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VIOLATION OF INTERNATIONAL LAW AND THE EFFECTIVENESS OF SANCTIONS AGAINST RUSSIA: THE INVERSE IMPACT ON THE MARKET FOR BANKING AND FINANCIAL SERVICES

Ljubljana, June 2024 ANASTASIYA LENDEL

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DPR – so-called Donetsk People's Republics

EBRD – European Bank for Reconstruction and Development

EU – European Union

GATT – The General Agreement on Tariffs and Trade

LPR – so-called Luhansk People's Republics

OECD – Organisation for Economic Co-operation and Development

OFAC – Office of Foreign Asset Control

OIF – Oil-for-Food Programme

PPP – Purchasing Power Parity

SCM – Synthetic Control Method

SVR – Russia's Foreign Intelligence Service

TEU – Treaty on European Union

WTO – World Trade Organization

WWI – First World War

WWII – Second World War

1 INTRODUCTION

Since the beginning of Russian aggression against Ukraine in 2013-14, the European Union (EU) has imposed a range of economic sanctions against Russia, including targeted sanctions against individuals and entities, trade restrictions and financial measures. These sanctions were imposed in response to Russia's violation of international law by illegal annexation of Crimea and formenting separatism in Donbas. The EU sanctions had a partial effect on the Russian economy, affecting many of its sectors, including the energy and banking industries, as well as sectors related to technologies and weapons; however, due to trade with the third countries and rise in commodity prices exports reached 636 billion USD in 2022, while imports dropped to 351 billion USD, causing an improvement in Russia's current account surplus of 233 billion USD and trade balance of 285 billion USD (Caprile & Delivorias; Clapp & Immenkamp, 2022).

After the full-scale invasion of Russia into Ukraine on February 24, 2022, the measures introduced against the aggressor country increased rapidly (Zandt, 2023). Trade restrictions were estimated to cause Russia's GDP to drop by 3.7–8% (Hosoe, 2023). The financial and banking sectors were particularly affected by the sanctions - the worsening economic downturn and foreign currency activities are said to be the cause of Russia's banks recording an RUB 1.5 trillion (about US$25 billion) loss in the first half of 2022 (Barisitz & Deswel, 2023). Many Western banks were forced to cut their relationships with Russian banks to comply with the sanctions, which affected their financial indicators - the market share of the four biggest Western bank subsidiaries that are still operating in Russia was around 1% in the third quarter, compared to 3% in 2021 (Eder, 2023). In addition, numerous measures including prohibition of securities purchase, export of banknotes, excluding banks from SWIFT, freezing assets and blocking foreign exchange reserves (European Commission, 2023) were imposed by the EU in the trade sector with Russian Federation.

However, the question of the effectiveness of the European Union measures remains open. Despite the evidence based on the empirical and statistical analysis that indicate the damage to the Russian economy, the drastic impact that was predicted has not yet been observed. The emergence of new mechanisms for circumventing financial sanctions by Russian banks, businesses, individuals and legal entities was traced in 2022, taking into account that wealth of natural resources provides some resilience to the other restrictive mechanisms. Moreover, Russian Federation has strengthened the state cooperation with Asian countries, which to some extent compensates for previous trade with the EU and undermines the expediency and effectiveness of sanctions.

Russia finds new ways to conquer new markets and intensifies its trade with such countries as China, Türkiye, Belarus, and Central Asian countries, and uses their financial systems for transactions (Hirsch, 2022; Venkataramakrishnan, 2023). Empirical evidence indicates that

China expanded its exports of completely or partially sanctioned commodities Russia and Georgia by 8-15%, and Türkiye internsified the export of the sanctioned goods by 21% The effectiveness of export restrictions are also debatable: according to Demertzis et al. (2022), rising prices have caused Russia's export revenue to increase by over forty percent to almost $120 billion so far this year, rather than decline due to high demand of Russia's inputs in the West and other regions. Similarly, the search for loopholes and maintenance in indicators has been evident for other sanctioned countries, like North Korea remained stable the oil prices (Kim, 2020); Iran used shadow networking of 39 entities to access the international financial system (United States Department of State, 2023); or by creating shell companies in Syria (Fox, 2022). As it will be examined in the following chapters, Russia is smartly using its close-tied partners to by-pass the financial sanctions, like the SWIFT ban, imposed by Western countries.

Another type of restrictive measures to consider in terms of effectiveness are the ones imposed on individuals, aiming to disassociate the Russian elites from loyalty to Putin. The EU has sanctioned a total of 1 473 people and 207 entities since the annexation of Crimea in 2014, also considering earlier individual sanctions (Council of the European Union, 2022b). These people and entities are either involved in decision-making processes, prominent representatives of the upper class, or related to propaganda, atrocities committed in Bucha and Mariupol, missile strikes, deportation and forced adoption of Ukrainian children, among other things. However, from a behavioral perspective, sanctioning these individuals could also make them more supportive of Putin and his crimes in Ukraine (Monshipouri & Boggio, 2022), as it will be explored further in this work. Despite the noble intentions behind the sanctions on individuals, such steps are ineffective if Putin can provide these people with something greater than the benefits they receive from the EU, and the Kremlin government will only be able to bolster its popularity.

Overall, it doesn't seem as though the Kremlin system has been compromised by the individual sanctions effort in 2022 (Snegovaya et al., 2023), and generally, sanctions imposed by the EU are resulting in a shifted burden on middle and lower classes and a decrease in their incomes (Berriault, 2022). By estimantions of Gold et al. (2023), exposure to sanctions in 2014 resulted in a 13% increase in President Putin's and his party's vote share. The evidence from Iran supports the statement by showing a 3.8 percentage point higher poverty difference in sanctioned nations (Neuenkirch & Neumeier, 2016). Moreover, the human cost of sanctions is frequently so great that it discourages political reform and instead turns the citizens of the sanctioned countries against the one that imposed them (Demarais, 2022). Based on this information, the question of the true effectiveness of sanctions in reaching it’s aim and improving the conflict resolution remains open.

The purpose of this thesis is to contribute to the understanding of how meaningful are the imposed Western sanctions on Russia, and produce alternatives to restrictive mechanisms, as well as recommendations on how to put the right pressure on the agressor country in order to undermine the financing of the war, which comply with the rules of international law.

The goal of the thesis is analyse the effectiveness of sanctions imposed on Russia by the EU in undermining the ability to finance the war. The research has a confirmatory nature, as it aims to test whether Western sanctions have a significant effect on Russian economy. The analysis is conducted using the synthetic control method (SCM), and synthetic Russia is constructed based on the data of 1992-2023, taken into account that sanctions were intoduced in 2013. Matched with the actual indicators on GDP, inflation, imports and exports, and capital flows, the proximity of the development of Russian economy to the projected numbers is analyzed. Based on the conducted research the optimization of the restrictive tools for undermining the ability of Russian Federation's ability to sponsor the war: the application of the extraterritorial sanctions, punitive tax introduction, as well as rethinking the impact to be targeting more the highest-income group and closest Putin's circle.

The existing literature is enriched researches examining impacts of sanctions and their effectiveness, however, pulled researches, like one of North Korea, Iran, and Russia together analyzing the empricial studies (Walterskirchen, 2022) are not prevalent; Previous studies included a one-case analysis using synthetic-control methodology to assess the impact of sanctions on the country (Gharehgozli, 2017; Ghomi, 2021); and the effects on poverty (Ghomi, 2021; Neuenkirch & Neumeier, 2016). This undergaduate thesis pulls up a novel analysis of the economic development of the most sanctioned country so far – Russia – with relation to the projected effects of the imposed sanctions and the actual indicators with the proposal of more effective mechanism against Russia taking into account the countervailing effects of sanctions on poverty, heterogeneity of sanctions, and the support of the political regime.

The structure of this article is the following: Chapter 2 presents the overview of the literature economic impact of sanctions; Chapter 3 comprises the methodology, followed by the data and analysis subsequent steps. Chapter 4 presents the results, and Chapter 5 includes discussion of the legal aspects and the suggestions of the alternative ways of optimizing the means of pressure on Russian Federation, which would tighten the ability of surpassing them, ending with conclusions in Chapter 6.

2 LITERATURE OVERVIEW

2.1 History of sanctions development

Sanctions in the earlist literature were be defined as formally enacted penalties intended to enforce legal obligations (Schwartz & Orleans, 1967). Nowadays they comprise diplomatic sanctions, and more narrow-sensed restrictive mechanisms, such as arms embargoes, travel bans, assets freezing and economic sanctions (Council of the European Union, 2022b). The latter can be referred as the use of limitations on a single country's overseas economic activities by a number of nations with the goal of lowering the target nation's economic standing (Porter, 1978). The use of economic sanctions throughout history has been an

integral component of the foreign policy of most nation states. The end of the Cold War and failure to impose more complex methods to reach collective security became a geopolitical leitmotif for a more sophisticated instrument development and a practice of targeted sanctions (Wallensteen & Staibano, 2005). Countries rely on economic sanctions not only to affect foreign policy and national security goals, but also to respond to domestic political needs and economic pressures, or pressures by interest groups. Woodrow Wilson, the US president at the time, referred to sanctions as "something more terrible than war" in 1919 (Mulder, 2022).

In ancient and early modern Europe, economic sanctions were used for a variety of purposes, but mostly as subordinate instruments of military policy during wartime. Indeed, Athens imposed economic sanctions in 432 BC when Pericles issued a Megarian import embargo against Greek city-states that refused to join the Athenian-led Delian League during the Peloponnesian War. During Europe's Reformation Wars of Religion, states used trade embargoes and other economic sanctions to enforce treaty obligations to protect certain Christian minorities (Kern, 2009). At the end of the nineteenth century, economic sanctions were usually used during wartime and took the form of export controls over strategic supplies and blocking of target countries, such as pacific blockades (Davis & Engerman, 2003). The first known one occurred in 1827 when Britain, France, and Russia stationed a navy off the Greek coast to stop supplies and reinforcements from reaching the Turkish and Egyptian forces engaged in warfare in Greece during the country's struggle for freedom from Turkey (Davis & Engerman, 2003).

During the initial 10 years of the League of Nation's establishment, the tool Wilson described was frequently referred to in English as a "economic weapon." Because of its categorization as a weapon, it was clearly influenced by the military technique of blockade. The German, Austro-Hungarian, and Ottoman empires were the targets of an unparalleled economic war waged by the Allied and Allied Powers, spearheaded by France and Great Britain, during WWI. To regulate and halt the flow of supplies, energy, food, and information to their adversaries, they have established worldwide committees and national ministries of blockade. The blockade's devastating effects on the Middle East and Central Europe, where hundreds of thousands of people perished from malnutrition and disease and civil society was badly upended, were what made it such a potent weapon. These measures go by a different but more well-known name now, almost a century after the Great War: economic sanctions (Mulder, 2022). The scientific literature, however, doesn't provide an empirical research on how effective were these imposed measures.

Mulder's (2022) description of the blockade as a "Pacific tool of pressure" in his book recognized a decisive shift in the policy of economic weapons. It was once considered forbidden even during the war. It was then legitimized as a means of warfare. After the WWI, it became a weapon of peace that could possibly be used without any declaration of war and as an alternative to it.

Proponents of economic weapons hoped that they might rarely or never have to be used, but instead that their mere presence might be enough of a threat to deter aggressors. The term "sanction" first appears in a sense that is similar to our current understanding in the League of Nations Charter (Williams, 1973). Yet Arnold-Foster, one of Britain's foremost defenders of the League of Nations, recognized the potential for horrific civilian casualties worldwide (The Economist, 2022). At the time after the WWII, non-UN sanctions also increased, although the change was less noticeable since other sanction users—most notably the United States—had been more active during the Cold War. Therefore, three quarters of all UN sanctions cases were started after 1990, even though thirty percent of post-WWII cases that did not include the UN happened in the 1990s alone (Elliott, 2009).

During the Cold War, governments imposed sanctions more frequently than in previous decades. The UN Security Council has used targeted sanctions more frequently to address significant threats to global peace and security, such as armed conflict, counterterrorism, nuclear non-proliferation, and unconstitutional government transitions. (Biersteker & Hudáková, 2021). Examples include Iraq, Libya, South Yemen in 1980s with the 'stated' goal of undermining their support for terrorism (Hufbauer et al., 1990), yet that it is still unclear if the US sanctioned Libya and Yemen in order to stop the expansion of Soviet influence or to discourage terrorism. Soviet Union, on the other hand, put some restrictive measures into action on Yugoslabia, Albania and China with goverment-undermiming aims, althought didn't succeed as United States did (Hufbauer et al., 1990). Only in the 1990s, after the end of the Cold War, unilateral sanctions began to be replaced by multilateral intergovernmental coalitions. While the US continued to lead with the largest number of sanctions, Western Europe – newly appeared as supranational body after Maastrict Treaty coming into action in 1993, and especially the United Kingdom, began to play a more active role (Giumelli et al., 2020).

The UN imposed the most high-profile sanctions against Iraq between 1990 and 2003, following the Iraq's invasion of Kuwait (Von Sponeck, 2005). Since 1990, sanctions have often targeted political leaders, drug lords, and terrorists to reduce the humanitarian impact of the comprehensive sanctions on Iraq. However, these restrictive measures were de-facto eased through the 1995 Oil-for-Food (OIP) programme, which was a temporary approach to lessen the unexpected effects of UN sanctions on the civilian population of Iraq (UN Office of the Iraq program, 2004).

Currently Russia is the most heavily sanctioned country in the world as of December 15, 2023 according to the statistical data (Zandt, 2023). In total, 18 772 restrictions were imposed on individuals, companies, vehicles and aircraft in the country. About 16 077 of them were placed after February 22, 2022 (Zandt, 2023). On that day the Russian government announced that Russia would recognize the independence of the separatist Donetsk and Luhansk People's Republics (DPR and LPR) and would introduce troops into the region. Before the war in Ukraine in 2022, Russia was under sanctions for violating the territorial integrity of Ukraine in 2014 when it annexed Crimea and Sevastopol, cyber

attacks, arms trade with North Korea, Iran and Syria, use of chemical weapons, etc. On February 24, 2022, Russia's invasion of Ukraine began, what caused an immediate response from the countries and the imposition of sanctions by the EU, US, Canada, Switzerland, UK, Australia and Japan (EIFEC, 2022). According to the OFAC (Office of Foreign Asset Control), the sanctioned entities in Russia were of economic significance in purchasing the goods abroad and conducting foreign operations, as well as supporting the financing of the war (OFAC, 2022).

As more governments seek to expand and diversify the types of economic sanctions they impose, equal, if not more, efforts are needed to ensure that restrictive sanctions regimes (i) reach its targets and make an impact; (ii) if they don't do the previous, more effective mechanism of influence is used; (ii) ensure focus on human welfare, instead of human rights, (as the latter was proven to work at cross-purposes with the development policies, and denounces the poorest states, which, in fact, should be supported the most) (Posner, 2008); and (iv) promote accountability.

2.2 The effectiveness of sanctions in reaching the ultimate targets

International sanctions, despite its clear goals when being imposed on other country, face several paradoxes regarding their effectiveness and the resutls of the imposition. For instance, study by Afesorgbor (2019) shows that the trade flow between the sender and its target decreases when sanctions are enforced, but it increases when sanctions are threatened, supposedly due to resorting to stockpiling before sanctions are actually imposed in order to limit any negative effects of the penalties.

One of the debatable issues being investigated is the effectiveness of unilateral versus multilateral sanctions. Many previous studies argued that unilateral sanctions are more likely to reach its ultimate target, esepcially when enforced by a nation with strong relations to the target (Kaempfer & Lowenberg, 1999), while multilateral fail to succeed without support of international organization (Drezner, 2000) or when focusing on several issues (Miers & Morgan, 2002). In addition, they are diffficult to impose (Cohen & Goldman, 2019) and they can diminish the target country's opposition parties' ability to influence politics (Kaempfer & Lowenberg, 1999). In contrast, Bapat and Morgan (2009) using new TIES data have shown that multilateral sanctions predispose to a bigger, or more probable success of resrticitve measures; moreover, according to spacial explanation, multilateral sanctions surpass unilateral ones only when done over single issue or involving an international institution. In another study it was shown that when unilateral sanctions are imposed, energy efficiency decreases by 0.067%, but when plurilateral sanctions are applied, energy efficiency increases for the whole sample of countries (Chen et al., 2019).This study is going to test the multilateral sanctions imposed on Russia and check their effectiveness in reaching the targets, and thus, contribute to a better understanding of the sanctions of different nature.

One of the claims made in favor of sanctions is that its appliance to the country will eventually force people to take action and change the government, impacting the country's politics and negotiating the sanction's weakening. However, sanctions put pressure on the political elite, which is one reason why they frequently seem to accomplish the reverse of what they are intended to (Gutmann et al., 2022). As a result, rulers feel obligated to use violence in order to maintain their position. Thus, it can be stated that one of the ultimate goals of international sanctions is regime change through the application of instruments of economic policy to influence domestic output and pricing.

The research evidence suggests the opposite: imposed restrictive mechanisms are not changing the nation's foreign policy moving in the direction that the sender nations favor (Afontsev, 2022); and have more impact in terms of domestic political cost in states with less authocracy (Allen, 2008). Interesting is how autocracy states strenghthen: the analysis of Aidt and Albornoz (2011) suggests that when the local elite is weak and foreign investors are powerful, foreign intervention aimed at strengthening an autocracy is the most likely type of intervention. In case of occurence of revolution in the targeted country, the political-economy model suggests that political elite reduces the supply of public goods, and consequently, lowers the income, what increases the citizens' rebellion costs (Oechslin, 2014). Consider the case of Iran: a mix of sanctions, diplomatic inducements, and military intervention threats from the U.S. though depriving the country of oil and energy foreign investments, haven't led to a desired regime change (Monshipouri & Boggio, 2022).

Loopholes and the evasion of the imposed restrictions are a prominent part of the discussion among policymakers, economists and scientific community, as they can explain to a big extent why sanctions are often not as effective as anticipated. Taking the example of Iran, we conclude from the data that sanctions has affected the growth rates of national economy, inflation, consumer price index and other economic indicators (Salitskii et al., 2017). However, the Obama administration in the United States has not imposed restrictions on gold exports to Iran despite asserting legal ability to do so under Executive Order 13622 since July 2012, what created a loophole for Iran to increase import of gold and establish energy-gold trade with such countries as Türkiye, India and China (Clark et al., 2012). Literature exploring sanctions against North Korea although acknowledges their impact, but also notes the price recovery after few months and petroleum refinery product smuggling to avoid restrictions (Kim, 2020).

Russia is the most vivid example of investigation for how imposed sanctions by West are only partially reaching its aims, with the country effectively exploiting the loopholes (Vlasyuk, 2022), and imposing countersanctions which are hurting the opposite sender party as well (Nguyen & Hung, 2021). Crozet & Hinz (2020) found out that in the worldwide lost trade, $1.8 billion is borne by the Western nations imposing sanctions on Russia since 2014. The burden on private actors is unequally spread among nations, with 92% of the expense falling on EU Member States and with 87% of the lost commerce caused by non-embargoed goods. Another finding by Dreger et al. (2016) shows that the oil prices influence Russian

ruble more, and what could have an impact on conditional volatility in Russia are the unanticipated sanctions; meanwhile, economic sanctions in the long run are neither likely to alter the political course of the country, nor lead to resolving the war with Ukraine, what is evident from the retrospective.

Imposing financial restrictions on Russia bares few scenarios for development for the international payment system. Baicu and Oehler-Șincai (2022) state that financial sanctions may hasten the creation of alternative payment methods and the usage of cryptocurrencies for cross-border transactions, the American dollar's dominance of the global monetary system may be challenged, and the Chinese yuan's internationalization may accelerate. The four largest banks of the Russian Federation fell under the fifth package of EU sanctions, which prohibit them from conducting transactions with securities. In his research, Wright (2023) suggests that exposing parts of user's identity, improve the framework of checking and sharing sensitive data, and considering riskier regulations to secure from sanctions by-passers.

Russian banks such as as Sberbank, VTB and Alfa-Bank transfer their clients' foreign assets to brokers (Kontrakty,UA, 2022). In study by Kubin (2023) examining those corporations and some other banks and oil companies showed the weak impact of sanctions on them in 2015-2017 with improved situation in 2018-2019. Science full-scale invasion Sberbank broker transfers clients with foreign securities to investment companies BKS and ATON; similar measures can be observed in other banks as well. Banking sanctions are anticipated to have relatively limited direct consequences since Russia's digital ecosystems are embedded in the country's domestic banking system (Allinger et al., 2022). In connection with the withdrawal of international payment systems, Russians began to issue cards in Belarusian banks to pay for foreign services and subscriptions to the App Store and Google Play; Russian banks transfer Visa and Mastercard to MIR payment systems, which allows the use of cards for a long time. Payment systems such as "MIR" and the Chinese payment system UnionPay remained on the market, which prohibited international transactions, but their capabilities are limited (Vlasyuk, 2022).

This leads to the following point. If nation A imposes penalties with the intention of harming country B, the latter can avoid them by alienating country C by rerouting, which offers a somewhat more expensive alternative to the services received in country A. Sanctions will therefore be effective as long as nation C provides worse bypassing services than does country A. Such conclusion raises the question of whether sanctioned firms using China's services are getting worse deals than those provided by the US and EU. Despite a steady increase, the RMB's proportion of global payments via SWIFT remains tiny, growing from 1.65% in 2020 to 3.2% in 2022 (Jin, 2022). This means that China's CIPS is insufficient to protect Russia from the full brunt of U.S. and partner sanctions.

The distributional advantages of bridging Russia's technological gap through import substitution are evident, compared to introducing significant changes to the tax structure and

organizational structure of the petroleum business, which has resulted in potentially unanticipated expenses for both the government and the sector (Vatansever, 2020). Since December 2022 evidence of Russia and Iran building a new trade root to the Indian ocean, which would increase their resilience to Western sanctions (Dhyani, 2023). Other studies investigating impact of sanctions on the firm level show that do not consistently harm Russian companies' ability to function, but require them to make strategic decisions (Gaur et al., 2023; Meyer et al., 2023). However, the mechanism in which Russia as country of raw materials and food production specialization is planning to bypass sanctions is marked as technologically reverse import substitution (Milanovic, 2022). As it plans to revive the machine, automotive, and other industries using outdated technology, it is questionable whether Russia will succeed in producing enough output with competitive featutes and match the skills of its labor, which tends to move towards post-industrial sectors. To conclude, the furter observation of Russia's strategic steps is crucial in detecting new loophples and designing effective mechanisms of their prevention.

2.3 Critical verview of imposed sanctions on Russia and their goals

Russia has been experiencing restrictive measures since 2014 by the Western states, but the biggest amount of them was imposed afte the full-scale invasion into Ukraine. According to the political leaders, sanctions are meant to to limit the Kremlin's capacity to fund the conflict reduce Russia's economic foundation (European Commission, n.d.; U.S. department of the Treasury, 2023a). Among EU officially announced aims also comprise inflicting obvious political and economic consequences on Russia's ruling class (European Commission, n.d.), causing a fall for Putin's support, which would mean some striving to the regime change. In fact, according to the recent analyses, the sanctions have merely increased internal support for Putin's administration, which is especially strong among the highly educated bureaucratic class (The Economist, 2023).

Freezing assets of the country, as well as its elite, imposing a travel ban in line with other measures are undoubtedly one of the main restrictive measures, but as it was overviewed in the previous sections, sanctions aiming at the regime change have barely reached their objectives in different cases. If viewing this from a different perspective, it is still more expensive to impose sanctions on the sanctioned organizations than it is to avoid them and flee to the West in an attempt to overthrow Putin's government. Moreover, the question whether the EU's restriction on Russian travel is even practical arises. While it could be more practical to encourage Putin's regime's primary allies to divert and relocate to the West in an effort to undermine it, the EU frequently pursues blind-folded initiatives with unintended results that maintain Putin's support and acceptance. Such view often is trated as pro-Russian, but in its theory it actually supports the Ukrainian side. In such scenario, it would be crucial to limit the ability of transferred entities and individuals to conduct fiancnial transactions back to Russia and finance the war machine.

When talking about preventing the financing of the war machine, sanctions have to be designed carefully, well-thought, and including a compex structure of possible omitting alternatives, in order to hit the Russia in a way that will bring it the most costs. It should be done for the following reasons discussed before: (i) there are plenty of loopholes to surpass the trade; (ii) Russia buy the restricted goods from the third parties, which in turn purchase them from the state/group of states, which imposed sanctions; (iii) when a nation refuses to trade with Russia, it opens up chances for other nations to collaborate closely on more advantageous terms (Takeda, 2023).

SWIFT ban was shown to be not so effective and easy to bypass, although it was one of most discussed measures to invasion in the beginning, as the Western countries leaders stated that it would isolate Russian banks and undermine their global operations (Hotten, 2022). It may be the case that those are not the financial sanctions that will cause a significant influence on Russia's economy and its ability to finance the war.

Firstly, countries shall focus on disrupting the supply chain of details and elements, that are used in the construction of weapons and military-related machinery. This field is vastly monitored by the United States on its territory and identified properties have been blocked (U.S. Department of the Treasury, 2023b). However, one should be cautious and Western world shouldn't stop digging deeper and taking the corresponding action: Switzerland has exported microelectronic components for $276,000 to Russia, which used by Putin's armed forces to construct drones, rockets, and cruise missiles; also, through purchases from countries like Serbia, and Kazakhstan, Turkey, and Georgia it is compensating the trade loss since the invasion (Balmer, D., & Meier, P., 2023; Sonnenfeld & Wyrebkowski, 2023; Swissinfo, 2023). Moreover, Kyiv has been resently reporting the findings of less Western, and more Chinese components in the weapons (Taplin, 2023), what raises concerns with overall noted increase of Chinese elements' imports by Russia (Bilousova et al., 2023) and attempts of Pekin to sell something they might not be able to charge more for in China or the West (Gilchrist, 2024). If this is the case to be viable on longer term, the effect of sanctions on components will be eventually nullified. Consequently, this area for sanctioning may have an effect only after careful reconsideration of existing sanctions and world's trade flows of the machinery components,

Secondly, another topic may be the punitive tax for oil to focus on, which would be beneficial for the rest of the world and burdensome for Russia. As the consumer demand remains flexible due to indifference of oil's origin and attention to its price, and the Russian supply is stable due to country's interest to sell it, the idea to introduce a calculated ta of 90% would have a shifted burden on the supplier, would expropriate the rent while maintaining Russian gas on the market (Hausmann, 2022).

Thirdly, in terms of fiancial and banking sector, states should consider taking cybersecurity measures, which diasble the conduct of financial transcation through payment systems where

the sender and receiver could be omitted or sent from another registered legal person, which exists outside the territory of Russia.

With these primary points proposed, the effect on sanctions on Russia over time will be explored in the next sections.

3 METHODOLOGY

Finding appropriate controls that are unaffected by the intervention and share similar features with the impacted unit can be complex to do when treatments (in this case, sanctions) affect aggregate entities like states or nations, and the nations close to the sanctioned country may experience the effects as well (Abadie et al., 2010). Synthetic control is based on using several control units as opposed to one, and constructing a weighted pool from them, which resembles the synthetic version of the observed unit with similar indicators in terms of predictors. This method was used by Abadie and Gardeazabal (2003), Abadie et al. (2010), and Abadie et al. (2012). In this work, the synthetic control is used create a synthetic control unit for Russia that reflects projected economic values if sanctions had not been in place after 1992.

The relevance of the synthetic control method for this study lies in its ability to relax the parallel trend assumption and estimate the counterfactual scenario provided that the donor pool is not affected by the treatment. For this reason, SCM was frequently used for evaluating the causal effects of relevant policies, shocks, and interventions on economic outcomes (Gilchrist, 2022). Correspondingly, the selected method will help to estimate the effects on Russia. According to the Office of Foreign Assets Control (2022) sanctioned countries list, 29 countries are being subject to full or partial sanctions of various types; and the rest of the countries could be used as the donor pool in estimation of effects on Russian Federation.

The dataset for this study has been constructed based on the World Economic Outlook dataset as of October 2023 constructed by International Monetary Fund (2023). It consisted of 15 indicators, which included GDP. inflation, population, unemployment rate, current account balance, and general government net lending/borrowing, as well as general government gross debt numbers. The initial dataset contained 237 country list, which was eliminated down to 208 in the comparison group because of selected countries being subject to comprehensive and partial sanctions according to OFAC (2022). Balkans as listed object to restrictive measures was substituted with Bosnia and Herzegovina for exclusion due to being the only Balkan sanctioned state (Council of the European Union, 2022a). Further stage elimination drew the sample down to 27 countries because of lack of data fort he selected indicators.

The empirical analysis was initially based on yearly country-level panel data for the time period 1980-2028, but was shortened to start from 1992 because of Soviet Union collapse in

1991 and formation of independent Russian state in the next year, and up to 2023 in order to eliminate the projected numbers. A pre-intervention period consists of 21 years, due to the imposition of international sanctions in 2013.

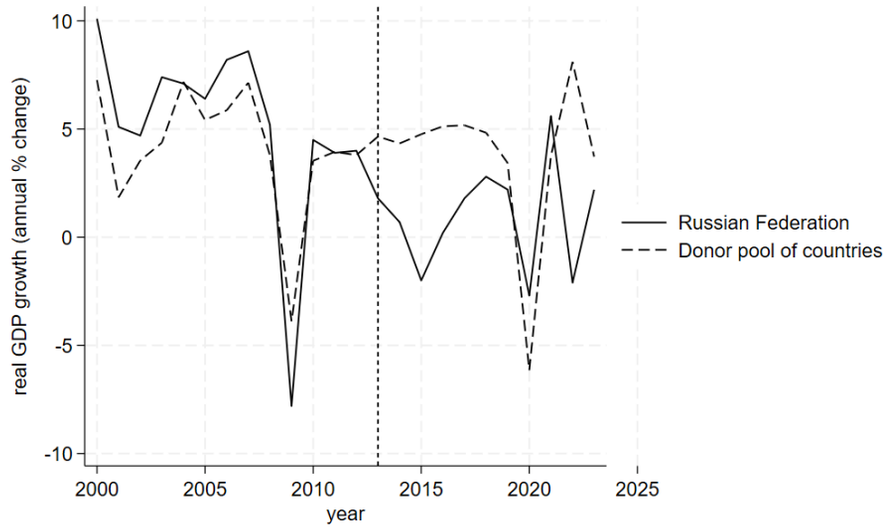
4 RESULTS

4.1 Construction of the synthetic Russia

For the construction of synthetic Russia models 8 most relevant variables were chosen: real GDP growth, GDP per capita, implied PPP (purchasing power parity) conversion rate, inflation, current account balance, general government net lending and borrowing, unemployment rate, and general government gross debt.

Figure 1 depicts the real Russian Federation and the synthetic Russian Federation. The synthetic model closely follows the trajectory of Russia development until the imposition of sanctions in 2014. Afterwards it can be seen that the donor pool prjoection of GDP growth is much higher up until 2020, and after 2022. Russian's counter-factual for real GDP growth is best reproduced by a weighted average of Iceland (.385), Malaysia (.613), and Singapore (.001). Other countries' shares in the pool are either very little or nonexistent.

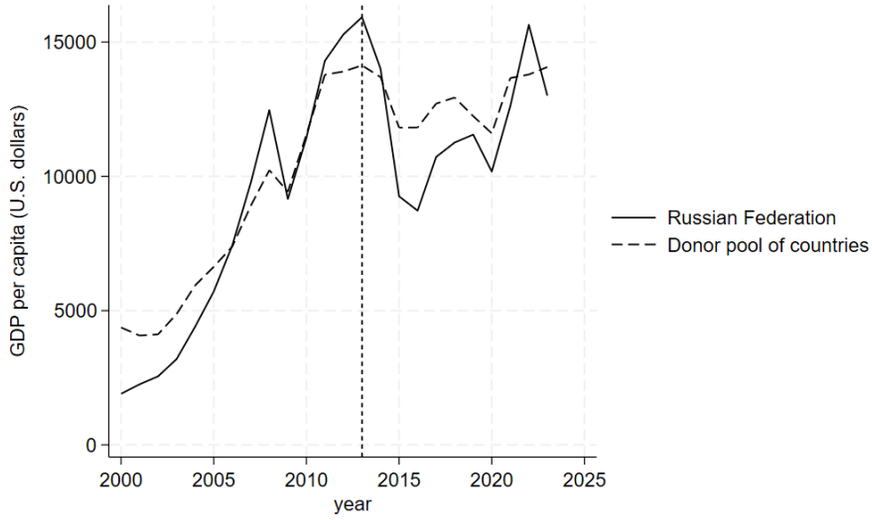
Figure 1. Real GDP growth, Russia vs. average donor pool



Source: own work

Figure 2 presents the synthetic model constructed for the GDP per capita. Australia (.119), Chile (.12), and Paraguay (.761) as a weighted pool most closely resembled the trajectory of Russia. After the sanctions imposition the synthetic GDP per capita indicators were higher in values than ones of the Russian Federation.

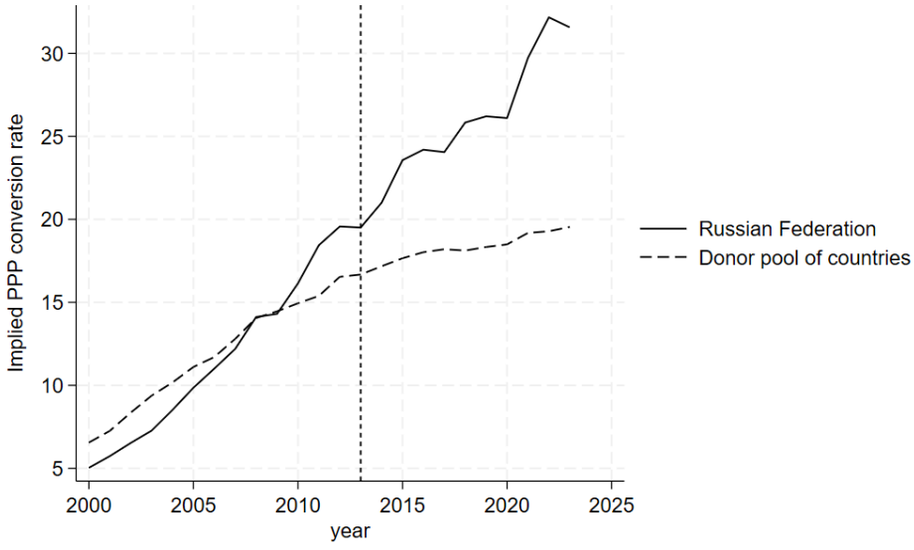
Figure 2. GDP per capita, Russia vs. average donor pool



Source: own work

The next explored indicator is the implied PPP conversion rate (Figure 3), where the gap between the Russia and synthetic model increases after the sanctions imposition. The weighted donor pool was constructed with El Salvador (.993) and Paraguay (.007).

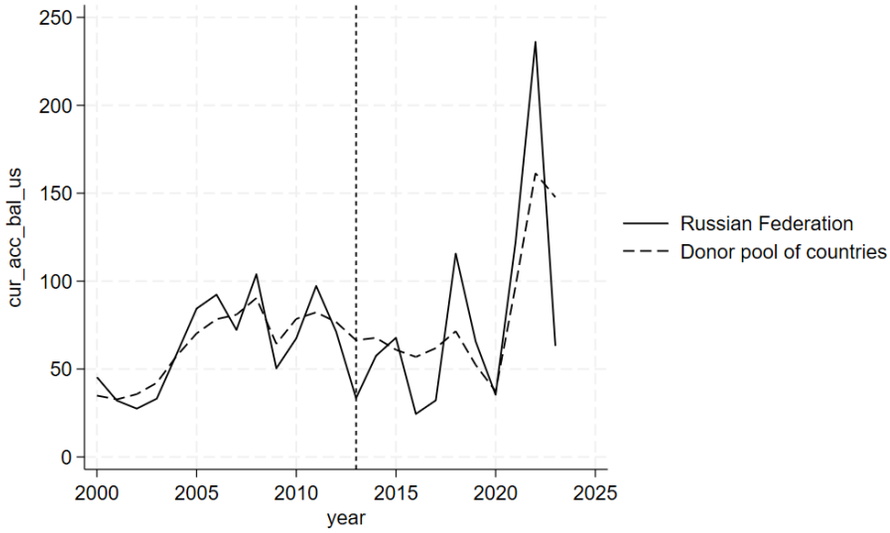
Figure 3. Implied PPP conversion rate (national currency per international dollar), Russia vs. average donor pool



Source: own work

The synthetic model for current account balance is plotted in Figure 4 with the weighted pool of Canada (.13), Germany (.057), Japan (.126), and Norway (.803). While Russian current account balance is fluctuating throughout the years, the donor pool of countries projected its more stable development.

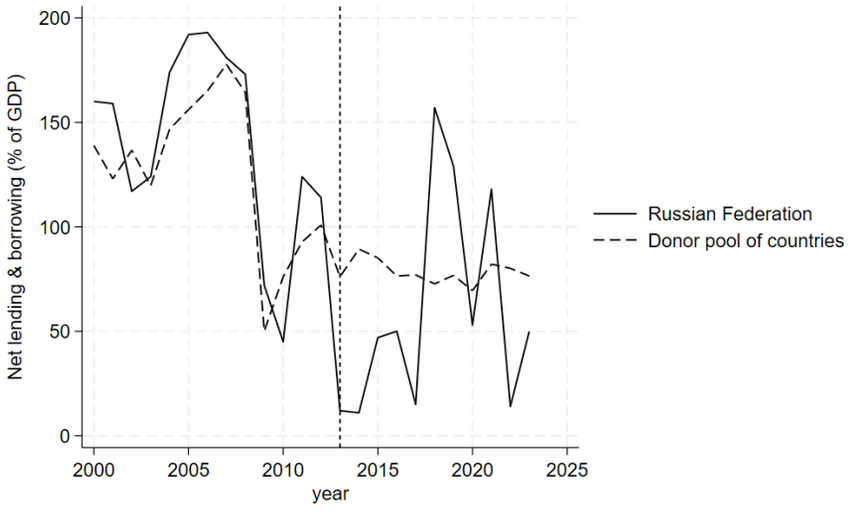
Figure 4. Current account balance, Russia vs. average donor pool



Source: own work

Figure 5 accounts for net lending and borrowing variables After the sanctions intervention in 2013, synthetic Russia trajectory is shown to be more stable and not surpass GDP value. The model was constructed using weights of Chile (.209), Finland (.421), Norway (.169), and Singapore (.201).

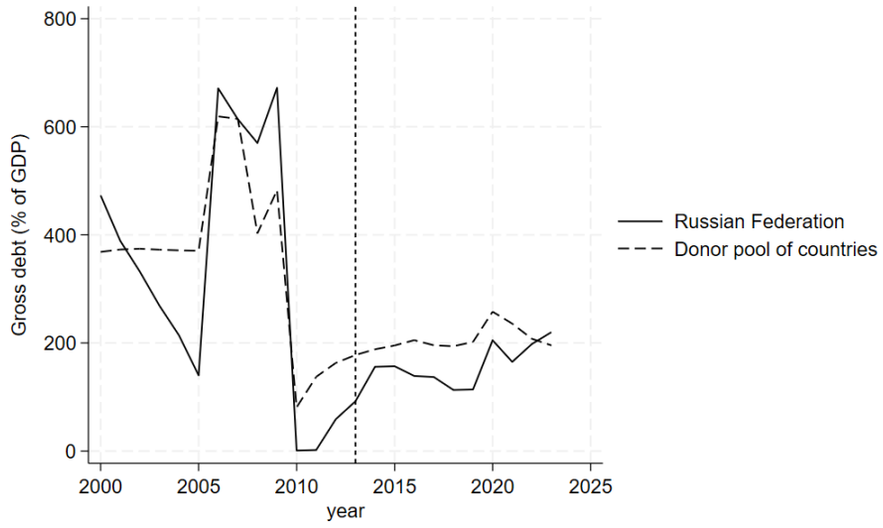
Figure 5. Net lending and borrowing, Russia vs. average donor pool



Source: own work

The synthetic Russia was also constructed for the gross debt indicators based on Australia (.364) and Portugal (.636) weighted donor pool, showing the higher debt as a percentage of GDP in case of sanctions absence (see Figure 6).

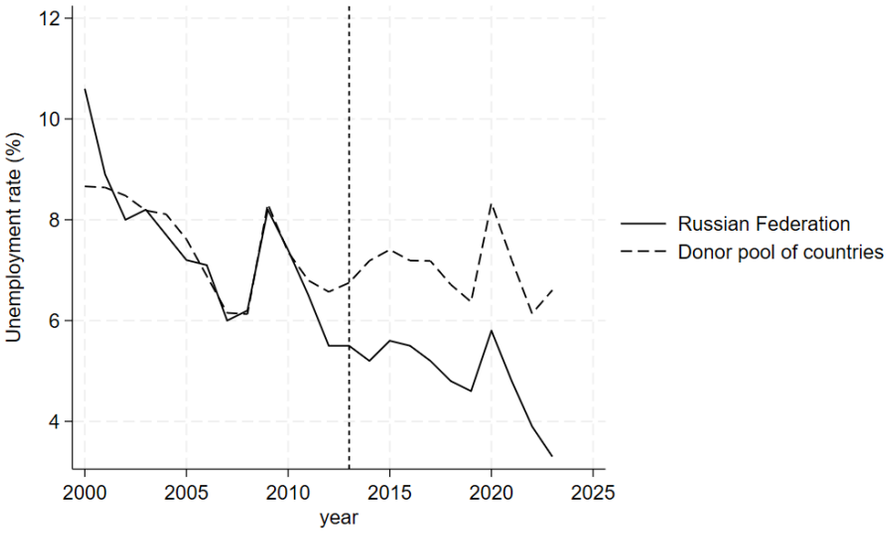
Figure 6. Gross debt, Russia vs. average donor pool



Source: own work

Figure 7 depicts the unemployment rate, which progresses at higher percentage in the synthetic Russia. Australia (.326), Chile (.319), and Finland (.355) formed the weighted pool for the model construction.

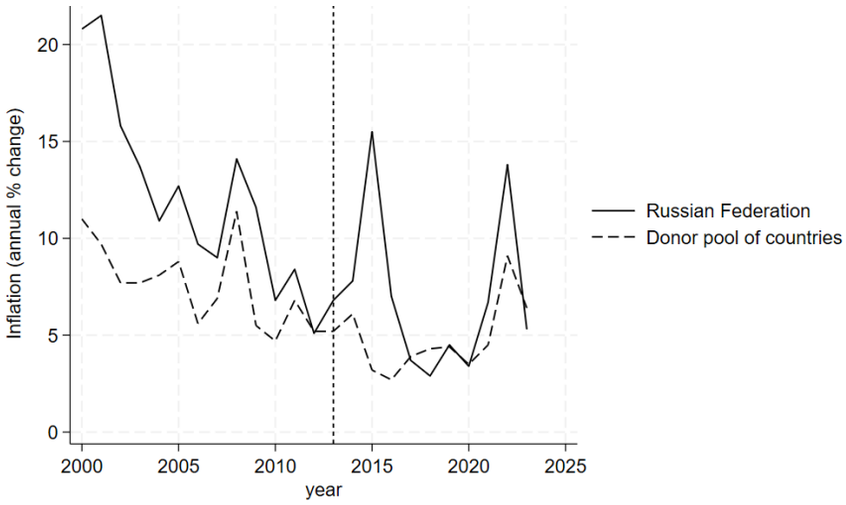
Figure 7. Unemployment rate, Russia vs. average donor pool



Source: own work

Finally, inflation is depicted in Figure 8, where the synthetic model was based on Honduras as a single weight.

Figure 8. Inflation, Russia vs. average donor pool



Source: own work

4.2 The effect of sanctions

The effect of sanctions is examined by looking at the p-values of the constructed estimates in each variable (see Tables 1 and 2). The threshold for p-value was established at the level of 0.1.

Table 1. Estimates and p-values of real GDP growth, GDP per capita, PPP conversion rate, and account balance

	Real GDP growth		*GDP per capita*		*PPP conversion rate*		*Account balance*	
year	est.	p-values	est.	p-values	est.	p-values	est.	p-values
2013	-2.857	0.111	1796.498	0.296	2.831	0.148	-32.966	0.259
2014	-3.636	**0.000**	309.578	0.852	3.822	**0.074**	-10.229	0.407
2015	-6.762	**0.000**	-2558.499	0.333	5.906	0.111	6.828	0.444
2016	-4.926	**0.000**	-3095.959	0.370	6.174	0.111	-32.427	0.296
2017	-3.377	**0.000**	-1984.958	0.519	5.850	0.111	-29.709	0.296
2018	-2.033	**0.074**	-1675.114	0.556	7.714	0.111	44.163	0.222
2019	-1.230	0.333	-688.293	0.741	7.871	0.111	13.314	0.593
2020	3.447	0.370	-1423.500	0.630	7.611	0.111	-1.941	0.778
2021	1.836	0.667	-1045.063	0.704	10.542	0.111	24.938	0.444
2022	-10.209	**0.074**	1853.141	0.593	12.885	0.111	74.698	0.185
2023	-1.524	0.296	-1066.191	0.852	12.021	0.111	-84.583	0.148

Source: own work

The real GDP growth synthetic model had significant projections for years 2014-2018, and 2022, the implied PPP conversion rate and net lending & borrowing indicators had a significant projection for year 2014. For unemployment, the significant effect was estimated for 2023, and for inflation – in 2015, 2016, 2018, 2021, 2022. Other variables – GDP per

capita, current account balance, and gross debt did not exhibit significant results for the period of 2013-2023.

Table 2. Estimates and p-values of net lending and borrowing, gross debt, unemployment rate, and inflation

	Net lending, borrowing		*Gross debt*		*Unemployment*		*Inflation*	
year	est.	p-values	est.	p-values	est.	p-values	est.	p-values
2013	-64.134	0.111	-85.696	0.296	-1.251	0.148	1.600	0.185
2014	-78.336	**0.037**	-32.340	0.778	-1.986	0.111	1.700	0.296
2015	-38.167	0.333	-38.352	0.741	-1.806	0.185	12.300	**0.000**
2016	-26.471	0.519	-66.268	0.667	-1.691	0.185	4.300	**0.000**
2017	-61.990	0.407	-58.640	0.667	-1.983	0.148	-0.200	0.593
2018	84.294	0.185	-80.916	0.444	-1.915	0.148	-1.400	**0.074**
2019	52.220	0.333	-87.936	0.481	-1.771	0.148	0.100	0.926
2020	-16.477	0.778	-52.856	0.815	-2.533	0.407	-0.100	0.963
2021	35.855	0.333	-70.772	0.667	-2.400	0.296	2.200	**0.074**
2022	-66.125	0.259	-9.860	1.000	-2.240	0.222	4.700	**0.037**
2023	-26.460	0.407	24.492	0.963	-3.305	**0.074**	-1.100	0.519

Source: own work

Sanctions had produced the most effect on real GDP growth and inflation. Restrictions on trade and access to goods on the market at first influenced Russian Federation in 2014-2018, when the first packages of sanctions were adopted in response to Crimea annexation and military operation on Donbass. Later, sanctions were significant when imposed in 2022 due to the full-scale invasion, however, they lost their power in the next year. Such tendency can be explained by Russia obtaining new ways of trade to either omit the sanctions and buy the restricted goods from another countries, or to conquer new markets for selling their products. Moreover, this explains why sanctions did not have any significant effect on current account balance, as Russian Federation compensated its loss in exports and imports with Western countries by trade with Asian states.

Inflation suffered from sanctions because heavy restrictive mechanisms create fluctuating market currency rates and growing discrepancy between official and market exchange rates. Moreover, sanctions possibly had a significant effect due to the tendency of people to expect higher inflation when economic sanctions are in place, what drives the inflation even more (Dastgerdi et al., 2018).

An interesting observation is that despite the effect on real GDP growth, sanctions didn't impact GDP per capita and PPP conversion rate (despite the latter in 2014). As explained earlier, substitution of products due to trade with other countries is what prevents GDP growth and GDP per capita from declining, but it is also the disproportionate income distribution. In 2021, the highest income class (the 80th percentile) owned about 47% of the total national income (Russian Federal State Statistics Service, 2022), meaning the shift of

sanctions burden on the lower income groups, and the wealthier individuals still hold their purchasing power despite inflation and growing prices. Although, the presented data stems from Russian resource and must be examined carefully due to possible falsifications of the information. Similarly, understanding why sanctions did not have a significant effect on unemployment may be challenging due to a lot of Russian national data being not disclosed or rewritten; however, the involvement of more and more people in the military machine of Russian Federation (including soldiers, details and missiles production, etc.) may be the factor why sanctions haven't made a significant number of individuals jobless.

Net lending and borrowing of Russian Federation undergone a significant impact of sanctions only in 2014, while the effect on gross debt was completely insignificant. Many Western Banks continue lending to Russia after the full-scale invasion and adopted sanctions packages, as does, for instance, Raiffaisen Bank (O'Donnell & Schwarz-Goerlich, 2024); moreover, the Russia intensifies its cooperation with Asian banks.

The LASSO regression and Zivot and Andrews test were chosen, to check that the treatment – sanctions imposition on Russian Federation – did not have an effect. The primary goal of the LASSO (or Least Absolute Shrinkage and Selection Operator) approach is to strike a compromise between limiting the number of significant variables chosen and obtaining a satisfactory model-data fit (Lockhart et al., 2014). On the other hand, Zivot and Andrews test is used to assess if a time series has a unit root with a structural break (Glynn et al., 2007).

Results show that the structural break in the pattern varied for the chosen indicators: GDP per capita had a structural break in 2015, right after sanctions imposition, while implied PPP conversion rate and current account balance showed it in 2019. For these cases sanctions effect has contributed to the structural change (see Appendix 2-4). On the other hand, for the real GDP growth, net lending and borrowing, as well as unemployment the structural break occurred in 2009, for gross debt – in 2010, and for inflation – in 2004 (see Appendix 1, 5, 6, 7, 8). Because the change occurred before the sanctions' imposition in 2014, it means that they were not the biggest contributing factor.

5 DISCUSSION: THE PROPOSED MECHANISM OF INCREASING EFFECTIVENESS IN THE RESTRICTIVE MEASURES ON RUSSIAN FEDERATION AND INTERNATIONAL LAW

The conducted research using the synthetic control method shows the ineffectiveness of sanctions: the constructed synthetic Russia based on a weighted pool of unaffected countries shows the insignificant difference if the sanctions on Russia were not imposed. The few indicators were showing the significant effect only for some years, which can be attributed to sanctions not having a consistent effect, or the synthetic models were constructed on a

control group with a limited number of countries, which could not to full extent serve in the construction of synthetic Russia and its trajectory. The structural breaks in the Zivot and Andrews test were shown to happen at different years than the first major sanctions impositions on Russian Federation (2014), what indicates that major shifts could have happened due to different factors influencing the stability and development of Russian economy.

Consequently, such findings lead us to the conclusions that sanctions the way they currently are imposed against Russia are harming the economy but are not entirely working in a way they intend to. As discussed earlier, there were numerous mechanisms of surpassing the restrictions by Russia: as reported by the Yermak-McFaul Group, the missiles launched by Russia Federation contain components from Switzerland, Japan and the United States, with latter accounting for 81% of the foreign details (Ukrainska Pravda, 2023); moreover, the missiles used by Russia from North Korea on the battlefield, another heavily sanctioned country which is limited in its trade, were shown to contain American and European details (Herskovitz, 2024).

So, one of the perspectives to increase the effectiveness of sanctions is their imposition not only on Russia and its entities directly, but also on the third countries involved in omitting the restrictions. Cybersecurity measures in the financial and banking for more effective monitoring, identification, and penalty especially would make the transactions conduct harder for Russian or related entities, banks, and individuals. Secondly, the EU could make the purchase of the goods more expensive and unfavorable by introducing punitive tax. Finally, sanctions should also be considered from the perspective of affected income groups: are the targeted measures making impact on the low-income or highest-income class and does it make a difference to Russia’s ability to sponsor the war?

5.1 Legality of extraterritorial sanctions

The dilemma EU is facing at this point is that sanctioni imposed by it so far had no extraterritorial effect (Delegation of the European Union to Ukraine, 2023). Extraterritorial sanctions are the restrictive measures which prohibit non-country-nationals and firms from being involved in cooperation with the targeted country. U.S. is known to apply such type of sanctions in Iran in financial and economic fields, which not only exert pressure on businesses throughout the globe but also obstruct governments' and international organizations' sovereign foreign policy decisions to encourage lawful commerce with Iran (Schmidt, 2022). EU refused to comply with the imposed sanctions by the U.S. and documented that in the regulation of the European Union (Council Regulation No 2271/96), and additionally supports international rule-making institutions like the World Trade Organization (WTO), which has occasionally made rulings against both China and the US (Stoll et al., 2020).

So, EU sanctions only apply to entities operating within the EU domestically and internationally, while businesses in other countries are free to carry on trading products and services with Russia that are sanctioned by the EU in the interim (Erausquin, 2023). This puts the European Union in a difficult situation and opens gaps in its sanction's strategy. Some improvements were seen in the last 13th EU package of sanctions, which included Russian companies operating registered in third countries trading with electronic details, logistics companies involved in imports of restricted items, as well as individuals shipping the weaponry from the third countries (European Commission, 2024).

Talking about cybersecurity measures, cyber sanctions may include the mechanisms of stricter monitoring of financial transactions, no matter through which platform or bank they are conducted. It is important to provide more effective ways to identify the final legal person (in this case, those are the Russian entities which omit any financial or banking sanctions by conducting transactions through other related company, often located abroad, or through post-Soviet-countries' and Asian banking services and platforms. Considering that any international regulations on state-and not-state actions in cyberspace are missing (Bogdanova & Callo-Muller, 2021), and frequent attacks on the European institutions by Russia's Foreign Intelligence Service (SVR) (National Cyber Security Centre, 2024), policy makers should put emphasis on introducing measures in this sector when designing the next packages of sanctions.

To ensure the effective implementation of sanctions and compliance with international law, the group effect is needed: European Union is already working in cooperation with such institutions as the World Bank Group, the European Bank for Reconstruction and Development (EBRD), the Organisation for Economic Co-operation and Development (OECD); thanks to Russian Elites, Proxies and Oligarchs (REPO) Task Force EU has an opportunity for coordinating sanctions with G7 countries, which make an unilateral decision about their implementation (European Council, 2024). First recommendation would respectfully be broadening the sanctions coalition and parterships with countries, which would ensure the more tight imposition of measures. From this the second recommendation emerges: EU needs to update its monitoring and enforcement mechanisms for detecting the sanctions surpassing and the corresponding imposition of restrictions. With the help of partners' and organization's cooperation, as well as intelligence sharing, European Union can make the sanction packages more nuanced, tight and law-compliant.

5.2 Punitive tax imposition

Punitive tax (or tariff) functions as an export tax, just like other import duties. Punitive tariffs hurt the domestic economy in several ways, including raising the cost of finished goods and lowering consumer purchasing power, and hurting the home economy's ability to compete internationally by raising the cost of intermediate products for businesses (Petersen, 2018). A product like Russian oil changes in price when a tax is introduced since it impacts both

supply and demand. When customers have easy access to other options, the producer bears the tax burden due to elastic demand. Producers pay a greater share of taxes when the supply is inelastic, as they are unable to readily modify production (Hausmann, 2022). Another suggestion – creation of loan sanctions – was discussed in the paper of Jayachandran and Kremer (2006). Loan sanctions could be effective on their own to keep individuals from having to repay debts that were incurred because of corrupt or despotic authorities. Legislation enacted by governments might prevent foreign nations from seizing their assets if they are unable to repay loans taken out subsequent to the imposition of sanctions.

The legality of tariffs is explained by the WTO and GATT (The General Agreement on Tariffs and Trade) Article XI, which allows the use of tariffs for protection of domestic industries, but advocates against the implication of quantitative restrictive measures.

The plans about the imposition of punitive tax were already discussed in Western countries, and special light was shed on the oil case, as an alternative to embargo (Hausmann, 2022). This alternative presents an opportunity to make companies, that didn't exist Russian Federation, pay. Based on the products and services that Russian consumers purchase, the tax would be applied on the company's sales. However, the nation where the business is headquartered would oversee collecting the tax (Foucart, 2023). A study by Latipov et al. (2022) examines what would be the effect if EU imposed same 35% punitive tariff on 570 groups of products like U.S. planned: such action was estimated to cause terms-of-trade losses of $597 million and welfare losses to Russia of $996 million.

There are already present cases of punitive tax imposition on Russia during the full-scale invasion. For instance, Australia applied an extra 35% tariff on all imports from Russia and Belarus since April 2022, which is valid until October 2025 (Minister for Foreign Affairs, 2023. Bulgaria imposed a 10-euro excise tax for each megawatt-hour that passes via Russian gas, and had previously put into effect a 60% profit tax on the Russian-owned Lukoil refinery near the Black Sea (European Views, 2023). As the Russian gas still comes in transit to Serbia and Hungary, these two countries were opposing the Bulgarian government's decision. U.S. is the leader in imposing the punitive tariffs, with one of the biggest (200%) applied on Russian Aluminum (Deaux, 2023).

How effective would be the tariff imposition compared to embargo? Such restrictive measure would immediately cause Russian revenues to decline. What's more, Russia wouldn't be expected to swiftly construct new infrastructure to export fossil fuel solely to third nations since it would still have an incentive to sell to Western clients (Zachmann et al., 2022). This issue is debatable, though: even after the duty comes into effect, and Russia still has an opportunity to trade with EU, third countries like China and India will be more favorable for gas and crude oil exports due to lower tariffs. Furthermore, the imposition of the punitive tariff still bears the risk of loopholes existence and surpassing: China serves as an example of adapting their channels through e-commerce and shipment of small packages to the U.S. below the duty-free threshold of 800 USD as of Section 321 of the Tariff Act

1930. The implications for gas and oil in case of tariff imposition on Russia should be reviewed and investigated.

Punitive or tax, to conclude, could be a more effective measure to restrain Russia's ability to sponsor the war, but it is not a solution which will cover all the existing loopholes in the sanctions' mechanism.

5.3 Impact on income groups

As robust factual evidence that the application of sanctions affects the public more than the leaders of the sanctioned countries and has unforeseen implications for the civilian population and would have a bigger impact on children and further generations, than on their parents (Afesorgbor & Mahadevan, 2016; Moeeni, 2021). The results of the study by Alhassan et al. (2023) show that, when applied to industrialized nations, the only types of sanctions that are successful in causing disutility and slowing the increase of real GDP per capita are export restrictions and broad, multilateral penalties. Moreover, in the research on Sudan (O'Driscoll, 2017) sanctions were shown to contribute to increase in poverty gap, which is used as a tactic for population control is justified by placing the blame on the people who implement the sanctions.

The key question here is the following: are sanctions which result in impact on low-income groups, which have an almost non-existent decision-making power (considering how unsuccessful are any protests in such authoritarian state as Russia) helping to prevent Russia from financing and conducting the war? The answer is probably negative. Restrictive measures should be designed in a way that hurts the influential elite of the country. In fact, the introduced sanctions against Russian oligarchs produced mixed affects, with the individuals transferring their assets to the non-sanctioning countries and purchased businesses at favorable prices (Tognini, 2023). Consequently, the loopholes optimization and better design of individual sanctions is crucial for reaching the ultimate goal of ending the war.

This research poses several limitations. First, the dataset consisted of a limited number of non-sanctioned countries due to absence of data. This could have made the results of the synthetic control analysis less accurate. Secondly, another challenge was to explain the absence of effect on Russian PPP conversion rate and unemployment, and lack of reliable information on the national indicators limited the understanding the sanction's effectiveness. Thirdly, the study didn't include other relevant indicators such as imports and exports amount etc., which could have potentially provided more explanations for how the sanctions work. Finally, the numbers are projected starting from the year 2024, what could be improved by the newest data available in further research.

6 CONCLUSION

To conclude, this thesis analysed the effectiveness of sanctions imposed against Russian Federation as a response to invasion using the synthetic control method. Such statement is backed up by the numreous surpassing mechanisms the country is using to balance the trade and obtain enough finances for contiuting the military actions.

The constructed synthethic control models for 7 economic indicators based on the control group of 27 countries have shown mainly insignificant effects of sanctions and the constructed trajectories, although they predicted bigger stability of indicators given the sanctions were not imposed. The Zivot-Andrews test demonstrated that major shifts of variables growth in the time series happened not closely to the year 2014, and with that it can be stated that it is not the sanctions, but other events that influenced country's position.

Russian Federation is utilizing many ways how to surpass the imposed sanctions by the EU, U.S., Japan, Australia and others, including intesifying the oil and gas trade with Asian countries, purchasing the restricted (European) goods from third countries, as well as using other countries banking systems to conduct the transanctions (Chupilkin et al., 2023). Indeed, many parts of Russian weaponry consists of European and U.S. parts, what signals the need to rethink the sanctions design and undermine country's ability to finance the war.

The proposed recommendations for enhancing the sanctions' effectiveness are: (i) the articulation of extraterritorial sanctions, which is restricted by the EU law, but the partneships, coalitions, and cybersecurity measures could strengthen the restrictions' power; (ii) punitive tax imposition, which doesn not limit the trade of a good, but puts an additional tax burden on Russian Federation and decreases its revenues; (iii) construction of sanctions in a way that it will have an effect on the highest income group in Russia, or the party with the most influence and decision power in the country.

Current study besides complementing the existic scientfic knowledge about the sanctioned effects, especially in case of the Russian Federation, opens up new opportunitites for further investigation. Firstly, a synthetic control analysis analysing the impact of sanctions on the lowest and highest income groups in Russia would be a logical extention to the current study and reveal whether they make any difference to the cirlce of the individuals with the most power in the country, and which can influence the flow of war. Another perspective is to conduct a research using newer data with a bigger country pool including the years 2024 and further with actual numbers instead of projections, and exploring various indicators, such as imports, exports and others. Finally, comparing the synthetic models of such sanctioned countries as Russian Federation, Iran, North Korea, and Cuba would help to understand the effects of sanctions better and how do they work in different circumstances.

It is the responsibility of the democratic world to stand up against the unlawful actions, which ruin the peace, prosperity, and development of the society.

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APPENDICES

Appendix 1. Povzetek (Summary in Slovene language)

Vse od začetka ruske agresije zoper Ukrajino leta 2014 je Evropska unija (EU) uvedla vrsto gospodarskih omejitvenih ukrepov zoper Rusijo, zlasti tudi ciljne sankcije zoper fizične osebe in poslovne subjekte, med drugim – trgovinske omejitvein finančne ukrepe. Po obsežni invaziji Rusije na Ukrajino dne 24. februarja 2022 so se ukrepi, uvedeni zoper državo napadalko, hitro povečali. Odprto pa ostaja vprašanje učinkovitosti ukrepov Evropske unije. Kljub dokazom, ki temeljijo na empiričnih in statističnih analizah, ki kažejo na škodo ruskemu gospodarstvu, drastičnih učinkov, ki so bili napovedani, še ni moč opaziti.

Namen diplomske naloge je prispevati k razumevanju pomenov uvedenih zahodnih sankcij zoper Rusijo in pripraviti alternative omejevalnim mehanizmom ter podati priporočila, kako izvajati najbolj učinkovit pritisk na državo napadalko, da bi spodkopati financiranje vojne, ki so v skladu z določbami mednarodnega prava.

Cilj diplomske naloge je analizirati učinkovitost omejitvenih ukrepov, ki jih je zoper Rusijo uvedla EU, za spodkopavanje možnosti financiranja vojne. Raziskava je potrditvene narave, saj želi preveriti, ali zahodne sankcije znatno vplivajo na rusko gospodarstvo. Analiza je izvedena z metodo sintetičnega nadzora (SCM), sintetični primer Rusije pa je izdelan na podlagi podatkov iz let 1992-2023, ob upoštevanju, da so bile sankcije uvedene leta 2014. Ujemanje z dejanskimi kazalniki BDP-ja, inflacije, uvoza in izvoza, kapitalskih tokov, ter poleg tega je analizirana bližina razvoja ruskega gospodarstva predvidenim številkam.

Rezultati so pokazali, da so imele sankcije pomemben učinek le v primerih realne rasti BDP za leti 2014-2018 in 2022; implicitne menjalne stopnje PKM ter kazalnikov neto posojanja in izposojanja za leto 2014; stopnje brezposelnosti v letu 2023 ininflacije v letih 2015, 2016, 2018, 2021, 2022. Druge spremenljivke – BDP na prebivalca, saldo tekočega računa in bruto dolg za obdobje 2013-2023 niso pokazale bistvenih rezultatov.

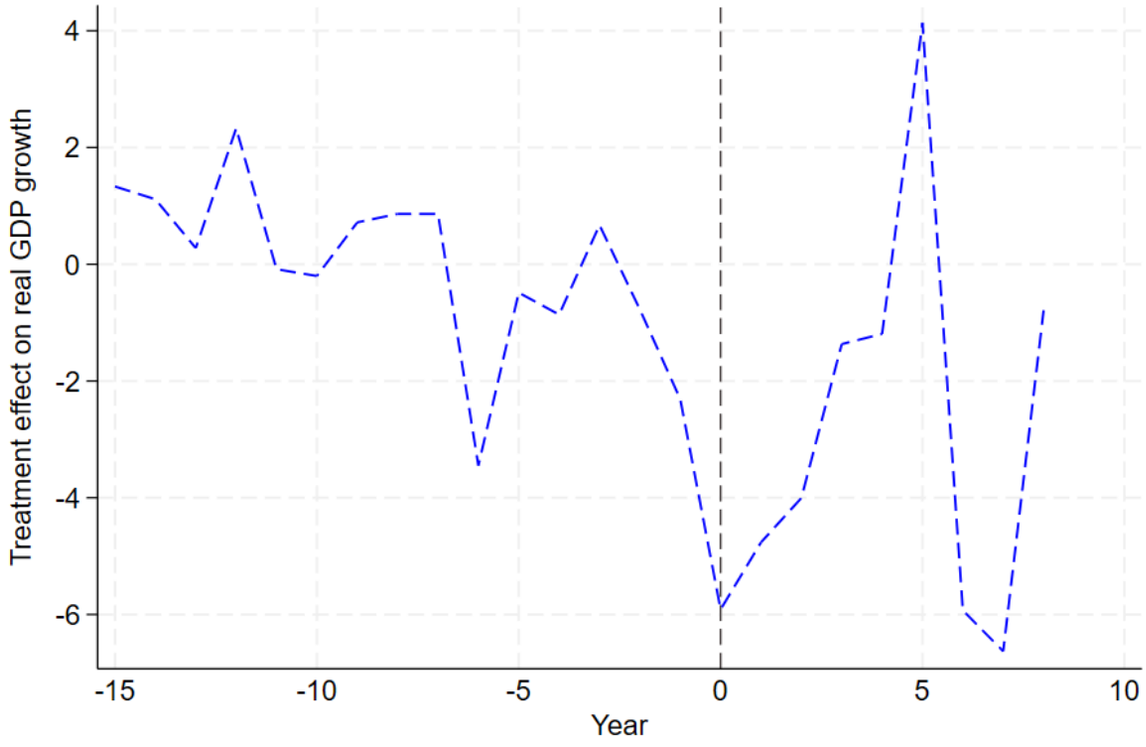
Konstruirani sintetični modeli Rusije so pokazali, da bi Ruska federacija brez uvedbe sankcij imela višjo rast BDP, višji BDP na prebivalca, nižjo pretvorbo paritete kupne moči in stopnjo inflacije, stabilnejše stanje tekočega računa ter neto posojanje in izposojanje. . Zanimivo je, da je analiza tudi pokazala, da bi bila v primeru odsotnosti sankcij bruto dolg in stopnja brezposelnosti višja.

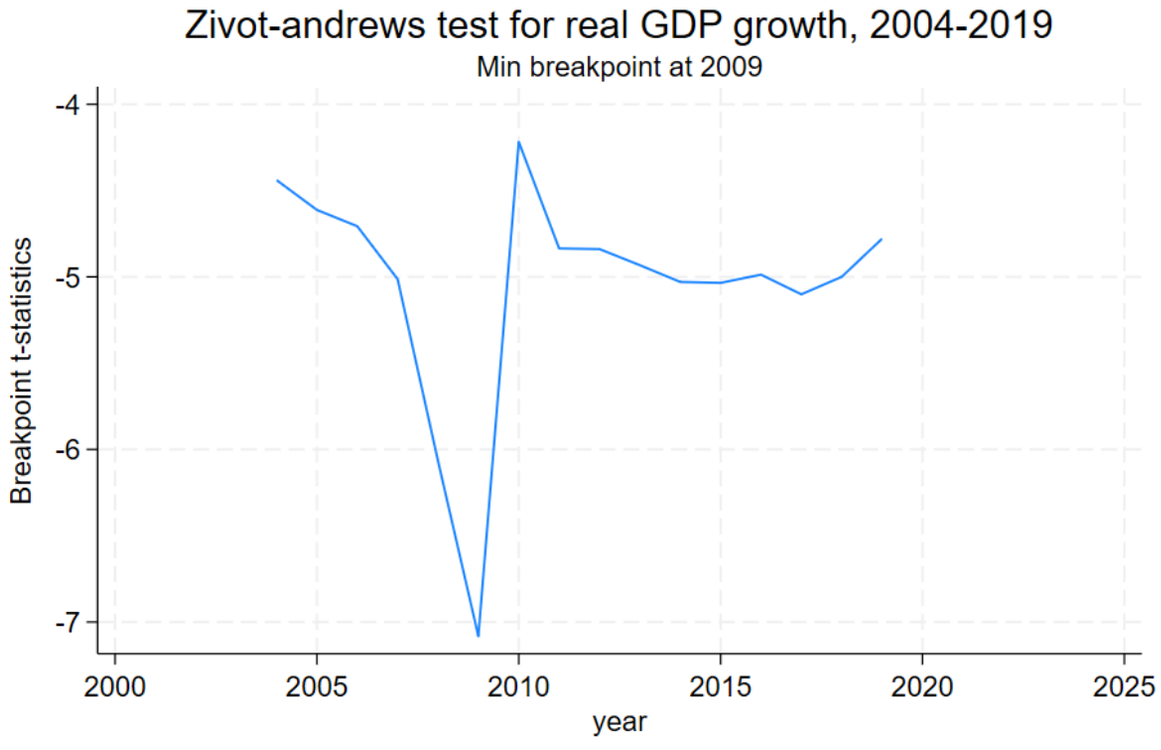
Posledično nas takšne ugotovitve vodijo do sklepov, da sankcije, kot so trenutno uvedene zoper Rusijo, škodujejo njenemu gospodarstvu, vendar ne delujejo povsem učinkovito. Rusija išče nov način za izogibanje sankcijam s pomočjo svojih azijskih partnerjev. Poleg tega je veliko sestavnih delov ruskega orožja sestavljenih iz evropskih in ameriških komponent, kar kaže na potrebo po ponovnem premisleku o zasnovi sankcij in spodkopavanju možnosti države napadalke za financiranje vojne.

Predlagana priporočila za povečanje učinkovitosti sankcij so: (i) artikulacija ekstrateritorialnih sankcij, ki jih omejuje pravo EU, vendar bi lahko partnerstva, koalicije in

ukrepi kibernetske varnosti dvignili moč omejitev; (ii) kaznovalna uvedba davka, ki ne omejuje trgovine z blagom, ampak dodatno davčno obremeni Rusko federacijo in zmanjša njene prihodke; (iii) oblikovanje sankcij na način, da bodo vplivale na skupino z najvišjim dohodkom v Rusiji ali na stranko z največjim vplivom in močjoodločanja v državi.

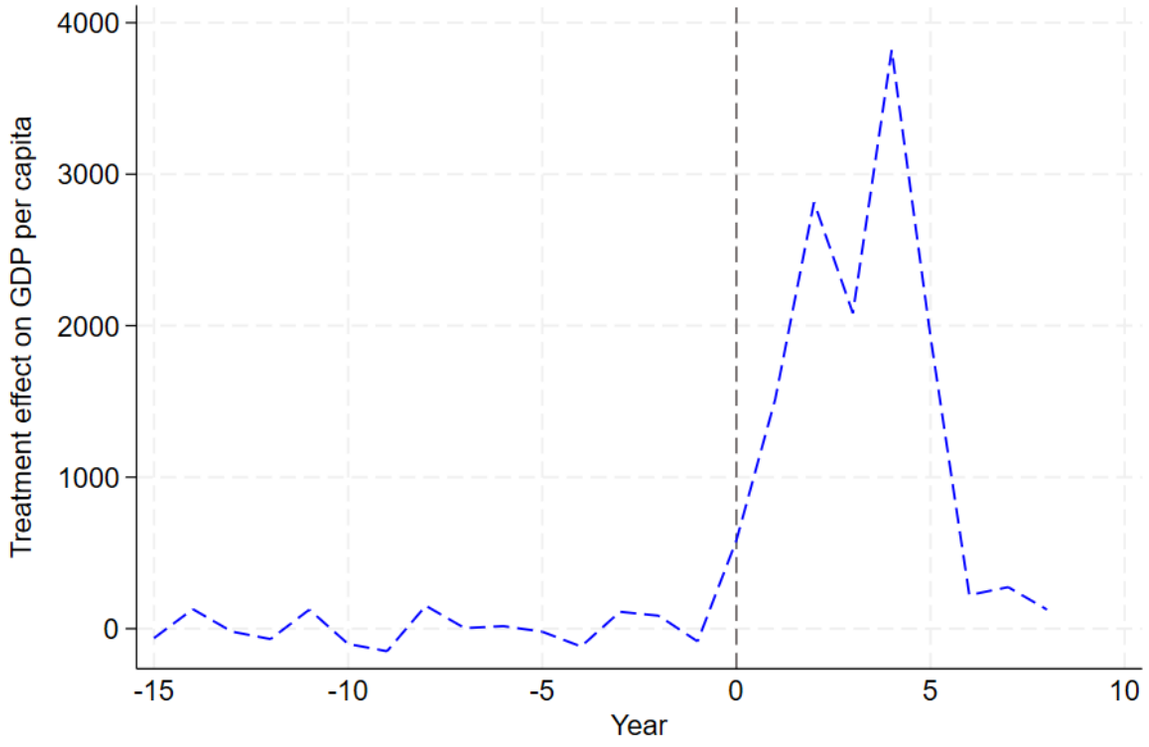
Appendix 2. Synthetic control using LASSO (2000-2023) and Zivot and Andrews test (2004-2019) for real GDP growth.

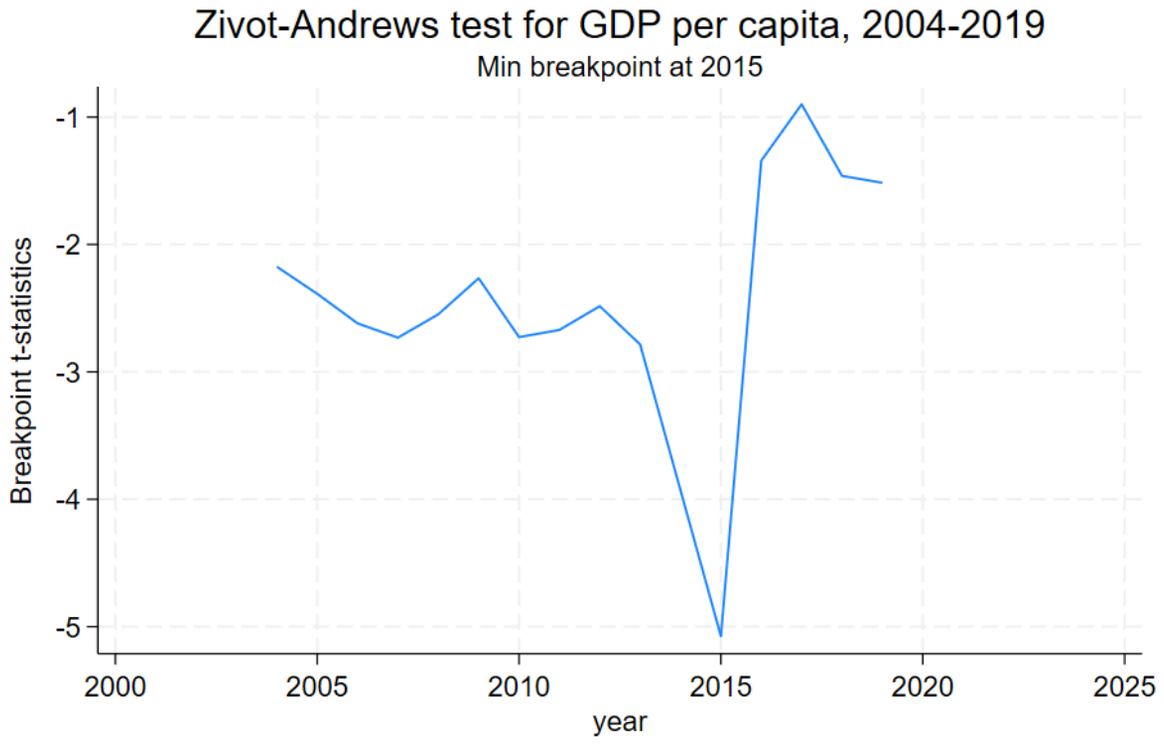




Source: own work

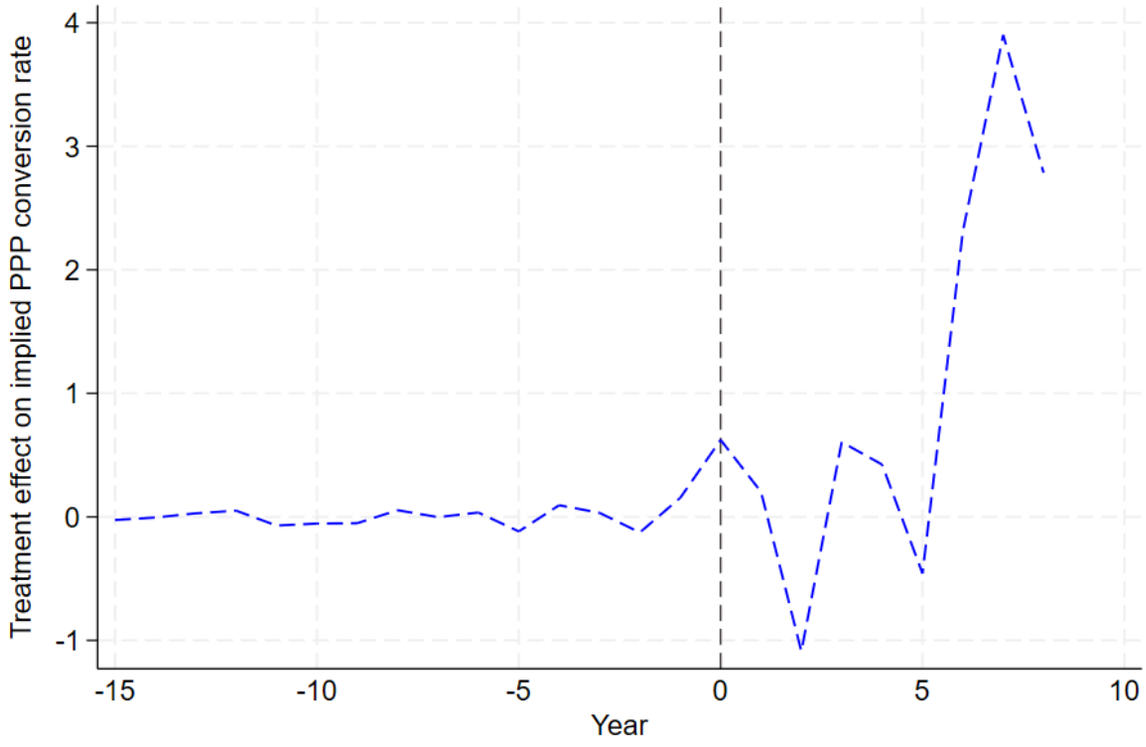
Appendix 3. Synthetic control using LASSO (2000-2023) and Zivot and Andrews test (2004-2019) for GDP per capita.

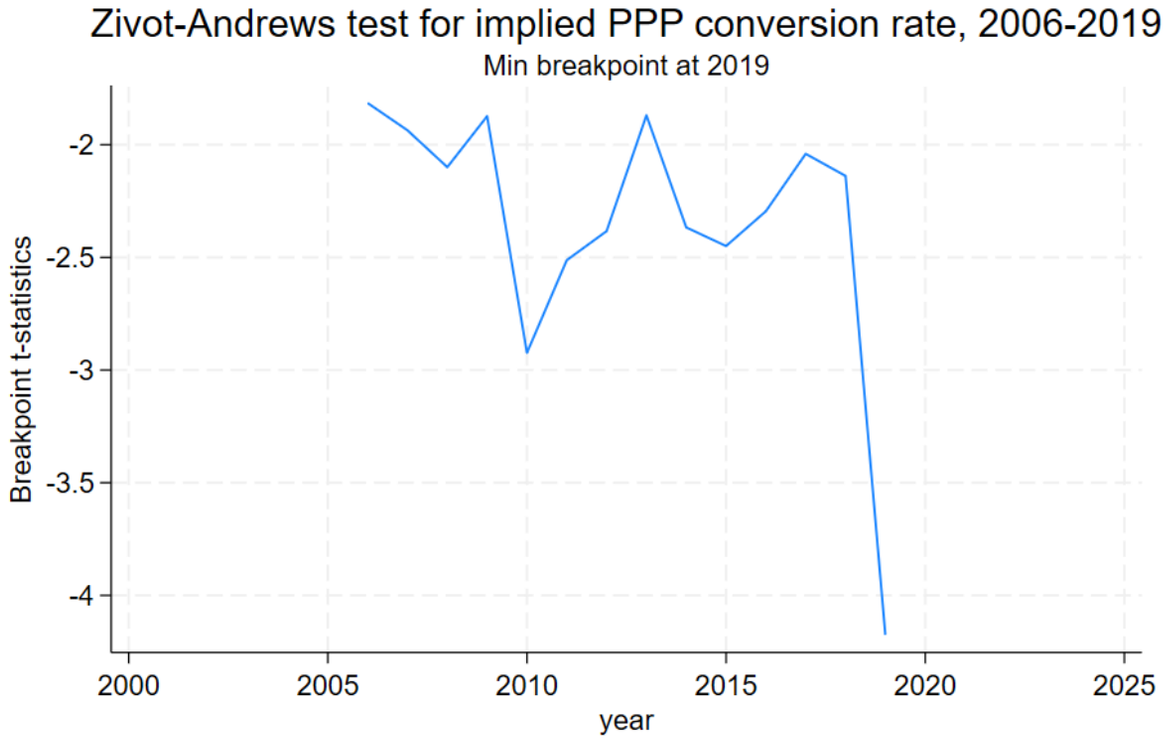




Source: own work

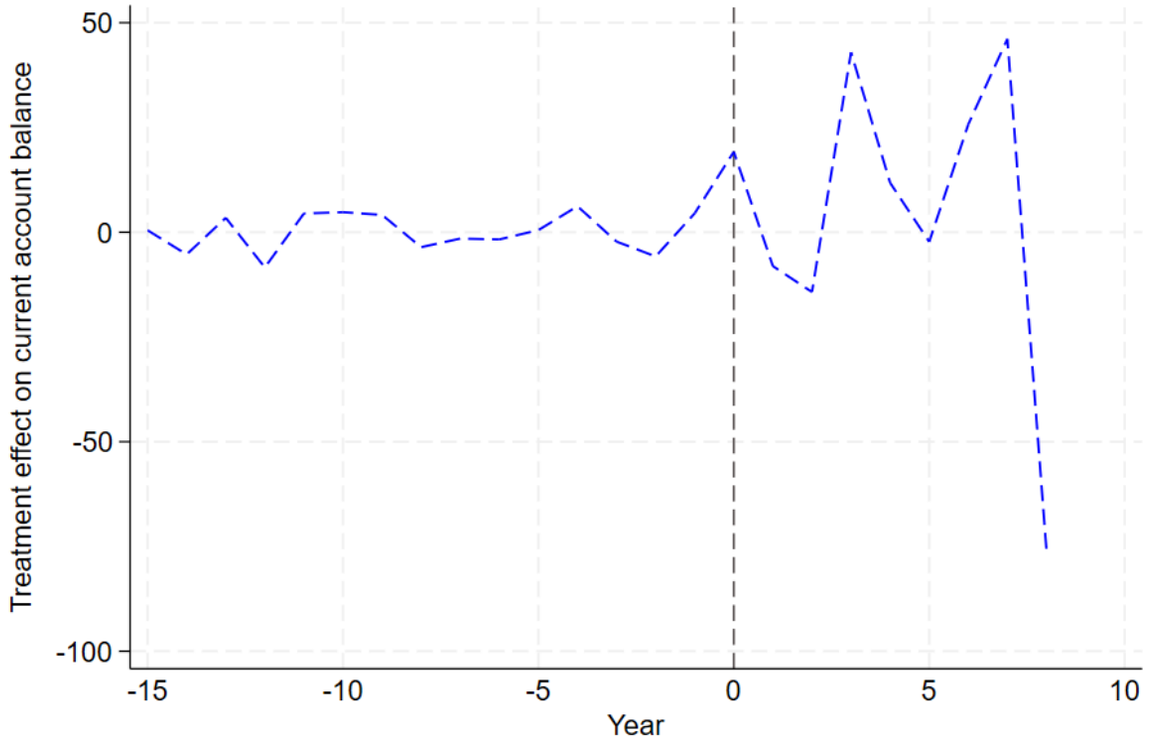
Appendix 4. Synthetic control using LASSO (2000-2023) and Zivot and Andrews test (2006-2019) for implied PPP conversion rate.

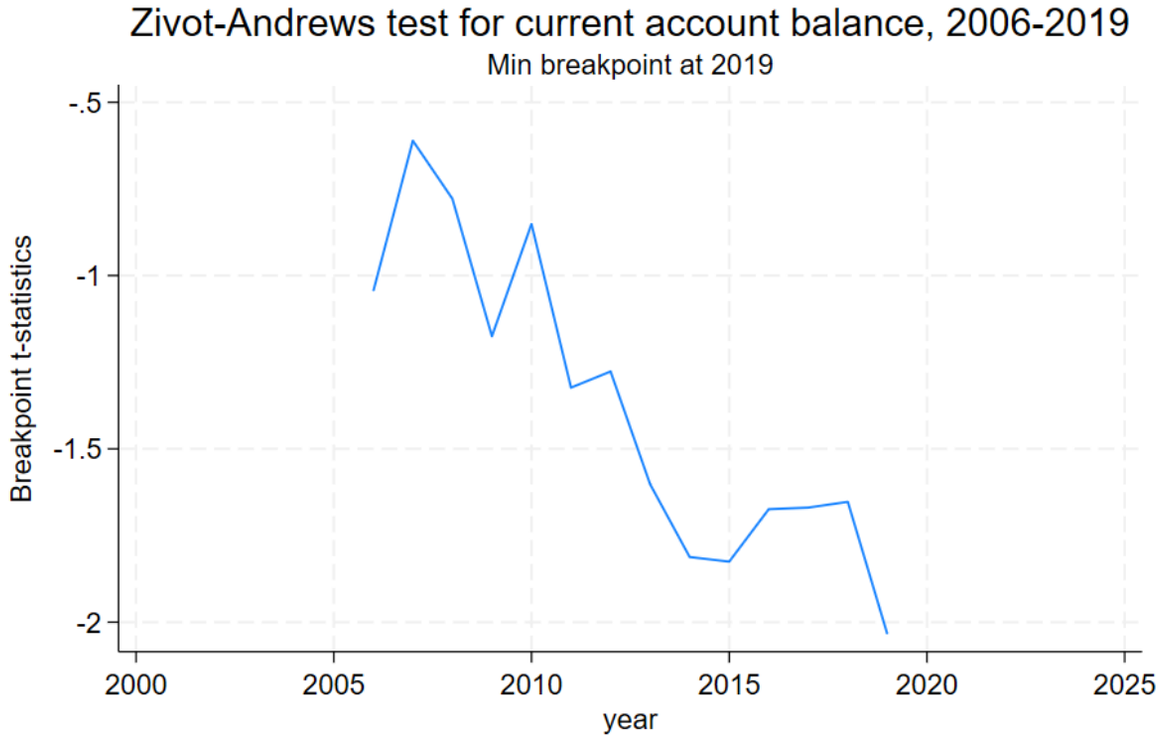




Source: own work

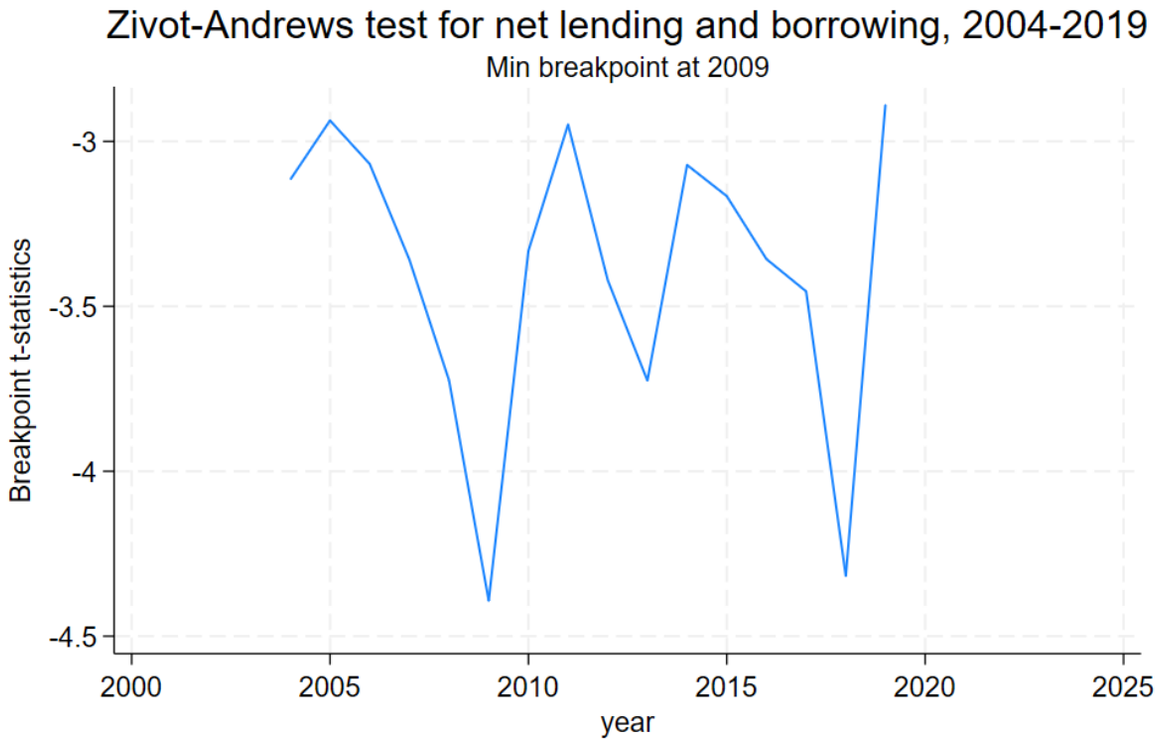
Appendix 5. Synthetic control using LASSO (2000-2023) and Zivot and Andrews test (2006-2019) for current account balance.

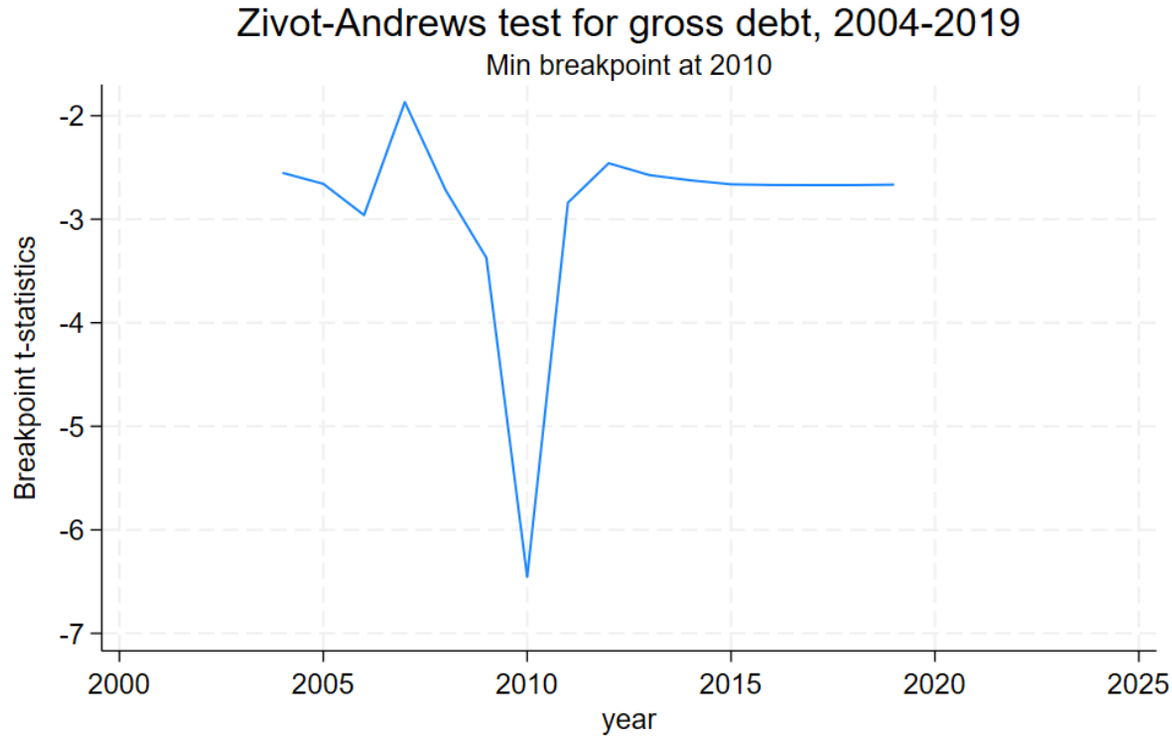




Source: own work

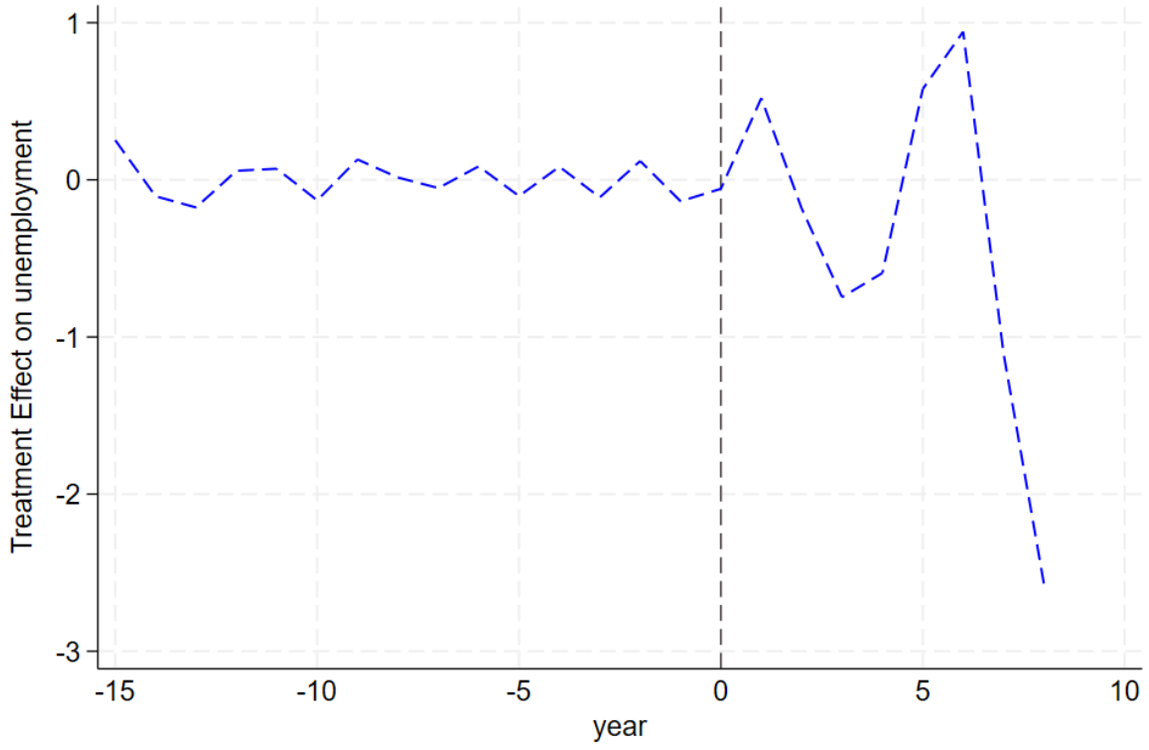
Appendix 6. Zivot and Andrews test (2004-2019) for net lending and borrowing, and gross debt.

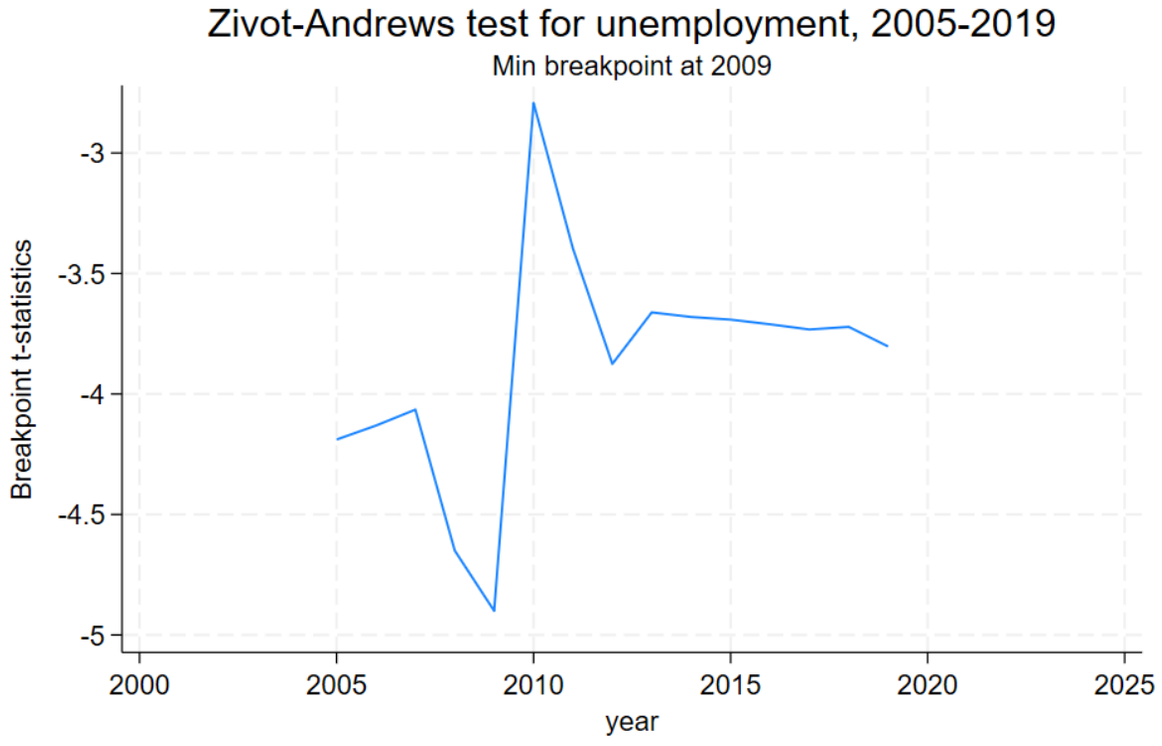




Source: own work

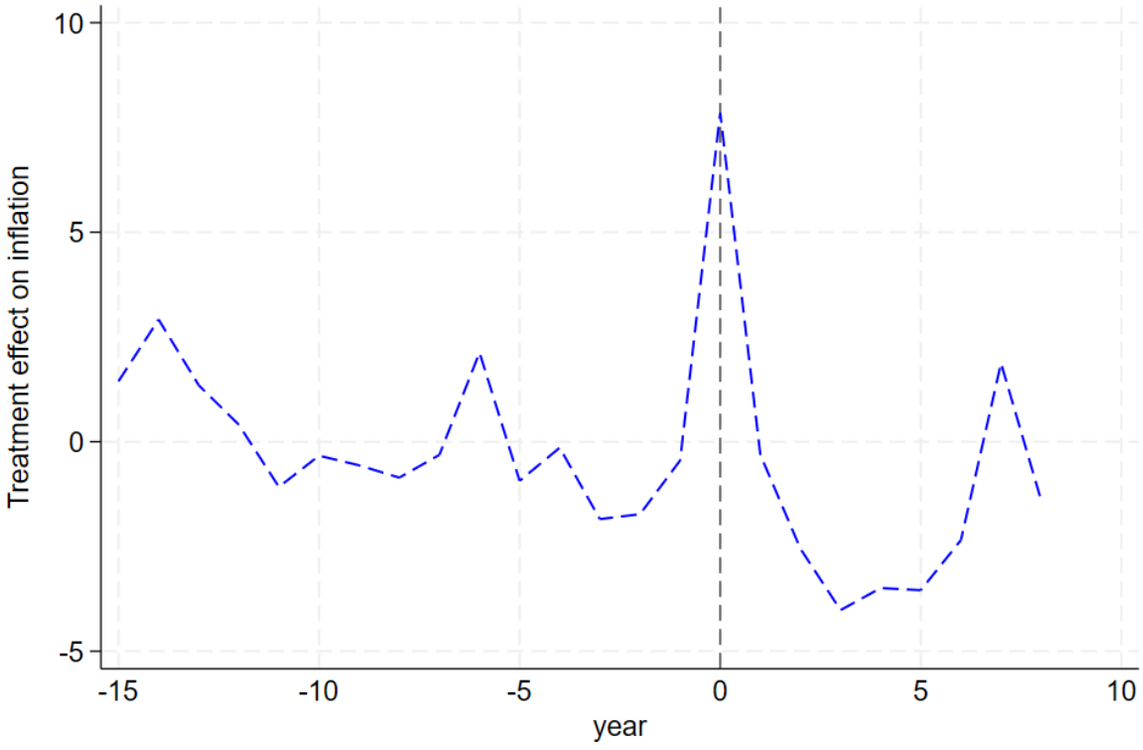
Appendix 7. Synthetic control using LASSO (2000-2023) and Zivot and Andrews test (2005-2019) for unemployment rate.

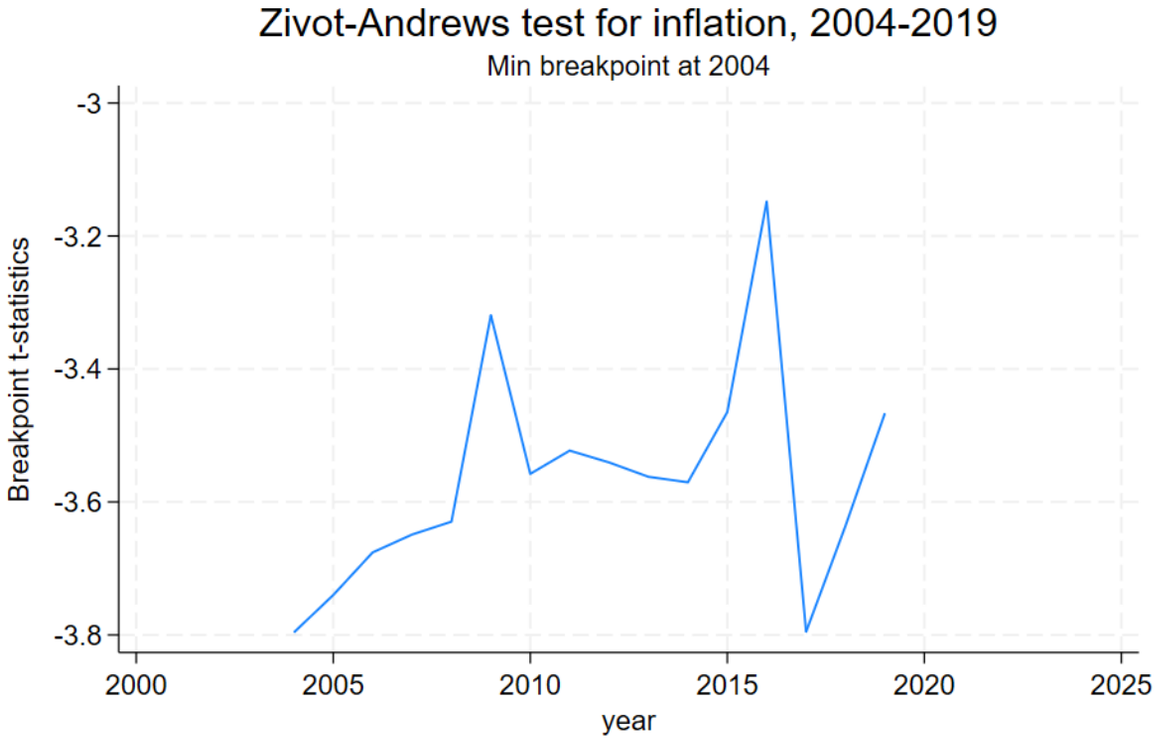




Source: own work

Appendix 8. Synthetic control using LASSO (2000-2023) and Zivot and Andrews test (2004-2019) for inflation.





Source: own work