

The Monetary Policy Preferences of Left- and Right-Wing Populism

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Abstract: The paper uses a Taylor-rule model for central banks to examine the economic outcome of modern populism. Annual data of major OECD countries from 2001 to 2019 is applied to examine the overall level of populism in the regime, the left/right divide of the regime and the populist political force, the independence of the central bank from the political regime to model the target interest rate. The results verify the impact of populism on monetary policy and the invalidity of the traditional partisan approach, and distinguish the different effect of left- and right-wing populism. A populist regime favors low interest rate than a non-populist regime, and a leftist populist regime prefers expansionary monetary policies than rightist populist regime. Such a divide in monetary policy preference can be used as a classification criterion for classification of populist political forces, with The Five Star Movement in Italy as an example.

Keywords: Populism, Monetary Policy, Partisan Politics, Panel Data Regression

1. Background

That we are now living in an age of populism has been circulating since many of the major countries of the world have witnessed the rise of populism—left-winged or right-winged – rise in political popularity. The Latin America countries have been long dominated by populist political figures like Hugo Chavez of Venezuela and Rafael Correa of Ecuador, whose ideologies are often referred to as "socialist populism". Europe in the last 20 years has seen the rise of populism not only in Eastern Bloc but also in western Europe countries, represented by Front National in France and FPO in Austria. Populism in Asia is slightly different, with Modi of India and Duterte of Philippines as typical examples.

It is a well-celebrated quote that, "Political parties that win elections are often said to favor those economic policies which reflect the economic interests of their core constituencies" [1]. As populist parties entering the stage of domestic politics, the political and economic situations of the region will be affected or even reshaped; and as countries becoming dominated by populist parties, such countries will influence the process of international politics and economics. Scholars have been long studying the impact of populist parties on domestic and regional economics, especially in OECD countries. However, there's a substantial difficulty that the populist parties and regions are not all the same. Kaltwasser pointed out that, when studying the economic outcome of populism, we must first distinguish between different types of populism, and treat different types of populism sep-

arately [2]. There is a perspective from traditional partisan politics that populism can be classified into left-wing and right-wing, but with obvious ambiguity.

2. Literature Review

The deviation in populism has been long investigated in terms of political philosophy. A basic classification is by the politic spectrum from left-wing to right-wing. Since populism is defined as an ideology that emphasizes the distinction between "the people" and some others and claims to fight the latter for the greater good of "the people", Gandesha and Samir located the crucial difference between left-wing and right-wing populism in the enemy the claim to fight. Left-wing populism claim to fight against the corrupted elite, while the right-wing populism claim to fight various exogenous enemies from immigrants to the unifying force of the European Commissionaire [3]. A notable thing is that we may regard anti-EU ideologies as right-winged, which is different from the traditional view that anti-/pro- regional unification is an independent axis with left-/right-winged. Fraccaroli stated that the issue that shaped the tone of legislators in ECB has turned from the traditional left-right divide to the pro-/anti-EU divide [4], and we will regard the latter as a specific case of the former.

However, the definition of economically left-wing and right-wing populism has been a difficult question. The formal economical definition of populism is dated back to Rudiger and Edwards, where the term "economic popularism" is defined 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 nonmarket policies" [5]. Ambiguous as the statement sounds, it's yet widely agreed that economic populism rises in economic recessions due to dissatisfaction to existing economic system and seeks a redistribution of social welfare using all economic tools that they can exploit. The outcome of economic popularism can thus be complicated due to the tremendous variety of economical (and sometimes political, for instance appoint or dismissal of an official) instruments they can use and purposes those economical instruments serve. Nevertheless, there is still theoretically some subtle difference in the outcomes of different type of populism. Ozkan stated that, left-wing governments tend to generate more taxes and public expenditure for short-run welfare, resulting in less output and a higher inflation [6]. On the contrary, conservative central banks tend to prefer a low inflation, according to Clark and Arel-Bundock and supported by their empirical research on Taylor rule [7]. Smarzynska Javorcik, Beata and Doerr, Luisa and Potrafke stated that expansionary monetary policies are more often to be seen under left-wing governments than under right-wing ones [8]. The reactions to fluctuations are also different, according to Woodford [9], and part of the theory for conservative ideologies is supported by empirical analyses like what Berger and Woitek did on Bundesbank [10]. Fraccaroli found that pro-/anti- EU divide have effects on MEP's stances to the ECB, which can influence the domestic monetary policies in EU countries [4].

In empirical case studies, as the central bank getting more independent from the government, the ideology issues are becoming less crucial. Belke and Potrafke analyzed the OECD countries and concluded that traditional partisan effects are no longer valid. Government ideology doesn't impact short-run interest rates at an average level of central bank independence. However, they still admitted that, for less independent central banks, left-wing ideology will lower the short-term nominal interest rate [11]. de Haan stated that government ideologies almost have no direct influence on central banks. The modern central banks are controlled by the feedback of monetary policies [12].

In conclusion, problems in studying the economic outcome of populist parties and regimes are mostly caused by the complexity of the reality. Under such ambiguity of course both in populism and its left/right divide, there's even no consensus whether populism will have a specific economic outcome. However, it can be concluded that the influence factors of the economic effect of popu-

lism. The various kinds of populist parties, the way of engagement of the populist parties, the independence of the central bank and feedback from the economy itself are all possible factors on the eventual choice of monetary policy.

3. Establishment of the Model

Upon consideration of the factor mentioned above, the independent variables of the linear regression model can be restricted to extend of populism overall and within-populism ideological divide and central bank independence.

We assume the central bank is always backward-looking, i.e., they use only existing information such as the economic index of previous time periods for their decision of monetary policy. The monetary policy can be represented by the Taylor rule. According to English, Nelson and Sack [13], the Taylor rule model can be used to reflect the choice of interest rate by central banks. The original Taylor rule in Taylor states that [14]

$$r = p + .5y + .5(p - 2) + 2 \quad (1)$$

where:

- r is the Federal Funds Rate in Taylor's original text. In general, it is the target interest rate, which reflects the policy preference of the central bank.
- p is rate of inflation over the previous four quarters, i.e., one year.
- y is the percent deviation of real GDP from a target. The target GDP is calculated by a linear approximation from roughly 10 years before the year to be estimated. We use the real GDP Y and the trend real GDP Y^* to calculate the percent deviation of real GDP from the target by

$$y = 100\% \times \frac{Y - Y^*}{Y^*} \quad (2)$$

Enlightened by previous studies, especially by Giesenow and de Haan [15], we will use the following model to estimate the influence factors contribute to the policy preference for the country i at time period t :

$$r_{it} = \beta_1 r_{i,t-1} + \beta_2 Pop_{it} + \beta_3 TotalId_{it} + \beta_4 PopId_{it} + \beta_5 (CBI_{it} \times Pop_{it}) + \beta_6 (CBI_{it} \times TotalId_{it}) + \beta_7 (CBI_{it} \times PopId_{it}) + \eta_t + \mu_i + \epsilon_{it} \quad (3)$$

where:

- r_{it} and $r_{i,t-1}$ are the estimated policy preferences for country i at time period t and $t - 1$ respectively.
- Pop_{it} measures the tendency of populism of the parliament, $TotalId_{it}$ measures the left/right divide of the ideology of a government, and $PopId_{it}$ measures the left/right divide of the ideology in the populist political forces.
- CBI_{it} represents the independence of central bank. It will have a mixed effect with the overall ideology of the government and the populist political forces, which are represented by the cross terms $CBI_{it} \times Pop_{it}$, $CBI_{it} \times TotalId_{it}$, and $CBI_{it} \times PopId_{it}$.
- η_t and μ_i are the country-specific fixed effect and the time fixed effect. ϵ_{it} is the disturbance.

4. Data

The OECD economic indicators are from OECD (2022), which includes the data of real GDP, trend real GDP and growth of CPI of OECD countries and some non-OECD countries. We use the growth of CPI to measure the extend of inflation. The target interest rate is also calculated from the data above.

To measure the extent to which a regime is towards populism, we use the election result of each country and the extent to which evert party that have participated in the election towards populism to conclude the overall level of populism of the country. The election results are from the ParlGov database, which records every party that have had seats in the parliament and their share of total vote and parliament seats of major countries [16]. The level of populism of individual parties are from the Populist database, which provides a left-/right- wing estimate of the populist parties [17]. The estimate is on a left-to-right scale ranging from 0 indicating a far-left party to 10 indicating a far-right one. We assign a dummy variable to every party, 0 indicating non-populist and 1 indicating populist. Among all parties, the weighted average of the populist/non-populist index according to the proportion of their seats in the parliament shows the overall level of populism in the parliament in a certain year. Among the populist parties, the weighted average of left-/right- wing index according to the proportion of their seats in the parliament indicates the overall left or right tendency of the populism.

The CBI index is from Romelli, which uses an estimate from 0 to 100 to measure the independence of the central bank, with 0 representing fully dependent on the political regime to 100 representing a full independence [18].

The countries included in the data set are as follows: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Luxembourg, Netherlands, Norway, Poland, Slovenia, Spain, Sweden, Switzerland and United Kingdom. All data is truncated from January 2001 to December 2019. Since the elections of different countries are held in different years with different intervals, to ensure the balancedness of the panel data, we use polynomial interpolation to fill in gaps when elections are not held. The data used for regression is presented in Appendix A. The target short-term interest rate and the inflation will be generated to percentiles. The political index will be normalized to a range of 0 to 10. The CBI index will be normalized to a range of 0 to 1. Thus, to better reveal the effect of CBI, the regression model can also be written as:

$$r_{it} = \beta_1 r_{i,t-1} + (\beta_2 + \beta_5 \times CBI_{it}) \times Pop_{it} + (\beta_3 + \beta_6 \times CBI_{it}) \times TotalId_{it} + (\beta_4 + \beta_7 \times CBI_{it}) \times PopId_{it} + \eta_t + \mu_i + \epsilon_{it} \quad (4)$$

5. Empirical Results

The estimated coefficients of the regression model are shown in Table 1 and Table 2.

Table 1: Table of coefficients of regression.

Coefficients	β_1 : Previous Preference	β_2 : Lean to Populism	β_3 : Overall L/R Divide	β_4 : Populist L/R Divide
Estimate	.7626196** (.1117059)	-639.4904** (252.8597)	1.982532 (2.901792)	82.89109** (32.55553)

Table 2: Table of coefficients of regression.

Coefficients	β_1 : CB against Popu- lism	β_2 : CB against Overall L/R Divide	β_3 : CB against Populist L/R Divide
Estimate	711.2859** (282.6731)	-2.314662** (3.191901)	-91.89893** (39.43763)

Under the assumption of a backward-looking central bank, the existing information about the overall economy and previous policy choices play an almost deterministic though not so important role in the determination of monetary policy preferences.

There's a strong and significant relationship between the level of populism of a regime and the policy preference of the central bank. Populist regimes tend to prefer to a lower interest rate. Such a phenomenon is consistent with the theoretical definition of economic populism, in which the populists dare to lower the short-term to stimulate the economy. Similarly, strong is the force of the central bank against such appeal, and such a struggle on monetary policy is reflected by the opposite sign of β_2 and β_5 , β_4 and β_7 , respectively. The more independent the central bank is, the less short-term interest rate rises with populism. A fully independent central bank which cares about the stability rather than actual growth of the economy may even prefer a high interest rate to combat inflation.

The regression also shows that the overall left-/right- wing divide actually have minor and insignificant influence on the choice of monetary policy, especially compared to the effect caused by the populist/non-populist divide. As the central bank gaining its independence, the influence caused by left-/right- wing divide will further become less.

We can also find a significant divide caused by the left-/right- wing of populism. A left-wing populist tendency favors low interest rate, preferring an expansionary monetary policy and searching for high overall growth of the economy, while a right-wing populist tendency is relatively conservative. And again, the level of central bank independence will reduce the effect of populism on each case.

In addition, given that an independent central bank is more capable of combating the populist trend, if we look into a fully independent central bank, i.e., the CBI index goes to 1, the coefficient of every political influence factor will become closely to zero, which means a fully independent central bank is almost not influenced by the political factors of the regime.

6. Implication: Political Tendency Test Of A Political Party

Upon the empirical results, we may abolish the traditional partisan effect in the regression formula. That is, the total left/right divide doesn't affect the monetary policy. We rewrite the regression formula as follows, plugging in the coefficients we gained from the panel data regression.

$$r_{it} = .7626r_{i,t-1} + (-639.4904 + 711.2859 \times CBI_{it}) \times Pop_{it} + (82.8911 - 91.8989 \times CBI_{it}) \times PopId_{it} + \eta_t + \mu_i \quad (5)$$

where η_t and μ_i are region and time fixed effects. Though we cannot determine the explicit value of the two constants for a certain country at a certain time period, but since the maximal value of the constants is less than 10, we can readily drop the two coefficients for a rough estimation.

It can be well-noticed that, Italy, as a notable OECD country, is not included in the data set. This is because an important populist party, The Five Star Movement (Italian: Movimento 5 Stelle), is not estimated for left/right divide in the ParlGov database [16]. The Five Star Movement is already a major political force in Italy, winning a 32.7% of the vote and 227 seats in the Chamber in the

2018 general election [19]. It has been long characterized as a typical and major populist party in recent Italian politics [20]. Thus, lack of its information will be bound to cause a bias.

The difficulty to measure its left/right tendency lies in the claim of the party itself. The Five Star Movement is said to be "beyond left and right", rising as a leftist party but now proposing both conservative ideologies and keeping a left-of-center position [21], and having both left and right supporters [22]. With such an intense debate in recent studies, we will use a monetary-policy method to determine the stance of The Five Star Movement. We will assume The Five Star Movement is the only populist party due to its majority in populist parties. The data used in the estimation is originated as the Data section described.

Table 3: Table of estimates of l/r divide in italian politics.

Year	Preference	Previous-year Preference	Estimated <i>Pop</i>	Estimated <i>Id</i>
2013	0.8119	2.1580	0.46	1.21
2016	0.6824	0.8119	0.43	4.50
2018	2.3940	3.1966	0.69	4.14

The Five Star Movement can be seen to rise as a far-left political force and to grow to be a left-central party, which is roughly consistent with the studies cited above, more leaned to leftism compared to the estimate by Mosca and Tronconi, 3.9 in 2013 and 5.2 in 2016 [22], also under a 0-10 left-to-right scale.

7. Conclusions

This study sets up a backward-looking central bank model, combine the effect of overall populism, overall left/right divide, populist left/right divide and the independence of the central bank to picture the influence factors of the monetary policy preference, and use a Taylor-rule specification to quantify the specific effect. The dataset, including major OECD countries and ranging from 2001 to 2019, is of spatial and temporal diversity, and contain the very period of the first 20 years of the 21th century in which OECD countries see the rapid rise of populism. The results reveal the strong and significant influence of populism on monetary policies, distinguish the different effects of populism caused by the internal left-/right- wing divide, and deny the traditional partisan effect that the overall left-/right- wing divide will influence the monetary policy. In addition, the results show that the growing independence of the central bank will lower the effect of ideology on monetary policy to a minor extend. The results also mark the divide between left-wing populism and right-wing populism by their different preference of monetary policies: A leftist populist regime prefers expansionary monetary policies, while a rightist regime favors a tight monetary policy. Such a difference in monetary policy preference can be used to classify a specific populist party or figure to left-wing populism or right-wing populism. The Five Star Movement of Italy is used as an explicit example of using monetary policy to measure the left-/right- divide of populism, the process of which proves that the model is valid.

However, the study is still limited in various ways. The setting of the results is to be refined. Belke and Potrafke denied the backward-looking central bank model under the traditional partisan approach due to insignificance of the results. Instead, they put forward a forward-looking model, where central banks use the expectation of interest rate to decide the present target interest rate [11]. While this study has proved that the impact of ideology on monetary policy shouldn't be overlooked by a slightly different estimation under the backward-looking model, the similar method cannot be applied to a forward-looking model not only due to the lack of consistent expectation data but also

because that the ideology itself will introduce biases to the expectation. Such a phenomenon deserves further study and corresponding refinement of the model.

The detailed effect of populist ideology on monetary policy, however, still deserves discussion. This study only uses a Taylor-rule setting, but the actual effect and the feedback to the central bank is diverse in real economy, and different political ideologies even individual economic and political figures have different considerations on different economic indicators. A more complex model involving a system of economic indicators is probably more appropriate for modelling the realistic policy preference.

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