want[s] to restrict the movements of people, capital, and goods and services between states**." We will come back to this aspect further down, when discussing populism's attitude towards globalisation.

A second defining element of populism which also extends into the economic sphere and is also mentioned by the above authors is **populists' aversion to checks and balances** (Spilimbergo, 2019) and **to institutional constraints on the political executive's power** (Rodrik, 2018), notably from autonomous institutions (Rovira Kaltwasser, 2018):

- A well-known example of such a constraint is **central bank independence**: by taking away from politicians decision power over discretionary monetary policy, the short-term gains from "printing money" in excessive quantities at the cost of future, socially detrimental higher inflation are no longer available as a policy option. In this sense, central bank independence and the focus of the central bank's mandate on the (primary) pursuit of price stability can be regarded as an "anti-populist economic institution" by a "monetary veto player" (Masciandaro and Passarelli, 2019). In other words, "populists dislike monetary dominance" (Edwards, 2019a). We will deal with this issue in more detail in Section 1.4.
- A second widely studied field of economic populism are **unsustainable expansionary fiscal policies**, notably in **Latin America.** As early as 1991, Dornbusch and Edwards studied "The Macroeconomics of Populism in Latin America" in an NBER volume. The unsustainable fiscal expansions of Latin American economic populism were often financed by the respective central bank. For this reason, Edwards (2019b) finds direct parallels of Latin American economic populist economic policies and **Modern Monetary Theory.**

- A third big area of constraints on economic policies is **economic and financial globalisation**, and the institutions created to pursue and protect it. Trade liberalisation erodes national policy makers' and pressure groups' leeway to preserve rents in goods and labor markets. Financial globalisation does the same for financial services and capital markets. The free movement of labor exposes national workers, and national social security systems and social policies, to competition from foreign workers and other countries' social systems. Against this background, it is not surprising that economic populism often involves protectionist policies (for a recent overview of **protectionism** see e.g. Gnan and Kronberger (2018). An area which drew particular attention in Europe in recent years is foreign investor protection. For instance, the independent arbitration courts, meant to protect foreign investors from protectionist national host-country actions, were among the buzzwords which caused fierce opposition in Europe against, and led to the failure of, TTIP (Transatlantic Trade and Investment Partnership – for an overview of the arguments prior to the abandonment of TTIP by the EU see Gnan and Kronberger (2016). The global retreat of multilateral trade liberalisation and the US administration's retreat of support for e.g. the WTO (World Trade Organisation) can be viewed as expressions of **anti-gobalist economic populism**.
- Finally, many populists' anti-EU stance can be explained with the fact that **EU membership** indeed – and intentionally – constrains national policy makers' leeway in many fields. The **EU Single Market** is a far-reaching form of regional liberalisation of trade, services, capital and workers' movement and is thus associated by populists with all the effects and constraints from globalisation more broadly. The EU's **fiscal sustainability rules** and **competition policy** are further elements of supranational constraints limiting national policy makers' leeway. For an overview of the debates associated with Brexit see e.g. Gnan and Kronberger (2019).

Because of the attacks on institutions they regard as constraining, one major **source of long-term damage from populism** can be damage **to the institutions governing democratic market economies**. This can apply to the rule of law in general, the protection of property rights, state institutions standing for trust, expertise and stability such as central banks, stable state money, institutions that safeguard international cooperation and coordination (e.g. UN, IMF, World Bank) as well as open economic exchange (such as the WTO – World Trade Organisation), or rules that were created to safeguard the long-term sustainability of public finances (e.g. the EU's fiscal rules).

The general literature on populism points out that **populism cannot be pinned down to specific ideologies or political camps**. Populist methods and approaches can be attached to both left and right-wing politics. The same is true in the economic field.

- To illustrate the ideological flexibility of populism, let's first look at Latin American "**left-wing populism**". In broader economic terms, its elements can be associated with a specific approach to **Keynesianism**, in the sense that short-term gains in terms of growth, employment, and social well-being are given preference over the sustainability of public finances or monetary stability. Similarly, recent populist movements in Mediterranean European countries such as Syriza ("Coalitation of the Radical Left") in Greece, Podemos ("We Can") in Spain, the "Gilets Jaunes" in France, or the Five Star Movement in Italy, but also more established parties at the far-out left end of the political spectrum, such as "Die Linke" in Germany, can be associated with left-wing economic populist narratives. Mascandaro's and Passarelli's (2019) definition of populism as comprising two key elements, namely (1) the claim to protect the people from the elite (promise of redistribution) and (2) populism's emphasis on expanding aggregate demand at the cost of future outcomes (short-termism) seems to correspond to left-wing populism.
- **Right-wing populism**, on the other hand, is harder to grasp. Often, it combines elements of (domestic) **economic liberalism** with some measures of social policy, to the extent this is considered to enhance electoral support, as long as it fits the respective parties' other political objectives and narratives, such as anti-immigration policies. But there is no clear general pattern. Lubin (2019) argues that right-wing populist leaders are not necessarily given to irresponsible macroeconomic policies; to substantiate this view, he quotes Poland and Hungary as examples of economically successful populist governments. What distinguishes them from Latin American economic populism is that they seek national self-reliance. This encourages them to avoid dependence on foreign capital, which in turn requires fiscal discipline. On the other hand, the US Trump Administration's economic policy mix combines late-cycle fiscal stimulus with protectionist trade policies. These are combined with an anti-reformist approach to structural change, notably in the energy sector. Thus, overall, these policies can be summed up to focus on short-term domestic advantages at the cost of long-term global benefits.

It is interesting in this context to come back to populism's aversion against globalisation. In fact, both left and right-wing populism **share anti-globalist economic narratives**, but for different reasons. Some authors (see e.g. Morelli, 2019 and the references quoted there) are even arguing that the cleavage between nationalism versus globalism is coming to dominate the political discussion, instead of the traditional left-right discourse of the past.

- **Left-wing populists** resent the power of multinational firms, regard globalisation and free trade as facilitating social dumping and the exploitation of legal arbitrage in the fields of workers' and environmental protection. For them, globalisation serves as a pretence to cut wages, social standards, corporate and wealth taxes also domestically. Global financial flows and globally operating financial firms are viewed as the oil lubricating the global neo-liberal system. "Market discipline" curtails national governments' capacity to pursue expansionary fiscal, notably social policies. Foreign capital inflows are in principle welcomed to the extent that they facilitate growth and the build-up of social welfare; however, left-wing anti-globalism is highly critical of foreign capital withdrawal once investor confidence erodes, and capital controls are regarded as an appropriate tool to stop outflows.
- **Right-wing, nationalist populists resent globalisation** because of immigration, with economic arguments just as an add-on to deeper cultural motivations. In the area of FDI, they resent foreign ownership and influence, notably but not only in strategically important industries (harbors and other infrastructure, IT and communications, banking). There is no hesitance to discriminate against foreign firms through various forms of regulatory discrimination or outright bans. Foreign ownership of real estate is regarded with suspicion and may be strictly limited or discriminated against. In terms of communication, nationalism, by emphasizing external threats, can also serve to distract workers and the poor from calling for more distribution and to attract voters who would otherwise turn to left-wing parties (Morelli, 2019).

While being aware of the many nuances involved and sketched above, in what follows we take as a **working definition for economic populism** "an economic doctrine, **distrustful of liberal mainstream economics and its institutions**, which is oriented towards **short-term (domestic) gains at the cost of long-term (global) benefits**, which **favours pressure groups** at the cost of minorities and other groups less relevant for **electoral outcomes**, and which generally does **not attach great importance to economic facts and analysis**". This definition implies an implicit value judgement, in the sense that populist economic policies are not desirable.

1.2. Sources of populism: economic lines of reasoning

The rise of populism has many causes. If one focuses on **economic** aspects, the **causes** are generally argued to include **technological change** which leaves behind **less educated** groups unable to adjust. Technology and education may also partly explain the increasing rift between old and young as well as urban cosmopolitan and more remote and rural areas. **Economic liberalisation and structural goods and labor market reforms** attack incumbents' rents and increase pressures on workers. **Globalisation** raises fears of competition from low-wage countries with low social and environmental standards. **Migration** raises fears of competition in the labour market and a squeeze on the social welfare state due to migration-induced increased burdens on the social system. The rise of **income and wealth inequality** diminishes the credibility of established political parties and their conventional policy measures of being willing and/or able to establish a promising economic perspective for important parts of the population. **Fiscal austerity**, forced upon many countries, notably in Europe, after the high costs to save ailing banking systems and to avoid the Great Recession, has reduced national governments' leeway to avoid social hardship. The **reform of the social welfare state**, including pension schemes and healthcare, while on the one hand imperative to secure its long-term sustainability in the face of ageing, at the same time leads to the perception of falling standards of living for low and even middle-income groups. At a psychological level, many of these causes may contribute to a heightened sense of **anxiety and insecurity**. The **financial crisis, the Great Recession and in Europe the sovereign debt crisis** exacerbated these developments.

One attempt to put several of these factors into a coherent theoretical framework is Morelli's (2019) "**fiscal theory of populism and paradox of endogenous nationalism**". According to this line of arguing, shrinking fiscal policy space prompts politicians to look for alternatives to cope with domestic needs. The combination of ageing societies, globalisation and technological progress depresses wages and increases demands on the social welfare state (pensions, unemployment benefits, etc.). At the same time, the same factors lead to the erosion of the domestic tax base, since capital largely evades taxation for lack of global tax coordination. Anti-globalists thus try to use protectionism to put a lid on a migration-induced increase in labor supply and cushion downward pressure on wages arising from global competition in goods and labor markets.

To understand populism, it seems crucial to understand **voters' emotions**. Altomonte, Gennaro and Passarelli (2019) explore how emotions may influence voting behaviour and how frustration and anger lead voters to express their emotions and to punish established politicians at the ballot, a phenomenon generally associated with the emergence of protest vote and populism. Individuals develop a **subjective sense of injustice by comparing themselves with others**. Identification with a relatively deprived group reinforces perceived injustice and furthers development of **group-based anger** and the **perception of a common threat**. As the group's bad relative position is associated with past policies, **group anger** turns **against the political system. Populists** manage better to **address voters at the emotional and moral levels** (community, loyalty, tradition) and **emphasise**

cultural differences with non-members of the group **over economic differences.** This approach helps to understand **why recent economic shocks, such as globalisation, technological progress and austerity, entail protest vote rather than calls for more distribution.** Disadvantaged voters derive emotional utility by expressing anger at the ballot, and trade this utility in against material utility from rational voting (see Altomonte, Gennaro and Passarelli, 2019).

While "populism" is hard to measure, **empirical studies** seem to **confirm a relationship between economic developments and the rise of populist parties.** Based on 184 elections in 29 European countries between 1986 and 2014, De Haan (2019) shows that higher economic growth reduces the share of populist parties, on both ends of the political spectrum. This relationship is nonlinear, particularly for left-wing parties. Rising unemployment raises support particularly for left-wing populist parties. An increase in the number of asylums seekers reduces support for left and increases support for right-wing populists. An increase in the index of globalisation slightly raises support for populists.

1.3. HOW CAN ECONOMIC POLICIES COUNTER POPULISM?

Our working definition of economic populism given in Section 1 implicitly implies that economic populism defined that way is not desirable. Thinking about the causes of populism, as was done in Section 2, naturally leads to the question **how to resist or counter populism.** Eichengreen (2018) quotes several historical examples, including Bismarck's social policies and Roosevelt's New Deal, of how the rise of **populism could be countered successfully through expansionary demand side and social policies.**

One obvious recipe to counter populism is to **reverse the forces that led to the rise of populism** in the first place. Many authors therefore call for a reduction in inequality through taxing the rich and a reinforcement of the social welfare state, a relaxation of fiscal austerity and the abandonment of "neo-liberalism". It is clear from Section 2 above that others might perceive these recipes as populist themselves. Furthermore, **several of the above potential sources of public anxiety and insecurity are irreversible and beyond the control of policy.** This is certainly true of **technological change.** What is more, technological change and global communication also entails that many aspects of globalisation including migration pressure become more urgent and might, if anything, intensify rather than be reversed.

Morelli (2019) proposes a different approach: He argues that reduced fiscal space combined with the lack of individual monetary policies in euro area countries has led to an economic **policy "straight jacket" perception,** which, combined with globalisation threats, has been the main driver of populism. This has led to the paradox that while policy challenges are increasingly global and national policy space is shrinking, the populist response is national, which in turn reduces the likelihood of effectiveness and success. An alternative to populism, which blocks labor inflow and tries to bolster domestic wages through protectionism, is thus to **regain fiscal space by implementing a global taxation of capital**. It is ironical, though, that Morelli's suggestion to achieve such a global capital tax by means of making countries' WTO (World Trade Organization) membership conditional on agreement to such a capital tax coincides with the WTO itself being seriously challenged and put into question by populists.

The above drivers of populism are often said to have led to "**reform fatigue**" and diminishing "**reform policy scope**", reducing politicians' leeway to secure public support for accepting short-term costs in favour of long-term gains and thus encouraging "populist" economic policies. It is, however, open for discussion to what extent policy scope is actually reduced or whether this argument is just **part of the rhetoric of economic populism**. The argument also neglects the **role of communication** of economic reform programs and the potential useful role of "**package deals**" through which losers from certain reforms are **compensated** in one form or another to buy into the reforms.

Finally, it should also be borne in mind that (**right-wing**) **populism can be economically quite successful**. As pointed out by Gerlach (2019), the populist governments in Poland and Hungary in the post-2012 era economically performed way better than the EU average.

1.4. How may populism and central banking interact?

Central banking has undergone major changes due to the financial, economic and sovereign debt crisis. Central banks were in many countries the major or even the only game in town to fight the financial crisis. Central banks employed powerful tools to save ailing financial institutions, promote a recovery of growth and inflation, and to ease fiscal policy's debt servicing burden through ultra-low interest rates, large-scale outright asset purchase programmes and commitment about the future policy course ("forward guidance"). In addition, many central banks were transferred additional tasks and functions, notably in the areas of micro and macroprudential surveillance. This should on the one hand have **supported their reputation** as useful and responsible institutions acting in the interest of citizens and in support of general economic and societal goals. Indeed, the transfer of additional responsibilities may reflect trust in central banks' expertise and integrity in assuming such tasks reliably and responsibly.

On the other hand, central banks are also coming under **increasing criticism.**

- *First*, they are seen by some as having **contributed to pre-crisis financial exuberance**, through excessively easy monetary policy, which ignored financial stability concerns.
- *Second,* while some criticize central banks, notably the Eurosystem, for having **acted rather late and timidly** to combat the crisis, others more recently criticize them for **keeping monetary policy too expansionary for too long.**
- *Third*, being in close interaction with the financial sector may lead to negative connotations, given the **loss of trust in finance** after the crisis. By some, central banks are criticized as **favouring the interests of the financial sector.** This assertion is particularly critical as central banks have after the global financial crisis been more heavily involved in banking supervision. To reduce risks of "**regulatory capture**" (besides other motivations such as breaking the sovereign-bank nexus), in the euro area the supervision of large, systemically important banks was centralized at the SSM (Single Supervisory Mechanism) within the ECB. But **banking and financial supervision is also "risky"** in the sense that bank failures are inherently hard to detect far in advance and always politically delicate to resolve, and the supervisor is always at risk of becoming a **political scapegoat**.
- *Fourth*, central banks' unconventional policies come along with larger **distributive effects** than pre-crisis standard tools.
- *Finally*, central banks' scientific approach to policy may turn into the perception of being **technocratic and remote from reality** amidst the **post-crisis scepticism against mainstream economics and the economics profession at large**. Such criticism may be invigorated by **failure to meet (self-imposed) inflation targets**, while **side effects** from an escalation of monetary easing become more wide-spread and visible: it may raise questions about the central bank's willingness to stick to its announced target; or it may raise doubts about the central bank's intellectual capacity to understand changes in the inflation process, and its flexibility to adjust its economic models and tools to a changing economic reality; or it may raise the perception that the central bank is **chasing the wrong target**, if the public and the body politic do not appreciate the costs of below target but positive consumer price inflation, while asset prices, in particular real estate prices, which are highly relevant for people and very present in the public discussion, surge.

Empirically, indeed central bank independence seems to have plateaued globally since the Global Financial Crisis (see Masciandoaro and Romelli, 2018), and central bank independence has increasingly come under discussion, as evidenced by a marked rise of press article on the topic since the onset of the global financial crisis and since 2018 (see Borio, 2019). Many of the above **challenges for central**

banks are in principle independent from "populism". However, some of them **may become more relevant and acute in populist political environments**. Drawing on our definition of economic populism above, there are several potential **channels**:

- *First*, central banks were created as **independent institutions** to pursue the medium to long term goal of price stability. Given **populisms' short-term focus**, interests are likely to clash. More notably, if populist policies entail unsustainable fiscal policies, this may also endanger price stability. The call for monetary financing and fiscal dominance is just a step away. The experience of Latin American populism is a case in point. But also the recent calls for **helicopter money**, the proposals of **Modern Monetary Theory** (see e.g. Weber, 2019) and its variations (see e.g. Bartsch, Boivin, Fischer and Hildebrand, 2019) imply an erosion of central bank independence, likely fiscal dominance, and the neglect of long-term considerations for short-term pressures (see e.g. Borio, 2019). In this sense, they could be qualified as economically populist in nature.

  How legally **independent central banks can actually threaten and shorten the survival of populist regimes** is investigated by Bodea, Garriga and Higashijima (2019). Based on a sample of 94 autocratic countries observed for the time-span between 1970 and 2012, they show empirically that dominant-party autocratic regimes are significantly more likely to callapse when they face constraints on fiscal spending due to formally independent central banks. The combination of collective decision-making within the dominant party imposes checks and balances on the autocratic leader, which make it more difficult for her to override central bank independence, and thus limits her fiscal spending to buy political support. The obvious question then why such regimes create or keep independent central banks in the first place is, first, in order to signal economic policy competence and reliability in order to gain foreign investors' competence, and to divert the blame for economic hardship. So, it is a combination of institutional mechanisms and incentives that yield this result.

- *Second*, central banks are mandated to act in the **interest of the economy as a whole**. While monetary policy always has **distributive implications** (impact on savers versus creditors, growth and employment etc.), these effects have become larger and attracted more attention with unconventional monetary policy. Masciandaro and Passarelli (2019) provide a theoretical framework to show how, with heterogeneous citizens (e.g. bond holders versus deposit holders), a macroeconomic shock can produce monetary policy preferences among the electorate and populist politicians, which are different from a socially optimal long-term orientation of monetary policy. Obviously, similar considerations would apply in the current economic environment of soaring stock and house prices in response to ultra-easy monetary policies, and the resulting widening wealth gap between stock and house owners and non-owners. While central banks do not tire to argue that overall – taking into account effects on growth, employment and income – ultra-easy monetary policies do not affect distribution negatively (see e.g. Lenza and Slacalek, 2018), the public perception may be different and unconventional and ultra-easy monetary policies may invite populist attacks on central banks.

In the **euro area**, this issue may be exacerbated. The ECB is committed to pursuing the mandate for the euro area as a whole, which implies that **monetary policy alone may not entirely fit national cyclical needs**. To take the aftermath of the GFC and sovereign debt crisis, while for some countries, the ECB's policy may be regarded as insufficiently expansionary and too slow, in other countries it may be seen as far too easy. Given populisms' national focus, this may create conflicts. Furthermore, the Eurosystem's large asset purchases may raise **fears of distributive effects between euro area countries** (be it through relative yield effects on sovereign and other bonds, be it through actual or perceived risks of financial loss or potential bailout costs). This was the main reason for the ECB Governing Council's decision to conduct the bulk of the Public Sector Purchase Programme through NCB balance sheets, with no sharing of income and risk for these assets.

- *Third*, **central banks' "scientific" approach to policy** is at odds to populisms' tendency to neglect facts and analysis. As Borio (2019) puts it: independent central banks "raise the bar" for politicians who wish to pursue unsound policies. Most central banks prepare and publish research and analyses clearly beyond the narrow realm of money and finance. They may even go one step further in encouraging policies oriented towards long-term goals such as sustainable growth and employment. Traditionally, such activity beyond central banks' narrow mandate has been termed "**moral suasion**". Central banks' **financial and economic education** activities may be seen from the angle of educating the electorate to becoming less likely the prey of promises which are economically unrealistic.
- *Fourth*, **central banks' inherently "globalist", "cosmopolitan" institutional nature and "elitist" scientific approach** may make them seem suspicious to nationalist politicians (see Rajan, 2018). The intellectual foundations that supported globalisation and open markets with limited government interference also favored the idea that governments should not interfere with money and that monetary policy should therefore be delegated to technocrats with a focused mandate of keeping the value of money stable. As the

value of an open multilateral global order is being questioned and attacked, the same may happen, with a lag, to central bank independence (see Borio, 2019). Similar to anti-globalisation movements, also the criticism of central bank independence and of the separation between monetary and fiscal policies may come both from the left and right-wing populism.

It is important, however, to recognize that the argument can also be used in the other direction: Being internationally closely integrated institutions, central banks can contribute to keeping countries governed by populist leaders involved in the international policy community (e.g. in various BIS fora, in the IMF, through the ESCB/Eurosystem) and, through moral suasion and fact-based analysis, resist forces working against an open multilateral global order. As pointed out above in the work of Bodea, Garriga and Higashijima (2019), whether an independent central bank can actually use its influence and voice successfully without losing independence altogether hinges on other accompanying institutional features and incentives prevailing in a given political and economic setting.

- *Finally*, populism often goes hand in hand with **less transparency and weaker checks and balances**; this makes transgressions into central banks' competences less likely to be detected by political opposition and the protection (notably by the judiciary) of legal central bank independence less reliable (Goodhart and Lastra, 2018).

Empirical studies confirm that pressure on central bank independence has increased worldwide over the past decade and that this is related to the rise of populism. A first approach is to study the **development of statutory central bank independence**. Agur (2019) combines the World Bank's Database on Political Institutions and the Garriga (2016) index of central bank independence to study the relationship between one important aspect of populism, namely nationalism, and central bank independence. He finds, first, that central bank independence has generally strongly increased during the 1990s; however, from there on, it stagnated on average in countries with a nationalist chief executive, while it increased further on average up until up until 2010 in other countries. A panel regression of 113 developing countries, covering the period 1975 to 2012, confirms, second, that nationalism is indeed associated with lower central bank independence at the individual country level. This result holds true when controlling for other institutional variables. Third, the authors also confirm that institutional quality in general matters for central bank independence, implying that broader institutional developments often associated with populism, such a weakening of the rule of law, lower government efficiency etc. are also associated with weaker central bank independence.

Another approach is to consider measures of **actual** (as distinct from legal, statutory) **central bank independence**. Given the importance of credibility, reputation and communication in central banking, already pressure without actual legislative changes may impair the effectiveness of central banks' policies. Such pressure may take the form of calls to ease (in most cases) or to tighten (rare), threats to replace a central banker, as well as actual or potential changes to central bank legislation. Constructing a panel dataset on political pressure of 118 central banks worldwide since 2010, based on country reports from the Economist Intelligence Unit and Business Monitor International, Binder (2019) finds that political pressure on central banks has been widespread since 2010 and increased sharply in 2012 and most notably since 2018. Mostly, pressure was to ease; in 15% of cases it involved actual or threatened replacement of central bankers. Importantly, the study finds that pressure was more prevalent in less democratic countries and when there was less electoral competition, in countries with weaker checks and balances and in countries with nationalist or populist leaders. A possible qualification against the approach of interpreting pressures on central banks as being signs of loss of independence is that tensions between governments and central banks can also be seen as a sign that central bank independence is actually fulfilling its intended role of erecting obstacles against unsound policies (Borio, 2019).

In recent years in developed economies, **actual legislative changes to central bank laws remain the exception**. Binder (2019) found that only in 4% of cases studied by her, pressure on central banks involved actual or potential changes to central bank legislation. However, in 2018, the Reserve Bank of New Zealand's mandate was changed to a dual mandate. In addition, the newly installed central bank committee in charge of monetary policy decisions includes a Treasury representative. As populism remains strong and pressures on central banks increase, Binder (2019) speculates that "legal changes to central banks could also become more prevalent".

1.5. SUMMARY AND CONCLUSIONS

Populism is not just a recent phenomenon but has **long history**; while populist governments share certain common features, there are also large differences in the details. Likewise, **economic populism can take many forms**. Our brief survey of relevant recent literature has yielded a comprehensive **definition** comprising five features: (1) short-termism, (2) a distrust of liberal mainstream economics and its institutions, (3) nationalism and distrust of openness and globalisation; (4) an extreme form of electoral focus, with a resulting neglect for minorities, and (5) a neglect of facts and analysis. There is the general notion that economic populism is undesirable. The **causes of populism** are manifold and are generally thought to include factors which create a sense of being disadvantaged, left behind and living under uncertainty for a sizable part of the population; highly competitive economies, technological progress, globalisation, immigration, fiscal austerity, an erosion of social safety nets and inequality are seen as such factors, the global financial crisis and its consequences seems to have contributed to the recent rise in populism in Europe and the US. **Perceptions** of these factors are at least as important as actual developments; actual or perceived **relative deprivation** plays a key role; **individual and group emotions** are crucial to understand **protest voting** and the mechanisms which lead to support for populist parties and leaders.

Populism cannot be pinned down to specific ideologies; some argue that the traditional cleavage between left and right is being replaced by globalism versus nationalism. But it is noteworthy that both left and right wing populists share **anti-globalism**, though for different reasons and with different narratives. Advice against populism usually suggests to counteract or reverse some of these factors thought to cause populism. Depending on the political origin of the advice and the emphasised supposed causes, advice focuses either on overcoming "neo-liberalism", ending fiscal austerity, reducing inequality and bolstering social safety nets; or on restrictions openness in the quest to achieve "protection" of the domestic electorate. Obviously, both sets of **policy recommendations may be categorized as populist by advocates of the opposing political camp**. A separation between "political" and "economic" populism, as is e.g. done by Rodrik, 2018 ignores that **politics and economics are inextricably linked**. Rejecting political populism while approving economic populism misses the point. Regarding **economic effects of populism**, the economic literature generally finds that left-wing Latin-American populism in the long run led to economic failure. The assessment of recent right-wing nationalist economic populism in Europe and the US is less straightforward; some CESEE countries have fared well with it so far; but the effects from dis-integrationist and protectionist policies (US trade war, Brexit) are already entailing clear negative consequences, which are expected to unfold further as time passes.

Populisms' aversion against checks and balances and institutions not under the government's direct control creates an inherent **tension with independent central banks'** mainstream, liberal, globalist, fact and science-based economic tenet, with their primary focus on a long-term goal price stability. The populism-induced tension hits central banks at a time of post-crisis fundamental challenges they already need to cope with. It remains to be seen whether the **increasing incidence of attempts to interfere with central banks' policies and leaders** will, with a lag, also be reflected in more wide-spread changes in central bank laws. Indeed, it is the **damage inflicted upon institutions** which have been at the heart of democratic open market economies over past decades which may have the most damaging impact on economic development in the long run.

The **appropriate response to populism** is **not** to **turn the wheel backwards**. Instead, it must actively address current challenges such as climate change, global population increase and embrace technological progress and innovation to allow a transformation of the European and global economic and financial system in a way which is sustainable and allows large parts of the population to participate in and benefit from it in a fair manner. In doing so, political leaders should take **voters' perceptions and emotions seriously and address them**.

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B. Populism and Economic Policies

2. Populism and Economics

Stefan Gerlach[1]

2.1. Introduction

One of the most important changes in the political landscape in Europe and elsewhere in recent decades is the rapid and marked increase in the support for populist policies and ideas.[2] This is illustrated by many events, most notably by the outcomes of a number of elections – including the electoral wins of Presidents Trump and Bolsonaro in the US and Brazil, the Fidesz party under Victor Orbán in Hungary and the Law and Justice party in Poland under Jarosław Kaczyński and his late twin brother Lech – and in Brexit.

Of course, economic populism has a long tradition in Latin America. But that was left-wing populism, which often had socialist overtones. As Dornbusch and Edwards (1991) note in their widely cited book, it had its roots in a deep popular dissatisfaction with economic performance, involved a rejection of the perceived constraints on government policies (such as deficit financing) emphasized by neoclassical economics, and focused on income redistribution and economic restructuring.

By contrast, much of the recent growth of populism is of the right-wing variety. Wolf (2018) characterizes it as denunciation of the liberal elite and its values of democracy, technocratic governance ("people in this country have had enough of experts" as Michael Gove put it), and of the globalization of economics and finance. It involves a deep disenchantment of corruption of the political process and desire to elect a political leader with authoritarian tendencies who will sweep it away by "draining the swamp." It is often forgotten, as Eichengreen (2018a) emphasizes, that authoritarianism tends to amplify rather than reduce corruption by abolishing checks and balances in the political system.

The growth of populism raises a number of questions for economists. For instance, what role have macroeconomic conditions and policies played in fuelling populism? And, what impact might populism have on economic policies. These are some of the issues discussed in this article.

Before addressing these questions, it is necessary to define what is meant by populism. In the academic literature, there are plenty of broadly similar and long

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1 EFG Bank and CEPR.

2 This article draws from remarks prepared for the SUERF/BAFFI CAREFIN Centre Conference on *Populism, Economic Policies and Central Banking,* held in Milan on 8 November 2020. The views expressed here are solely my own. I thank GianLuigi Mandruzzato and Rebecca Stuart for very helpful comments.

definitions. For instance, Albertazzi and McDonnell (2008, p. 3) define populism as *"an ideology which pits a virtuous and homogeneous people against a set of elites and dangerous 'others' who are together depicted as depriving (or attempting to deprive) the sovereign people of their rights, values, prosperity, identity and voice."* Shorter and clearer definitions are available in dictionaries. Encyclopaedia Britannica defines it as a *"political program or movement that champions the common person, usually by favourable contrast with an elite."*[3]

But, of course, there are many different political programs that can champion the common man. Eichengreen (2018b, p. 1) writes *"The awkward fact is that there is no agreed definition. Populism is a multidimensional phenomenon with multiple perspectives on each dimension. ... Here I define populism as a political movement with anti-elite, authoritarian, and nativist tendencies. Since populist movements combine these tendencies in different ways, there are different variants of the phenomenon. In particular, there are populist movements of the Left, which emphasize the anti-elite element, and of the Right, which emphasize hostility towards foreigners and minorities."*

Without a single agreed definition, it is difficult to measure populism. Any statistical analysis of it must therefore be based on proxy variables – variables that are imperfectly correlated with populism but that can be measured. No such variable is likely to perfectly capture the phenomenon, but may nevertheless convey useful information. This is the approach taken here.

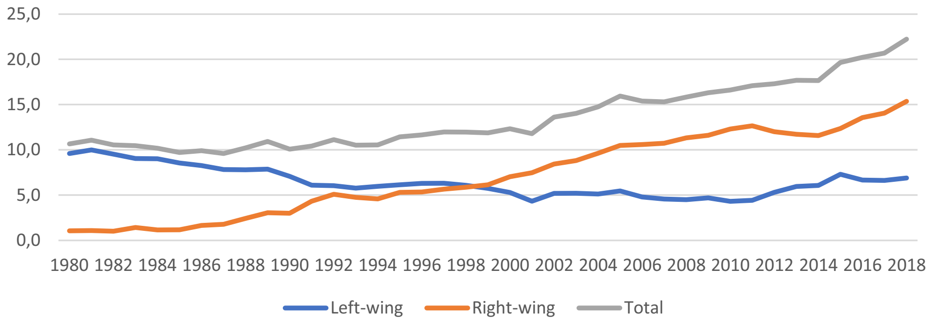
2.2. HOW HAS SUPPORT FOR POPULISM EVOLVED OVER TIME?

There are several potential proxy variables that can be used. Timbro (2019) has proposed an *authoritarian populism index* which includes all European democracies: the 27 members of the European Union (EU) plus Iceland, Norway, Switzerland, Serbia and Montenegro and the United Kingdom.[4] The index is available since 1980 and measures the fraction of votes that left-wing and right-wing populist parties have achieved in parliamentary objections in the period considered.

Figure 1 shows the electoral support of populist parties. Overall, their support rose gradually but consistently from 10.7% of the votes cast in the parliamentary elections in 1980 to 22.2% in the elections in 2018. This is a very major change of the political landscape in Europe.

[3] See https://www.britannica.com/topic/populism.
[4] The methodology and the inclusion criteria are discussed in Timbro (2019, pp. 13-14).

Figure 1: Average share of votes for populist parties, in %



Source: Timbro (2019).

The figure also shows that this rise in populism was associated with a decline in the support of left-wing populist parties from 9.6% in 1980 to 4.3% in 2010. Triggered by the financial crisis, it then started to rise, reaching 7.3% in 2015 and has since remained broadly stable just below 7%. Interestingly, left-wing populist parties are largely a southern European phenomenon.

The most striking aspect of the figure, however, is the increase in the support for right-wing populist parties. While 1.1% of voters supported them in parliamentary elections in 1980, by 2018 15.4% did so. The increase is particularly large at the end of the period: support rose from 11.6% in 2014 to 15.4% four years later.

Several factors may have played a role in this rise. First, the unspeakable crimes that were committed by right-wing regimes during World War 2 appear to have made right-wing populism unacceptable to large parts of the electorate. The level of support in 1980 might thus have been unusually low.[5] As time passed and new generations became voters, support rose. Second, as countries formerly behind the Iron Curtain, where right-wing populism may have been boosted by 40 years of communist rule, became democratic from the late 1980s onward, they entered the index. The support for right-wing populist parties may thus be increased by the change in the composition of the countries included in the index. Third, the arrival of large numbers of refugees in Europe in 2015 appears to have strengthened right-wing populist sentiment.

Assuming that populism leads to a reduction of democratic rights, another plausible way to gauge the growing support for populist policies is to consider the EUI's *Democracy Index* (EUI 2020), which is available for 165 countries and 2 territories annually since 2006.[6] The index is based on 60 indicators, grouped into five

[5] Funke et al. (2016) provides a long-term perspective on populism.
[6] The index is not available for 2007 and 2009; in the graphs below I use linear interpolation to create observations for the missing years.

categories: electoral process and pluralism; civil liberties; the functioning of government; political participation; and political culture. Each category has a rating on a 0 to 10 scale, and the overall Index is the simple average of the five category indexes.

Table 1 shows that the index fell the most in Eastern Europe followed by Western Europe, and smaller declines in Latin America and North America, between 2006 and 2020. For the world as whole the index was largely unchanged.

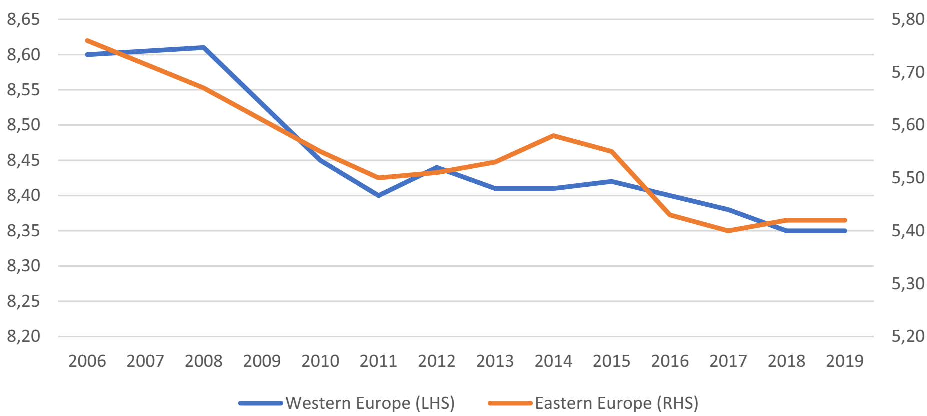
Table 1: Democracy Index 2006-2019 by region

	2006	2019	Change
Asia and Australasia	5.44	5.67	0.23
Latin America	6.37	6.13	-0.24
Middle East and North Africa	3.53	3.53	0.00
North America	8.64	8.59	-0.05
Sub-Saharan Africa	4.24	4.26	0.02
Eastern Europe	5.76	5.42	-0.34
Western Europe	8.60	8.35	-0.25
World Average	5.52	5.44	-0.08

Source: EUI, (2020, p. 24)

Figure 2 shows the evolution over time of the indices for Eastern and Western Europe. While there is a difference in levels (note the difference in scales), the two indices behave in strikingly similar ways. Thus, they fall sharply from 2006 to 2010, stay broadly constant, and fall sharply from 2015 to 2018.

Figure 2: Democracy index 2006-2019, in %



Source: EUI (2020).

2.3. WHAT MIGHT BE DRIVING THESE CHANGES?

By analogy to economic growth, it is useful to think of these developments as reflecting a combination of secular changes, cyclical factors and unpredictable shocks. Rodrik (2019) discusses one important secular change – the deepening rift in values between social conservatives and liberals. The argument is that as younger generations have become richer, more educated, and more secure than their parents, they have adopted liberalism, secularism and diversity at the expense of religiosity, traditional family structures and conformity. By contrast, older generations have become alienated, more politically active, and vote in greater numbers, supporting nationalist, authoritarian politicians. This has led to split between older and younger voters.

He goes on to argue that secular changes have also led to a split between those that live in large urban areas and the rest of society. Urbanization is a process of spatial sorting. It creates thriving, multicultural, high-density areas where socially liberal values are dominant and leaves behind rural areas and smaller cities that are socially conservative and averse to diversity.

Taken together, these developments have set the scene for a backlash from older voters and from voters outside of the major cities.

But it is easy to imagine that secular changes in the form of globalisation and digitalisation have also played a role. These factors tend to increase the demand for well-educated workers, and therefore impact on relative incomes and thus the income distribution. This appear to have caused an underlying, pre-existing discontent that manifested itself once the financial crisis hit and austerity was imposed. Thus, cyclical factors and adverse economic outcomes have also fuelled the growth of populist sentiment by causing economic anxiety and insecurity.

Funke et al. (2016) and Funke and Trebesch (2017) show that financial crises have historically boosted right-wing populism. Not only has the decade after the onset of the *Great Recession* in 2008 been associated with such populism, but so was the decade after the *Great Depression* in 1929.

One way in which a financial crisis can fuel a shift to populism is through austerity. Fetzer (2019) shows that the shift to fiscal consolidation in the UK in response to the budgetary consequences of the financial crisis gave a sharp boost to the support for Brexit in the communities most affected by cuts to welfare spending. In contrast, exposure to the EU in terms of immigration and trade appears to have been much less important (Becker et al., 2017).

Similarly, Dal Bó et al. (2018) show that a combination of policy changes in the form of tax cuts and social welfare reductions that the centre-right government in Sweden introduced in the early 2000s to "make work pay," together with the financial crisis that increased the risk of unemployment among vulnerable groups, explain the dramatic increase in the support for *Sverige Demokraterna* (the Sweden Democrats). This right-wing populist party won 1% of the votes in the 2002 parliamentary elections but, according to the SVT/Novus väljarbarometer survey, has grown to become the largest party with 24% popular support in December 2019.

But while economic factors have plainly played a role, poor economic growth is not the sole explanation for rising right-wing populism. Indeed, the US economy has grown strongly since the financial crisis, yet the election of President Trump represents a turn to populism. What seems to matter is the distribution of the benefit of economic growth, in particular the fortunes of workers with low skills who in many countries have provided populists with their main support.

Eichengreen (2018b) and Vlandas and Halikiopoulou (2016) argue that the size of boost that populist parties may benefit from after an adverse economic event is shaped by the social safety net and labour market institutions. In brief, populism receives less of a boost if safety nets are strong since the marginal income groups are then better protected. This interpretation is buttressed by the analysis of Schwander and Manov (2017), who show that economic deprivation does not predict the rapid growth of support for the *Alternative für Deutschland* (AfD), a German right-wing party which has attracted strong popular support, because of a well-functioning safety net. This is illustrated by the fact that the party has gained huge approval in both the poor Bundesländer of the former GDR and the wealthy states of Baden-Württemberg and Bavaria.

Finally, it seems likely that occasional shocks also play a role in determining the support for populist parties. The wave of refugees from war-torn Syria and other countries that reached Europe in 2015 is a case in point. It seems to have provided a boost to right-wing populist parties.

2.4. What do populist economic policies look like?

Given the surge in support for populist right-wing political parties, it is natural to ask what economic policies they might pursue if elected. As noted earlier, historically the focus has been on left-wing economic populism. Dornbusch and Edwards (1991, p. 9) define such populism as an *"approach to economics that emphasizes growth and income redistribution and deemphasizes the risks of inflation and deficit finance, external constraints and the reaction of economic agents to aggressive non-market policies."* Such policies were often combined with some interpretation of socialism (Mudde 2015).

There are few examples of recent such left-wing populist regimes in Europe. The most obvious example is Syriza which formed the Greek government in 2015-2019. However, the fact that Greece is a member of the euro area and was subject to the conditionality of an EU-ECB-IMF Troika programme which limited the policy options available to the Syriza government.

Thus, the new type of populism is novel in several dimensions (Guriev 2018). It is gaining ground in developed economies, typically with long records of democracy. The focus is not on redistribution and greater equality, but rather on "protecting" the public from a "cosmopolitan elite." And while some of its policies, such as hostility to the EU, is supported by both left- and right-wing politicians, the new populism is generally right-wing and nationalist (Mudde 2015).

Nevertheless, it is difficult to form a view of what economic policies right-wing governments would pursue since right-wing populist parties firmly in power – as opposed to being, or having been, part of coalition government as in Austria or Switzerland – are also rare in Europe. The best examples are in Poland and Hungary, although also they are constrained by EU membership.[7] Thus, in Poland the *Law and Justice Party* is the largest political party in the Polish parliament. The party was in the government coalition in 2005-2007, in opposition 2007-2015, but have formed a majority government since 2015. In Hungary the right-wing populist *Fidesz* party has formed the government under Viktor Orbán in 1998-2002 and since 2010.

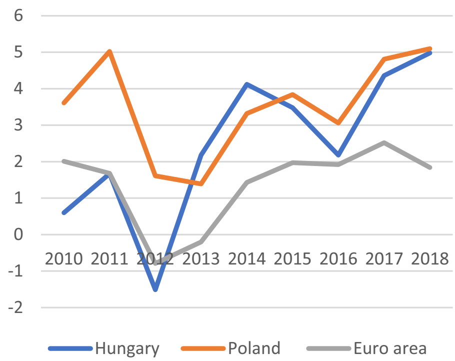
So how have the Hungarian and Polish economies fared in the last decade? Figure 3 shows that real GDP growth in Poland has been higher than in the euro area since 2010, and that growth in Hungary has exceed that in the euro area since 2013. Figure 4 shows that unemployment shows a similar pattern: while the Polish unemployment rate was always below that of the euro area in this period, the Hungarian unemployment rate fell below the euro area rate in 2012.

Figure 5 shows that public debt in Hungary was always a little below that in the euro area and that Polish public debt was much below that of the euro area. Finally, Figure 6 shows that workers' compensation has been growing more rapidly in Hungary and Poland than in the euro area, in particular since 2015.

Of course, one interpretation of these figures is that they merely illustrate that the former communist economies in Eastern Europe are still catching up with the rest of Europe, starting from a situation with little public debt. Nevertheless, these graphs lend some support to the argument in Lubin (2019) that, with the exception of Trump, current right-wing populist leaders are not given to irresponsible macroeconomic policies.

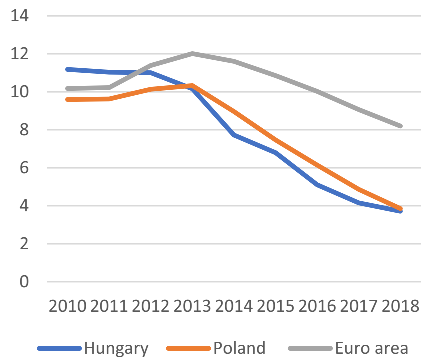
[7] A right-wing populist government was also in power in Italy from June 2018 to August 2019. Its tenure was short and the policies pursued do not seem to have been beneficial for the Italian economy as they fuelled doubts about the membership of the euro and led to confrontations with the EU Commission over the 2019 budget.

Figure 3: Real GDP growth, in %



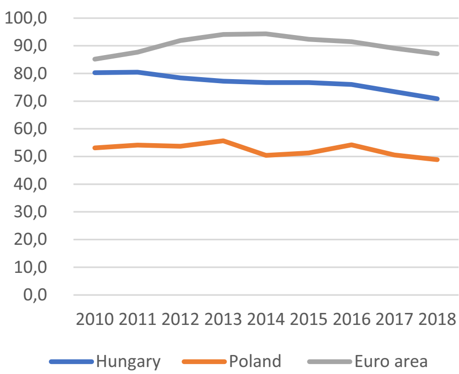
Source: OECD.

Figure 4: Unemployment rate, in %



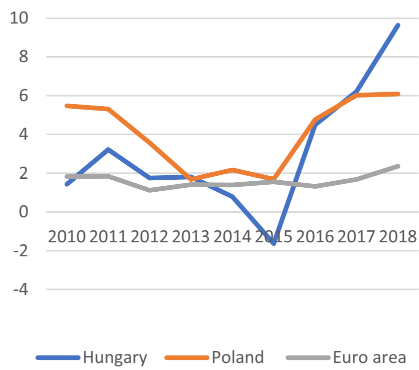
Source: OECD.

Figure 5: Debt-to-GDP ratio, in %



Source: OECD.

Figure 6: Workers' compensation, growth in %



Source: OECD.

2.5. TACKLING RIGHT-WING POPULISM

The surge in right-wing populism raises the question of how best to counteract it. Not surprisingly, how to do so, and how much success can be expected, depends on its sources. The analysis of Rodrik (2019) puts much of the blame on a deepening split in values between social conservatives and liberals, with younger generations becoming increasingly liberal and older generations becoming alienated and supporting right-wing authoritarian politicians. In this case, it would seem difficult to mitigate it.

But economic insecurity has also played a role in boosting right-wing populism. As noted above, the austerity following the financial crisis and governments' failure to compensate the relatively few losers from globalisation must have been important. Indeed, it seems likely that these factors have reinforced each other.

If so, it suggests that right-wing populism can be tackled by economic policy geared at protecting those most vulnerable in society. Eichengreen (2018b) notes that there are plenty of historical examples of the latter, including Bismarck's social policies in Germany in the late 19th century and President Roosevelt's New Deal in the 1930s. Rodrik (2019) emphasises that the economic remedies to inequality and insecurity are paramount.

But while social safety nets can help those affected for some time, social welfare payments are not a permanent solution. Instead, retraining and other active labour market programs are necessary to return those that have become unemployed as a consequence of economic change to well-paying jobs.

2.6. Conclusions

The last quarter century has seen a surge in the support for populist parties in Europe. With that development has come a change in the composition of populism: while left-wing parties have lost some importance, there has been a surge in the support for right-wing parties. These changes reflect a mixture of secular social trends (in particular the fact that the horrors of right-wing regimes in the 1930s and 1940s are now more distant in time and the collapse of communism in eastern Europe), economic downturns following the onset in 2008 of the financial crisis, and idiosyncratic developments, in particular rising numbers of asylum seekers triggered by the Syrian civil war.

Changes in the distribution of income appear crucially important. Digitalisation and globalisation seem to have been important in that they have led to a rise in the demand for well-educated workers relative to other workers, which has skewed the income distribution. Such changes have also often been a consequence of austerity following the financial crisis, as suggested by the UK experience, although they also sometimes reflect policy changes, such as in Sweden. As a consequence, it seems clear that effective social safety nets that compensate those that lose from economic change, coupled with active labour market programs that return those that have become unemployed to well-paying jobs, are critical in stemming the tide of rising right-wing populism.

While the economic programs of left-wing populist governments share important characteristics, it is difficult to know what economic policies right-wing populist government may pursue. The main reason for this is simply that there is too little experience of right-wing populist governments in Europe. That said, the experiences of Hungary and Poland suggest that their economic policies are not obviously imprudent.[8]

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3. Populism and Inflation in Latin America

Nicolás Ernesto Magud, Antonio Spilimbergo, Alejandro M. Werner[1]

Past populist governments generally implemented unsustainable macroeconomic policies (large fiscal deficit, high inflation, and ultimately recessions) as argued by Dornbusch and Edwards, 1991. Also, recent populist governments increased fiscal deficits with disappointing growth, but inflation generally remains subdued. We speculate that this is due to a world-wide trend toward low inflation, the commodity super-cycle (which helps financing the deficit), and some learning.[2]

What macroeconomic policies do populist governments pursue? What are the consequences of these policies? To answer these questions, we examine the experience of Latin America, a region with a long history of populist regimes. And we focus on inflation, which was the hallmark of macroeconomic mismanagement.

A challenge is that the concept of populism itself is elusive. How to define what is populism given that different authors have used different definitions (see Mudde and Rovira Kaltwasser, 2017)? We take the definition by Dornbusch and Edwards (1991; DE henceforth) for past episodes and the database of Team Populism for the modern episodes. Based on these authors our sample consists of the ten classical cases as identified by DE (1991) plus five recent cases.[3] Table 1 lists the episodes we consider.[4]

1 International Monetary Fund.

2 We are grateful to Kirk Hawkins for sharing with us his Team Populism dataset on populist parties in Latin America, populist presidents, and prime ministers in power. Ana María Trujillo and Diego Wachs provided superb research assistance. The views expressed in this study are the sole responsibility of the authors and should not be attributed to the International Monetary Fund, its Executive Board, or its Management. This paper is based on our on-going research on the broader macroeconomic effect of populism (Magud, Spilimbergo and Werner, 2020)

3 Note that we exclude some cases like Menem or Fujimori which sometimes political scientists identify as 'neoliberal populist', i.e. governments which had a populist rhetoric and neoliberal policies. Other authors (Edwards, 2019, and Filkenstein, 2017) also include the Kirchner government (2007-2015.) The conclusions do not change if we include this government in the new wave of populist governments.

4 Our data goes through 2017.

Table 1. Populist events

Event	Country	Period	Source
Past wave of populist governments			
Perón	Argentina	1973-76	Dornbush-Edwards
Vargas	Brazil	1951-54	Dornbush-Edwards
Goulart	Brazil	1961-64	Dornbush-Edwards
Sarney	Brazil	1985-90	Dornbush-Edwards
Allende	Chile	1970-73	Dornbush-Edwards
Echeverría	Mexico	1970-76	Dornbush-Edwards
Velasco	Peru	1968-75	Dornbush-Edwards
Belaúnde	Peru	1963-68	Dornbush-Edwards
García	Peru	1985-90	Dornbush-Edwards
Pérez	Venezuela	1974-78	Dornbush-Edwards
Modern wave of populist governments			
Morales	Bolivia	2006-17	Team Populism
Correa	Ecuador	2007-17	Team Populism
Ortega	Nicaragua	2007-13	Team Populism
Chávez-Maduro	Venezuela	1999-2017	Team Populism

Dornbusch and Edwards (1991; DE henceforth) analyzed the economic effects of populism in Latin America in the countries listed above during the 1970s and 1980s. Their conclusion was that, even though rhetoric and economic conditions differed, populist governments ended up implementing a remarkably similar set of policies. Populist objectives clash with the constraints imposed by macroeconomic realities and face the economic consequences of these inconsistencies. They describe five phases:

Phase 0. Initial conditions. People are dissatisfied with current economic policies. Preceding stabilizations have often provided some room in the budget. Populist politicians reject the policies of austerity. Reactivation of the economy and redistribution of income are usually done through increasing wages and the use of the fiscal space.

Phase I. For a while, populist policymakers are fully vindicated. Real wages grow and inflation is kept at bay via price controls. Shortages are avoided through imports, which are still financed by reserves. Moreover, given fixed exchange rates under the Bretton Woods' international monetary system in place during the early episodes, and the continued use of different varieties of rigid exchange rate arrangements as a tool to contain inflationary pressures thereafter, higher inflation eventually strengthens the domestic currency's real (effective) exchange rate.

Phase II. Bottlenecks start appearing and low levels of inventories become a problem. Inflation increases, and wages try to keep up with it. An underground economy emerges.

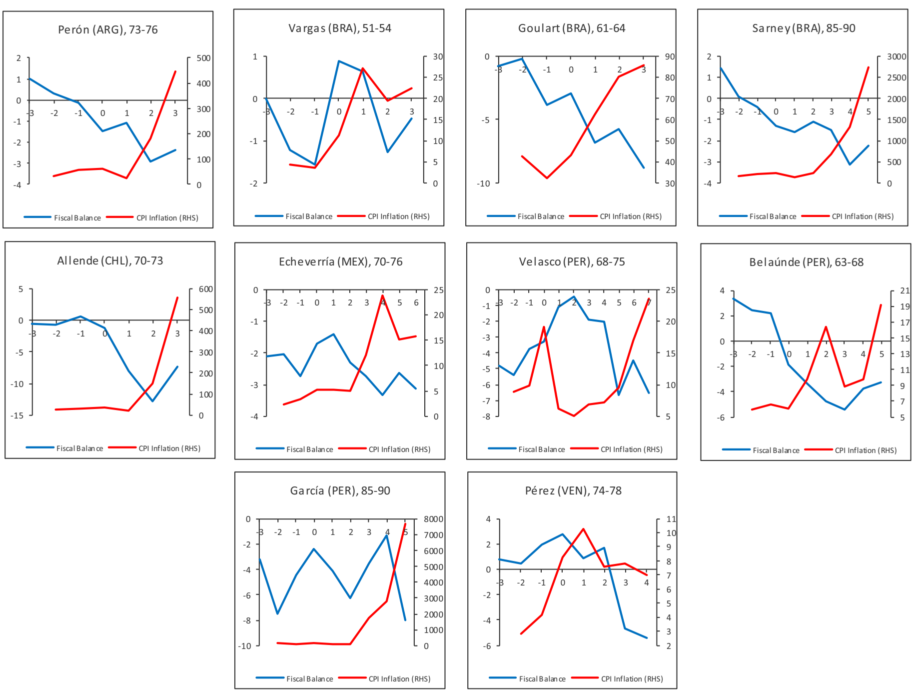
Phase III. Pervasive shortages and accelerating inflation become the norm. Capital flight accelerates, and the economy slows. The budget deficit deteriorates and real wages collapse. As the economy implodes, there is increasing disillusionment with populist policies.

Phase IV. Orthodox stabilization policies are implemented under a new government. At the end of the cycle, real wages stabilize at a level lower than at the beginning.

Magud, Spilimbergo, and Werner (2020) document the deterioration of economic activity during all these episodes and the deterioration of institutional indicators during recent episodes and argue that also the modern episodes follow as similar patterns as in DE (1991). Here we focus on the behavior of inflation.

During these phases the central banks play a central role and provide monetary financing to the government. Figure 1 shows the fiscal balance and inflation in the ten cases discussed by DE (1991). Zero on the x-axis represents the year when a populist government took over as indicated in Table 1.

Figure 1. Fiscal expansion and inflation. Past episodes (percent of GDP and percent)

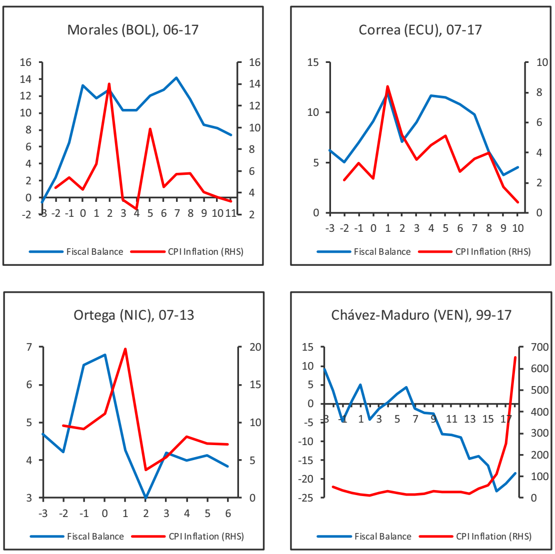


Source: IMF's World Economic Outlook.

In all cases fiscal balances worsened and inflation picked up. Moreover, inflation surged to become hyper-inflation in most cases. Central banks accommodated and financed the increasing fiscal deficit.[5]

Figure 2 shows fiscal expansion and inflation in recent episodes of populist government. In all these episodes there was a clear worsening of fiscal balances. Notice that the fiscal deterioration happened despite the fact the commodity super-cycle' windfall resulted in higher tax revenues, pointing to unsustainable government spending (see below). However, differently from the previous cases only one case, Venezuela, ended up in hyperinflation. In other words, inflation was remarkably stable when compared with the past experience.[6]

Figure 2. Fiscal expansion and inflation. Recent episodes (percent of GDP and percent)



Source: IMF's World Economic Outlook.

What explains the difference? Basically, four factors. The commodity super-cycle which started at the beginning of the 2000s helped financing the deficit and so loosened the budget constraint. The commodity super-cycle also appreciated the real exchange rate boosting consumption, and through that channel boosting revenues. And the large trade balance surpluses helped finance the external accounts and accumulate reserves. Additionally, massive expansionary monetary policies in advanced economies in response to the global financial crisis reduced

5 Edwards (2019) makes the point that modern populism follows the same patter as old populisms.
6 However, inflation in countries with populist governments is still higher on average than in countries with no populist governments.

the cost of international financing; capital flows to emerging markets, including to Latin America, further eased hard-currency financing and strengthen domestic currencies. Second, the entire world had a secular slowdown in inflation dynamics. Third, even populist politicians learned that monetary financing could be dangerous, leading to hyper-inflation. Fourth, modern populists found alternative ways to finance the increasing deficits through nationalization (see Bolivia, Ecuador, and Venezuela), freezing of tariffs for energy, or raising import and export taxes.

In conclusion, even though the basic economic and political mechanisms remain the same, the recent episodes of populism were associated to less inflation than in the past, though still larger than in most non-populist regimes. One of the hallmarks of classical economic populism has changed but the long effects on the economy may remain.

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4. Psychological Motivations of Populist Vote

Francesco Passarelli[1]

In this chapter I explore some psychological motivations leading people to support a populist party that proposes an anti-establishment platform. As a touch base I will start from recent literature connecting upsurge of populism with relative deprivation in socially cohesive contexts (Altomonte et al., 2019), with changing social identification patterns (Gennaioli and Tabellini, 2019; Grossman and Helpmann, 2018), and with contrabst between local an universal moral values (Enke, 2018). My main argument is that populist attitudes can be directly related to loss of social status in local communities.

The great financial crisis of 2008 has deeply reshaped income distribution in many Western countries. Large shares of the population have been experiencing relative deprivation, i.e., a worsening in their income position compared to the richest part of the population. At the same time many people have been losing their confidence towards political establishment and the way democracy works. Recent surveys conducted by the Pew Research Center show that commitment with democracy has never been as weak as it has been in the last few years. In Europe, for example, more than four-in-ten Swedes and Dutch are dissatisfied with the current state of democracy, while in Italy, Spain and Greece the share of dissatisfied people is larger than sixty per cent. Across 27 countries polled, those who are dissatisfied with how democracy is working in their country are largely above those who are satisfied.

"Anger at political elites, economic dissatisfaction and anxiety about rapid social changes have fueled political upheaval in regions around the world in recent years. Anti-establishment leaders, parties and movements have emerged on both the right and left of the political spectrum, in some cases challenging fundamental norms and institutions of liberal democracy."[2] In the US, about 8 in 10 Democrats think that the economic system gives an advantage to those already in power, and a third of Republicans share that opinion.[3]

The rise of populism has been linked to socioeconomic changes triggered by modernization, globalization, and economic deregulation (Autor et al. 2016;

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1 University of Turin, Baffi Centre, and CESIfo.

2 Wike, R., Silver, L., and Castillo, A. Many Across the Globe Are Dissatisfied With How Democracy Is Working, Pew Research Center, April 2019.

3 Kim, S.M., and Clement, S. Populist economic frustration threatens Trump's strongest reelection issue, Washington Post, April 29, 2019.

Colantone and Stanig, 2018a, 2018b). Political response by the establishment has not dampened the effects of such process, and perhaps it has fueled them. For instance, Fetzer (2019) has shown that austerity and welfare cuts during the economic crisis have increased the support for populist party in Great Britain, precisely in those areas where welfare spending had been high in the past.

Economic insecurity and loss of social status are two social psychological mechanisms that fuel support for the new populist parties. Economic crisis has increased inequality, but also it has uncovered the impact of globalization and technology on unemployment. The populist rhetoric has been powerfully crafted to deflect dissatisfaction and anger away from the self and instead towards the political establishment. It has sustained the perception that "foreigners are stealing our jobs" and the idea that technology "favors the wealthier part of population". Populist narrative has been specifically effective in instigating a feeling of affective identification, creating a delineation between "normal folk" and "the elite." This divide is grounded on emotion and identity that stem from a sharp distinction between "friends" and "enemies".

Populist leaders have been quite successful in instigating resentment, a typical emotional reaction to a situation which is subjectively perceived as unjust. Resentment is a negative moral-sentiment which presupposes a bold sense of justice. Social psychologists claim that individuals develop a subjective sense of justice by comparing their situation with the situation of others in the society. Resentment is directed towards the normative content of the social order. An individual develops resentment if she judges unworthy the position of someone else in the social hierarchy. She is prone to think that someone deprives her of chances or privileges that she deserves (Runciman, 1966; D'Ambrosio and Frick, 2007; Fiske, 2010; Smith et al., 2012). Social comparison and the feeling of losing social status may lead to envy and moral indignation (as in McClendon, 2018).

Individuals experiencing impoverishment lose their social status and prestige. These are important elements of individuals' social identity. Relatively deprived individuals are more likely to develop hostility towards social change, compared to other individuals. They are likely to embrace values that are still perceived to be stable and resilient, such as nationality, ethnicity, tradition. These are also identities in which solidarity to other group members can still be experienced. But it is more likely that such an affective relation with the group is experienced at local level, with a local community. A recent research by Benjamin Enke (2018) on politicians' rhetoric has shown that, compared to a traditional politicians, populist leaders put more emphasis on emotionally and morally relevant communal values (e.g., community, loyalty, and tradition), rather than universal values (e.g., justice, fairness, individual rights). Their narratives match voters concern about the decline of such values, especially in cohesive local communities.

It seems reasonable to conjecture that people identifying more strongly to a local community are also more sensitive to political leaders appealing to communal values and offering protection against cultural decline or economic insecurity (e.g., anti-immigration, anti-globalization). The interaction between communal values and relative deprivation experienced by local communities can boost the moral appeal of a populist leader because the relative impoverishment of community members is perceived as morally unjust by the entire community.

The cultural identification pattern is important also in Gennaioli and Tabellini (2019). They observe that recent economic shocks have changed the geometry of group identification. Individuals who have been exposed to foreign competition or immigration are more prone to identify with a nationalist or socially conservative group. Cultural differences with outgroups become more salient than economic differences. Thus a new conflict on culture and globalization replaces the traditional redistributional conflict. Grossman and Helpman (2018) discuss how shifts in patterns of social identification can lead to a raise in anti-globalization attitudes.

Social comparisons and blame attribution are fundamental elements of populist rhetoric. More specifically, the separation between the People and the Elite is instrumental to the goal of ascribing the responsibility to a particular external agent. Angry people view negative events as caused by, and under the control of, other agents. Not only is this essential to legitimate blame attribution towards the Elite and the political establishment, it is also a necessary condition to instigate political participation and mobilization. Rancor against the traditional parties and the elites is common to populist rhetoric (Mudde, 1999, 2004, 2007; Van Kessel, 2015; Muller, 2017).

Resentment, as triggered by social economic comparisons and relative deprivation, represents emotional opposition to a situation that is deemed unequal or unjust. This sentiment, as other moral sentiments like indignation and obligation, can be associated to empathetic emotions. Empathetic sentiments can be socially shared at group-level. They can also motivate and regulate intergroup attitudes (loyalty, solidarity) as well as intragroup behavior (mobilization, attack). Intergroup Emotions Theory (Mackie et al., 2000; Mackie and Smith, 2015) was advanced in an attempt to understand the nature of emotions that arise from group identification. According to this theory, when an individual identifies with a group, that ingroup becomes part of the self, thus acquiring social and emotional significance (Smith and Henry, 1996). This theory builds on traditional theories of social identity and inter-group behavior (e.g. Tajfel, 1974; Akerlof and Kranton, 2000) to study how identification leads to the emergence of collective emotions. Importantly, Mackie and Smith (2015) find that cohesive communities may experience group-wide resentment when they perceive a common threat. In this case, emotional reactions are tied to the experience of the community more than the experience of the individual, and group members' anger toward an outgroup (the "others") can be a good predictor of the willingness to take action.

Resentment, due to the loss of social status, and group identification can be important predictors of populist attitudes. Starting from this premise, Altomonte et al. (2019) advance a behavioral theory of populism. They claim that individuals experience resentment when they lose income over time while others do not, or when they do not gain as others do. As mentioned above, this concept is related to the idea of relative deprivation. It has been widely explored in the literature of social psychology and sociology alike. Burgoon et al. (2018) recently find that relative deprivation is strongly correlated with support to radical populist parties.

In Altomonte et al. (2019) any worsening in the level of relative deprivation, with respect to the reference point, triggers an individual feeling of resentment. The reference point is the past level of relative deprivation. Relative deprivation is measured as the average distance between the individual's income and the income of wealthiest people in the population. This is consistent with theories in social psychology holding that individuals draw their subjective sense of justice by comparing themselves with the luckier ones, rather than the entire population, a sort of envy that triggers a feeling of injustice. Feelings like envy of the richer have also been recently associated to populist vote by Pastor and Veronesi (2018).

The basic idea in Altomonte et al. (2019) is that individuals have a taste for maintaining their social status. Any increase in relative deprivation implies a loss of social status, which is deemed unjust by individuals, and thus triggers resentment. But resentment is tied to the experience of the community, more than to the experience of the individual. The mechanism is social identification. Wuthnow (2018) interviewed Americans living in small towns across the country, finding a growing sense of resentment driven by the perception that "Washington" is threatening the way of life in small towns. This attribution bias fuels anger towards the outgroup (the 'others'), identified as the source of the threat, and consequently increases the likelihood of hostile behavior, including the emergence of protest vote.

In the model of Altomonte et al. (2019) individuals observe the change between their relative deprivation over two consecutive periods, as well as the change in relative deprivation within their local community. Their aggrievement increases if their relative deprivation increases, and the more so if relative deprivation also increases in their community. Community cohesion therefore amplifies the effects of relative deprivation in driving protest vote, a phenomenon of complementarity already observed in the political economy literature on protest (Passarelli and Tabellini, 2017). This is because, as suggested by the above mentioned literature on Intergroup Emotions, there exists a strong relation between group cohesion, justification of ingroup misbehavior, and protest against the outgroup. Cohesive communities are more likely to attribute the causes of their bad performance to external factors. In other words, the more an individual identifies with a community, the more she "absorbs" the emotions of other members in the community. If a larger proportion of the community members have also experienced relative deprivation, that individual feels more aggrieved, in a sort of "emotional contagion" which can easily lead to abrupt explosion of collective anger. Such a mechanism, that hinges on group identification and emotional complementarity across community members, is subject to multiple equilibria. Either very few individuals experience resentment, or many of them do. Even small changes in the share of relatively deprived individuals can cause a shift from the former equilibrium to the latter one. Of course patterns of social identification can contribute to making the "explosive" equilibrium more likely. It is easy to think that a populist leader can successfully manipulate the mechanism, leading to explosive patterns of emotional contagion. His narrative can lead individuals to think that their situation is profoundly unjust, that the political establishment or "the others" are to be blamed for their situation. He can also manipulate social identification using the communal or the nationalistic rhetoric, and leading individuals to think they belong to a specific ingroup which is opposed to the outgroup of "enemies".

In Altomonte et al. (2018) voters enjoy material (or ideological) utility when voting for traditional parties. However, if they vote for the populist party they also enjoy "emotional" utility. If the latter is strong enough, they might switch from their material/ideological first-best party, and vote for the protest party. They would do so in order to enjoy the emotional utility that only the protest party can offer. This emotional utility is exactly given by the feeling of relief of unseating traditional establishment, that voters deem responsible of their situation. Thus, their emotional utility is commensurate to their feeling of resentment, which is experienced at community level. A sort of revenge of traditional politicians who disappointed them.

The predictions of this theory are the following. Individuals experiencing higher degree of relative deprivation and identifying with a local community where the share of deprived individuals is higher should exhibit stronger support for the populist party. This higher support should translate into bigger voting share for the populist party, even in a three-party political system with plurality rule, where individuals may eventually vote strategically for their second-best if the latter is the front-runner. Moreover, support for the populist party should depend on the same variables that explain disappointment at the political establishment. Namely, dissatisfaction with traditional parties should be positively correlated with relative deprivation and social identification with local communities.

These predictions are tested by exploiting the unprecedented increase in UKIP vote shares between the 2010 and 2015 elections, when UKIP support quadrupled (raising from 3.1% to 12.6%). UKIP is largely acknowledged to be a protest or populist party (Mudde, 2004; Van Hauwaert and Van Kessel, 2018) whose policy platform is essentially identitarian, anti-European and anti-system in the tradition of the single-issue party (Betz, 1993; Mudde, 1999). Altomonte et al. (2019) use detailed longitudinal survey data within each British district (Understanding Society) over the five-year time period, and test the interaction between economic grievances and local cohesion on the vote share to the UK Independence Party (UKIP) in the 2010 and 2015 national elections, across the 380 Local Authority Districts (LADs). Besides individual self-reported support for UKIP, they also test their theory on actual electoral outcomes in the two general elections of 2010 and 2015.

They show that individuals self-reporting their sense of attachment to their local community are more likely to support for UKIP when a bigger number of individuals in that community have experienced a worsening in their income position compared to richer individuals in UK society. More precisely, provided an individual cares about her community, a one percentage point increase in the share of people experiencing higher relative deprivation yields a 3.5% increase in the probability that the individual reports support for UKIP. When an individual reports no attachment to her local community, the share of people experiencing higher relative deprivation in the community is not significantly associated to a higher probability she reports support for UKIP. In order to trigger the emotional mechanism leading to protest vote, an individual needs to identify with her community. The psychological reaction is triggered by a loss of income positions relative to the wealthier part of the population. Other measures of inequality do not trigger protest vote. What leads people to support the populist party is the worsening of ingroup members' position relative to richer people in the UK. Therefore, these results seem to be driven by a different mechanism than simple inequity aversion. The mechanism is similar to the one postulated by the theory. Individuals derive their subjective sense of justice by looking at the luckiest ones in the society. A kind of envy triggering resentment at group-level.

Altomonte et al. (2019) also find that the interaction between relative deprivation and group identification is strongly associated to dissatisfaction with political system. This means that these individuals lose their confidence in democratic institutions. Blame for the unlucky situation in their community is directed against traditional parties and political elite. Blame attribution and group-based resentment leads individuals to desire to get rid of the traditional parties, and support the populist party that promises to do so.

The psychological mechanism postulated by this theory is robust to the inclusion of economic shocks, as the ones postulated by existing literature on populist vote.

Relative deprivation within cohesive communities remains a strong predictor of UKIP vote even after controlling for trade or immigration shocks (Colantone and Stanig, 2018b) or cuts to welfare spending (Fetzer, 2019). This implies that resentment and collective emotional amplification have a significant role in protest vote, which adds up to material motivations and distributional effects of economic shocks.

As predicted by theory, the psychological motivation explains only voting for UKIP. The same mechanism does not play any significant role in Labour vote, while it seems to be negatively correlated with vote for the Conservative Party. The emotional channel seems to be draining votes away from the Tories towards UKIP. This confirms the idea the UKIP is a right-populist party.

The work of Altomonte et al. (2018) shows that the behavioral approach uncovers important drives of populism and protest vote. While pointing at psychological motivations, it bridges the gaps between different branches of social science, which study populism from their own specific perspectives. Protest vote is driven by the desire to take revenge against traditional politics, which is deemed responsible for the current situation. The higher the group-wide aggrievement, the higher the desire to take revenge, a mechanism that is consistent with the classical frustration-aggression hypothesis in psychology (Miller, 1941). Revenge against the traditional parties and the elites is common to populist rhetoric (Mudde, 2004; Van Kessel, 2015; Muller, 2017). Accounting for emotions adds new insights to the existing debate between economic and cultural motives driving protest vote and populism (e.g. Rodrik, 2018; Guiso et al., 2017; Inglehart and Norris, 2016; Margalit, 2019).

Recent papers have discussed how cultural factors, such as changing social identification patterns or displacement of traditional values, may have played a role in populist vote, especially in cohesive communities. Other papers have shown that economic shocks are crucial determinants of the upsurge of populism in established democracies. Perhaps the psychological factors discussed in this article are part of a broader picture in which segments of Western societies develop widespread feelings of discontent and resentment both for changing economic status in their communities, but also for changing cultural values in their societies. And perhaps these drivers of resentment feedback to each other, leading to generalized loss of confidence in the political system. A fascinating topic deserving further research in the future.

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5. Populism, Psychology and Banking Policy

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This chapter describes the results obtained in Favaretto and Masciandaro (2020) addressing a case of populism called Democratic Rioting, in which citizens – i.e. the poor and the rich – are assumed to be heavily influenced by psychological group dynamics that result from banking shocks. We highlight a display of anger that is channelled through an election instead of in the streets. In turn the anger can be influenced by non-financial news about immigration, welfare plans and housing plans. Consequently after a banking shock the consensus on a myopic populist policy can depend on many issues that have nothing to do with the bailout decision itself. We describe a mechanism that can be applied to the aftermath of both the Great Recession and the Great Depression.

5.1. Introduction

Populism was thought to be an issue restricted to emerging countries until it became strong and clearly evident in Europe. In fact, populism is sweeping Europe's political equilibria. A report published by a group of leading political scientists in *The Guardian* in November 2018 found that one in four Europeans were voting for populists. Notably, European populist parties received 12.5 million votes and held governmental roles in 2 countries in 1998, while they received 170 million votes and governed in 9 countries in 2018. According to the report in *The Guardian*, the surge of populism has had an impact even in countries where these parties are not in government. Most notably, countries such as the UK, Sweden, Denmark and Germany experienced strong shifts to the right on immigration due to the presence of extreme right populists.

This shift has fostered new enthusiasm and a wide range of research among academics. Populism is not a new phenomenon – the first wave was mostly left-wing and concentrated in Latin America (Dornbusch and Edwards, 1991; Acemoglu et al., 2013), while this wave is mainly right-wing and evident in Europe.

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The definition of "populism" is blurred. Scholars in the fields of political science and sociology have put a great deal of effort into defining the concept (Gidron and Bonikowksi, 2013). In economics, we follow Guiso et al. (2017) in defining populism as a political movement that offers short-term protection to voters. By riding voters' fears or enthusiasm, populist politicians frame themselves as siding with the common people and against the corrupt elite by championing policies that disregard long-term consequences. From a political science perspective, Golder (2016) suggests that populists maintain as central the difference between the "pure people" and the "parasitical elite", both of which are seen as homogenous groups.

This chapter describes the results obtained in Favaretto and Masciandaro (2020) addressing the following question: What do populist parties have in common with the extreme radical parties that emerged after financial crises?

Masciandaro and Favaretto (2020) builds a theoretical model in order to answer this question. In particular, we highlighted the demand for populism, which we view as a political manifestation of anger and frustration. We suggest that populism has some similarities with political movements that became very strong after financial crises in the past. Financial crises seem to unleash emotions that make it easier for extremist and populist parties to be voted into power. Funke et al. (2016), Mian et al. (2014) and De Bromhead et al. (2018) demonstrate that after systemic banking crises, politics tend to become more ideologically extreme and take a hard turn toward the right. Moreover, parliaments become more fractionalized and governments become less solid. We build a model in which angry citizens choose the suboptimal policy championed by the populists, as that choice gives them an emotional benefit.

We discuss a situation in which an economy is hit by a systemic banking shock and an election is used to determine the bailout policy. We describe electoral competition by including a mainstream party and a populist party. The difference between the two platforms is assumed to be given by their proposed bailout policies. The mainstream party is the classical centre-right or centre-left party, which follows moderate economic policies by choosing the optimal bailout policy and has expectations for the central bank's actions. In contrast, the populist party pushes for a sub-optimally high or low policy depending on its political positioning, and that policy is not welfare maximizing.

Citizens decide to vote for the populist party by considering the economic and psychological costs and benefits of this choice. The individual choice is heavily influenced by the respective wealth group: voting for populists entails different psychological benefits and individual costs for the poor and the rich. The psychological benefits depend on anger – when anger is higher, the more expectations differ from a group-specific reference point. For example, the more the poor vote for populists, the greater the psychological benefit of voting for them. The poor will be more content with this protest vote because it represents a public display of anger, similar to rioting together in the streets (Passarelli and Tabellini, 2017).

We call this Democratic Rioting for this very reason – it discusses a display of anger that is channelled through an election instead of in the streets. This is a behavioural decision, as it is not entirely economic and is driven, at least in part, by emotions. In other words, what other group members do matters to the individual.

The group-specific reference point is influenced by news about immigration, welfare plans and housing plans. For instance, news leading individuals to think "immigrants are receiving benefits to start their lives in my country while I struggle to find a job" moves the reference point and generates fuel for the populist vote. The rich and the poor typically have different reference points that depend on the information they receive. Consequently, a vote on a bailout policy depends on many issues that have nothing to do with the bailout policy itself.

We define self-serving bias as a wedge that changes the reference point, thereby differentiating the indirect utility of voters from the reference point. Indeed, if individuals assign more weight to their group in social-welfare optimization, then their reference point is different from their indirect utility.

In our framework, we assume that the poor have higher self-serving bias and lower variance in the individual costs of voting for populists. Therefore, they have a higher probability of voting for a populist party. The remainder of the chapter is organised as follows. Section 2 reviews the relevant literature, while sections 3 analyses the interaction between banking crises, group behavior and voting on bailout policies. Section 4 concludes.

5.2. LITERATURE REVIEW

We examine the literature on the political consequences of systemic banking crises (Funke et al., 2016; Mian et al., 2014; De Bromhead et al., 2018) by building a framework of the effect of these crises on voting. Theoretically, there are at least three broad explanations for the populist vote: populism as a consequence of political and economic cycles, populism as a result of trade shocks, and populism caused by inequality and fear of immigrants.

Guiso et al. (2017) use individual survey data from the European Social Survey and consider turnout share to estimate drivers of the populist vote. They find that economic insecurity (defined by combining unemployment risk, financial distress and globalization) and fear of immigrants fuel the populist consensus, with the first variable being predominant and affecting the second. Algan et al. (2017) use regional-level data on voting in Europe after the Great Recession and find that unemployment is a major driver of the populist vote.

Autor et al. (2016) and Colantone and Stanig (2016) offer examples of the trade-shock explanation. They find that voting patterns are influenced by global competition, especially by decreased wages among unskilled workers in developed countries.

With regard to the inequality argument, Dorn et al. (2018) consider German counties and find that poorer counties and counties characterized by greater inequality have higher proportions of votes for extremist parties. Bischi et al. (2019) use a game-theoretical approach to explain the demand for populism as a function of demand for lower economic inequality and fear of immigrants. In other words, populists capitalize on two long-term trends: rising inequality and the salience of immigration.

Our framework proposes a different theoretical mechanism that links systemic banking shocks and voting in which individual decision making is influenced by citizens' groups. Several papers support parts of our framework.

First, some researchers recognize the fact that populists use short-term solutions that benefit subgroups of the population but are harmful in the long run (Sachs, 1989; Dornbusch and Edwards, 1991; Acemoglu et al., 2013; Chersterley and Roberti, 2016). Second, empirical evidence suggests that poor European citizens vote for populists more than rich European citizens. Moriconi et al. (2018) show that the inflow of less-educated immigrants is positively associated with an increase in votes favouring nationalistic positions and it is stronger for non-tertiary educated voters. At the district-state level, Giebler and Regel (2018) find that the poor vote more for right-wing populists, as they are more likely to be unemployed and have less education. Third, studies from social psychology stress that individual behaviour is affected by group affiliation through group norms, information and identity concepts. Gerber and Rogers (2009) highlight the growing stream of literature on social norm perceptions, which indicates that people carefully consider other people's actions. In fact, beliefs about how other people act, which are called "descriptive social norms", exert a powerful influence on a range of behaviours. Group membership influences individual political attitudes and behaviour.

For instance, the Columbia school (e.g., Berelson et al. 1954) explains individual voting behaviour as the product of group affiliations, such as religion, ethnicity and occupation, and argues that group pressure leads to conformity. Moreover, information about politics is heavily dependent on group behaviour (Huckfeldt and Sprague, 1995). Social-identity theory (Tajfel, 1982) states that group members are motivated to conform with norms that provide them with an in-group identity.

Other contributions tackle different aspects of populism. Acemoglu et al. (2013) model left-wing populism with a signalling mechanism. Aggeborn and Persson (2017) build a model in which the poor support right-wing politicians because they prefer to consume basic public services instead of a global public good, where the latter is assumed to be offered by left-wing politicians. Frisell (2009) focuses on the supply of populism – how the choice of electoral policy platforms is influenced by politicians' abilities to know public opinion and then, if the remuneration associated with their positions is high, strategically choose a short-term policy rather than a long-term one. From a game-theory perspective, this approach is heavily dependent on information and strategic voting.

Pastor and Veronesi (2018) build a heterogenous agent model in which agents' utility is modelled as averse to inequality. In a setting in which the US is compared to the rest of the world and there are individual-level differences in risk aversion, economic growth increases inequality in both the US and the rest of the world because less risk-averse agents consume a greater share of total output. In this model, globalization leads to populism through the effects of risk sharing. In fact, agents with low risk aversion consume more over time, thereby widening the inequality to a point at which it is beneficial for the majority to halt risk sharing and trade in order to limit within-country inequality. They do so by voting for a populist candidate. This theory implies that populism surfaces in cycles and that it emerges when economic growth is strong, as the loss of income due to autarky has less of an effect on the marginal utility of consumption during expansions. Although this perspective may fit with the vote for Trump, it is less relevant for European populists.

5.3. BANKING CRISES, DEMOCRATIC RIOTING AND BAILOUT POLICIES

The Favaretto and Masciandaro (2020) framework takes stock of features of populist movements. First, we assume that populists enter the electoral competition by supporting short-term policies instead of long-term policies (Guiso et al., 2017). In our setting, this means that populists prefer a sub-optimal level of public spending to save the banking system. Our framework allows for either sub-optimally low or high bailout policies, but we believe that the latter make more sense. Most populist parties choose high public spending in order to reward specific social and economic groups (see, e.g., The Economist, 2018, "Battle over benefits"). Higher public spending is often used to address voters' demands. We assume that this is an attractive policy for angry voters.

Second, we assume that individuals may decide to vote for the populist party by weighing the costs and benefits, both economic and psychological. Individual choice is heavily influenced by the respective wealth group. In fact, the psychological benefits and the individual costs of voting for populists are assumed to differ for poor and rich individuals. The psychological benefit depends on anger, and each individual is angry if its policy expectations differ from the group-specific reference point.

Third, we know that populists tend to publicly blame and target economic and political elites. In our framework, this means that a populist rhetoric motivates each person in the two groups to consider group features. The poor may represent the lower 60-70% of the wealth distribution, while the rich are the elite in terms of wealth. Our key assumption is that the individual's vote is influenced by group behaviour.

Our approach defines populist policy as a short-term, sub-optimal policy. This approach is based on Golder (2016), who suggests that "the precise content of the populist message is context-dependent" in terms of being against the established power structures, and on Guiso et al. (2017), who propose that the left or right orientation of a populist party depends on the political opportunity space. Moreover, our approach is compatible with all types of non-mainstream parties, including populist, extremists and those that are anti-system. This allows us to be as general as possible in building a model for our empirical evidence.

In our framework, an aggregate negative banking shock generates a positive probability of voting for a populist party, assuming that the supply of populism is fixed. A generic populist party offers an alternative to a classical party that represents the optimal policy choice. The extent of the intervention is decided through the electoral competition. We assume that this will be the only policy dimension on which to vote (Persson and Tabellini, 2002).

Monetary and fiscal policy interact but voters only choose the latter. This setup replicates Euro-area populism well. In the Euro area, monetary policy is constrained by an international institution with strong independence (i.e., the European Central Bank (ECB)), while fiscal policies are subjected to the demands of populists, such as the Fronte Nationale in France or the Five Star Movement and the Lega in Italy.

The economy consists of heterogenous agents, the government, the central bank and the banking system. When there is a banking shock, the government designs its strategy based on two decisions: one regarding the bailout amount and the other regarding how to finance it. The central bank is independent and sets the optimal fiscal monetization in line with its inflation goals. The government introduces an income tax to repay debt and interest. The citizens make decisions about labour and consumption given the tax. The equilibrium choice for the bank bailout policy reflects the trade-off between minimizing tax distortions and smoothing out banking externalities.

The citizens are heterogenous regarding their financial profiles, i.e. they hold different amounts of bank shares, deposits and bonds. We assume that these differences matter only because they induce the creation of two broadly defined groups by wealth: the rich and the poor. We assume that wealth is the only feature that defines the group reference points for political issues.

We assume that the decision regarding the extent of bailout is made by voting and that there is only one policy dimension on which to vote (Persson and Tabellini, 2002). From a generic perspective, we assume that the bailout decision is, by far, the most important political issue on which the two parties battle. The monetary policy decision is made by an independent central bank, which chooses the optimal level of inflation. Differently from Masciandaro and Passarelli (2019), political pressures on the central bank setting cannot arise.

In terms of bailout strategy he populists will present a different policy than the classical party. It should be modelled on the specific populist party and political system, even though we believe that populists usually prefer higher government spending and, hence, higher bailout policies (see, e.g., The Economist, 2018, "Battle over benefits").

Citizens decide whether to vote for the populist party by balancing the costs and benefits of this choice both economically and psychologically. The individual benefit of voting for the populists comes from expressing emotions in a way that has a public impact. Importantly, the individual benefit of voting for the populists increases along with the size of the individual's group. It is an indirect public display of emotions, so the more that is shared by group members, the more it pleases the individual. In the words of Passarelli and Tabellini (2017), "the psychological benefit of a public display of anger is stronger if the emotion is more widely shared" and is related to being treated unfairly.

Why does the psychological bias emerge? It can be caused by news about immigration, welfare plans, or housing plans. The group's bias increases when group participants feel entitled to a better public policy for various reasons, such as when they blame immigration or the other group for getting too much public attention and resources. Th bias acts as a wedge between the indirect utility of voters and their reference points.

Research indicates that such as biases may be caused by immigration. Guiso et al. (2017) find that fear of immigrants affects voting decisions in favour of populists. Dennison and Geddes (2018) find a correlation between the salience of immigration (from the pan-European Eurobarometer survey) and the polling of anti-immigration parties in most western European countries for data after 2005 (salience is defined as the indication of the most important issue affecting the individuals and/or the country).

Moriconi et al. (2018) find that the inflow of less-educated immigrants is positively associated with an increase of votes in favour of nationalistic positions, and that this association is stronger for non-tertiary educated voters and in response to non-European immigrants. In our framework, this means that the inflow of less-educated immigrants increases the biases of both the rich and the poor, but with a stronger effect on the poor. More specifically, the poor experience a higher level of distress, which increases the probability that they will vote for populists.

Some evidence suggests that the bias may be higher among the poor due to their higher exposure to the presence of immigrants in public spaces. In this regard, Card, Dustmann and Preston (2012) compare attitudes toward immigrants in Europe using data for 21 countries from the 2002 European Social Survey. They use a latent-factor model to account for the composition of local populations and the perceived threats to the compositional amenities that natives derive from their neighbourhoods, schools and workplaces. They find that compositional concerns are two to five times more important for explaining variations in individual attitudes toward immigration than concerns about wages and taxes. Moreover, most of the differences in opinion between more- and less-educated respondents is attributable to heightened compositional concerns among people with less education.

All in all, both the rich and the poor may have a probability of voting for populists that is greater than zero. For this to be true, both groups' anger must be positive. In our baseline framework the poor have a higher probability of voting for populists, as they have a higher bias and lower variance in the individual costs of voting for populists. As seen above, higher bias may be the result of a higher impact of immigration coverage in the media and other information sources.

This scenario is in line with the empirical evidence. Dorn et al. (2018) show that poorer German counties have higher shares of votes for extremist parties. Guiso et al. (2017) and Algan et al. (2017) find that economic insecurity is a dominant driver of populist voting, which is in line with the fact that the poor are more likely to be affected by economic hard times than the rich. In line Funke et al.'s (2016) finding that there is a rise in extremist right-wing parties after a systemic banking shock, we use a banking shock. We describe a mechanism that applies to the aftermath of the Great Recession with a timing similar to the emergence of right-wing parties during the Great Depression, as in De Bromhead et al. (2018). On top of that our setting may incorporate a globalization effect on the poor through a bigger increase in their self-serving bias, which is in line with the literature on the political effects of trade shocks.

5.4. CONCLUSION

Populism in Europe has plenty of explanations: trade shocks, cyclical unemployment, fear of immigrants and demands for redistribution. We propose one more explanation: citizens implementing a democratic riot through a vote that decides the bailout after a systemic banking crisis. The voting decision is behavioural and it is influenced by citizens' wealth groups. In other words, economic and psychological costs and benefits matter for the decision. Populists propose a suboptimal bailout policy. Citizens vote for populists if their group is angry (i.e., if what they expect to receive in terms of a bailout differs from the classical party's optimal policy). The expectation influences the group's reference point, and it acts a wedge between the reference point and voters' indirect utility. This wedge is affected by news about immigration, welfare plans and housing plans. The more such as psychological bias will be relevant the more likely will be an increase in the populistic consensus.

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6. Globalization and Nationalism

Italo Colantone[1] and Piero Stanig[2]

This chapter illustrates the results obtained in Colantone and Stanig (2018ab) on the political effects of globalization. In particular, in Colantone and Stanig (2018a) we investigate the effects of exposure to the Chinese import shock on support for nationalist and radical-right parties across fifteen western European countries, between the beginning of the 1990s and 2007. In Colantone and Stanig (2018b) we focus on the implications of the same shock on support for the Leave option in the Brexit referendum of 2016. In both cases, we find positive and significant effects of exposure to the China shock on the voting outcomes, both when working with district-level election returns, and when focusing on individual-level voting data. Overall, our results suggest that globalization is a facet of structural change that has significant political effects, tilting the electorates in a nationalist, isolationist, and radical-right direction.

6.1. Introduction

We study the effects of globalization on voting behavior in western European legislative elections and in the Brexit referendum of 2016 (Colantone and Stanig 2018ab). Much of the political science literature on globalization tended, until very recently, to focus on more macro aspects, like the relationship between trade openness and government spending or welfare state generosity, rather than on politics proper, in the sense of party competition and voting behavior (Kayser 2007). At the same time, some of the literature on the radical right in Europe had suggested that one of the possible drivers of the success of this party family was a reaction against globalization, or the manifestation of the demands of "modernization losers". Yet the evidence provided in support of this thesis was mostly descriptive and often indirect. As Golder (2016, 483) correctly points out, "exactly who the modernization losers are in these accounts is often left vague". Our contributions, as illustrated in this chapter, try to improve on the existing literature by providing causal estimates of the effects of one specific facet of globalization, Chinese import competition, on support for political platforms of

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economic nationalism, and for the radical-right parties that usually propose them.

A concept that recently has encountered considerable success, not only in political science but also in economics, is that of populism. The literature seems to have largely converged on Mudde's (2004, 543) definition of populism as a "thin-centered" ideology, that "considers society to be ultimately separated into two homogeneous and antagonistic groups, 'the pure people' versus 'the corrupt elite', and which argues that politics should be an expression of the volonté générale (general will) of the people."

Part of the phenomena we study has been analyzed under these lenses. In our work, yet, we prefer to focus on the specific ideology of economic nationalism rather than framing our analysis in terms of "populism". When we study voting in legislative elections, we also focus on the radical-right party family. Importantly, while populism is considered a defining feature of the radical right (Golder 2016), not all populist parties belong to the radical-right family, hence we focus on a subset of parties compared to other contributions that address the phenomenon of populism broadly understood.

Our stance is that populism might be a useful category to understand the rhetoric, strategies, and appeal of political parties that, in general, respond to a demand-side frustration with institutions that are perceived as technocratic or undemocratic. Yet, the heuristic value of this concept is often limited if one wants to understand what are the consequences of structural economic changes on voting. It might be possible to find common characteristics of "right-wing populist" voters across several European countries, or isolate some traits shared by "left-populist" parties, but, it seems, it is harder to find what makes voters choose "populism" broadly defined. For instance, voters of populist parties broadly defined do not seem to share much in terms of socio-demographic characteristics or political preferences (Rooduijn et al. 2017; Rooduijin 2018). In this respect, Van Kessel (2014) went as far as to suggest that the concept of populism might run the risk of being an instance of Sartori's (1991) "cat-dog": a non-existent object that attracts considerable scholarly attention but seems elusive mostly because it was improperly defined.

One additional consideration, specifically related to our own work that we summarize here, is that it is not obvious to consider the success of the Leave option in the Brexit referendum as part of a more general "populist" surge – even if some have made suggestions in this direction. On the other hand, it is uncontroversial to see the outcome of the Brexit referendum as one facet of the increasing success of nationalist and isolationist ideas and rhetoric.

Some have tried to frame the recent research on the surge of the radical right, economic nationalism, or populist parties as a debate between two camps: the "cultural drivers" camp and the "economic drivers" camp. Our empirical focus is on the economic drivers of voting behavior: yet, our stance is that thinking of different families of explanations as alternative – or worse mutally exclusive – is not particularly useful when studying the complicated nexus of processes that are driving the realignment of political conflict in advanced democracies. As Franzese (2019) notes, not only the process is not of an either/or nature, involving instead both cultural and economic variables, but, importantly, there are potential causal relationships between economic and cultural drivers of the realignment.

In other words, we are fully aware that dramatic changes in the configuration of party competition, or momentous decisions like the majority support for Brexit, are necessarily multi-causal. Our contributions isolate structural economic changes as important drivers, and provide evidence about their effects on political competition in advanced democracies. Studying the "causes of effects" is far from a straightforward exercise, and, as Gelman and Imbens (2013) note, answers to *reverse causal questions* ("why do voters increasingly support economic nationalist policies?") must take in any case the form of claims about the *effects of causes* ("exposure to global competition pushes voters towards parties that propose economic nationalism, like those in the radical-right family"). This entails that the answers one can provide in a principled way are always cast in terms of marginal or *ceteris paribus* effects, especially if one adopts, like we do, empirical strategies based on identification via instrumental variables and fixed effects. For instance, in our work on voting behavior in Western Europe, we estimate models with country-year (i.e., election) fixed effects, which implies that we are identifying the effect of globalization shocks only from differences across regions within a country at a given point in time.

In what follows, we first briefly introduce the concept of economic nationalism and how it is linked to the globalization backlash, and explain the general empirical strategy we adopt to measure the impact of globalization, in the form of import competition from China. We then describe, in turn, our work on globalization and voting behavior in fifteen western European countries, and our work on the Brexit vote. Finally, we draw some general implications of our findings for the study of globalization and politics.

6.2. ECONOMIC NATIONALISM AND THE RADICAL RIGHT

The surge in support of economic nationalism can be seen as a consequence of the crisis of a political and economic model, prevalent in advanced democracies after WWII, that political science has called "embedded liberalism." (Ruggie 1982). This social contract, that underlies the success of mainstream political parties in Western democracies in the decades after World War II, was based on the promise that liberal policies, especially in terms of international trade integration, would generate a sustained and diffused improvement in living standards for a large fraction of the population.

In general terms, the evidence we provide suggests that the realignment in the politics of advanced democracies – that also encompasses the victory of Donald Trump, running on a platform of economic nationalism and nativism quite close to those of the European radical right – is driven in a significant part by structural changes in the economy. Globalization is an important facet of such structural changes, although arguably not the only economic driver of the recent political shifts. For instance, in Anelli, Colantone and Stanig (2019) we explore the role that automation of production plays in these processes.

Embedded liberalism was, to an extent, the policy implementation of the textbook economics view of international trade. In very simple terms, free trade generates aggregate benefits but also creates "winners" and "losers", and redistributive transfers to the losers are required to make free trade beneficial to all.

As highlighted by Rodrik (1997), compensation becomes harder to sustain as globalization progresses. Strong globalization shocks – like China's very fast development – would demand more generous compensation. Yet, the financing capacity of governments gets increasingly under strain in a globalized world, exactly when compensation is most needed. In particular, over time capital gets increasingly mobile across countries, heading towards low-taxation settings, and constraining the ability of national governments to raise the necessary tax revenues (Burgoon 2001; Garrett and Mitchell 2001).

This leads to insufficient compensation of losers, and to an overall loss of credibility of embedded liberalism (see Hays 2009). Those sectors of public opinion more exposed to trade become more hostile to globalization (Margalit 2012; Mayda and Rodrik 2005; Scheve and Slaughter 2007). In a nutshell, the "losers" realize that effective redistribution policies are not feasible, and the demand for protection emerges as an alternative. What we call "economic nationalism" can therefore be seen as the political manifestation of this demand.

Specifically, with the expression "economic nationalism" we refer to a policy bundle that combines three main elements: a protectionist and isolationist stance in matters of trade and international relations; little attention paid to (when not outright skepticism of) redistribution and compensation policies; a nationalist rhetoric that acts as a master narrative. In the case of European Union member countries, the isolationist facet of this policy bundle, unsurprisingly, is declined also in terms of opposition to EU institutions (so-called "Euroskepticism"). Many different parties in Western Europe propose policies that can be classified as economic nationalist. Importantly, this type of policy platform is typical of radical-right parties.

6.3. MEASURING THE IMPACT OF GLOBALIZATION: THE CHINA SHOCK

In the empirical work we discuss in this chapter, our focus is specifically on the political ramifications of the emergence of China as a global player in world markets, and the ensuing crisis of manufacturing in western Europe. The empirical strategy we adopt to measure exposure to Chinese imports at the regional level owes to the seminal work of Autor et al. (2013). In particular, we measure:

$$\text{Import Shock}_{crt} = \sum_j \frac{L_{rj(\text{pre-sample})}}{L_{r(\text{pre-sample})}} * \frac{\Delta\text{IMPChina}_{cjt}}{L_{cj(\text{pre-sample})}} \tag{1}$$

where c indexes countries, r regions, j industries, and t years.

$\Delta\text{IMPChina}_{cjt}$ is the change in (real) imports from China over the past n years, in country c and industry j. This is normalized by the number of workers in the same country and industry at the beginning of the sample period, $L_{cj(\text{pre-sample})}$. In order to back out the region-specific trade shock, we take the weighted sum of the change in imports per worker across industries, where the weights capture the relative importance of each industry in a given region. Specifically, the weights are defined as the ratio of the number of workers in region r and industry j, $L_{rj(\text{pre-sample})}$, over the total number of workers in the region, $L_{r(\text{pre-sample})}$, both measured at the beginning of the sample period.

In the cross-national study of 15 countries in western Europe (Colantone and Stanig 2018a), the geographic level of disaggregation is the NUTS-2 regional level, and in the main analysis we focus on changes in Chinese imports over two years prior to an election. For the study of the Brexit referendum vote (Colantone and Stanig 2018b) we can rely on the more fine-grained NUTS-3 partition. In this case, given the necessarily cross-sectional design of a study of one single referendum, we first calculate the regional shocks for 5-year periods, from 1990 to 2007, and then average all these to obtain a region-specific import shock that accounts for the entire trajectory up to the Great Recession.

The measurement approach we adopt is based on a theoretical model developed by Autor et al. (2013) and has a very intuitive interpretation: different regions are more or less exposed to the growth in Chinese imports depending on their ex-ante industry specialization. In particular, any given change in imports at the country-industry level (i.e. $\Delta\text{IMPChina}_{cjt} / L_{cj(\text{pre-sample})}$) at a given point in time is going to affect relatively more the regions in which more workers were initially employed in that industry. Intuitively, larger import shocks are attributed to regions characterized by larger shares of workers employed in the manufacturing sector. However, given the same share of manufacturing workers, cross-regional variation in exposure to Chinese imports will stem from differences in industry specialization within manufacturing. In particular, the shock will be stronger for regions in which relatively more workers were initially employed in those industries for which subsequent growth in imports from China has been stronger (e.g. textiles or electronic goods), and in years in which the surge in Chinese imports in those industries was sharper.

We address the possible endogeneity of the trade shock with respect to electoral outcomes by instrumenting *Import Shock* using the growth in imports from China to the United States. Our instrument is defined as:

$$\text{Instrument for Shock}_{crt} = \sum_j \frac{L_{rj(\text{pre-sample})}}{L_{r(\text{pre-sample})}} * \frac{\Delta \text{IMPChinaUSA}_{jt}}{L_{cj(\text{pre-sample})}} \quad (2)$$

With respect to the previous formula for Import Shock$_{crt}$, here we substituted ΔIMPChinaUSA$_{jt}$ for ΔIMPChina$_{cjt}$. Motivated by earlier literature (e.g., Autor et al. 2013), this instrument is meant to capture the variation in Chinese imports due to exogenous changes in supply conditions in China, rather than to domestic factors that could be correlated with electoral outcomes.

Endogeneity could stem from different sources. First, one could worry that some districts ("key constituencies") are better connected to mainstream government parties in each country. In that case, policy makers could protect from import competition the industries that are more important for these districts. This could induce an upward bias in the regression estimates. Indeed, we would observe milder import shocks in the key constituencies, while at the same time voters in those districts would support more mainstream parties and less, for instance, the radical right (or the Leave option in the Brexit referendum). Mitigating these concerns, most of the countries in our sample belong to the European Union, which has exclusive competence on trade policy. Yet, national representatives could still lobby for more protection at the EU level for industries that are particularly important for their key constituencies. Our instrumental variable approach is meant to solve this type of issue.

Endogeneity may also derive from demand shocks. For instance, in the case of a positive demand shock in a given country, voters would be more likely to vote for incumbent government parties, and less likely to choose opposition forces or radical-right parties. This could induce a downward bias in the regression estimates, to the extent that positive demand shocks translate also into higher imports from China. Our instrumental variable strategy is meant to address these concerns as well as other potential sources of omitted variable bias.

6.4. VOTING IN WESTERN EUROPE

In our work on the effects of globalization on voting behavior in western Europe (Colantone and Stanig 2018a) we rely on two different data sources: electoral returns at the district level, and individual-level data from the European Social Survey (ESS).

We assemble election data at the district level for each of the fifteen western European countries in our sample. Our data cover 76 general elections, over the period 1988-2007. We always focus on votes for the lower house of the legislature. Official election results are sourced from the Constituency-Level Election Archive (CLEA, Kollman et al., 2016), the Global Election Database (GED, Brancati, 2016), and a number of national sources. We define p_{ldt} as the vote share for party l, in district d, at time (election) t.

In order to assess the ideological leaning of a district in an election, we need to link the election results with ideology scores for each party in each election. The Comparative Manifesto Project (Volkens et al. 2016) data provide human coding of the manifesto of each party, along several policy dimensions, and allow us to calculate ideology scores that are party-election specific, and constant across all the districts within a country.

We calculate scores for party l, in country c and year (election) t following the method proposed by Lowe et al. (2011):

$$\text{Score}_{lct} = \log(.5 + z^{+}_{lct}) - \log(.5 + z^{-}_{lct})$$

where z^{+}_{lct} is the number of claims in a positive (e.g., nationalist) direction, and z^{-}_{lct} is the number of claims in a negative (e.g., anti-nationalist) direction.

We calculate three main scores, aggregating different items in the CMP:

- a basic score of *Nationalism* based on claims about the national way of life, traditional morality, law and order, and multiculturalism;
- a specific score of *Net Autarky*, which includes claims about protectionism, internationalism, and the European Union, following Burgoon (2009);
- a more comprehensive score of *Nationalist Autarchy*, also following Burgoon (2009), which, on top of the items that enter our Nationalism score and those included in Net Autarky, also includes the items about human rights, democracy, and constitutionalism.

We also calculate a score of *Economic Conservatism*, based on the items about the welfare state, free market economy, regulation, planning, Keynesian demand management, and incentives.

Once we have the ideology scores for political parties, we combine them with district-level election results to obtain time-varying district-level summaries of ideological orientation. In particular, we calculate the center of gravity of the district on a given ideological dimension, and the median voter score in the district, which is the (weighted) median of the party positions, where the vote shares are used as weights. The center of gravity measure is sensitive also to differences in the ideological positions of extreme parties, while the median voter score aims at capturing the position of the "centrist" voter in the district.

Formally, the center of gravity in district d and in election t is calculated as

$$\mathrm{COG}_{dt} = \frac{\sum_{l=1}^{n} p_{ldt}\mathrm{Score}_{lt}}{\sum_{l=1}^{n} p_{ldt}}$$

where l indexes parties. Score_{lt} can be one of the nationalism scores, or the left-right positioning score. We also calculate the cumulative vote share for radical-right parties, classified according to the conventional wisdom in political science, in each district.

Once we have calculated ideological summaries for each district in each election, we attribute to each district-election the China shock of the region in which it is located. We can then estimate models of the form:

$$\text{Electoral Outcome}_{cdt} = \alpha_{ct} + \beta_1 \text{Import Shock}_{cr(d)t} + \varepsilon_{cdt} \tag{3}$$

where c indexes countries, d districts, t years (elections), and ε_{cdt} is an error term. Electoral Outcome_{cdt} is one of the district-level summaries defined above. The function $r()$ maps district d to its NUTS-2 region r. α_{ct} are country-year, i.e., election fixed effects.

Often, a question that is raised has to do with the role played by left parties, both mainstream and radical, in channeling political demands coming from globalization losers. In order to directly address this issue, we place parties, based on their ideology scores, in four quadrants defined by their stances on the two dimensions (economic conservatism and isolationism) that according to the political science literature characterize contemporary political conflict in advanced democracies. Hence we can isolate the anti-globalization right (that coincides to a large extent with the radical right), the isolationist left (that to some extent coincides with the "populist left" in other taxonomies), a pro-globalization right (e.g., traditional mainstream Liberal, Conservative, and Christian-Democratic parties), and a pro-globalization left (e.g., Social-Democratic parties). We can then estimate the effects of the China shock on support for parties within each of these four families.

For the individual-level analysis, we attribute to each respondent the ideological score of the party she voted in the last election, and an indicator variable for voters of the radical-right family (again defined following the conventional wisdom in political science). We attribute to each respondent the China shock of the region of residence, and in addition we include in the model also basic pre-treatment covariates: age, gender, and level of education (treated as categorical and turned into an exhaustive set of indicator variables). All the individual-level models, like the district-level ones, include country-year fixed effects, hence the identification comes only from variation across voters within a given election. Specifically, we estimate models of the form:

$$\text{Electoral Outcome}_{icrt} = \alpha_{ct} + \beta_1 \text{Import Shock}_{cr(i)t} + \mathbf{Z}_{it}\gamma' + \varepsilon_{icrt} \qquad (4)$$

where i indexes individuals, c countries, r regions, t years (elections), $\mathbf{Z}_{it}$ is a vector of individual controls, and ε_{icrt} is an error term.

6.4.1. Results

Table 1 reports the results of the instrumental-variable district-level analysis. The dependent variable is indicated on top of each column. The coefficients on the import shock are always positive and statistically distinguishable from zero. The overall message is straightforward: within a given country in a given election, districts more exposed to Chinese import competition are leaning more in a nationalist direction, and witness a higher share of votes for the radical right. The first-stage coefficient is positive and significant, and the F statistic is around 19, suggesting that we do not face issues of weak instruments.

The most intuitive way to assess practical significance is by considering the result for the radical right, given that the outcome variable is a vote share. According to the estimate reported in the last column, a one standard deviation increase in import shock leads, *ceteris paribus*, to higher support for radical-right parties by around 1.7 percentage points – not a negligible impact, considering that the average radical-right vote share in the sample is 5%, with a standard deviation of 7%.

Table 1: Vote in Western Europe: District-Level Estimates

Dep. Var.:	Nationalism		Nationalist Autarchy		Radical Right
	Median	COG	Median	COG	Share
Import Shock	1.310*** [0.466]	0.753*** [0.223]	1.304*** [0.470]	0.895*** [0.246]	0.132*** [0.051]
Estimator	2SLS	2SLS	2SLS	2SLS	2SLS
Country-Year Effects	yes	yes	yes	yes	yes
Obs.	7,782	7,782	7,782	7,782	7,782
R2	0,43	0,81	0,36	0,68	0,62
First-stage results					
US imports from China	0.039*** [0.009]	0.039*** [0.009]	0.039*** [0.009]	0.039*** [0.009]	0.039*** [0.009]
Kleibergen-Paap F-Statistic	19,2	19,2	19,2	19,2	19,2

Standard errors clustered by region-year in brackets.
*** p<0.01, ** p<0.05

Table 2: Vote in Western Europe: Party Families

Dep. Var.:	Protectionist	Protectionist	Liberal	Pro-Trade
	Left	Right	Right	Left
Import Shock	-0.052 [0.047]	0.278*** [0.094]	-0.017 [0.075]	-0.134** [0.054]
Estimator	2SLS	2SLS	2SLS	2SLS
Country-Year Effects	yes	yes	yes	yes
Obs.	7,782	7,782	7,782	7,782
R2	0,72	0,77	0,90	0,88

Standard errors clustered by region-year in brackets.
*** p<0.01, ** p<0.05

As for the four party families defined based on the two-dimensional policy space, the results in Table 2 tell us that districts in regions more exposed to Chinese competition tend to display significantly higher support for parties of the protectionist right, and significantly lower support for parties of the pro-trade left. At the same time, we cannot detect with statistical confidence any effect on support for the other two party families. This evidence is in line with explanations of the decline of European social-democracy as a consequence of a "globalization backlash", and the defection of blue-collar constituencies – traditionally supporters of social-democratic parties – towards nationalist and radical-right forces.

Table 3 reports the results of the individual-level analysis. Consistent with the district-level findings, voters residing in more exposed regions vote for more nationalist and isolationist parties, and are more likely to support the radical right.

One question that naturally arises, and that can be addressed with individual-level data, has to do with how the economic distress caused by import competition affects different groups in society. For instance, the disappearance of jobs in a given industry due to global competition affects directly the workers employed in firms operating in that industry. At the same time, industrial blight has consequences on the entire economy of an area, as it affects also other economic aspects, like demand for services and, importantly, the value of housing property, and ultimately also local revenues and therefore public services (Frieden 2018). Hence, many more individuals might be indirectly economically affected by an import shock than just manufacturing workers.

Table 3: Vote in Western Europe: Individual-Level Estimates

Dep. Var.:	Nationalism Score	Nationalist Autarchy	Radical Right
Import Shock	0.202***	0.541***	0.043***
	[0.033]	[0.032]	[0.007]
Female	-0.045***	-0.052***	-0.013***
	[0.009]	[0.008]	[0.002]
Age	0.005***	0.004***	-0.0003***
	[0.000]	[0.000]	[0.000]
Estimator	2SLS	2SLS	2SLS
Education Dummies	Yes	yes	yes
Country-Year Effects	Yes	yes	yes
Obs.	60.360	60.360	60.360
R2	0,27	0,18	0,12
First-stage results			
US imports from China	0.092***	0.092***	0.092***
	[0.002]	[0.002]	[0.002]
Kleibergen-Paap F-Statistic	2402	2402	2402

*** $p<0.01$, ** $p<0.05$

In addition, even if a specific individual is unaffected (directly or indirectly) in economic terms, local decline might still be consequential for her voting behavior. Political science thinks about these direct and indirect effects of economic conditions on voting behavior through the distinction between sociotropic and egotropic considerations. In the case of egotropic (or "pocketbook") considerations, a voter might decide, for instance, to support a challenger party because her personal economic conditions have deteriorated. In the case of sociotropic considerations, voters react not to their own economic fortunes, but to the growth rate or the unemployment rate in their social context (that in principle can extend all the way to the national growth rate or unemployment rate).

We wanted to ask the data what we can learn about this, and in particular how one type of sociotropic consideration, namely the economic conditions of the area in which a voter lives (dubbed "geotropic" by Reeves and Gimpel 2012) influence voting behavior. To explore the presence of geotropic effects, in unreported regressions we augment the models by interacting the import shock with a set of dummies denoting different groups defined by labor force status and occupation category. Specifically, we use interactions with indicators for the retired, students, the unemployed, the self-employed, service workers, and public sector workers. It is worth keeping in mind that the labor force status and occupation of a respondent is endogenous to the economic trajectory of the region, and therefore to globalization itself. Hence this exercise is more of a descriptive nature.

In line with previous findings (Ansolabehere, Meredith, and Snowberg 2014; Mansfield and Mutz 2009), our evidence suggests that the effect of import competition is not confined to specific groups – such as the unemployed or manufacturing workers – which might be more directly affected by Chinese imports. To the contrary, there is evidence of a significant effect even for service workers and public-sector employees, who are in principle more sheltered from foreign competition in manufacturing activities. As globalization threatens the success and survival of entire industrial districts, discontent spreads even across groups that are not necessarily directly affected, and still increase their support for nationalist and radical-right parties in reaction to depressed local conditions.

6.5. THE BREXIT VOTE

In our work on the Brexit referendum (Colantone and Stanig 2018b) we rely on two different data sources: official referendum outcomes, that we aggregate at the NUTS3 level, and individual data from the British Election Study (BES) online panel.

The district-level evidence is based on regressions of Leave vote share at the NUTS-3 level on the China shock for that same NUTS-3 region, accounting for macro-region (NUTS-1) fixed effects that, in practice, restrict the identification to comparisons between different areas within a macro-region (e.g., "West Midlands"). Importantly, given that Scotland is a NUTS-1, as are Wales and Greater London, possible cultural differences (e.g., between England and Scotland, or between London and the rest of the country) are partialed out: our identification does not rely on this source of variation. In addition we also control for the share of foreign-born residents out of the total population of the region in 2015, and for the inflow of immigrant workers, based on registrations to National Insurance, divided by the total working-age population of the region in 2015. By including these two variables we aim to control both for the stock of immigrants, which reflects immigration dynamics in the region over the past decades, and for the most recent influx, to which voters may be particularly sensitive.

The individual-level evidence is based on both the vote intention stated just before the referendum, and the self-reported vote behavior just after the referendum. The results that are reported here are based on the vote intention data, but we get equivalent results when we use the self-reported vote in the post-referendum BES wave. We estimate probit, hierarchical linear, and instrumental variable probit models. Here we report and discuss only the results based on IV probit; the other estimation approaches yield equivalent results, and we refer the reader to the paper for full results.

Also in the individual analysis we include fixed effects for NUTS-1 macro-regions and the immigration variables based on stock and inflows in the area of residence of the respondent. In addition, we include controls for age, gender, and education, treated as a categorical variable and turned into a set of indicator variables.

6.5.1. Results

The main IV results of the data analysis on the Brexit vote are reported in Table 4. The first two columns report the estimates from the regional analysis, the second two the estimates of the individual analysis. In the second and fourth column we display the results when also controlling for two variables that capture historical immigration levels in an area and recent arrivals of immigrants.

Table 4: Brexit Vote: Regional and Individual Results

Dep.Var.	Leave Share	Leave Share	Leave Vote	Leave Vote
Import Shock	12.965*** [4.543]	12.299*** [3.726]	0.228** [0.107]	0.213** [0.109]
Immigrant Share		-0.491*** [0.154]		-0.010* [0.006]
Immigrant Arrivals		-0.058 [0.691]		0.01 [0.029]
Age			0.011*** [0.001]	0.011*** [0.001]
Gender			-0.011 [0.024]	-0.013 [0.024]

Table 4: Brexit Vote: Regional and Individual Results *(continued)*

Dep.Var.	Leave Share	Leave Share	Leave Vote	Leave Vote
ED1			-0.159** [0.070]	-0.160** [0.070]
ED2			-0.138*** [0.046]	-0.141*** [0.046]
ED3			-0.459*** [0.050]	-0.464*** [0.050]
ED4			-0.737*** [0.050]	-0.739*** [0.051]
ED5			-1.030*** [0.059]	-1.029*** [0.059]
Model	IV	IV	IV Probit	IV Probit
NUTS-1 Fixed effects	yes	yes	yes	yes
Observations	167	167	15,923	15,923
Kleibergen-Paap F statistic	662.7	614	798.9	815.4

Standard errors clustered by NUTS-2 area in columns 1 and 2, by NUTS-3 area in columns 3 and 4.
*** p<0.01, ** p<0.05, * p<0.1

The regional-level evidence, in the first two columns, shows that the Leave vote share is significantly higher in areas more affected by Chinese import competition. Importantly, the results are not sensitive to the inclusion of the controls for the stock and the inflow of immigrants in the area.

To assess the practical significance of the results, one has to keep in mind that the models include macro-region (i.e., NUTS-1) fixed effects, hence we are comparing otherwise similar areas located within the same macro-region. Specifically, if we compare two regions – within the same NUTS-1 macro-region – that differ by one standard deviation in terms of strength of the import shock, these are expected to differ by almost 2 percentage points in support for Leave. If we compare a region at the 10th percentile of import shock (0.15 –Cardiff and Vale of Glamorgan) with a region at the 90th percentile (0.51 –Gwent Valleys), both located in the same NUTS-1 macroregion (Wales), these are expected to differ by 4.5 percentage points.

We can also perform some back-of-the-envelope calculations, to assess whether the outcome of the referendum would have been different under a different configuration of the import shock. In particular, we calculate the expected vote share for Leave if all regions had received an import shock at some point in its distribution. We find that if all the regions had received the shock of a region at the first quartile (0.22 like Wirral, in Merseyside) the national vote share for Leave would have been around 48.5%, reversing the referendum outcome. This conservative calculation assigns to one quarter of the regions a shock stronger than the one they experienced. Notably, among the regions in the first quartile are populous areas in Merseyside and Greater London, not to mention most areas of Scotland. Leaving all the regions below the first quartile untouched, and assigning the first quartile import shock to all the others, the predicted vote share for Leave is around 47.7%. This suggests that, although we cannot point to a (potentially elusive) "real cause of Brexit", the drivers we isolate play a role that, counterfactually, would have led to a different outcome in terms of a victory of Remain.

The individual-level analysis, reported in the second two columns, confirms that voters otherwise similar in terms of age, gender and education, but residing in areas more exposed to import competition (within the same macro-region) are more likely to support Leave. In particular, compare two individuals of the same age, gender, and education, who live in the same NUTS-1 region but in two different NUTS-3 regions. Suppose that one NUTS-3 region gets a weak import shock (at the 10th percentile) and the other gets a strong shock (at the 90th percentile). Then, the individual living in the region facing the stronger shock is 3 percentage points more likely to support Leave than the other individual.

Importantly, there is one difference between the regional and the individual-level evidence: the latter estimates the effect of the China shock net of education, age, and gender, while the former does not attempt to control for educational or age composition of the region. If we estimate the individual models without the background covariates of individual respondents, we obtain basically the same marginal effects in the regional- and in the individual-level analysis.

In the paper, we also provide evidence that the import shock is an important determinant of heterogeneity in regional performance: UK regions witnessing larger shocks experience a decline over time in terms of GDP per capita relative to the median region. In particular, for each NUTS-3 region we compute the Change in Relative Income (CRI) between 1997 (the earliest year for which we have data) and 2015, using data on gross value added (GVA) from official government statistics. We take the ratio between income per capita in each region and income per capita in the median region, in 1997 and in 2015, and we calculate CRI as the percentage difference between these two relative figures. If we regress CRI on the import shock– instrumented using U.S. imports from China – we find that a one-standard-deviation increase in the strength of the shock leads to a decrease in CRI by a quarter of a standard deviation. This points to an important potential transmission channel from the economic shock to voting.

One further question one might want to ask in the context of a referendum vote concerns heterogeneity across historical supporters of one or the other main party in the British arena. In other words, did the China shock sway more individuals who usually supported Labour, or the Conservatives, or unaffiliated voters? To explore this issue, in unreported regressions we interact the import shock with dummies for party identification. We find that the import shock has a particularly strong effect on voters who think of themselves as Labour supporters, and on non-identified voters (those who do not feel particularly close to any specific political party). This means that while Labour voters were in general more in favor of Remain, Labour supporters in areas more exposed to Chinese import competition were indeed more likely to support Leave. This pattern can help one rationalize why, in the years following the referendum and up until the official exit of the UK from the European Union in 2020, the Labour party refused to take a clear stance against Brexit or in favor of a second referendum, and avoided to recast itself as the main pro-Remain political force, which could have been a potential strategy to increase its electoral support. Many of its supporters in decaying industrial districts were indeed pro-Brexit.

As in the study of voting across western Europe, we address the issue of geotropic effects in the Brexit vote. Also in this case, the evidence suggests that the impact of import competition is not restricted to a specific category of voters, for example, the unemployed, who might be most directly affected by the shock. Rather, the effect is not statistically different from the average even for service workers, whose jobs are not directly affected by manufacturing imports from China. By and large, this evidence is consistent with a sociotropic reaction of voters to the globalization shock, rather than a purely pocketbook one. In other words, individuals seem to respond broadly to the general economic situation of their region, regardless of their specific condition.

6.6. THE ECONOMY/CULTURE NEXUS

In the work on Brexit we exploit the availability of a large individual-level survey to explore, for what it is possible, how economic distress is also related to cultural orientations, in particular opposition to immigration. Importantly, indeed, the self-reported reasons for supporting Leave, as well as the often virulent campaign messages of the Leave camp, centered on the opposition to immigration from EU countries, and were tinged with nativism. To understand a bit better how the economic drivers we identify and the anti-immigration rhetoric of the campaign might be reconciled, we leverage the BES data. In particular, BES respondents are asked about four issues related to immigration: the perceived effect of immigration on the economy and on culture, the preferences for immigration policy, and the perceived rate of arrivals of immigrants. In these models, we include, on top of the individual background covariates, the measure of the China shock and the measures of immigration stock and inflow.

Table 5: Determinants of Attitudes Towards Immigration

Dep.Var.:	**Immigration Economy**	**Immigration Culture**	**Immigration Change**	**Immigration Policy**
Import Shock	-0.454***	-0.471***	0.125**	-0.435*
	[0.140]	[0.152]	[0.064]	[0.234]
Immigrant Share	-0.005	-0.004	0.008***	-0.018*
	[0.006]	[0.006]	[0.003]	[0.010]
Immigrant Arrivals	0.093***	0.089***	-0.055***	0.211***
	[0.031]	[0.033]	[0.014]	[0.051]
Age	-0.014***	-0.019***	0.012***	-0.031***
	[0.001]	[0.001]	[0.000]	[0.001]
Gender	-0.216***	0.051*	0.055***	-0.072*
	[0.024]	[0.026]	[0.012]	[0.038]
ED1	0.201***	0.184**	-0.055*	0.154
	[0.068]	[0.074]	[0.033]	[0.107]
ED2	0.390***	0.322***	-0.069***	0.326***
	[0.049]	[0.053]	[0.024]	[0.077]
ED3	0.962***	0.868***	-0.284***	1.204***
	[0.051]	[0.055]	[0.025]	[0.080]
ED4	1.499***	1.458***	-0.473***	2.056***
	[0.048]	[0.052]	[0.023]	[0.075]
ED5	1.985***	1.904***	-0.648***	2.856***
	[0.057]	[0.062]	[0.028]	[0.090]
Model	Hierarchical	Hierarchical	Hierarchical	Hierarchical
NUTS-1 Fixed effects	yes	yes	yes	yes
NUTS-3 Random intercepts	yes	yes	yes	yes
Observations	20,299	20,467	20,623	19,339
Number of groups	167	167	167	167

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

In all the regressions, reported in Table 5, we find that individuals in NUTS-3 areas that have witnessed a stronger import shock tend to have more negative attitudes and perceptions with respect to immigration. The stock and inflow of immigrants in the area in which the respondent resides have a somewhat counter-intuitive association with attitudes and beliefs about immigration. In particular, the measure of the inflow of immigrants is statistically significantly associated with more favorable views of immigrants, and also with a smaller perceived trend in immigration. The stock of immigrants is instead significantly and positively associated with a perceived stronger trend in immigration.

While this is far from being a comprehensive exploration of immigration attitudes in Great Britain, the evidence suggests that attitudes and beliefs about immigration are not necessarily directly related to the incidence of the immigration phenomenon in a given region, while there is a role played by economic distress, in this case import competition, in the formation of anti-immigrant attitudes.

We have also looked at the link between broad orientations and the China shock with data from cross-national surveys. In Colantone and Stanig (2018c) we provide evidence, based on two survey collections, that respondents who reside in areas more affected by the Chinese import shock display more nativist and authoritarian orientations, and are more skeptical of liberal democracy. These systematic patterns are robust to controlling for the initial level of authoritarianism or nativism in the region, calculated based on the oldest year available in the survey collection. We can therefore mitigate the concern that these systematic differences in attitudes and orientations between areas differently affected by globalization are simply the consequence of stable cross-sectional differences across regions. This would be the case, for instance, if manufacturing regions – more exposed to Chinese import competition – were persistently characterized by cultural traits along the lines of Lipset's (1959) "working-class authoritarianism."

In line with other work that detects direct links between the China shock and authoritarian attitudes (Ballard-Rosa et al. 2018, 2019), we contribute to show that cultural traits that are often proposed as *alternative* explanations for the success of radical-right parties or nationalist platforms are, at least to some extent, post-treatment with respect to globalization-induced structural economic changes. Therefore, they would be "bad controls" in regressions where voting behavior is the outcome and a measure of economic distress is the explanatory factor. For this reason, we argue against empirical strategies that purport to adjudicate the relative role of economic distress and cultural orientations by estimating "horse-race" regression models of voting on economic and cultural variables. As we said, we believe that understanding the economy/ culture nexus is key; we also think that the requirements to throw light on the whole causal structure of this process are very demanding – albeit not insurmountable – in terms of research design.

6.7. Conclusion

Our work tries to link the success of populist radical-right parties in Western Europe, and of economic nationalist options like Brexit, to structural changes in the economy. In particular, we provide causal evidence of the role of competition with Chinese imports on support for nationalist and radical-right parties in western Europe, and on Leave vote in the 2016 Brexit referendum. The evidence is based both on election returns disaggregated at the sub-national level, and on individual data from surveys.

From the political science perspective, it is important to notice that in order to be *politically* sustainable, free trade requires some amount of compensation of losers. European welfare states and the European model of the "social market economy" buffered the adjustment costs of open trade, and made sure that the efficiency gains were equitably spread across society. In turn, this created also sufficiently broad support for open trade. The parties of the center-left and center-right that promoted the European integration project, in particular, enjoyed widespread electoral support. This model entered in crisis for various reasons: on the one hand, the sheer volume of global trade increased very rapidly, and the shocks to be compensated became increasingly large; at the same time, due to the liberalization of capital movements, it also became increasingly hard for governments to collect sufficient revenues to finance more generous redistribution. The Great Recession, and the sovereign debt crisis that followed, exacerbated this tension.

It is then unsurprising that relevant sectors of society felt the appeal of the promise of protectionism. In the absence of compensation, it is, in a sense, a no-brainer that losers from globalization would start opposing free trade. The prediction that marginalized low-skilled workers in advanced economies could eventually drive a protectionist backlash was already made, decades ago, by Rogowski (1989).

Nostalgia for a mythical (recent) past has played a significant role in the specific form that the globalization backlash has taken. Promising to "Take Back Control" from global impersonal forces, and to "Make [insert country] Great Again" by putting "[insert nationality] First!" resonated well with relevant parts of the electorate, especially with blue-collar constituencies that have been experiencing a decline of status (Gidron and Hall 2017), on top of worsened conditions in terms of income and job security, for decades. What is troubling, though, is that this nostalgia for better times is associated with platforms and rhetorics that, although superficially hyper-democratic (in the sense of appealing to an unconstrained "Will of the People"), are also uncomfortable with some of the defining traits of liberal democracy, like separation of powers, pluralism, and the recognition of the rights of minorities. In addition, in their promise of renewed national greatness, they often end up resorting to nativist and racially-tinged appeals that are disturbingly similar to those that accompanied the end of the first wave of globalization after WWI (Franzese 2019).

Without appropriately generous compensation schemes, fast-paced globalization of trade almost inevitably generates a backlash that imperils globalization itself, but, as it turns out, also the otherwise sufficiently well-functioning institutions of liberal democracy. We are then tempted to ask what exactly – political myopia; incorrectly-set electoral incentives (as argued by Hayes 2009); biases in the marketplace of ideas – induced political and economic elites to overlook this fact.

To sum up, a crucial policy implication of our work is that globalization is not sustainable in the long run if the welfare gains that trade brings are not fairly shared within society. In addition, the forces unleashed by the globalization backlash might endanger liberal democracy itself. Appropriate redistribution policies are needed in order to compensate those categories of people, and those local communities, that have been facing most of the adjustment costs in developed countries.

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7. The Paradox of Endogenous Nationalism and the Role of Quantitative Easing

Massimo Morelli[1]

This article argues that the role of the ECB (especially through quantitative easing) has been crucial in keeping the populism wave at bay – what we could call the ECB levee. But global fiscal policies are necessary to avoid the long term flooding of liberal democracies by such waves, because the causes of the waves are not just a temporary shock but a symptom of structural problems that cannot be faced by monetary policy alone.

7.1. Introduction

As argued in Guiso et al. (2017), perceived economic insecurity is a key driver of voters' and parties' drift towards populism in Europe, directly as well as indirectly, through the changes it induces on voters' participation and trust in institutions.[2] The three main drivers of pockets of economic insecurity are typically considered the immigration threat (see e.g. Laitin, 2018), the globalization threat (see e.g. Autor et al., 2016, Rodrik, 2017, and Colantone and Stanig, 2019) and the automation threat (see e.g. Acemoglu and Restrepo, 2017). The great recession certainly caused real harm and by itself reduced confidence in the ability of traditional parties and institutions to respond adequately (see e.g. Judis, 2016). However, as shown in Guiso et al. (2019), the incomplete architecture of the European Monetary Union played a crucial role: within Europe the globalization shock and each of the economic crises that followed influenced the populist wave only through the interaction with the Euro dummy, whereas in the presence of such an interaction term neither of the crises in isolation, nor the globalization threat as typically measured, remain significant.

1 Bocconi University and CEPR.

2 For most of the quantitative analysis conducted in Guiso et al. (2017) the definition of populism adopted has been the standard one in political science – see e.g. Mudde, 2004, Mueller, 2016, and especially Van Kessel, 2015, who provided also the expert identification of populist parties for the relevant time period in Europe. All these standard definitions emphasize the anti-elite rhetoric and the flagging of the virtues of people as the main characteristics of populists. However, the results continue to hold even when using more continuous measures of populism and when considering the definition offered by the Encyclopedia, which adds to the characteristics above also the tendency to pander to the people's fears, offering protection policies that may be long run unfeasible.

The most likely reason for the particularly strong effect of these crises on political outcomes in the Euro zone is that voters do perceive each state's lack of control on the typical policy instruments employed in response to such shocks. In the Euro zone, one can mention both monetary policy and fiscal policy, given that monetary policy is centralized in Frankfurt and fiscal policy responses are curtailed by austerity principles and rules.[3] It is not surprising that, when voters lose confidence in the current parties and governments and blame the European constraints and the Euro, there could be a wave of populist euroskepticism.

The wave of populist movements and populist parties has been pronounced especially at the level of individual countries, but even in the European elections of 2019 the traditional parties maintained control only by a few votes. In this article I will first argue that without the Draghi quantitative easing the populist wave would have been even bigger, and could have put Europe in danger. I will then discuss some of the understudied dangers of populism for future policy makers and how the scope of policy making may need to change. In particular, I will argue that European or global solutions should replace, whenever possible, national level policy making, particularly in view of the fact that expansionary monetary policy cannot be maintained to permanently supplement the shrinking fiscal space of individual states. In summary, the point made by this article is that quantitative easing has been essential in creating the fiscal space necessary for individual states to resolve some of the pressing problems that created the populist wave in the first place. However, given that the fundamental trends in absence of expansionary monetary policy are trends of shrinking structural fiscal space at the national level, a more structural change in the direction of centralized fiscal policy capacity is necessary in the near future.

The populist parties almost always emphasize the protection of their country's people, and hence often nationalism is an essential part of their rhetoric and of their social identification strategy vis à vis voters. This *functional* nationalism wave makes it more difficult to go in the global governance direction that would instead be desirable from the fiscal policy angle mentioned above. It is in this sense that, as I propose directly in the title, endogenous nationalism is a paradoxical trap, pushing us in the opposite direction with respect to where we should be going.

[3] Guiso et al. (2019) also argue that another potential reason for the role of the Euro dummy interaction effect is the fear of relocation of firms, which indeed took place primarily from Euro zone countries to non Euro zone European countries in the aftermath of the great recession.

7.2. SHRINKING STRUCTURAL FISCAL SPACE AND POLITICAL CRISIS

In this section I want to argue that without the external (crucial) monetary supplement, as the one provided by quantitative easing, many countries would now be experiencing a significant shrinking of their fiscal space. This trend is unavoidable if governments' tax revenue will remain almost exclusively composed by income taxes and value added taxes. I will argue that all the recent structural and technological changes in the economy determine populist reactions precisely due to the simultaneous effects that they have on the shrinking of the structural fiscal space.

That technological change is making the labor share in national income fall is by now an established fact (see e.g. Karabarbounis and Neiman, 2014). Certainly technological change that favors automation (Acemoglu and Restrepo, 2019, Aghion et al., 2019) is the most often discussed mechanism. Combining figures regarding the falling labor share in national income with figures on the prevalence of labor incomes as the main source or base for tax revenues in general, we could easily obtain a picture of structural shrinking of the fiscal space for a given fixed monetary policy. The accumulation of public debt and the consequent needs to service the debt further reduce the possibility to use the shrinking fiscal space for welfare policies, the very type of policies that make liberal democracies politically sustainable. This contrast between shrinking tax revenues on one hand, due to both the falling share of labor income and capital tax competition (making national governments unable to effectively tax capital), and growing expected welfare needs and economic insecurity on the other hand, has created this strait-jacket feeling and induced a drop in trust towards the institutions of liberal democracies, as discussed in Guiso et al. (2017, 2019).

Clearly the great recession and the consequences of global competition created greater needs for redistribution and welfare policies, but these greater needs have been accompanied by the above mentioned *shrinking* national budget net availability for such policies. This contrast would have certainly led to even wider discontent and populism than we have observed had the ECB maintained a standard independent monetary policy.

To see why a shrinking fiscal space is related to *all* the causes of populism being exacerbated, consider a world where a government finances public spending and/or redistribution using a linear tax system. It can be shown that the system remains viable if the tax rate satisfies three types of constraints:

1. First of all, the tax rate $\tau \in (0, 1)$ must have a *lower bound* $\underline{\tau}$, the minimum necessary to make the state function. Such a lower bound is (1) increasing in the welfare needs of the people; (2) increasing in total unemployment; (3)

decreasing in growth; and (4) increasing when the labor share of national income decreases or automation increases leaving fewer labor income earners as tax base.

2. The tax rate must then satisfy a *firms' participation constraint*, which leads to an *upper bound* $\bar{\tau}$, which can be shown to be (1) decreasing in the equilibrium wage rate and (2) increasing with automation and the falling labor share phenomenon.
3. Finally, the viability of the system requires a *labor supply constraint*, leading to a second *upper bound* $\hat{\tau}$, which can be shown to be (1) increasing in the wage rate and (2) decreasing in the welfare needs for the people.

Intuitively, when the equilibrium wage is high the binding upper bound is given by the firms' participation constraint, whereas when the market wage rate is low the binding upper bound is $\hat{\tau}$. It is equally intuitive that the structural fiscal space (which equals $\bar{\tau} - \underline{\tau}$ when the wage is high and equals $\hat{\tau} - \underline{\tau}$ when the wage is low) is lower when growth prospects go down. Thus, if we assume that a *political crisis* can emerge (for example taking the form of stronger and stronger populist movements) when the structural fiscal space becomes *empty*, it can be shown[4] that

Proposition: A political crisis is the more likely
- the lower is the wage (for example due to global competition);
- the lower are growth prospects (the great recession effects);
- with larger population of workers (fear of immigration);
- for higher subsistence needs;
- and for higher role of capital (robots).

Since *all* the above conditions did materialize in the 21st century, the populism wave can be viewed as due to the perceived necessity to break away from one or more of the constraints among those creating the empty fiscal space. Both the low wages due to globalization and the perceived threat of immigrants are easy to blame for the shrinking structural fiscal space (even though much less relevant quantitatively than the other factors), and hence anti-immigration and protectionism populist stances emerged.

The fact that the 1929 US crisis did *not* lead to a populist consequence whereas the great recession of this century did, does not need to be explained in terms of the size of the economic crisis. The difference is rather due to the fact that the evolution of all the conditions in the above proposition determined a political

[4] Proofs available upon request.

crisis due to shrinking fiscal space, which made a solution like the Roosevelt new deal unfeasible. More generally, when people perceive that redistributive policies can be advocated within the fiscal space, redistributive politics remains central, whereas the left-right dimension and the redistribution demands lose impetus (replaced by nationalism) when the fiscal space is perceived to be empty (or in any case very small).

7.3. Fiscal union desirability implications

Since quantitative easing did allow a substantial reduction of interest payments and hence temporarily larger fiscal space, the structural shrinking of fiscal space discussed above (in the absence of the monetary expansion life-line) is not yet a priority discussion in Europe, but it should be.

A recent report of the European Fiscal Board noted that EU fiscal rules further increased the pro-cyclicality of fiscal policy, and emphasized the lack of instruments for crisis management and resolution and the missing central fiscal capacity. Fiscal rules and constraints may be helpful in terms of mitigating the spillovers of debt accumulation, but the political risk generated by pro-cyclical fiscal policy was not adequately taken into account. The cost of not having counter-cyclical policy measures in place is political, but the consequences of a political shift towards populism can also be economic, especially if, as I will argue, the necessary supranational policy measures become even harder to put in place due to the inherent nationalism of most populist parties.

The original Maastricht compromise neglected the importance of macroeconomic imbalances as a source of fiscal and political risks;[5] inequality within countries and across countries is a second source of populist reactions that could be reduced by a form of fiscal union;[6] third, the cultural clash consequences of economic integration without political or institutional integration are inflated by (and multipliers of) populism, and can be reduced by a form of fiscal union.[7] In addition to these three considerations, namely that most forms of fiscal union could reduce volatility, inequality and cultural clashes, which are all sources of populist reactions, a fourth reason of fiscal union desirability is that a centralized European fiscal policy could, perhaps even more crucially, tax capital and asset returns and partially avoid the capital tax competition constraints, which could much reduce the concerns of fiscal space shrinking due to the falling labor share phenomenon. Finally, I will argue below that a way forward will be to link trade

[5] See e.g. Luque et al. (2014) for a volatility based argument for fiscal union desirability.
[6] See e.g. Morelli et al. (2012) for an optimal taxation and constitutional design argument for fiscal union desirability.
[7] See e.g. Guiso et al. (2016) for a cultural clash reduction argument for fiscal union desirability.

policy and fiscal policy agreements, and this would be easier to do at the European level given the importance of the EU commission for negotiations in the WTO.

7.4. The nationalism trap

Given the perception of a policy strait-jacket for countries in the Euro-zone in the absence of a fiscal union, the frustration with the imposed constraints contributed to the ballooning of various forms of nationalism and euroskepticism. Perhaps in the absence of the Draghi monetary expansion nationalism could have triumphed even in European elections.[8] But the problem in Europe is not at the level of European elections: 2019 European parliament elections had the highest turnout in twenty years. The democratic system of the European Union encompasses 500 million people and transcends borders, hence by design it pushes in the direction of reducing the salience of national differences.

The problem is instead obviously at the national politics level: it is in national elections that the populist rhetoric and the general resentment can give rise to nationalist governments that could then block or undo European level policies that would make it possible to increase the fiscal space. The trap goes as follows: structural shrinking of fiscal space → resentment and populism → protectionism and nationalism → more difficult European and global cooperation, where these would instead be the channels through which fiscal space could be recreated.

The ECB levee created by quantitative easing weakened the strength of the populist wave, but it covered the truth, namely that we need to recreate structural fiscal space for welfare policies. This can be done either through a more centralized countercyclical European level fiscal policy or, more generally, introducing new ideas about how to tax capital and asset earnings rather than solely the shrinking labor share of national income.

The problem is how can politicians and parties find it compatible with their political goals to shift attention from national level policy making to European level policy making and global governance problem solving. Political economists can probably all agree that political incentives to accept independence of monetary policy are much higher than the political incentives to relinquish national control of fiscal policy: electoral campaigns typically employ promises to targeted groups of voters, and fiscal policy allows to target much more effectively than interest rate policies or money supply.

8 President Ursula von der Leyen has been (s)elected just by a handfull of votes, and hence the marginal value of the ECB policy has probably been pivotal.

On top of this general political incentive problem that makes it hard to go for global policy advocacy, the shift towards nationalism and the greater salience of the nationalism vs globalism cleavage reduces by itself the demand and supply of redistribution, which used to be the most important political and economic dimension to make a liberal democracy viable.[9] As argued e.g. by Gennaioli and Tabellini (2019) and Besley and Persson (2019), we witness in many countries a shift of social identification that makes the nationalism vs globalism cleavage much more salient than the traditional left-right cleavage. However, I argue that the emergence and increasing relevance of the global vs national dimension is not exogenous: once parties, be they new or old, decide to pander to popular fears of immigration, globalization, etc., by offering more protection from immigrants and global competition, the nationalism dimension is boosted by the supply side of politics.[10]

It is a strategic choice by right-wing parties to emphasize the external threats, in order to attract some of the poor and economically insecure who otherwise on the economic dimension would go left. Moreover, moving towards nationalism helps the rich because it distracts the people from asking more redistribution. Nationalism is the cheapest form of populism to supply, and it actually favors the economic elites while attacking the political redistributive elite.

Thus, the shift of demand and supply towards nationalism has the double implication of (1) increasing distance between domestic political incentives and the necessary shift towards global policies and (2) shrinking demand and supply of redistribution, which further weakens the support for liberal democracy institutions.

One interesting question could be why protectionism and anti-immigration nationalist policies have gained momentum so much even though the other factors contributing to the shrinking structural fiscal space described in my proposition above are probably more important. There are multiple answers for example on why the important economic consequences of technological change and automation do not translate into immediate political consequences: first, the automation process just started, and there are varying levels of information and varying beliefs about how many jobs will actually fall; second, even if politicians were fully aware that automation is by far the greatest threat, they wouldn't know how

9 The standard sketchy representation of a liberal democracy involves two pillars: the free market pillar and the welfare-redistribution pillar, since the creation of more winners and losers by free markets requires some safety net for the losers. If redistribution disappears even from the political debate, then it should be intuitive that the "losers" may want to turn against the system, become extremists, or support nationalist policies like border protection or protectionism in general. As shown in Pastor and Veronesi (2018), there is evidence that protectionism can be perceived as a substitute to redistribution for the losers from globalization.

10 See Morelli et al. (2020) for a new supply side theory of populism as simplistic commitment (of which nationalism policies are clear examples) and Gennaro et al. (2020) for the connections between political and economic competition conditions and the strategic supply of populist rhetoric.

to use this fact to their advantage in a political campaign, because blocking technological innovation is obviously much less palatable than closing borders or markets; third, for the policy of closing borders or markets the identity and nationalism card can be used to unify the people previously divided in the distributive conflict, and hence the short-run election objectives of politicians make them go in that direction. This should contribute to the explanation of why nationalism is a prevailing response to the recognized problems of political and fiscal feasibility of alternatives.

If the automation process indeed will happen to be the largest threat to labor and to tax revenues at the national level, the nationalism direction will further exacerbate the trap. Less fiscal space implies wanting to close borders and protect national industries, but doing so when at the same time the economy becomes robotized and tax revenues go down implies even smaller fiscal space, a vicious circle.

The necessity of a shift towards global policies obviously goes far beyond the advocated possibility of a fiscal union at the Euro-zone level discussed in the previous section, because one of the key determinants of the necessity of more global policies is the reduction of tax competition race-to-the-bottom problems, which are only mildly affected by a shift from national to European level of fiscal policy. If in a nutshell the problem is the labor falling share of national income combined with the capital tax competition constraints making it hard to go beyond labor income taxes, then the question boils down to what global policies can be thought of that could eliminate the taxation free riding of multinational companies.[11] Policy makers and politicians who do not fall in the nationalist trap should then evaluate possibilities such as the one to which now I turn.

7.5. Issue linkage ideas

Trade sanctions and even export embargos are often used as threats against violations of treaties on peace, human rights, or even environmental agreements. These are all forms of issue linkage, in the sense that cooperation on one issue is facilitated by using punishment threats on other issues. Consider the important fact that (1) trade involving multinational companies is around 75 percent of total international trade, in volume and net profits especially (even more so considering the effective zero taxes paid by Amazon and alike); (2) most countries definitely benefit from membership in the WTO. Then, the global taxation necessity can be linked to WTO membership: for example, if calculations indicate that setting a corporate sales tax or capital tax at level x could rebalance and compen-

[11] See Morelli (2019) TED talk on this issue and related desiderata.

sate for the structural shrinking of the fiscal space on the labor income dimension, then setting such a tax at level x could be added for conditional continuation of WTO membership."[12] As Linao (2000) puts it, "...if the linked policies are not independent and if these policies are strategic complements, then linkage can sustain more cooperation in both issues." I believe that facilitating free trade while avoiding the backclashes of populism on protectionist policies on the one hand, and obtaining more fiscal space for each nation in order to reduce the attractiveness of populist strategies on the other hand, are highly complementary, and hence linking the issues of trade and capital taxation is a must do in the future.

I note that given that trade policies are already decided by the Commission in Europe, a form of fiscal union could allow the EU to be much more effective also in terms of issue linkage like the one proposed. Compared with other forms of issue linkage already exploited in practice, for example linking environmental or labor policies, taxation issues might even be easier to link with WTO rules.

7.6. Conclusion

This article in a nutshell suggests that central bankers and any believer in the market economy and the desirability of liberal democracies should worry about the structural shrinking of fiscal space in the absence of expansionary monetary policy, rather than focusing exclusively on the ability of monetary policy to supply a temporary life-line.

The nationalist consequences of the populism wave due to policy strait-jackets have reduced the demand and supply of redistributive policies, but restoring the possibility (perhaps through fiscal unions and issue linkages) of effective compensations for the losers of technological change and globalization is key for the survival of capitalism and liberal democracy.

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C. Populism and Central Banking

8. Central Banking in Challenging Times

Claudio Borio[1]

8.1. Introduction

It was not supposed to be this way. During the Great Moderation, economists believed they had finally unlocked the secrets of the economy. We had learnt all that was important to learn about macroeconomics (Blanchard (2008)). Central banking could aspire to be boring (King (2000)). It was the same kind of heady feeling that had led some political scientists to declare "the end of history" (Fukuyama (2002)).

Then came the Great Financial Crisis (GFC) of 2007-09 and the Great Recession. The near collapse of the financial system did not just bring down the economy, it toppled the foregoing set of intellectual convictions. And, slowly but surely, it provided fertile ground for questioning the wisdom of those who had presided over the debacle. Recall the Queen's famous question: "Why did nobody see it coming?" The Great Moderation had proved to be, at least in part, a Great Illusion.

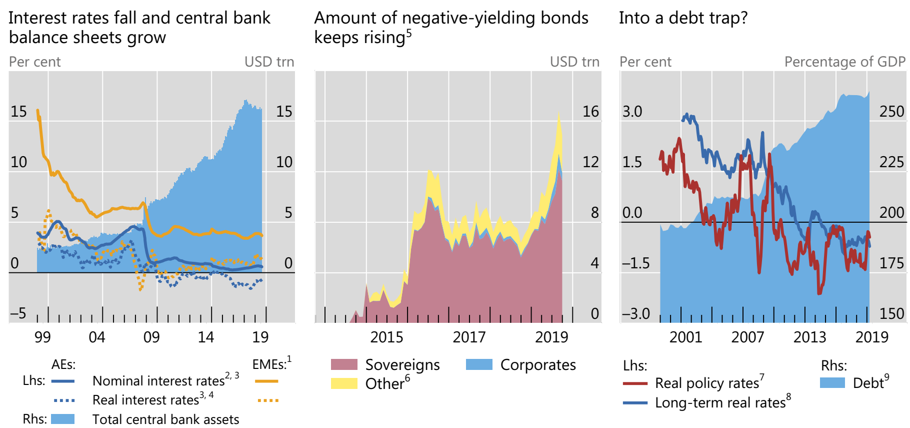
Once the crisis struck, central banks rose to the challenge. They pulled out all the stops to avoid a repeat of the Great Depression. And they succeeded. They adapted the time-honoured lender of last resort function to the new economic realities – acting, in effect, as dealers (market-makers) of last resort (Mehrling (2011)). Partly as a result, greater powers in regulation and supervision were conferred on them, including a key role in macroprudential frameworks, reversing a trend dating back to the rise of inflation targeting.

Fast forward to today and the picture is quite different. Thanks to central bank actions in particular, the global economy has recovered. Economies have been close to, or even beyond, standard estimates of full employment. And price stability, by equally standard definitions, prevails. True, there is talk of a possible recession. But recessions are part of the physiology of a market economy, which every now and then has to take a breather; sooner or later they must come. "Reculer pour mieux sauter," as they say in French.

[1] Head of the Monetary and Economic Department.
I would like to thank David Archer for providing background material as well as critical feedback. I would also like to thank Stijn Claessens, Fiorella de Fiore, Piti Disyatat, Marc Flandreau, Charles Goodhart, Fernando Restoy, Andreas Schrimpf and Egon Zakrajšek for their comments. The views expressed are my own and not necessarily those of the BIS.

Yet, concerns remain. Central banks have run low on room for policy manoeuvre (Graph 1). Their balance sheets have bloated to an unprecedented size. Interest rates have never been as low in nominal terms and never as negative for as long in real terms, not even during the Great Inflation era. Looking ahead, they are expected to remain so for the foreseeable future. Indeed, the amount of sovereign and corporate debt trading at negative nominal interest rates has reached a peak of some \$17 trillion, or 20% of world GDP. What was unthinkable just a few years back is now the norm. Such rates have been in part the result of central banks' strenuous efforts to push a stubbornly low inflation back towards the 2% targets. What's more, debt – both private and public – is actually higher globally in relation to GDP than pre-crisis. Historically, public sector debt has been higher only during wartime or its immediate aftermath.

Graph 1: The room for monetary policy manoeuvre keeps narrowing

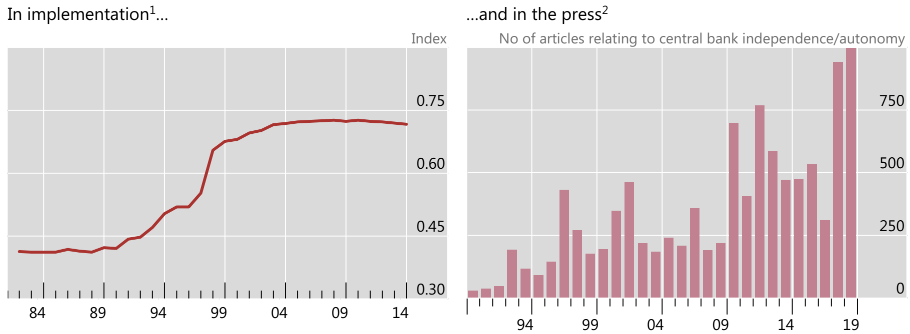


[1] A few outliers for which the nominal interest rate exceeded 60% are omitted from the sample. [2] Policy rate or closest equivalent. [3] Simple monthly averages across economies. [4] Nominal interest rate less consumer price inflation. [5] Based on Bloomberg Barclays Global Aggregate Negative Yielding Debt indices. [6] Sum of government-related and securitised. [7] Nominal rate less headline consumer price inflation. Unweighted average of United States, Germany and Japan. [8] Simple average of index-linked 10-year government bond yields of United States, France and Japan. [9] Total credit to non-financial sectors. Weighted average of G7 economies plus China based on GDP and PPP exchange rates.

Sources: IMF, *International Financial Statistics* and *World Economic Outlook*; Bloomberg; Global Financial Data; national data; BIS policy rate statistics and total credit statistics; BIS calculations.

Against this backdrop, central banks have been facing a triple challenge (Borio (2011)). Economic: by their own standards, they consider low inflation a sign that they are failing in their mandated task, while justifiable questions linger about what they could do to tackle the next recession. Intellectual: the previous compass has proved unreliable. Inflation has been too unresponsive to aggregate demand pressures; central banks have discovered they know how to bring it down, but are less certain about how to push it back up. Their models for the economy have failed them.[2] Last but not least, institutional: critics have questioned central banks' wisdom and the value of their independence in setting policy, after its rapid ascendency in the 1990s (Graph 2, left-hand panel). These doubts have been voiced particularly in countries where the value of an open multilateral global economic order has come under attack. The growing number of press articles discussing central bank independence testifies to this challenge (Graph 2, right-hand panel).[3]

Graph 2: Central bank independence gains centre stage



[1] Index of central bank independence, ranging from 0 (no independence) to 1 (full independence), average for 65 countries; for selected years, some countries might be missing due to data unavailability. [2] Based on a Dow Jones Factiva search restricted to English-language "Top Sources" (as defined by Factiva) from 1 January 1990 to 2 October 2019. For 2019, projection based on the annualised year-to-date figure.

Sources: Masciandaro and Romelli (2018); Factiva.

In my presentation today, I would like to offer some personal reflections on these challenges and suggest a possible way forward. My main thesis is threefold.

First, paradoxically, the economic and intellectual challenges facing central banks have taken root in the seismic developments that have yielded most of the economic gains since the early 1980s – and particularly in their profound impact

[2] The mainstream formal models belong to the New Keynesian tradition, imposing nominal rigidities on a real business cycle structure; so-called dynamic stochastic general equilibrium (DSGE) models fall into this category. These models generally assume that the economy tends to revert smoothly to equilibrium and, in general, have ignored destabilising financial booms and busts or found it very difficult to incorporate them. Moreover, in these models banks do not create credit, but simply allocate resources. For a model that seeks to overcome these limitations, see Rungcharoenkitkul et al. (2019). For a more general critique of DSGE models, see Caballero (2010) and Romer (2016).

[3] Consider, for instance, the views expressed at a recent Bank of England conference (September 2017) on central bank independence, reflecting the perceived mood of the times. Central bank independence has been described as "a product of its time" (Willem Buiter), "nice to have while it lasted" (Charles Goodhart), an arrangement that is "unlikely to survive much longer" (Guy Debelle, Deputy Governor of the Reserve Bank of Australia) and that will continue only as long "as the political class, sensitive to the electorate, remains convinced that it delivers some clear benefits" (Andrew Tyrie, former chair of the House of Commons Treasury Committee). (The video is available at https://www.bankofengland.co.uk/events/2017/september/20-years-on.) A recent survey of *Central Banking Journal*'s Editorial Advisory Board, made up largely of former senior central bankers, found that 61% of them thought central banks will be less independent going forward (https://www.centralbanking.com/central-banks/4376401/central-banks-face-loss-of-independence-central-banking-survey).

on inflation and the business cycle. These developments include the wave of globalisation as reflected in open trade and financial markets. This has created an environment conducive to stubbornly low inflation and to large financial expansions and contractions (cycles) – which, in turn, has vastly complicated central banks' pursuit of their mandates in the monetary and financial spheres, retracing their experience during the previous globalisation wave that ended with the Great Depression. Intellectual convictions have naturally crumbled too.

Second, the intellectual and political zeitgeist that supports globalisation also supports central bank independence.[4] It is unsurprising that, as globalisation has come under threat, central banks have been facing an institutional challenge to their independence, just as they did in the 1930s. At the time, central banks were blamed for the crisis; today, while not fully escaping such criticism, critics blame them for the side effects of the extraordinary policies still in place designed to push inflation up towards targets, resent them for the power they have gained, and see them as a symbol of an elite-driven open economic order.

Finally, while central bank independence and globalisation are closely tied, there are specific steps that can be taken to safeguard this valuable institution. Ultimately, independence is simply a means to an end; as such, it is not a right and must be earned by retaining public legitimacy. This is not just a matter of *how* central banks perform their tasks, namely being transparent and accountable. It is also a matter of *what* it they do and, in particular, whether they succeed in meeting expectations. A key step towards retaining independence would be to seek to reduce the growing "expectations gap" between what central banks are expected to deliver and what they can deliver. This will help address the triple challenge of the times. But the difficulties involved should not be underestimated. And the risk of a new form of fiscal dominance, de facto voiding independence, looms large.

Let me first address the economic-cum-intellectual challenge. I will then examine the institutional challenge before turning to some suggestions about the way forward.

8.2. The economic-cum-intellectual challenge

The historical phase that started in the early 1980s and gathered momentum thereafter has become known as the second wave of globalisation. The analogy is with the first one, which took shape, roughly speaking, between the 1870s and

[4] In what follows, I will not make an explicit distinction between goal and instrument independence (Debelle and Fischer (1994)) or between the related but different concepts of political and economic independence (Grilli et al. (1991). This would require too much elaboration and distract from the bigger picture and trends.

World War I and which staggered on until the 1930s, when the Great Depression struck.

In the second wave, financial markets were liberalised, both domestically and internationally. By the early 1990s, the transformation from a government-led to a market-led global financial system was largely complete (Padoa-Schioppa and Saccomanni (1994)). And with the fall of the Berlin Wall in 1989 and the opening of China and the emerging market economies, the long march of trade liberalisation took a major leap forward. Some 1.7 billion people were able to join the global labour force.

This momentous change paved the way for much of our postwar prosperity. The dampening effect of the current trade dispute on the global economy illustrates this in spades. At the same time, the change had a major influence on business fluctuations, which changed remarkably in character from those that prevailed during the Great Inflation era. Two effects stand out.

First, the change provided ample scope for the unstable forces within the financial system to take hold. I have in mind the financial expansions and contractions (or financial cycles) that reflect the interaction of loosely anchored perceptions of value and risk, on the one hand, and liquidity constraints, on the other (Borio (2014a)). Such forces had been kept at bay during the previous financial repression phase. The most relevant financial cycles for economic activity within countries take the form of medium-term fluctuations in credit and property prices. But there is also a global financial cycle, which waxes and wanes across borders through gross capital flows (Rey (2013)) and which can interact with the domestic ones (Aldasoro et al. (2019)).

Second, trade integration and the entry of new low-cost countries put downward pressure on inflation. Here I am not referring to the relative importance of domestic and global slack in the inflation process (e.g. Auer et al. (2017)) – a cyclical phenomenon. I have in mind the convergence in unit labour costs when exchange rates do not take the brunt of the adjustment and also labour's and firms' loss of pricing power as markets become more contestable, weakening second-round effects (Borio (2017)). In turn, quickening technological innovation has amplified and reinvigorated the impact of globalisation. Think of global value chains, as distance shrunk, as well as of the substitution of capital for labour and of the so-called Amazon effect.

Paradoxically, while taking root in fundamentally positive forces, these changes in business fluctuations – financial cycles alongside structural disinflation pressures – sprang challenges from unsuspected quarters. The authorities were slow in recognising them and in adjusting policies accordingly. For one, prudential countermeasures lagged behind. There was too much trust in the self-equilibrating capacity of the financial system and the economy at large (e.g. Greenspan (2005)). In addition, monetary policy failed to adapt to the new environment. A combination of a focus on *near-term* inflation and progressive disregard for monetary and credit aggregates meant that there was no reason to tighten during strong financial expansions as long as inflation remained low and stable.[5]

What is the evidence for all this? I have examined this extensively in previous work and speeches (e.g. Borio et al. (2019)). It is fair to say that the notion of the financial cycle has become part of the furniture, as it were. It is, for instance, at the core of the post-crisis macroprudential frameworks. By contrast, the role of globalisation and technology in the inflation process is still more controversial.[6] If you asked any entrepreneur, fearful of losing market share, or worker, fearful of losing their job, the hypothesis would appear self-evident. But it is less appealing to the profession, focused on models of inflation that rely on domestic slack plus a direct role for expectations – although one may legitimately wonder whether the fear of loss should not trump expectations. Such models pay too much attention to demand forces and leave no room for the slow-moving supply factors that can result in secular disinflationary pressures, for any given degree of economic slack.

What is undeniable, although yet to be fully appreciated, is how the nature of recessions has changed (Graph 3). Until the mid-1980s, a rise in inflation would induce central banks to tighten substantially, which helped trigger the downturn; at the same time, the expansion and contraction in credit or the financial cycle remained muted. Since then, the bust of a previous financial boom has coincided with relatively stable inflation and a mild monetary policy tightening. You could say that we have shifted from inflation-induced to financial cycle-induced recessions.

In recent research, we have found more formal supporting evidence (Borio et al. (2018, 2019)). Since the mid-1980s, in a large set of advanced and emerging market economies, financial cycle proxies outperform the popular yield curve as indicators of recession risk.

Look back and the similarities with the first globalisation wave are more than just a coincidence. Then, as now, financial markets and trade were liberalised. Volatility aside, linked to the composition of output, inflation was quite low and stable. In fact, mild deflation up to 1896 was followed by mild inflation thereafter.

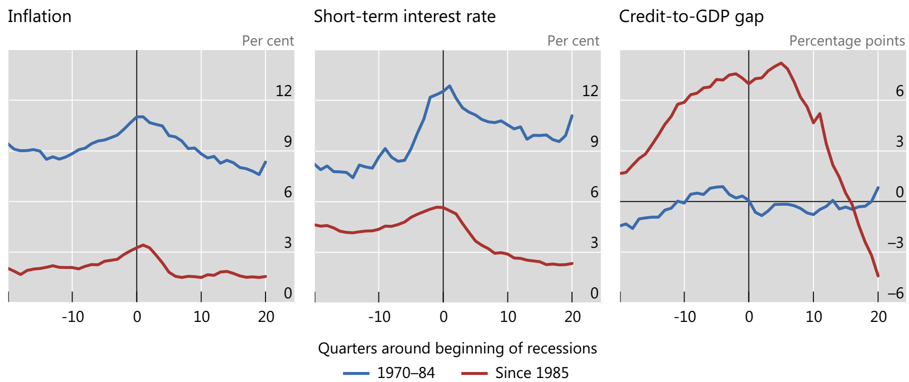
[5] The academic consensus shifted decidedly in that direction; see e.g. Woodford (2003). Central banks that retained some role for monetary or credit aggregates came under heavy criticism. The ECB, with its two-pillar policy, is a clear such example; see e.g. Issing et al. (2001) and Svensson (1999). The criticism persistent after in 2003 the ECB adjusted the monetary pillar to put more emphasis on credit and financial instability rather than money and inflation.

[6] On globalisation, for a recent contribution containing references to the literature, see Forbes (2019). On technology, so far there is hardly any evidence. For one, very partial, analysis, addressing only the Amazon effect, see Cavallo (2018).

Financial cycle-induced recessions and financial crises were the norm.[7] And central banks followed a rather passive policy rule: they kept interest rates roughly constant until the internal or external convertibility constraint came under pressure, thereby providing no brake against financial expansions.[8]

Graph 3: The business cycle: from inflation-induced to financial cycle-induced recessions[1]

Average of the variables indicated over the selected period



[1] The horizontal axis denotes quarters around recessions in the business cycles, with the peak date set at zero (vertical lines). Lines show the median evolution across the advanced economies in our sample and events in the respective time period.

Source: Borio et al (2018).

To my mind, the changing nature of the inflation process and of business cycles largely explains the post-crisis economic and intellectual travails of central banks. Like any other major financial crisis, the GFC ushered in a slow and prolonged recovery from a sharp downturn: painful deleveraging played itself out and resources shifted back, no less painfully, from overblown sectors, such as real estate and finance, to the others.[9] At the same time, the tailwinds of globalisation and technology, which had helped central banks keep a lid on inflation pre-crisis, turned into strong headwinds post-crisis. They complicated central banks' attempts to push inflation back to the pre-crisis targets and resulted in prolonged ultra-low interest rates and swollen balance sheets. They invalidated the previously well tried compass.

[7] See e.g. Goodhart and De Largy (2002).

[8] The main difference is that prudential regulation was largely absent, weakening further the safeguards against financial booms and busts.

[9] See e.g. Borio et al. (2016).

8.3. The institutional challenge

In such an environment, the economic and intellectual challenges central banks face have gone hand in hand with an institutional one: detractors have called central bank independence into question. Press articles on the topic have been multiplying (see also Graph 2).[10] Policymakers, politicians and academics alike have been increasingly reflecting on the issue. This conference is just another example of the trend. And all this criticism creates a challenge also for those who, like me, value that independence.

There are three sets of factors behind the institutional challenge.

The first relates to policy *measures*.

In the monetary sphere, 10 years after the GFC, emergency monetary policy measures are still in place, as underlined by the condition of central bank balance sheets and prevailing interest rates. Moreover, if anything, the prospect is for the phenomenon to intensify at least in the near term. Central banks have eased again around the world, through both quantities and interest rates (BIS (2019a)).

This state of affairs has had two effects. On the one hand, it has drawn attention to distributional issues, be these in terms of wealth and income, creditors and debtors or the young and the old.[11] While monetary policy has always had distributional effects, they become much more salient once policy tools reach unprecedented settings.[12] On the other hand, this has blurred the line between monetary and fiscal policy, and debt management (Borio and Disyatat (2010)), as balance sheet policies can only be properly understood in the context of the consolidated public sector balance sheet, combining the government and the central bank.[13] Critics have variously expressed concerns about financing governments through large-scale debt purchases[14], about the policies' impact on credit allocation, as central banks have purchased private sector assets or have subsidised banks, or about the huge increase in foreign currency reserves, which tend to be seen as war

10 See e.g. Bloomberg (2018) and *The Economist* (2019).

11 See Goodhart and Lastra (2017) for a discussion of distributional issues. For some empirical cross-country evidence on the impact of monetary policy on wealth distribution, see Domanski et al. (2016). For jurisdiction-specific studies that refute the negative distributional impact of monetary policy on distribution in specific jurisdictions (positive on income; negligible on wealth), see Ampudia et al. (2018), Lenza and Slačálek (2018), Casiraghi et al. (2018) and Amaral (2017). Amaral (2017) and Ampudia et al. (2018) also include a review of the literature.

12 See also Goodhart and Lastra (2017), who in addition discuss the implications of a (perceived) non-vertical Phillips curve, which introduces a trade-off between inflation and output, and put the issue of central bank independence in the broader context of the rise of populism.

13 Think, for instance, of large-scale government debt purchases. From the perspective of the consolidated balance sheet, they represent a large-scale debt management operation, whereby in effect overnight debt replaces long-term debt. This also means that the operation makes the cost of government debt more sensitive to higher policy rates, through lower central bank profit transfers. See also below.

14 In fact, in Japan the purchases have exceeded government deficits for quite some time (BIS (2018)).

chests that could be used for more useful purposes, despite their critical macroeconomic function.[15]

In the prudential sphere, the GFC has resulted in central banks playing a bigger role in financial regulation and supervision. Detractors argue that the institution has become too powerful and, again, that they are responsible for measures with clear distributional consequences. Examples include macroprudential tools, valuable as they undoubtedly are.[16] For instance, loan-to-value ratios and debt-to-income ratios strengthen resilience and can help contain financial imbalances, but they also reduce the access to finance of younger and less well off people.

The second set of factors relates to policy *outcomes*.

For one, despite having managed the crisis successfully and having played a key role in stabilising the economy, they have not fully avoided criticism. Some of those critics have seen the emergency measures as favouring the interests of the financial sectors; others have regarded central banks as having contributed to the build-up of vulnerabilities. This was either through accommodative monetary policy[17] or through inadequate banking regulation and supervision, where central banks were responsible for these areas.[18]

In addition, some argue, independence is now less valuable. If high inflation was the main reason to confer independence in the first place, what is the point of having it now, when the problem is actually how to push inflation up towards central banks' targets?[19] And if one reason for independence was the need to resist the government's temptation to exploit artificially cheap finance, why is this still relevant now if, in seeking to boost inflation, central banks have willingly driven interest rates to extraordinarily low, sometimes negative, levels?

The third set of reasons relates to policy *perceptions*.

Since the GFC, an expectations gap has grown between what central banks can deliver and what they are expected to deliver. Central banks are not just expected to fine-tune inflation, but also to take care of output and employment, to avoid all recessions and, for many, to be the prime engine of growth. Paradoxically, this largely reflects the fact that central banks have taken the brunt of the burden of supporting the recovery – the "only game in town" syndrome (El Erian (2016)). It looks as if people have come to believe the economy is a simple machine and the interest rate lever is sufficient to do the job. This can only be a recipe for

15 For a recent discussion of the essential role of foreign exchange reserves, see BIS (2019b)).

16 That said, the most common governance structure for macroprudential frameworks involves committees, often chaired or co-chaired by the Ministry of Finance; see e.g. Edge and Liang (2017). See also Masciandaro and Volpicella (2016) for an analysis of the factors driving choices of structures, including their relationship to central bank independence.

17 See e.g. Taylor (2010).

18 James (2010) discusses these issues, including similarities with the 1930s.

19 On this, see e.g. Eichengreen (2017), who discusses various other criticisms as well.

disappointment. As a result, if growth falters and central banks are unable to restore it, detractors will accuse them of not doing enough and for misusing their independence.

More generally, the sentiment against globalisation and the elites, seen as its guardians and symbol, has grown. Those voicing that sentiment tend to regard central bankers as members of a cosmopolitan elite, capable of moving what appear to be unimaginably vast sums of money within and across countries in defence of the interests of a powerful and unrepentant financial sector, all to support the status quo.[20]

A look at history indicates that the link between independence and globalisation is indeed quite close. Many consider the previous globalisation era as the heyday of central bank independence.[21] It was back then that Montagu Norman, Governor of the Bank of England, dreamt of an independent central banking community.[22] And the principle of central bank independence became "engraved in the tables of the League of Nations" (Toniolo (2010)). Independence was the gospel that the dominant countries preached and followed around the world.[23] It was only natural that when the Great Depression shattered that world, central bank independence suffered the same fate.

What explains the link? For one, globalisation and independence spring from the same intellectual and political fountainhead: support for an open system in which countries adhere to the same principles and governments remain at arm's length from the functioning of a market economy. Independence then acts as both a signal of the adherence to those principles and a mechanism to reassure markets

[20] For a discussion of these issues, see e.g. Rajan (2017), Bourguignon (2016) and Shaik (2017).

[21] There is a copious literature describing the period. See e.g. Toniolo (1988), Flandreau et al (1998), Giannini (2011), Passacantando (2013) and references therein. Lévy (1911) describes the established doctrine advocating the separation of the central bank from the state, seeing independence as essential to maintain the credibility of the peg to gold; absent independence, markets would expect eventual debt monetisation. On the cyclical nature of central bank independence, see also Carstens (2018). That said, other scholars have argued that independence in those days was less important and controversial because it was tightly constrained by the need to ensure convertibility, e.g. Friedman (1962). In general, the stricter the rule, the less the need for independence as such, as the scope for discretion and the ability to influence the central bank's behaviour are smaller.

[22] The dream was partly achieved with the creation of the BIS in 1930 – ironically, at a time when independence had already started to wane (Borio and Toniolo (2008)). As a sign of this reversal of fortunes, Montagu Norman, the former apostle of central bank independence, would state in parliament in 1936: "I assure Ministers that if they will make known to us through the appropriate channels what it is they wish us to do in the furtherance of their policies, they will at all times find us willing with good will and loyalty to do what they direct us as though we were under legal compulsion" (quoted in Giannini (2011)). This was a complete about-turn relative to the central banking manifesto he had prepared in 1921, laying out the general principles for the institution. The document, to be signed by central banks represented at meetings at the Bank of England, laid out several principles. The first one read: "Autonomy and freedom from political control are desirable for all Central Banks and Reserve Banks." The second made such autonomy a necessary condition for cooperation: "Subject to conformity with the above clause a policy of continuous co-operation is desirable among central and Reserve Banks." See Sayers (1976), Appendices, p. 75.

[23] An example was Edwin Kemmerer's role during the 1920s in establishing independent central banks that supported adherence to the gold standard in Latin America. See e.g. Drake (1989) and Rosenberg (1999).

of that adherence: governments will not interfere.[24] Conversely, those intellectual and political strands that oppose globalisation – be they from the historical left or the nationalistic right – tend to see little value in independence, as they do in checks and balances more generally.

This indicates that the link between central bank independence and inflation control is of more recent vintage; independence has deeper roots. In the gold standard days, inflation was not a threat. More recently, the pursuit of price stability, and central bank independence as a way of underpinning it, have played the same role as support for convertibility did during the previous wave of globalisation.

One significant difference between the two historical periods is the immediate reaction to the financial crisis. In the 1930s, central banks were often blamed for the slump – just as they have been by the current generation of central bankers (Bernanke (2002)).[25] In the aftermath of the GFC, and despite some criticism of their role, they were initially rightly held up as the saviours of the economy; heroes, not villains. The open global economic order survived the shock remarkably well. But as the legacy of the crisis has lingered, and the anti-globalisation sentiment has grown, similar forces as those prevailing in the aftermath of the Great Depression appear to have emerged, with a lag.

This deep link between central bank independence and the political environment suggests that, in a fundamental sense, independence is “endogenous”.[26] It is an institution that reflects more basic societal, or at least political, preferences.[27] For very much the same reason, imposing it on an unreceptive environment is unlikely to produce the desired results.[28]

What does all this suggest for the future of central bank independence? It suggests that its future could well be tied to the future of the current open global economic order. The probability of having substantive central bank independence, as

24 There is a literature discussing whether the adoption of a gold standard, and the corresponding commitment to convertibility, did succeed in improving access to international financial markets and reducing its cost. Some argue it has (e.g. Bordo and Rockoff (1996), Obstfeld and Taylor (2003)); others in subsequent work have disputed the claim (e.g. Flandreau and Zumer (2004), Alquist and Chabot (2011)). The point made in the text does not hinge on this debate. Success or failure will depend on much more than the mere adoption of external convertibility: as some of that work shows, or indeed, as experience with fixed exchange rates indicates more generally, domestic “fundamentals” also have to be consistent with that commitment.

25 Goodhart (2010) puts it starkly: “The Great Depression and the accompanying collapse of the gold standard represented a huge failure for central banks. Their objectives, their models and their mental framework all fell apart.”

26 A number of observers have noted the endogeneity of central bank independence, albeit focusing more specifically on the experience of individual countries (e.g. Posen (1998) and Acemoğlu et al. (2008)). Here, of course, I am referring to institutional endogeneity, not to the difficulties in distinguishing the influence of independence from that of the inflation targeting regime (e.g. Parkin (2013)).

27 At a meta-level, this would make it difficult to establish whether independence per se is valuable in reducing inflation or whether the underlying political and economic environment would have reduced it anyway. After all, a liberal and open economic order is itself conducive to low inflation, not least through real and financial globalisation.

28 On this, see in particular Acemoğlu et al. (2008).

opposed perhaps to its appearance, in countries that withdraw from that order is likely to be low. This is a sobering thought for those, like me, who believe that this order and central bank independence are valuable, as evidence indeed indicates.[29]

Fundamentally, central bank independence is valuable because it raises the bar. It makes it harder for the government of the day to pursue short-term objectives at the cost of long-term economic performance and to take decisions for narrow electoral purposes rather than looking after society's long-term well-being – in short, it makes it more difficult for elected representatives to behave as mere politicians rather than as statesmen. Central bank independence has an option value, just like that of the judiciary or other government agencies.[30]

This also means that tensions between the government and the central bank should not be seen as a sign that independence has failed. Rather, they are precisely a sign that it is playing the intended role – in finance lingo, that the option is exercised. Recall what the late Tommaso Padoa-Schioppa used to say about the Stability and Growth Pact in Europe: if no one complains, it means the pact is not biting. Today, central bank independence is an option that is very much "in the money".

8.4. Suggestions for a way forward

Preserving an open, multilateral economic order is a major collective task. At the same time, there are more modest steps that can help safeguard independence.

How to safeguard central bank independence is a *sub*-question of a more important one: how can central banks be most effective in pursuing society's longer-term well-being? After all, independence is a means to an end, not an end in itself. It is only worth preserving if it improves economic outcomes. Ultimately, this is the key to gaining and keeping legitimacy in the eyes of the public[31] and body politic. Independence is not a natural right; it must be earned day after day.

Hence two implications.

For one, important as they are, pure political economy considerations, based on how central banks go about pursuing their goals, provide only a partial answer.

[29] There is a vast empirical literature on the value of central bank independence in controlling inflation, going back to the influential initial work by Bade and Parkin (1988), Grilli et al. (1991), Cukiermann (1992) and Alesina and Summers (1993); see de Haan and Klomp (2008) for a review of the earlier literature. Since then work has continued, paying particular attention to controlling for the influence of other factors, including institutional features, such as the nature of the law and governance (e.g. Acemoğlu et al. (2008)). See also Masciandaro and Romelli (2018) for a new index and references to the more recent studies.

[30] See Tucker (2018) for a comparison with the independence of other agencies and the military. Vickers (2010) provides an in-depth comparison with competition authorities.

[31] For a concerned analysis of the public's apparent loss of trust in central banks, see e.g. Gros and Roth (2009).

There is no question that transparency and accountability are critical.[32] But they cannot be the whole story. From a positive perspective, central banks have taken strides to improve both, but that has not prevented the current wave of inimical sentiment. From a normative one, *what* central banks do matters at least as much as *how* they do it.

The importance of the "what" means that any suggestion for how to retain legitimacy requires taking a stand on what a central bank's best contribution to society's long-term well-being can be. This, in turn, calls for taking a stand on how the economy works – a thorny and highly controversial issue.

Here, let me offer only some personal suggestions.

I don't think restricting (again) central bank mandates to price stability at the exclusion of financial stability is a good idea. I fully understand the reasons for the recommendation. Price stability is more easily measurable, and is thus better suited to supporting accountability. Accountability is easier to enforce in the case of a single objective. And if central banks perform only one function, they would be less vulnerable to the charge of being too powerful. But as history indicates, a narrow objective would not spare central banks for being blamed when things go wrong. The argument loses force if we look at it from the perspective of the "what".

As argued in detail elsewhere, price and financial stability are joined at the hip (Borio (2019)). They are fundamental properties of a smoothly functioning monetary system. They are both ways of safeguarding the value of money, by protecting against default, erosion of purchasing power, or a dysfunctional payments system. Accordingly, central banks have always been key players in safeguarding stability. This was true under the gold standard, when they were the guardians of convertibility. It has been even more so in recent times. Think, in particular, of the lender of last resort function and, in many countries, long-standing prudential responsibilities. If the role of central banks in financial stability is inevitable, it is only appropriate that they should have the instruments to pursue it.

In fact, the core arguments in favour of central bank independence in the context of price stability apply with equal, if not greater, force to financial stability. They apply to the need to take a longer horizon: the lag between the build-up and materialisation of risks is longer than that between excess demand and inflation – because financial cycles are much longer than business cycles (Borio (2014a)). They apply also to the need to resist the political economy pressures to disregard the long term. Much of the population has grown to dislike inflation, but there is

32 See Tucker (2018) and the references therein for a comprehensive treatment.

hardly any constituency against the inebriating feeling of getting richer during a financial boom.[33] In part reflecting these considerations, as well as more targeted pressures when dealing with individual institutions, the principle of independence for prudential authorities is enshrined in the core principles of banking supervision (BCBS (2006)).[34]

What, then, are the more promising steps to safeguard independence? I would highlight three.

First step: make a clear distinction between crisis prevention and crisis management (Borio (2011)). Independence is essential in crisis prevention, but it is less justifiable in crisis management whenever solvency is at stake, rather than just liquidity. At that point, public money may be needed and central banks will need to work in close coordination with the government. As Charles Goodhart says, "he who pays the piper calls the tune" (Goodhart and Schoenmaker (1995)). It is worth reflecting on how to put in place arrangements along these lines, including ways to insulate the central bank's balance sheet from losses incurred in crisis management so as to facilitate exit.

Second step: make the price stability objective more flexible. At very low rates, inflation may be less responsive to policy. For instance, empirical evidence indicates that at very low inflation rates *relative* price changes account for a larger share of aggregate inflation (Reis and Watson (2010)).[35] Some of these changes in relative prices may be cyclical, but a large part could also be structural, and hence less amenable to monetary policy. Under such conditions, strict and very precise[36] targets could push central banks to adopt ever more ambitious measures and run the risk of exhausting the ammunition to tackle the next recession. The public would then find it harder to understand why a 2% target should be reached regardless of circumstances.[37] Indeed, there are signs that public support for attempts to raise inflation above current levels is waning.[38] After all,

[33] These, of course, are not the only arguments for independence; Tucker (2018) provides an overview. That said, I consider them as the most important. This argument is broader than the popular technical discussion of central bank independence as a way of solving the lack of pre-commitment in game-theoretic models of inflation (e.g. Kydland and Prescott (1977), Barro and Gordon (1983), Rogoff (1985)), which may not be particularly convincing as a description of the reason for the rise in inflation in the 1960s and 1970s. For a critique of the normative implications, see e.g. McCallum (1995). The rationale for independence is arguably closer to the work on political cycles originating in Nordhaus (1975). Alesina and Stella (2010) include a short survey.

[34] There are only relatively few studies that consider the merits of independence for banking supervisory authorities. See e.g. Quintyn and Taylor (2003), Masciandaro et al (2008) and Barr (2015), including references therein.

[35] Reis and Watson (2010) find that, since 1959, the share in the case of US inflation has been some 15%. A sizeable part of this is likely to reflect the high inflation of the 1970s, since more recent estimates find "pure" inflation to be considerably lower for both the United States and the euro area (Miles et al. (2017)). Similarly, Apaitan et al. (2018) find that pure inflation has accounted for only around 10% of variation in headline inflation in Thailand since 2002. Presumably, the share would be higher for countries with higher average inflation rates and where the exchange rate played a key role in generating or sustaining inflation.

[36] The degree of precision is often the result of a specific interpretation by the central bank and is not legislated.

[37] See also Volcker (2018), who makes a similar point.

[38] Greenspan's (1994) famous definition of price stability is quite apt and captures this point very well: price stability prevails when "…households and businesses need not factor expectations of changes in the average level of prices into their decisions".

independence aimed to help bring inflation down and keep it under control; credibility is less likely to come into question if inflation is persistently low, even if below agreed objectives.

Furthermore, such a flexible target is desirable in itself for at least two reasons. First, the fear of the zero lower bound may be overestimated. If, as argued, globalisation and technology have played a key role in keeping inflation so low, the impact on output is benign. Indeed, there is considerable historical evidence indicating that price declines have not tended to coincide with weaker output[39] – a sign that such supply side factors have been at work. The Great Depression is an exception. The current deep-seated fear of falling prices, regardless of circumstances, is what Raghu Rajan has rightly called "the deflation bogeyman" (Rajan (2015)). In addition, as argued in detail elsewhere, greater flexibility would also allow central banks to better reconcile price stability with financial and hence macroeconomic stability (e.g. Borio (2014b)). It would make it possible to employ the interest rate lever in combination with macroprudential measures with a clear longer-term orientation.

Third step: above all, reduce the expectations gap between what central banks can deliver and what they are expected to deliver. A more flexible inflation target would obviously help. But the expectations gap goes well beyond central bank's ability to fine-tune inflation. It is important to ensure that communication makes crystal clear what central banks can and cannot do in the context of output, employment and financial stability.[40] And it is equally important to dispel the notion that central banks can be the engine of growth (Carstens (2019)). Sustainable growth requires a balanced mix of policies, not least structural ones. Unless central banks can manage expectations successfully, those expectations can only be disappointed. The credibility, independence and effectiveness of central banks would suffer as a result.

The question of the policy mix brings me to a thorny topical issue, which looms large when considering the possible need for coordination between monetary and fiscal policy: that is, the risk of fiscal dominance. Fiscal dominance de facto deprives monetary policy of its independence, regardless of de jure arrangements, as it tightly constrains what the central bank can do.

The possible need for coordination between monetary and fiscal policy is again in the limelight. A common argument is that, with the monetary room for policy

39 See Borio et al. (2015), who, apart from confirming previous work, including their own and by Atkeson and Kehoe (2004) and Bordo and Redish (2004), find that, once one controls for asset prices, the information content of declining prices of goods and services is no longer visible, even in the Great Depression. They also find little evidence of Fisherian debt deflation as opposed to a damaging interaction between asset price declines and debt.

40 Financial stability is a shared responsibility. And surely the realistic objective should be to reduce the likelihood and intensity of crises, not to prevent them altogether, as many seem to believe.

manoeuvre so narrow, the only way to boost output and increase inflation is to ramp up the fiscal firepower by monetising the corresponding deficits. This would work by putting money directly into the hands of the people, especially if coupled with a promise not to tax that money back for a long time. The reasoning is common to a number of proposals, including pure forms of "helicopter money"[41] (Turner (2015), Buiter (2014)) and the more constrained proposal by Bartsch et al. (2019).

I believe these arguments are analytically dubious and potentially harmful. The resulting policies reach for short-term gains at the expense of potential large long-term losses. Let me explain.

It is well recognised that helicopter money, in its pure form, involves a promise *never* to tax the money back; so that expenditures are neither debt nor tax-financed.[42] What is less recognised is that this would also require central banks to keep interest rates at zero *forever* (Borio et al. (2016)).[43] Any surplus cash will find its way into bank reserves. As a result, lifting rates at some point would call either for paying interest on excess reserves – which would be equivalent to debt financing through the consolidated public sector balance sheet – or else imposing a non-remunerated reserve requirement – which is a tax.[44] Not only is the prospect unrealistic, it is hardly reassuring.

The Bartsch et al. (2019) proposal – a "constrained" version of helicopter money – raises slightly different issues. Here the promise not to tax the money back, and to keep interest rates at zero, lasts only for as long as inflation is below target. But this begs the question of why "monetary financing" is needed in the first place. For the public at large, it makes no difference whether it is the central bank or the government that credits their account: money is money. With interest rates at zero, the government can finance itself as cheaply as the central bank. Moreover, it can do so at a longer maturity than at the overnight or short-term maturities the central bank can apply, locking in the cost.

More broadly, these proposals expose the central bank to critical medium-term risks.

41 The notion, of course, harks back to a famous article by Friedman (1969).

42 The reason is to overcome "Ricardian equivalence", whereby taxes and debt have the same impact on aggregate demand.

43 In fact, Turner (2015) sees overt monetary financing as a way of avoiding the unwelcome consequences of low interest rates, such as excessive risk-taking and increased debt. Dervi? (2016) also advocates helicopter money partly on the same grounds.

44 This is simply the result of how monetary policy is (and can be) implemented – an aspect which is often misunderstood and incorrectly portrayed in textbooks; see e.g. Borio and Disyatat (2010) and Borio (2019). For the broader misconceptions in macroeconomics that reflect a failure to understand the basic mechanisms involved, see Disyatat (2008).

First, low-for-long interest rates create financial stability risks.[45] Over time, this threatens to erode the legitimacy of central banks, whether or not financial stability objectives are explicitly part of their mandates or not.

Second, the proposals reinforce the expectation that central banks are more powerful than they really are. There is nothing fundamentally special about money when interest rates are zero; it has no magical power.

Third, the proposals heighten the risk of fiscal dominance.[46] Helicopter money would amount to an extreme form of dominance. In this type of "coordination", the central bank would effectively commit itself to giving up the use of the monetary policy lever for anything but the agreed purpose. In the more constrained version, a quid pro quo could easily emerge. If the government lends the fiscal levers to the central bank under some conditions[47], why should the central bank not lend the monetary policy levers to the fiscal authorities under some others? After all, coordinated policy – fiscal expansion coupled with interest rate cuts – *is* more effective, at least in the short run. Moreover, one can easily imagine the pressure on the central bank not to raise rates if, during the monetisation phase, government debt has risen substantially – a kind of "debt trap" (Borio (2014a)).[48]

Let me be clear. I am *not* saying that in the next downturn fiscal policy should have no special role to play. Nor am I saying that the central bank and the government should refrain from working in a mutually consistent way in their respective spheres of competence. On the contrary, central banks will need a helping hand in countries that still have some room for fiscal policy manoeuvre – although, unfortunately, that room has been narrowing and the number of countries falling. What I am saying is that schemes involving explicit deficit monetisation are unnecessary and potentially harmful. And that fiscal dominance should be avoided.

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45 This is to a considerable extent the result of what has come to be known as the "risk-taking channel" of monetary policy (Borio and Zhu (2012)). See Smets (2013) for a short review of the literature and Neuenkirch and Nöckel (2018) for some more recent references. See also CGFS (2018) and, for the impact of low interest rates on "zombie" firms, Banerjee and Hofmann (2018).

46 Fiscal dominance is the prescription of Modern Monetary Theory. The theory sees policy through the lens of the consolidated public sector balance sheet and has the government firmly at the helm. At its heart is the notion that, in the technical sense, the government need never default since it can always force the central bank to settle the debt in inconvertible fiat money; see Wray (2015). Of course, none of this would protect the sovereign from crises of confidence and flights into other currencies if the public lost trust in the value of their savings. Recognising this, and also the fact that domestic currency sovereign debt has been restructured, rating agencies assign a rating to it as well.

47 Of course, there are also serious questions as to whether any government would ever do so in the first place, given the implied enormous delegation of power to the central bank.

48 In order to avoid this risk, Bartsch et al. (2019) envisage governance arrangements whereby the central bank would decide both the amount and timing of the deficit to be monetised. This sounds unrealistic, however, and would also make it harder for the central bank to avoid the charge of being too powerful and of intruding on fiscal policy beyond its legitimate sphere of action. Note also that, since the money injected is not withdrawn, all else equal, the balance sheet will be larger at the end of the process, reducing the room for manoeuvre to address future needs.

8.5. CONCLUSION

In the land of Giambattista Vico, the 18th century Neapolitan philosopher-cum-historian, it is fitting to recall his view of history (Vico (1744)).[49] It is a view of *corsi* (courses) and *ricorsi* (recurrences), with a cyclical rhythm of rise and fall, of resurgence, decadence and barbarism. Without going that far, there are uncanny similarities between the two most recent waves of globalisation, although the compression of time, as if accelerated by the pace of technology, is spellbinding.

Then, as now, a phase of seemingly never-ending prosperity paved the way for a deep slump – the roaring twenties ushered in the Great Depression just as the Great Moderation ushered in the Great Recession. Then, as now, a credit boom that ended badly led to a financial crisis (Eichengreen and Mitchener (2004)). Then, as now, intellectual convictions crumbled along with the economy.

That said, there are differences, too. So far, one full decade on, the open global economy has faltered, yet it has held up. The institutional fabric of society has seen threats, yet it has survived. And central bank independence has come under strain, yet it has endured. There are steps that can be taken to support this valuable institution, as part of the broader task of adjusting policies to promote society's well-being. The question is whether what we have seen is a temporary setback or a temporary reprieve. Only time will tell.

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9. Populism, Institutional Quality, and Central Bank Independence

Itai Agur[1]

This chapter looks at the impact of populism on central bank independence through two different lenses. First, using a wide cross-country dataset, it provides empirical evidence that one aspect commonly attributed to populism, namely national identity politics, has negatively impacted on central bank independence. Second, considering the potential impact on institutional quality, the chapter investigates the relationship between institutions and central bank independence. The largest empirical study to date on the determinants of central bank independence found a negative relationship to institutional quality variables. This is shown to be due to sample length. Using a different dataset for central bank independence with a considerably longer sample, institutional variables are found to be positive and highly significant determinants of central bank independence.

9.1. Populism and central bank independence[2]

Central bank independence (CBI) is often regarded as a pillar of effective monetary reform, particularly in developing countries. However, granting independence of policy determination to a central bank is not merely an economic policy decision. It is a choice that is deeply intertwined with political preferences, and therefore granting (or rescinding) independence can relate to political cycles. Goodhart and Lastra (2018) argue that the electoral success of populist political movements in various countries may result in pressures on the independence of central banks. They observe a tension between the expanded mandates of central banks, and the electoral discontent with the prevailing status quo since the Global Financial Crisis.

The relationship between political populism and CBI that Goodhart and Lastra (2018) lay out, contains elements that are testable. The challenge is to define what constitutes a populist movement, and to find an empirical representation for such a definition. While there is no consensus on the meaning of populism, national identity politics is one aspect that is commonly associated with it. For example,

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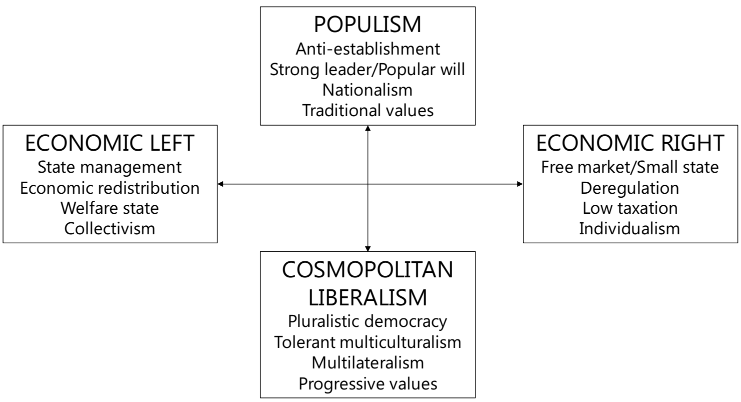
2 This part of the chapter is based on Agur (2018).

Figure 1 depicts the categorization of contemporary politics by Inglehart and Norris (2016), where nationalism is identified as one facet of populism.

Political nationalism is a variable on which data is available from the World Bank's Database of Political Institutions (DPI). DPI counts a party as nationalist if "a primary component of its platform is the creation or defense of a national or ethnic identity." DPI records several 0-1 dummy variables relating to nationalism, namely "nationalist chief executive", "nationalist largest government party" and "nationalist largest opposition party". DPI covers 178 countries between 1975-2012.

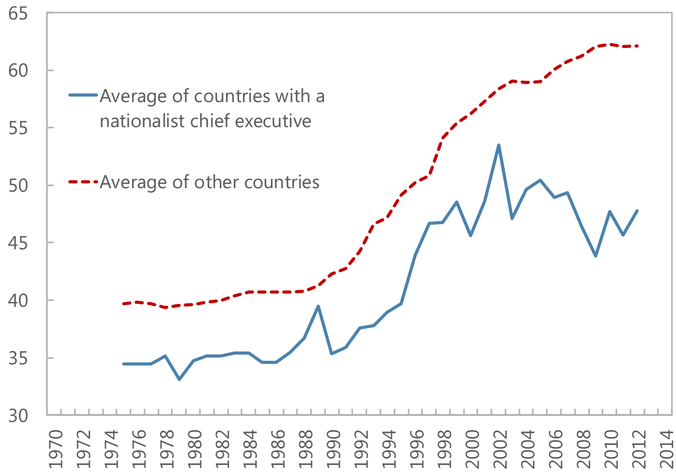
Figure 1: Inglehart and Norris' (2016) Categorization of Contemporary Politics



Political variables tend to change infrequently, and we require a CBI dataset of maximum scope (time and countries) to fully exploit the variation in the political data. This guides our choice for *de jure* measures of CBI, which offer much wider scope than *de facto* measures. We consider *de jure* CBI as a measure of policy intent. Legal independence of the central bank does not guarantee *de facto* independence, and the relationship between *de jure* CBI and inflation outcomes is not always clear-cut (Cukierman, 2008). However, statutory reforms towards increased CBI are a policy statement, a desire to untie the central bank and the government. In the practice of monetary reform, *de jure* CBI is often a prerequisite for *de facto* CBI and successful monetary reform more broadly (Freedman and Ötker-Robe, 2010).

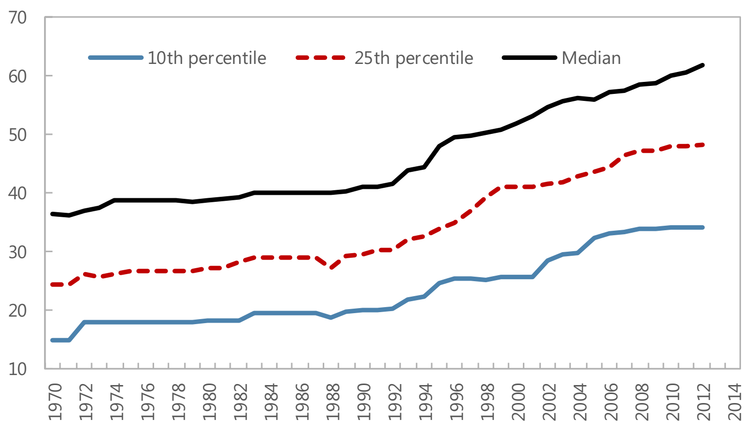
The best known *de jure* CBI index was developed by Cukierman, Webb, and Neypati (1992). Garriga (2016) applies this method to 182 countries between 1970-2012. Her dataset includes 382 identified instances of monetary reforms, of which 276, 50 and 56 instances, respectively, resulted in higher, unchanged, and lower CBI. We combine the Garriga's CBI data with DPI data to gauge the link between nationalism and CBI. Figure 2 provides a first glance at this link. It shows that countries with a nationalist chief executive (president or prime minister in DPI, depending on the political system) generally lag other countries in CBI, a gap that has been widening since the late 1990s. One might suspect that this follows from a selection bias, whereby less developed countries have both lower CBI and a greater fraction of nationalist governments. However, all economic development strata have on average witnessed a gradual rise of CBI since the late 1990s (Figure 3). The move towards increased CBI is not concentrated in specific economies but seen in a wide cross-section of development stages. The relationship hinted at by Figure 2, merits a deeper investigation, therefore.

Figure 2: CBI and nationalism



Sources: Garriga (2016), World Bank DPI, author calculations

Figure 3: CBI percentiles



Sources: Garriga (2016), author calculations.

We follow the regression analysis of Dincer and Eichengreen (2014), who run fixed effects panels to identify the determinants of *de jure* CBI. Dincer and Eichengreen (2014) compile an extensive *de jure* CBI dataset, and analyze its determinants. While their dataset has a broad cross-country dimension (100 countries), its time-series is too short for our purposes, starting in 1998. We therefore replicate their approach for determinants, but with the dataset of Garriga (2016). Following Dincer and Eichengreen (2014), we employ as macroeconomic control variables: GDP per capita, lagged inflation, trade openness, and financial depth as measured by M2/GDP.

Like Dincer and Eichengreen (2014), we also add a variety of institutional quality variables. For this, we use the International Country Risk Guide (ICRG). Including institutional controls is important to address the risk that a significant result for nationalism variables masquerades for other institutional variables. As each of the three nationalism variables (chief executive, largest government party, largest opposition party) has only limited variation over time, we combine these three variables into a single (unweighted sum) nationalism index, which can take values between 0-3. In addition, we also check the significance of each separate variable, in separate specifications. Our rationale for including the "largest opposition party" variable is that opposition parties can sometimes influence the direction of policy. Governing politicians may wish to placate the opposition party's voters by showing sensitivity to the opposition's political platform.

Table 1 summarizes our empirical results in six different specifications. The first specification uses only CBI, the macroeconomic variables and the nationalism index. Because this specification excludes the ICRG data, it has the largest number of observations (2,145 over 113 countries). The nationalism index has a negative impact on CBI, which is significant at 5%. Specifications (2)-(6) add in the institutional control variables. With institutional controls the sample becomes smaller. Specification (2) includes the full set of institutional controls, while specification (3) takes out the two institutional variables that are most costly in terms of lost sample observations. In both cases, the nationalism index is significant at 1%. Specifications (4)-(6) replace the nationalism index with its individual components. The nationalist largest government party and nationalist chief executive variables are significant at 5%, while the nationalist largest opposition party variable is significant at 10%.

Overall, our results provide support for the notion that one aspect of political populism is indeed related to CBI. The relation between politics (e.g., fiscal policy) and CBI has been discussed extensively (de Haan and Eijffinger, 2018). However, to our knowledge, this is the first empirical piece to connect CBI and nationalism.

Table 1: Panel regressions for CBI (country fixed effects). Sample period: 1975-2012 for baseline, 1984-2012 for other specifications

	(1) Baseline	(2) Institutional controls 1	(3) Institutional controls 2	(4) Nationalist government	(5) Nationalist chief exec.	(6) Nationalist opposition
Trade openness	0.156***	0.0874***	0.127***	0.0981***	0.0920***	0.0924***
	(0.0239)	(0.0311)	(0.0311)	(0.0298)	(0.0302)	(0.0309)
GDP per capita	0.159***	0.149***	0.182***	0.148***	0.154***	0.149***
	(0.0105)	(0.0129)	(0.0136)	(0.0121)	(0.0123)	(0.0127)
Lagged inflation	-0.116***	-0.0305	-0.0764***	-0.0333	-0.0311	-0.0316
	(0.0149)	(0.0208)	(0.0190)	(0.0205)	(0.0207)	(0.0207)
Financial depth	0.0780***	0.0450***	0.0454**	0.0404**	0.0416***	0.0448***
	(0.0152)	(0.0160)	(0.0176)	(0.0158)	(0.0159)	(0.0159)
Nationalism index	-0.0482**	-0.0762***	-0.0826***			
	(0.0215)	(0.0238)	(0.0253)			
Ethnic tension index (up = lower tension)		0.0352*		0.0307	0.0296	0.0324
		(0.0208)		(0.0199)	(0.0202)	(0.0205)
Political risk index (up = lower risk)		0.219***	0.130*	0.179**	0.169**	0.221***
		(0.0797)	(0.0680)	(0.0748)	(0.0754)	(0.0796)
Government stability index (up = higher stability)		0.00154	0.0459	0.0154	0.0158	-0.000288
		(0.0285)	(0.0299)	(0.0274)	(0.0276)	(0.0283)
Bureaucracy quality index (up = higher quality)		0.0175		0.0132	0.0136	0.0158
		(0.0238)		(0.0225)	(0.0227)	(0.0237)
Politcal fragmentation index (up = more fragmented)		0.0568***	0.0602***	-0.000738	-0.000975	0.0564***
		(0.0185)	(0.0194)	(0.00203)	(0.00205)	(0.0184)
Nationalist largest government party				-0.0793**		
				(0.0401)		
Nationalist chief executive					-0.0862**	
					(0.0409)	
Nationalist largest opposition party						-0.0560*
						(0.0330)
Constant	1.775***	1.188***	1.136***	1.264***	1.277***	1.183***
	(0.113)	(0.308)	(0.220)	(0.293)	(0.297)	(0.307)
Observations	2,145	1,294	1,563	1,380	1,357	1,313
R-squared	0.266	0.239	0.281	0.218	0.221	0.231
Number of countries	113	77	84	80	80	77

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

9.2. Institutions and central bank independence[3]

Another angle at the relationship between populism and central bank independence comes from zooming in on the institutional variables themselves. To the extent that populist political movements erode a country's institutional quality, they may also affect CBI. CBI is intimately tied to the broader process of institutional development, and can also erode when institutional quality declines (Laurens et al., 2015; Masciandaro and Romelli, 2015; Agur et al., 2015; Goodhart and Lastra, 2018). Remarkably, however, the largest empirical study to date on the determinants of CBI, Dincer and Eichengreen (2014), finds that "there is no evidence that countries with more robust institutions strengthened the independence of their central banks, perhaps because the level of central bank independence was already high. If anything, the opposite is true." Here, the last sentence refers to the negative and significant coefficients on all institutional determinants in their regressions. Rule of law, political stability, government efficiency, voice and accountability, and regulatory quality *negatively* affect CBI, according to these results.

However, behind Dincer and Eichengreen's (2014) clause "perhaps because the level of central bank independence was already high" lies what may be an important clue: the sample length. Their sample starts in 1998, possibly too late to fully capture a slow-moving interaction between institutions and CBI.[4] We can use the longer sample of Garriga (2016) to re-examine the institutional determinants of CBI. We use similar institutional variables: ICRG variables on bureaucracy quality, corruption, democratic accountability, government stability, and law & order closely resemble the variables used in Dincer and Eichengreen (2014), which are sourced from the Worldwide Governance Indicators (WGI) database of the World Bank. In addition, we include ICRG measures that are indicative of stability and trust in society ("soft" institutional variables relating to the notion of social capital): ethnic and religious tensions, internal and external conflict, and socioeconomic conditions. Furthermore, we also include a country's investment profile, and composite indices of economic, financial, and political risk, and an overall composite index, as aggregate measures of the types of risks that relate to a country's institutional quality. The variables are all defined such that "up" is an "improvement". For example, higher bureaucracy quality implies a higher score on the bureaucracy quality index, while lower corruption leads to a higher score on the corruption index.

3 This part of the chapter is based on Agur (2019).

4 Other studies tend to focus on specific political factors, rather than institutional determinants in general. For instance, Crowe and Meade (2008) and Bodea and Hicks (2015) examine CBI in relation to democracy versus dictatorship. See de Haan and Eijffinger (2018) for a survey of the literature on the politics of CBI.

As in the previous part, we run panel regressions with country fixed effects, where trade openness, GDP per capita, lagged inflation, and financial depth (measured as M2/GDP) are used as macroeconomic determinants.[5] Most institutional variables are positive and highly significant. Of the fifteen institutional variables we investigate, eleven are positive at 1% significance, and one is positive at 5% significance.[6] With twelve institutional variables pointing in the expected direction, there seems sufficient basis to conclude that, with a long enough sample period, central bank independence does tend go hand-in-hand with stronger institutions.

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[5] For regression tables, please see Agur (2019).

[6] An additional test is to run regressions using the same WGI institutional variables used by Dincer and Eichengreen (2014). The six institutional variables in WGI start in 1996, thereby restricting the sample length. The sample breadth is widened, however, from 114 to 150 countries. Results of this analysis are reported in Agur (2019).

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10. De Facto and De Jure Central Bank Independence

Carola Binder[1]

In a recent op-ed, Kenneth Rogoff (2019) comments on central bank independence and the rise of populism:

> "With the global rise of populism and autocracy, central-bank independence is under threat, even in advanced economies. Since the 2008 financial crisis, the public has come to expect central banks to shoulder responsibilities far beyond their power and remit. At the same time, populist leaders have been pressing for more direct oversight and control over monetary policy…
> Not too long ago, central-bank independence was celebrated as one of the most effective policy innovations of the past four decades, owing to the dramatic fall in inflation worldwide. Recently, however, an increasing number of politicians believe that it is high time to subordinate central banks to the prerogatives of elected officials…".[2]

Walsh (2005) points out that "legal measures of Central Bank independence may not reflect the relationship between the Central Bank and the government that actually exists in practice." In other words, *de jure* and *de facto* central bank independence (CBI) may be quite distinct. In recent years, this distinction has become especially apparent. Politicians have been interfering with central banks, even without formally or legally restricting their independence.

What are the effects of these de facto violations of central bank independence? When and where do they arise? Data limitations have made these questions difficult to answer. While there are several datasets measuring legal CBI, such as Garriga's (2016) impressive dataset based on the charters and legislation of a large number of central banks, *de facto* CBI is less easily observed.

10.1. Measuring pressure on central banks

In recent research (Binder 2019), I use a narrative approach to construct a dataset on political pressure on central banks around the world. I use country reports from the Economist Intelligence Unit (EIU) and Business Monitor International (BMI), which report at a consistent frequency on monetary policy-related devel-

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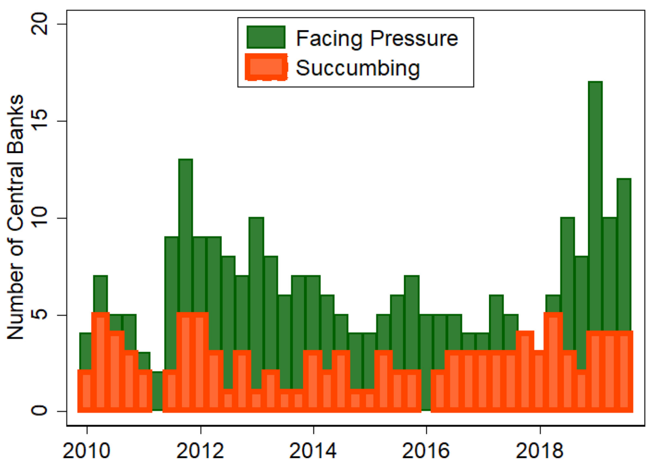
1 Haverford College.
2 https://www.project-syndicate.org/onpoint/how-central-bank-independence-dies-by-kenneth-rogoff-2019-05.

opments in a large number of countries. I search the reports for discussions of political pressure on or government interference with the central bank, and code several features of the pressure. For instance, I record whether the pressure is for easier or tighter policy, and whether the central bank is reportedly resisting or succumbing to the pressure. My dataset is a balanced panel of 118 central banks quarterly since 2010.

I find that political pressure on central banks is widespread. About 39% of the central banks in my sample reportedly face political pressure at least once since 2010. As you might expect, the vast majority of this pressure is for easier monetary policy. In an average quarter, 6% of central banks face reported political pressure. Actual numbers may be even higher, as some instances of political pressure may go unreported, for instance if they are too subtle for the country report writers to observe. I have updated the dataset through the third quarter of 2019, and find that political pressure on central banks is especially prevalent in 2019. In the first quarter of 2019, 14% of the central banks in my sample face reported political pressure, which is the maximum recorded in my sample (see Figure 1).

Figure 1. Political pressure on central banks over time.



Source: Binder (2019), updated for this article

10.2. Where and when does pressure occur?

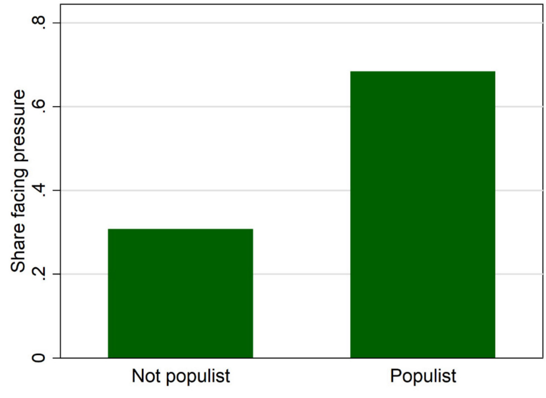
Political pressure on central banks appears to be similarly prevalent across geographic regions, though somewhat more common in Africa and Asia. In an average quarter, 5.2% of central banks in the Americas, 4.5% in Europe, 6.9% in Africa, and 4.5% in Asia and the Pacific. The top seven countries in terms of frequency of political pressure are Angola, Turkey, Argentina, Myanmar, Venezuela, Syria, and Japan. The top seven in terms of frequency of succumbing to political pressure are Turkey, Myanmar, Venezuela, Angola, Argentina, Vietnam, and the BEAC.

I use data from the Polity IV Project from the Center for Systemic Peace and the Database of Political Institutions (DPI) to study the association of political pressure on central banks with political characteristics. Political pressure is less likely to come from an executive from a centrist party than from an executive from a right-leaning or left-leaning party. Pressure is also less frequent in highly democratic countries compared to less democratic or autocratic countries, and less frequent in countries with strong checks and balances.

The strongest and perhaps most interesting predictor of political pressure on the central bank is a nationalist executive or nationalist ruling party. Nationalism is distinct from, but frequently associated with, populism. Thus, the strong association between nationalism and political pressure on central banks seems to support the view of Rogoff and others that populist leaders are challenging central bank independence (see Goodhardt and Lastra 2017).

An alternative source of data on populism is the Global Populism Database (Hawkins et al. 2019). In this dataset, political leaders' speeches are coded to classify their degree of populist rhetoric. Figure 2 shows the share of countries with leaders classified not populist facing political pressure on the central bank at some point in my sample, compared to the share with political leaders classified as somewhat populist, populist, or very populism facing political pressure on the central bank. Political pressure is about twice as prevalent for the populist group compared to the non-populist group.

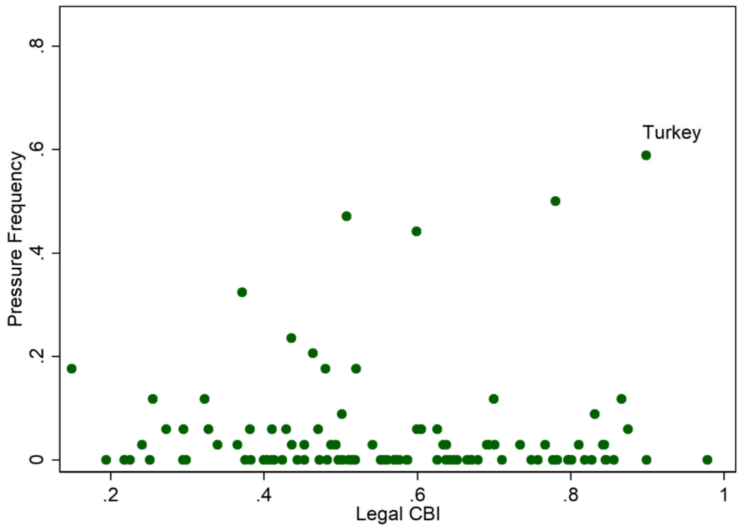
Figure 2. Populism and political pressure on central banks.



Populism data is from the Global Populism Database (Hawkins et al. 2019), which covers 32 central banks, of which 19 are in countries with a somewhat populist, populist, or very populist leader based on codings of leaders' speeches. Data on political pressure on central banks is from Binder (2019) from 2010Q1 through 2019Q1.

How does political pressure on central banks correspond to legal central bank independence? Are central banks with strong legal protections on their independence protected from political pressure? The answer seems to be no. I find that legal CBI, as measured by Garriga (2016), is virtually orthogonal to frequency of political pressure. And there are plenty of examples of central banks with strong legal CBI that face political pressure. For example, Turkey's central bank has a legal CBI index of 0.9 on average since 2010, which puts it around the 90th percentile, but faces political pressure in 60% of the quarters in my sample. The lack of a clear relationship between legal CBI and political pressure can be seen in Figure 3.

Figure 3. Legal central bank independence and political pressure on central banks.



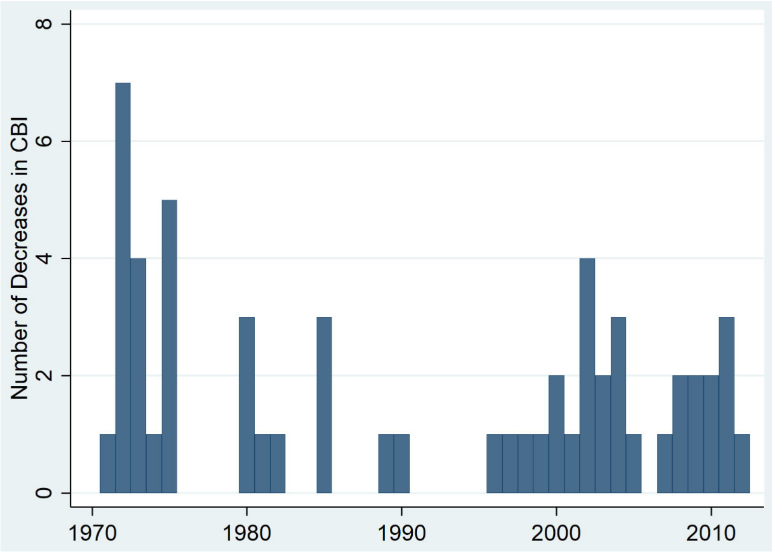
Legal CBI is from Garriga (2016), and refers to the average since 2010. Pressure frequency is the fraction of quarters since 2010 for which the central bank faces reported political pressure, from Binder (2019).

Moreover, it is political pressure on central banks, rather than legal independence, that seems to have more explanatory power for inflation. I find that even when the central bank reportedly resists the political pressure, inflation still tends to rise following an episode of pressure. Perhaps even if the central bank does not change its monetary policy in response to political pressure, the pressure damages central bank credibility. The possibility that it might respond to pressure leads to higher inflation expectations and in turn to higher inflation.

While political pressure on central banks is a frequent phenomenon, reductions of central banks' legal independence are relatively rare. Figure 4 shows the number of decreases of legal CBI reported in Garriga's dataset each year from

1970 through 2012. Note that about 1.5% of central banks experience a reduction in legal CBI each year from 2010 through 2012. In the late 1980s through the early 2000s, reductions in legal CBI were even more rare, as the trend toward greater CBI was in full force (see Figure 5).

Figure 4. Reductions in legal CBI by year.

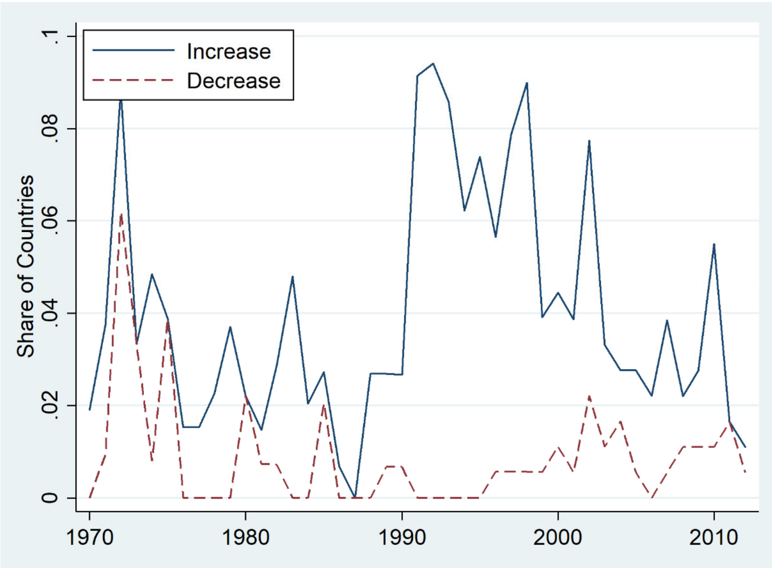


Data is from Garriga (2016)

The only central bank to have a recorded reduction in legal CBI in 2012 is Argentina. The Argentina case is especially interesting, and was reported in a Wall Street Journal article called "Kirchner Grabs the Central Bank" on April 1, 2012. The article notes that the central bank's single price stability mandate was replaced by a three-pronged mandate to provide "growth with social fairness and financial stability" in addition to price stability. For this reason, in Garriga's dataset we observe a reduction in the "objective independence" subcategory.

The article also explains that President Cristina Fernandez de Kirchner had relied on generous government spending to maintain her popularity, and in 2010 began dipping into the central bank's excess reserves to finance these expenditures. This prompted the resignation of central bank governor Martin Redrado in January 2010. Redrado was replaced with the "more compliant" Mercedes Marc? del Pont. The 2012 reforms to the central bank's charter eliminated a requirement that base money be backed by international reserves and unavailable for the government to borrow. Instead, the central bank board would come up with a formula for the amount of required reserves, and excess reserves would be available for the government to borrow. My dataset records political pressure on the central bank in Argentina in 2010, 2011, and 2012. The political pressure on the central bank culminated in reductions of the bank's legal independence.

Figure 5. Increases and decreases in CBI over time.



Data is from Garriga (2016)

10.3. Political pressure and CBI: looking ahead

It seems plausible that as political pressure on central banks becomes more prevalent and more normalized – which seems likely to be the case as long as populist undercurrents are strong –that legal changes to central banks could also become more prevalent, as CBI become less enshrined internationally. Though legal CBI data for the past few years is not yet available, there are some noteworthy examples of changes to central bank legislation, such as the 2018 Amendments to the Reserve Bank of New Zealand (RBNZ) Act.

The RBNZ, famously, was the first central bank to adopt an explicit target for inflation as the primary monetary policy objective. The 2018 amendments replace the inflation target with a dual mandate (so the "objective independence" subcategory of Garriga's index should decrease). At the same time, the amendments assign monetary policy responsibility to a committee, rather than a single governor. Controversially, this committee includes a Treasury representative. See Binder (2019b) for a discussion of the political history of these amendments. The New Zealand First party, which has populist tendencies, was very influential in this history.

As I discuss in Binder (2019b), the prevalence of political pressure on central banks may be related to what Haldane (2017) describes as the "twin deficits" of understanding and trust in central banks. Especially in the aftermath of the financial crisis and Great Recession, many central banks face these deficits. The financial crisis revealed the scope and magnitude of their powers and in many cases led to dissatisfaction with how these powers were used. Some central banks resorted to unconventional policies that were more politically controversial because of their more obvious distributional implications.

Since natural interest rates (r*) seem to have fallen, the effective lower bound (ELB) may be more likely to bind in the future, prompting further use of unconventional and even quasi-fiscal policies. This may well invite further attempts by politicians to interfere in the monetary policymaking process, especially in countries where many years of low inflation have made the risk of inflation seem more distant.

Central banks are putting increasing efforts into their attempts to communicate with the general public, but reaching households and shaping their beliefs and expectations remains a major challenge (Binder 2017). But politicians are often quite astute at communicating with the public and influencing the media agenda. Thus media coverage of central banks may be driven in large part by politicians, rather than by central banks themselves (Binder 2018). In the face of increasing political pressure, central banks may need to even rethink their frameworks, with a goal of making monetary policy more "pressure proof" and easier to communicate with politicians and the public. For example, a single and explicit target, like a nominal GDP target, might be less subject to political pressure than a dual mandate.

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11. Heterogeneous Populism, Economic Policies and Central Bank Independence

Donato Masciandaro[1] *and Francesco Passarelli*[2]

This chapter illustrates the results obtained in Masciandaro and Passarelli (2019) regarding the relationships between left-wing and right-wing populism, economic policy design and politican pressure to change the central bank independence (CBI). The political pressure measures the difference between the short term government goals and the long term central bank choices. Defining as populist any policy that guarantees anti-elites redistribution without regard of longer term distortions, a populist pressure that promotes a more dependent central bank can arise. Here it is emphasized one feature that both left-wind and right-wind populisms can share, acting as autocratic policymakers: they are likely to dislike the veto players – as the central banks are – that characterize the liberal democracies.

11.1. Introduction

Some researchers argue that the rise of populism may negatively affect the consensus in favour of central bank independence (CBI) which has been evident from the late 1980s until the 2008 Great Crisis (Buiter 2016, de Haan and Eijffinger 2017, Goodhart and Lastra 2017, Rajan 2017, Rodrik 2018). From an empirical point of view, literature has tested the relationship between one aspect commonly attributed to populism – namely national identity politics – and CBI (Agur, 2018). The aim of this chapter is to discuss the relationships between heterogenous populism and CBI, using a political economy framework that links literature covering the effect of populism on economic policies with literature on the need to reconsider CBI. We will emphasize that both left-wind and right-wind populisms can consider unwelcome a monetary veto player.

After the first wave of populism, which was mostly concentrated in Latin America (Dornbush and Edwards 1991, Acemoglu et al. 2013), a second wave of populism gained ground in many European countries and the United States, leading to both left-wing and right-wing movements. Such movements directly and/or indirectly influence the design and implementation of different kinds of economic policies (Dovis et al. 2016, Aggeborn and Persson 2017, Rodrik 2017).

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The populist movements, which share a demand for short-term protection, appear to be characterized by three main properties (Guiso et al. 2017, Kaltwasser 2018, Saint Paul 2018): the claim that they protect the people from the elite, pandering certain demand conditions and disregarding future consequences. This seems to be a constant in the literature focused on the economic aspects of populism (Sachs 1989, Dornbush and Edwards 1991, Acemoglu et al. 2013, Chersterley and Roberti 2016, Edward 2019).

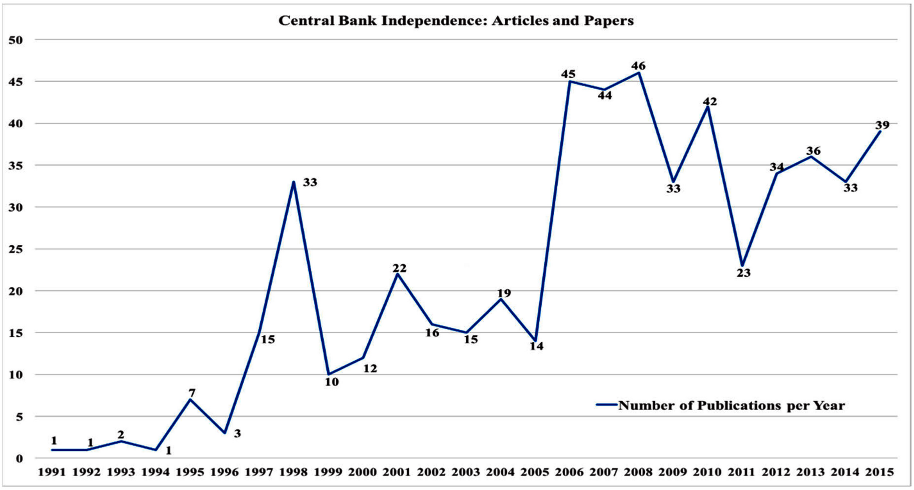
Here the central bank independence question comes in. By the time of the 2008 Great Crisis, the independence of central banks had become the benchmark for evaluating the effectiveness of monetary institutions around the world. This institutional design was supported by a broad consensus (Cecchetti 2013, Bayoumi et al. 2014, Goodhart and Lastra 2017, Issing 2018). The theoretical bottom line is well known (Cecchetti 2013, Eijffinger and Masciandaro 2014): incumbent policymakers tend to use monetary tools for short-term purposes and for smoothing out various kinds of macroeconomic shocks, including real (Barro and Gordon, 1983) and fiscal (Sargent and Wallace, 1981) imbalances. However, the more markets are efficient, the greater the risk that the short-sighted monetary policies will produce just macro distortions and imbalances. Therefore, the rules of the game between policymakers and central bankers became relevant (Barro and Gordon, 1983; Backus and Driffill, 1985; Rogoff, 1985; Lohmann, 1992, Persson and Tabellini 1993), triggering a significant stream of literature on CBI.

The evolution of this research field occurred in two steps. Initially, scholars involved in the field worked on verifying theoretical conjectures through comparative, institutional and empirical analyses. Then, after constructing CBI indices (Grilli et al. 1991, Cukierman et al. 1992; Alesina and Summers, 1993), they used cross-country studies and time series analyses to determine whether and how the different indices could be considered as drivers of the most important macroeconomic phenomena, including inflation (Klomp and De Haan 2010) and fiscal variables (Bodea and Higashijima 2017). In some cases, researchers evaluated a country at a particular point in time (Acemoglu et al. 2008). However, as CBI is sometimes included as one component of a larger reform package or is viewed as part of a more complex series of events, establishing causality has been challenging (Bayoumi et al. 2014).

The first wave of studies on central bank regimes, including those adopting more critical views (McCallum, 1995), took an important step forward by considering CBI as an endogenous variable that had to be explained (Posen, 1995, Franzese 1999, Hayo and Hefeker 2002, Aghion et al. 2004, Crowe and Meade 2008, Jacome and Vasquez 2008, Fernàndez-Albertos 2015). The aim in this regard was to shed light on the drivers of governments' decisions to maintain or reform their monetary regimes.

The approach of CBI endogeneity can be adopted to explain the second wave of studies devoted to the central bank regime in the last decade. CBI has become again a relevant subject in academia, politics and the media (Figure 1). However, in this most recent surge in the topic's popularity, some have noted (Alesina and Stella 2010, Cecchetti 2013, Bayoumi et al. 2014, Issing 2018, Thiele 2018) that the critical voices seem to dominate (Stiglitz 2013, Ball et. Al 2016, Rodrik 2018, Rogoff 2019).

Figure 1: Research and policy articles with a "Central Bank Independence" title (1991-2015)



Notes: Figure 1 presents the evolution of the number of academic papers whose titles contain the words "Central Bank Independence", between 1991 and 2015. Data obtained from SSRN and JSTOR. Source: Masciandaro and Romelli 2018a.

This increased interest mainly reflects the fact that the economic and political importance of the central banks in the advanced economies has grown since the beginning of the 2008 Great Crisis (Buiter 2014). Supervisory and regulatory responsibilities have been piled onto the central banks, thereby intensifying the relationships among banking, fiscal and monetary policies (Bayoumi et al. 2014, de Haan and Eijffinger 2017). The boundaries between the central bank's role as liquidity manager and the government's solvency support for banking and financial institutions have been blurred, inevitably triggering a debate on the shape of the central bank regimes (Nier 2009, Bean 2011, Cecchetti et al. 2011, Ingves 2011, Reis 2013), especially with regard to the features of CBI (Cukierman 2008 and 2013, Cecchetti 2013, Taylor 2013, Buiter 2014, Sims 2016, Blinder et al. 2017). These aspects have also been in focus from a historical perspective (Bordo and Siklos 2017, Ugolini 2017).

In this vein, an important question is whether the policy-blurring effect has made the pendulum swing in the other direction. Thus far, comparative analyses have not offered homogenous results (Bodea and Hicks 2015, de Haan et al. 2018, Masciandaro and Romelli 2018a). Here we zooms in this policy-blurring effect and sheds light on the possible impact in terms of CBI. On this respect we discuss the concept of political pressure, as a proxy of a potential demand for reforming the legal CBI, or as an indicator of the actual – as opposed to legal – CBI (Binder 2018b).

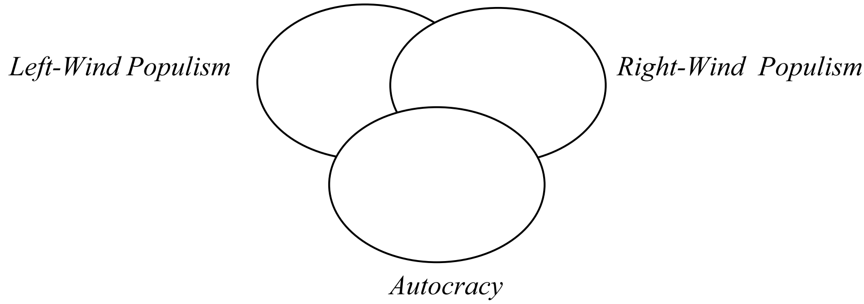
More specifically, we will elaborate on the political pressures due to the existence of both left-wind and right-wind populisms. It has been correctly pointed out (Colantone and Stanig 2019) that the populist parties are very heterogeneous; besides the traditional the classical left-right divide, one more dimension is likely to be relevant: nationalism versus cosmopolitanism.

Here we would like to emphasize one more feature of both left-wind and right-wind populism: they can consider unwelcome the veto players that characterize the liberal democracies. In general, the populists tend to dislike the autonomous institutions – as the modern central banks – that are neither directly controlled nor directly elected by “the people" (Kaltwasser 2018). Specifically, the existence of independent central banks is in contrast with the need of using lax monetary policy to implemented short sighted strategies, as it is particularly evident in the case of Latin American countries before 1990 (Edwards 2019). In other words, the notion of central bankers seems to provide a natural target for populist policies. On top of that, “with their PhDs, exclusive jargon, and secretive meetings in far-flung places like Basel and Jackson Hole, central bankers are the quintessential rootless global elite that populist nationalist love to hate” (Rajan 2017).

The populist narrative stresses the idea that the general will should prevail. Thus liberal institutions are less useful – e.g. the separation of powers, checks and balances, the representative democracy, and intermediate state institutions. CBI is one of those institutions. Its aim is to ensure neutrality and the inter-temporal consistency of monetary policy. Curbing the independence of central banks would be consistent with the populist goal of exerting direct control over conflicts within society (Goodhart and Lastra 2017).

All in all, we can define as populist a politician who seeks to remove the checks and balances generally applied in a democratic state – e.g. CBI – in order to fulfil promises made during the election campaign. In other words, it encompasses politicians acting as autocratic policymakers (Goodhart and Lastra 2017). It is worth noting that the autocracy seems to be inversely correlated with CBI (Bodea et al. 2019). Heterogeneous populism and autocracy can be intertwined definitions (Figure 2).

Figure 2 : Heterogeneous Populism and Autocracy



Moreover also the anectodal evidence shows that in general the central bankers are facing political scrutiny of an intensity not seen in recent decades. In several occasions U.S. President Donald Trump ramped up his personal war of words with the Federal Reserve. On December 2018 the governor of India's central bank resigned after dispute over independence. On March 2019 Italy's ruling populists tried to seize control of the central bank and its gold reserves. It is worth noting that at the time the government was led by an heterogeneous populist coalition. On June 2019 in South Africa the ruling party attacked the independence of the central bank. On July 2019 the Turkish governor was fired.

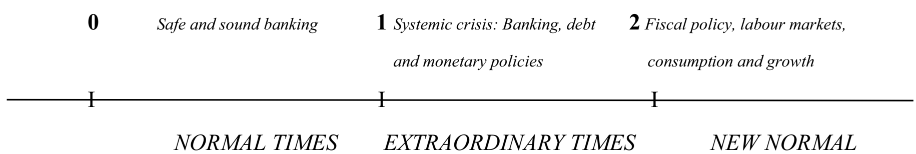
The remainder of the chapter is organised as follows. Section Two presents how in the Masciandaro and Passarelli (2019) framework the relevant macro players – citizens, banks, government and central bank – interact, and then the optimal economic policy design is defined. In Section Three the importance of the citizen heterogeneity emerges, and the possibilities of political pressures are discussed, zooming then on the special cases of both left-wing and right-wing populisms. Section Four concludes.

11.2. CITIZENS, MACRO SHOCKS AND ECONOMIC POLICY OPTIONS

This section describes the Masciandaro and Passarelli (2019) setting, introducing the relationships between economic policy design and political pressure in order to analyse under which conditions populist policies aimed to reform the CBI can emerge. The framework mimics an economy in which a macroeconomic shock occurs. Then the policymakers are forced to design a policy involving at the same time banking, fiscal and monetary aspects aimed at minimizing the spillovers of the shock into the real sector. The incumbent government defines the banking and fiscal policies, while an independent central bank sets the monetary policy choices, i.e. the degree of fiscal monetization.

The economy consists of a population of citizens, a government, a central bank and a banking system. The sequence of events is as follows (see Figure 3). At $t = 0$, banks engage in business with some level of risk (*normal times*). The outcome of their activities determines the extent to which the banks' risk profile – i.e. the capacity to meet their obligations – is safe and sound. Without a bank crisis, the government does not need to issue debt and, consequently, there is no need to introduce distortionary taxation to service such debt. But at $t = 1$, bank failures that trigger public externalities can occur and, consequently, the government has to design its strategy (*extraordinary times*). This public policy involves two decisions, one regarding the banking policy – i.e. the bailout amount – and another regarding the fiscal policy – i.e. how to finance such a bailout. In turn the degree of fiscal monetization will depend on the central bank decisions. Given that the government issues public debt for the amount of the bailout and that government bonds can be purchased by either citizens or the central bank, the degree of fiscal monetization tells us the amount of public debt the central bank decide to subscribe.

Figure 3 :Normal Times, Extraordinary Times and New Normal Times



Source: Masciandaro and Passarelli, 2019.

At $t = 2$, the government introduces an income tax to repay debt and interest. The citizens make decisions about labour, consumption and income given the tax, and the central bank transfers payments for interest received on its bond purchases back to the government (*"new normal" times*).

The economic policies that adopt a long-term perspective, including the central bank choices, will be the socially optimal ones. In other words, the social planner equilibrium in the new normal times will reflect the intertemporal trade-off between minimizing tax distortions and smoothing out banking externalities. The social planner equilibrium implies that the optimal economic policy design produces homogeneous effects. But if the policies trigger heterogeneous effects on the country's citizens, different individuals will have different views regarding those policies. This is crucial as long as the citizens' preferences are relevant in the political process. Therefore, the final policy is not automatically equal to the socially optimal one.

The model focuses on heterogeneity among citizens in terms of financial inequality given that the mix between fiscal, banking and monetary policies can produce the so called "three D" effects (Goodhart and Lastra 2017). The Distributional Effect results from changes in interest rates. The Directional Effect captures the impact of public policy on a certain sector and/or constituency of the economy, such as the banking industry (Brunnermeir and Sannikov 2013).

The Duration Effect measures the monetary policy's effect on overall public-sector liabilities, including the central bank's balance sheet within the public sector. In this regard, more fiscal monetization reduces the duration and can be associated with monetary instability. The Duration Effect can move the spotlight to the fiscal implications of the central bank's balance sheet (Cavallo et al. 2017). The Duration Effect is associated with the dimensions and risk profile of the central bank's balance sheet (CBBS). The emerging role of the CBBS in the monetary policy perimeter (Curdia 2011, Bindsell 2016, Reis 2016a and 2016b) highlights how an abnormal CBBS can trigger instability in the longer term for at least two reasons (Rajan 2017), notwithstanding the gains that the provision of a public safe asset can produce (Greenwood et al. 2016, Barthelemy et al. 2019). First, an excess supply of publicly provided external money may crowd out private internal funds. Notably, privately provisioned liquidity has additional benefits (Diamond and Rajan 2001). Second, large CBBSs can increase the risk of moral-hazard behaviour among politicians (Plosser 2013 and 2017, Sims 2016).

Moreover it is worth noting that the link between monetary policy per se and redistribution can be illustrated using three different channels (Auclert 2019): an earnings heterogeneity channel from unequal income changes, a Fisher channel from (un)expected inflation changes, an interest rate exposure channel from (real) interest rate changes. In our framework we zoom on the third channel only, given that here we assume that monetary instability is a social cost that is borne equally by all individuals and that earnings on assets other than public bonds are fixed and normalized to zero.

In our analysis the Directional Effect depends on banking policy choices, while the Distributional effect and the Duration effect are associated with the corresponding fiscal and monetary policies. Given that the first ring in the overall chain of events is the likelihood of a banking crisis, the banking activities are the starting point.

The systemic risk that a banking crisis can produce depends on the behaviour of the banking sector. A banking crisis occurs if the bank is unable to meet its obligations. In such an event, the value of the bank's liabilities falls to zero, and the bank's shareholders bear the full cost of the crisis (bail-in). The bank's failure probability is associated with its risk assumption. When a crisis occurs, a bailout policy can be designed that injects fresh public capital in a proportion of the bank's value. The bank chooses the risk profile that maximizes its own expected equity value, while taking both the crisis event and the bailout likelihood into account.

The second ring in our narrative is the government's behaviour. When a bank fails, the government enters an environment of extraordinary times and faces a trade-off: let the bank fail or rescue it by injecting new capital. In the latter case, the government issues public debt for the amount of the bailout. Public bonds can be purchased by either citizens or the central bank. The central bank's purchases represent the fiscal monetization.

The government's policy will influence the economy through the behaviour of the citizens, which is the third and final ring in our chain of events. The citizens are risk neutral, and they draw utility from consumption and disutility from labour. They use their net labour income and their financial assets to buy consumption goods. Income and labour supply in equilibrium will depend on the tax policy, which can be influenced by the government's decision regarding the bailout option. Moreover, the government's decisions also influence the financial assets held in the individual portfolios. Four asset types are present: bank shares; bank deposits; government bonds; other financial assets.

Finally, financial and monetary externalities are present due to a banking crisis. The externalities are increasing and convex in the amount of bank liabilities that evaporate, and they depend on the bailout option that the government can implement. The smaller the bailout policy is, the lower the Direction Effect and the greater the externalities. Moreover the bailout option also triggers monetary policy consequences. The fiscal monetization is associated with increasing monetary stability costs. It is worth noting that the costs of monetary instability include as a particular case the costs of inflation, which have been usually used to justify the optimality of institutional settings with monetary dominance, i.e. where the central banks are relatively independent from the executive powers and/or involved in inflation targeting policies. In summary, citizens draw utility from consumption and disutility from labour. In addition, financial and monetary externalities must be taken into account.

The last step is the identification of the benchmark for evaluating actual public policies. We assume that a social planner takes the relationship between the tax policy, and the labour supply into account, and simultaneously sets the policy strategy regarding the banking policy, and the monetary policy, in order to maximize the social-welfare function. When setting the banking policy, the social planner accepts a trade-off between two public goals: externality smoothing and tax-distortion minimization. This trade-off can be mitigated using monetary policy, but it also introduces the dilemma of monetary instability.

Focusing the attention on the central bank decisions, the optimal level of fiscal monetization (accommodation) has certain properties. It increases: a) if the labour supply is relatively elastic, given that the corresponding tax-distortion risk is high, b) if the cost of debt servicing is high and c) if the monetary instability costs are low. In other words, if both the Distributional Effect and the Duration Effect are likely to be low, the optimal central bank accommodation is likely to be high. In addition, recall that higher levels of the optimal bailout policy, will increase the overall amount of debt monetization (Direction Effect), notwithstanding the monetization parameter is held constant.

11.3. Citizen heterogeneity, economic policies, central bank independence and heterogeneous populism

Economic policies have relevant redistributive effects, but the social planner described in the previous section is only concerned about economic efficiency. When it comes to the effects of such policies for individual citizens, the situation can be completely different, as the net transfers implied by efficient policies can be largely positive for some and largely negative for others.

The redistributive effects are a relevant issue as long as the policies are chosen through the political process – i.e. when the citizens are voters. The Masciandaro and Passarelli (2019) analysis considers majority voting with voter preferences that are associated with the financial wealth distribution. Therefore the political pressure can be considered a proxy for a contingent demand of CBI reform; such as interpretation can be confirmed observing that so far the political pressure seems to be uncorrelated with legal – or *de jure* – CBI (Binder 2018b).

In general, the median voter's preferences and, consequently, the features of his or her financial portfolio will determine the actual overall equilibrium. The more the politicians in charge accommodate the demand for an economic policy design that differs from the socially optimal one, the more a political pressure to change the central bank regime will be likely to be in action. For example, reforms that decrease the CBI owing to financial stability issues (Ueda and Valencia 2012) are more likely to occur.

At the same time, it is worth remembering that if the central bank is sufficiently robust to avoid the political incentives to manipulate the both the fiscal and monetary policies in order to ensure financial stability, such incentives can be channelled using financial regulation. In other words, a politically captured regulation could be a by-product of CBI (Aklin and Kern 2016).

Under which conditions can a populist pressure occur? Given the above-mentioned definition (Guiso et al. 2017), a populist policy can be defined as any political decision that guarantees short-term protection without regard for long-term distortions. In a way the populist policy is at the same time a myopic and redistributive action.

How does the standard link between myopic policies and CBI differ from the relationship that characterizes a populist policy? In the Introduction we discussed the four key elements of the standard view, which can be summarized as follows (Fischer 2015): the CBI is an institutional device used to avoid distortionary inflation tax given the political pressure, and this device is implemented using time-inconsistent policies (Kydland and Prescott 1977). Here, the trigger is financial inequality – not the unemployment rate – and the policy tool is the interaction among banking, fiscal and monetary policies, rather than monetary policy per se. Moreover, the inefficient macro outcome is the overall taxation design, not just the inflation tax, which is produced without any particular assumptions about the players' expectations or information sets.

Table 1, which presents all of the possible equilibria, sheds light on when and how a left – wind populist pressure is likely to emerge. For the sake of our purposes depositors represent the unsophisticated investors, while the asset (bond) holders are the sophisticated ones.

The columns show what happens when the median voter is a smaller/equal/larger depositor than the average voter, while the rows show what happens when the median voter is a larger/equal/smaller bond holder than the average voter. It is worth noting that in general (Meltzer and Richard 1981) the difference between mean and median income can be considered a measure of inequality. In every combination, the policy outcome is compared with the socially optimal policy. The outcome can be characterized as efficient if it is equal to the benchmark, conservative if it is more restrictive and lax if it more expansive. A lax banking policy can be defined as a situation of financial dominance (Smets 2013), while a lax monetary policy represents a case of fiscal dominance (Sargent and Wallace 1981). The reader can find the right-wing populist by herself, i.e. when the preferred policies are the conservative ones.

Table 1: Median Voter Financial Identikit and Policy Preferences

	Smaller Depositor	Equal Depositor	Larger Depositor
Larger Bond Holder	Conservative banking policy Conservative MP	Efficient banking policy Conservative MP	Financial dominance Either conservative CBI or fiscal dominance
Equal Bond Holder	Conservative banking policy Conservative MP	Efficient banking policy Efficient MP	Financial dominance Fiscal dominance
Smaller Bond Holder	Conservative banking policy Either conservative MP or fiscal dominance	Efficient banking policy Fiscal dominance	Financial dominance Fiscal dominance

Source: Masciandaro and Passarelli, 2019.

A crucial fact emerges. In general, voters' preferences are consistent with the socially optimal policies if and only if the financial portfolios are homogeneous. The greater the financial heterogeneity – financial inequality – the more the equilibria differ from efficient levels.

11.4. Conclusion

This chapter discussed the relationships between citizen heterogeneity, economic policy design, left-wind and right-wing populism, and central bank independence (CBI). With citizen heterogeneity, assuming that a macro (banking) shock occurs and that an independent central bank implements a monetary policy which is consistent with the social welfare function, it is possible that the majority of citizens prefer policies that are different from the social optimal ones. In these cases, a political pressure against the central bank choices may arise. The political pressure can be interpreted as an indicator of actual CBI. Among the possible equilibria, if we define as populist any policy that guarantees anti-elites redistribution without regard for longer term distortions, both left-wind and right-wind populist pressures can arise.

The discussion can be further enriched in many fruitful directions:

a) Financial wealth and monetary instability. It has been assumed that monetary instability is a social cost that is borne equally by all individuals. Earnings on assets other than public bonds are fixed and normalized to zero. If we were to associate monetary instability with specific inflation risks, we would assume that portfolios are heterogeneous in terms of their ability to match monetary instability (Fujiwara et al. 2019). Allowing for this kind of heterogeneity would lead to a straightforward prediction: the smaller the mass of individuals with these characteristics, the stronger the political pressure to monetize. In other words it can be interesting to explore the relationships between inequality and inflation, as well as the corresponding role of CBI (Binder 2018a).

b) Income. In general, income distribution (Aggeborn and Persson 2017) or labour distribution (Algan et al. 2017) can explain the demand for populist policies. On top of that, the channels of monetary policy redistribution can affect the aggregate demand when winners and losers are heterogeneous (Ampudia et al. 2018, Bunn et al. 2018, Samarina and Nguyen 2019), i.e. they have different incomes (Oikawa and Ueda 2018), or different marginal propensities to consume (Cairò and Sim 2018, Aucleart 2019), or different productivities and/or skills (Dolado et al. 2018, Turdaliev 2018). Of course, income can be correlated with other forms of heterogeneity, such as portfolio size or the size of a bank stake in an individual's portfolio, or differences in terms of inside and outside money (Gahvari and Micheletto 2019) . This leads to interesting trade-offs, that moreover can be considered special cases of more general exploration on how micro heterogeneity can lead to macro shocks (Kaplan and Violante 2018).

c) Initial public debt and tax pressure. As it has been discussed above, here the government debt is only issued to save the banks, while taxes are raised only to service that debt. These are two simplifying assumptions. Another initial setting can be imagined as follows. In normal times: the level of taxation and the stock of public debt can be large and vary substantially by country and over time. The insertion of initial taxation and initial debt into the framework would increase its complexity but without any substantial consequence for the overall rationale.

d) Foreign debt and foreign ownership of the bank. The framework can be extended to account for the existence of foreign investors, and to investigate the association between external debt and populism (Dovis et al. 2016).

e) It is worth noting that the existing empirical analysis on political pressure, documenting the types of politicians and governments that are most likely to apply political pressure on central banks (Binder 2018b), notes that left wing executives, nationalist parties, or executive facing few checks and balances, or weak electoral competition are more likely to pressure the central bank. We might wonder how and under which conditions such nationalist parties show preferences which are consistent with our definition of heterogeneous populist policies.

f) Empirical and/or institutional analyses designed to shed light on the associations among financial wealth distribution, voters' geographical locations

(Inglehart and Norris 2016, Algan et al. 2017) and economic policy preferences would be interesting. At the same time, such explorations could be fruitfully correlated with the empirical results on the concrete distributional implications of monetary policy actions, both recent (Casiraghi et al. 2016, Furceri et al. 2016, Amaral 2017, Aucleart 2019) and historical ones (Herradi and Leroy 2019).

Finally and from a methodological point of view, thus far, cognitive biases have not been assumed to affect the relevant players. However, what are the effects of behavioural biases that influence the preferences of political actors or citizens? This question refers to behavioural political economics (BPE) (Schnellenbach and Schubert 2015). In optimal currency area (OCA) research the BPE approach was recently used. On the one side, it has been analysed a currency union in which expectations were formed through behavioural reinforcement learning (Bertasiute et al. 2018). On another side, it has been examined whether loss aversion among citizens can shape the decisions of national politicians, shedding light on the conditions under which Eurozone membership can persist (Masciandaro and Romelli 2018b).

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12. Why populism is risking independence?

Case of Albania

Luljeta Minxhozi[1]

Populism has been on the rise during the recent decade. Here, I would like to make a qualification on what I perceive as populist politics in government, its associated policy perspective and the implications it can have on central bank independence. Practically, most majoritarian governments are inherently populist as they do represent the central voter, hence the majority of the population. This term can be extended to the policy perspective of any coalition government. Nevertheless, here, I perceive populist politics and policy agenda as an antagonistic paradigm to liberal centrist politics that is at odds with its central philosophy of free movement of labour, capital, goods and services. A populist political force would strive to restrict such freedoms and additionally exhibit autocratic tendencies in order to pursue such a populist policy agenda.

Populist politics and policy rise to prominence has intensified after the global economic and financial crisis but I will argue here that its foundation was not a direct consequence of it. The proliferation of populist, largely right-wing or far right, politics has deeper underlying economic roots. The economic prowess of large segments of society in the developed world was eroded by the loss of manufacturing jobs as a result of accelerated globalization and robotisation of means of production. This preceded the financial and economic crisis. The low skilled workforce felt the bite of rapidly expanding global-value chains and of rising inequality within their nations. As the crisis hit, developed economies experienced deep economic downturns and austerity policies ensued. Discontent at the establishment grew and populist governments promising economic prosperity for voters left behind were next.

Why is this all relevant central banks and their independence? What do these global forces mean for us small-open economies and how do they alter the signaling mechanism of global policy spillovers?

Many central banks are legally mandated the goal of achieving price stability and have full independence on the policy and operational framework in use to achieve this goal. After the global economic financial crisis and with the move to fiscal consolidation in many developed and developing countries, central banks bore

1 First vice Governor Bank of Albania.

the brunt of economic stabilization. Consequently, policy rates have reached their zero lower bounds, in some instances moved to negative territory, and central banks have expanded their policy toolkit with the adoption of a wide range of unconventional monetary policy measures. In many developed and developing countries, the sense of permanence of nominal and real interest rate levels have pushed for search-for-yield behaviour and over-borrowing at the lower-end of the maturity spectra despite debt-ratios not low enough to absorb future reversals of interest rates. Furthermore, added attention to financial stability has instigated the delegation of macro-prudential policies and other financial stability related policies to the central bank. This has increased the risk of interference with the natural flow of funds in the economy, whereby specific sectors of the economy or social categories might have become or perceived more advantaged. The latter coupled with proliferation unconventional monetary policies have expanded central bank mandates and have made them broader, blurry, with potentially multiple conflicting goals. This has complicated the exercise of accountability of central banks and has raised concerns over the legality of such expanded mandates. Both above factors pose challenges to central bank independence in a world of rising populism, shifting bureaucratic norms where attacks on an unelected technocratic institution can be easily normalized. The latter can be exacerbated further by the start of policy normalizations. Monetary policy normalisation is inherently at odds with the promise of rapid economic growth of populist governments and the glimpse of the potential attacks on central bank independence we have already seen from several global powers (USA, UK, etc) and large emerging economies (Turkey, Brazil, Poland, Hungary, etc).

12.1. THE POST-CRISIS POLICY EXPERIENCE IN ALBANIA

The Bank of Albania has a legal mandate to achieve and maintain price stability as stipulated in the "Law on the Bank of Albania" of 1997. With this law, the Bank of Albania was given a substantial degree of operational, institutional and financial independence. I am making a reference to the year the "Law on Bank of Albania" was passed, as the substantial improvements in central bank independence are primarily lessons learned from the developments in Albania in 1997. During this year, many small and large pyramidal Ponzi schemes operated in the country, promising unrealistic high returns and attracting a large pool of savings. For as long as the pyramidal schemes could maintain their operations, fuelling private consumption and easing the pressure on the labour market, politics was a staunch supporter of them. Bank of Albania's warnings and advices were ignored, and, paralelly, it was the target of vicious attacks from populist rhetoric and the political discourse. Needless to say that the collapse of the pyramidal schemes wrought havoc in the Albanian economy, society and politics. However, it also provided the impetus to radically change the functioning of the central bank.

Today, the Bank of Albania has defined inflation target as a 3% annual change of consumer price index to be achieved over the medium term. A free floating exchange rate complements the IT framework. At the same time, the Bank of Albania is responsible for achieving and preserving financial stability, the latter a crucial element in safeguarding the efficiency of the transmission mechanism. Monetary policy conduct is forward-looking and pro-active, in that it reacts today to future expected deviations from target. The efficacy in maintaining price stability in the medium term is crucially interconnected with the degree of independence we have and how we translate this into an effective level of accountability and transparency. For us, being accountable and transparent is not only important in maintaining a great level of public support for the policy trajectory we select, consistent with the inflation target, but also in increasing the credibility of our policies and operations. The latter is a key component in guiding medium and long term inflation expectations and anchoring them around the target.

Albania entered a cyclical downturn in the aftermath of the global economic and financial crisis. We experienced a substantial slowdown in the pace of both actual economic growth and its potential, due to decelerating of productivity and falling investment rate. Domestic inflationary pressures receded and coupled with falling import prices, headline inflation fell below target. Similar to what happened in other regional countries and beyond, Albania lacked fiscal space due to pro-cyclical conduct of fiscal policy prior to the crisis and increasing debt levels. The structural weaknesses of the financial market were exposed. Credit risk started to accelerate as a result of rapidly increasing NPLs and the high euroization of bank balance sheets hampered the effectiveness and scope of the transmission mechanism. Additionally, the banking sector started a deleveraging process largely as a result of restrictive policies at the EU core. Due to all these factors combined, credit slowed down markedly compared to pre-crisis levels.

In response, fiscal policy switched to a consolidation stance with the aim of improving resilience through lowering the public debt from over 70% of GDP to more sustainable levels. Additionally, the Government adopted a strategy of extending the average maturity of the public debt in order to minimize potential rollover risks. As such, monetary policy stimulus was the only available tool left to stabilize the economy.

The Bank of Albania initiated an expansionary monetary policy trajectory in order to prop-up domestic demand and strengthen inflationary pressures. We lowered the base policy rate from 6.25% in 2008 to a current historical minimum of 1%. To reinforce the monetary policy stimulus, we started to make extensive use of forward-guidance in order to guide the market and anchor inflation expectations. We communicate the likely future monetary policy path with respect to the inflation target and the economic conditions that would warrant a policy change.

Furthermore, last year, we used exchange rate interventions as an additional unconventional monetary policy tool. The domestic currency initiated a rapid beyond-trend appreciation in early to mid-2018 as a result of some idiosyncratic shocks. These led to one-sided appreciation expectations and to disruptions in the exchange rate market. We estimated that the continuation of the appreciation at similar pace would endanger the achievement of price stability in the medium term and decided to intervene in the market. Again, our intervention was purely linked to monetary policy considerations for as long as calming the forex market and bringing the behaviour of the exchange rate within normal parameters served the purpose of not complicate the conduct of monetary policy.

To complement and support the conduct of monetary policy and strengthen the transmission mechanism, we have implemented a wide range of countercyclical macro-prudential measures and of structural reforms. We introduced a range of macro-prudential measures targeting credit expansion by reducing risk weights for credit portfolio growth above a specific threshold, reducing debt service burdens by encouraging early loan restructurings and discouraging bank funds' outflows. We introduced a comprehensive NPL resolution plan in 2015 to reduce the stock of bad loans and to improve the credit environment in the country through reviewing the Bankruptcy Law, the Law and the functioning of the Bailiff Offices, the fiscal treatment of debt write offs and the design out-of-court debt resolution strategies. As a result, NPLs have decreased from a peak of a quarter of the loan portfolio to about 11% in 2019 and credit extended to the economy is in an upward trend. In early 2018, we initiated a de-euroisation strategy to promote intermediation in domestic currency and make lending in foreign currency more expensive. The latter is expected to have a long-term impact in removing frictions in the transmission mechanism and in increasing the scope of monetary policy.

12.2. CONCLUSIONS

The conduct of monetary policy in Albania after the crisis, both conventional and unconventional, and the range of macro-prudential and other financial stability measures undertaken would have not been possible if the Bank of Albania had not enjoyed full independence in designing its policy tools and implementation framework. Populism has not taken roots into Albanian society and politics and as such, we have experienced no political interference or pressure from interest groups to influence our decision making.

However, this is not to say that we are immune from future attempts to infringe our independence. The instances of attacks on central banks in the developed world, to which small developing countries like Albania look up to, can normalize such behaviour regardless of rule by populists or not. Furthermore, in the process of taking up more responsibility at the Bank of Albania to not only to affect the business cycle but also the financial cycle through macroprudential policy and financial stability measures, our mandate has been expanded and capabilities over-stretched. Lastly, I believe the start of monetary policy normalization after a protracted period of low interest rates will be a delicate moment during which we need to tread with care and caution. Many market actors have internalized the low interest rate environment as a permanent phenomenon and will have difficulty fathoming higher interest rates. As such, the start of policy normalisation has to be communicated transparently, in a timely manner and above all be anticipated ahead of time by market actors, be it public or private. Policy surprises in this juncture would be detrimental and would attract criticism and ire at the central bank, regardless of whether populists have the upper hand in society or not.

In a nutshell, the rising tide of populism in the developed and developing world has given the first glimpse of danger it poses to central bank independence. For central banks, the best guarantee on preserving and safeguarding independence is to ensure targets are fulfilled in the most transparent and accountable manner. Furthermore, while populist rhetoric and policy can exhibit short-term pressure, for as long as central banks stick to their principles and deliver on their mandates, in the long-run, they will be immune to potential external interference.

13. Central Bank Independence and the Fate of Authoritarian Regimes

Cristina Bodea[1], *Ana Carolina Garriga*[2] *and Masaaki Higashijima*[3]

A large number of authoritarian regimes have reformed their central banks, increasing legal independence. Yet, it is unclear whether economic institutions – like independent central banks – can be effective in such regimes. We argue that when central bank independence overlaps with the collective decision-making in dominant-party regimes – one particular type of authoritarian ruling regime – dictators have diminished control over the central bank. Thus the central bank becomes effective enough to restrict expansionary fiscal policy, reducing the mobilization of supporters through patronage and increasing authoritarian breakdown risk. Analyses detailed in Bodea et al. (2019)[4] using data from 1970 to 2012 in 94 authoritarian regimes find that high central bank independence in dominant-party regimes increases the likelihood of authoritarian breakdown. Moreover, independent central banks in dominant-party regimes contribute to lower fiscal expenditures. Our work shows that promoting central bank reforms in authoritarian regimes may lead to the expected economic effects, but the political effect of such institutions can be unexpected.

13.1. Central bank independence in authoritarian regimes

A large literature has looked into why governments might delegate monetary policy to independent central banks and the consequences of delegation (Alesina and Summers 1993; Barro 1986; Barro and Gordon 1983; Bodea and Hicks 2015a, 2015b; Broz 2002; Cukierman 1992; Garriga 2016; Grilli, Masciandaro, and Tabellini 1991; Keefer and Stasavage 2003; Kydland and Prescott 1977; Maxfield 1997; McNamara 2003; Polillo and Guillén 2005; Rogoff 1985). Most research links the effectiveness of central bank independence – regarding price stability, foreign direct investment, fiscal policy, or better conditions in credit

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4 This chapter heavily draws upon our article "Economic Institutions and Autocratic Breakdown: Monetary Constraints and Fiscal Spending in Dominant-Party Regimes" © Journal of Politics (2019) https://www.journals.uchicago.edu/doi/abs/10.1086/701831.

markets – to the presence of democratic institutions (Bernhard 1998; Bodea and Higashijima 2017; Bodea 2013; Broz 2002; Hallerberg 2002; Keefer and Stasavage 2003; Stasavage 2003). These findings might suggest that autocracies have little reason to grant independence to their central banks. And, with some exceptions (Boylan 1998; Garriga and Meseguer 2019; Garriga and Rodriguez 2020; Johnson 2016; Maxfield 1997), the role of central bank independence in autocracies has been underexplored.

It is not rare, however, for authoritarian regimes to reform their central banks, increasing independence. Between 1970 and 2010, there were 130 reforms in authoritarian regimes.[5] Of those reforms, 102 increased and 28 decreased the legal independence of the central bank.[6] Figure 1 (a) shows the yearly average number of central bank reforms in autocracies.[7] The average CBI level in autocracies is 0.45, which is very close to the average of democratic observations in the same period (0.48).

There is an interesting variance across authoritarian regimes. If we follow Geddes et al. (2014) and distinguish dominant-party dictatorships[8] along other types of autocratic regimes like monarchies and personalist,[9] and military regimes, the frequency and direction of reforms differ depending on the type of authoritarian regime (Figure 1 (b)).

Dominant-party regimes and personalist dictatorships reform their central banks more often than other types of authoritarian regimes – more than 4.7% of the observations in these groups register a reform affecting CBI. Regarding the average levels of legal central bank independence, personalist dictatorships have the highest level of independence, followed by similar levels of CBI for monarchies, dominant-party regimes, and military regimes (Table 1).

The distribution of reforms throughout the autocratic rule is relatively uniform (Figure 2 (a)). In particular, the percentage of observations experiencing central bank reforms is not especially high in the years before regime breakdown. In the whole sample, 3.6% of observations experience a reform in any year prior to regime breakdown, and we observe a similar frequency (3.8%) in the five years prior to regime breakdown (Figure 2 (b)). We do not observe an increasing

5 Data on regime types is from Geddes et al. (2014).

6 For example, Chile (1975), Malaysia (1994), Mexico (1993), Mongolia (1991), and Singapore (1999 and 2007) increased their central bank independence under non-democratic rule. In contrast, other autocracies such as Congo (2002), El Salvador (1973 and 1982), Poland (1972), Venezuela (2009), and Zambia (1985) decreased the statutory independence of their central banks.

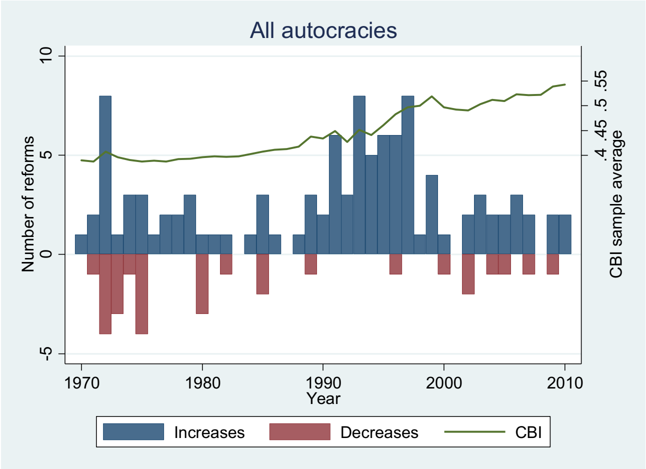
7 Central bank independence is from Garriga (2016) and is coded as the Cukierman et al. (1992) index, ranging from 0 (lowest) to 1 (highest) levels of CBI.

8 Party-based or dominant-party dictatorships are a major type of modern autocracies where “control over policy, leadership selection, and the security apparatus is in the hands of a ruling party” (Geddes et al. 2014, 318).

9 Personalist dictatorships are autocracies where control over policy, leadership selection, and the security apparatus are gripped by an individual leader.

Figure 1: Central bank reforms and average level of bank independence

(a) All autocracies



(b) Different types of autocratic regimes

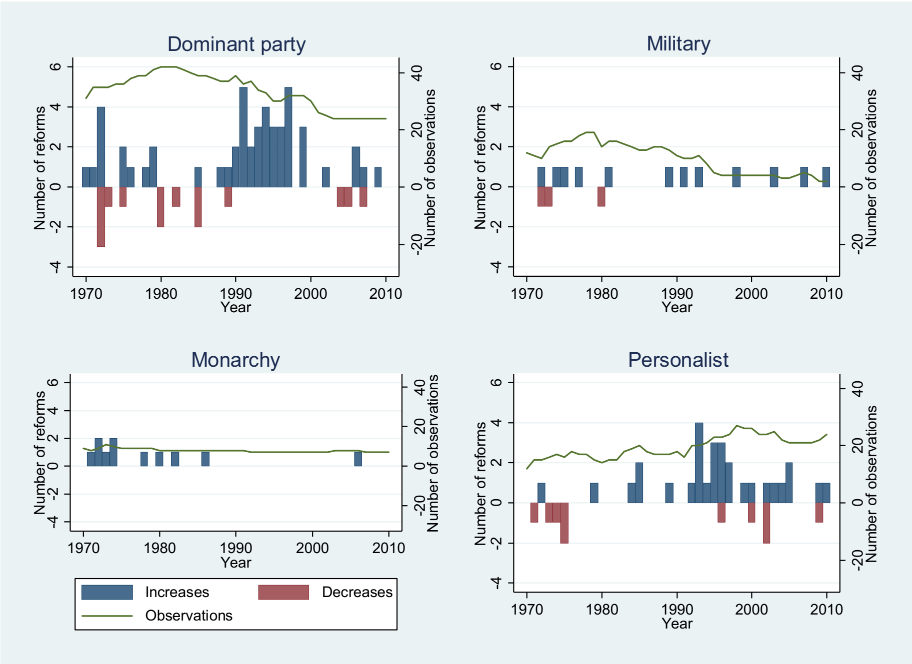


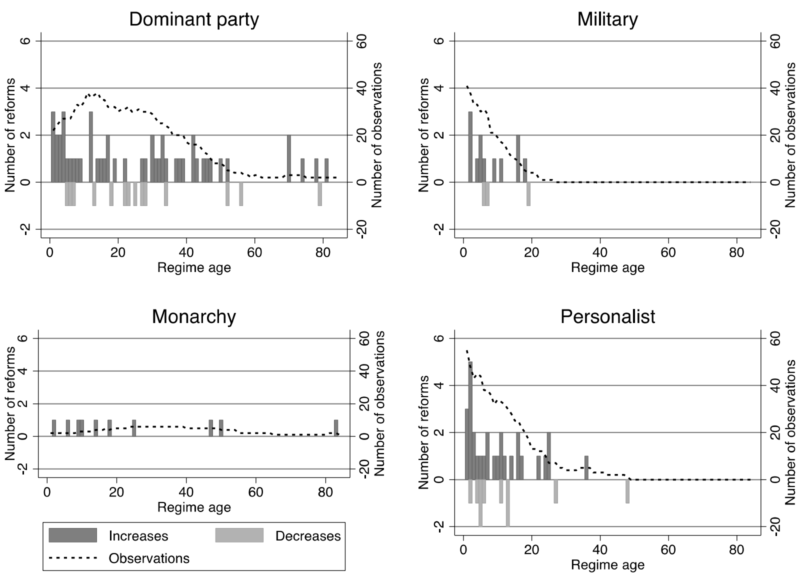
Table 1: Number of CBI reforms of different regime types (Geddes, et al. 2014)

		CBI reforms		CBI level		
Regime	N	Decrease CBI	Increase CBI	Average	Median	Std. dev
Dominant party	1,356	14 (1%)	50 (3.7%)	.412	.436	.178
Military regime	399	4 (1%)	12 (3%)	.401	.368	.178
Monarchy	322	0	11 (3.4%)	.416	.483	.155
Personalist dictator	789	10 (1.3%)	29 (3.7%)	.521	.501	.192
Democracy	2,183	28 (1.2%)	174 (8%)	.521	.480	.225
Full sample	6,753	56 (.8%)	276 (4.1%)	.476	.490	.203

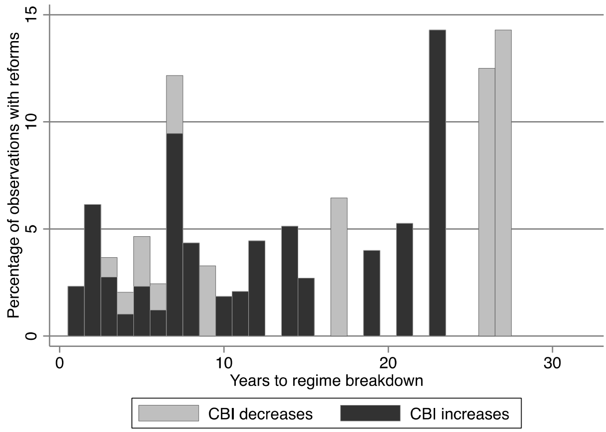
number of reforms immediately prior to regime breakdowns. Of the 130 central bank reforms in autocracies, four occurred the year before the authoritarian breakdown and five happened two years before the regime change (Figure 2(c)).

Figure 2: Central bank reforms and average levels of central bank independence

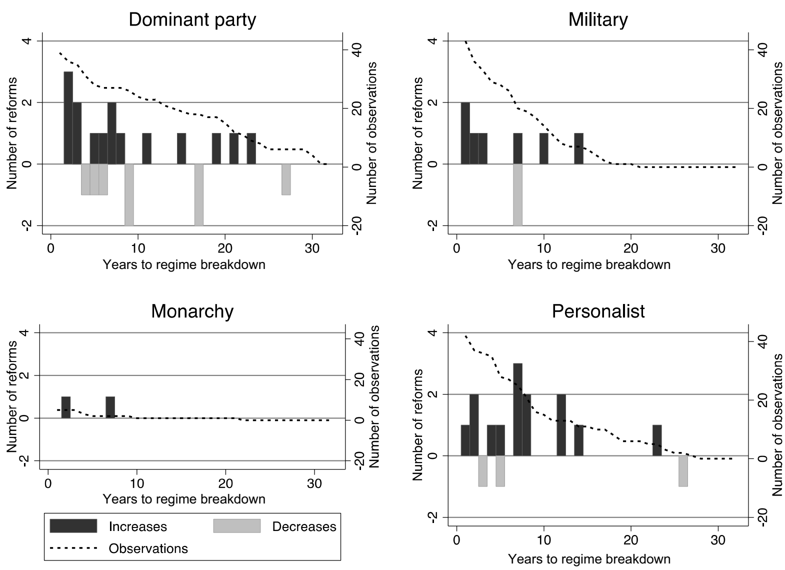
(a) Autocratic regime age



(b) Years before authoritarian breakdown



(c) Time to regime breakdown



13.2. How can CBI constrain dictators

Price stability – the key focus of modern central banks – may be better achieved in democracies because these regimes' greater number of veto players, transparency and rule of law allow central banks to pursue their mandate independent from political interference. Nonetheless, independent central banks also perform other functions, and may have different effects across institutional settings.

To understand the effects of independent central banks in authoritarian regimes, it is necessary to recognize that central banks may be granted independence to pursue other goals, beyond inflation control. For example, authoritarian leaders may use CBI to lock-in liberal policies or tie the hands of future rulers (Boylan 1998). Others argue that the autonomy of central banks results from the accumulation of different rulers' decisions in past critical junctures (Bell and Feng 2014; Taylor 2009).[10] Yet another string of research points to the informational value of removing the central bank from political control (Bernhard 1998; Crowe 2008).[11]

Why would autocracies choose to delegate monetary policy and agree to legislation that nominally gives more autonomy to the central bank? If we assume that the fundamental concern of autocrats is to maintain power, then a nominally independent central bank can play two important roles. Central bank independence can create the appearance of competence on economic issues both domestically and internationally (Bodea and Hicks 2015a; Johnson 2016; Maxfield 1997; Polillo and Guillén 2005), and it can deflect the blame for economic hardship when the economy deteriorates (Kane 1974, 1980).

Our paper (Bodea, Garriga, and Higashijima 2019) shows that even if autocracies grant independence to central banks to signal competence or to defuse blame, this independence may be binding under certain conditions. The argument is that, within the broad category of authoritarian countries, dominant-party authoritarian regimes provide such conditions. Examples of party-based autocracies include those of Mexico's Institutional Revolutionary Party (PRI), Malaysia's United Malays National Organization, China's Communist Party, and Zimbabwe African National Union – Patriotic Front.

In the political science literature, the conventional wisdom is that dominant-party dictatorships are very stable, or, in other words, resilient to regime change (Geddes 1999; Magaloni 2008; Svolik 2012). Two mechanisms seem to explain why dominant-party regimes experience fewer breakdowns. First, because decision-making in these regimes is made by the dictator and other party cadres, the dictator cannot arbitrarily use policy and patronage, independent of ruling elites' preferences (Boix and Svolik 2013; Frantz and Ezrow 2011; Magaloni 2008). This, in turn, reduces the incentives of ruling elites to stage coups d'état.[12]

[10] In line with the literature on "endogenous institutional development" (Capoccia 2016).

[11] Bernhard (1998) argues that the key job of a central bank – monetary policy – is highly technical and can have unexpected consequences and uneven effects. Because of this, and because they lack the expertise, coalition partners and back-bench legislators prefer policy information and a monetary policy that is carried out by an independent central bank.

[12] By institutionalizing party organizations, dictatorships create a functioning collective-decision making body through which governing elites reduce the risk of dictators abusing power or monopolizing policy and leadership selection(Geddes, Wright, and Frantz 2014). For example, Gehlbach and Keefer (2012, 622) argue that "collectively-organized supporters are better able to impose a variety of checks on leaders and to impose sanctions for predatory behavior that would not otherwise be possible." Frantz and Ezrow (2011) find that, in party-based regimes where the elite coalition acts as a collective veto player, policy stability tends to be high. The institutionalization of a dominant party also allows the autocrat to develop patterned career promotions among ruling elites, thereby mitigating ruling elites' political uncertainty (Magaloni 2008).

Second, party-based regimes also have an advantage in incorporating the preferences of the party's rank-and-file using well-organized networks (Greene 2010; Magaloni 2006). Having grassroots support, autocrats use the party to mobilize supporters. The mobilization of mass support under dominant-party regimes relies heavily on the distribution of patronage, with examples stretching from Mexico, to Malaysia and Egypt (Blaydes 2011; Greene 2010; Magaloni and Kricheli 2010; Pepinsky 2007). In many dominant-party regimes, "the party controls land titles, fertilizers, subsidized housing, scholarships, food, construction materials, and many other privileges, which are distributed to the most loyal members of the party" (Magaloni and Kricheli 2010, 128).

Our argument pits the first mechanism against the second, with central bank independence as the intervening variable. The participation of the party cadres in the decision-making process – the "elite-level constraint" in dominant party regimes – can work as veto point constraints, enabling the central bank to become a *de facto* power player in economic policy. In such cases, relatively autonomous central bankers, acting in compliance with the original intent of the reform law, may prevent the dictator from engaging in expansionary fiscal policy. This should undermine the second mechanism argued to prolong the tenure of party-based regimes – patronage distribution – and have important consequences for their survival.

13.3. Dominant party autocracies, CBI and fiscal policy limit

Dictatorships with a dominant party are especially resilient to regime change. Yet, the two main reasons that make them resilient could also increase their vulnerability to fiscal policy constraints. Autocratic veto players can help give *de facto* teeth to legally independent central banks who can then act as a break on patronage spending, a key contributor to the longevity of party-based dictatorships. We explain the mechanism in more detail.

First, in dominant-party regimes, other high-ranking party members need to agree with the dictator to make decisions. As such, genuine differences can emerge among ruling elites with regards to fiscal policy choices, with some viewing spending limits as key to attracting investors (Ahlquist 2006) and thus insuring long-term autocratic stability. Compared to personalist and military dictatorships, Ezrow and Frantz (2011) suggest that ruling elites' preferences in dominant-party regimes are the most heterogeneous.[13] This elite-level constraint can protect the central bank's preference for controlled spending.

[13] Examples include Taiwan's Kuomingtang, Mexico's PRI, and Botswana's Democratic Party.

In addition to acting as a political constraint, the dominant party may also help disseminate information on the dictator's behavior to party cadres, including information produced by the central bank about the state of the economy and future prospects. This, in turn, allows the ruling elites the possibility of collective action when dictators misbehave (Gehlbach and Keefer 2011, 2012). Due to the availability of information in dominant-party regimes, autocrats may find it more difficult to transgress the stipulated autonomy of central bankers.

These elite-level constraints pale in comparison with the ones in democracies. Yet, it is plausible that in dominant-party regimes, the dictator – who prefers to spend resources on a broad array of party supporters – may not be able to go fully against central bankers' preferences and the preferences of other elites for sustainable fiscal policy. Consequently, central bank independence can reduce dictator's reliance on expansionary fiscal policy.

Second, dominant-party regimes rely heavily on patronage to mobilize supporters. Therefore, if central banks restrain fiscal spending in autocracies, this is most likely to influence party-based regimes. Under party-based regimes, the autocrat is able to garner a large number of votes using extensive party networks. However, this is possible as long as the autocrat can buy loyalty via various ways of patronage distribution. For instance, Greene (2010) argues that dominant-party regimes' success in winning consecutive elections and surviving, depends primarily on their ability to politicize public resources for partisan purposes. The opposite should be holding then, as well: Dominant-party rule is weakened if the dictator's access to public resources is limited. This need to engage in extensive spending should make dominant-party regimes especially vulnerable to fiscal constraints. With limits on resources, dominant-party dictators may find it difficult to mobilize supporters and stay in power, paving a way for authoritarian breakdown.

We argue that central bank independence influences autocratic breakdown in autocratic regimes with both elite-level constraints and dependence on patronage distribution (i.e., dominant-party regimes). It is important thus to note that, although royal families in monarchies (Herb 1999) and military juntas in some military regimes (Barros 2001) may work as elite-level constraints, those regimes' survival does not hinge on support based on the distribution of local public goods or patronage. Therefore, the fiscal limits that the combination of CBI and elite constraints generate need not affect the survival of monarchic and military regimes. Similarly, personalist regimes rely heavily on patronage to sustain political support, but personal dictators are not constrained by other ruling elites. In such situations, legal CBI need not be binding, and thus should not influence the likelihood of regime breakdown.

The implication from our discussion is that an independent central bank influences the ruler's ability to retain power in dominant-party regimes. The empirical estimations in Bodea, Garriga, and Higashijima (2019) test the following main hypothesis: *Central bank independence increases the likelihood of regime collapse in dominant-party regimes*.

13.4. Empirical findings

For the empirical estimations, a dichotomous dependent variable captures regime breakdown following Geddes et al.'s (2014). This variable is coded one when the autocratic regime has collapsed, that is, when there are "fundamental changes in the formal and informal rules that identify the group from which leaders can be chosen and determine who can influence policy (the leadership group)" (Wright, Frantz, and Geddes 2015, 288).

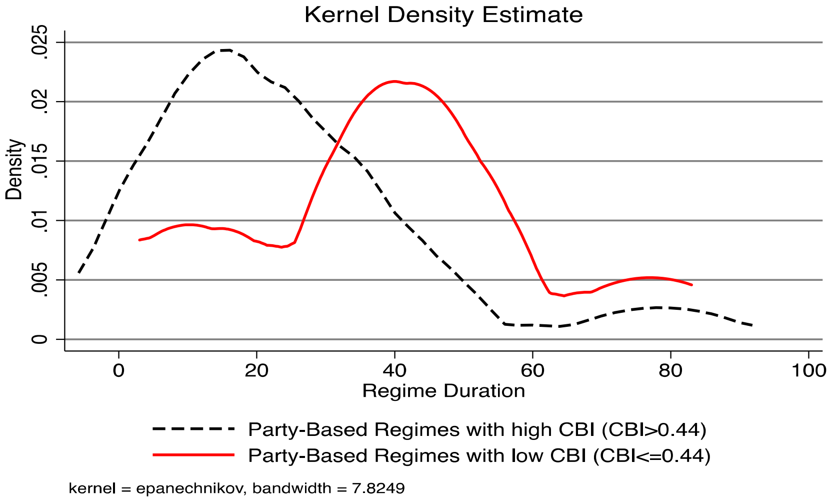
The models include two main independent variables. The first one identifies whether a dominant-party regime is in power, as opposed to other types of autocratic rule – military, personalist, and monarchic regimes. The categorization depends on "whether control over policy, leadership selection, and the security apparatus is in the hands of a ruling party (party-based dictatorships), a royal family (monarchies), the military (rule by the military institution), or a narrower group centered around an individual dictator (personalist dictatorship)"(Geddes, Wright, and Frantz 2014, 318). The regime type variables are dichotomous – if a country is a party-based regime, then it is coded as 1 and zero otherwise.

A second independent variable codes central bank independence. We use Garriga's (2016) dataset of legal CBI, which covers democracies and autocracies from 1970-2012. CBI is measured as an index that codes countries' laws governing the central bank, based on the well-known Cukierman et al. (1992) measure.

Figure 3 shows kernel density plots for the duration of party-based regimes at different levels of CBI. Dominant-party regimes with low CBI survive longer than those with high independence. Consistent with our story, the mean survival for party-based regimes with low CBI is 38 years, whereas dominant-party regimes with high CBI average 24 years.

To test more formally our hypothesis, we interact the party-based regime dummy with the CBI index. We expect a negative coefficient for the party-based regime, as the literature finds, but a positive coefficient for the interaction term with CBI, showing that party-based regimes turn more unstable at higher levels of CBI. Based on the literature, the models include additional control variables: logged GDP per capita, GDP growth, trade openness (imports plus exports relative to GDP), logged population (all from World Development Indicators, WDI), oil-gas

Figure 3: Dominant-Party Regime Duration with low/high CBI



Note: The average CBI index in autocracies is 0.44. Low CBI<=0.44; High CBI>0.44.

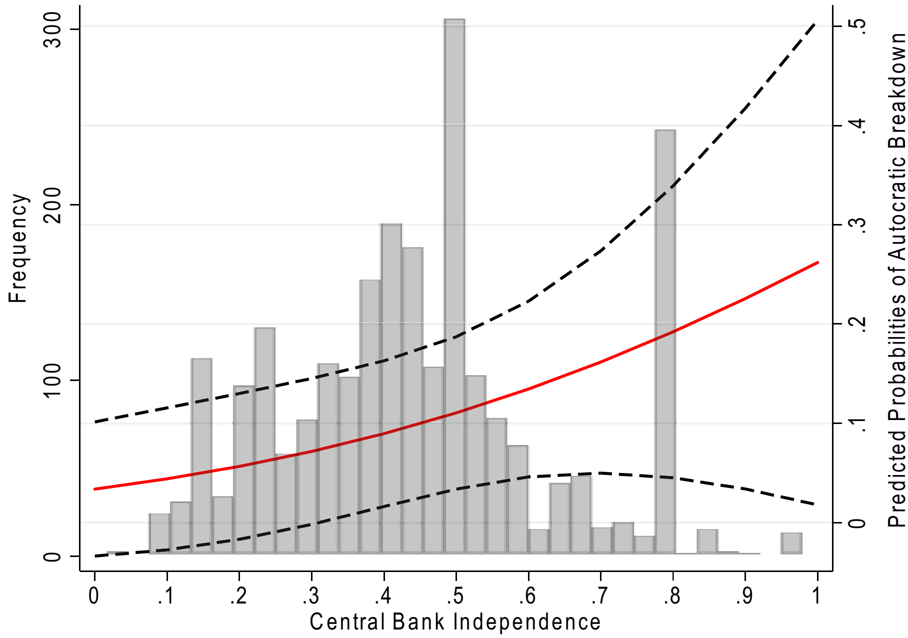
value per capita (Ross 2012), and the average level of democracy for a country's neighbors. Our empirical models are pooled probit models,[14] and our sample includes all autocratic regimes (countries that are autocratic at time t-1) to examine if they experience regime changes in year t.

In all the models, the interaction term is positive and statistically significant. Figure 4 shows a graphical representation of those results. The figure shows predicted probabilities (from Model 3, Table 1 in Bodea, Garriga & Higashijima 2019) of regime breakdown at different levels of CBI for dominant-party regimes. When CBI is low (0.1), the predicted probability of party-based regime breakdown is approximately 5% and statistically insignificant. When CBI is high (0.8), the predicted probability increases to 18% and is statistically significant at the 5% level.

Not every autocratic breakdown leads to democracy. Between 1970 and 2010, only 52% of regime breakdowns resulted in democratic transitions. Our paper examines whether our theory holds for both transitions to democracy, and regime breakdowns that lead to other forms of authoritarian rule. The pattern we find is similar for both kinds of transitions: At higher levels of CBI, dominant-party regimes have a higher predicted probability of experiencing democratic and autocratic transitions. These results suggest that central bank reforms under

[14] The main models use year and regional dummies to control for time and region-specific unobservable confounding factors, as well as cubic splines and country clustered robust standard errors. In the paper we discuss estimation strategies aimed at dealing with unobserved heterogeneity and endogeneity.

Figure 4: Predicted probabilities of breakdown for dominant-party regimes



Note: The full line indicates predicted probabilities of autocratic breakdown in dominant party regimes. (The dotted lines indicate 95% confidence intervals (based on Model 3 of Table I in Bodea, Garriga & Higashijima 2019).)

party-based regimes do not always lead to democratic reforms. The presence of independent central banks, thus, is not able to predict the likely outcome of a regime breakdown.

Our argument suggests that central bank independence in party-based autocracies encourages autocratic breakdown because independent central bankers place limits on dictators' patronage spending. Our paper tests whether CBI is negatively associated with fiscal spending in dominant-party regimes. The dependent variable is the annual fiscal expenditure as a share of the GDP. We show that when CBI is low, party-based regimes tend to spend more, which is consistent with the conventional wisdom that dominant-party regimes rely on patronage distribution to maintain power. This includes a handful of party-based regimes famous for spending and extensive patronage distribution via party networks like Mugabe's Zimbabwe, China, KMT's Taiwan, Suharto's Indonesia, Singapore, and Vietnam. Yet, as the central bank becomes more independent, party-based regimes refrain from spending.

13.5. Illustrations: Egypt and Mexico

Two examples support the plausibility of our argument. First, if legal delegation was toothless, autocrats should not have reasons to adjust the law governing the relationship between the central bank and the government. Yet, in Egypt where the National Democracy Party helped the regime maintain ruling elite cohesion (Brownlee 2009) and put together dense networks of patronage among the elites (Blaydes 2011), two reforms significantly restrained the independence of the powerful central bank. These reforms returned tools to control the macroeconomy to the government: The 1975 reform was explicitly generous in expanding the limits of central bank lending to the government, and it also eliminated the prohibition for the central bank's governor to hold other public offices. Similarly, in 2004, following an open disagreement between the Egyptian central bank and the ministry of finance, additional reforms subordinated the goal of price stability to the general economic policy of the state, shortened the tenure of the central bank's governor and, also, enacted even vaguer limits to the government's ability to use the central bank's credit. As a result, fiscal and monetary policy authority became "highly centralized in the executive branch with the president and his cabal of experts essentially free to act without restriction" (Blaydes 2011, 79). In fact, with a less autonomous central bank, the Egyptian government resorted to a variety of patronage distribution using the party's extensive networks, such as pension raises, bonuses payment for government employees, and vote-buying.

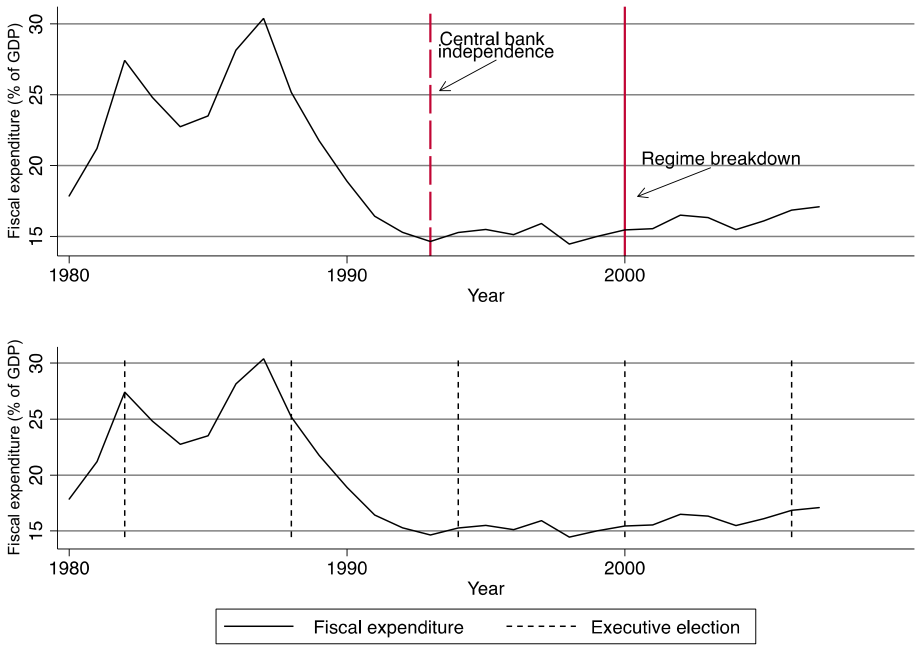
Mexico illustrates the opposite situation, where an independent central bank appears to *de facto* influence government's fiscal policy. Mexico under the long rule of the PRI is an archetypical case of dominant party regime. For decades, the party controlled the country thanks to a tight network of allegiances in exchange for patronage (Magaloni and Kricheli 2010). In 1993, Mexico granted independence to its central bank. The official reason to promote the reform was the need to control inflation. However, by the time of the central bank reform, inflation was the lowest in twenty years. Moreover, all surrounding policy debates point out that, in fact, the main concern was to signal competence to international audiences: During the debates in the Mexican Chamber of Deputies, federal deputies mentioned on record that central bank independence was devised as means to attract foreign capital especially in case that the uncertain NAFTA negotiations failed. This is consistent with the view of Mexican analysts of the reasons for the reform (Meyer-Serra 1995, 105), and with scholars showing that this mechanism works for other developing countries (Bodea and Hicks 2015, Maxfield 1997). The political elites were convinced that central bank independence was a condition to transmit confidence to investors. Except for some members of the opposition Party of the Democratic Revolution (PRD), there were no voices pointing at eventual additional or undesirable constraints to policy that central bank independence could arise.

Importantly, grating independence to the central bank was not a concession to the opposition. In fact, the opposition PRD, born out of a split of the PRI was against central bank independence. The PRD opposed the bill, arguing for the convenience of subordinating monetary policy to developmental needs. The other main opposition party, the National Action Party (PAN) supported the bill, but on the grounds of the need of attracting foreign investment (Cámara de Diputados del Congreso de los Estados Unidos Mexicanos 1993). However, the PAN was not in a position to extract concessions from the PRI at the time. Furthermore, the reform to the central bank is considered the only exception in a context of lack of institutional constraints to the governing elite (Meyer-Serra 1995, 106).

The reform happened during the tenure of Miguel Mancera as Governor of the Central Bank (1994-1997). The first Governor appointed under the new law was Guillermo Ortiz Martinez (1998-2003). Scholars stress that this appointment was not a mere bureaucratic decision: "For the first time in the 78 years of existence of the central bank, the appointment of its highest authority was subject of open discussion among the powers of the Federation, including different voices and lobby from the civil society" (Chávez G. 2004, 7). Since 1996, the Mexican central bank started making an active use of an instrument called "corto" ("short"), that restricts liquidity in the system to eliminate inflationary pressures. The central bank started relying on the corto every time that spending started growing rapidly, risking the achievement of the inflation target (Garriga and del Tedesco Lins 2014). This imposed additional hurdles on the government to finance its spending. Furthermore, in 1997 the central bank started publishing its forecasts, which put in the spotlight any excess in spending that might increase inflationary pressures. Mexican scholars indicate that the "style of monetary policy" implemented by the central bank limited the fiscal deficit (Díaz González 2010, 39).

Figure 5 shows the fiscal expenditure in Mexico. In line with our expectation, fiscal spending is consistently low after the 1993 central bank reform and the size of the electoral spending cycle is also reduced. The top panel in Figure 1 indicates the years of the central bank reform (1993), and of the regime breakdown (2000). Fiscal expenditure is low since 1992, a year before the central bank reform. However, the average level of fiscal expenditure is lower. For example, in the five years before the central bank reform, the fiscal spending was 19.5% of the Mexican GDP, on average, with a standard deviation of 4 percentage points. In the 5 years after the central bank was granted with independence, spending averages 15.2% of the GDP, with a standard deviation of 0.5 percentage points. Furthermore, fiscal expenditure not only remains low after the 1993 central bank reform, but it also shows less volatility around elections. The lower panel in Figure 1 includes dotted vertical lines that indicate election years (1988, 1994, and 2000, the year of the regime breakdown). Before 1993, generally speaking, in election years, spending increases compared to precedent years. After the reform granting independence to the central bank, spending was kept relatively low, and there is little variance around the presidential elections in 1994 and 2000.

Figure 5: Fiscal expenditure, central bank reform, elections, and regime breakdown in Mexico



Note: The data ends in 2008, because of the onset of the economic and financial crisis, which influenced global fiscal policy responses and changed the scale of fiscal spending and deficits.

13.6. Conclusion

Our research suggests a dilemma autocrats face when institutionalizing central banks: Although CBI could allow autocrats to deflect blame for economic hardship and signal competence on economic issues, it also diminishes the dictators' ability to spend, which increases the likelihood of regime breakdown in party-based regimes.

By showing that *de jure* – legal – central bank independence is associated with a higher likelihood of breakdown in the most resilient type of autocracy (Geddes 1999; Magaloni 2008; Svolik 2012),[15] our article also prompt us to rethink the

[15] Our paper shows that this result is not driven by a selection mechanism that would explain both central bank reforms and autocratic breakdown.

extent of the effects of formal economic institutions in authoritarian regimes. These findings are in line with more research showing that institutional reforms, and specially central bank independence, have (Bjørnskov and Rode 2019; Garriga and Meseguer 2019; Garriga and Rodriguez 2020; Jensen, Malesky, and Weymouth 2014; Pepinsky 2014). These findings not only challenge the comparative political economy literature that has shown thus far that only in democracies can central banks be effective, autonomous actors, but they also have important policy implications. Promoting reforms, especially monetary reforms, in autocracies may lead to the expected economic effects, but the political effect of such institutions can be unexpected and are yet to be fully understood.

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14. Central bank independence and inflation

Ryszard Kokoszczyński[1] *and Joanna Mackiewicz-Łyziak*

Central bank independence (CBI) and its link to inflation have become a part of conventional wisdom. However, the literature shows that there is a lack of a stable general pattern for the relation between CBI and inflation, even for relatively homogenous groups of countries. We use two indices for CBI: one proposed by Grilli, Masciandaro and Tabellini (1991) and another one by Cukierman, Webb and Neyapti (1992) to analyse the CBI-inflation relationship in the groups of advanced and non-advanced economies. In addition, we use disaggregated indices to check what aspects of independence are of highest importance. Our results suggest that CBI has negative significant impact on inflation mostly by results for non-advanced economies and that this relationship did not change during the recent crisis.[2]

14.1. Introduction

Central bank independence (henceforth CBI) and its link to inflation have become a part of conventional wisdom in economics. It is most often explained by the time inconsistency of optimal policy and inflationary bias of the government when the latter is responsible for both the real economic activity and nominal stabilization as described by Kydland and Prescott (1977) and Barro and Gordon (1983). Government is tempted to create unexpected inflation to modify the ex post real value of nominal contracts (including wages); that in turn stimulate employment and output. Of course, rational agents are aware of this temptation so they adjust their inflation expectations to the equilibrium point where there is no unexpected inflation but inflation is higher than the optimal level. Central bank independence as a tool for reducing this inflationary bias may mean – as in Rogoff's (1985) interpretation – a central bank with a different preferences for stable prices than society or – as in most practical applications – a central bank with a strict priority for the price stability and no direct responsibility for employ-

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ment, output etc. Goodhart (2003) and Gnan and Masciandaro (2016) present the same story in a more narrative manner to make it understandable for the general public. This theoretical explanation and solutions for the inflation-bias problem have been extensively and critically discussed (cf. Piga (2000) and references therein), but this rationale for CBI is still present in the literature. It follows directly that we should observe a direct relationship between inflation and CBI.

Another strand of literature concerns major central banks engaging themselves into so-called unconventional monetary policy during the great financial crisis. As some of those activities seem to go beyond the specific mandate that justifies theoretically central bank independence itself, as a natural outcome questions arise about the limits of that independence: should it cover only the narrowly defined monetary policy or should it also include other central bank activities going beyond that, including macroprudential policy (cf. Blinder et al. (2017), de Haan and Eijffinger (2016, 2017), Issing (2016); Mersch (2017)). Most discussants give a clear answer that the concept of central bank independence applies only to the central bank as a monetary policy institution. However, those extensions of central bank functions that are mentioned earlier have been accompanied by changes in central bank laws and regulations (cf. Khan (2017)). Thus, it is a valid question to check whether different measures of central bank independence have showed some changes for the crisis and after-crisis period, and whether the link between central bank independence and inflation has changed its nature after the crisis. For example, for the turnover rate, Artha and de Haan (2015) find that financial crises increase the probability of a central bank governor turnover.

14.2. IS THERE A LINK BETWEEN CBI AND INFLATION?

Validity of the link between central bank independence and inflation can be empirically tested only when central bank independence is quantified. The most popular approach to measuring CBI is to create an index based on expert assessment of various dimensions of CBI: legal, economic, financial etc. The index designed by Grilli, Masciandaro and Tabellini (1991) and another index constructed by Cukierman, Webb and Neyapti (1992) are most widely used in the literature. The former includes 15 components that are divided into two groups measuring respectively economic and political independence; the latter includes 16 components and they form four groups measuring the governor's political independence, monetary policy process (its design and resolution of potential conflicts), objectives of the central bank, and limits for central bank's lending to the government.

Recent surveys of empirical work directed into finding a meaningful relation between central bank independence – measured with those indices – and inflation can be found i.a. in Balls et al. (2016), Bodea and Hicks (2015) and Iwasaki and Uegaki (2017). All those surveys and some earlier critical papers show that – setting aside measurement issues *per se*[3] – it is difficult to obtain a negative and statistically significant effect on inflation of central bank independence across all groups of countries and time periods.

Alesina and Summers (1993) showed a near perfect negative correlation between inflation and central bank independence for advanced economies for the period between 1955 and 1988; similar results can be found in Carlstrom and Fuerst (2009) for pre-2000 years, in Balls et al. (2016) for the 1970s and 1980s etc. Klomp and de Haan (2010) in their meta-analysis covering 59 studies found a similar relation for OECD countries. In contrast, Bodea and Hicks (2015) report that central bank independence is insignificant as a factor explaining growth of M2 for OECD countries, but negative and significant for non-OECD countries; similar results were obtained by Alpanda and Honig (2010).

There are also examples of similar inconsistencies even for studies limiting their coverage to much smaller groups of countries. Iwasaki and Uegaki (2017) and Petrevski et al. (2012) are interested only in the transition economies. The former paper's conclusion is that there exists a close relationship between central bank independence and inflation, but in the latter central bank independence is statistically insignificant. A review of empirical studies shows that it is still difficult to obtain a negative and statistically significant effect on inflation of central bank independence across all groups of countries and time periods. This lack of a stable general pattern for the relation between central bank independence and inflation, even for relatively homogenous groups of countries, gives motivation for further studies on this topic.

14.3. Measures of CBI for advanced and non-advanced economies

For more in depth analysis of the impact of CBI on inflation larger sets of data were needed covering more countries and longer time span. The appearance of such larger sets of panel data allowed for studies of the effects of changes in CBI and its components over longer periods of time and their possible impact on the CBI-inflation link (e.g. Arnone and Romelli (2013), Dincer and Eichengreen (2014)). Empirical researchers used a dynamic panel approach with model specification allowing explicitly for possible differences between countries with stronger and weaker institutions supporting rule of law to a different extent and for the important role of other economic and political variables (cf. e. g. Polillo

[3] Forder (1999) and Cargill (2016) present some critical remarks regarding the possibility of measuring CBI.

and Guillen (2005), Bodea and Higashijima (2017), Papadamou et al. (2017)). In our empirical study we use two indices for central bank independence: the Cukierman, Webb and Neyapti (CWN) index, from the database provided by Garriga (2016), and the Grilli, Masciadaro and Tabellini (GMT) index, calculated for a longer sample by Masciandaro and Romelli (2015).[4] The common sample of these two independence measures covers the period from 1992 to 2012 for 52 countries. After excluding one country for missing data other than CBI index, our panel includes 51 countries, of which we classify 24 as advanced economies, and 27 as non-advanced (emerging and developing) economies.[5]

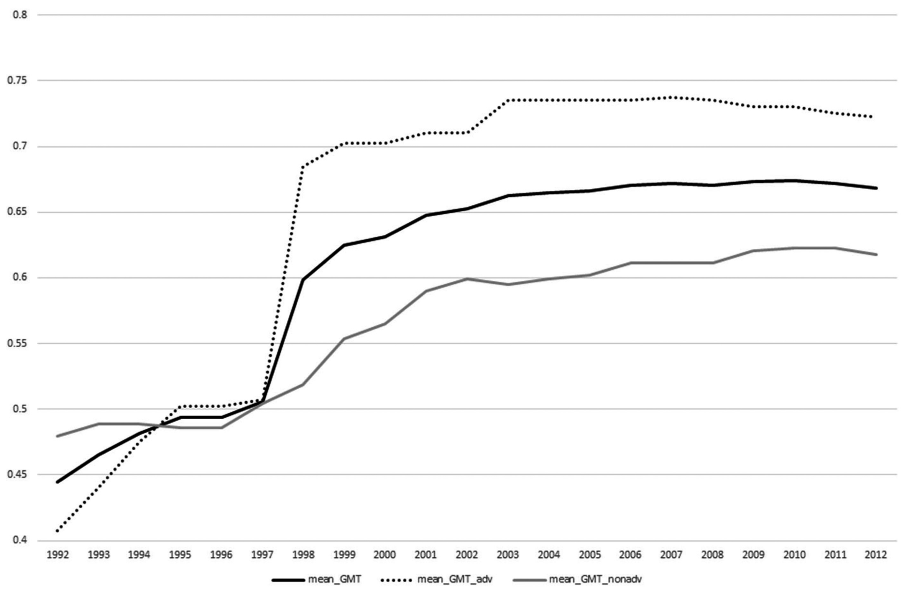
Figures 1. and 2. show the mean values of GMT and CWN indices for the whole sample of countries as well as for the group of advanced and non-advanced economies over the entire period. The data suggest that the legal CBI started declining slightly after the beginning of the global financial crisis. However, the timing of the decline was different in both groups of countries. In the advanced countries CBI was increasing continuously until 2007 (according to GMT) or 2008 (according to CWN) and decreased afterwards. In the non-advanced economies the decline occurred later (after 2011), although it is difficult to state definitely if the trend continued. Nevertheless, it seems that the crisis stopped the trend towards greater CBI around the world.

Both indices consist of several sub-indices. The CWN index consists of four parts describing: the term of office, appointing and dismissing conditions of the chief executive officer, limitations on lending to the government, objectives of the central bank – what is the status of price stability objective in the central bank's mandate, and policy formulation conditions – the extent to which central bank has the authority to formulate monetary policy and the power to resist the government. The GMT index consists of political and economic indices. Political independence refers to the capacity of monetary policymakers to choose the final goals and is described by three components: the procedure for appointing the central bank's board members, the relationship between the central bank's governing body and the government and the formal responsibilities of the central bank. Economic independence refers to the ability of the central bank to choose the instruments of monetary policy and consists of two aspects: limitations on lending to the government and the types of instruments under the control of the central bank (Grilli et al., 1991). Although many studies indicate high correlation

4 We are very grateful to Donato Masciandaro and David Romelli for making their data on CBI indexes available to us.

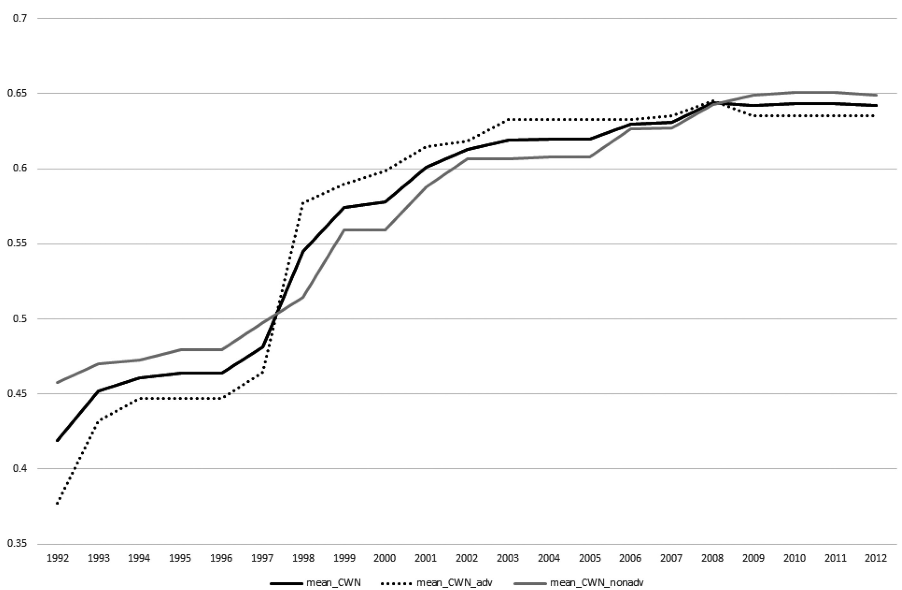
5 Our sample of advanced economies includes: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Singapore, South Korea, Spain, Sweden, Switzerland, United Kingdom and United States. Non-advanced countries include: Albania, Argentina, Brazil, Bulgaria, Chile, Croatia, Czech Republic, Hungary, India, Indonesia, Iran, Kuwait, Latvia, Malaysia, Mexico, Morocco, Romania, Russia, Saudi Arabia, Slovakia, Slovenia, Thailand, Trinidad and Tobago, Turkey, Ukraine, United Arab Emirates and Venezuela.

Figure 1. GMT index



Source: own preparation.

Figure 2. CWN index



Source: own preparation.

between these two CBI measures, in our study this correlation equals 0.67, which suggests some differences between them. Moreover, they capture to a different extent changes in the legal framework of central banks introduced after the outburst of the global financial crisis. Hence, for the period 2008-2012 the correlation between the indices decreases and equals 0.59. Even more significant differences may be observed for the respective sub-indices. Balls et al. (2016) claim that differences between these two CBI measures have been increasing over time and they discuss some examples of these discrepancies for several countries. These differences suggest the use of both measures in empirical studies to verify the robustness of the results to the choice of the CBI quantification method.

14.4. Empirical results on the CBI-inflation relationship

An empirical study should also take into account potential differences in the impact of CBI on inflation developments between advanced and less advanced economies. This problem has been recognized in the literature and larger panel data, such as described above, allow for such analysis. In our empirical study we additionally took into account that different aspects of CBI may have different effect on inflation depending on the development level of economies. We were able to conduct such analysis as we had at our disposal disaggregated data on the CBI indices (sub-indices constituting the CWN and GMT measures). Our results show that CBI has negative significant impact on inflation only in the group of non-advanced economies. In the advanced economies CBI seems to play no significant role in disinflation process. Our findings suggest moreover that the relationship between inflation and CBI did not change during the crisis. As far as respective aspects of CBI are concerned, it seems that virtually none of the sub-indices is significant for inflation in advanced countries, while most of them has significant impact on inflation in the non-advanced ones. In this respect our conclusions differ from those obtained by Balls et al. (2016), who found that operational (economic) independence had significant negative impact on inflation in advanced economies in the 1970s and 1980s (but no effect later), while in the emerging and developing economies neither political nor operational independence were significant for inflation developments. It is interesting to note that the most important aspects of independence for lowering inflation and minimizing the inflation gap in the emerging and developing countries are economic/policy independence and restrictions on lending to the government. This is consistent with the basic economic intuition behind the central bank independence relation to inflation, i.e. the negative outcomes of debt monetization and the importance of autonomy of the central bank in setting the policy instrument.

Our findings show that it is not only CBI that may have different impact on inflation depending on the type of the economy. In our study we used a set of controls to include other potential determinants of inflation process. The institutional arrangements such as level of democracy or the exchange rate regime seem to play much more significant role in the group of non-advanced countries than in the advanced ones. The results provide, therefore, strong evidence for the differences in the determinants of inflation between different types of economies.

14.5. CONCLUSIONS

Our conclusions can be viewed as an argument in the renewed debate about the importance of the institution of central bank independence. After significant trend towards higher independence and encouraging results of studies evaluating the impact of CBI on inflation performance in advanced economies, the environment of low and stable inflation rates in the later period (or even "too low for too long" inflation rates in some economies) raised questions about necessity of this institution. Even more controversies emerged after engagement of many major central banks in quasi-fiscal activities. The results of our study confirm the importance of legal CBI for emerging and developing economies. It seems that CBI has negative significant impact on inflation and inflation gap in the group of non-advanced economies while no significant effect in the advanced ones. Although much attention is given in the recent literature to the changes in the role of central bank independence after the beginning of the recent crisis, we did not find evidence for changes in the impact of CBI on inflation after the crisis.

Our findings provide clear policy implications. It seems that in advanced economies with high overall quality of institutions CBI adds little to the control of inflation. The opposite is true in the case of less advanced countries. In the face of weaker other institutions establishing of an independent central bank strongly supports disinflation process in these countries.

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