PRUDENT POPULISTS?
THE SHORT-TERM MACROECONOMIC IMPACT OF POPULIST POLICIES IN POLAND

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Prudent populists? The short-term macroeconomic impact of populist policies in Poland

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Abstract: Recent research shows that populist governments in general depress countries' economic growth and fail to improve income distribution. We study the short-term macroeconomic consequences of populist policies implemented in Poland since 2015. Using the augmented synthetic control method, we find that the populists boosted the GDP per capita by almost 8% between 2016 and 2019. We do not find any effect of populism on inflation and estimate only small labor market impacts. The populists improved tax revenue collection and reduced public debt. A generous child benefit program and other redistributive policies introduced by the populists significantly reduced overall poverty and almost eradicated absolute child poverty. Our results imply that anti-establishment populists may be macroeconomically prudent, at least in the short run.

1. Introduction

Since the 1980s we have witnessed a global rise of populism understood as an anti-establishment political movement that considers society to be divided into two antagonistic groups — the pure, legitimate people and the corrupt and illegitimate elite (Mudde, 2004). Funke et al. (2020) estimate that while in the 1980s the share of countries ruled by populists was less than 5% it grew steadily to more than 25% in 2018. Several recent papers studied the economic consequences of populism focusing on its impact on the GDP, productivity, foreign investment, trade, inequality, and health (Funke et al., 2020; Absher et al., 2020; Born et al., 2021; Guriev and Papaioannou, 2021). These works found that populist governments on average produced substantial negative short- and medium-term economic costs.

Despite the recent progress some questions about the economic performance of populists still remain unanswered. In their comprehensive review of the political economy of populism, Guriev and Papaioannou (2021) note that we lack an explanation for the widely differing macroeconomic impacts of populists ranging from the disaster in Venezuela to robust economic growth in Poland. They also add that Poland is the only case of a country led by a populist government that seems to be outperforming similar countries with respect to GDP growth. However, so far the economic consequences of populism in Poland have not been rigorously measured and diagnosed.

Poland has been ruled by populist governments since 2015, when the social conservative, right-wing Law and Justice (*Prawo i Sprawiedliwość*, PiS) party won both the parliamentary and the presidential elections and formed a single-party government with no coalition partners. It quickly engaged in dismantling the rule of law, weakening the independence of courts and judges, taking over public media, eroding the separation of powers, and curbing the civil liberties of minorities (Pirro and Stanley, 2022). PiS also pursued an anti-establishment and nativist rhetoric by attacking business and political elites, minorities, refugees, and EU institutions. As a result, Poland has seen the largest decline in quality of liberal democracy worldwide during the last decade and has been named one of the top autocratizers in the world (Alizada et al., 2022). The populists were also very active in the field of economic reforms. They introduced a very generous and costly cash child benefit, lowered the retirement age, significantly

increased minimum wages, imposed new taxes on foreign-owned banks, and pursued strategies of "re-Polonizing" banks, "reindustrialization", preference for domestic capital, and the general strengthening of the role of the state in the economy.

This paper provides the first rigorous investigation of the short-term effects of populism in Poland. To evaluate the performance of the Polish populists, we compare the actual changes in major macroeconomic variables for Poland (GDP per capita, inflation, employment, public debt, income distribution, and others) with those for a synthetic Poland constructed from a weighted average of the donor pool of countries (OECD or EU member states). We obtain the synthetic counterfactual Poland using the ridge-augmented synthetic control method (ASCM) developed by Ben-Michael et al. (2021). This method improves on the standard synthetic control method (SCM) (Abadie and Gardeazabal, 2003; Abadie et al., 2010) that has recently been often applied to assess the populists' economic performance (Funke et al., 2020; Absher et al., 2020). The original SCM constructs a counterfactual of the treated unit by using the pre-treatment period to estimate weights such that a weighted average of the outcomes for the control units balances the treated unit's outcomes as closely as possible. Unfortunately, the perfect fit for pre-treatment units is often not feasible. The ASCM improves on the SCM by using the ridge regression outcome model to estimate the bias due to the imperfect pre-treatment fit and then de-biasing the standard SCM estimates. We use several robustness checks, including in-time and in-space placebo tests, to provide support for the causal interpretation of our results.

Our analysis shows that, compared to the counterfactual, the populists in Poland boosted the GDP per capita by almost 8% between 2016 and 2019.[1] We do not find any effect of populism on inflation and estimate only small labor market impacts. The populists improved tax revenue collection, had no effect on budget deficit and total government spending, and reduced public debt. A generous child benefit program and other redistributive policies introduced by the populists significantly reduced income poverty, especially among children. While these results suggest that the populists have been macroeconomically prudent in the short run, it remains to be seen whether or not the gains will be outweighed in the longer run due to the costs of eroded democratic institutions.

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[1] We do not study the post-2019 period as the COVID-19 pandemic had a heterogeneous impact on different countries, which is difficult to account for in our framework. However, our results with respect to the GDP per capita remain unchanged when the sample is extended to 2022-Q2 (Figure B.1).

We contribute to the literature by showing that "sophisticated" populists can design and implement prudent economic policies that not only do not lead to economic losses but even generate substantial short-run economic gains in terms of increased and more evenly distributed national income. While some populist governments in Latin America managed to achieve relatively high rates of growth in the early years of their regimes, this was mainly due to very positive terms of trade (Edwards, 2019). Moreover, they did not outperform the counterfactual (Absher et al., 2020).[2] Their policies led very quickly to rising public imbalances and spurred inflation (Edwards, 2019). On the other hand, populists in Poland outperformed the counterfactual with respect to economic growth without expanding the fiscal deficit or spurring inflation. In addition, the PiS governments were able to improve the collection of tax revenue, keep the total government expenditure in check, reduce government debt, and bring down poverty. One mechanism that allowed them to satisfy those seemingly conflicting aims was pursuing only a limited redistribution targeted at social groups that could be expected to broaden the populists' electoral following.

The remainder of this paper is structured as follows. Section 2 provides brief background information on the development of populism in Poland, as well as summarizing the recent quantitative literature estimating the macroeconomic consequences of populism. Section 3 introduces our data and the ASCM approach that we use in our estimations. We present and discuss our empirical results in Section 4 and conclude in Section 5.

2. Populism and its economic consequences

2.1 Macroeconomic impact of populism

There exists already a vast literature on the *drivers* of populism, although the phenomenon is multi-faceted and researchers have not yet reached clear-cut conclusions (see the excellent survey by Guriev and Papaioannou 2021). Another side of the coin, namely the *consequences* of populism, seems to be under-researched. Initially, the study of the macroeconomic effects of populism focused on Latin America. In their seminal work, Dornbusch and Edwards (1991) collect evidence from Argentina, Brazil, Chile, Mexico, Nicaragua, and Peru. They identify

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[2]This is the case of Argentina between 2003 and 2015 and Venezuela since 1998 (Edwards, 2019).

the common sequence of events that takes place under the populist rule: first, disappointment with inequality triggers fiscal expansion and redistribution; second, aggregate supply failing to keep pace causes inflation; third, the economy slows down, capital flies, inflation gets out of control, real wages fall, unemployment rises, and shortages occur; and fourth, the populists lose power and a new government attempts to pursue orthodox stabilization. Absher et al. (2020) have recently used the SCM to systematically evaluate the economic performance of populist regimes in Latin America. They found that populists decreased their countries' GDP per capita by about 20% after eight years of being in power. At the same time, they failed to significantly improve inequality or health outcomes (see also Strobl et al. 2023).

All these, however, feature left-wing populism, whereas the USA and Europe currently observe a turn toward right-wing populism. The literature on North America and Europe concentrates on two specific —- although undoubtedly important — historical events: the presidential victory of Donald Trump and Brexit (Born et al., 2021, 2019). Born et al. (2021) compare the actual performance of the US economy under Trump to a counterfactual constructed using the SCM. They find that during the first three years under Trump, none of the indicators under study (GDP, employment rate, unemployment rate, and labor force participation rate) significantly differs from the counterfactual —- i.e. there is no reason to believe that the good performance of the US economy is attributed to Trump's leadership. The evidence regarding the last year of Trump's rule is somewhat mixed due to the shock of the COVID-19 pandemic, but still, the authors conclude that "there is little evidence for a Trump effect".

Some other papers present case studies on populist rules for individual countries (Albertazzi and McDonnell (2015) for Italy and Switzerland, Doerr et al. (2021) for Austria). Doerr et al. (2021) study Austrian mayors and find that migration and budget transparency decrease under populist governments.

The paper that is the closest to our study is Funke et al. (2020). The authors examine a sample of countries that covers more than 95% of world GDP and identify 50 populist presidents and prime ministers over the time span 1900-2018. Using the SCM, they find that 15 years after the start of a populist episode, real GDP per capita and consumption are on average more than 10% lower than they would have been had the leader been non-populist. Interestingly, the authors distinguish between left-wing and right-wing populism and find that both

variants of populism are equally bad for the economy.

2.2 Populism in Poland

In the present paper, we study the macroeconomic impact of populism in Poland — a country that experienced a democratic backsliding after 2015, being at the same time a poster child of a successful transition from a centrally planned to a market economy (Piątkowski, 2018). Democratic backsliding in Poland manifests itself in three main areas: the collapse of separation of powers, the restriction of media freedom along with attacks on political and civil liberties, and the manipulation of the electoral system (Haggard and Kaufman, 2021). In particular, attacks on the judiciary led to the launching of an infringement procedure by the European Commission.[3] The puzzle is: why did citizens of a country which had emerged as one of the poorest in the region at the outset of transition and then managed to increase its per capita GDP by 150% over the years 1990-2015, and was also the only country in the European Union to avoid a recession after the financial crisis of 2008, choose to vote for a right-wing populist party?

PiS originated from the dissident Solidarity movement. It was registered in 2001 by Jarosław and Lech Kaczyński. The party first came to power in 2005 and formed a coalition government with nationalist and agrarian populist parties. During two years in government, PiS managed to marginalize its radical coalition partners and take over a large part of their share of the vote. At the same time, PiS's attitudes started evolving toward nationalism and defending conservative family values in opposition to Western liberalism.

In 2007, PiS's main opponent, the Civic Platform (*Platforma Obywatelska*, PO) won the parliamentary elections. PiS then became the major opposition party. Its predominant narrative turned to "we, the representatives of the pure people" against "them, the corrupt elites" (Stanley, 2019). The party failed to win the 2011 parliamentary elections, but in May 2015, its presidential candidate Andrzej Duda unexpectedly won office. This victory was followed by an even more important one: in October 2015, PiS gained 37.6% of the popular vote in the parliamentary elections and secured 235 seats out of 460 in the lower chamber of the

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[3]V-Dem Democracy Report documents the drop in the Liberal Democracy Index for Poland over the decade 2011-2021 as one of the largest in the world (Boese et al., 2022).

Polish parliament.[4] For the first time in Polish history since the fall of communism, a single party had won the majority of seats. In 2019, PiS broke its own record, winning 43.6% of the popular vote and again forming the majority government. In 2020, president Andrzej Duda was reelected.

During the campaign that preceded the October 2015 parliamentary elections, PiS made a number of seemingly populist electoral promises. The most important of them was "Family 500+" child benefit, which promised to pay PLN 500 (about EUR 125: the equivalent of one-third of the net minimum wage in 2015) to each second and subsequent child in a family below the age of 18. Other promises included: lowering the retirement age to 65 for men and 60 for women (from the effective 67), increasing the minimum wage, lowering taxes (through increased tax allowance, lowering the CIT rate for small companies from 19% to 15%, and reducing VAT rate from 23% to 22%), education system reform, and a generous bailout for households that had Swiss franc–denominated mortgages.[5] After winning the elections, the populists implemented almost all these promises.[6] Many of these reforms gained strong public support, and as Section 4 will show, they turned out to be beneficial for the economy in the short run.

At the same time, despite the vast increase in discretionary public spending, the general government deficit was decreasing steadily over the years 2015–2018 to the historical minimum of 0.4% of GDP in 2018 (Czerniak and Rapacki, 2020). This was achieved mainly by improved tax collection and imposing a new tax called the "bank assets tax". The attempts to close VAT loopholes resulted in a decrease in uncollected VAT revenues from 24.2% in 2015 to 12.5% in 2018, which led to an overall increase of PLN 21.1 billion in VAT revenue (Czerniak and Rapacki, 2020). The "bank assets tax" adopted in 2016 was levied on banks, insurance companies, savings and credit unions, and loan companies with assets exceeding PLN 2 billion. The idea was to tax the sectors dominated by multinationals. Additionally, PiS explicitly

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[4]Poland is a semi-presidential democracy, but in fact, presidential powers are limited. There are two chambers of parliament, the lower (the *Sejm*) and the upper (the Senate) that are constituted of 460 and 100 seats, respectively. The Senate has the right to amend or reject acts passed by the Sejm, but the Sejm may overrule the Senate's decision by a majority vote.

[5]There were approximately 575,000 households that had mortgage loans denominated in Swiss francs and suffered significant losses after the Swiss National Bank let the franc appreciate in January 2015. The stock of these mortgages was around 8% of GDP (Guriev and Papaioannou, 2021).

[6]Except for the promises of a decrease in the VAT rate and bailing out mortgage holders. However, in 2019, PiS decreased the lower PIT threshold from 18% to 17% and introduced a 0% PIT rate for people under the age of 26.

attempted to "re-Polonize" the economy, especially by buying shares in private banks and thus increasing the state's control over the banking sector. According to one of the most important early programmatic documents, the "Strategy for Responsible Development" (also known as the "Morawiecki Plan"), PiS also aimed at the "re-industrialization" of the Polish economy by creating industrial clusters, fostering domestic innovation instead of importing technologies from the West, promoting Polish exports, and strengthening domestic capital.

Along with these reforms, PiS intensified its attacks on established institutions and the judiciary, changing Poland moreover into an illiberal democracy (Müller, 2016). The party began to use more and more anti-foreigner and anti-immigrant rhetoric, promoting the view of a religiously and ethnically homogeneous Poland.[7] Polish society became polarized as never before (Tworzecki, 2019).

3. Methods and data

3.1 The Augmented Synthetic Control Method

The SCM approach involves the comparison of an outcome variable (e.g., GDP per capita) between the treated unit (Poland in our case) and a weighted average of similar but untreated units (countries not implementing populist policies) that provide a "synthetic" counterfactual (Abadie, 2021). The synthetic version of the treated unit is selected to reproduce the trajectory of the outcome variable of the treated unit in the pre-treatment period as closely as possible. Under the assumptions of this approach, the difference in the trajectories in the outcome variable between the treated unit and its synthetic "doppelganger" can be treated as the causal impact of the intervention. While the standard SCM approach has many advantages, its use should be restricted to those cases where the counterfactual is constructed using controls with outcome variable values that closely reproduce the outcome variable values of the treated unit before the treatment occurs (Abadie et al., 2010). The perfect pre-treatment fit is, however, rarely found in practice. For these cases, Ben-Michael et al. (2021) developed the ASCM approach that uses a ridge-regularized linear regression as an outcome model to estimate the bias due to the poor pre-intervention match and then de-bias the SCM estimate.

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[7]However, it must be noted that in 2022 (after the period studied in this paper), PiS actively supported the adoption of over 2 million Ukrainian refugees in Poland.

Using the formal notation, suppose that one unit (country) i is treated ($i = 1$) in period $T_0 < T$, where $i = 1, ..., N$ and $t = 1, ..., T$. The potential outcome (for instance, the GDP per capita) for unit i in period t under control and treatment are given by, respectively: $Y_{it}(0)$ and $Y_{it}(1)$. The estimated treatment effect (i.e., the effect of populism) is given by: $Y_1(1) - Y_1(0) = Y_1 - Y_1(0)$. The standard SCM imputes the $Y_1(0)$ as a weighted average of the outcome variable within the control group:

$$\hat{Y}_{1T}(0) = \sum_{W_i=0} \gamma_i^{scm} Y_{iT} \tag{1}$$

where W_i is a treatment indicator for unit i, and weights $\gamma_i^{scm} \in [0, 1]$ are estimated to minimize the difference in pre-intervention trends between the treated unit and the synthetic control.

On the other hand, the ASCM uses a ridge regression outcome model to estimate the pre-treatment bias and de-bias the original SCM estimate:

$$\hat{Y}_{1T}^{aug}(0) = \sum_{W_i=0} \hat{\gamma}_i^{scm} Y_{iT} + (X_1 - \sum_{W_i=0} \hat{\gamma}_i^{scm} X_i) \hat{\eta}^{ridge} \tag{2}$$

where X_i is the vector of pre-treatment outcomes and covariates for unit i and $\hat{\eta}^{ridge}$ are the coefficients of a ridge regression of control units' post-treatment outcomes Y_{iT} on centered pre-treatment outcomes X_i. While $\hat{\gamma}_i^{scm}$ are non-negative by design, the ASCM allows for negative weights to improve pre-treatment fit, but the approach focuses on minimizing extrapolation outside the convex hull of the control units. Confidence intervals can be estimated using several methods; in this paper, we use the jackknife+ procedure (Barber et al., 2021).

The ASCM rests on several assumptions that must be satisfied to provide a valid estimate of the causal effect: (i) availability of a suitable donor pool (units, that is countries in our case, similar to the treated one, but different in not having adopted the treatment); (ii) Stable Unit Treatment Value Assumption (SUTVA) (the intervention only affects the treated units and does not affect non-treated units); (iii) no anticipation (the intervention had no effect prior to its start date); (iv) treatment assignment cannot depend on the realized pre-treatment outcomes; and (v) there can be no unmeasured variables that are correlated with the outcomes and that have different distributions for the treated unit and comparison units (Ben-Michael et al., 2021). We discuss these assumptions further in the context of our application in Section 4.

3.2   Data description

The choice of macroeconomic data used in the analysis was conditional on their availability. Our ideal dataset would contain data series that: (i) are internationally comparable; (ii) start in the 1990s; (iii) are quarterly rather than yearly; (iv) are seasonally adjusted. The first of these four conditions is an obvious must-have. The early start and higher frequency of data give us more observations and thus make the analysis more reliable. The quarterly issue is especially important because we set the limit of our post-treatment period to the end of 2019. We do this in order to avoid the confounding effect of the COVID-19 pandemic that had a heterogeneous macroeconomic impact on Poland and other countries from 2020 on. The treatment time is 2016-Q1 when PiS implemented its first reforms. Our post-treatment period covers, therefore, 15 quarters between 2016-Q2 and 2019-Q4. The pre-treatment period in the main analysis starts in 1995 and spans 85 quarters. We use seasonal adjustment for all variables to ensure the results are not driven by seasonal differences in economic activity.

Taking these conditions into account, we decided to use primarily the OECD data from Quarterly National Accounts (for GDP per capita), Quarterly Sector Accounts (for government deficit, revenue, and expenditure), Short-Term Labour Market Statistics (for employment rate and unemployment rate), Main Economic Indicators (for inflation) and Quarterly Public Sector Debt (for government public debt) (Table A.1). The main donor pool of countries consists of all OECD countries. We exclude Hungary from the donor pool as a set of populist policies similar to the Polish reforms have been implemented there by Viktor Orbán's governments since 2010 (Toplišek, 2020).

Our main covariates include investment rate, consumption to GDP ratio, and net exports to GDP ratio, and are also taken from the OECD Quarterly National Accounts. We use annual inequality and poverty indicators from Eurostat. For GDP and inflation, the data series starts in 1995. For government deficit, revenue, and expenditure, the data series starts in 1999; for the labor market and public debt variables the data starts in 2000, and for the inequality and poverty indices the data starts in 2004 (Table A.1). All quarterly data is seasonally adjusted. Regarding the geographical coverage, the number of countries in the donor pool varies from 23 to 42 (Table A.1).

4. Empirical results

4.1 The effect of populism in Poland on the GDP per capita

Figure 1 presents our main results for the PPP-adjusted real GDP per capita. The solid black line displays actual Polish GDP per capita, while the red line shows the synthetic counterfactual estimated using the ASCM. The shaded red area is the 95% confidence interval estimated using the jackknife+ procedure (Barber et al., 2021). The covariates include the pre-treatment averages of the GDP per capita, investment rate, consumption share in the GDP, and net exports share in the GDP.
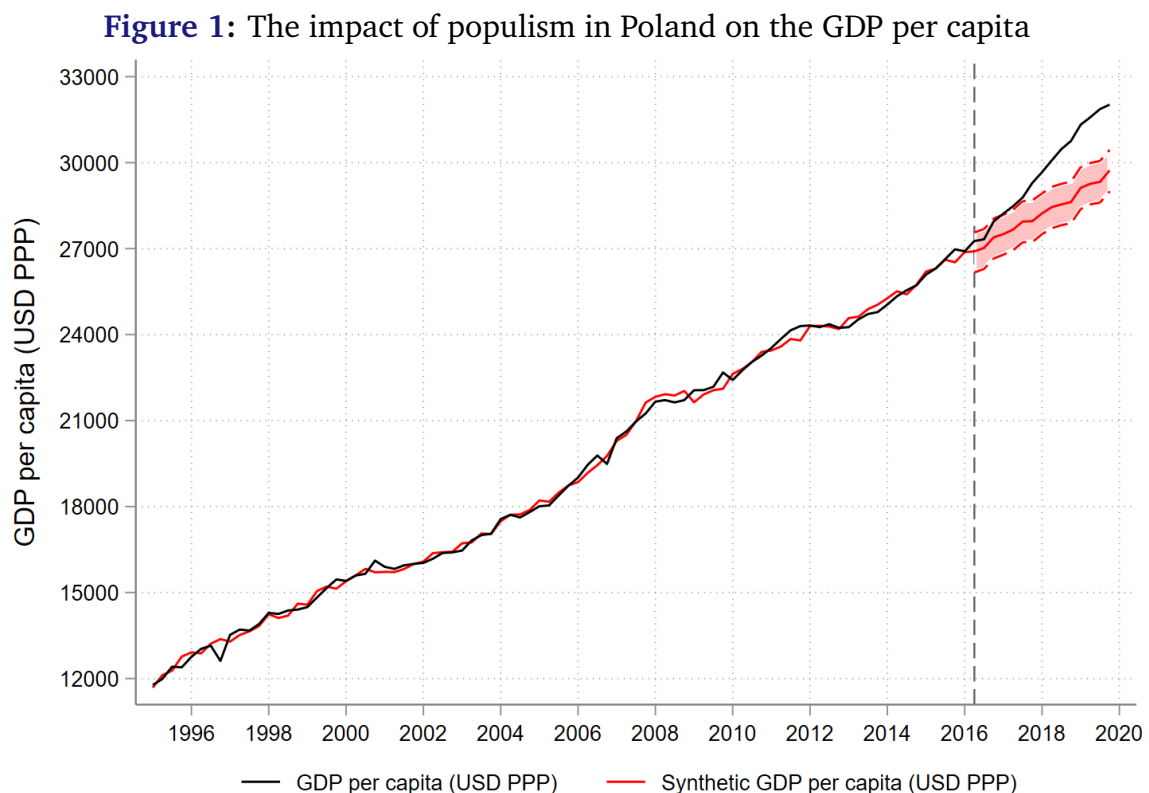
Figure 1: The impact of populism in Poland on the GDP per capita

Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see
Section 3).
Source: Own estimation based on data from OECD.

The pre-treatment fit for our estimated synthetic control seems to be rather good. The donor countries with the largest positive weights include Costa Rica (43.6%), the Netherlands (30.0%), Bulgaria (23.3%), Sweden (20.6%), and Israel (19.7%). On the other hand, some donors enter the synthetic counterfactual negatively. These include Italy (−24.6%), the Czech Republic (−18.3%), Estonia (−14.6%), Canada (−13.9%), and Switzerland (−13.8%). See Table B.1 for a complete distribution of the estimated ASCM weights.

The impact of populism in Poland on the GDP per capita can be assessed as the difference between the actual GDP per capita and its synthetic counterfactual. Statistically, it is significant and positive, reaching about USD 2,300 (2015 prices and 2015 PPPs) in 2019-Q4. In other words, Poland's observed GDP per capita is about 7.7% higher at the end of the post-treatment period compared to what it would have been without the reforms implemented by the populists. Our results stand in stark contrast to those of previous studies estimating the economic impact of populism. Funke et al. (2020) found that both left-wing and right-wing populists reduce the GDP per capita by about ten percentage points after 15 years in power. According to them, the negative impact of right-wing populists on the GDP appears already in the first few years after populists are elected. Born et al. (2021) do not find any significant impact of the Trump presidency on the GDP per capita in the United States. Absher et al. (2020) document that left-wing populist regimes in Latin America had immediate and large negative effects on the GDP per capita that reached on average 20% in an 8-year horizon. In light of these results, our findings on the positive and significant GDP impact of right-wing populism in Poland seem surprising. Funke et al. (2020) estimated that one of the reasons for the poor macroeconomic performance of populists is their engagement in economic nationalism, protectionism, and financial deglobalization. In the case of Poland, the scope for such policies has been very limited as the country is a member state of the European Union that guarantees the free movement of goods, services, and capital, as well as running the common external trade policy. In the following subsections, we investigate some other mechanisms, such as mobilizing tax revenue and increasing social spending, that can explain why the Polish populists outperformed the counterfactual with respect to economic growth.

As mentioned in Section 3.1, the validity of synthetic controls hinges on several assumptions (Abadie, 2021; Ben-Michael et al., 2021). The availability of a suitable donor pool of countries seems satisfied in our case as the OECD group includes several states similar to Poland with respect to the GDP per capita and other characteristics. The second assumption, SUTVA, implies that the implementation of populist policies in Poland only affected economic outcomes in Poland and did not impact other countries. This assumption seems to hold as Poland is a relatively small economy and it is unlikely that the populist reforms have had significant spillovers on other countries. It is also worth noting that any spillover that did re-

sult from the accelerated economic growth brought about by populists in Poland would have a fairly positive effect on the countries concerned. In such a case, our synthetic control estimates would underestimate the actual economic magnitude of Polish populism.

The assumption of no anticipation seems to hold as well, given that the democratic backsliding has been a rather surprising development in a country previously hailed to be a remarkable example of democratic consolidation. The fourth assumption requires that the treatment assignment does not depend on the realized pre-treatment outcomes. This is plausible as, in general, before 2015, there were no significant macroeconomic trends that developed in a significantly different way for Poland than for other OECD countries. Finally, the last premise implies that the post-treatment external shocks for Poland are the same as for other countries in the donor pool. This assumption seems the most problematic in our context as Poland in recent years has experienced a significant positive labor supply shock from an influx of cheap, skilled Ukrainian workers. Between 2014 and 2018, Poland admitted between one and two million immigrants that left Ukraine after Russia invaded eastern Ukraine in 2014 (Strzelecki et al., 2022).[8] This has greatly benefited the Polish labor market, which in recent years started to be under pressure due to population aging and emigration.

We account for the impact of Ukrainian migration on the Polish economy in two ways. First, in a robustness check, we include an additional control variable measuring the migration shocks in the pre-treatment period. Specifically, this variable uses Eurostat data to measure how the ratio of all residence permits to the employed population changed between 2008/2009 and 2014/2015. This allows us to take into account migration-related shocks in matching the pre-treatment trends for Poland and other countries. Extending the list of covariates in this way does not affect the estimated GDP effect significantly, although the pre-treatment fit is worse (Figure B.2).

Second, we take advantage of the recent estimates of the contribution of Ukrainian immigration to economic growth in Poland. Strzelecki et al. (2022) use growth accounting techniques as well as a range of alternative administrative and survey data on migrants to calculate the input of Ukrainian migrants to the recent Polish GDP growth. They found that from 2013 to 2018, the growth contribution of Ukrainians amounted on average to 0.5 percentage points.

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[8]Approximately 15.8 million people native to Poland were employed in 2014. The size of the post-2014 migration wave from Ukraine to Poland has been large on a European scale. According to the Eurostat data, one out of five first residence permits in Europe in 2018 was issued in Poland.

This suggests that between 2016 and 2019, migrants could add about 2 percentage points to the cumulative economic growth in Poland. Since our baseline estimate from Figure 1 is 7.7%, we conclude that it is unlikely that differential migration-related shocks to the labor supply could be driving our results.

We perform two additional diagnostic checks to verify the validity of our synthetic control estimates (Abadie, 2021). First, we backdate the treatment period by three years to 2013 (Figure B.3). Even with this artificial treatment backdating, the statistically significant effect appears at the time when the true treatment took place and the magnitude of the estimated GDP growth is very similar to our baseline estimate from Figure 1. This in-time placebo test suggests that there is no anticipation effect and that our results are not driven by processes other than the PiS policies implemented since 2016. Second, we re-estimate the doppelganger from Figure 1, removing from the sample one-at-a-time each of the donor countries contributing positively to the baseline synthetic control. The results of this in-space placebo or leave-one-out check are presented in Figure B.4. All counterfactuals estimated in this way lie very close to each other and within the confidence interval estimated for our baseline counterfactual in Figure 1. Our results seem, therefore, very robust to the exclusion of any particular country from the donor pool. The results of both sensitivity checks suggest that our main synthetic control estimates are credible and robust.

4.2   Other macroeconomic variables

Figure 2 presents our results with respect to CPI inflation.[9] The actual inflation rate in Poland and its doppelganger lie very close to each other in the post-treatment period, implying that PiS policies neither spurred nor dampened inflation. The performance of PiS with respect to general government debt can be assessed using Figure 3. Our estimates show that the populists have in fact reduced public debt in Poland by as much as seven percentage points.

In contrast to Latin American populists who ran excessive fiscal deficits to fund transfer programs (Edwards, 2019), we do not find an overall significant effect of PiS policies on government deficit (Figure 4). Only for a brief period at the turn of 2018 and 2019, was the actual

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[9]The synthetic controls for variables other than the GDP per capita were estimated using the ASCM approach with the pre-treatment outcomes as the only predictors and no other covariates.

Figure 2: The impact of populism in Poland on inflation
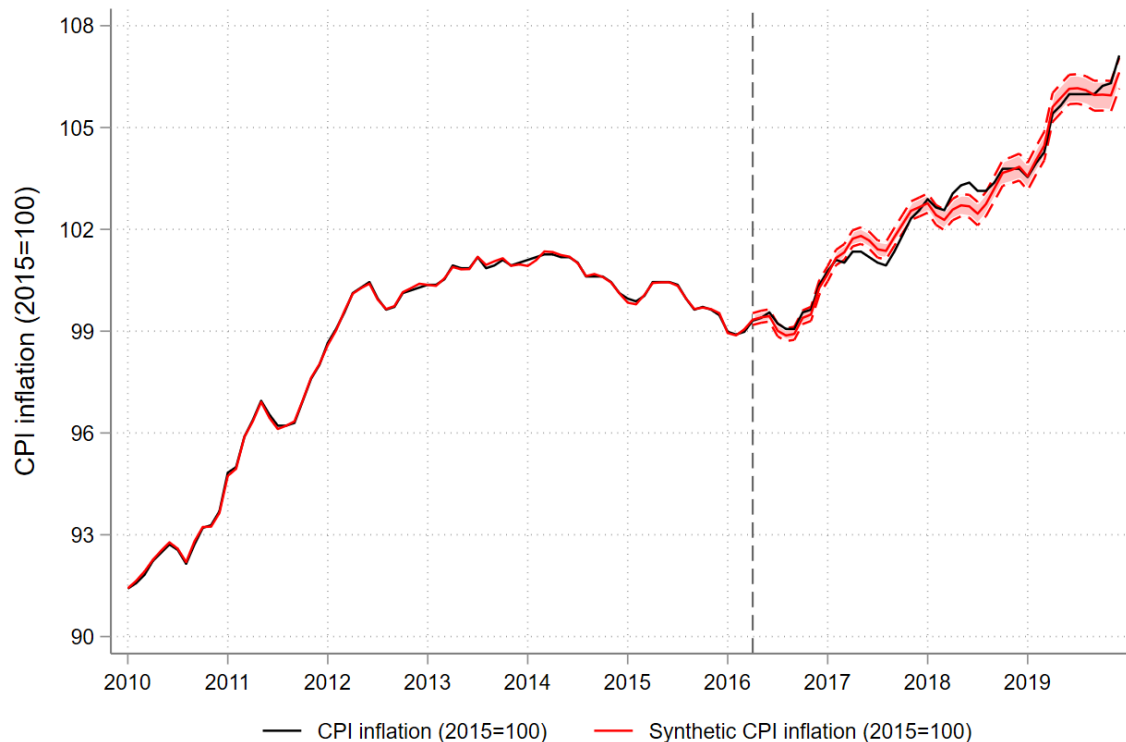
Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see Section 3). The estimation sample ranges from 1995 on, but the figure show results since 2010 to ensure better visibility.
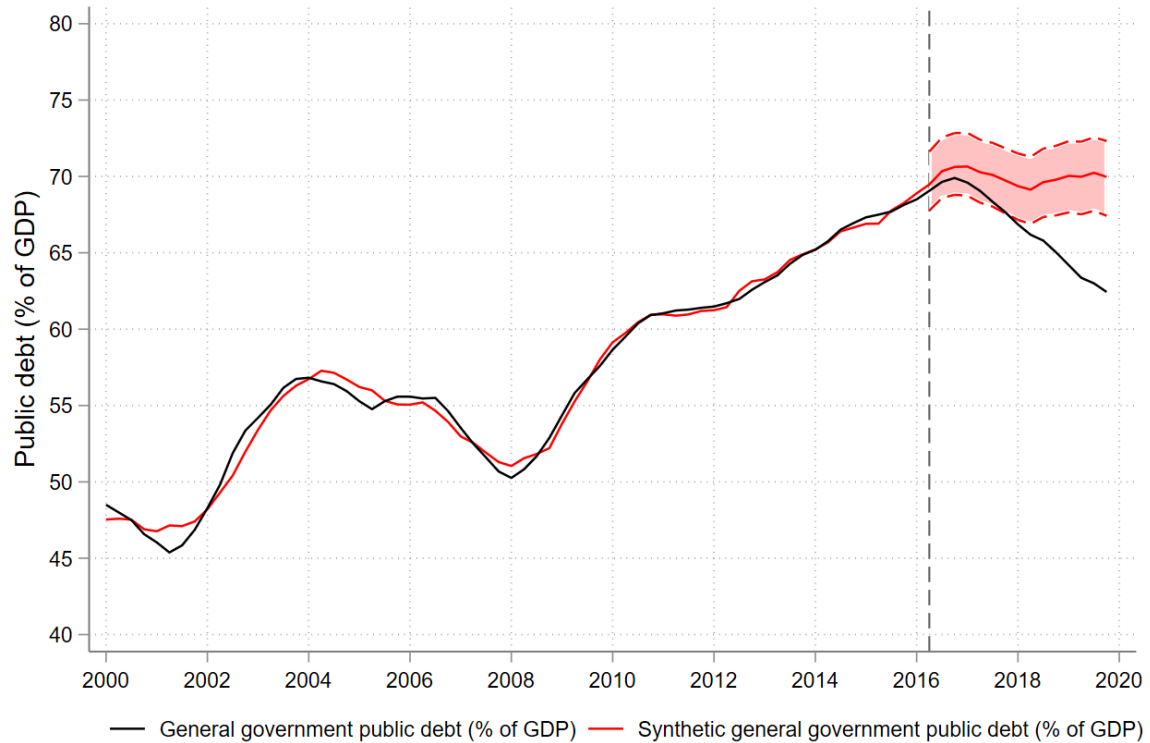
Source: Own estimation based on data from OECD. See Table A.1 for variable definitions.

deficit higher than suggested by the doppelganger, but this difference disappeared in 2019.[10]

Government deficits under the populist rule were kept in check because of both the increased revenues and stable total expenditures. The tax reforms implemented by PiS resulted in the rise of government revenues as a percentage of the GDP by about 4 percentage points (Figure 5). Between 2015 and 2019, the VAT Gap (the difference between VAT expected and actually collected) decreased in Poland by about 13 percentage points — the highest decline in the EU (European Commission, 2022). This was due to the increased obligations for tax reporting and the introduction of several other measures targeting tax fraud and evasion.

On the other hand, compared to the counterfactual, total government expenditure did not increase in a statistically significant way (Figure 6). If anything, it would have been higher if Poland had not been ruled by populists. While PiS significantly expanded social spending on family benefits (with the 'Family 500+' child benefit costing initially about 1.2% of the

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[10]Wysocki et al. (2022) studied the fiscal sustainability of Poland under the PiS governments understood as the strength of the reaction of the primary budget deficit to a change in the public debt. They found that it deteriorated significantly. However, they did not estimate the counterfactual outcomes and their estimates cannot be treated as causal effects of populists' policies.

Figure 3: The impact of populism in Poland on public debt

Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see Section 3).

Source: Own estimation based on data from OECD. See Table A.1 for variable definitions.

Figure 4: The impact of populism in Poland on government deficit
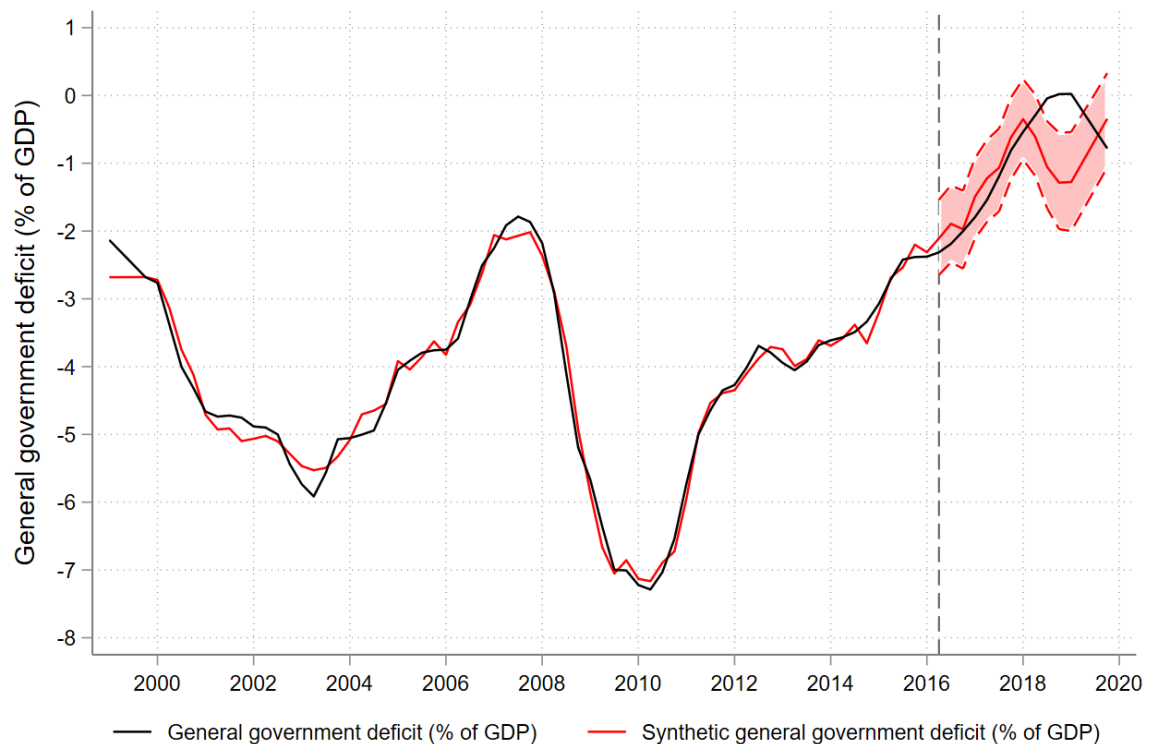
Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see Section 3).

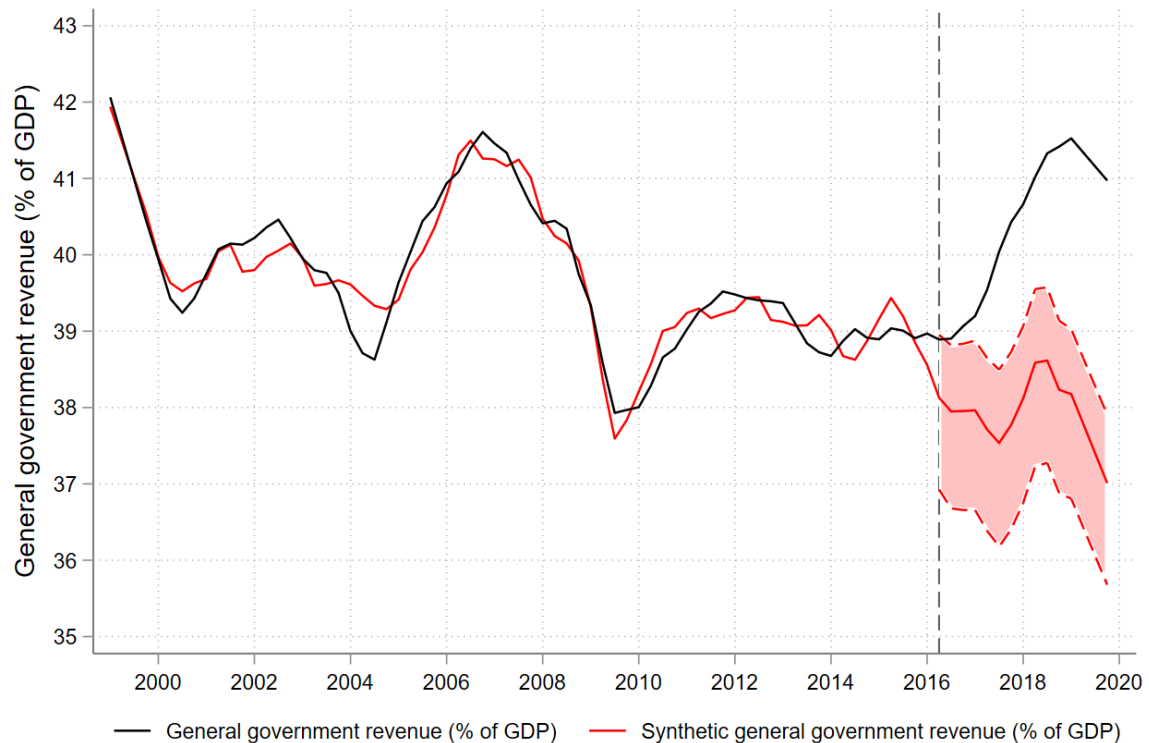*Source:* Own estimation based on data from OECD. See Table A.1 for variable definitions.

GDP), it kept overall government expenditure in check by reducing spending in other areas or keeping it under control. According to the Eurostat data, between 2015 and 2019 the populists reduced government expenditure in relation to the GDP by at least 0.2 percentage points in the areas of basic research, education, and sickness and disability transfers.[11] While these measures allowed them to maintain macroeconomic stability in the short run, they could nevertheless harm growth and well-being in the long run.

Figure 5: The impact of populism in Poland on government revenue

Legend: — General government revenue (% of GDP)   — Synthetic general government revenue (% of GDP)
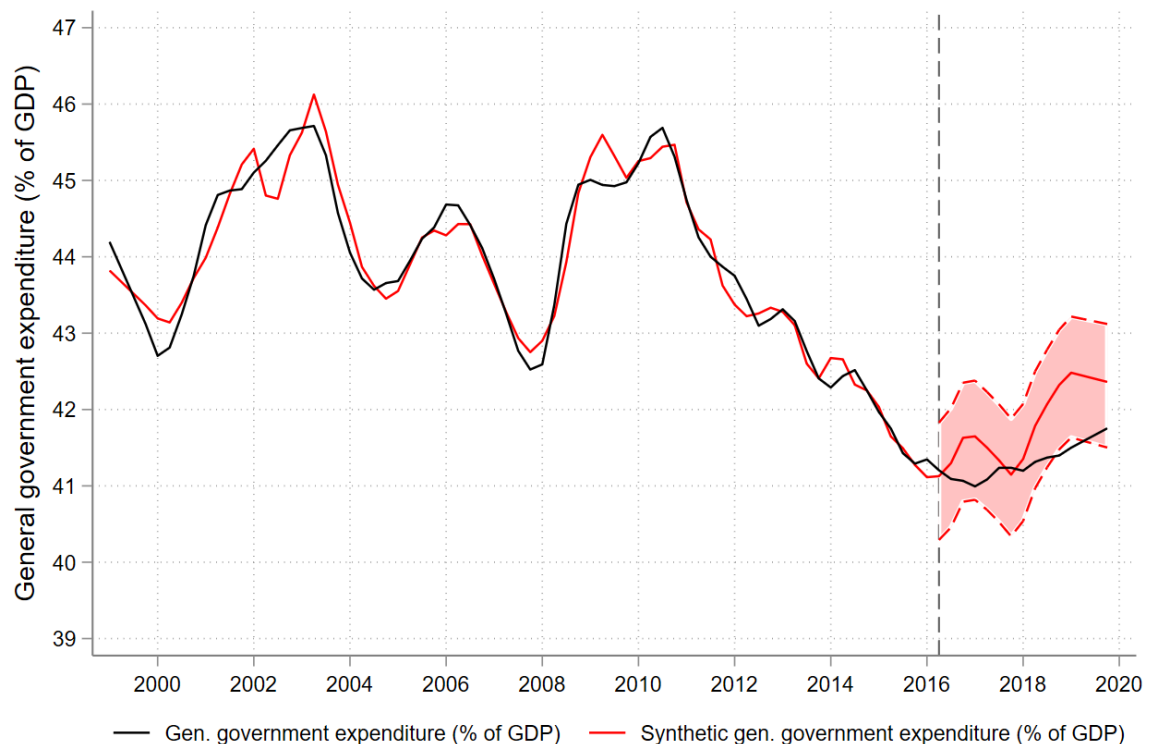
Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see Section 3).
Source: Own estimation based on data from OECD. See Table A.1 for variable definitions.

How was it possible for the populists to curb total government spending and at the same time claim that they were supporting the majority of ordinary citizens neglected or hurt by previous liberal administrations? It seems that to achieve this they employed quite a sophisticated political tactic. First, they implemented a policy of selective redistribution, targeting carefully chosen segments of society. These included families with children, and to a lesser extent, pensioners. Given that transfers to those groups are broadly consistent with traditional conservative social values, this tactic expanded the PiS electoral following without demobiliz-

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[11]Relatively low budget deficits and high rates of economic growth helped them also to reduce the expenditure on public debt transactions by 0.4 percentage points between 2016 and 2019.

Figure 6: The impact of populism in Poland on government expenditure

Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see Section 3).

Source: Own estimation based on data from OECD. See Table A.1 for variable definitions.

ing its core traditional voters.[12] Second, the populists have been very actively and consistently advertising that they have significantly increased *absolute* government spending in almost every area of government activity and for almost every social group except the rich (Leśniczak, 2020; Żuk, 2020).[13] In fact, as mentioned above, despite the large absolute hikes, government spending in many areas of the public sector had actually decreased relative to the GDP. The strong emphasis put by PiS on framing their public expenditure pattern in absolute and not in relative (to the GDP) terms suggests that the populists were betting on voters misperceiving large absolute spending increases for relative changes. The success of this voters' illusion tactic was facilitated by a very fast growth of nominal GDP in Poland between 2015 and 2019 (an average of 6.1% per year). However, whether this populist trick was indeed politically effective needs to be verified in future research.

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[12]See Section 4.4 for an in-depth discussion of this point.

[13]To this end, they have exploited public media (especially public television outlets) and turned them into populist propaganda machines.

4.3   Labor market impacts

Figure 7 shows that populist policies had a small negative impact on the employment rate in Poland. Without populism, the employment rate would have been 0.7 percentage points higher. This could be attributed to the labor market effects of the child benefit program introduced in 2016. Magda et al. (2020) have shown that child benefit decreased mothers' labor force participation by 2–3 percentage points by mid-2017. Our estimates suggest, however, that the negative employment effect had been decreasing since 2019. On the other hand, we do not find any significant effect of populism on the unemployment rate (Figure 8).

Figure 7: The impact of populism in Poland on employment rate

Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see Section 3).
Source: Own estimation based on data from OECD. See Table A.1 for variable definitions.

Figure 8: The impact of populism in Poland on unemployment rate
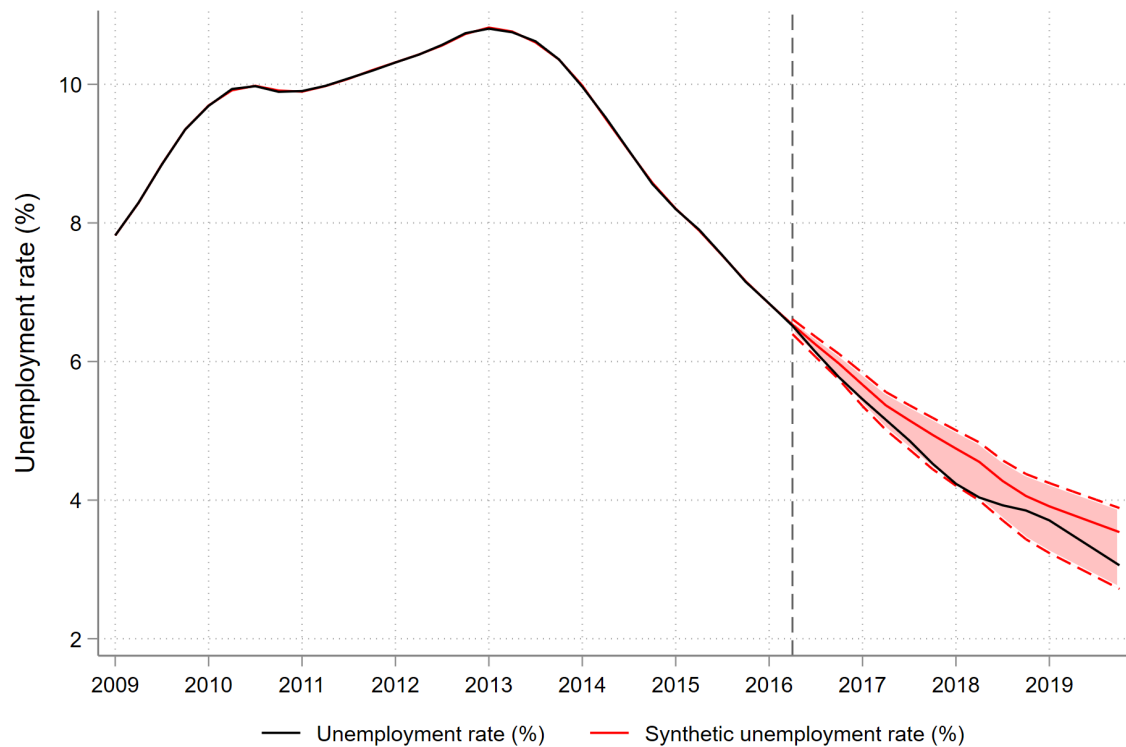
Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see Section 3).
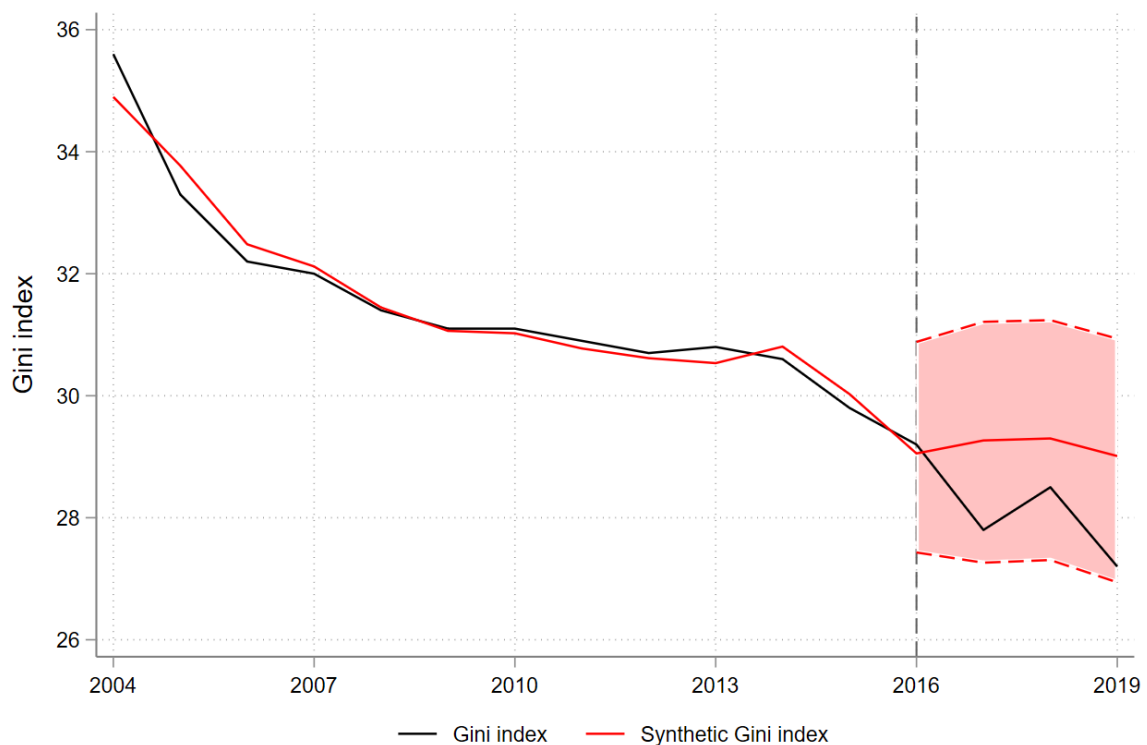
Source: Own estimation based on data from OECD. See Table A.1 for variable definitions.

4.4   Income distribution

From 2016, PiS introduced several economic reforms that could significantly alter Poland's income distribution. Besides the "Family 500+" child benefit, the populists offered a number of smaller cash transfers and allowances. These included a school starter kid program (PLN 300 per year for each child attending school), an increased tax-free allowance for low-income earners, higher minimum pensions, and an annual extra pension payment for pensioners. In 2019, they cut the lowest income tax rate from 18% to 17% and exempted persons under 26 years old from paying income taxes. In addition, an hourly minimum wage for persons employed under mandatory contracts was introduced, as well as an increased top marginal tax rate for incomes exceeding 1 million PLN. We evaluate the joint impact of these and other PiS policies on income distribution. Figure 9 shows that income inequality as measured by the Gini coefficient was slightly decreased, but not in a statistically significant way. On the other hand, the populists were able to reduce poverty substantially. The poverty rate calculated

using a quasi-absolute poverty line "anchored" at 60% of the median equivalized disposable income in 2005 was reduced over 2016–2019 from 4.2% to 1.4%, or by as much as two-thirds (Figure 10). Child poverty was affected even more. The anchored child poverty rate fell to 0.8% in 2019, while without the populists' policies it would have reached 8.8% (Figure 11). This translates to a 90% reduction in child poverty.
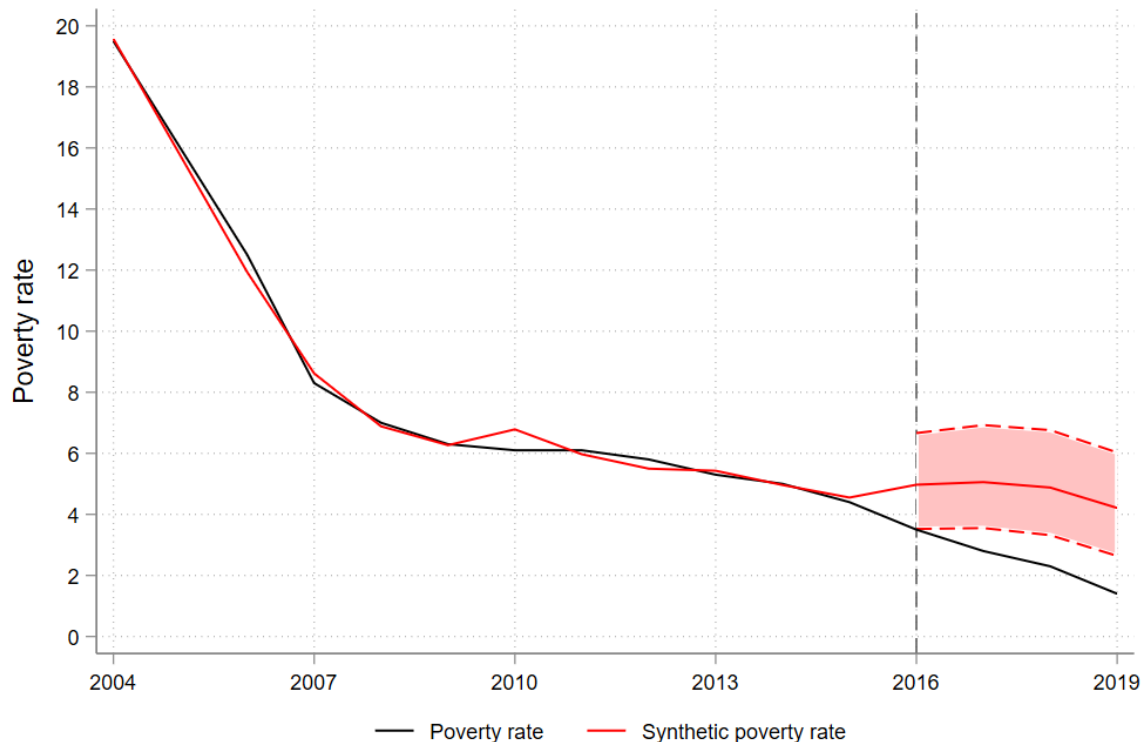
Figure 9: The impact of populism in Poland on income inequality (the Gini index)

Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see Section 3).
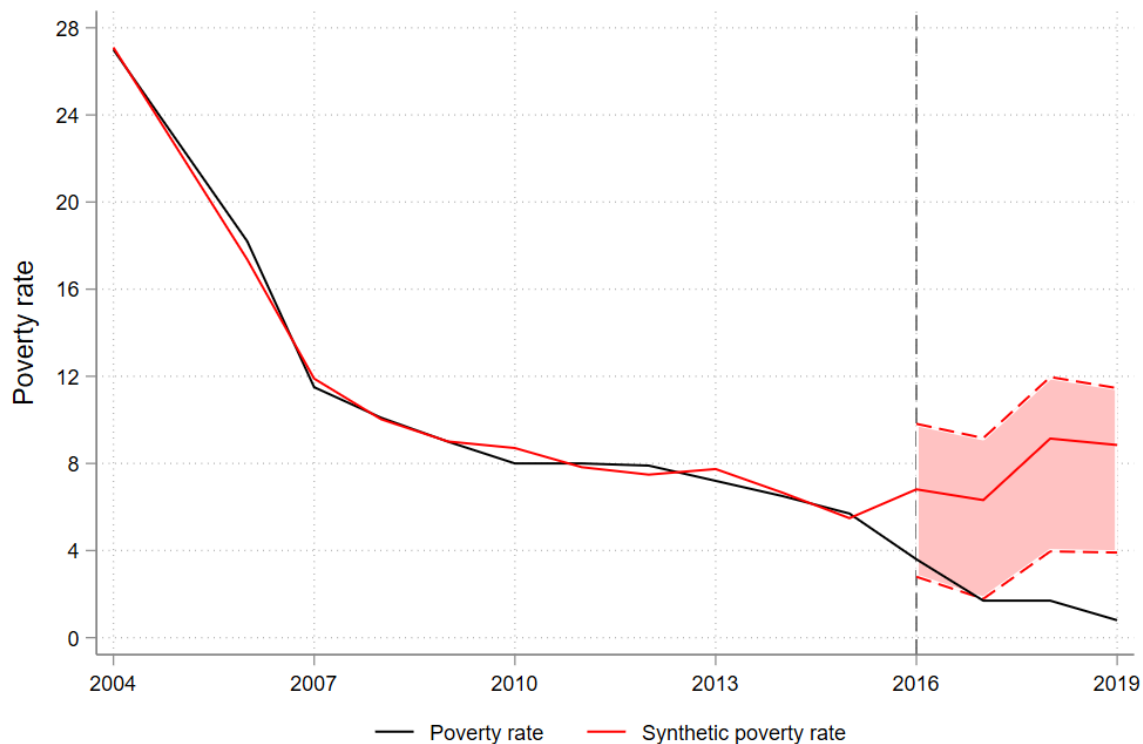*Source:* Own estimation based on data from Eurostat. See Table A.1 for variable definitions.

Our results with respect to the impact of PiS's policies on income poverty in Poland are consistent with previous research, which similarly found positive effects (Brzeziński and Najsztub, 2017; Paradowski et al., 2020). However, earlier literature studied only the distributional impact of the "Family 500+" child benefit, while the present paper measures the joint effect of the full package of the populists' reforms. Past research found that left-wing populists (but not those on the right wing) seemed to somewhat reduce income inequality, but these estimates were often statistically insignificant (Absher et al., 2020; Funke et al., 2020). We show that the right-wing populists in Poland were able to successfully cut overall income poverty and virtually eradicate child poverty. This finding is somewhat surprising, as right-wing populists in general oppose redistribution (Guriev and Papaioannou, 2021). However, our results im-

Figure 10: The impact of populism in Poland on anchored poverty rate

Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see Section 3).

Source: Own estimation based on data from Eurostat. See Table A.1 for variable definitions.

Figure 11: The impact of populism in Poland on anchored poverty rate among children

Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see Section 3).

Source: Own estimation based on data from Eurostat. See Table A.1 for variable definitions.

ply that under certain conditions right-wing populists can implement quite an extensive and effective redistribution. The Polish experience suggests that right-wing populists can treat redistributive policies as "protective shields" against the potential public backlash resulting from their other controversial reforms (Stanley and Cześnik, 2019).[14] Moreover, generous social transfers can also be used by right-wing populists as an electoral expansion strategy provided that they attract new voters without demobilizing their traditional, conservative electoral following (Meardi and Guardiancich, 2022). This has been exactly the nature of the PiS's flagship redistributive program — the "Family 500+" child benefit. It addressed the traditional preference for supporting families with children and, in addition, it encouraged some of the previous non-voters to vote for PiS. Gromadzki et al. (2022) show that the political gains for PiS from the child benefit program were sizeable. Without the transfer, the party would have been unable to retain the parliamentary majority in 2019.

5. Conclusions

This paper provides a first formal evaluation of the short-term macroeconomic performance of populism in Poland over the years 2016–2019. We found that, compared to the counterfactual, the populists overperformed with respect to economic growth, managing the public debt, and collecting government revenues. They did not spur inflation or total government spending. At the same time, they substantially reduced overall absolute income poverty and almost eradicated absolute child poverty in Poland. To achieve these goals, they pursued a strategy of limited and selective redistribution and relied on voters misperceiving large absolute increases in public expenditures as increases relative to the GDP.

Our results suggest that "sophisticated" populists can run prudent, responsible macroeconomic policies, at least in the short run. However, it is not clear if "prudent populism" is sustainable in the longer run. It might be that in order to improve their future electoral results populists will be drawn to less responsible and less sustainable policies. It is also possible that in the long run economic growth and prosperity in Poland will be depressed because of the populist erosion of democratic institutions. If separation of powers, constraints on the exec-

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[14]These reforms in the Polish context include attacking the judiciary, capturing the Constitutional Tribunal, restricting the freedom of assembly, and politicizing public media.

utive, the independence of the judiciary, freedom of the media, and other liberal democratic principles are important determinants of long-run growth (Boese and Eberhardt, 2022), then even "sophisticated" populists jeopardize the economic fortunes of their countries.

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Appendix A. Variable description

Table A.1: Variable description

| Variable	Description	Source
Outcome Variables		
GDP per capita, PPP	Quarterly GDP per capita, US dollars, fixed PPPs, seasonally adjusted; data for 34 OECD countries from 1995-Q1 to 2019-Q4.	OECD Quarterly National Accounts
Inflation rate (CPI)	Monthly Consumer Price Index all items (2015=100), seasonally adjusted; data for 42 OECD and key partner countries from 1995-M1 to 2019-M12.	OECD Main Economic Indicators
Employment rate	Quarterly employment rate for persons aged 15-64, seasonally adjusted; data for 23 OECD countries from 2000-Q1 to 2019-Q4	OECD Short-Term Labour Market Statistics
Unemployment rate	Quarterly unemployment rate for persons aged 15-64, seasonally adjusted; data for 23 OECD countries from 2000-Q1 to 2019-Q4	OECD Short-Term Labour Market Statistics
General government public debt	Quarterly general government public debt as % of the GDP, seasonally adjusted; data for 26 OECD countries from 2000-Q1 to 2019-Q4	OECD Quarterly Public Sector Debt
General government deficit	Quarterly general government net lending/net borrowing as % of the GDP, seasonally adjusted; data for 28 OECD countries from 1999-Q1 to 2019-Q4	OECD Quarterly Sector Accounts
General government revenue	Quarterly general government revenue as % of the GDP, seasonally adjusted; data for 27 OECD countries from 1999-Q1 to 2019-Q4	OECD Quarterly Sector Accounts
General government expenditure	Quarterly general government expenditure as % of the GDP, seasonally adjusted; data for 27 OECD countries from 1999-Q1 to 2019-Q4	OECD Quarterly Sector Accounts
Gini index	Annual Gini index of equivalized disposable income based on data from EU-SILC survey; data for 33 European countries from 2004 to 2019	Eurostat
Poverty rate	Annual anchored poverty rate with poverty line equal to the 60% of the median equivalized disposable income after social transfers in 2005; data for 33 European countries from 2004 to 2019	Eurostat
Child poverty rate	Annual anchored poverty rate with poverty line equal to the 60% of the median equivalized disposable income after social transfers in 2005, calculated for persons aged less than 18 years old; data for 33 European countries from 2004 to 2019	Eurostat
Control Variables		
Investment rate	Gross fixed capital formation as a share of the GDP	OECD Quarterly National Accounts
Consumption / GDP	Private final consumption expenditure as a share of the GDP	OECD Quarterly National Accounts
Net exports / GDP	Net exports of goods and services as a share of the GDP	OECD Quarterly National Accounts
Change in (residence permits / employment)	Ratio of all residence permits to the employed population, change between 2008/2009 and 2014/2015	Eurostat

Appendix B. Additional tables and figures

Table B.1: ASCM donor unit weights (%) for different outcome variables

Country	GDP	Inflation	Employment	Unemployment	Public debt	Government deficit	Government revenue	Government expenditure	Gini index	Poverty rate	Child poverty rate
Costa Rica	43.6	−13.4									
Netherlands	30	−35.7	−3.3	156.6	−10.1	−40.3	13.8	−6.9	0	1.1	13.4
Bulgaria	23.3					0.1	−11.7	−5.3	−0.1		
Sweden	20.6	−48.5			6.5	31.6	8.5	22.4	0	−10	−19.5
Israel	19.7	21.7	61.8	209.7							
Korea, Rep	18.2	38.4	−61.8	−50.2							
Belgium	12.3	3.1	85	−85.7	0.3	35.5	23	−4.6	0	−2.6	−18.5
Lithuania	12	22.2			−13.1	−8	24.1	12.3	0	−8.8	−0.6
Croatia	9.3								0		
United States	8	−13.1	−16.1	−15.1	19.9						
United Kingdom	7.8	3.2	−70.4	104	−22.1	23.8	−34	15.4	0	−3.3	21.8
Portugal	7.6	5.4	68	−18.9	11.6	29.6	18.6	15.5	0	13.2	−7.3
Norway	7.4	12.4	23.9	178	11.5	1.2	36.7	−0.6	0	66.6	37.8
Slovak Republic	5.3	21.7	62.1	69.9		0.1	4.6	−9.8	3.3	2.8	60.4
Latvia	4.6	7.4			27.4	14.8	1.2	15.3	0	50	37.7
Spain	4.6	−69.3	−13	−19.8	−2.7	−6.2	16.1	5.1	0	12.7	17.7
Austria	3.7	86.1	−14.3	−209	−28.7	−13.7	26.6	−0.9	1.9	−3.8	2.4
Luxembourg	0.5	61.3			−5.4	−30	−26.2	−16.2	0	−2.6	5.3
Australia	−0.2		56.7	29.1	5.5	4.5					
Iceland	−3.8	8.2							0	−9.2	−19.2
Greece	−4.7	14.4	−7.7	16.5	−9.1	7.3	−12.1	−5.7	0	0.3	14
France	−5.4	−48.5			25.3	19.7	25.4	0.6	21.1		
Finland	−6.4	74.7	−52.6	66	29	−23.4	−60.6	−7	0	2.4	2.9
Denmark	−9.7	17.7	−0.4	−62.6	−9.7	26.3	−47.7	−25.1	0	1.7	−6.2
Germany	−10	−12.8			7.6	68.6	5.3	41.3	0	0.8	−5.8
New Zealand	−13.1		13.3	−159.2							
Switzerland	−13.8	−4.6			40.9				0		
Canada	−13.9	31.7	−32.9	−69.8	1.9	0.9	26.9	12.8			
Estonia	−14.6		−1.7	18.7	−7.5	−14.5	−24.5	−22.2	1.3	1.2	−1.7
Czech Republic	−18.3	12.3	0.9	−68.9	3.6	−20.1	1.3	37.2	12.9	3.1	38.2
Italy	−24.6	−37.9	−22.3	−25.8	17.9	−1	−1.7	17.5	0	−3.3	0.7
South Africa		−20.3									
China		5.8									
Brazil		−10.9									
Russian Federation		2.1									
Saudi Arabia		−52.1									
Mexico		27.8									
Colombia		−0.5									
Chile		−0.6									
North Macedonia									15.2		
India		15.6									
Ireland		−16.9	24.7	36.6	−0.5	−5.9	15.3	−7.5	0	−6.4	−14.9
Japan		−18.5									
Romania						−4.8	26.1	9.5	28.7		
Indonesia		−15.1									
Cyprus									0	−10.7	−46.6
Malta									0	3.4	0.7
Slovenia		34.5				4	45.2	6.6	15.7	1.4	−12.7
Turkey		−9.1							0		

Note: Empty cell denotes a missing country observation for a given outcome variable. Countries are sorted according to the decreasing ASCM donor unit weights estimated for the GDP.

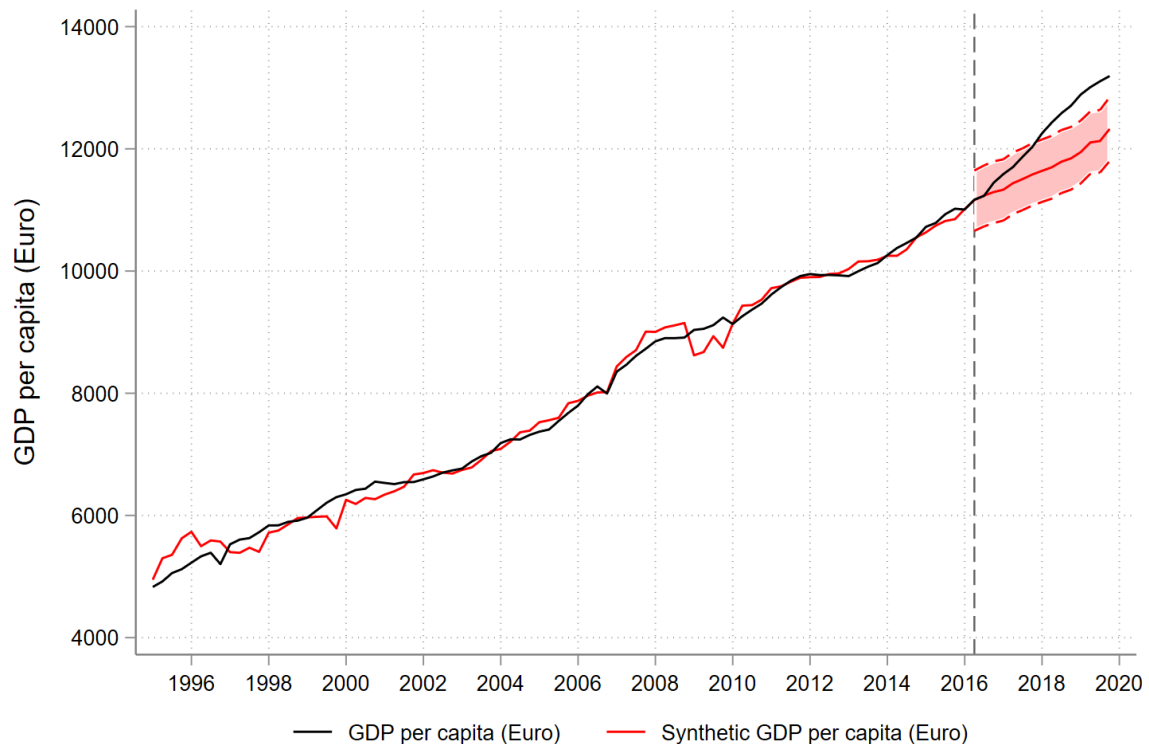*Source:* Own estimation based on data from OECD and Eurostat.

Figure B.1: The impact of populism in Poland on the GDP per capita — sample extended to 2022-Q2)
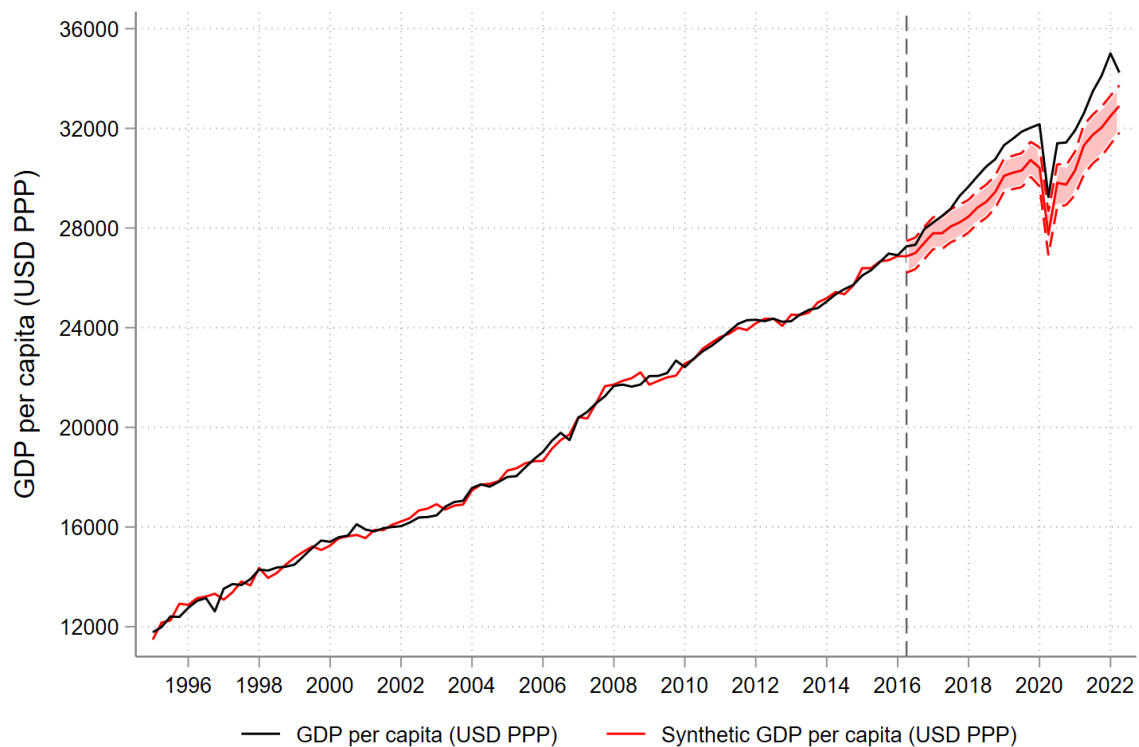
Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see Section 3).
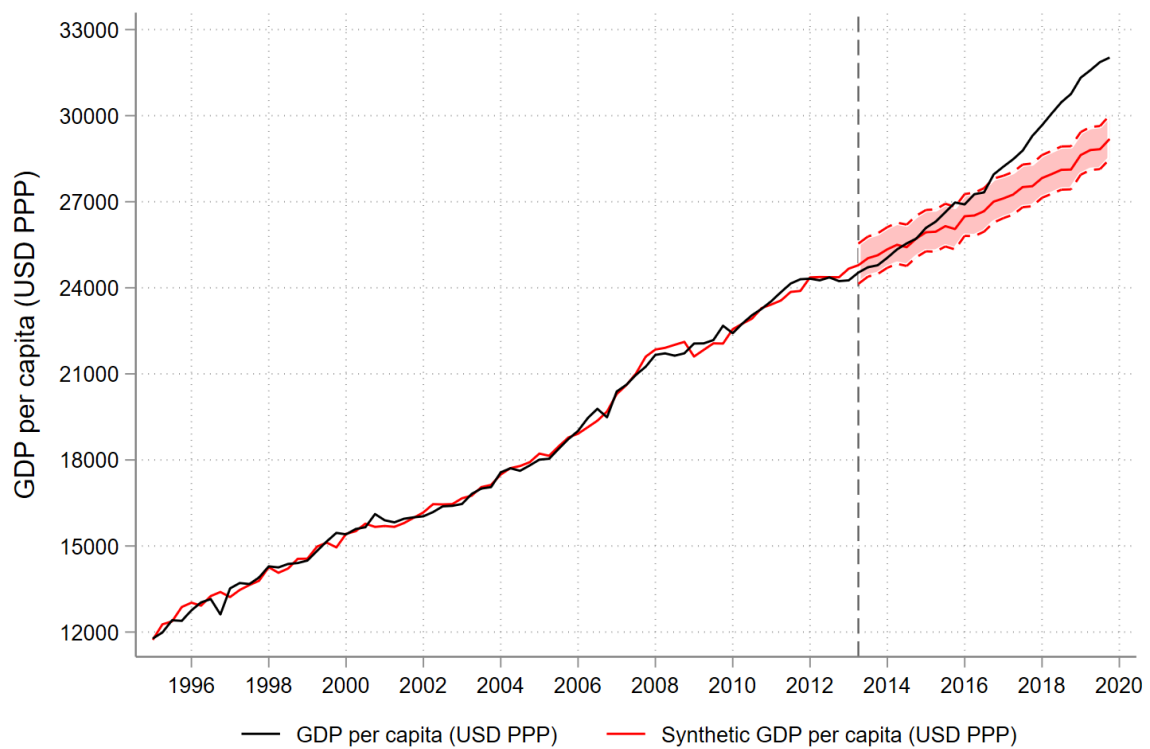
Source: Own estimation based on data from OECD.

Figure B.2: The impact of populism in Poland on the GDP per capita — covariates include migration-related labor market shocks

Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see Section 3).

Source: Own estimation based on data from Eurostat.

Figure B.3: In-time placebo test for the GDP per capita — treatment backdated by three years to 2013-Q1

Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see Section 3).

Source: Own estimation based on data from OECD.

Figure B.4: In-space placebo (leave-one-out) test for the GDP per capita
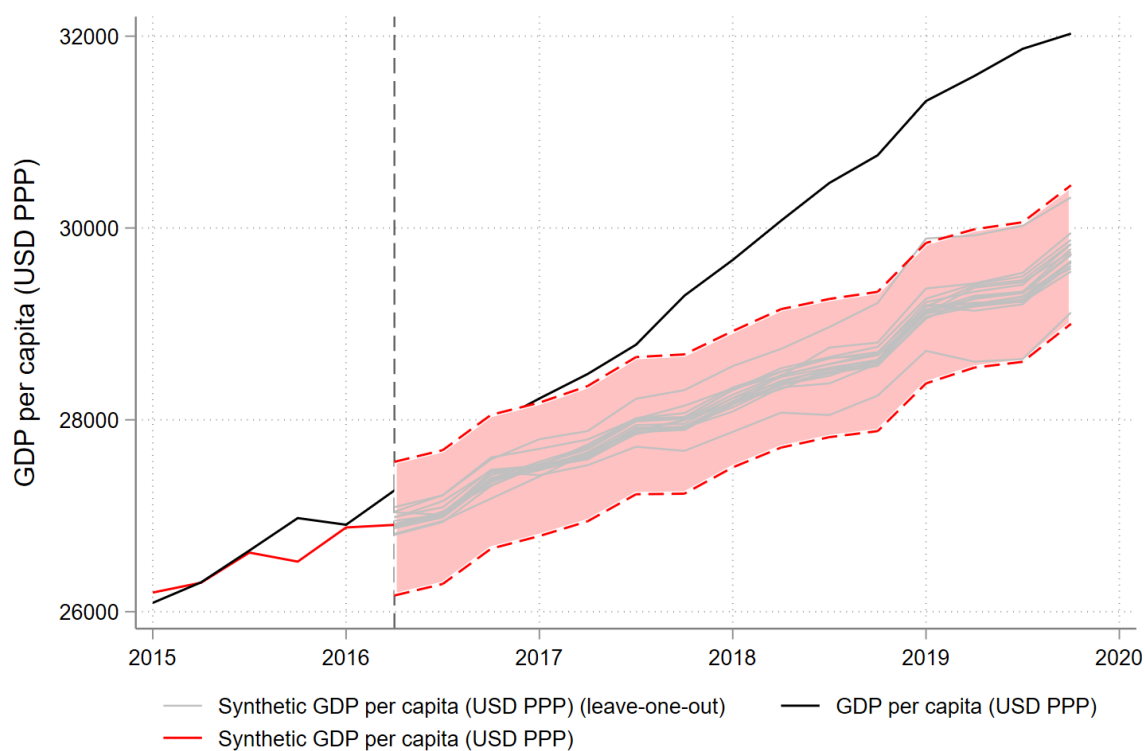
Note: The red shaded area shows 95% confidence intervals calculated using the jackknife+ procedure (see Section 3). Grey lines show the doppelganger estimated by removing from the sample one-at-a-time each of the donor countries contributing positively to the baseline synthetic control from Figure 1. The sample covers the 1995-2019 period, but for better visibility the figure focuses on the post-2015 period.

Source: Own estimation based on data from OECD.