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The Impact of Democratisation Episodes on Economic Growth: The Synthetic Control Method

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Master in Economics

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Department of Economics/ Department of Political Economy

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O impacto dos episódios de democratização no crescimento económico: o método do controlo sintético

Patrícia Alexandra Bento Barros

Resumo

O debate sobre se uma transição democrática melhora o desenvolvimento económico do país tem sido contínuo ao longo dos séculos, tanto pela academia como pela sociedade. O objetivo deste estudo é determinar se os episódios de democratização tiveram um impacto positivo, negativo, ou nulo no crescimento económico, durante os 10 anos que o seguiram, compreendendo as diferenças geográficas, temporais e de regime. Esta investigação utiliza o método do controlo sintético em 30 episódios de democratização, de 1900 a 2010, nos 5 continentes. Para a análise de robustez foram realizados dois tipos de testes de placebo, duas experiências nos possíveis controlos, e foram analisados o suporte comum e os pesos dos países e foi calculado o Efeito Médio do Tratamento para 5 períodos. Os resultados mostram um impacto positivo da transição democrática no desenvolvimento económico médio de 2 p.p, com os períodos de impacto positivo a demonstrarem ser mais robustos que os negativos. As margens decrescentes à escala da democratização, discutidas por Barro (1999), neste estudo resultam em margens decrescentes à escala da democratização mundial do período, ou seja, quanto mais países se tornam democracias no mesmo espaço temporal, menor é o impacto da transição democrática no crescimento económico (Noruega, Finlândia, Itália, Japão, Barbados, Botswana, Malta, Coreia do Sul, Polónia, Peru). Deste modo, é possível defender que ser o primeiro país a migrar para uma democracia numa determinada região pode representar uma vantagem comparativa para apresentar um maior impacto da democratização na taxa de crescimento do PIB real *per capita*.

Palavras-Chave: Método do controlo sintético, Democracia, Crescimento Económico

Códigos JEL: C32, O43, O54

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Abstract

Whether becoming a democracy improves the country's economic development is an ongoing debate throughout the centuries, both in academia and society. The purpose of this study is to determine if the impact of democratisation episode had a positive, negative, or no impact on economic growth, by understanding geographical, temporal and pre-regime differences, in the ten-year period intra democratisation episode. This research employs the synthetic control method in 30 democratisation episodes, from 1900 to 2010, from the 5 different continents. To robust the analysis it was performed two types of placebo tests, two different experiences were performed regarding the controls' donor pool, the common support and weights were analysed, and the Average Treatment Effect was calculated for five different time horizons. The results show an overall positive impact of the democratic transition on economic growth of 2 p.p., with the positive impact periods being more robust than the negative impact periods. The decreasing returns to scale of democratisation, discussed by Barro (1999), can progress to decreasing returns to scale of worldwide democratisation, *i.e.*, while more countries become democracies at the same time, the impact of democratic transitions on economic growth decreases on the new regime transitions (Norway, Finland, Italy, Japan, Barbados, Botswana, Malta, South Korea, Poland, Peru). Therefore, it can be argued that being the first country to become a democracy in a certain region may be a comparative advantage to display a greater impact on real GDP *per capita* growth rate.

Keywords: Synthetic Control Method, Democracy, Economic Growth

JEL codes: C32, O43, O54

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List of Abbreviations:

ATE – Average Treatment Effect

ETA – Euskadi Ta Askatasuna (in basque: Basque Country and Freedom)

GDP – Gross Domestic Product

P.P. – Percentual Points

UK – United Kingdom

USA – United States of America

1| Introduction

Since time immemorial the word democracy has been used and widely discussed, sometimes positively, while other time pejoratively. This discussion has nowadays become more and more prominent, with government seeking reforms, social movements demanding democracy, and some movement demanding less of it (Markoff, 2014). Only through analysing some events during last year the veracity of this statement can be validated. There has been the rise of some populist movements in Europe, which can be observed in Italy, France, Hungary, and others. The breaking in the Capitol in the United States of America (USA), the Hong Kong case and even the current situation in Afghanistan are some examples of anti-democratic movements. Anti-democratic movements, military movements and overall backsteps on democracy have been happening ever since democratic systems are known.

But the question is how do these movements influence economic growth? Does a country's transition to democracy have an impact on real GDP *per capita* growth rate? These questions are ongoing debates, both by academics and public society. While some argue that through becoming a democracy the country enhances economic growth, because of the institutional change, economic agents' confidence in the markets and the overall stability known to a democratic regime (Acemoglu et al., 2019; Barro, 1999, 2015; Gründler & Krieger, 2016; Lipset, 1959; Martin et al., 2018), others state that there are economic costs to this change, thus, the impact must be negative (Tavares & Wacziarg, 2001).

The word *Demokratia*, in Greek, means the rule (*kratos*) of people (*demos*) (Crick, 2002). The objective is to assess if a country changing to the *kratos* (rule) of the *demos* (people) impacts economic growth, and if so whether this impact is positive or negative. This research main contribution is the analysis of the impact of democratic transitions on economic growth, considering the social movements, time and regional changes, using the synthetic control approach. From the afore mention, the main question that arises is: What impact have democratization episodes had on GDP *per capita*, from 1900 to 2010, in different regions?

Notwithstanding, democracy definition must be defined before the research. Dahl's definition of democracy and polyarchy are the most consensual definitions, therefore the

one chosen to analyse this question. In his book (1956), Dahl presents some requirements for a country to be a democracy and those are:

1. “Freedom to form and join organizations.
2. Freedom of expression.
3. Right to vote.
4. Right of political leaders to compete for support.
5. Alternative sources of information.
6. Eligibility for public office.
7. Free and fair elections.
8. Right of political leaders to compete for votes.
9. Institutions for making government policies depend on votes and other expressions of preference.”

, considering that there is the opportunity for a large number of people to a) formulate preferences, b) signify preferences and c) have preferences weighted equally in the conduct of government.

This research’s primary contributions are the analysis of a large panel data, with democracies that have not yet been studied, and the methodology used, the synthetic control. Through using the synthetic control approach, which is a useful tool for comparative case studies, we can understand the dimension of the impact, its persistency, and how it varies from country to country. Additionally, this methodology allows for the consideration of shocks, the replication of co-movement and it controls for observable and unobservable characteristics, giving “qualitative flesh on quantitative bones” to the analysis (Tarrow, 1995).

Controlled experiences and comparative case studies have been gaining more and more importance in the social sciences and economics’ sphere, argued by the Nobel Memorial Prize in Economic Sciences winners: David Card, Joshua Angrist and Guido Imbens. While Angrist and Imbens helped build the methodology of casual relationships, Card made important contributions to labour economics using the Differences in Differences contrafactual analysis (Card & Krueger, 2000). This reinforces the importance, relevance and topicality of this research.

The results gathered show that the democratic transitions led to higher economic growth, thus economic development, on average of 2 p.p.. It shows that the impact of the episode on real GDP *per capita* growth rate is constrained by how the democratisation is

conducted and by its geography and time. The decreasing returns to scale of democratisation, discussed by Barro (1999), can progress to decreasing returns to scale of worldwide democratisation, *i.e.*, while more countries become democracies at the same time, the impact of democratic transitions on economic growth decreases on the new regime transitions (Norway, Finland, Italy, Japan, Barbados, Botswana, Malta, South Korea, Poland, Peru). Therefore, it can be argued that being the first country to become a democracy in a certain region may be a comparative advantage to display a greater impact on real GDP *per capita* growth rate.

This dissertation includes 6 sections. In section 2 the literature review is presented, subdivided in the relationship between democracy and economic growth, and the synthetic control methodology. In chapter 3 the empirical methodology is presented, namely the methodology and the robustness tests are described as well as the data used in this research. In the 4th section the chosen successful democratisation episodes are presented and a brief description of these episodes is given. The 5th chapter presents the empirical results, the robustness results and the discussion of the results reached. Lastly, the 6th chapter is dedicated to the conclusion of the dissertation.

2| Literature Review

2.1| Democracy & Economic Growth

The relationship between democracy and economic performance has been discussed throughout the past and current century. Some authors argue that democracy enhances economic growth (Acemoglu et al., 2019; Barro, 1999, 2015; Gründler & Krieger, 2016; Lipset, 1959; Martin et al., 2018), while others believe that democracy has no impact on the economic performance of a country (Acemoglu et al., 2009; Doucouliagos & Ulubas, 2008; Murin & Wacziarg, 2014; Tavares & Wacziarg, 2001).

In 1959, Seymour Martin Lipset claimed that democracy tends to be correlated with a high income *per capita*. The modernization hypothesis, defined by Lipset, states that countries with a higher level of economic development are more likely to become democratic or to consolidate their democracy. Democracy is interconnected with social development and it is most of the times seen as such. Through studying the democracy-growth relationship, it is also being studied the relationship between social development and economic development. Stiglitz (2002) illustrates that society's welfare improves when in democracy. Actually, he considers democracy a luxury good, thus as income

increases, democracy will be more demanded. Amaetya Sen, the Noble Prize winner economist in 1998, and Jean Drèze (1989) proved that democratic societies try to solve famine problems, through seeking to mitigate them. Stiglitz explains that since democratic societies do not allow for generalised famine situations to happen, citizens that may face poverty feel backed up by the system, believing that their concerns are considered.

Democratic transitions have been happening since the XVIII century, however being able to find historical data is a strenuous task. Murtin and Wacziarg (2014) try to study the links between the level of GDP (Gross Domestic Product) *per capita* and a democracy index, in 74 democratic countries between 1870 and 2000, through a GMM (Generalised Method of Moments) cross-country regression. The authors find primary schooling and income *per capita* to be determinants of the quality of political institutions, but they found no evidence of an effect of democracy on GDP *per capita* or education. Almeida and Ferreira (2002) found that almost all acute growth experiences occur in autocracies, yet they noticed that autocracies present the worst economic growth rates, studying cross-country and within-country regressions of 138 countries from 1960 to 1989. Autocracies are less predictable, especially when the market is concerned, and more volatile as trade is regarded, mainly due to resources dependence. However, democracies also have their downsides, they can be overcome by interest groups, which can lead to unbalanced public accounts (Huntington, 1968), particularly in recently formed democracies. Despite autocracies being more heterogeneous regarding property rights and regulation, democracies are more heterogeneous when GDP, fertility and schooling are considered. The differences regarding growth between democracies and autocracies are not “explained by country-fixed or time-fixed characteristics” (Almeida & Ferreira, 2002).

Democracy does not seem to have an impact on growth, however, the democracy-growth relationship changes in accordance with the region specified, having a higher impact in Latin America and a lower in Asia. Additionally, economic freedom and market reforms have a medium positive effect on growth, contrary to democracy. Although democracy does not have an impact on growth, it encourages stable and long-run growth, this because the institutions that arise from the democratization process are conducive to growth. These results were driven from a meta-regression analysis from 84 studies on democracy and growth. Furthermore, “democracy does not come at the cost of economic growth” (Doucouliagos & Ulubas, 2008).

Tavares and Wacziarg (2001) show, through GLS (Generalised Least Squares) and OLS (Ordinary Least Squares) regressions, that democracy promotes growth via human capital accumulation and by lowering income inequality. They portrait the idea that education enhances the demand for democracy, which is the origin of the link between democracy and development. However, democracy decreases physical investment rates, which leads to an overall negative and moderate effect of democracy on economic development. In fact, the authors admit that although the impact of democracy on growth is negative, due to democracies' economic cost, the trade off with the social benefits must be accounted for. Therefore, it can neither be said that social benefits that arise from democracy are offset by democracies' costs, nor the opposite.

Societies with unstable regimes and with more initial inequality are unlikely to consolidate democracy, which is expected. Acemoglu et al. (2001) show that there is a positive relation between political instability and inequality, through a dynamic model. The authors also claim that asset redistribution, education and land reforms when anticipated may create more political instability in the short run. They argue that in these situations elites will try to limit democracy and promote political instability to maintain power. Therefore, the higher the inequality, the more likely it is for a country to be politically unstable. Nevertheless, there is no evidence less inequality would lead to more political stability. Additionally, they found that presidential systems are less stable than parliamentary democracies. Contrary to the Lipset hypothesis the authors found that "holding inequality and other parameters constant", both rich and poor countries have the same likelihood of becoming democracies.

Acemoglu et al. (2009) reevaluate the modernization hypothesis established by Lipset. They prove that this hypothesis is weaker than it has been shown to be. The authors prove, through a cross-country regression with linear probability models in the presence of fixed-effects, that income *per capita* is never significant to transition into a democracy and away from it. Although income *per capita* is significant for both transitions without fixed effects, it does not prove a causal relationship. The authors explain that correlation is not causality, despite income and democracy being highly correlated, the causal effect cannot be determined. Additional, with historical measures of GDP, primary and secondary school attendance, population density and so on, Acemoglu et al. (2009) put in evidence the positive association between economic growth and democracy. The authors state that historical differences account for economic and institutional change, which the fixed

effects seem to have capture. Finally, the democratic movements worldwide do not seem to be driven by the causal effect of income on democracy.

In 2015, Barro reevaluates the “modernisation hypothesis”. In their studies Acemoglu et al. (2009) and other authors find no effect of democracy on GDP *per capita*, Barro argues that this only happens because these authors include country fixed effects. From a 151-country panel data from 1960 to 2000, Barro estimated that the convergence rate is around 1.7% per year, indicating a statistically influence of institutional quality, law, order, and democracy, on economic growth. While from 1870 to 1913 Barro’s results show that the conditional convergence rate for GDP *per capita* is around 2.6% per year, meaning that as more countries become democratic the convergence rate decreases. Martin et al. (2018) try to understand the differences between being a democracy or an autocracy, as well as the duration differences of both regimes, measuring the accumulation of the democratic experience. The authors’ results prove, with a 141-country panel study from 1820 to 2000, that democracy has no statistically significant effect on economic growth when democracy is measured in levels. However, when the authors measure democracy as a stock, democracy has a strong and positive relationship with economic growth, thus, long-term democracy leads to stronger economic performance.

Contrary to their findings in 2009, Acemoglu et al. (2019) find evidence, from 175 countries between 1960 and 2010 that democracy causes growth, with a significant and sizable effect. The authors use various methodological techniques to show that democracy influences economic growth, which were a panel model with autoregressive dynamics, an instrumental variable and propensity score weighting, a contrafactual method. Through all these methods the authors show the robustness of their result: “democracy does cause growth”. The authors show that transitioning from an autocracy to democracy leads to round 20 percent higher *per capita* GDP in the following 25 years. Additionally, the results show that in countries with higher secondary schooling, democracy leads to higher GDP. Finally, the authors found no evidence that democracy depends on the level of economic development previous to the democratization process.

To discuss democracy and economic growth, it is not only to discuss economic development, but also what is democracy, its indicators, and its determinants. “Democracy is one public virtue” stated Huntington (1991), thus, to understand it completely one must distinguish the various characteristics of political regimes.

Barro (1999) studied the various aspects that determine democracy, through a cross country regression of 100 countries from 1960 to 1995. He argues that when in democracy the standards of living improve, however with urbanization and a higher dependence on natural resources democracy tends to decline. Additionally, as electoral rights reach a moderate amount of rights, economic growth tends to decrease, despite the relation being the inverse in the beginning of the rights. In autocratic regimes a small increase in democracy tends to improve economic growth, this because of the limitations' reduction (*i.e.*, decreasing returns to scale of democratisation). Barro's evidence confirms the Lipset hypothesis, where countries with low levels of economic growth do not preserve democracy, whereas countries more prosperous are more likely to be democratic. In what school attainment is concerned Barro found that democracy does not hold a relationship with it. In contrast to Barro (1996), Gründler and Krieger (2016) found little evidence of democratization enhancing the redistribution effect.

Christmann (2018) studies the links between economic performance, democratic quality, and satisfaction with democracy through a time-series cross-sectional regression of 57 democracies, from 1990 to 2014. The author found that the standard of living increases in democracy, whilst with urbanization and dependence on natural resources democracy tends to fall. The author presents some problems and questions regarding democracy and economic performance. Democracy is an abstract concept, with different meanings for many, there are several attempts to measure and with-it difficulties in its definition, operationalization and how to build democracy indexes. Gründler and Krieger (2016) constructed a machine learning indicator, with Support Vector Machines, for 185 countries from 1981 to 2011, "representative of over 99% of the global population". The authors argue that the differences in the various researchers' results on the impact of democracy on growth is due to the composition of the democracy indicators. The authors' machine learning algorithms for pattern recognition results suggest that higher levels of democratization are always beneficial to growth. The positive influence of democracy on growth occurs "via better education, higher investment share and lower fertility rates" (Gründler & Krieger, 2016, p. 104).

Finally, to be a democratic country is not to be a liberalized country. There is the need to understand if, in countries which were already economic free, democracy enhances economic performance, as well as countries which became democracies but did not become liberalized economies. Rode and Gwartney (2012) examine the possible impact

of countries, which were already liberalized economically, transitioning to a democracy, through studying the interrelations between market-oriented institutions and its political determinants. The authors evidence the relation between democratization and electoral competition, making the connection with “private property, exchange market and competition” to improve economic performance. Through analysing cross-sectional regressions on 48 political transitions from 1970 to 2009 the authors have found that democracy is positively significant and the unstable regime variables to be negatively significant to economic liberalization. Moreover, in fifteen-year period after democratisation countries show higher levels of economic liberalization, but as democracy becomes more institutionalized the impact of democracy on economic liberalization tends to become negative. Although the results on the impact of transitioning to democracy are not substantial, the authors found evidence that going through a democratic process improves the conditions to economic reforms.

Giuliano et al. (2013) studied the impact of democracy on economic reforms “in financial, capital and banking sectors, product markets, agriculture and trade”, with a 150-country panel study, from 1960 to 2004. The authors found that democracy has a positively significant impact on economic reforms. They also found a strong correlation between lagged democracy and economic reforms, however there was no evidence that economic reforms foster democracy.

There are different results regarding the relationship between economic growth and democracy, which depend on research design, on the sample size, on the democracy indexes, on the time constraints and on the countries under analysis. There is no question on the positive impacts that democracy has socially, on people’s liberties and on fostering education. Nevertheless, it is important to understand if there is any trade-off with economic development.

2.2| Comparative Case Studies: The Synthetic Control Method

Research mechanism’s design is the main concern when research is concerned, where qualitative measures are often disregarded due to methodological limitations. Furthermore, it is often that individuals fall in the fallacy *post hoc ergo propter hoc*¹, confusing correlation with causality, and disregarding other factors that could be

¹*Post hoc ergo propter hoc* is the Latin expression which states “Since event Y followed event X, event Y must have been caused by event X”.

responsible for the observed outcome. The synthetic control method places “qualitative flesh on quantitative bones” (Tarrow, 1995). In comparative case studies it is necessary to have a treated and an untreated group, when regarding natural experiments and countries or institutions the definition of an untreated group becomes even more challenging. With the synthetic control, a data-driven method, it is possible to find a suitable comparison group (untreated), through the minimization of the characteristics under study between the two groups before the event and the construction of a synthetic treated group without the treatment (Abadie et al., 2010). This method has been firstly used by political scientists, but it has been widened to other sciences such as economics, to study isolated events considering qualitative data.

Abadie and Gardeazabal (2003) estimate the impact that the ETA’s terrorists’ conflicts on economic growth in the Basque Country, through the synthetic control method. Abadie and Gardeazabal introduced this statistical method, where the treatment group is the economy of Basque Country, whereas the control group are the averaged economies of other Spanish regions, which were not influence by the event understudy and that had similar characteristics to the Basque Country. The authors are able to do statistical inference on the terrorism impact in the economy, observing evolution of the GDP *per capita* gap between the synthetic Basque Country and the real Basque Country. Their results show that increases in the terrorist activity seem to be followed by increases in the GDP gap, the overall effect of terrorism in output is negative for every period. Additionally, with the placebo tests the authors show that there was no effect of the terrorism activity outside the Basque Country. The authors also show that with an Autoregressive Distributed Lag model their results would be similar.

In 2010, Abadie et al. “investigate the application of synthetic control methods to comparative case studies”, where they examine the effects of the California’s Proposition 99, implemented in 1988. Through the synthetic control method, the authors isolate the policy intervention and construct a suitable comparison group, in which the bias was minimized with the interpolation of regions which were extremely different from California. Their results imply that there were large effects of the tobacco control program. Additionally, they find evidence that were this program to be redone, the probability of it having such an impact is very small.

Billmeier and Nannicini (2013) study the impact of economic liberalization episodes on real GDP *per capita*, from 1963 to 2005, through a data driven comparative case

studies method: the synthetic control. With this methodology the authors compare the trajectory of GDP after the liberalization episode of treated countries with the trajectory of a weighted combination of similar countries which were not economic liberalized. Once it is observed the trajectory that GDP *per capita* would have followed if the country had not become economic liberalized and with the co-movement presented by the synthetic country and the country being studied before the event time-varying unobservable characteristics are accounted for. The authors do extensive research on numerous countries from the five continents, performing two experiments. The first only accounts for countries of the same microregion to possibly be in the donor pool, while the other allows for all the eligible control countries to belong to the synthetic control. Their results show a better fit of the synthetic and the actual country in the latter experiment. They prove that economic liberalization has a large and positive impact on the GDP *per capita*'s trajectory in most countries. However, countries which become liberalized economies before the last wave of globalization present a higher impact on income than countries which liberalized after (Billmeier & Nannicini, 2013).

Abadie et al. (2015) build bridges between quantitative and qualitative methods with the synthetic control, by estimating the economic impact of the German reunification on West Germany in 1990. Without the synthetic control, there was no country which could be approximated to the West Germany's predictors prior the reunification. In using this method, the authors were able to create a Synthetic West Germany, through a weighted average of a few countries (Austria, the United States of America, Japan, Switzerland, the Netherlands). Their results show that since the reunification West German's income reduced around 8% from 1990 to 2003, although there was no clear effect of the reunification in two years after.

The unexpected result of the Brexit referendum can be seen as a natural experiment, with-it economic expectations might change. Therefore, it is important to understand its impact before and after it has been realised (Born et al., 2019). The synthetic control proposes a comparison economy approximate to the United Kingdom's (UK) economy that was unaffected by the Brexit vote, where the difference between the UK and the Synthetic UK's economy portrays the causal effect of the Brexit referendum. Born et al. (2019) explore how the forward-looking expectations and decisions of households had an impact on the United Kingdom's economy. Furthermore, the authors estimated a structural vector autoregression to quantify the effect uncertainty shocks had on the

economy. The authors found the causal effect to be negative and sizeable, as well as an increase in the dispersion of expectations and an increase in the uncertainty. Through this research they were able to prove a central notion of macroeconomics: “the private sector responds in forward-looking manner to an anticipated policy change” (Born et al., 2019, p. 2740).

Puzzello and Gomis-Porqueras (2018) estimate the effect of becoming a member of the Economic and Monetary Unit had on income *per capita* of the first six adopters (Belgium, France, Germany, Italy, the Netherlands, Ireland), through the synthetic control method. The authors’ results show that countries with business cycles more synchronized and open to trade or migration, gained more from the euro (Ireland and the Netherlands), while countries like Belgium, France, Germany, and Italy have lost from adopting the euro, since their GDP *per capita* would have been between 7.5 and 16.3 percent higher.

As the synthetic control has been used in studying the effect of state programs, terrorist attacks, state interventions, and so on, it can also be used to study democratization episodes. To understand the effect of democratization episodes with this method, it is necessary to allow for individual-country heterogeneity to be time varying and for a well-defined comparison group, reducing estimates bias. Indeed, through using a weighted average of units as the synthetic unit for comparison, it prevents from extrapolation, which some regressions’ results base themselves on. This is particularly important in this case, where most democracy-economic growth studies are based on indexes or dummy variables. Moreover, since democracy or a country adopting a democratic regime is being studied, which is an infrequent event, traditional regression techniques fall short on estimating their effects. When democracy is considered, researchers are most often looking for medium to long-run effects, while shocks to the outcome studied besides the effect of the democratisation episode may occur. Through traditional regression methods output shocks are not being considered, whereas with the synthetic control method it is expected co-movement between the treated unit and the synthetic unit, hence, accounting for shocks (Abadie, 2020). Therefore, it is necessary to understand the democracy-economic growth relationship in light of the synthetic control method, to account for shocks, replicate co-movement and control for observable and unobservable characteristics.

3| Empirical Methodology

3.1| Statistical Methodology: The Synthetic Control Method

More and more academics and researchers are interested in measuring the effect of events or policy interventions that may affect cities, regions, countries, firms, schools, and so on. To be able to estimate these effects, it is used comparative case studies, where it is compared the estimated evolution of an aggregate variable of the unit that was affected (treated unit) by the policy intervention or event with the evolution of the same variable for the unaffected group (control group). However, there are two main problems regarding the ambiguity of how the control group is chosen and the fact that the only uncertainty measured is about the cumulative values of the data in the population, and not aggregate data (Imbens & Wooldridge, 2009).

Nevertheless, there are different and recent data-driven methodologies, which allow for the reduction of bias regarding the choice of the control group units. The simple comparison between the affected unit and the unaffected group would be bias, since it would not only include the effect of the treatment, but also the pre-existing differences in the determinant variables of the control and treated groups. The synthetic control method improves the impact estimates by reducing the already existing difference between groups. The synthetic control method allows for the construction of a control group, with a “systematic way to choose comparison units in comparative case studies” (pp.496, Abadie et al., 2015), with the aim of assessing the impact of an event on a certain variable for a specific unit. The synthetic control, a weighted average of the potential untreated units, is built to approximate the characteristics of the affected unit.

For simplicity, the event under study will be a successful democratisation episode, the control unit will be the country which undergoes the democratization episode, and the control group will be the countries which at that time did not go through a democratization episode or were not democratic at the time studied and were not considering going to immediately or in the very near future. Assume that the number of countries is $J + 1$, with $j = 2, \dots, J + 1$, with $j = 1$ being the country which went through the democratization episode (the treated country), and the remaining the many countries in the control group. These countries are observed over T periods, with $t = 1, \dots, T$, in which $T = T_0 + T_1$, since there is a number of periods before the event (T_0) and several periods after the event (T_1). From $t = T_0 + 1$ to $t = T$ the treated country ($j = 1$) is exposed to

the democratization episode (the treatment), while from $t = 1$ to $t = T_0$ there is no effect of the treatment. The outcome of interest is observed for each unit and time, Y_{jt} , as well as a set of k predictors of the outcome, which are variables that help estimating the outcome variable, $X_{1j}, \dots, X_{kj}$. The $k \times J$ matrix $\mathbf{X}_0 = [\mathbf{X}_2 \ \cdots \ \mathbf{X}_{J+1}]$ contains the vectors of the predictors for each untreated unit (J), which includes the value of the predictors for each unit (Abadie, 2020).

As in every comparative study it will be compared the potential response of the country being studied if it did not go through a successful democratisation episode, Y_{1t}^N , and the potential response under treatment, Y_{1t}^I , during the post-intervention period (Angrist, 2008). Thus, the effect of the successful democratisation episode for the treated country in period t , with $t > T_0$, is:

$$\tau_{1t} = Y_{1t}^I - Y_{1t}^N. \quad (1)$$

Actually, Abadie et al. (2010) demonstrate how the potential outcomes without treatment can be calculated for every unit for the following specification:

$$Y_{jt}^N = \delta_t + \boldsymbol{\theta}_t \mathbf{Z}_j + \boldsymbol{\lambda}_t \boldsymbol{\mu}_j + \varepsilon_{jt}, \quad (2)$$

with δ_t being the time trend, $\mathbf{Z}_j$ the vectors of observed predictors, $\boldsymbol{\mu}_j$ the vectors of unobserved predictors, with each respective coefficient $\boldsymbol{\theta}_t$ and $\boldsymbol{\lambda}_t$ and with ε_{jt} being “zero mean individual transitory shocks” (Abadie, 2020). The main difference between this method and other methods is the fact that it is time variant ($\boldsymbol{\lambda}_t, \boldsymbol{\theta}_t$) and it allows the countability of time variant unobserved characteristics. It is also important to note that $\mathbf{Z}_j$ is referent to the pre-democratisation period. There is an important assumption regarding the pre-democratisation period, which is that $\mathbf{Z}_j$ is not affected by the treatment – the successful democratisation episode. It is of the utmost importance to ensure that there were no responses from the variables of the anticipation of the episode, *i.e.* no anticipation effects (Billmeier & Nannicini, 2013).

The challenge in comparative studies is to estimate Y_{1t}^N , for $t > T_0$, the outcome of the country of interest if it had not gone through a democratisation episode – the counterfactual outcome after $t = T_0$. The problem is that after the episode takes place Y_{1t}^N is not observable whereas Y_{1t}^I is observable. Therefore, “comparative case studies aim to reproduce Y_{1t}^N (...) using one unaffected unit or a small number of unaffected units that had similar characteristics as the affected unit at the time of the intervention.” (p. Abadie,

2020). The synthetic control is given by $\mathbf{W} = (w_2, \dots, w_{J+1})'$, a $J \times 1$ vector of weights of the control countries (the donor pool), with $\sum_{j=2}^{J+1} w_j = 1$, and $w_j \in [0,1]$ so as to avoid extrapolation. The closer w_j is to 1, the closer are the countries in the donor pool (j) to the country being studied ($j = 1$) before the democratisation episode. Consequently, for a given set of weights, $\mathbf{W}$, the synthetic control estimators of Y_{1t}^N and the effect of the successful democratisation episode for the treated country in period t are:

$$\hat{Y}_{1t}^N = \sum_{j=2}^{J+1} w_j Y_{jt} \quad (3)$$

and

$$\hat{\tau}_{1t} = Y_{1t} - \hat{Y}_{1t}^N. \quad (4)$$

Despite the explanation of how to estimate the treatment effect $\hat{\tau}_{1t}$, there is the need of explaining how the weights are estimated, that is, the synthetic control. Following the nearest-neighbour estimates, the minimisation of the distance between variables $\|X_1 - X_j\|$, Abadie et al. (2003) design the synthetic control so that, for fixed V , it minimises with respect to W

$$\|X_1 - X_0 \mathbf{W}\| = \left(\sum_{h=1}^k v_h (X_{h1} - w_2 X_{h2} - \dots - w_{J+1} X_{hJ+1})^2 \right)^{1/2}. \quad (5)$$

Here X_1 is defined for the (single) treated unit. Thus, for $t = T_0 + 1, \dots, T$ the effect of the successful democratisation episode for the treated country is

$$\hat{\tau}_{1t} = Y_{1t} - \sum_{j=2}^{J+1} w_j^* Y_{jt}. \quad (6)$$

The vector $\mathbf{V} = (v_1, \dots, v_k)$ portraits the relative importance of each predictor, X_0 , so the synthetic control is produced by $\mathbf{W}(\mathbf{V}) = (w_2(\mathbf{V}), \dots, w_{J+1}(\mathbf{V}))'$. As in Abadie and Gardeazabal (2003) and Abadie et al. (2010) the vector $\mathbf{V}$ is chosen such that the synthetic control, $\mathbf{W}(\mathbf{V})$, minimises the mean squared prediction error (MSPE) of the synthetic control regarding Y_{1t}^N , as

$$\sum_{t \in \tau_0} (Y_{1t} - w_2(\mathbf{V}) Y_{2t} - \dots - w_{J+1}(\mathbf{V}) Y_{J+1t})^2, \quad (7)$$

for $\tau_0 \subseteq \{1, 2, \dots, T_0\}$ of periods before the democratisation episode.

To ensure the robustness of the synthetic control it is necessary to ensure that the difference $X_1 - X_0 \mathbf{W}^*$ is small, or else the use of the synthetic control would lead to substantial bias. Additionally, in trying to derive $X_1 = X_0 \mathbf{W}^*$ to maintain the equality, there is the risk of overfitting. However, once the methods were previously stated, with a

large and fixed T_0 and a large J , it is easier to fit the outcome before the democratisation episode.

Furthermore, to assess the treatment of the units in the donor pool it can be performed “placebo tests”. Firstly, it can be seen the impact of the democratisation episode in a country which belongs to the donor pool, hence is not democratic. Through estimating this counterfactual, it can be seen how the methodology affects the results. In this case, the smaller the difference, the stronger the robustness. Additionally, instead of using the synthetic control country, use each country belonging to donor pool individually to facilitate the comprehension of how robust the results are, that is “in-time placebo test”. It is important to understand how far or how close the treated country is from each of the donor pool’s countries.

Moreover, to understand the differences in the impact analysis there will be calculated (time) average aggregate treatment effects and standard deviations. To understand the persistence of the democratisation episode impact, the treatment effects were aggregated in 2-years, 3-years, 4-years, 5-years and 10-years’ time. The average treatment effects (ATE) are calculated through the sum of the differences between the output variable of the country understudy and the synthetic country, divided by each time aggregation (horizon). The standard deviation is calculated by

$$standard\ deviation = \sqrt{\frac{\sum |x - \bar{x}|^2}{n-1}}, \quad (8)$$

with x being the treatment effect for each period after the democratisation episode and $\bar{x}$ is the average for each period. Thus, the standard deviation is calculated for each of the aggregated period. Additionally, this will not only be calculated for the country under analysis but also its controls placebo’s results.

Through the analysis of the density plot and the differences between the treated and untreated densities it will robust our results. The further away from zero the mean of the ATE is and the closer to the mean the standard deviation of the ATE is, the more reliable are the results and evidence of a significant treatment. The results for the control placebos are expected to be the closer to zero as possible and the standard deviation as close to the mean as possible.

In fact, the aim of this research is to study the impact of successful democratisation episodes in the economic activity through the synthetic control method. For that it is

paramount to define the pre-intervention and post-intervention period durations being analysed, the variables selected (outcome and predictors) and the episodes and countries under study. Consequently, it has been decided to establish the period before and after the democratisation episode to be the same – 10 years long. Lastly, it was decided to do two experiments concerning the eligible countries for the donor pool. The first experiment restricts the countries in the donor pool to be in the same continent as the country in the democratisation episode. The second experiment allows for the donor pool to have all eligible countries.

3.2| Data

It is used annual data to estimate the effect of democratisation episodes on GDP *per capita* growth rate in a selection of countries. The period of democratisation episodes under analysis ranges between 1900 and 2019 for 183 countries, with Hong Kong and Macao being treated as countries, despite them being Chinese regions. Since this study involves historical time-series it was not possible to have all variables for all countries, during the same time-period. To try to diminish the shortages of data there were created different databases for three different time periods: 1890-1950, 1950-1960, 1970-2020.

When the synthetic control method is regarded the choice of predictors is of the utmost importance, for they will be the main proponents of the synthetic control weights before the intervention. It is also important for these predictors to be determinants of democratisation and economic activity.

The focus of this study is the impact of democratisation episodes on economic outcome; hence, it is extremely important to understand episodes of democratisation. Firstly, it is crucial to recognise that democratisation is a complex process, which may lead to various and uncertain outcomes. Therefore, it is important to use democratisation data appropriately.

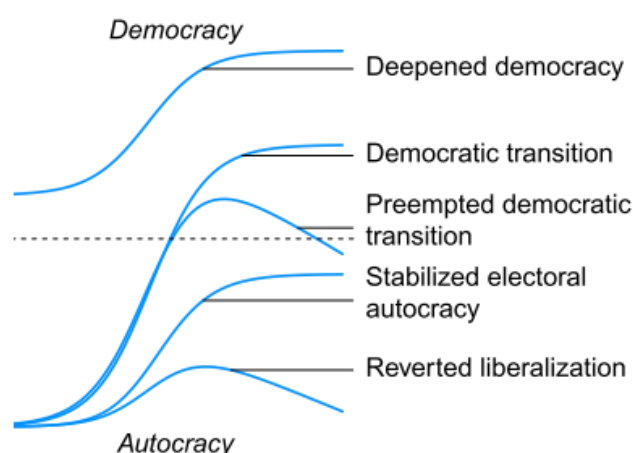
3.2.1 | Democratisation episodes: The Episodes Regime Transformation (ERT) dataset

The Episodes Regime Transformation (ERT) dataset is constructed by the V-Dem (Varieties of Democracy) Institute, describing 680 unique episodes, from 1900 to 2019 for 183 countries. The episodes of regime transformation can be understood as “periods when a country undergoes sustained and substantial changes along a democracy-autocracy continuum” (Maerz et al., 2021). Not only does this dataset gives us the first and last year of the democratisation episodes, but it also allows us to understand whether

that episode was successful or not and if the country should be considered a democracy or an autocracy, according to Dahl's definition of democracy on the institutional guarantees of polyarchy afore mentioned.

The ETR's approach yields the uncertainty of any regime transformation, as well as the several outcomes that may come with a regime transformation (Figure 1). Needless to say, with this approach there is less ambiguity regarding each regime transformation. When regarding regime transformation the heterogeneity of each process must be regarded.

Figure 3.1. Outcomes of democratisation; Source: Maerz et al. (2021)



This dataset allows us to rule out any possibility of anticipation effects, once that it regards any possible institutional difference in the country, which might lead to a successful democratisation episode. As it has been discussed earlier there is the need to have a 10-year period of the variables before and after the successful democratisation episode, then it will only be considered episodes which happened between 1900 and 2010. The focus of this research regarding this dataset were the following variables: Regime type (*reg_type*); Democratization episode start year (*dem_ep_start_year*); Democratization episode end year (*dem_ep_end_year*); Aggregate democratization outcome (*dem_ep_outcome_agg*). These variables were used for different occasions.

- **Regime type** (*reg_type*): This variable “denotes whether the current regime can be classified as a democracy or autocracy” (Edgell et al, 2020). It is a dummy variable which classifies each country, at each year, as an autocracy (0) or a democracy (1). This variable was used to establish the possible countries in the donor pool, considering that the 10-years before and the 10-years after the

start year of the democratisation episode the country must be considered an autocracy ($\text{reg_type} = 0$).

- **Democratization episode start year** (dem_ep_start_year): It indicates the initial year of the democratisation episode, which is calculated through the first sustained significant change on the V-Dem's Electoral Democracy Index (+0.01) and a total increase of at least 0.1, in a scale from 0 to 1, which was the recipient of the Lijphart/Przeworski/Verba Dataset Award 2016. This variable is extremely important to isolate the start year of the treatment in this study.

- **Aggregate democratization outcome** ($\text{dem_ep_outcome_agg}$): This variable is a categorical variable which captures the outcome of the episode. It is between 0 and 4, no democratisation episode, democratic transition, no democratic transition, deepen democracy and uncertain, respectively. Through this variable it is possible to select only the episodes which led to a democratic transition, thus, that were successful.

3.2.2 | Outcome Variable

- **GDP *per capita* growth rate**: This variable is annual percentage growth rate of Real Gross Domestic Product *per capita* in 2011 US dollars collected by the Maddison Project database. It is available for 169 countries from 1870 to 2018.

3.2.3 | Outcome Predictors

- **GDP *per capita* (5-years average)**: It is important to have GDP *per capita* as a predictor since it depicts the wealth created in each country. The use of this variable as a predictor for the outcome variable is corroborated by Abadie and Gardeazabal (2003), Abadie et al. (2015), Billmeier and Nannicini (2013), Puzzello and Gomis-Porqueras (2018) and Acemoglu et al. (2019) in their studies. This variable is a weighted average in a 5-year frequency of the Real Gross Domestic Product *per capita* in 2011 US dollars collected by the Maddison Project database. It is available from 169 countries from 1870 to 2018. The countries which are available in other data sets but are not available in other will not be used.
- **Investment**: This variable is extremely important to explain the Gross Domestic Product, as discussed by Solow's Economic Growth Theory, and used in similar studies by Abadie and Gardeazabal (2003), Abadie et al. (2015), Billmeier and

Nannicini (2013), Puzzello and Gomis-Porqueras (2018), Barro (1999), Acemoglu et al. (2019). For the investment variable it was quite challenging to find historical values for it. Therefore, it was necessary to find different variables for distinct time-periods. The different variables are:

- **Genuine Saving and Total Factor of Productivity (GSTFP):** This variable was constructed by Blum et al. (2016) for 11 countries (Argentina, Australia, Brazil, Chile, Colombia, France, Germany, Mexico, Switzerland, United Kingdom (UK), United States of America (USA)) from 1900 to 2000. GSTFP is the sum of the genuine savings plus the net present value of TFP in terms of international dollar in 1900. This database is available for few countries, and it is not ideal, however it is helpful in early democratisation episode. Therefore, it will be used from the episode studies from 1900 to 1940, for countries which have gone through democratisation episodes during this period. When a country under study between 1900 and 1950 is not included in this dataset, this variable cannot be used.
- **Gross Capital Formation as percentage of GDP (GCP):** The construction of this variable is done by the sum of fixed assets and net acquisition values, given in percentage value of the GDP, at current market prices. This variable was taken from the International Monetary Fund (IMF) Database and it has values for 184 countries from 1940 to 2019. This variable will be used to study episodes which happen between 1950 and 2010.
- **Trade:** Trade is important to explain GDP, similarly as to investment. In understanding the trade variable, it is linked to globalisation, which is important to explain economic development. In similar studies such as Abadie et al. (2015), Puzzello and Gomis-Porqueras (2018), Acemoglu et al. (2019) this variable is also applied. As trade increases, there is more mobility of economic agents regarding production and product factors, and firms' knowledge synergies are possible. However, there is not a single historical database that can be used, hence, the need to use different variable for different data sets.
 - **Trade:** The Correlates of War Project (COW) developed a data set tracking national trade and bilateral flows from 1870 to 2014. It was decided to sum the "imports" and the "exports" variables to get trade. "imports" are the total imports of a country in current US millions of

dollars and “exports” are the total exports of country in current US millions of dollars. This variable is available for 205 countries.

→ **Trade as percentage of GDP:** It is the sum of imports and exports of goods and services measured as the share of GDP. This variable was collected from World Bank National Accounts Data, for 247 countries from 1960 to 2020.

- **Years of Secondary Schooling:** This variable is important to explain how the education system is developed in each country. It is a proxy for human capital, as it can lead to economic growth through knowledge application, as Abadie and Gardeazabal (2003), Abadie et al. (2015), Billmeier and Nannicini (2013), Puzzello and Gomis-Porqueras (2018), Acemoglu et al. (2019) show in their researches. However, this variable was not available from a single source for the 1900-2020 timeline, so it was necessary to find different sources for different sets of data.

→ **Years of Secondary Schooling:** This variable presents the average years of secondary school population with age between 15 and 64 have of secondary schooling. It was collected from Barro-Lee Long-Run Education Data Sets, for 89 countries between 1870 and 2010, in a 5-year frequency. When the country being analysed is not in this data set, this variable is not used.

→ **Duration of Secondary Schooling:** This variable refers to the number of years there is in secondary school, which means how long it takes for secondary schooling to be completed. This variable was taken from World Bank World Development Indicators Database, for 264 countries between 1970 and 2020.

- **Percentage of primary schooling completed:** As the previous variable, this variable is important to explain the transversality degree of basic schooling. Additionally, it is a proxy for the right of having education. The application of this variable is corroborated by Abadie and Gardeazabal (2003), Abadie et al. (2015), Barro (1999), Acemoglu et al. (2019). This variable was not available from one single source, hence the need to have two variables for different spaces in time.

- **Percentage of Primary Schooling Completed:** This variable was collected from Barro-Lee Long-Run Education Data Sets, for 89 countries between 1870 and 2010, in a 5-year frequency. This variable shows the percentage of people age from 15 to 64 who completed primary school. When the country being analysed is not in this data set, this variable is not used.
- **Percentage of Primary Educational Attainment:** This variable shows the percentage of population with more than 25 year that have completed primary education. This variable was retrieved from World Bank World Development Indicators Database, for 264 countries between 1970 and 2020.
- **Child mortality per 1000 births:** This variable describes the number of deaths of children under five years old per 1000 live births and it was constructed by Gapminder. The values for this variable exist for 195 countries between 1800 and 2020. It is the same variable used through the three database sets. It can be seen as a health indicator, which represents the country's life conditions. This variable is validated to be used in this study by the similar research of Acemoglu et al. (2019).
- **Population:** The population variable aggregated by Gapminder shows the total population of 195 countries from 1700 to 2020. This variable will also be used in all three database sets. This variable shows, in some sense, the countries' dimension, which is important to explain the economic growth rate. The application of this variable in this research is validated by Abadie and Gardeazabal (2003), Billmeier and Nannicini (2013), Barro (1999).

4| Successful Democratisation Episodes Chosen

The purpose of this research is not only to understand if democratization episodes have an impact on economic growth, but also to understand if there are any impact changes geographically and timely. When choosing the democratic episodes to study the priority was to have at least two countries from each continent in the four-time divisions. It was chosen to divide the years understudy in four: from 1900-1929; from 1930 to 1959; from 1960 to 1989; from 1990 to 2010. Additionally, Asia and Oceania were joined as a continent for proximity reasons and because there were few countries for Oceania's donor pool in Oceania alone.

As previously stated from 1900 to 2019 there were 680 unique regime transformation episodes. From these episodes there were selected those which led to a Democratic Transition, and from these 132 episodes, only 90 of them lasted 10 years after the beginning of the episode. Therefore, under no data and periods limitations, it would be possible to study 90 episodes of democratic transition. The method to choose the countries understudy satisfy: 1) a maximum of two countries by continent aggregation for each period; 2) the maximum time distance possible between episodes. Table 4.1 presents the chosen democratisation episode for this analysis, grouped by geography and time. For each continent group and time period the name of the country is presented as the beginning date of the democratisation episode and the date of the end of the episode are.

Some episode's start date is not the date of the first election, in fact most democratic indexes consider the beginning of the democratic period. However, what is being studied in this research is the democratisation episode, which might have started by a country's freedom movement, a strike, an election, a war, a revolution, protests, and so on.

Countries like Norway, Finland, Japan, Belgium, and Botswana gained independence from their colonizers or conquerors, and this led to the beginning of their democratisation episode. Throughout these periods, in some countries, there were attempts of implementing a monarchy or other regime, leading to civil wars, such as Finland. The death of the dictator might also be the beginning of the democratisation transition. Some examples can be Portugal's democratic transition and Colombia's.

In other regions, the democratisation transition begins with strikes, followed by a hold of the power installed. Sri Lanka is a country where this happened, where strike after strike, the government had to leave office. Another example is Poland's case where the strikes made led to talks, which led to an agreement for democratic right. Sometimes deeper than strikes, protests and revolutions are needed to transition from an autocracy to a democracy, like it happened in Peru, Bolivia, Brazil, Czech Republic, and Serbia. The beginning of a civil war may also be the beginning of the democratisation transition, such event happened in Liberia, coinciding with the beginning of the democratisation transition.

Table 4.1 – The chosen democratisation episodes by continent and time aggregation

	Africa	Asia & Oceania	Europe	America
1900-1929			Norway (1906-1902)	
			Finland (1917-1921)	Canada (1920-1927)
1930-1959		Sri Lanka (1947-1948)	Belgium (1944-1949)	Costa Rica (1950-1950)
		Japan (1952-1959)	Italy (1944-1947)	Barbados (1957-1960)
1960-1989	Botswana (1960-1967)	South Korea (1981-1989)	Malta (1962-1965)	Trinidad and Tobago (1960-1967)
	Mauritius (1968-1968)	Phillipines (1986-1990)	Portugal (1970-1984)	Bolivia (1982-1987)
	São Tomé & Príncipe (1987 - 1995)		Poland (1989 - 1994)	Brazil (1983-1991)
1990-2010	South Africa (1994-1995)	Indonesia (1997 – 2000)	Czech Republic (1990-1991)	Colombia (1990-1995)
	Lesotho (2002-2003)	Georgia (2004-2005)	Serbia (2000-2003)	Mexico (1994-2002)
	Liberia (2005-2007)			Peru (2001-2004)

Another event that led to democratic transition was the advanced of countries to end dictatorships. This was the case of Italy, where the allies advanced in Rome and after it, taking down Mussolini's last major defensive line in 1944. The beginning of a free election, with universal adult suffrage is another happening that pave the way for democracy in the country, like Barbados, South Africa, Lesotho and Georgia. Conferences and changes in the constitutional rights sometimes point the beginning of the democratisation episode. Malta and Mexico can be taken as an example.

Each democratisation episode has its own characteristics, movements, and consequences, as afore describe. However, even when the beginning of the episode is similar or happens due to comparable situations, the way they happen may be different. Portugal and Colombia can be taken as an example, even though both episodes started with the death of the dictatorship leader, in Portugal it was due to natural causes, while in Colombia it was because the dictator was murdered. This changes the episodes, agents' expectations and even the transitory period.

5| Results and Robustness

In order to maintain the co-movement of the Real GDP *per capita* Growth Rate there were done two experiences regarding the donor pool. One only considers in the donor pool countries from the same attributed continent, whereas the other contemplates every country in the donor pool. However, it is only possible to use some of these countries, due to data limitations and the fact that the panel must be balanced for each period under study. It is possible to replicate the results of this research at <https://github.com/pabbarros/TheImpactOfDemocratisationEpisodesOnEconomicGrowth>.

5.1| Results

Through the analysis of Annexes A to DD, with countries in the donor pool from the same continent, it is possible to understand some of the impacts of the democratisation episode in the following 10-year period. In this experience, there are some countries that cannot be considered, such as Barbados, Sri Lanka, and Serbia since there was no data on the countries in the donor pool.

The results diverge from country to country, although some aggregations can be made. South Korea presents a significantly positive impact during the entire 10-year period after the democratisation episode, Peru and South Africa's results show a similar effect, apart from one year. Furthermore, Georgia also presents a significantly positive impact of the democratisation episode on Real GDP *per capita* in the 10-year that followed, except for two negative periods. On the contrary, São Tomé & Príncipe presents a significantly negative impact of the democratisation episode on economic growth. On the other hand, Indonesia did not show any impact of the episode the entire 10-year period that followed.

Table 5.1 – The democratisation effect on economic growth for each year after the democratisation episode in the same continent experience

Countries	Year of Democratic Episode	τ_{t+1}	τ_{t+2}	τ_{t+3}	τ_{t+4}	τ_{t+5}	τ_{t+6}	τ_{t+7}	τ_{t+8}	τ_{t+9}	τ_{t+10}
Norway	1906	-1	3	-1	3	1	0	4	-1	-1	6
Finland	1917	-10	22	8	2	0	0	3	0	4	1
Canada	1920	-9	10	-3	-5	8	2	9	-3	-6	6
Belgium	1944	30	-14	-22	-94	12	17	-13	0	-9	2
Italy	1944	5	5	-4	-18	8	9	-3	7	-4	2
Costa Rica	1950	-2	2	15	-5	6	-10	0	8	-3	3
Japan	1952	-11	0	4	6	2	3	5	13	8	7
Botswana	1960	2	-8	-4	-3	1	10	1	11	7	4
Trinidad and Tobago	1960	-3	0	3	-2	2	-2	-2	6	2	1
Malta	1962	-5	-1	3	6	3	5	5	7	-4	1
Mauritius	1968	-3	-8	-5	-2	5	-24	-10	-7	20	28
Portugal	1970	2	-1	1	-1	-9	-3	0	-4	5	4
South Korea	1981	5	6	2	5	8	5	6	2	4	4
Bolivia	1982	-4	-1	-1	-3	1	2	0	3	4	-3
Brazil	1983	4	8	8	2	-2	0	-6	1	-3	5
Phillipines	1986	3	7	6	1	-4	-15	-9	-4	-2	-5
São Tome	1987	-2	-3	-5	-2	-2	-1	0	-1	1	-8
Poland	1989	1	3	29	33	1	-1	0	-3	1	22
Czech Republic	1990	16	4	-9	-4	0	-2	12	-9	-12	-3
South Africa	1994	2	1	-4	-4	1	4	2	3	7	4
Mexico	1994	-16	0	4	3	1	5	0	1	1	7
Indonesia	1997	-9	-4	-2	2	1	0	-1	1	0	1
Peru	2001	4	3	7	4	3	4	7	-3	9	0
Lesotho	2002	9	1	-1	-1	-1	9	-4	-4	-5	1
Georgia	2004	3	3	5	-3	-6	3	0	5	-2	2
Liberia	2005	-8	-10	0	2	-1	-6	3	30	-2	-4

τ_{t+1} is the effect of the successful democratisation episode for the treated country in the first period after the democratisation episode

In this experience some countries show a negative impact in the first two to three years following the episode, such as Finland, Canada, Costa Rica, Japan, Botswana, Malta, Liberia, and Mexico (Table 5.1). Similarly, Bolivia presents a negative impact in the 5-year period following the democratisation episode. Whereas countries like Norway and Poland show no impact of the episode in the first year following the episode. Additionally, it can be seen a positive impact in the first two to three years after the democratisation episode in countries as Philippines, Mauritius, Lesotho, and Czech

Republic, while Italy shows a negative impact in the first year following the beginning of the episode. Equivalently, Brazil and Colombia present a positive impact during the 5-year period following the democratisation episode.

Finland, Bolivia and Mexico show a slightly positive impact for the following years under analysis, and in which Botswana presented a more significant positive impact. Although, Finland and Poland presented extremely significantly positive impacts after the negative or null impact in economic growth previously described. Malta's results also show a significantly positive impact up to the 8th year after the episode, since the last two years under analysis present a significantly negative impact of the episode on economic growth. Yet, there were some countries whose behaviour shows some volatility with periods of positive, negative, and null impact. However, overall, the impact throughout time can be considered positive in countries like Canada, Belgium, Costa Rica, Norway, Mauritius, Liberia, Portugal, and Czech Republic.

Notwithstanding, there are also countries which show a negative impact for the following years under analysis, such as Philippines, Brazil, Lesotho, and Colombia. Additionally, Mauritius's results describe a negative impact after the two years of a positive impact, until the 8th year of the beginning of the democratisation episode, from the 8th year to the 10th the democratisation impact on economic growth is positive. Additionally, the Italian case is also interesting, which presents a null impact for the rest of the period under analysis (from the 2nd period to the 10th).

It is paramount to analyse the second experience, where the countries in the donor pool can be from every continent, thus are not constrained to the continent they belong to. This makes it possible to infer Barbados, Sri Lanka, and Serbia's results. Furthermore, it is useful to understand which experience is more robust and if the results vary considerably (Table 5.2).

Firstly, it is important to understand the impact of the democratisation episode on Real GDP *per capita* Growth Rate in Sri Lanka, Barbados and Serbia. Sri Lanka shows that during the first year there was a negative impact of the democratisation episode on economic growth. This was followed by 3 years of Sri Lanka's Real GDP *per capita* Growth Rate being superior to Synthetic Sri Lanka economic growth. From that period on there are periods where the impact is positive and time when it negative, however, the intensity of the negative impact is greater. Barbados displays a positive impact from the first up to the fifth period after the democratisation episode. The last five years under

analysis show some volatility, yet the positive impact periods are more significant than the negative impact moments. Thus, it presents an overall positive effect of the democratisation episode on economic growth. Serbia shows a positive impact on economic growth during the first five years after the democratisation episode. Following this positive impact period there is a moment of a negative impact followed by one period of a positive impact. The last two years under analysis shows a null impact of the democratisation on Real GDP *per capita* Growth Rate.

Table 5.2 – The democratisation effect on economic growth for each year after the democratisation episode in the world experience

Countries	Year of Democratic Episode	τ_t	τ_{t+1}	τ_{t+2}	τ_{t+3}	τ_{t+4}	τ_{t+5}	τ_{t+6}	τ_{t+7}	τ_{t+8}	τ_{t+9}	τ_{t+10}
Norway	1906	1	-1	3	-1	3	1	0	4	-1	-1	6
Finland	1917	-16	-10	22	8	2	0	0	3	0	4	1
Canada	1920	-11	-7	11	-5	-4	6	6	7	-5	-5	5
Belgium	1944	6	15	-18	-11	2	4	5	1	3	-4	1
Italy	1944	-16	-1	10	2	4	7	7	2	10	1	3
Sri Lanka	1947	-14	-10	10	6	2	-2	-4	2	1	-5	-3
Costa Rica	1950	-12	-4	4	12	-5	5	-11	-1	8	-3	3
Japan	1952	3	6	-1	4	0	3	1	9	12	1	0
Barbados	1957	1	1	1	1	2	3	-2	4	-1	5	6
Botswana	1960	-1	4	-9	-5	-3	0	10	3	10	7	5
Trinidad and Tobago	1960	3	1	3	-5	-3	1	0	-3	4	0	2
Malta	1962	-5	-7	-2	5	8	5	7	2	6	-1	2
Mauritius	1968	-6	-2	-4	-3	0	6	-18	-8	-5	15	18
Portugal	1970	5	7	3	10	-5	-14	2	10	0	3	11
South Korea	1981	2	4	6	3	6	9	4	3	0	3	5
Bolivia	1982	-2	-4	-1	-2	-4	1	2	0	2	3	-3
Brazil	1983	-2	2	3	5	4	-5	0	-6	-3	-1	5
Phillipines	1986	2	-1	0	0	-2	1	-1	-2	3	4	-6
São Tome	1987	3	-2	0	-4	2	0	-1	2	-14	-5	0
Poland	1989	-3	-9	2	11	17	5	3	-4	-1	2	1
Czech Republic	1990	0	9	-3	-11	-5	0	-2	7	-6	-9	-2
Colombia	1990	0	-3	-6	-2	0	0	-4	-8	-9	-9	-2
South Africa	1994	1	2	0	-15	-3	-2	-3	-2	0	5	0
Mexico	1994	1	-13	-2	1	1	1	-1	-4	-2	-6	-3
Indonesia	1997	-3	-18	-3	0	-1	-3	0	-2	-3	-3	-3
Serbia	2000	0	3	5	-1	7	2	-6	4	3	-2	0
Peru	2001	1	6	7	1	4	3	4	14	-2	-4	-1
Lesotho	2002	-3	7	-2	0	0	0	9	-4	-6	-5	1
Georgia	2004	0	5	1	6	-4	-7	3	0	4	-2	2
Liberia	2005	1	1	3	12	6	-1	-10	-1	3	-4	-4

τ_{t+1} is the effect of the successful democratisation episode for the treated country in the first period after the democratisation episode

While Norway, Finland, Canada, Costa Rica, Botswana, Mauritius, South Korea, Malta, Brazil, Bolivia, Indonesia, Lesotho, Liberia, Trinidad & Tobago, and Georgia display the same impact as previously, there are some countries which show some changes in the results. For Belgium's democratisation episode, the second period of a positive effect is more prominent and the negative effect not as persistent and greater than previously stated. Similarly, Italy's results present prominent and more persistent positive effects. From the 3rd year after the episode to the final period under analysis, the results display a positive significant positive impact. Despite the results being extremely similar than previously, the significantly positive impact begins after the beginning of the episode, and it lasts until the 9th period. For the last year under analysis Japan shows a null impact of the democratisation episode. The results for Portugal with the world donor control presents a more prominent effect during the 3 years after the beginning of the democratisation episode. After this 3-year period, it shows a significantly negative impact during the two years that proceed it. From the 5th period after the beginning of the episode until the 10th period, Portugal displays a significant impact of the democratisation episode on economic growth. Thus, presenting an even greater overall positive impact of the democratisation episode in Portugal's economic growth.

Conversely to the previous results, Tomé & Principe shows a null impact since the beginning of the episode up the 7th year after the episode. The last three years understudy display a significantly negative impact. Similarly, Philippines presents in these results a null impact until the 7th period after the beginning of the democratisation episode. Contrary to previously during the first 3 years after the episode the democratisation impact is now negative, and not the previous null effect presented. After this 3-year period the impact is relatively similar to the previous with both negative and positive impact periods being less prominent. Additionally, Colombia now displays a negative impact throughout the entire 10-year period understudy after the beginning of the democratisation episode. Peru also presents a difference during the last 3-year period under analysis, where it displays a significant negative impact.

On the other hand, South Africa results change slightly, although the two-year period after the episode and the last three-year period understudy show the same positive impact, the 5-year period in between presents a significant negative impact. Mexico's results display more prolonged and more persistent negative impact periods than previously, overall presenting a negative impact of the democratisation episode. As for Czech

Republic shows different results than previously regarding the impact of the democratisation episode on Real GDP *per capita* Growth Rate. The first year after the democratisation episode is now negative and the 3-year period that followed it present a positive impact. The last five years understudy display an overall negative impact of the democratisation episode on economic growth.

The reasons for these differences and which results give us more confidence, will be discussed and explained in the Robustness subchapter.

5.2| Robustness

As previously stated, to reinforce and corroborate the results afore presented, one needs to understand several questions in the results. To start it is crucial to observe the movement of Real GDP *per capita* Growth Rate prior to the democratisation episode of the Synthetic Country and of the Country of interest. The closer the co movement of both these outputs, the more reliable will the results be. Similarly, the closer the Common Support, *i.e.*, the proximity of the average values of the outcome predictors, is, the more consistent with the reality are the results.

Regarding the placebos, there were preformed two types of placebos: the control placebos and the placebo with the actual variables' movement. In the former, this placebo shows some robustness if the economic growth of the synthetic control and of the control present co movement for the majority of the period. For the latter the objective is to understand whether the results would be similar if the synthetic control was not a weighted average. Obviously, these results must be considered taking into consideration the controls' weights.

Through analysing the co movement, the common support and the placebos, it can be inferred which experience is more robust: the same continent experience; the world experience. Furthermore, the possibility of having the same results in both experiences, improves the results' confidence. Finally, the density plots will show the possible impact of the control placebos, which is supposedly null, and the impact of the democratisation episode on the country understudy economic growth. This is not only important to corroborate the magnitude of the result, but also the magnitude of the placebos' impact (Annexes A to DD).

Through analysing Annexes FF to GG, it is possible to state that while for some countries the co movement sought before the democratisation episode is better in the same

continent experience, other countries show a better resemblance between the synthetic control and the country prior to the episode in the world experience. Finland, Canada, Belgium, Malta, Philippines, and Indonesia present a good resemblance between the synthetic control and the country's Real GDP *per capita* Growth Rate movement prior to the episode, in the referred experience. In accordance with this, the common support also presents to be closer to the country's outcome predictors than the overall mean. On the other hand, countries like Canada, Belgium, Italy, Japan, Botswana, São Tomé, Philippines, Indonesia, Portugal, Bolivia, South Africa, Peru, Mexico, Czech Republic, and Serbia present a better co movement of the outcome variable before the episode in the world experience than in the same continent experience. Furthermore, these countries also present a similar movement between the synthetic control and the country's outcome variable, as it is the common support (Annexes EE).

Similar to the previously observed, Belgium, Botswana, South Korea, Malta, Poland, Brazil, and Indonesia's control placebos show little to no effect in the first experience (countries in the donor pool from the same continent). Whereas Finland, Canada, Belgium, Costa Rica, Japan, Portugal, Bolivia, Lesotho, Georgia, Peru, Mexico, and Czech Republic's control placebos display more robustness in the second experience (countries in the donor pool from the world).

In countries like South Korea and Lesotho exhibit some differences in the outcome variable's movement between the synthetic country and the country itself, in both experiences. Norway's robustness tests demonstrate the controls' placebos to show a null effect in the world experience, even though the controls are the same in both experiences. Philippines is another specific case in which most of the controls' placebos present no effect after the democratisation episode, however, the placebo with the highest weight shows an effect, in both experiences. Barbados and Sri Lanka display some effect in the controls' placebos for the only experience possible for these countries. Additionally, prior to democratization Barbados time series is not very similar between the country and its synthetic control. Malta and Trinidad and Tobago show the same robustness in both experiences, with a good co movement prior to the democratisation episode and the controls' placebos show no effect. Liberia also presents similar results in both experiences, although it shows some differences in the movement prior to the episode and some effect in the controls' placebos.

Moreover, Colombia's robustness tests show some divergences, appearing to be more robust in the same continent experience. In Italy and South Africa's case their controls' placebos display some effect, but this effect is much smaller in the world experience. In what Botswana is regarded the data prior to the democratisation episode does not present a complete co movement, better in the same continent experience.

In what the first experience is concerned, the placebo tests with all countries corroborates some of the democratisation effects afore mentioned. For example, Finland placebos validates the positive and negative effect of its democratisation episode on economic growth during the first four years after it. However, from the fifth year to the tenth period understudy after the episode the placebo display that the effect could be negative. Costa Rica, Botswana, Belgium, Malta, Indonesia, Brazil, South Korea, and Colombia results are also validated by this robustness test.

It can also be understood from the density plots the average treatment effect of the democratisation episode on Real GDP *per capita* growth rate throughout the same continent experiment (Table 5.3). In fact, South Korea and Poland display the same effect through the 3-year, 4-year, 5-year, and 10-year aggregated periods, of about 5 percentage points (p.p.) and 4 p.p., respectively. Botswana, Indonesia, Colombia, Brazil, Costa Rica, and Malta show some changes in the ATE of the democratisation episode throughout the aggregated periods. While Indonesia's density plots portrait a negative impact from the 3-year aggregate period to the 10-year aggregate period (-1 p.p.), each time smaller than the previous, Botswana exhibits the same negative ATE from the 3-year to the 5-year ATE density plot of -5 p.p., yet in the 10-year aggregate period it exhibits a positive ATE of 5 p.p. Colombia, Costa Rica, and Brazil show similar differences, with a high constant ATE between the 3-year and the 5-year aggregated periods of 15 p.p., 5 p.p. and 7 p.p., respectively, however, in the 10-year aggregated period the ATE is smaller of 2 p.p. in Brazil and Costa Rica's case and of 0 in Colombia's. On the contrary Malta presents a null ATE between the 2-year and the 5-year aggregated periods density plots, but in the 10-year the average treatment effect of the democratisation episode on economic growth is positive of 4 p.p. For every country studied in the first experiment the 2-year ATE is null.

Table 5.3 – Average Treatment Effect of the democratisation episode on economic growth for grouped time period in the same continent experience

	2-years ATE	3-years ATE	4-years ATE	5-years ATE	10-years ATE
Norway	1,2	0,4	1,0	0,9	1,3
Finland	6,3	6,8	5,5	4,4	3,0
Canada	0,5	-0,8	-2,0	-1,6	-0,7
Belgium	8,2	-2,0	-24,9	-19,9	-9,2
Italy	4,9	2,1	-3,0	-2,4	0,8
Costa Rica	0,0	5,0	2,4	1,9	1,5
Japan	-5,7	-2,4	-0,4	-0,3	3,6
Botswana	-2,3	-3,3	-3,3	-2,6	2,2
Trinidad and Tobago	-1,8	-0,2	-0,7	-0,5	0,5
Malta	-2,9	-0,9	0,9	0,7	2,0
Mauritius	-5,8	-5,5	-4,6	-3,7	-0,8
Portugal	0,2	0,5	0,2	0,2	-0,6
South Korea	5,7	4,6	4,8	3,9	4,8
Bolivia	-2,4	-2,0	-2,2	-1,8	-0,3
Brazil	6,2	7,0	5,8	4,6	1,8
Phillipines	4,6	4,9	3,9	3,1	-2,3
São Tome & Principe	-2,5	-3,5	-3,0	-2,4	-2,4
Poland	1,9	10,9	16,5	13,2	8,6
Czech Republic	10,0	3,6	1,7	1,3	-0,7
South Africa	1,3	-0,5	-1,4	-1,1	1,6
Mexico	-8,1	-4,1	-2,4	-1,9	0,5
Indonesia	-6,6	-4,9	-3,1	-2,5	-1,1
Peru	3,4	4,6	4,4	3,5	3,7
Lesotho	5,0	3,1	2,0	1,6	0,3
Georgia	3,0	3,6	2,1	1,7	1,1
Liberia	-8,9	-6,1	-4,1	-3,3	0,3

When regarding the world experience, one can understand that while some placebos corroborate the impact of the democratisation episode on economic growth, others show that the impact could be null. Philippines, Canada, Georgia, Bolivia, South Africa, Lesotho, Liberia, and Georgia's placebos display that through the 10 years after the democratisation episode, its impact on economic growth could be null. On the other hand, Japan's placebo corroborates the overall positive effect of the democratisation episode, as Portugal, Belgium, and Norway's placebo presents the same impacts as the results show, both positive and negative. It was also possible to understand that there are some periods previously stated as periods of a negative effect that may now be null, as can be seen in Peru, Mexico, Czech Republic, and Serbia's placebo.

Table 5.4 – Average Treatment Effect of the democratisation episode on economic growth for grouped time period in the world experience

Countries	2-years ATE	3-years ATE	4-years ATE	5-years ATE	10-years ATE
Norway	1,2	0,4	1,0	0,9	1,3
Finland	6,3	6,8	5,5	4,4	3,0
Canada	1,9	-0,3	-1,3	-1,1	-0,9
Belgium	-1,5	-4,8	-3,1	-2,5	-0,2
Italy	4,3	3,7	3,7	3,0	4,5
Sri Lanka	0,0	1,9	1,9	1,5	-0,3
Costa Rica	0,2	4,1	1,9	1,5	0,9
Japan	2,4	3,1	2,4	1,9	3,5
Barbados	1,0	0,9	1,2	1,0	1,9
Botswana	-3,1	-3,3	-3,3	-2,7	2,0
Trinidad and Tobago	2,0	-0,3	-1,0	-0,8	0,0
Malta	-4,3	-1,3	1,0	0,8	2,5
Mauritius	-3,1	-2,9	-2,2	-1,7	-0,1
Portugal	5,0	6,7	3,7	3,0	2,7
South Korea	5,2	4,6	5,1	4,1	4,4
Bolivia	-2,8	-2,4	-2,7	-2,2	-0,5
Brazil	2,5	3,2	3,4	2,7	0,5
Phillipines	-0,5	-0,3	-0,7	-0,5	-0,2
São Tome & Principe	-1,0	-2,0	-1,1	-0,9	-2,3
Poland	-3,4	1,4	5,4	4,3	2,7
Czech Republic	3,0	-1,7	-2,5	-2,0	-2,2
Colombia	-4,3	-3,6	-2,6	-2,1	-4,2
South Africa	1,1	-4,3	-4,1	-3,3	-1,7
Mexico	-7,7	-4,6	-3,3	-2,6	-2,8
Indonesia	-10,8	-7,3	-5,8	-4,6	-3,6
Serbia	4,0	2,2	3,4	2,7	1,5
Peru	6,5	4,8	4,7	3,8	3,2
Lesotho	2,3	1,6	1,1	0,9	-0,1
Georgia	2,7	4,0	2,1	1,6	0,9
Liberia	2,1	5,5	5,5	4,4	0,5

Similar to the same continent experience, in the experience with every country possible in the donor pool, the 2-year ATE density plot for the countries which shown to be more robust in this experience displays a null effect of the democratisation episode. Japan, Italy, Peru, and Serbia all show a similar effect in the 4 density plots understudy, with the democratisation effect on Real GDP *per capita* Growth Rate of 3 p.p., 4 p.p., 4 p.p., and 3 p.p., respectively. Both Mexico and South Africa show a similar negative effect on economic growth in the 3-year, 4-year, 5-year, and 10-year ATE density plots, both with an impact of -3 p.p.. Norway, Finland, Georgia, Portugal, and Czech Republic show some changes throughout the 3-year, 4-year, 5-year and 10-year ATE density plots.

While Norway's placebo displays an increase of the impact throughout time, from a null impact (3-year ATE density plot) to 1,3 p.p. (10-year ATE density plot). The contrary happens to Finland, in this case the effect of democratisation on economic growth was 6 p.p. in the 4-year ATE density plot, while in the 10-year ATE density plot displays a 3 p.p. effect. The same happens to Georgia's results which start in a 3 p.p. democratisation effect in the 3-year ATE density plot, whereas the 10-year ATE density plot portrays a 1 p.p. effect. The Portugal's case is very specific with changes throughout the aggregated periods, while for the 3-year and 10-year ATE density plot the impact is an increase of 3 p.p. on economic growth, in the 4-year and 5-year ATE density plot the impact is of 3 p.p.. Finally, Czech Republic's 2-year ATE density plots exhibit a positive impact of the episode of 3 p.p. on Real GDP *per capita* Growth Rate, however, when observing the 10-year ATE density plot this effect is now negative of 2 p.p..

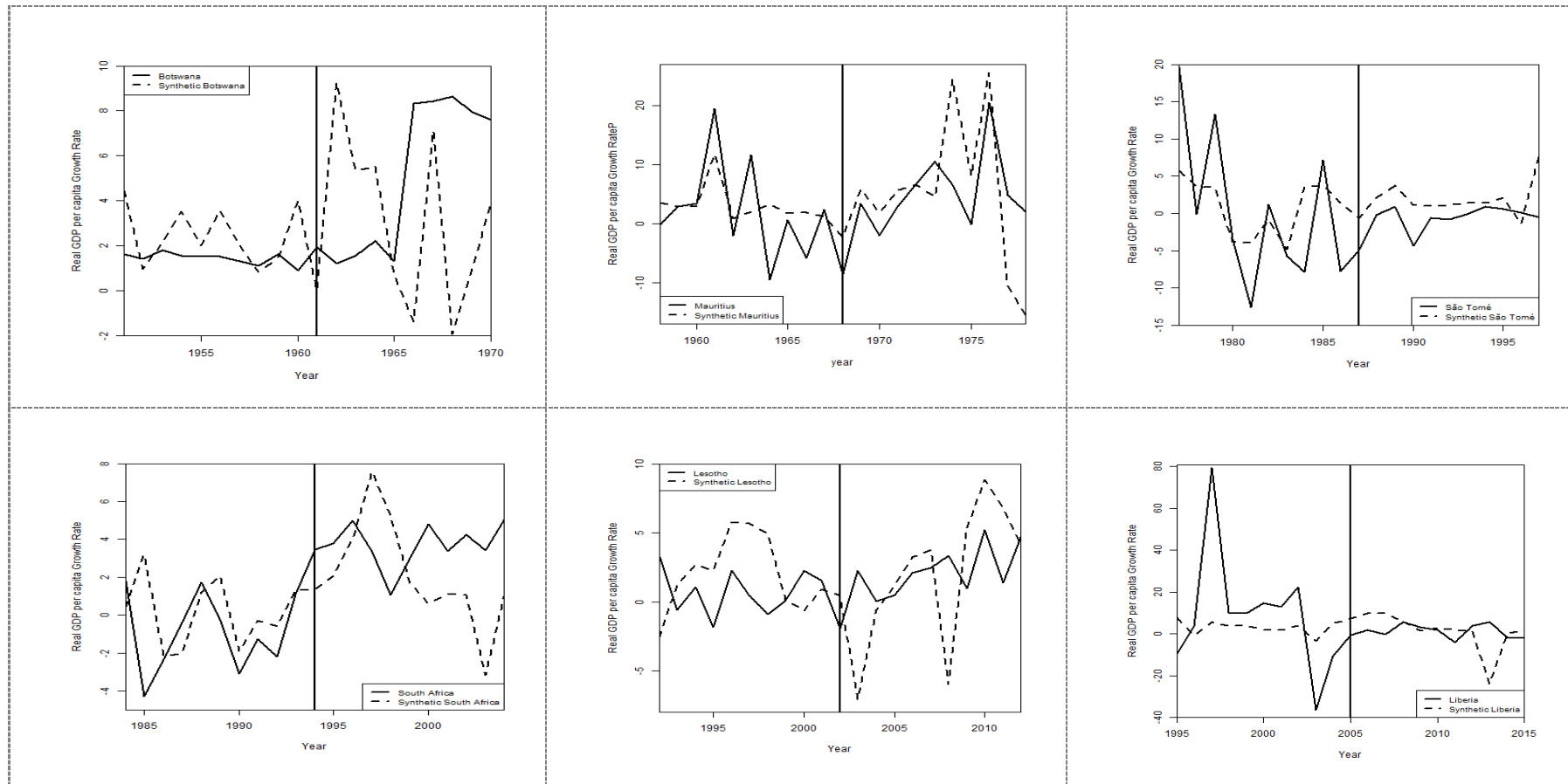
Finally, Trinidad & Tobago displays no effect throughout the 10-year period after the democratisation episode on economic growth. From the placebo with every country in both experiences it was possible to acknowledge that the positive period impact is more robust than the negative ones.

5.3| Discussion

Despite the prior thorough analysis, it is important to comprehend the differences on the democratisation episode's impact between countries. Why do some countries have such significant and persistent effects of the democratisation episode and other do not? Can these differences be justified by continent, by time or even by social movement?

In Africa (Fig.5.1), most countries present a null or a close to null impact of the democratisation episode on economic growth during the 10-year period after it. Additionally, from the six African democratisation episodes studied, it can be found that during at least three years after the episode, its impact is significantly negative. In such countries the relationship between democracy and economic growth is affected by multiple factors. The fact that these countries display contradictory social movements and are economically underdeveloped or the influence of interest groups, may have led to a low impact of the democratisation on economic development (Huntington, 1968). Furthermore, Botswana and South Africa display a greater impact of the democratisation

Figure 5.1 - Synthetic Control of the African Countries, with controls from the same continent donor pool (experience one)



episode than any other studied African country, which can be explained by the social movements arising throughout the dictatorship with people demanding to be heard (from the colonizers in Botswana's case and with Apartheid in South Africa's).

In Asia and Oceania (Fig.5.2), Japan and South Korea display a positive impact on economic development throughout the 10 years after the democratisation episode. The first years after the democratisation episode appears to have a positive and significant impact of the episode in most countries (Philippines, Georgia, South Korea, and Japan). A reason for this may be the fact that the beginning of the episode captures the small changes in democracy, thus leading to economic growth (Barro, 1999). Finally, another important finding is the fact that the first episodes being studied, from 1947 to 1981 display a more significant and positive impact, which might be because these were one of the first countries experiencing democracy, leading them to capitalize on the first mover advantage, being the first countries to industrialize, to enhance competitiveness, and so on.

When Europe (Fig. 5.3) is concerned, half of the episodes studied present a negative effect for 2 to 3 years after the beginning of the democratisation episode (Finland, Malta, Norway). The initial negative impact may be explained by the fact that some of these countries were coming out of wars or other countries' domain, with the complete devastation of the country, not being yet able to capitalize on their independence and democratisation. While for other five countries, two show a null impact (Portugal and Poland), the other three (Belgium, Italy and Czech Republic) display a positive impact in the beginning of the episode and an overall positive impact, despite having periods of a negative impact. Furthermore, it is paramount to understand that in Europe, the countries that display an initial negative impact, show a more persistent and greater positive impact of the democratisation episode from the 3rd year after the democratisation episode up to the 10th year. With countries asserting themselves as democratic, it may lead to the improvement of economic agent's confidence, in institutions, in progress and in competitiveness.

Through the analysis of the America's (Fig.5.4) results, one can understand that when compared with the other continents, the overall impact of the democratisation episode on economic growth is smaller. Moreover, the results are also more volatile than in other continents, which can be explained by the fact that most Central American transitions are

Figure 5.2 - Synthetic Control of the Asian and Oceanian Countries, with controls from the world (experience two)

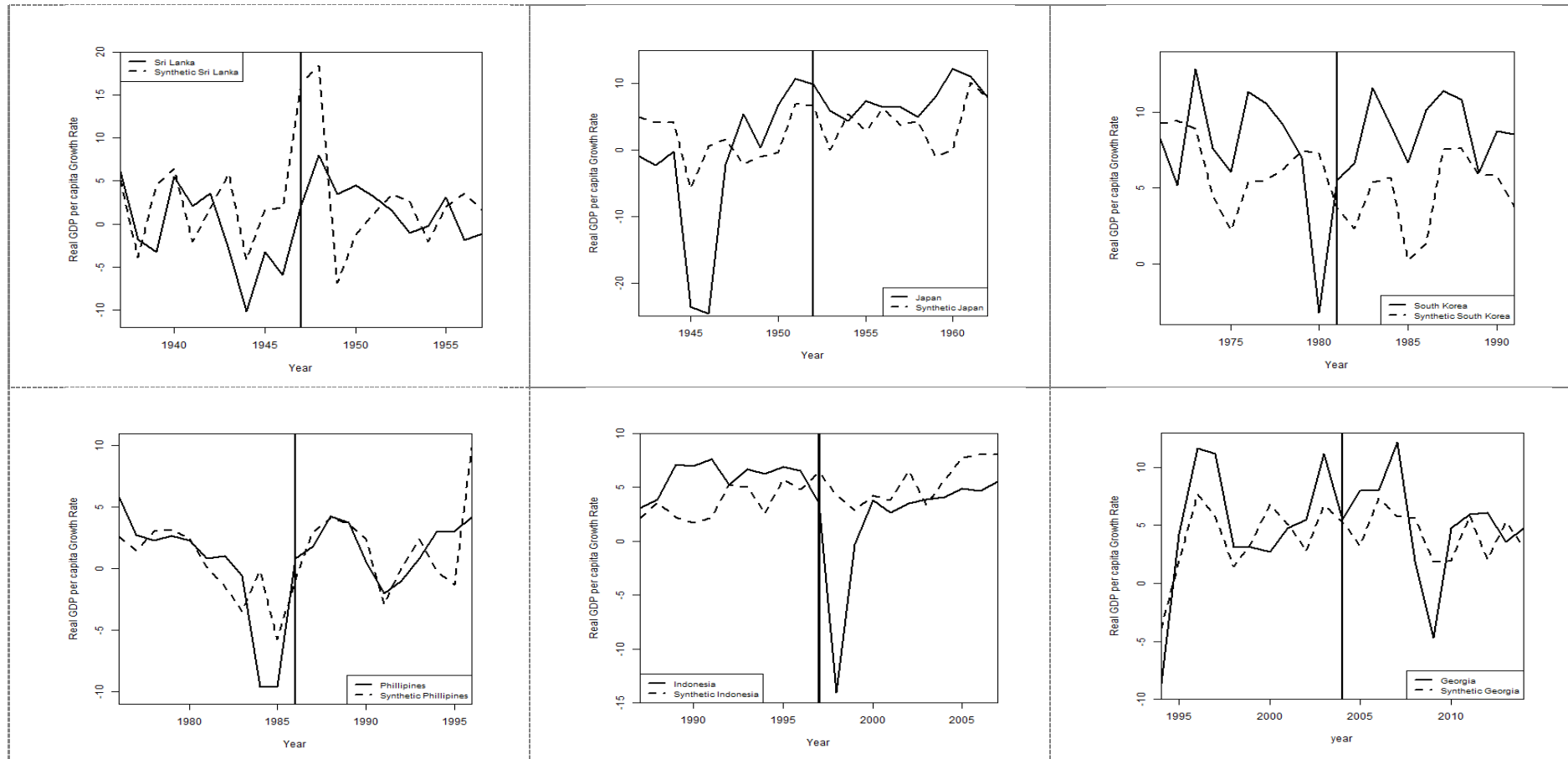


Figure 5.3 - Synthetic Control of the European Countries, with controls from the same continent (experience one)

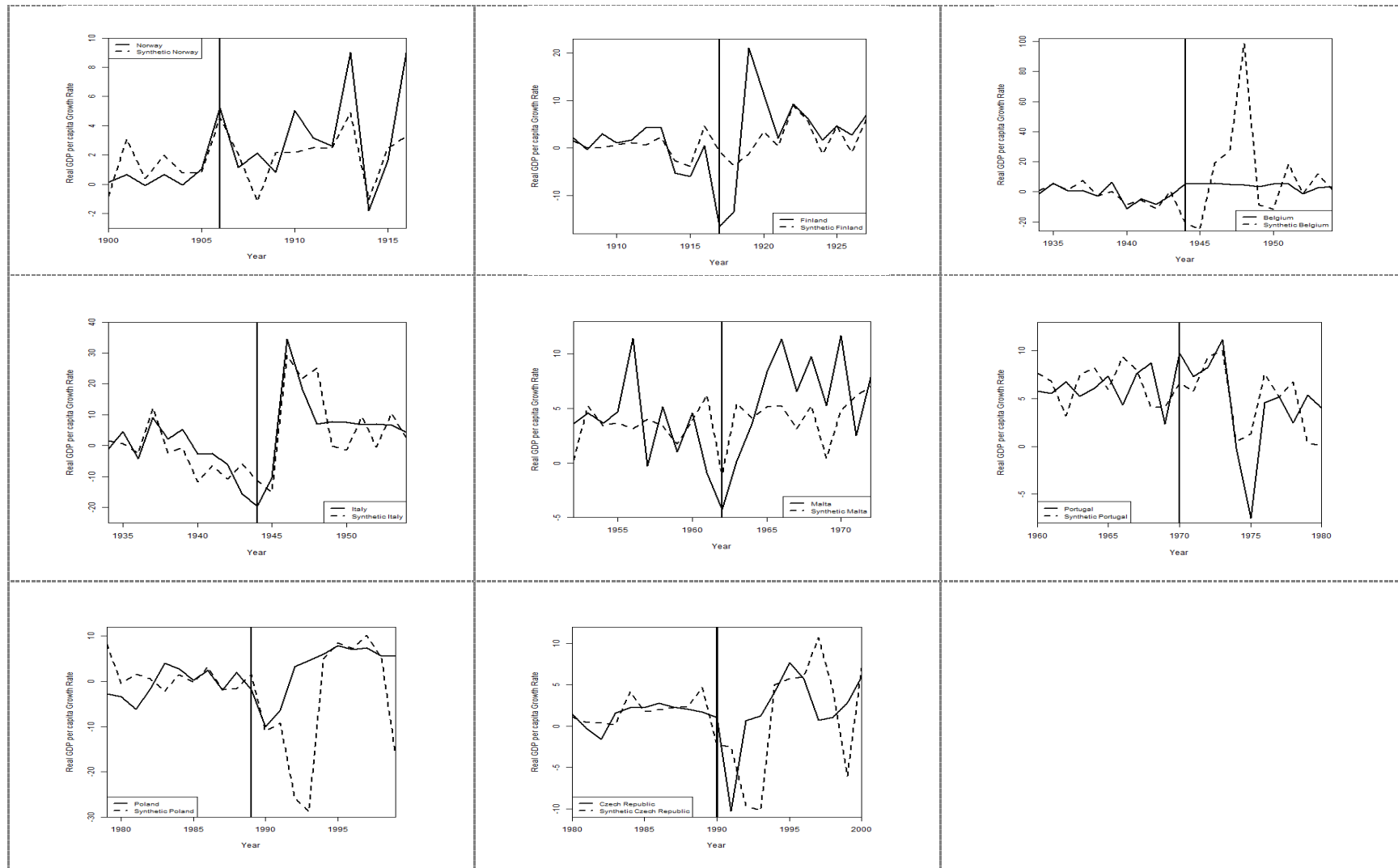
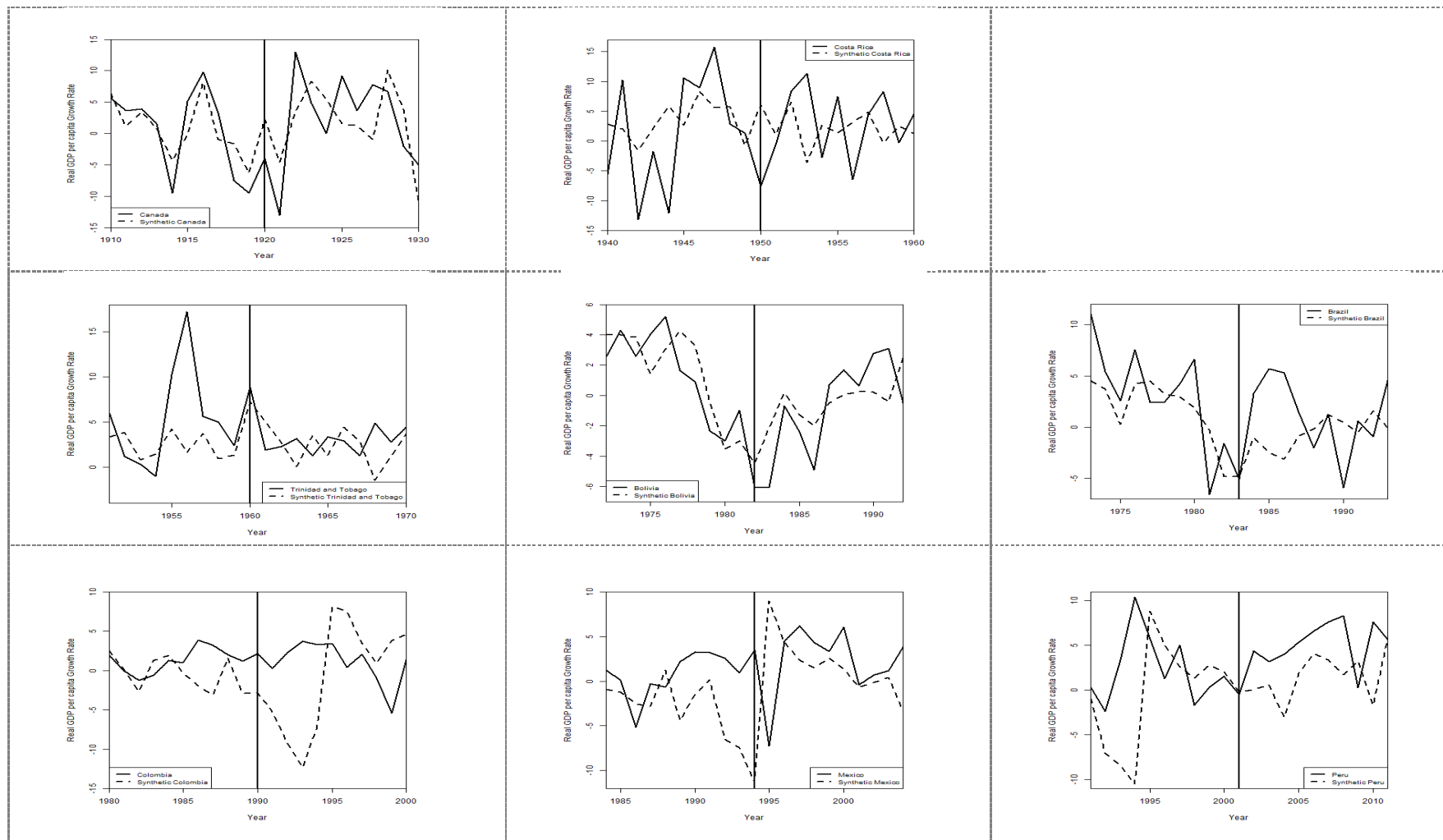


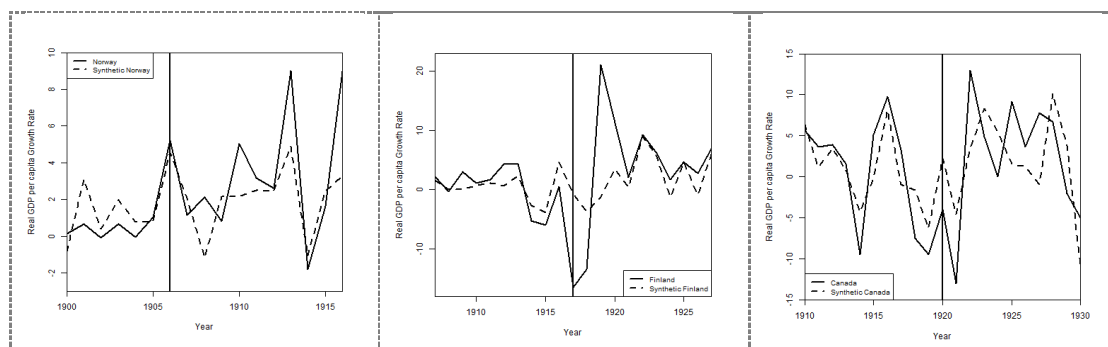
Figure 5.4 - Synthetic Control of the American Countries, with controls from the same continent (experience one)



neither peaceful nor by electoral progress (Markoff, 2014). Even though Costa Rica, Barbados, Bolivia, and Brazil show some volatility in their results, the overall impact is positive. In Costa Rica and Barbados' case, its democratic transitions were peaceful through electoral progress (Markoff, 2014), whereas Bolivia and Brazil's transitions were through protests and revolution, which were not capitalized by interest groups, and thus it may have led to overall economic development. Despite being one of the more recent democracies, Peru is the only American country studied which presented a significant and positive impact during the 8-year period after the democratisation episode, and a 10-year average treatment effect of 5 p.p.. Such result can be explained by the fact that during the 1990s Peru was under conservative and often illiberal values and ruling of Alberto Fujimori, his downfall in 2000 may have led to the increase of economic agents' confidence in the democracy, institutions, and, consequently, in the economy (Levitsky, 1999).

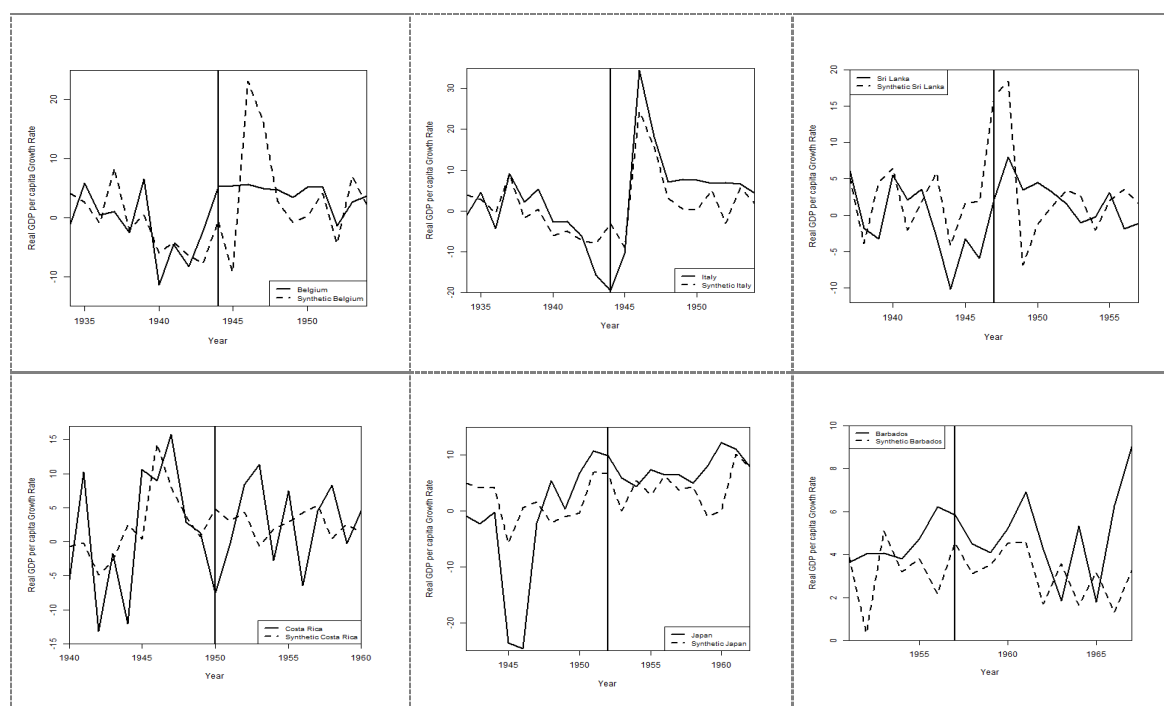
When considering the cross-continent analysis, it is possible to understand some differences between continents. The American democratic transitions' impact on economic growth is empirically more volatile than any other continent, which can be explained by the turbulent regime transitions (Markoff, 2014). The fact that most of the European countries had already experienced some democracy prior to the episode understudy, may also have led to the initial negative impact of the democratisation episode on economic development. This may be because these countries had to re-establish and reconstruct their democratic institutions, such as the constitutional rights, the justice and economic system, which may have driven economic agents to save and divest to understand how the economy and the society would be governed.

Figure 5.5 - Synthetic Control of the democratisation episodes between 1900 and 1929, with controls from the same continent (experience one)



With a cross-time analysis, it can be seen that from 1900 to 1929 the impact of the democratisation episode on Real GDP *per capita* is negative during the first years after the beginning of the episode (Fig. 5.5). This can be explained by the fact that these countries were one of the first to become successful democracies, with new political, institutional, and economic organization. The overall economic agent being risk averse may be a justification for this impact. After those years, the impact is positive and significant for the two European countries (Norway and Finland), despite the volatility that every country presents.

Figure 5.6 - Synthetic Control of the democratisation episodes between 1930 and 1959, with controls from the world (experience two)

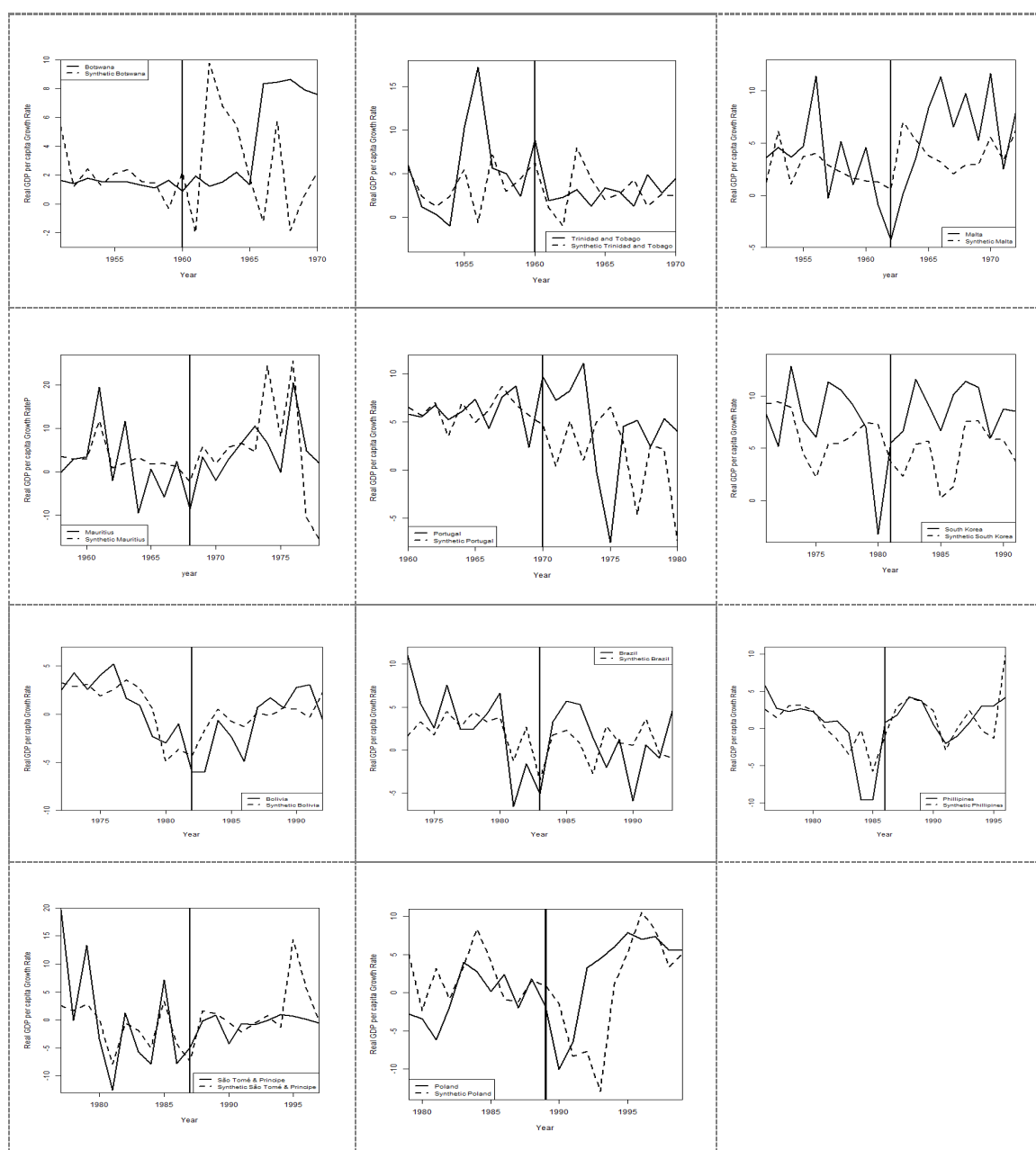


From 1930 to 1959 one can find some volatility in the results of Belgium, Sri Lanka, and Costa Rica, but an overall significantly positive impact of the democratisation episode on economic growth (Fig. 5.6). Italy, Barbados and Japan display an overall positive impact through the 10-year period after the episode.

During the period between 1960 to 1989 (Fig. 5.7), one can observe a null or almost null impacts of the democratisation episode throughout the entire period after the democratisation episode, a volatile but positive impact, and an episode that is positive during the entire period. Philippines, Trinidad and Tobago, Mauritius, and São Tomé present a null or slightly negative impact during the 10-year period. In Brazil's results (in the first experiment, the more robust) one can observe a significantly positive impact on economic growth during the 4-year period after the beginning of the episode and a slightly negative impact after. Similarly, Portugal displays a positive and significant impact on Real GDP *per capita* during the 3-year period after

the beginning of the episode, followed by a two-year period of a significant negative impact, and a 5-year positive impact. Botswana, Malta, Poland, and Bolivia present an initial negative impact of the episode on economic growth, but also a persistent positive impact after the negative period. South Korea can be considered the outlier of the period, with a significant and positive impact of the democratisation episode on economic growth through the following 10-year period.

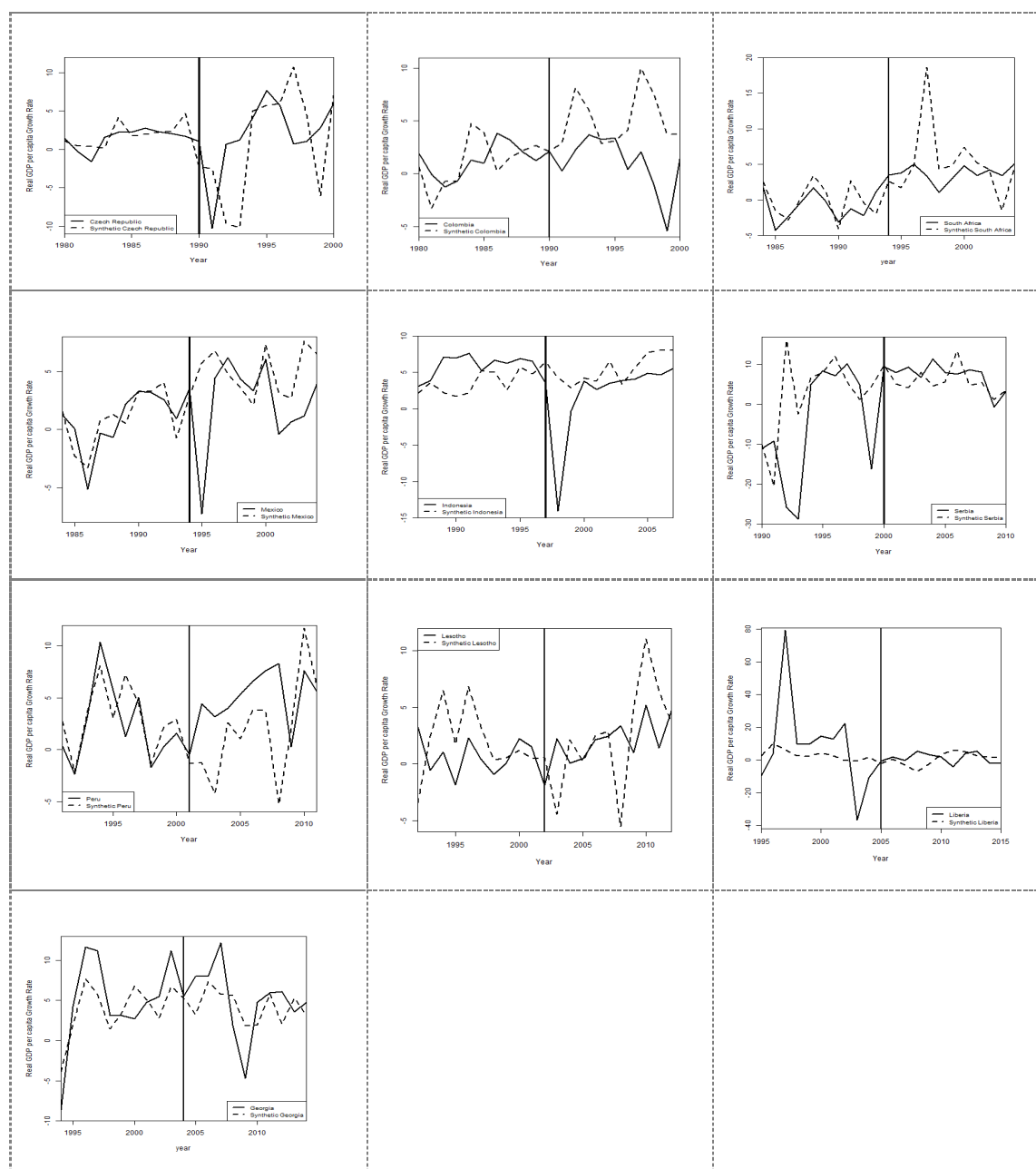
Figure 5.7 - Synthetic Control of the democratisation episodes between 1960 and 1989, with controls from the world (experience two)



From 1900 to 2010 (Fig. 5.8), one can observe the first episodes with an overall negative impact of the democratisation episode on Real GDP *per capita*, however, it is also possible to

understand overall positive impact and an overall null impact. Colombia and Mexico display a significant negative impact of the democratisation episode on the 10-year real GDP *per capita* that preceded it. While Siberia, Liberia, Georgia, and South Africa present a positive impact of the democratisation episode on economic growth most of the time, even having some negative impact periods. Indonesia and Lesotho display an overall null impact of the episode on their Real GDP *per capita* growth rate.

Figure 5.8 - Synthetic Control of the democratisation episodes between 1990 and 2010, with controls from the world (experience two)



It is possible to corroborate Doucouliagos & Ulubas (2008) statement that “democracy does not come at the cost of economic growth”, but one can go even further with these results. Similar to Acemoglu et al. (2019) this research reinforces the idea that democracy does cause growth, even though it is not articulated in every country and in every period of time. By doing a cross-time panel analysis of the impact of the democratisation episodes on economic development one can understand the differences in impact through time. As democracy becomes more established worldwide, there are more and more possible successful democratisation episodes. Furthermore, one can see with Colombia and Mexico’s example of an overall slightly negative impact of the episode on real GDP *per capita*, that the democratisation impact on economic develop decreases in time. Barro (1999) states that the improvement of economic growth shows decreasing returns to scale of democratisation on each country. However, it can be argued that with globalization, especially considering trade, political relations and transcontinental institutions, each country’s economic growth presents decreasing returns to scale of worldwide democratisation. Is there a first mover advantage when the democratic transition is concerned? If democratic transitions’ relation can be explained by waves, will the first countries that became democracies on those waves display a better impact of the transition on economic development? This research argues that this is possible reasoning, when considering Malta’s democratisation episode (the first in Europe between 1960 and 1989).

Democracy does cause growth, even though this impact decreases in time and it does not embrace every one of the 30 democratisation episodes, it covers the majority. The fact that autocracies are less predictable and more volatile (Almeida and Ferreira, 2002) and that democracy improves society’s welfare (Stiglitz, 2002), and through time improves physical capital, human capital, social capital, and political capital, through learning and institutionalization (Maborak et al., 2005), economic growth is enhanced when democracy exists.

6| Conclusion

What impact have democratization episodes had on GDP *per capita*, from 1900 to 2010, in different regions, using the synthetic control approach? This is the question intended to be answered through this research. The purpose of this study is to understand the impact of democratisation episodes on economic growth, considering the social movements, time, and regional changes. Not only does this dissertation provides a different method of analysis the

relationship between economic growth and democracy, but also the large panel time-series that was used. These are the main contributions to the literature.

There were studied 30 episodes out of the 132 possible to study between 1900 and 2010. These episodes are separated by continent and by four period ranges: from 1900 to 1929; from 1930 to 1959; from 1960 to 1989; and from 1990 to 2010. There were conducted 30 synthetic control analysis, in two different ways as two experiments. The first experience was with the countries in the donor pool only being in the same continent aggregation, while in the second experience the control countries could be from any continent. This methodology allows us to comprehend the dimension of the impacts, its persistency, and how it varies from country to country and from time to time. Furthermore, it controls for observable and unobservable characteristics, thus, accounting for shocks.

The results show that there is an overall positive impact of the democratic transition on economic development. Through the robustness analysis it was not possible to choose only one experience. When there were few countries in the same continent donor pool that did not resemble the country understudy, the second experience proved to be preferred, whereas when there were too many countries in the world donor pool, the first experience was preferred. This preference is considering the control placebos, the overall placebos, the common support, the weights, and the density plots. From the placebo with every country in both experiences it was possible to acknowledge that the positive period impact is more robust than the negative ones.

The American democratic transitions' impact on economic growth is empirically more volatile than any other continent, which can be explained by the turbulent regime transitions (Markoff, 2014). The fact that most of the European countries had already experienced some democracy prior to the episode understudy, may also have led to the initial negative impact of the democratisation episode on economic development. This is because these countries had to re-establish and reconstruct their democratic institutions, such as the constitutional rights, the justice and economic system, which may have driven economic agents to save and divest to understand how the economy and the society would be governed. In Asia and Oceania, the first episodes being studied, from 1947 to 1981 display a more significant and positive impact, which might be because these were one of the first countries experiencing democracy, leading them to capitalize on the first mover advantage, being the first countries to industrialize, to enhance competitiveness, and so on. In Africa there are two different movements regarding democracy. The negative impacts on economic development that some countries display can be explained

by the contradictory social movements and the influence of interest groups may have led to a low impact of the democratisation on economic development (Huntington, 1968). On the other hand, in Botswana and South Africa the social movement were intense and with a single message, where people demanded to be heard in a single voice.

Even though this research confirms that democracy does not cost countries economic growth (Doucouliagos & Ulubas, 2008), it goes beyond that reinforcing the idea that democracy causes growth (Acemoglu et al., 2019) in the causal pseudo-experimental sense. As democracy becomes more established worldwide, there are more and more possible successful democratisation episodes. Barro (1999) proves that economic growth presents decreasing returns to scale of democratisation on each country. Notwithstanding, with this dissertation's result it can be argued that each country's economic growth presents decreasing returns to scale of worldwide democratisation. That is as there are more democracies happening during the same period the impact of the democratic transition on economic growth decreases, thus, presenting decreasing returns to scale. Furthermore, it can be argued that being the first country to become a democracy in a certain region may present as a comparative advantage to present a greater impact on real GDP *per capita* growth rate.

There are some limitations to this study. Firstly, it would be interesting to develop a model to select the output predictors, so as to robust the choice. Additionally, the data used presents both a limitation and an advantage. The limitation lies on the fact that the dataset is unbalanced and needs to be balance for each country's synthetic control. Besides, when covering such a large timeline it is impossible to use only one source for each variable, which may present as a limitation.

Finally, it would be interesting to construct a VAR model to understand the past and current relationship between democracy and economic growth. It would also be interesting to understand with the synthetic control the impact of the democratisation episode on the labour market, or the impact that the changes in the labour market have on economic development. One could also study the changes of the democratisation episode on economic growth considering the dimension of each episode, can economic growth be influenced by the number of periods needed for a country to be considered a democracy, or by the time the democratic transition took.

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8| Anexes

A| Norway

A.1| In Europe

Table A.1 - Norway's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
7	0.00	Austria
47	0.00	Germany
49	0.00	Greece
63	0.00	Italy
88	0.45	The Netherlands
104	0.00	Portugal
122	0.03	Spain
124	0.51	Sweden

Table A.2 - Norway Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Child Mortality	117.14	173.10	269.14
Primary Schooling	69.00	31.73	20.22
Population Growth Rate	0.01	0.01	0.01
5-years Average GDP per capita	3085.47	4092.57	3803.50
3-years prior Average GDP per capita Growth Rate	1.72	2.03	1.27

Figure A.1 - Norway's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

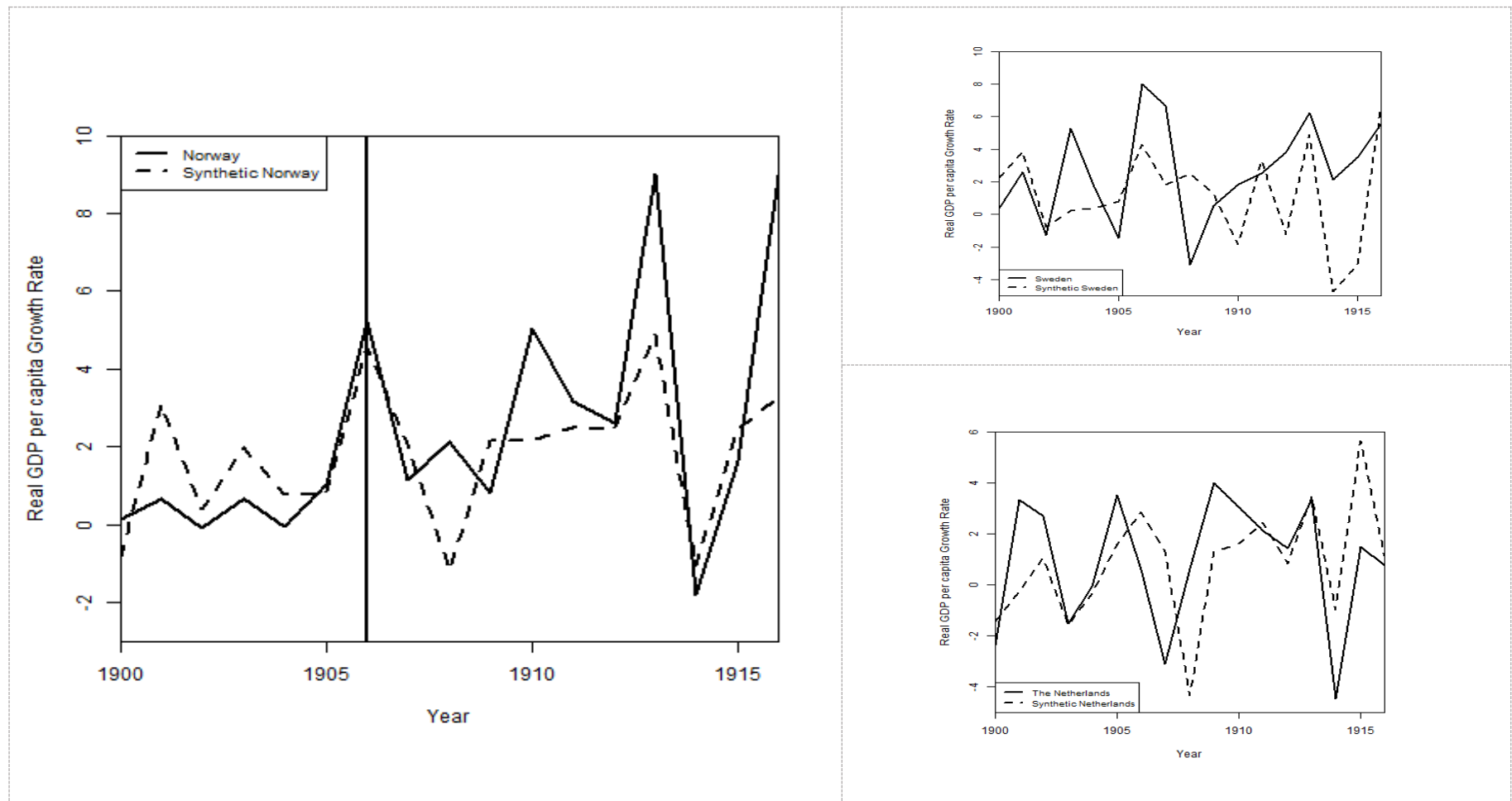


Figure A.2 - Norway and its Controls' Density Plots of the Average Treatment Effect (ATE) with Donor Pool Countries in Europe

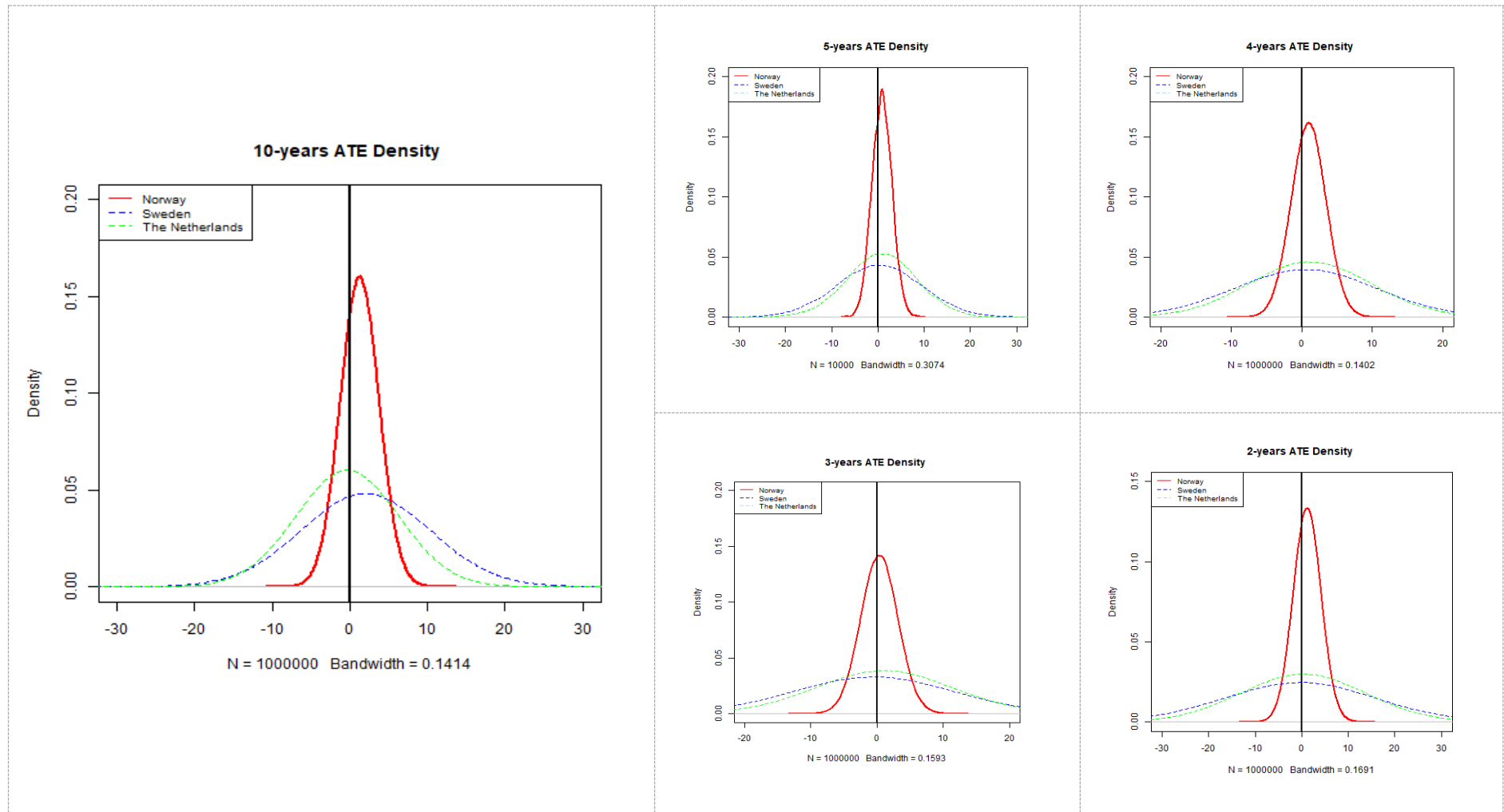


Figure A.3 – Norway and Controls' Placebo with Donor Pool Countries in Europe

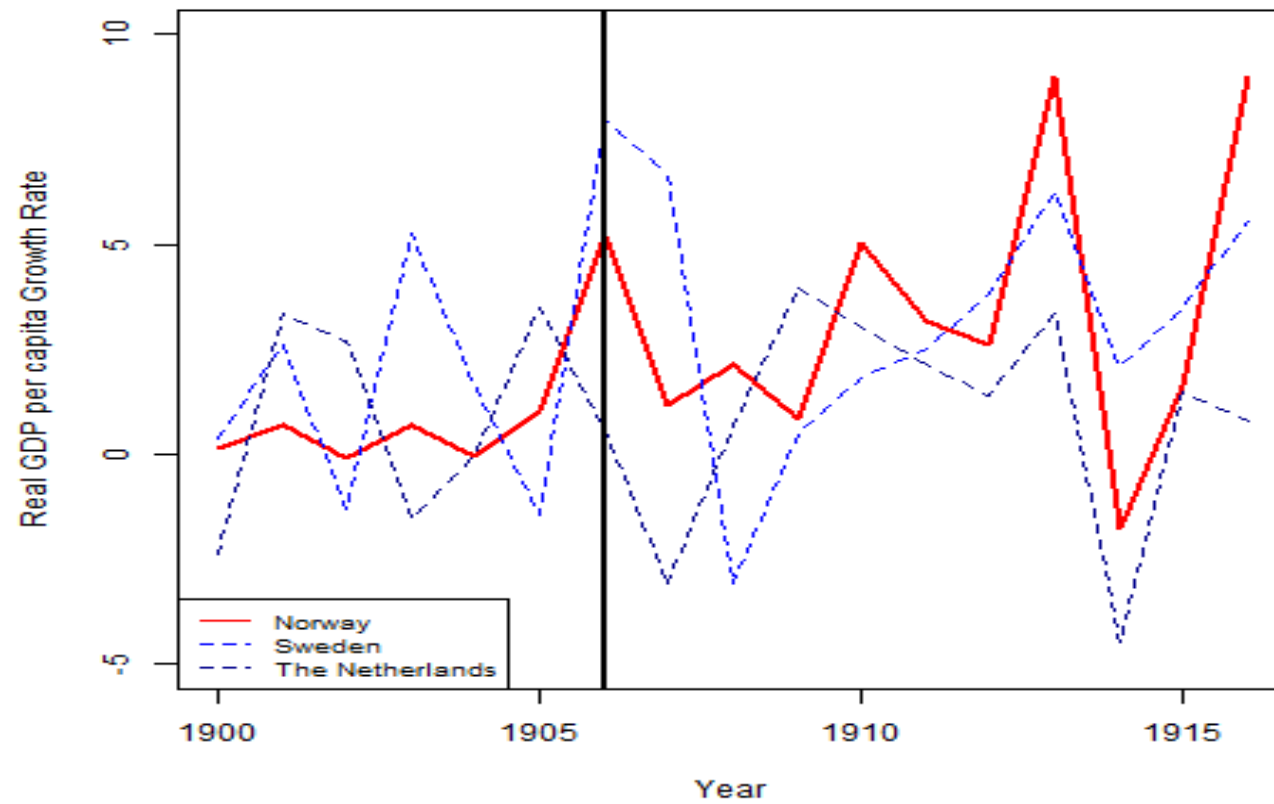


Table A.3 - Norway's Donor Pool Weights

	Weights	Countries
5	0.00	Argentina
7	0.00	Austria
13	0.00	Bolivia
16	0.00	Brazil
22	0.00	Canada
26	0.00	Chile
28	0.00	Colombia
43	0.00	Finland
47	0.00	Germany
49	0.00	Greece
58	0.00	India
59	0.00	Indonesia
63	0.00	Italy
65	0.00	Japan
81	0.00	Mexico
88	0.45	Netherlands
101	0.00	Peru
104	0.00	Portugal
122	0.03	Spain
123	0.00	Sri Lanka
124	0.51	Sweden
135	0.00	United States Of America
136	0.00	Uruguay
137	0.00	Venezuela

Table A.4 - Norway Common Support

	Treated	Synthetic	Sample Mean
Child Mortality	117.14	173.11	344.11
Primary Schooling	69.00	31.73	11.85
Population Growth Rate	0.01	0.01	0.01
5-years Average GDP per capita	3085.47	4092.61	2812.51
3-years prior Average GDP per capita Growth Rate	1.72	2.03	2.04

Figure A.4 - Norway's Synthetic Control and its Controls' Placebos

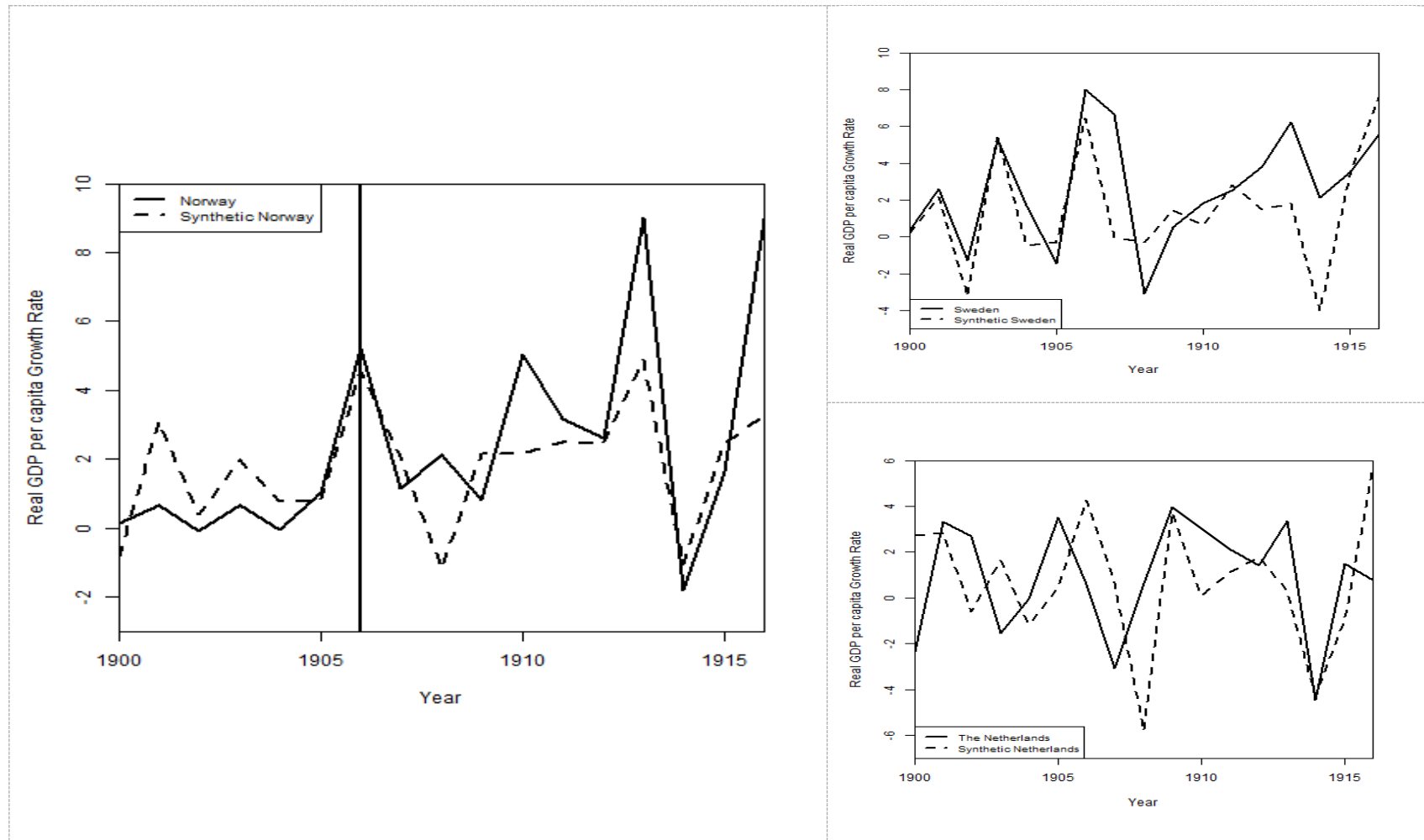


Figure A.5 - Norway and its Controls' Density Plots of the Average Treatment Effect (ATE)

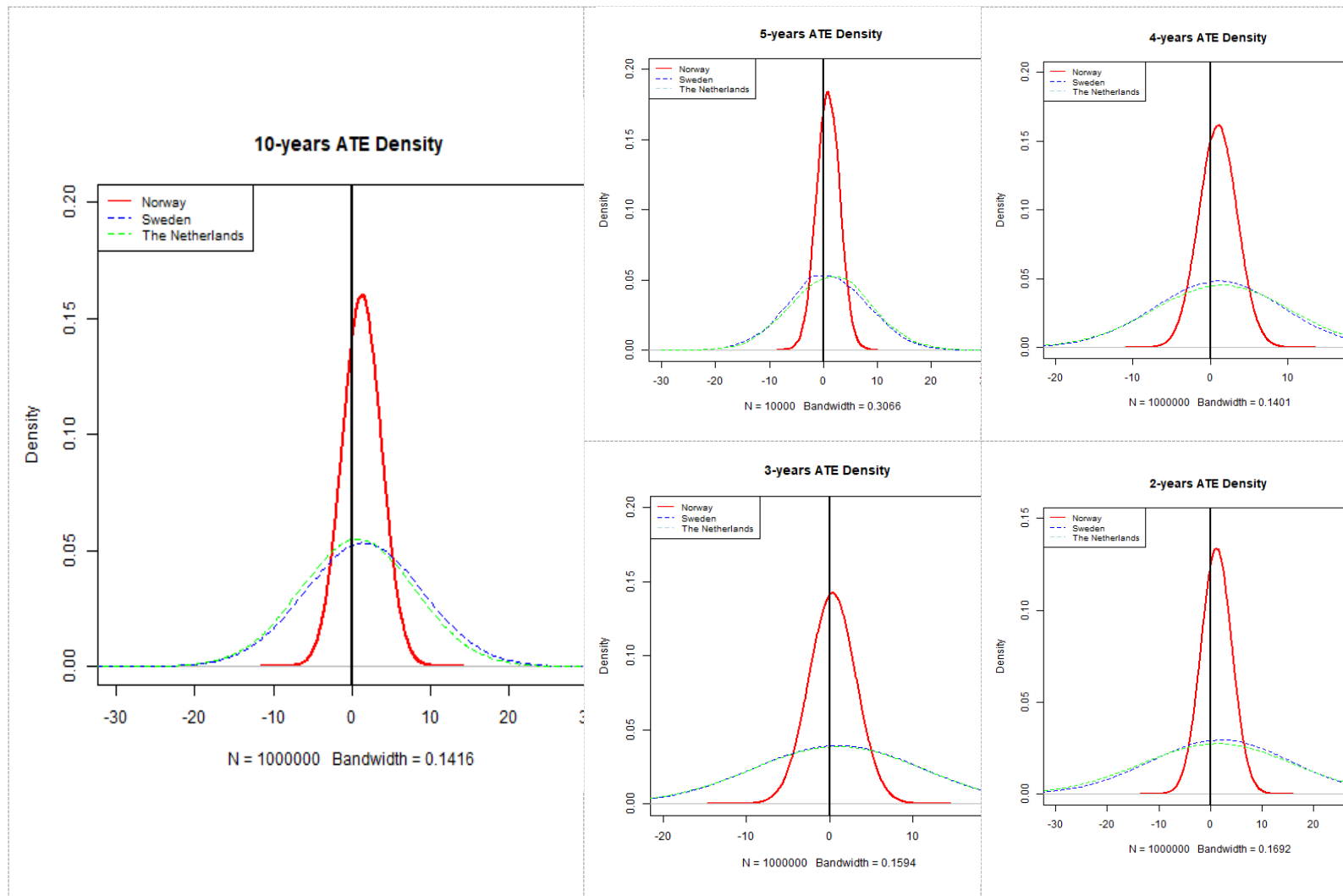
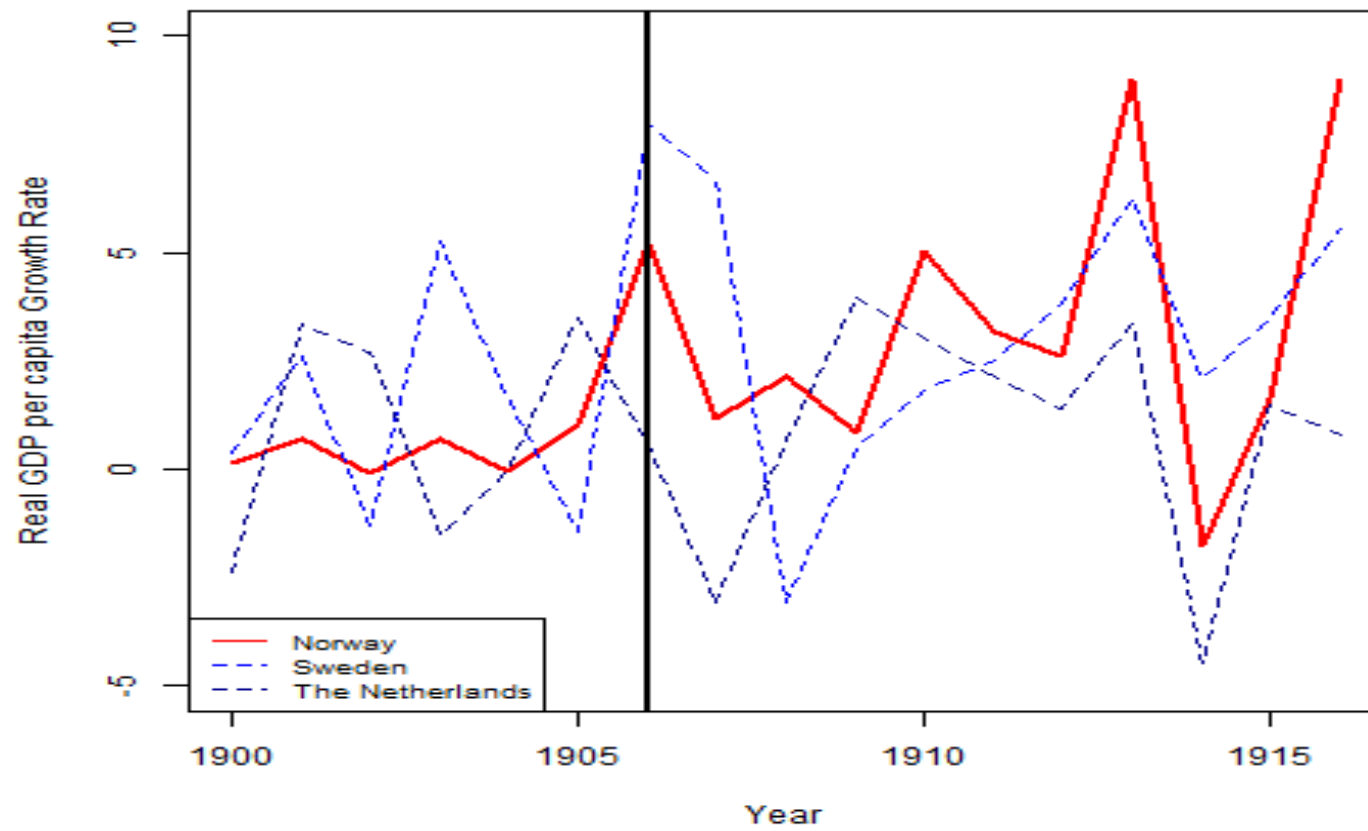


Figure A.6 – Norway and Controls' Placebo



B| Finland

B.1| In Europe

Table B.1 - Finland's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
49	0.00	Greece
63	0.54	Italy
104	0.46	Portugal
122	0.00	Spain

Table B.2 - Finland Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Child Mortality	182.20	242.37	254.20
Primary Schooling	20.25	9.97	16.19
Population Growth Rate	0.01	0.00	0.01
5-years Average GDP per capita	2816.25	2808.37	2664.34
3-years prior Average GDP per capita Growth Rate	0.14	0.43	-0.72

Figure B.1 - Finland's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

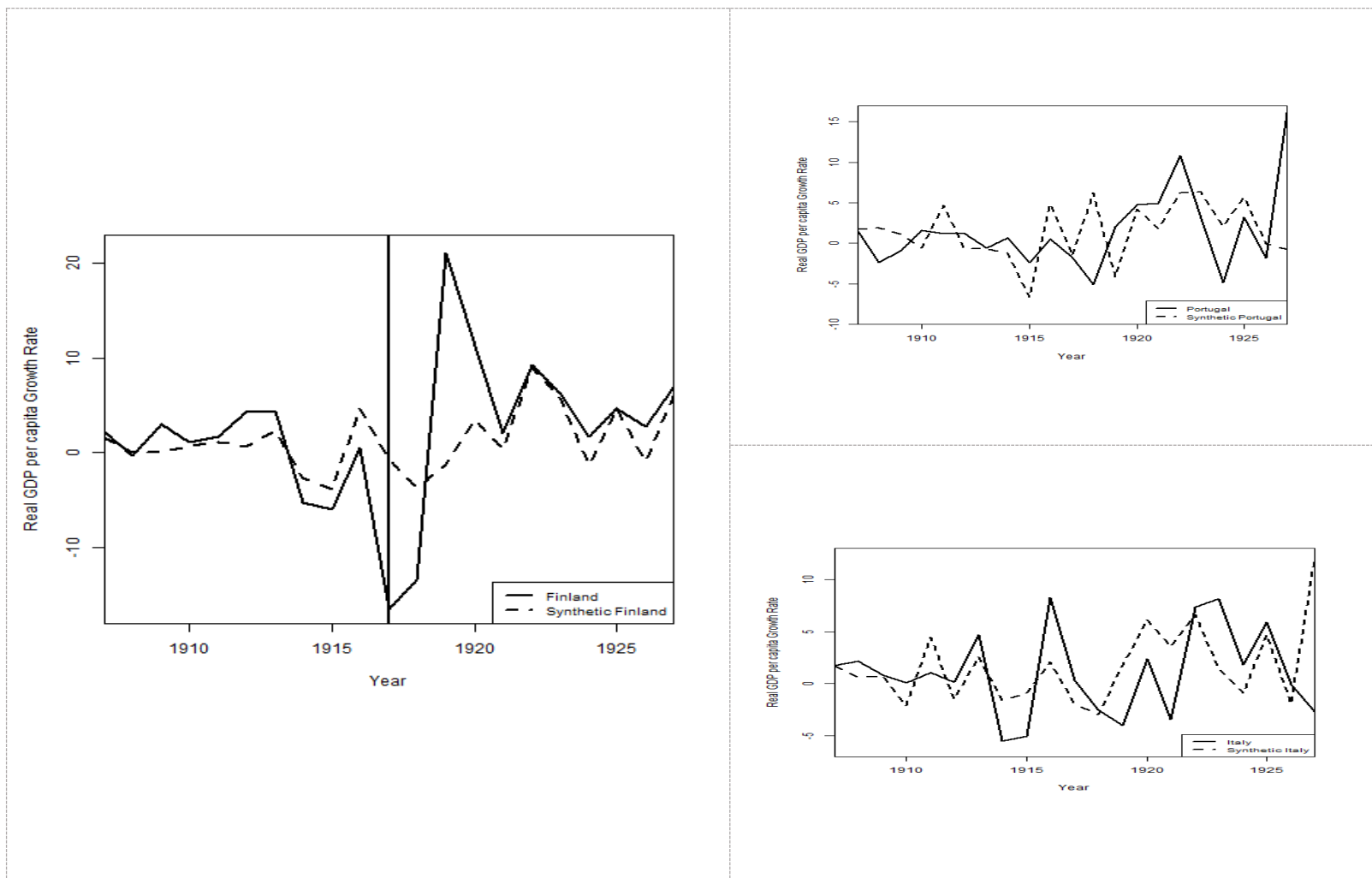


Figure B.2 - Finland and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

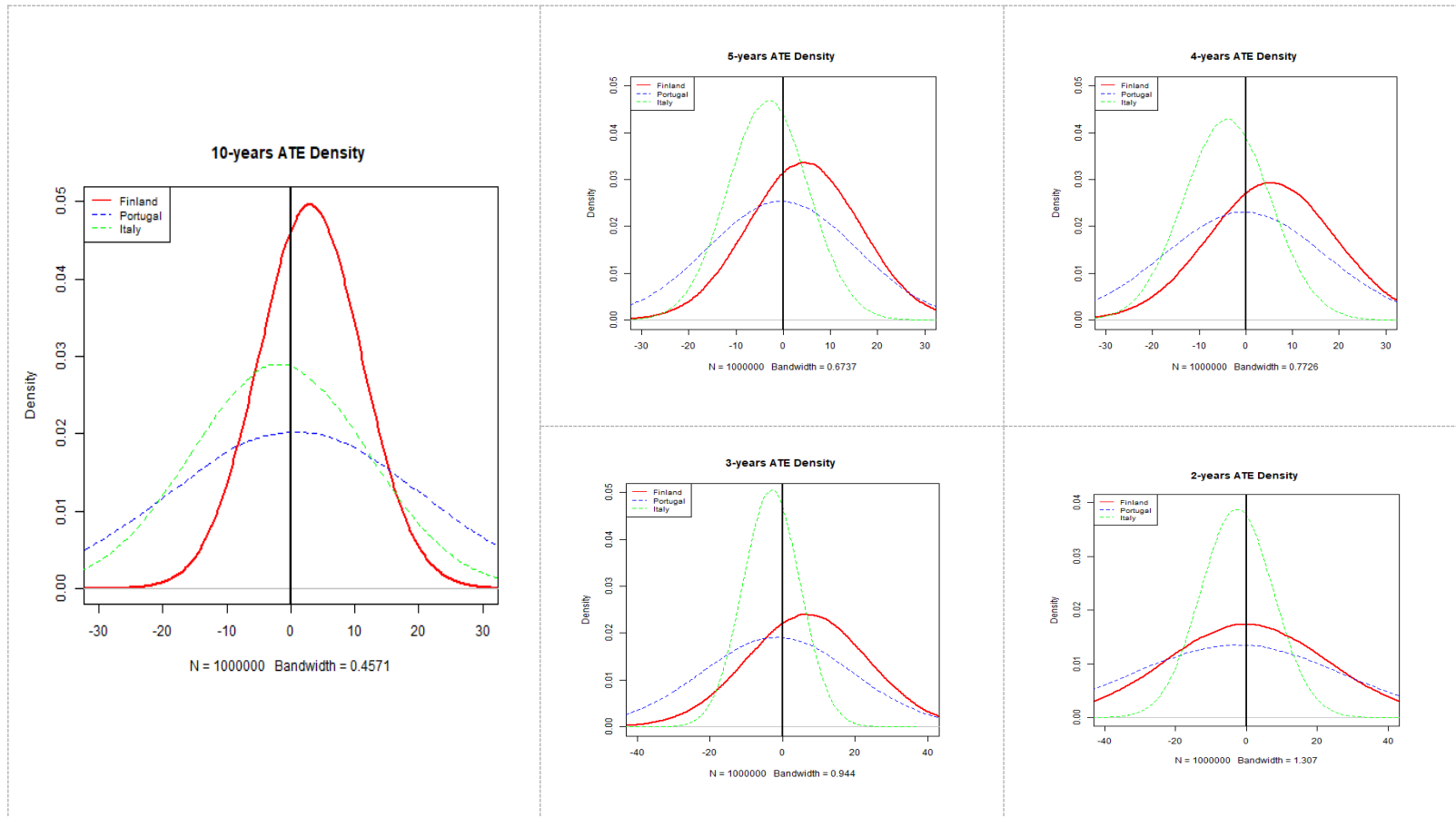


Figure B.3 – Finland and Controls' Placebo with Donor Pool Countries in Europe

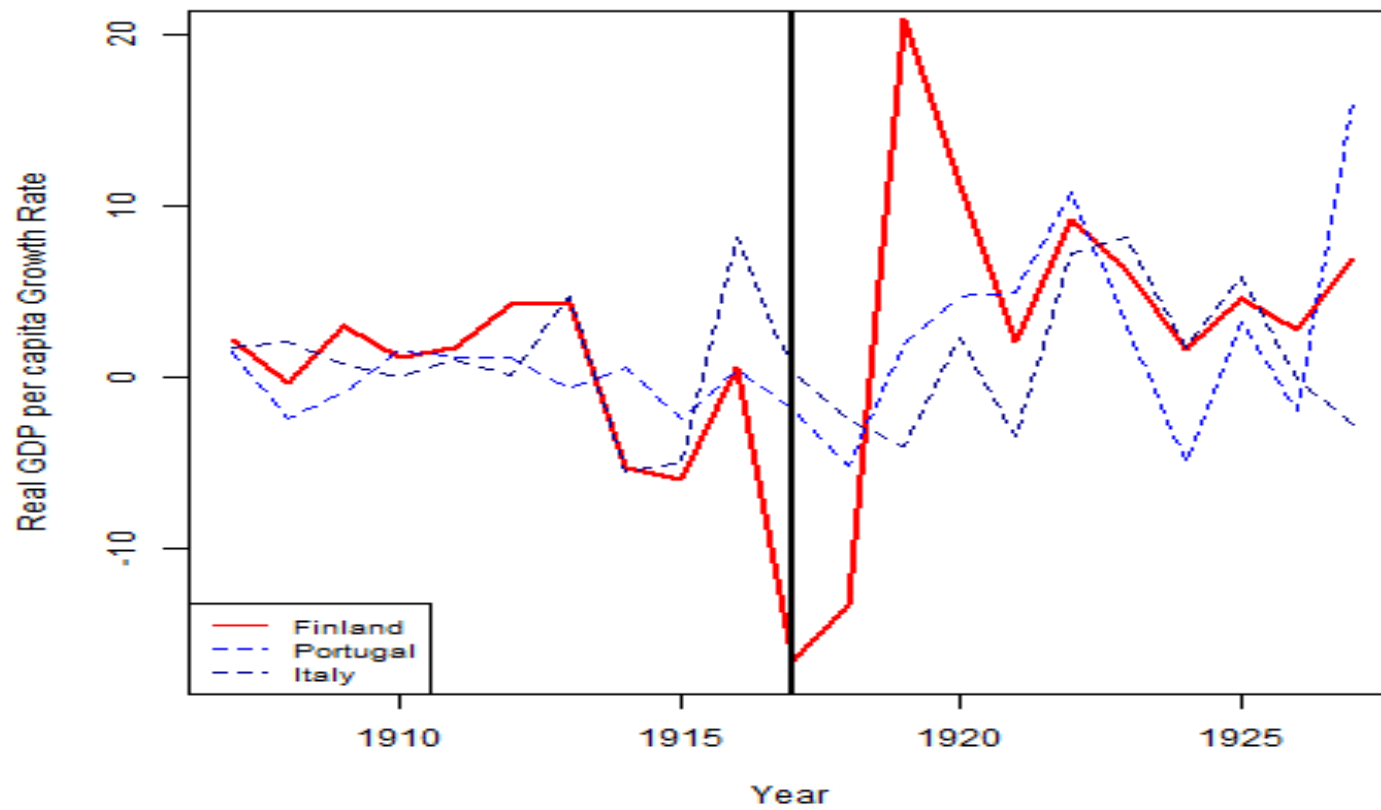


Table B.3 - Finland's Donor Pool Weights

	Weights	Countries
13	0.00	Bolivia
16	0.00	Brazil
26	0.00	Chile
28	0.00	Colombia
32	0.00	Cuba
38	0.00	Ecuador
49	0.00	Greece
58	0.00	India
59	0.00	Indonesia
63	0.54	Italy
65	0.00	Japan
76	0.00	Malaysia
81	0.00	Mexico
99	0.00	Panama
101	0.00	Peru
102	0.00	Philippines
104	0.46	Portugal
122	0.00	Spain
123	0.00	Sri Lanka
137	0.00	Venezuela

Table B.4 - Finland Common Support

	Treated	Synthetic	Sample Mean
Child Mortality	182.20	242.37	371.94
Primary Schooling	23.50	11.28	9.03
Population Growth Rate	0.01	0.00	0.01
5-years Average GDP per capita	3038.50	2958.43	2000.54
3-years prior Average GDP per capita Growth Rate	0.14	0.43	1.47

Figure B.4 - Finland's Synthetic Control and its Controls' Placebos

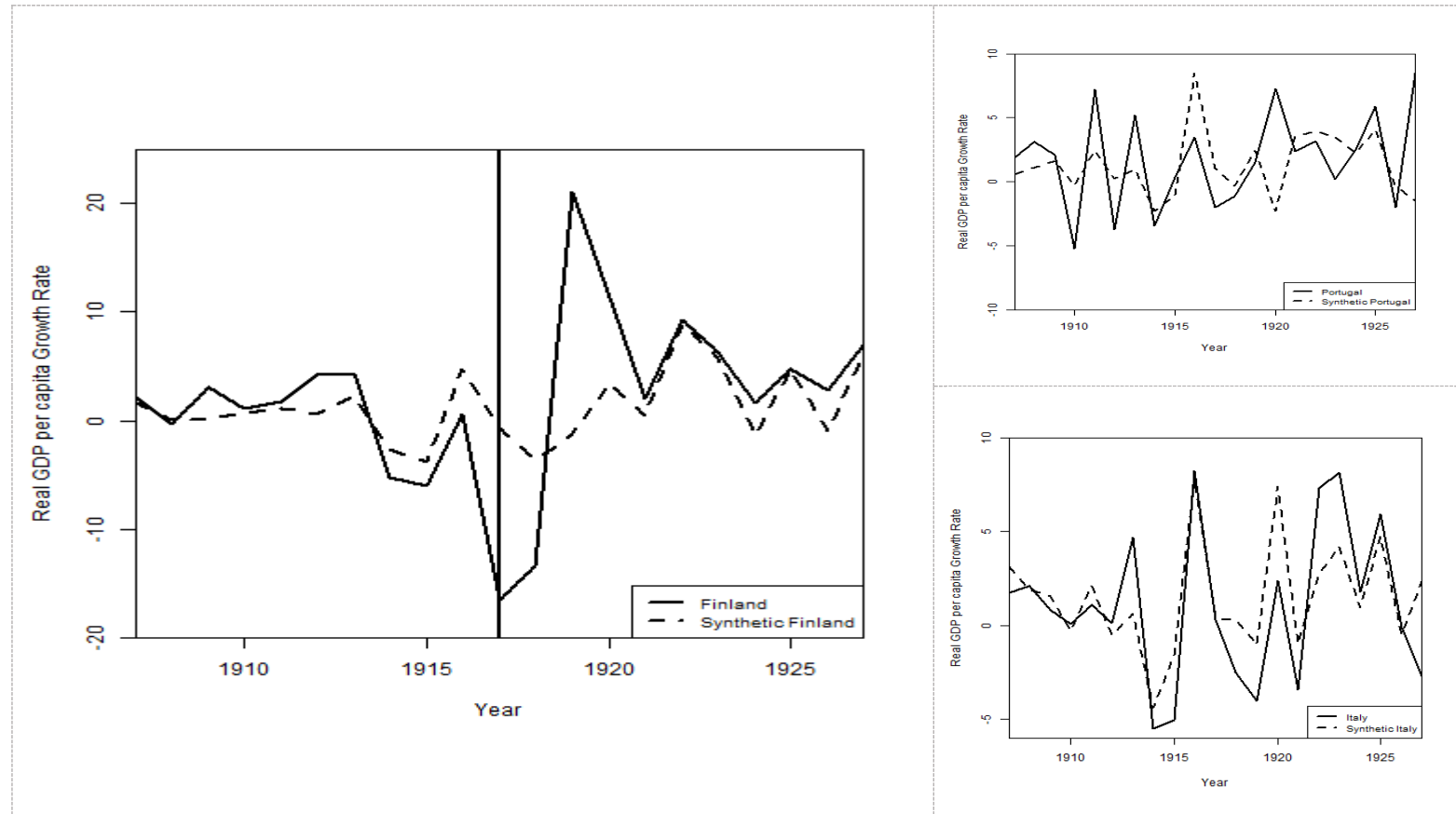


Figure B.5 - Finland and its Controls' Density Plots of the Average Treatment Effect (ATE)

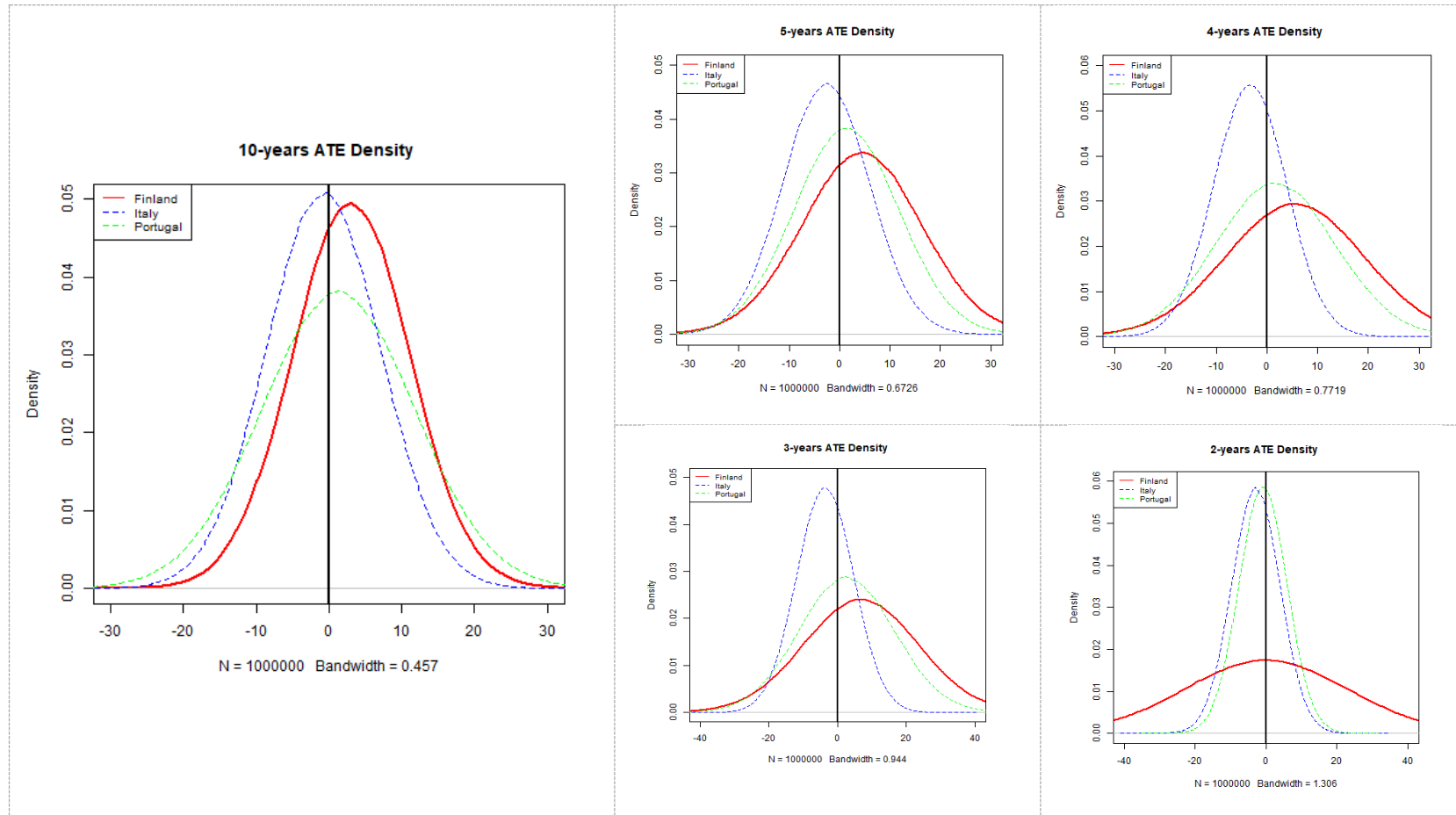
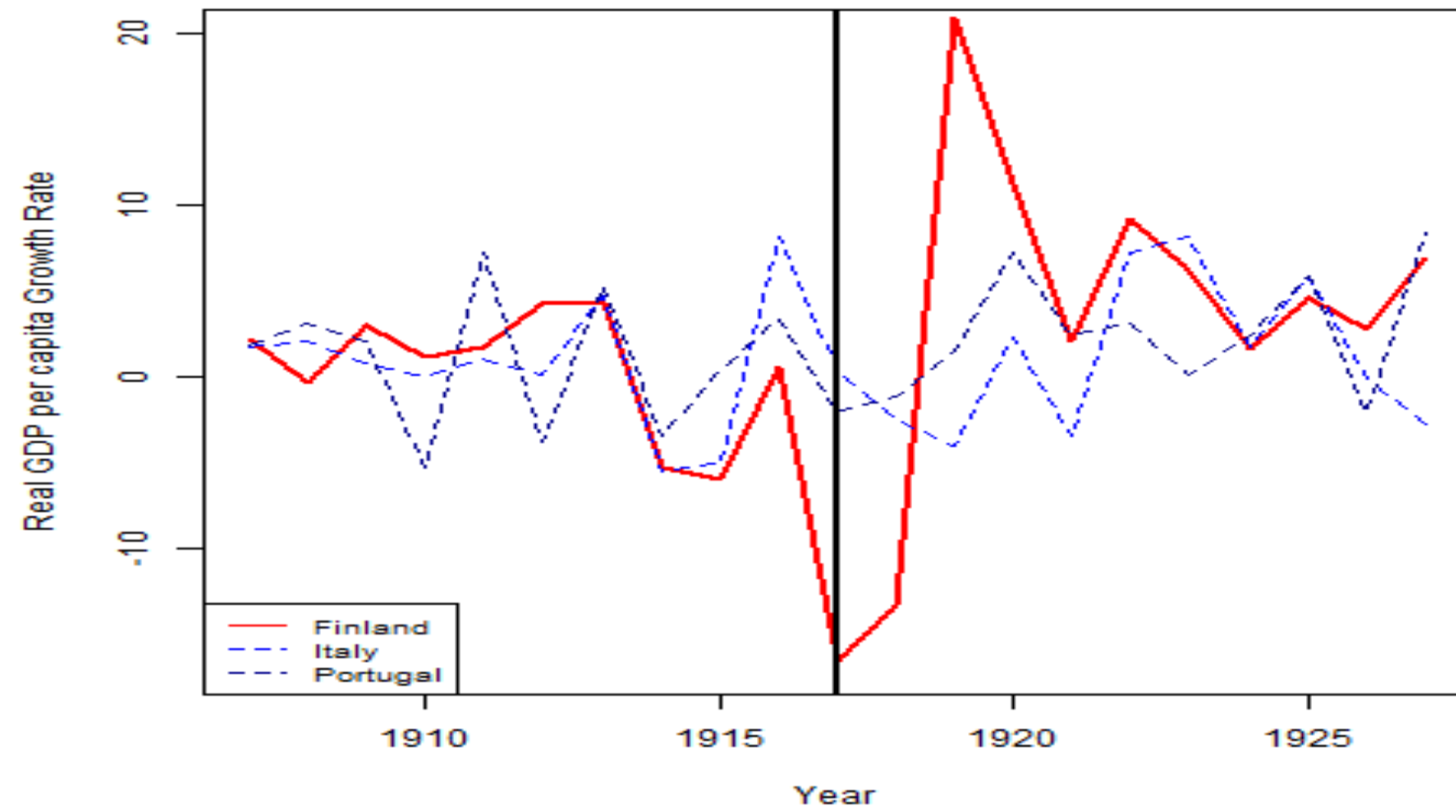


Figure B.6 – Finland and Controls' Placebo



C| Canada
C.1| In America

Table C.1 - Canada's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
13	0.00	Bolivia
16	0.00	Brazil
26	0.35	Chile
28	0.00	Colombia
32	0.00	Cuba
38	0.00	Ecuador
81	0.00	Mexico
99	0.34	Panama
101	0.32	Peru
137	0.00	Venezuela

Table C.2 - Canada Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Child Mortality	256.20	401.62	396.87
Primary Schooling	20.33	10.48	8.17
Population Growth Rate	0.02	0.02	0.02
5-years Average GDP per capita	6896.80	3050.52	2101.55
3-years prior Average GDP per capita Growth Rate	-0.45	0.26	1.61

Figure C.1 - Canada's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

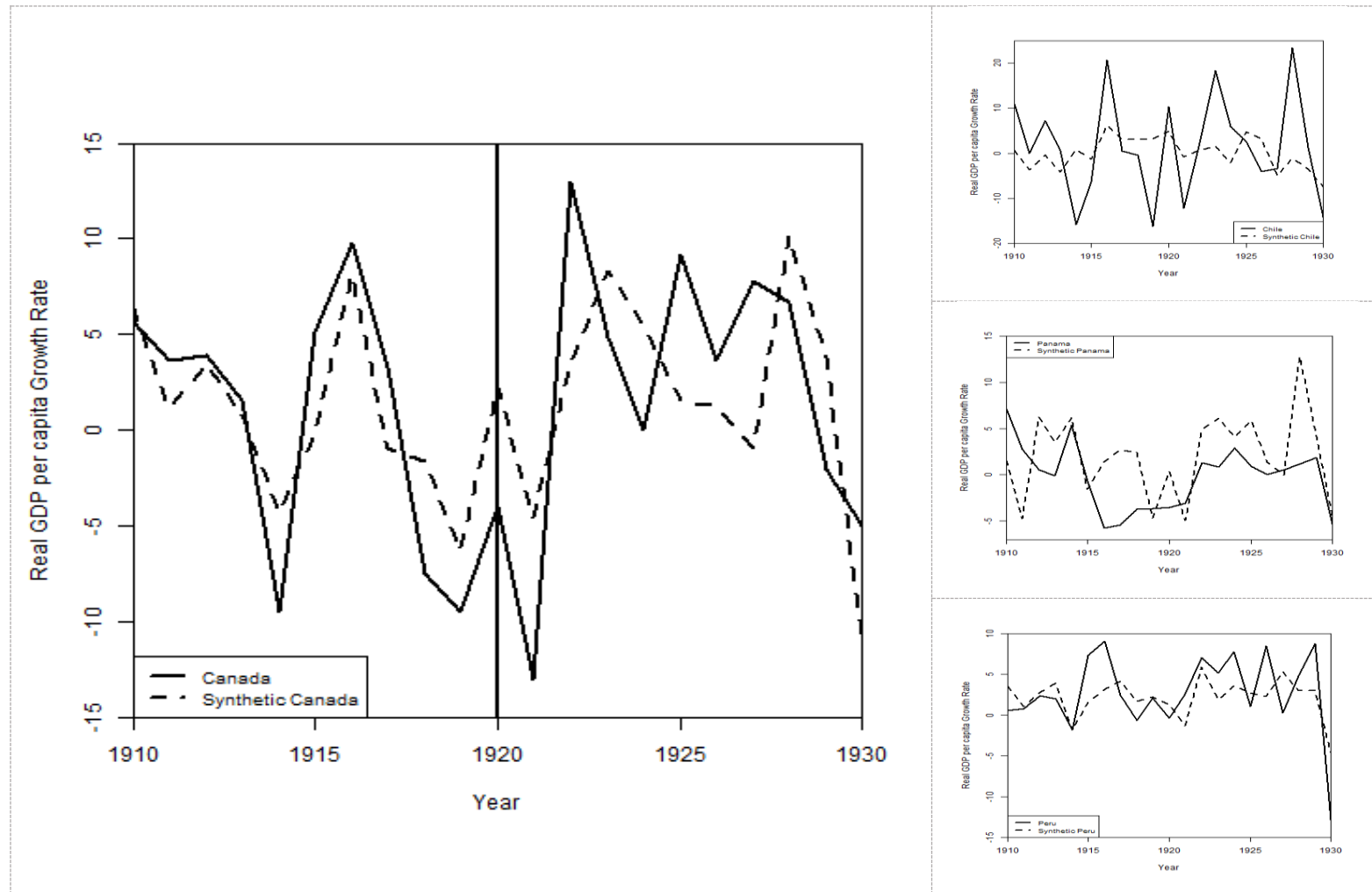


Figure C.2 - Canada and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

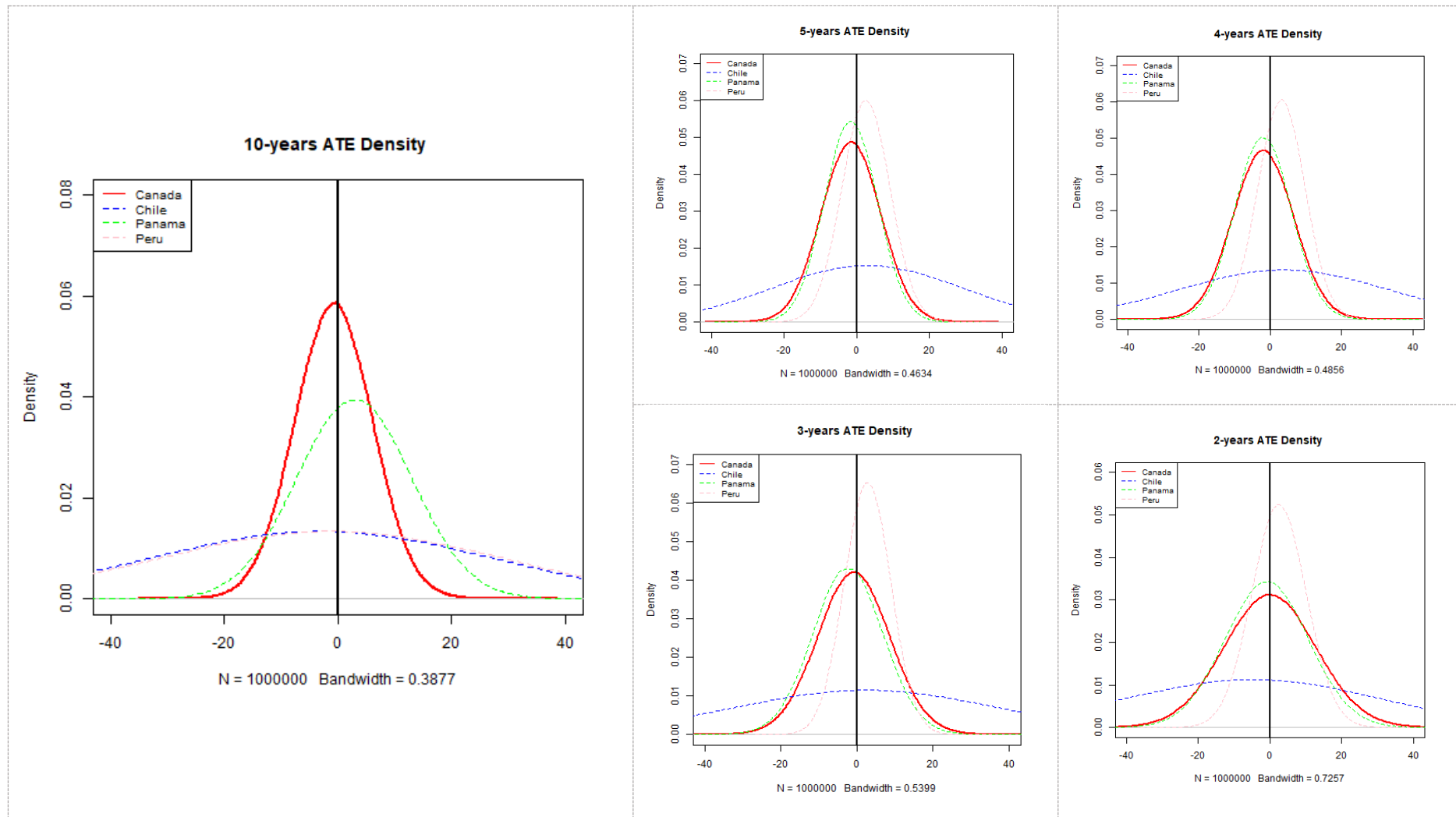


Figure C.3 – Canada and Controls’ Placebo with Donor Pool Countries in Europe

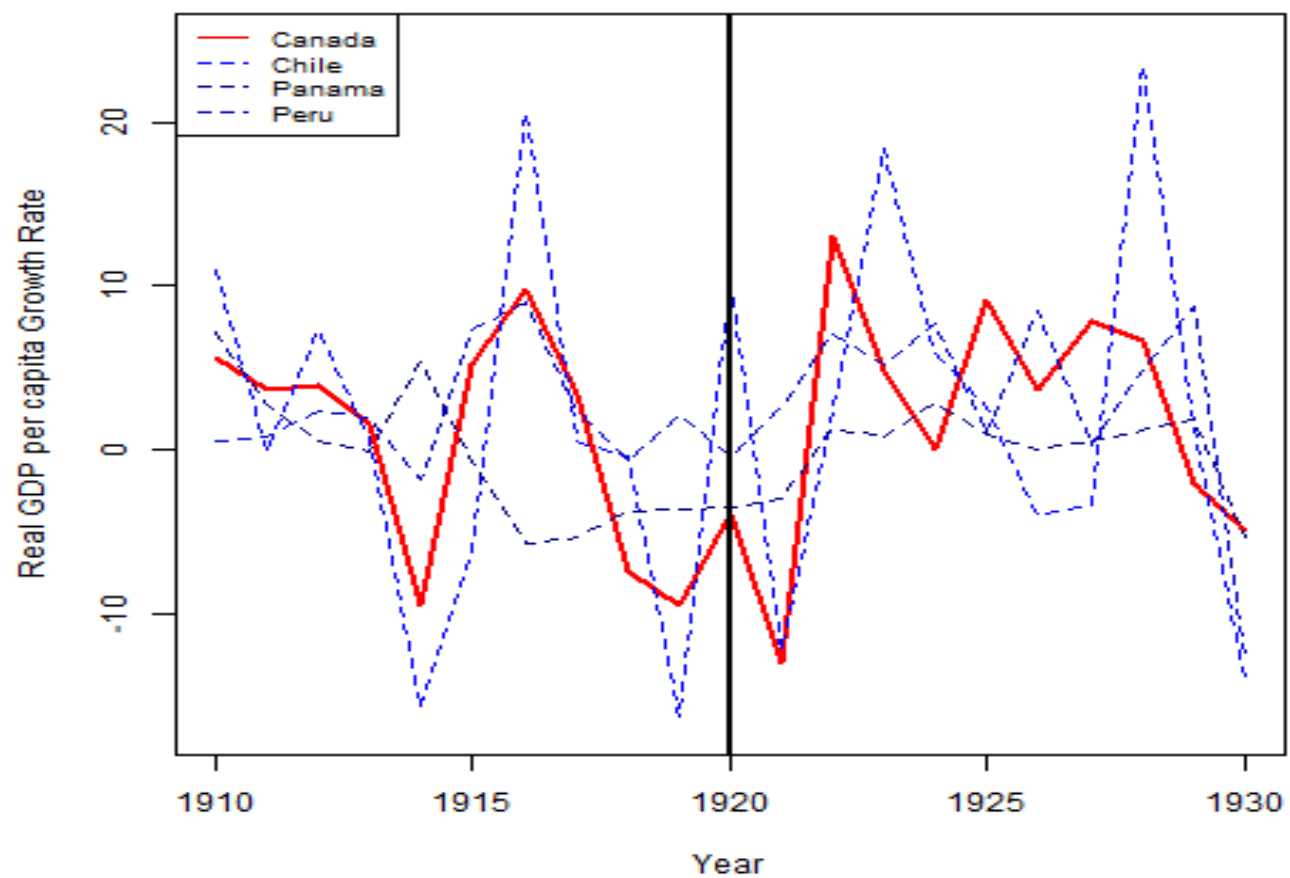


Table C.3 - Canada's Donor Pool Weights

	Weights	Countries
13	0.00	Bolivia
16	0.00	Brazil
26	0.51	Chile
28	0.00	Colombia
32	0.00	Cuba
38	0.00	Ecuador
49	0.00	Greece
58	0.00	India
59	0.00	Indonesia
63	0.00	Italy
65	0.00	Japan
76	0.00	Malaysia
81	0.00	Mexico
99	0.20	Panama
101	0.00	Peru
102	0.00	Philippines
104	0.00	Portugal
122	0.29	Spain
123	0.00	Sri Lanka
137	0.00	Venezuela

Table C.4 - Canada Common Support

	Treated	Synthetic	Sample Mean
Child Mortality	256.20	388.33	365.31
Primary Schooling	20.33	18.76	9.60
Population Growth Rate	0.02	0.02	0.01
5-years Average GDP per capita	6585.60	3566.86	2043.18
3-years prior Average GDP per capita Growth Rate	-0.45	0.39	1.60

Figure C.4 - Canada's Synthetic Control and its Controls' Placebos

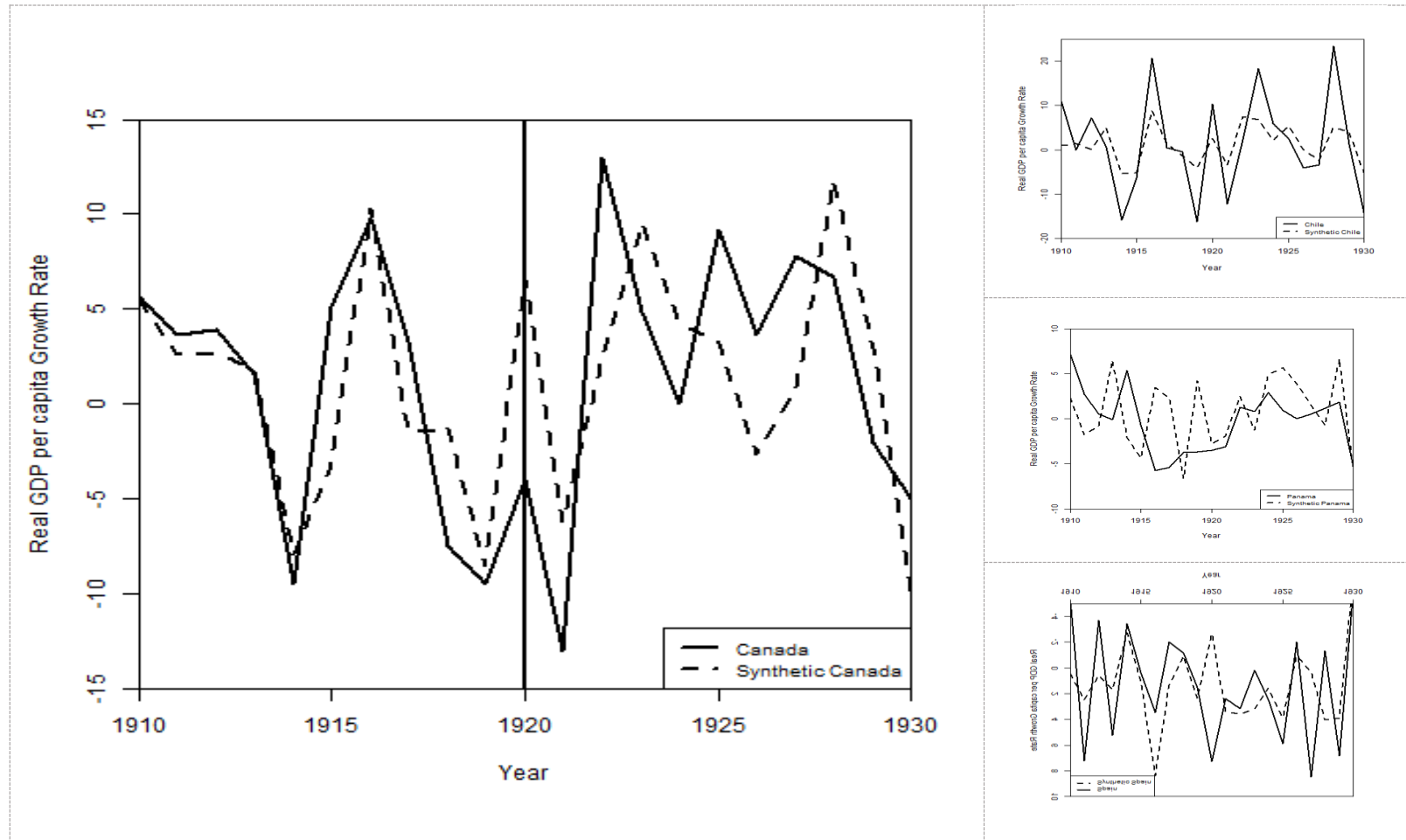


Figure C.5 - Canada and its Controls' Density Plots of the Average Treatment Effect (ATE)

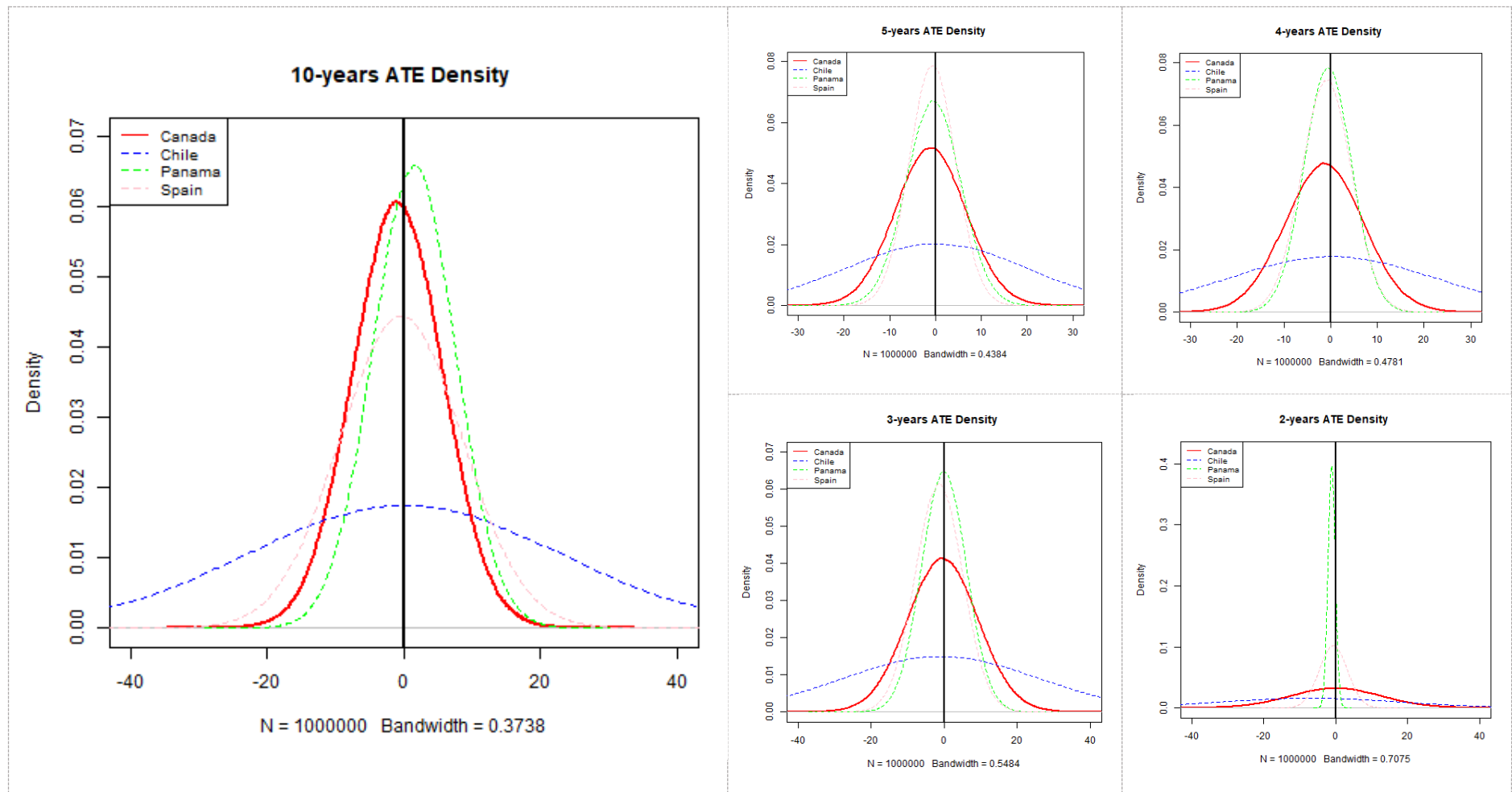
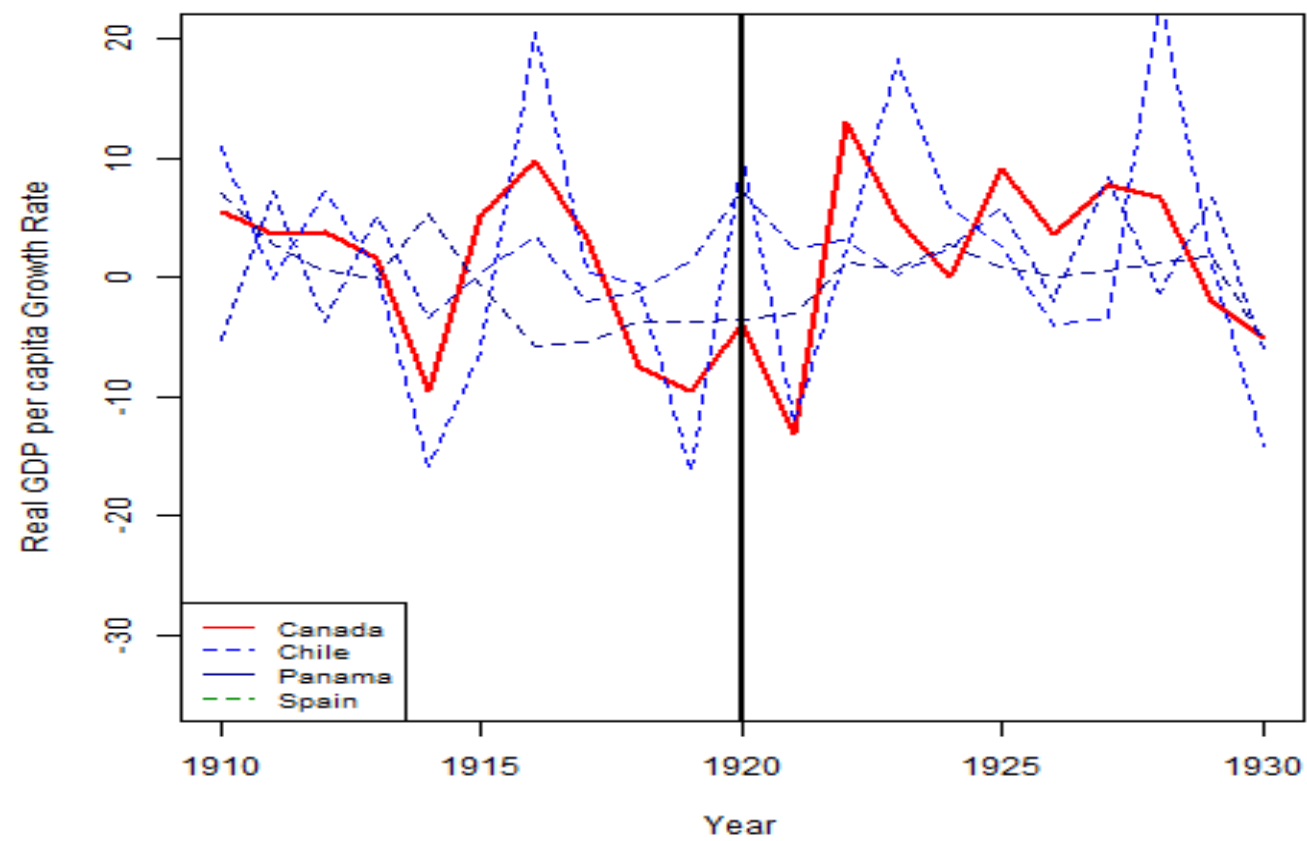


Figure C.6 – Canada and Controls' Placebo



D| Belgium
D.1| In Europe

Table D.1 - Belgium's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
49	0.44	Greece
104	0.00	Portugal
107	0.56	Romania

Table D.2 - Belgium Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Child Mortality	101.68	231.82	223.07
Population Growth Rate	0.00	0.01	0.01
5-years Average GDP per capita	7730.90	2092.47	2419.37
3-years prior Average GDP per capita Growth Rate	-3.74	-4.49	-3.29

Figure D.1 - Belgium's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

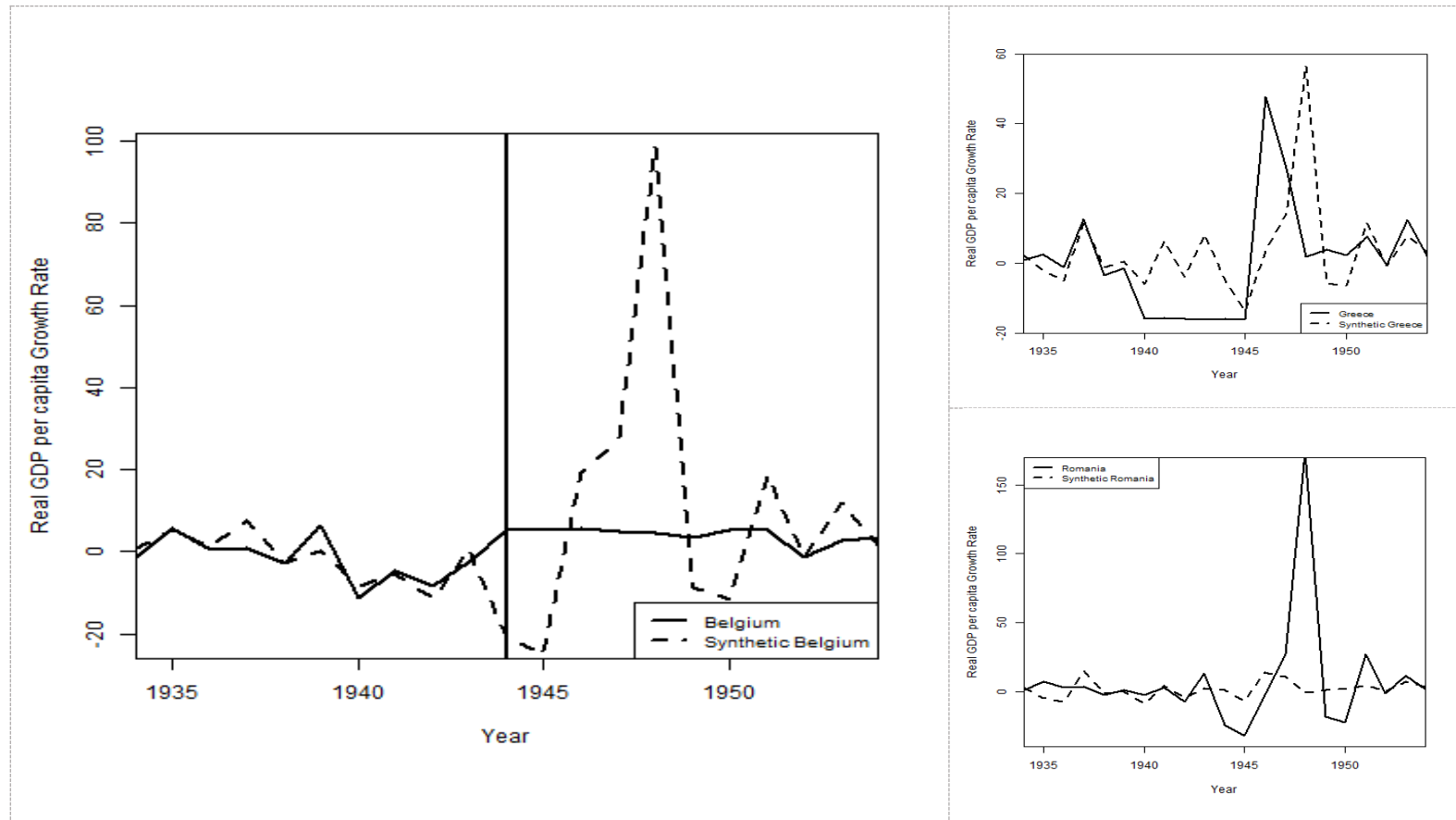


Figure D.2 - Belgium and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

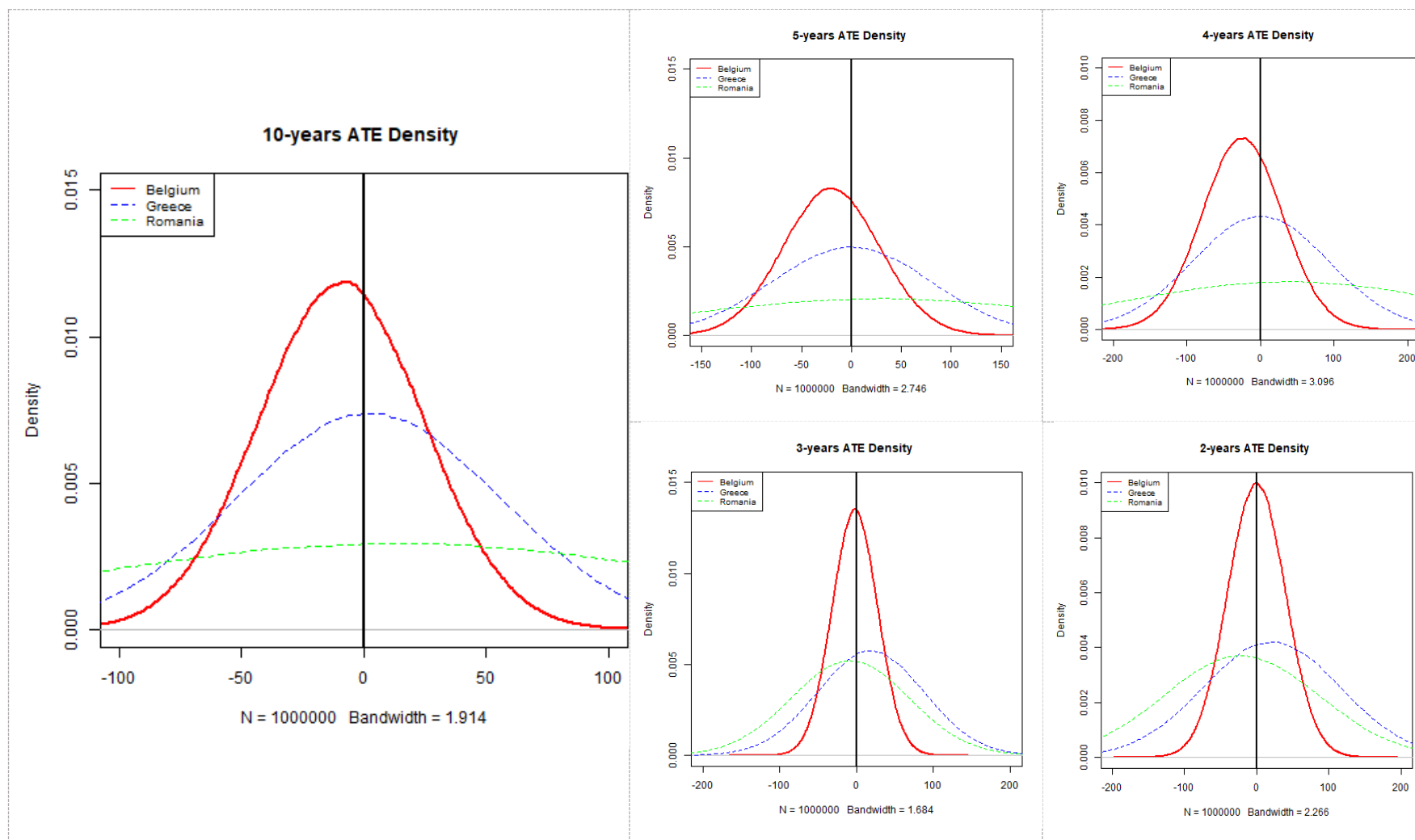


Figure D.3 – Belgium and Controls' Placebo with Donor Pool Countries in Europe

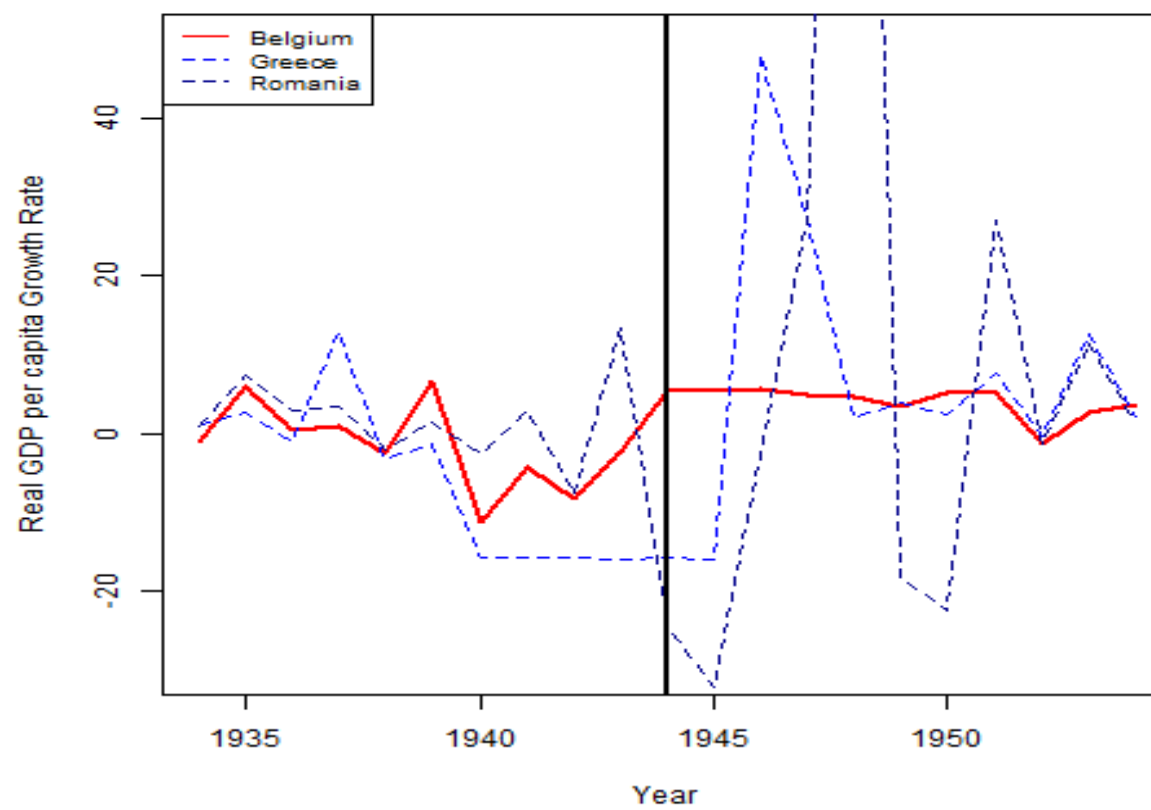


Table D.3 - Belgium's Donor Pool Weights

	Weights	Countries
5	0.60	Argentina
13	0.00	Bolivia
16	0.00	Brazil
26	0.00	Chile
28	0.00	Colombia
32	0.00	Cuba
38	0.00	Ecuador
40	0.00	El Salvador
49	0.40	Greece
50	0.00	Guatemala
54	0.00	Honduras
81	0.00	Mexico
90	0.00	Nicaragua
99	0.00	Panama
101	0.00	Peru
104	0.00	Portugal
107	0.00	Romania
119	0.00	South Africa
137	0.00	Venezuela

Table D.4 - Belgium Common Support

	Treated	Synthetic	Sample Mean
Child Mortality	101.68	143.34	283.63
Population Growth Rate	0.00	0.01	0.02
5-years Average GDP per capita	7730.90	5303.28	2635.78
3-years prior Average GDP per capita Growth Rate	-3.74	-4.32	0.70

Figure D.4 - Belgium's Synthetic Control and its Controls' Placebos

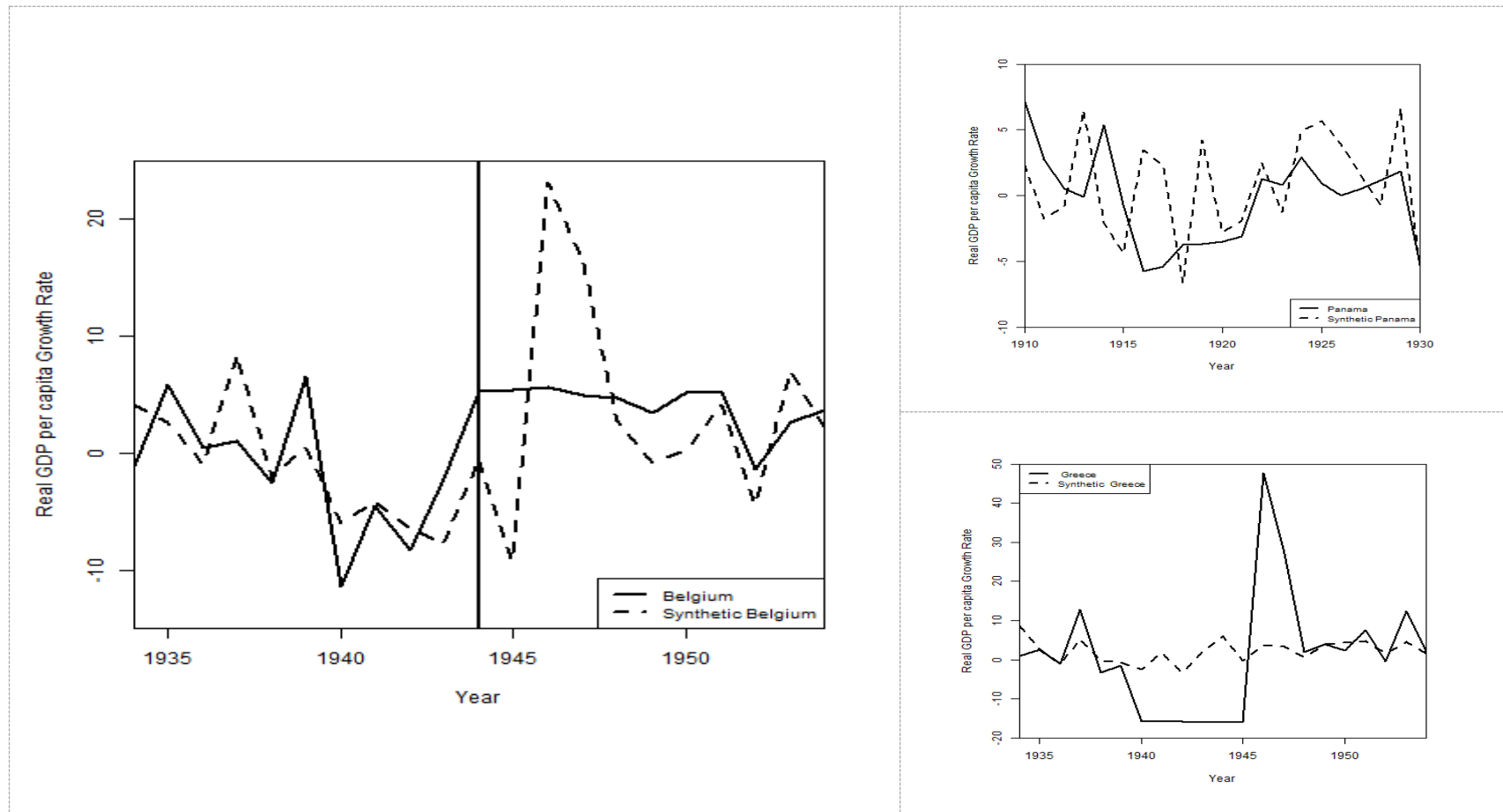


Figure D.5 - Belgium and its Controls' Density Plots of the Average Treatment Effect (ATE)

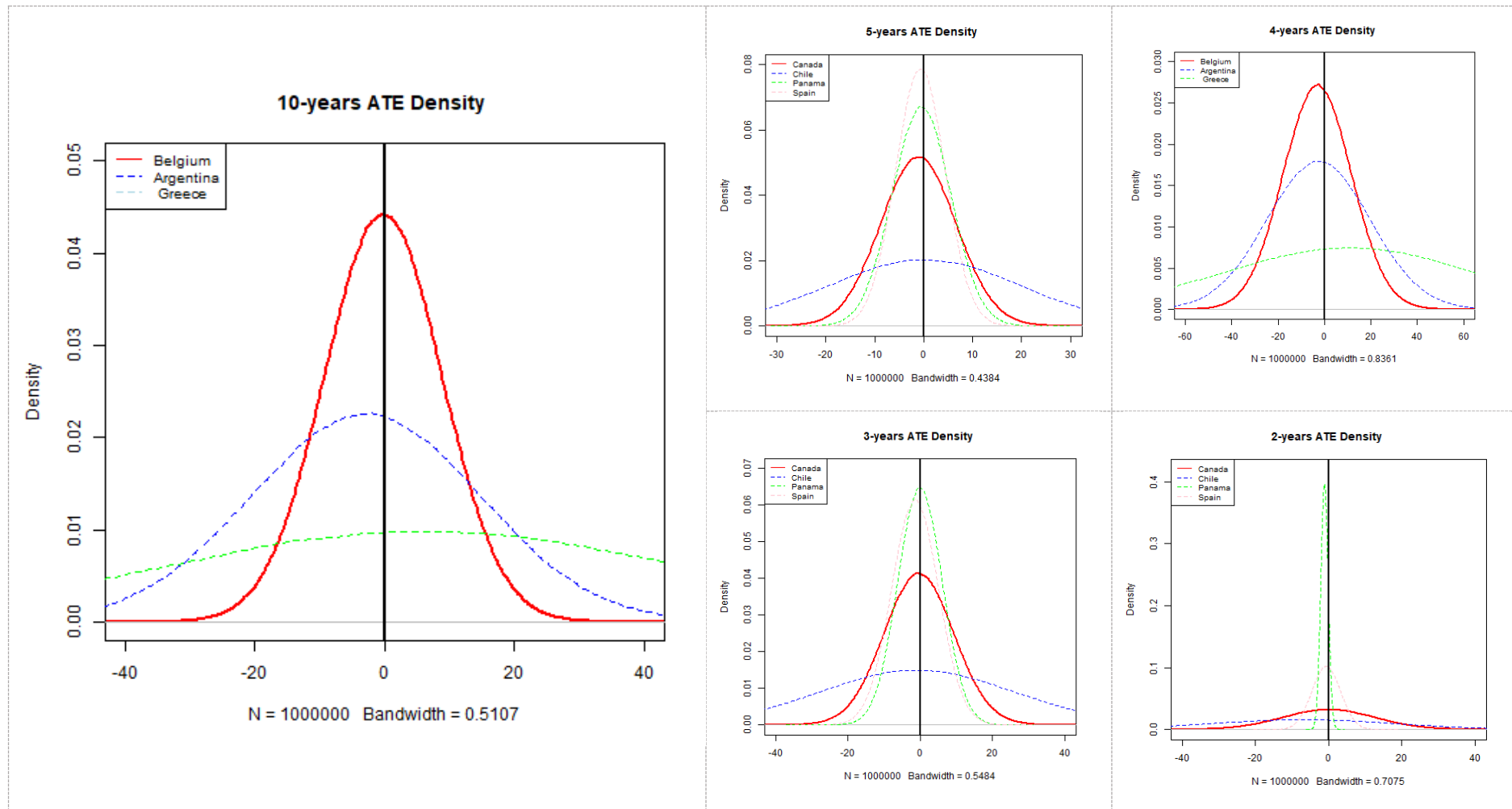
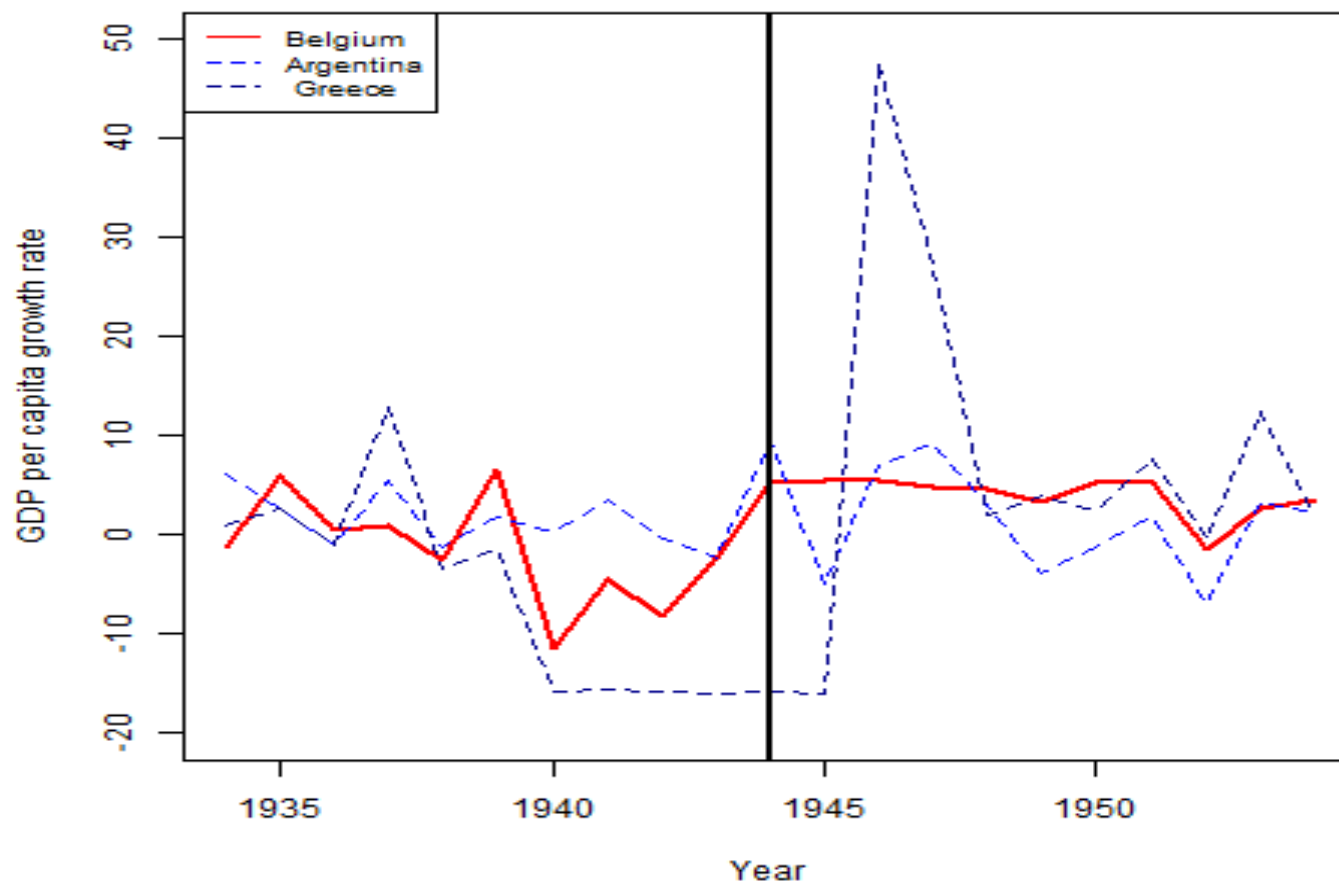


Figure D.6 – Belgium and Controls' Placebo



E| Italy

E.1| In Europe

Table E.1 - Italy's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
49	0.58	Greece
104	0.28	Portugal
107	0.14	Romania

Table E.2 - Italy Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Child Mortality	150.80	192.41	223.07
Population Growth Rate	0.01	0.01	0.01
5-years Average GDP per capita	4699.80	3112.11	2419.37
3-years prior Average GDP per capita Growth Rate	-3.30	-6.30	-3.29

Figure E.1 - Italy's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

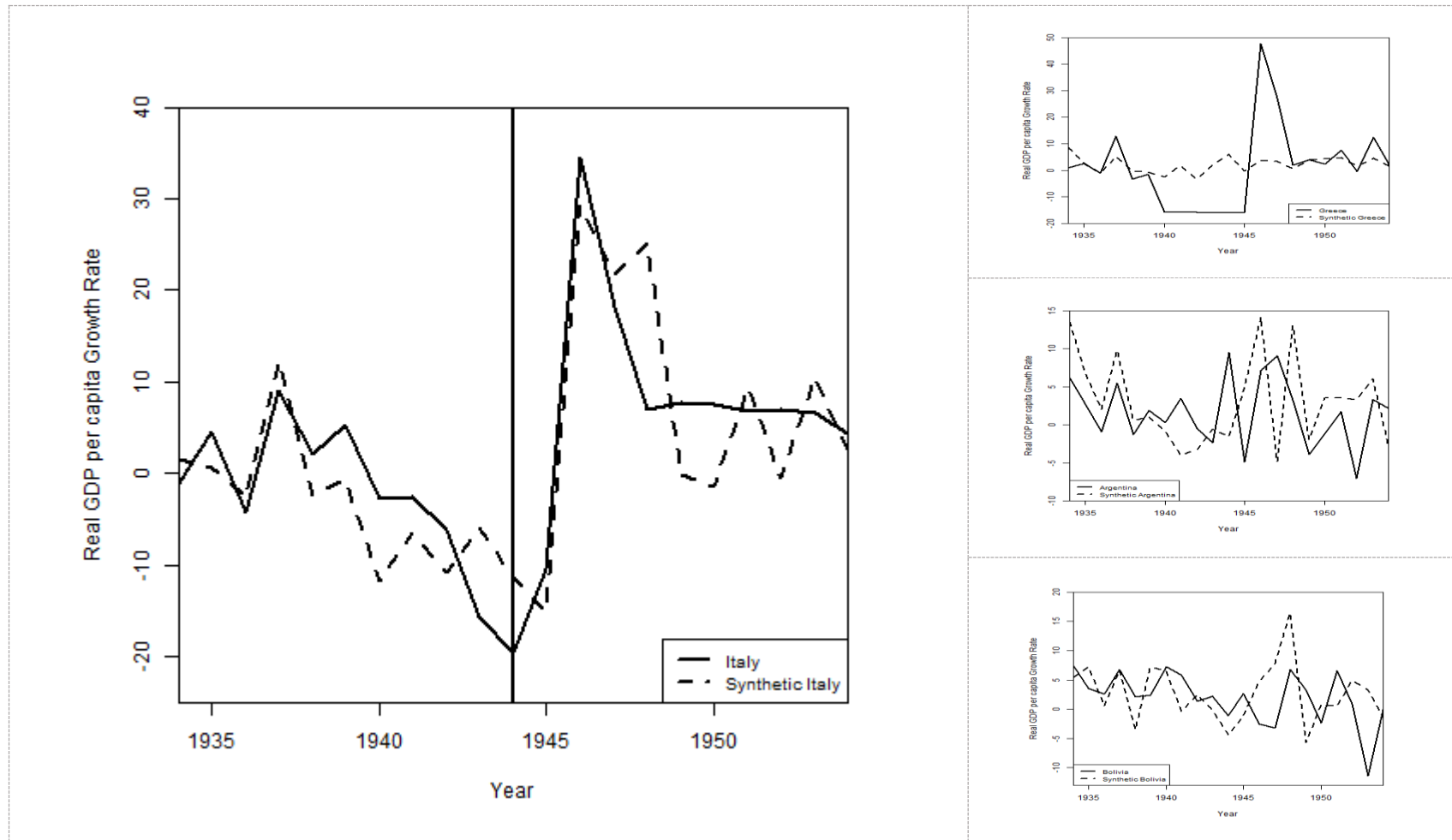


Figure E.2 - Italy and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

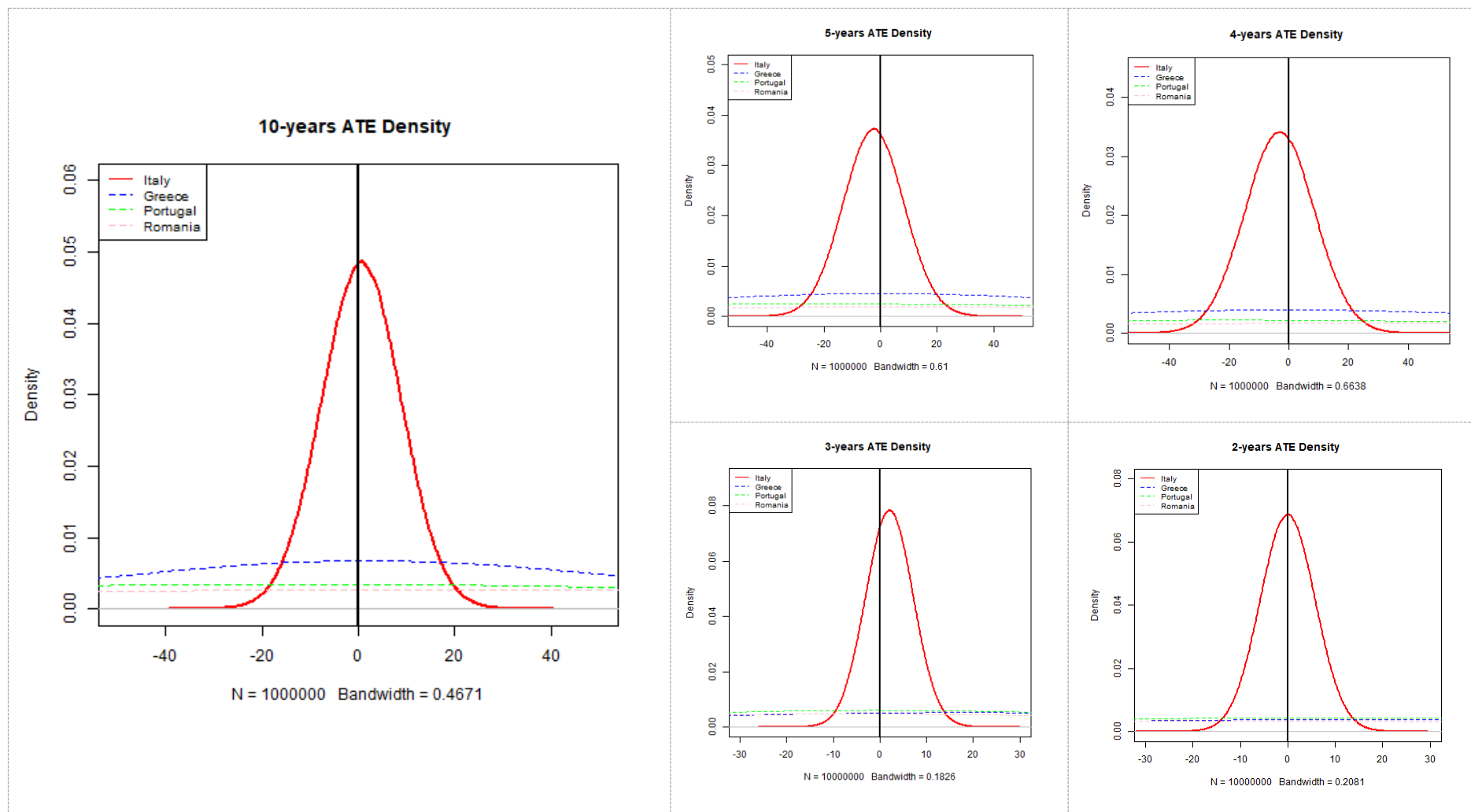


Figure E.3 – Italy and Controls’ Placebo with Donor Pool Countries in Europe

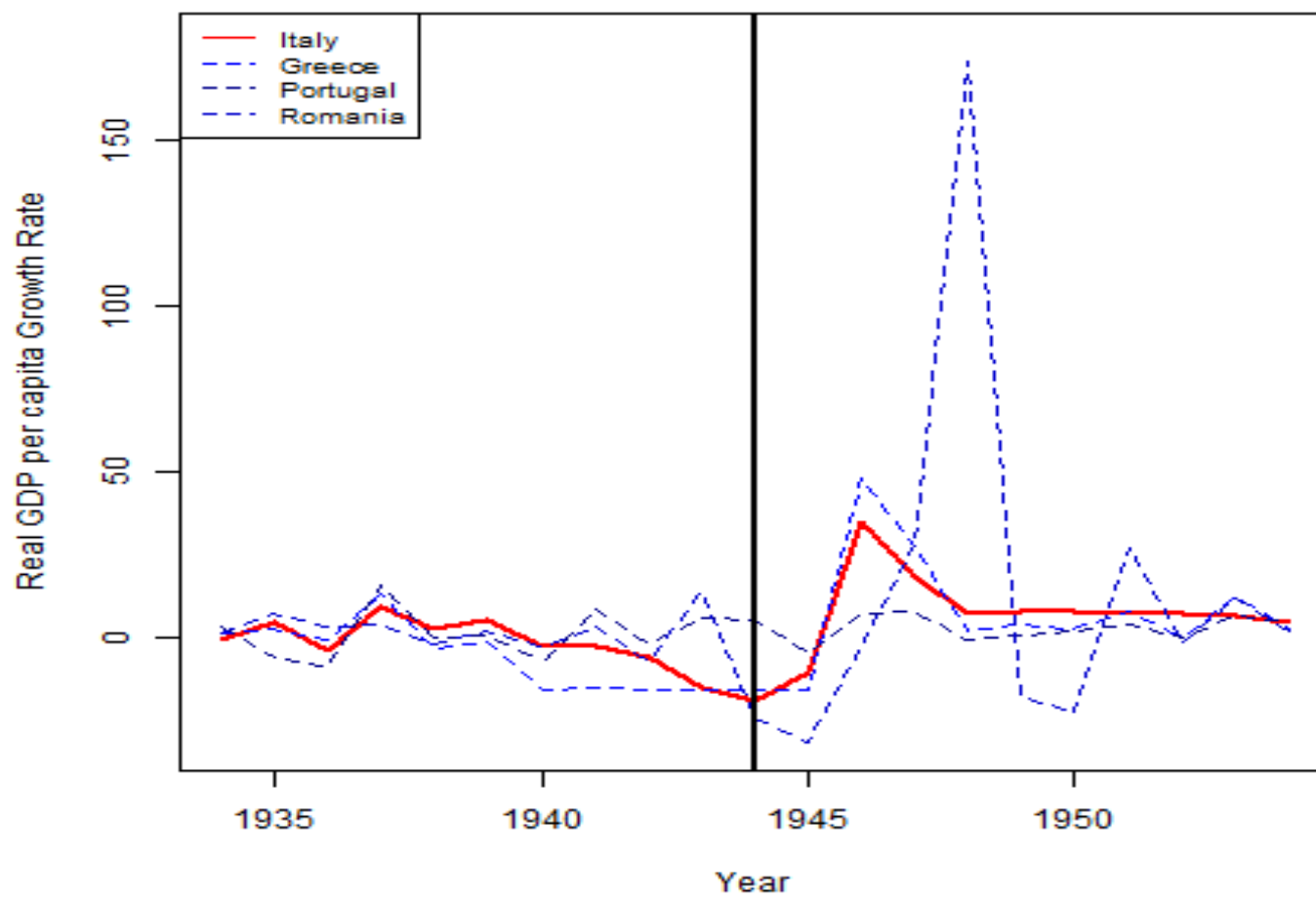


Table E.3 - Italy's Donor Pool Weights

	Weights	Countries
5	0.43	Argentina
13	0.12	Bolivia
16	0.00	Brazil
26	0.00	Chile
28	0.00	Colombia
32	0.00	Cuba
38	0.00	Ecuador
40	0.00	El Salvador
49	0.45	Greece
50	0.00	Guatemala
54	0.00	Honduras
81	0.00	Mexico
90	0.00	Nicaragua
99	0.00	Panama
101	0.00	Peru
104	0.00	Portugal
107	0.00	Romania
119	0.00	South Africa
137	0.00	Venezuela

Table E.4 - Italy Common Support

	Treated	Synthetic	Sample Mean
Child Mortality	150.80	171.88	283.63
Population Growth Rate	0.01	0.01	0.02
5-years Average GDP per capita	4699.80	4691.20	2635.78
3-years prior Average GDP per capita Growth Rate	-3.30	-4.58	0.70

Figure E.4 - Italy's Synthetic Control and its Controls' Placebos

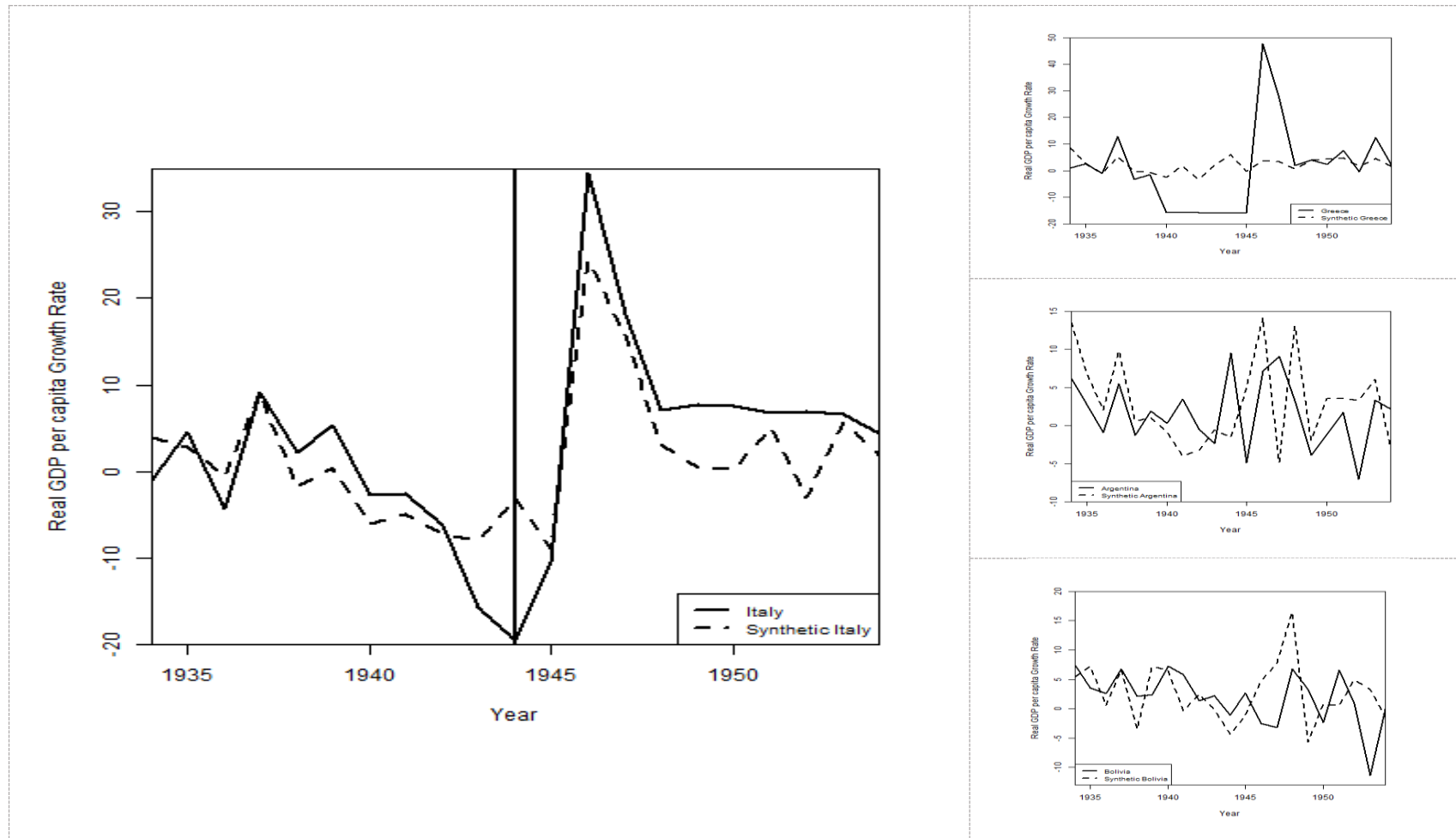


Figure E.5 - Italy and its Controls' Density Plots of the Average Treatment Effect (ATE)

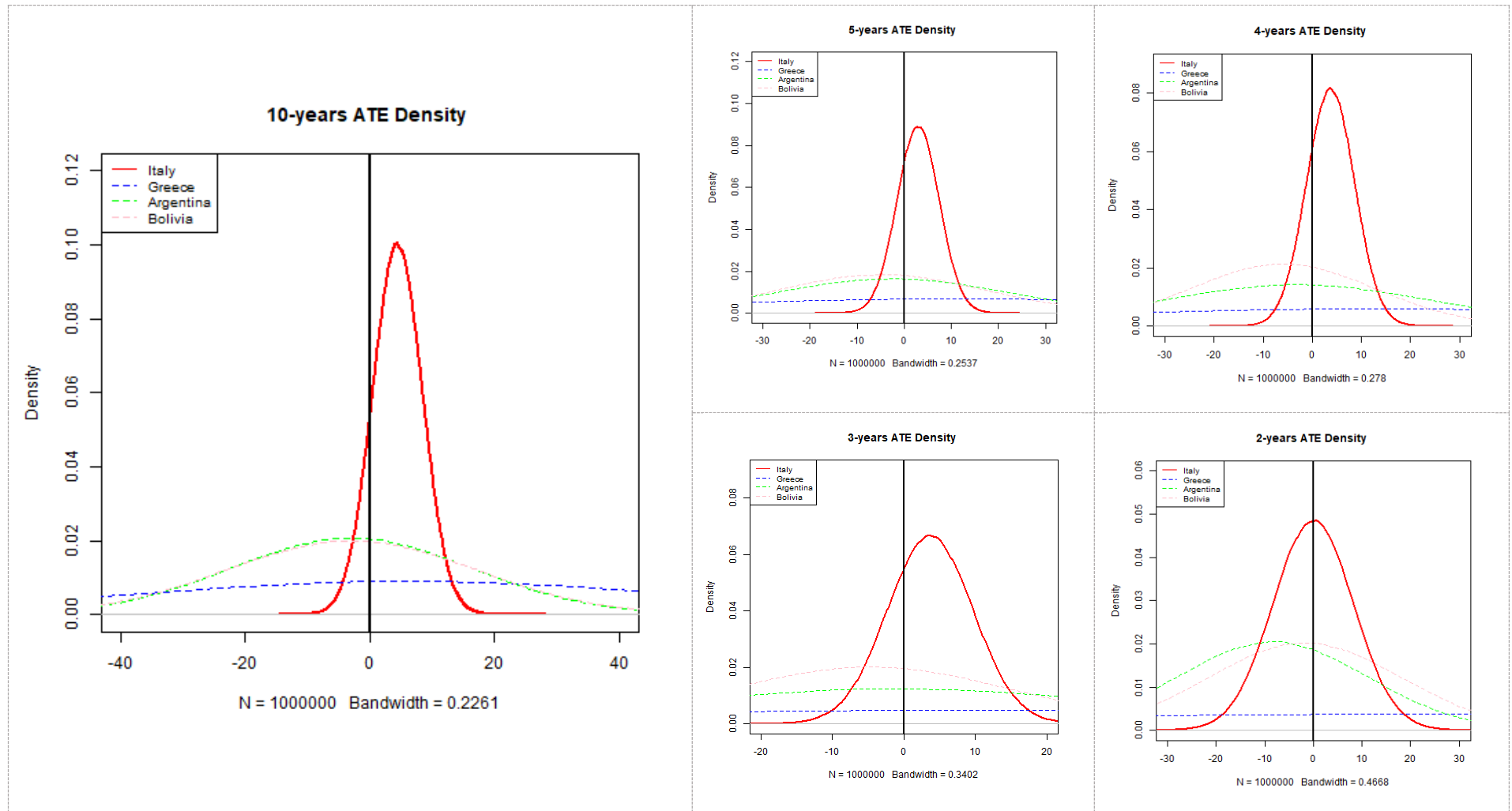
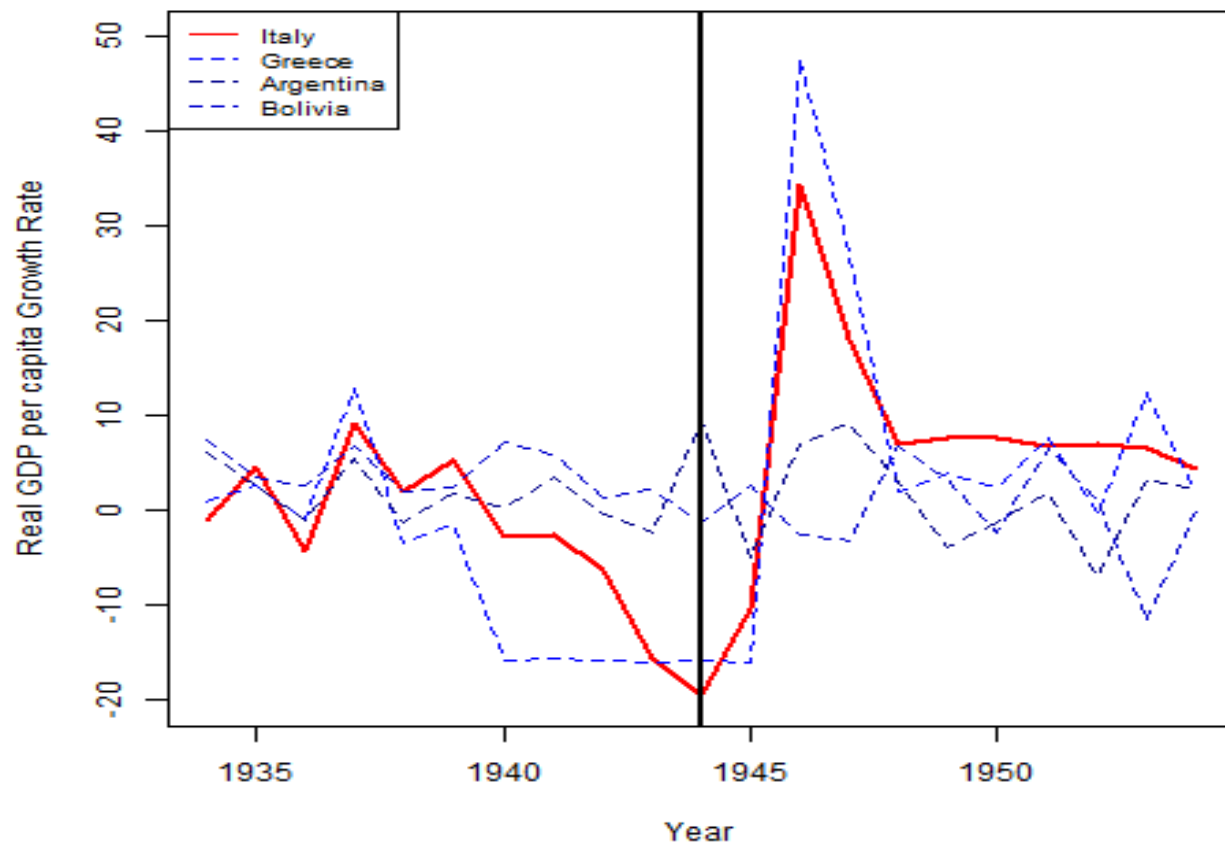


Figure E.6 – Italy and Controls' Placebo



F| Costa Rica
F.1| In America

Table F.1 - Costa Rica's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
5	0.04	Argentina
13	0.00	Bolivia
16	0.00	Brazil
28	0.00	Colombia
32	0.47	Cuba
38	0.33	Ecuador
40	0.00	El Salvador
50	0.00	Guatemala
54	0.00	Honduras
81	0.00	Mexico
90	0.00	Nicaragua
99	0.00	Panama
100	0.00	Paraguay
101	0.00	Peru
137	0.16	Venezuela

Table F.2 - Costa Rica Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Child Mortality	179.82	156.56	232.16
Primary Schooling	21.67	20.79	13.42
Population Growth Rate	0.03	0.03	0.02
5-years Average GDP per capita	2849.00	2847.89	2975.13
3-years prior Average GDP per capita Growth Rate	5.34	4.61	2.87

Figure F.1 - Costa Rica's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

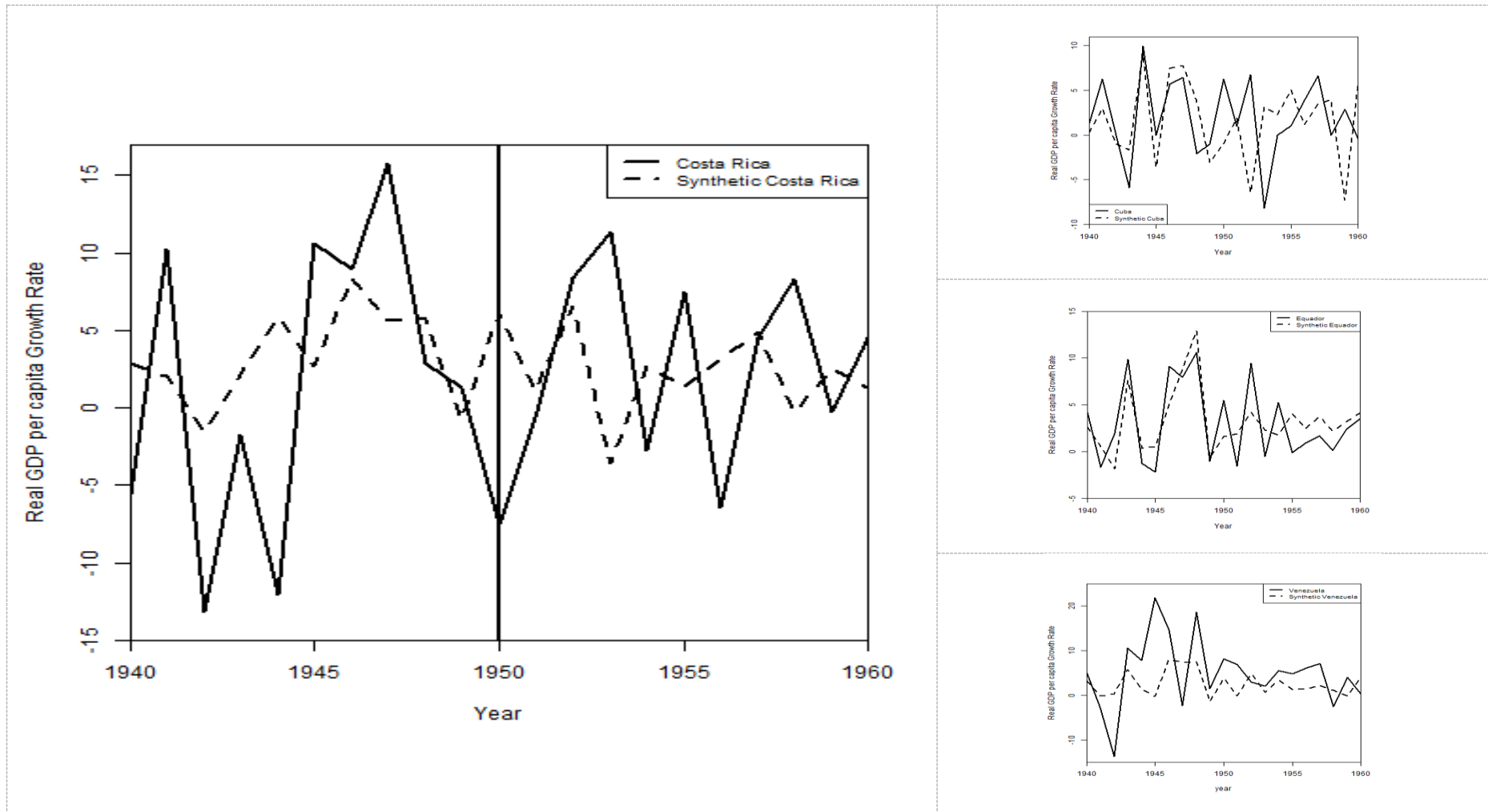


Figure F.2 - Costa Rica and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

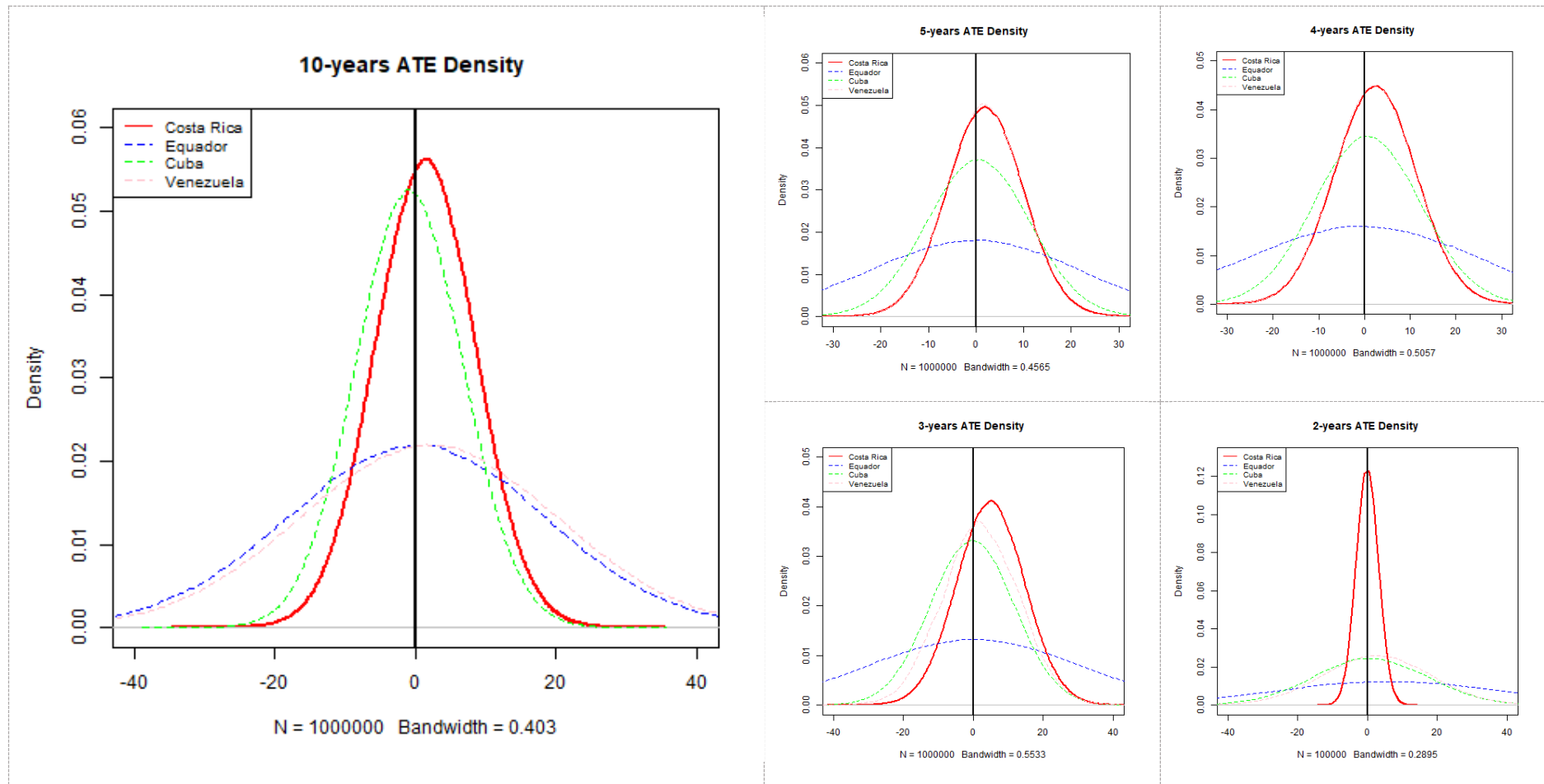


Figure F.3 – Costa Rica and Controls' Placebo with Donor Pool Countries in Europe

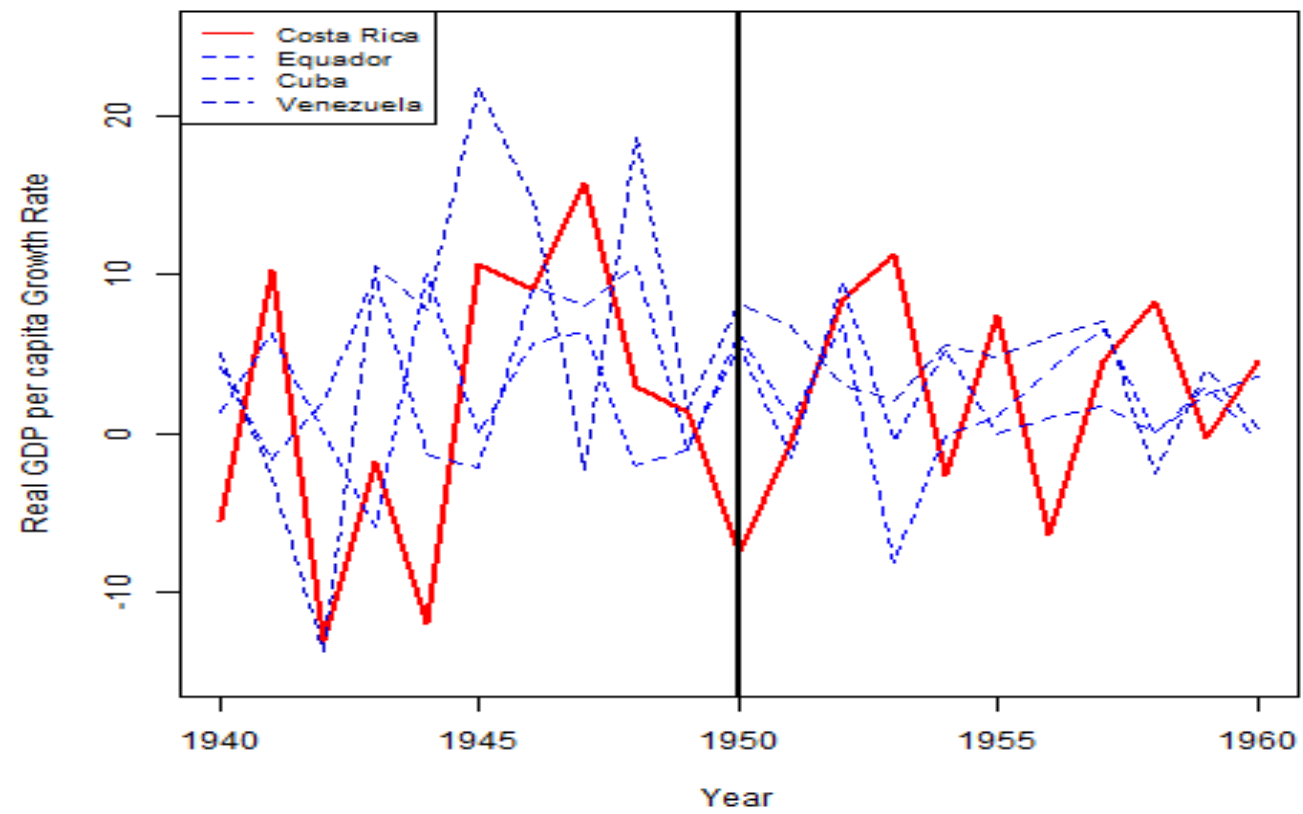


Table F.3 - Costa Rica's Donor Pool Weights

	Weights	Countries
5	0.00	Argentina
13	0.01	Bolivia
16	0.02	Brazil
28	0.01	Colombia
32	0.41	Cuba
38	0.07	Ecuador
40	0.02	El Salvador
49	0.18	Greece
50	0.01	Guatemala
54	0.02	Honduras
81	0.02	Mexico
90	0.02	Nicaragua
99	0.01	Panama
100	0.01	Paraguay
101	0.01	Peru
104	0.01	Portugal
119	0.01	South Africa
122	0.01	Spain
137	0.14	Venezuela

Table F.4 - Costa Rica Common Support

	Treated	Synthetic	Sample Mean
Child Mortality	179.82	139.71	219.66
Primary Schooling	21.67	21.66	15.56
Population Growth Rate	0.03	0.02	0.02
5-years Average GDP per capita	2849.00	2849.02	3015.89
3-years prior Average GDP per capita Growth Rate	5.34	5.34	3.00

Figure F.4 - Costa Rica's Synthetic Control and its Controls' Placebos

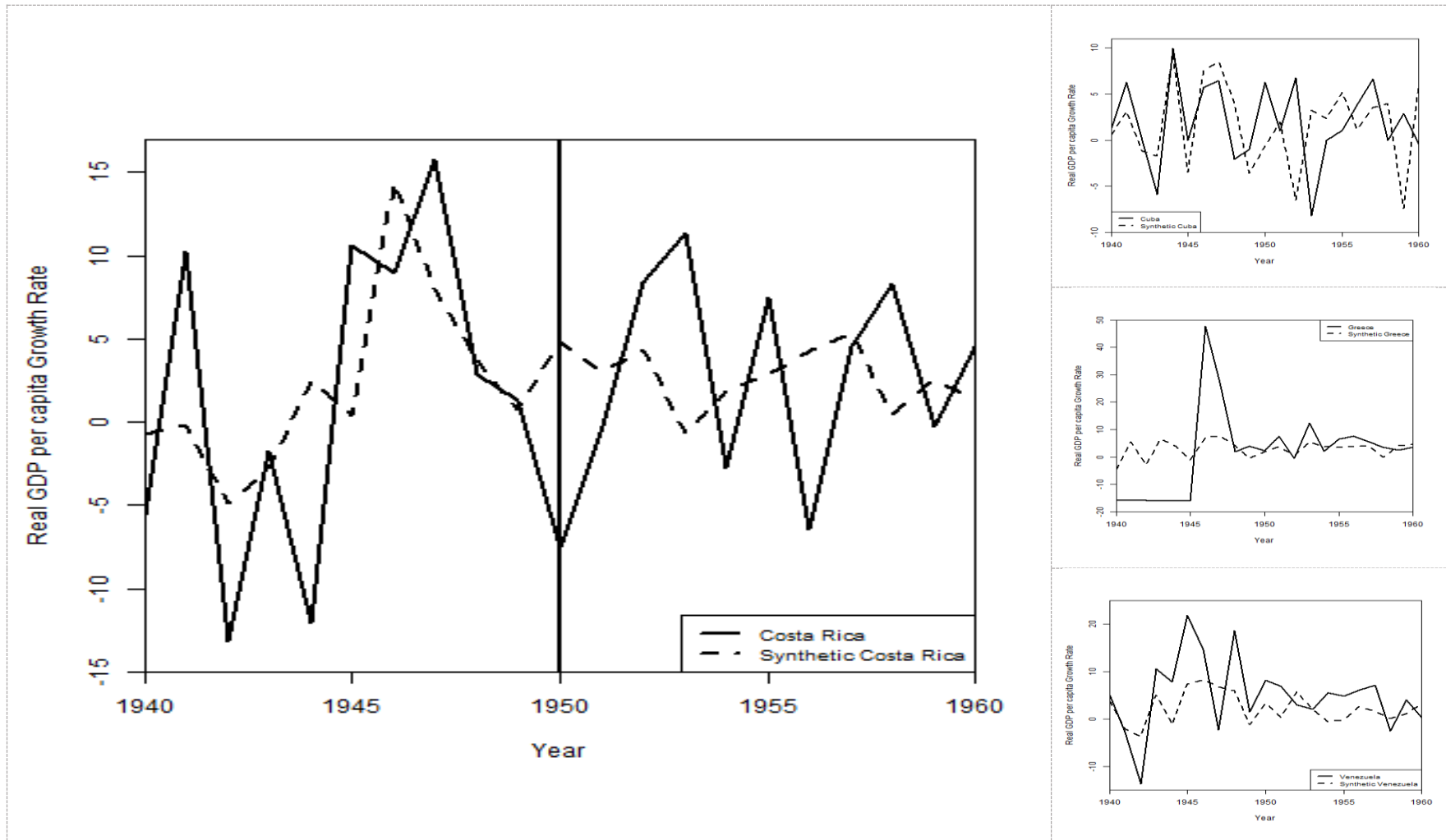


Figure F.5 - Costa Rica and its Controls' Density Plots of the Average Treatment Effect (ATE)

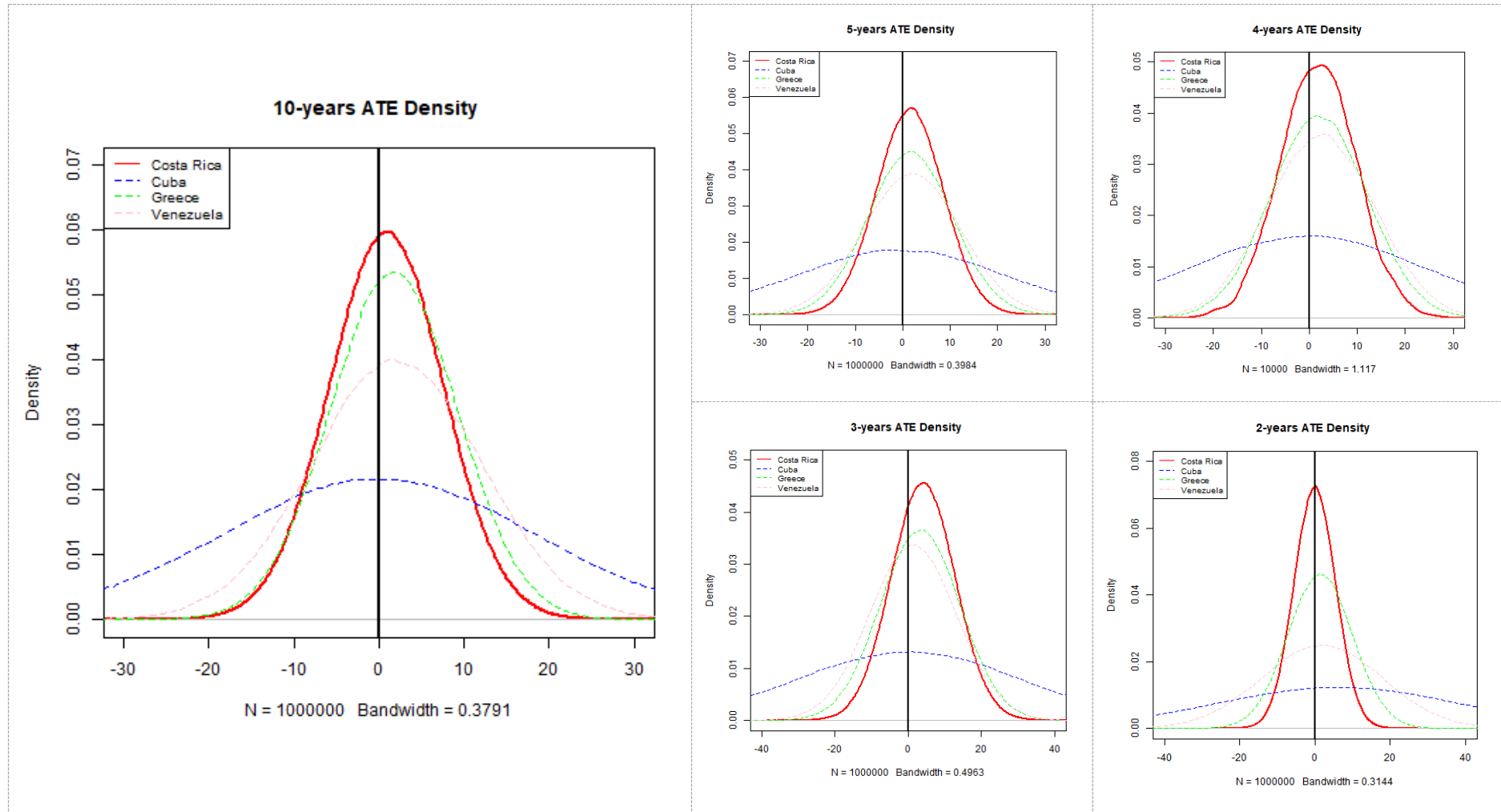
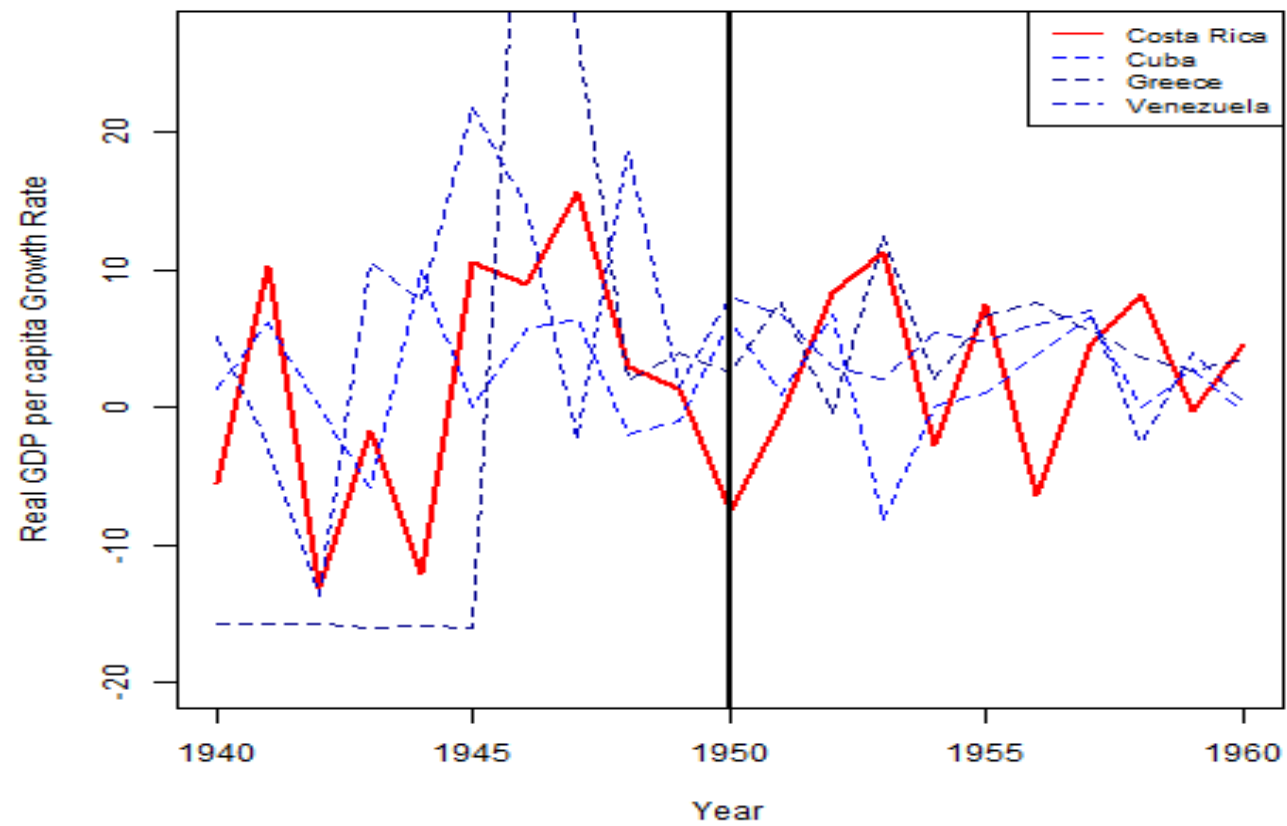


Figure F.6 – Costa Rica and Controls' Placebo



G| Barbados

G.1| In World

Table G.1 - Barbados's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
2	0.66	Albania
3	0.00	Algeria
15	0.00	Benin
23	0.00	Cambodia
30	0.00	China
41	0.00	Dominican Republic
43	0.00	Egypt
54	0.00	Ghana
66	0.05	Iraq
74	0.00	Kenya
85	0.00	Malawi
87	0.00	Mali
90	0.18	Mauritius
94	0.00	Morocco
95	0.00	Mozambique
101	0.00	Niger
122	0.00	Senegal
125	0.00	Sierra Leone
137	0.00	Thailand
140	0.00	Tunisia
143	0.00	Uganda
154	0.12	Zimbabwe

Table G.2 - Barbados Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Child Mortality	172.86	213.55	281.20
Primary Schooling	24.50	23.85	7.68
Population Growth Rate	0.01	0.03	0.02
5-years Average GDP per capita	3661.60	2093.99	1607.18
3-years prior Average GDP per capita Growth Rate	4.92	3.76	2.16

Figure G.1 - Barbados's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

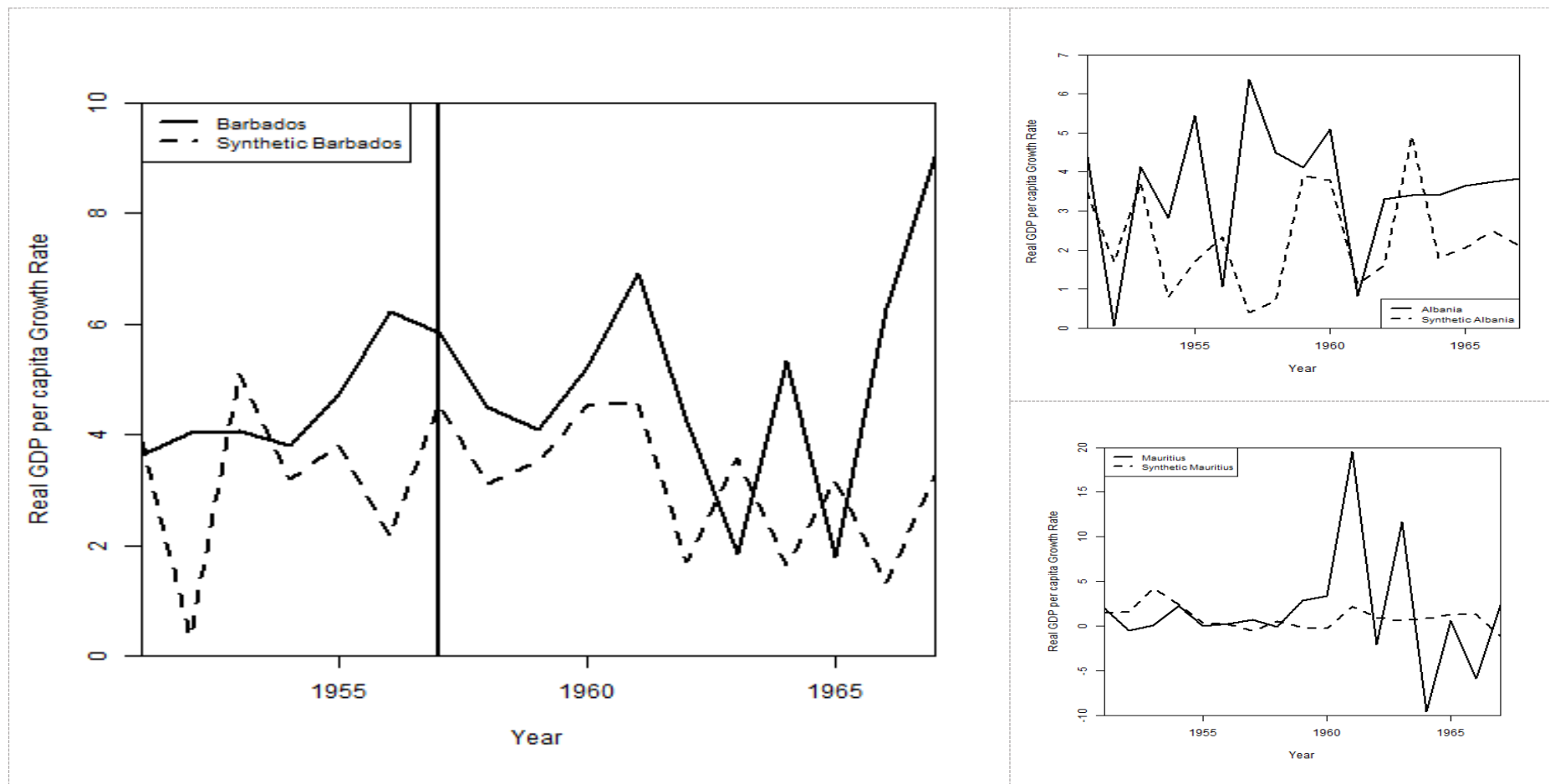


Figure G.2 - Barbados and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

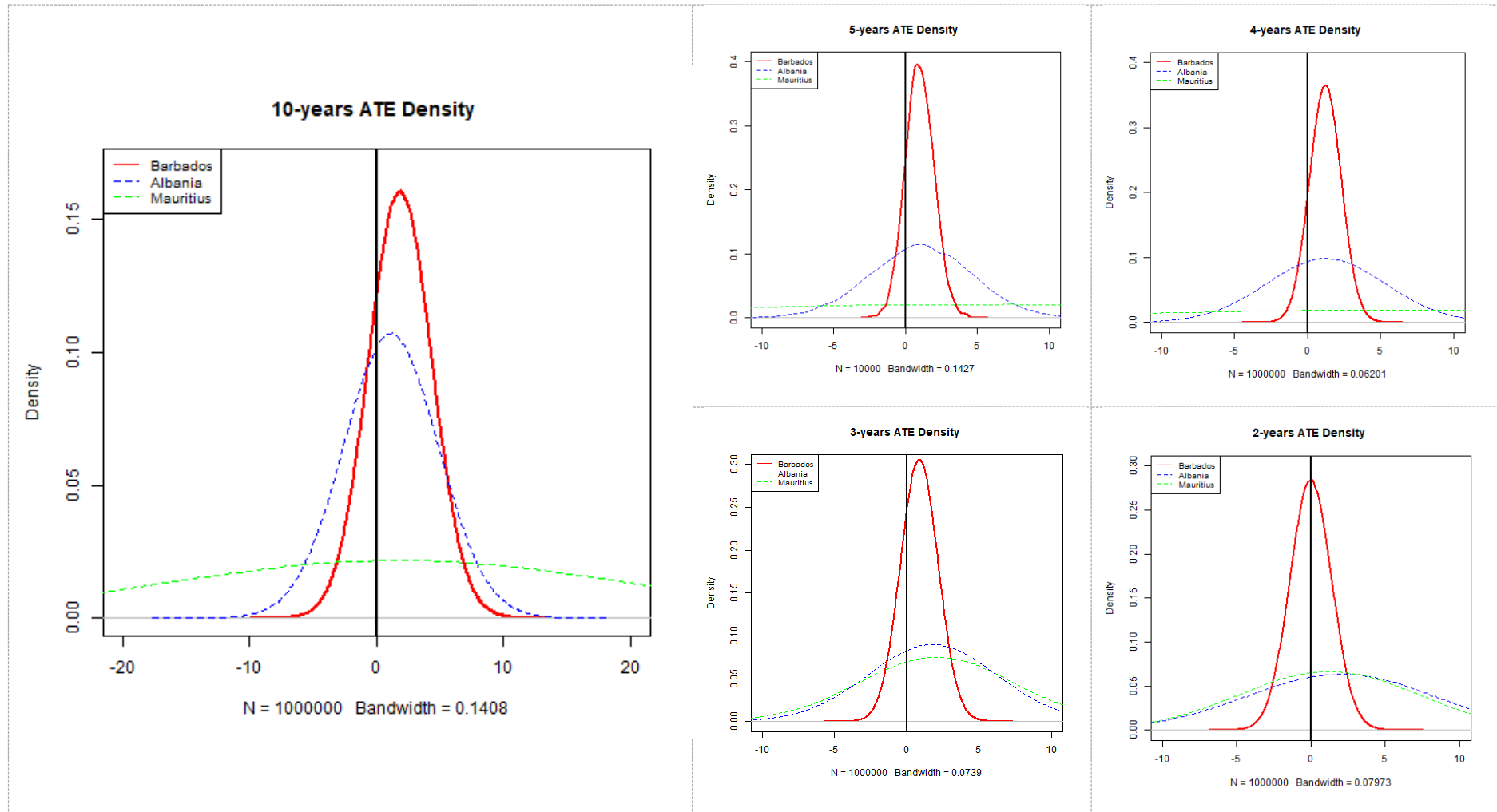
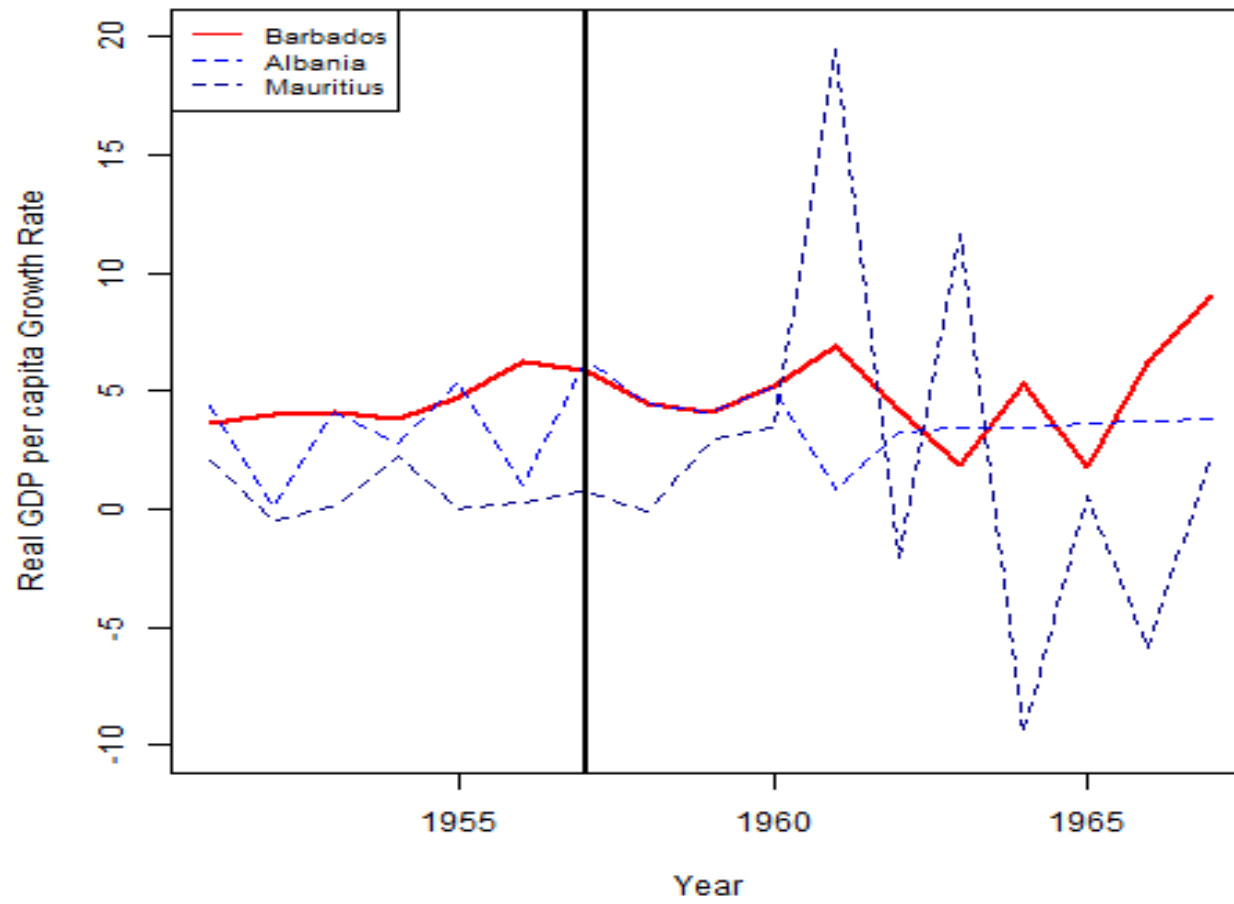


Figure G.3 – Barbados and Controls' Placebo with Donor Pool Countries in Europe



H| Sri Lanka

H.1| In World

Table H.1 - Sri Lanka's Donor Pool Weights

	Weights	Countries
5	0.00	Argentina
13	0.10	Bolivia
16	0.00	Brazil
26	0.00	Chile
28	0.00	Colombia
32	0.00	Cuba
38	0.00	Ecuador
40	0.66	El Salvador
49	0.00	Greece
50	0.00	Guatemala
54	0.17	Honduras
81	0.00	Mexico
90	0.00	Nicaragua
99	0.00	Panama
101	0.00	Peru
104	0.01	Portugal
119	0.00	South Africa
122	0.00	Spain
137	0.06	Venezuela

Table H.2 - Sri Lanka Common Support

	Treated	Synthetic	Sample Mean
Child Mortality	202.91	291.96	251.47
Primary Schooling	5.50	8.71	16.24
Population Growth Rate	0.02	0.02	0.02
5-years Average GDP per capita	1961.60	1973.81	3013.86
3-years prior Average GDP per capita Growth Rate	-0.99	1.73	1.87

Figure H.1 - Sri Lanka's Synthetic Control and its Controls' Placebos

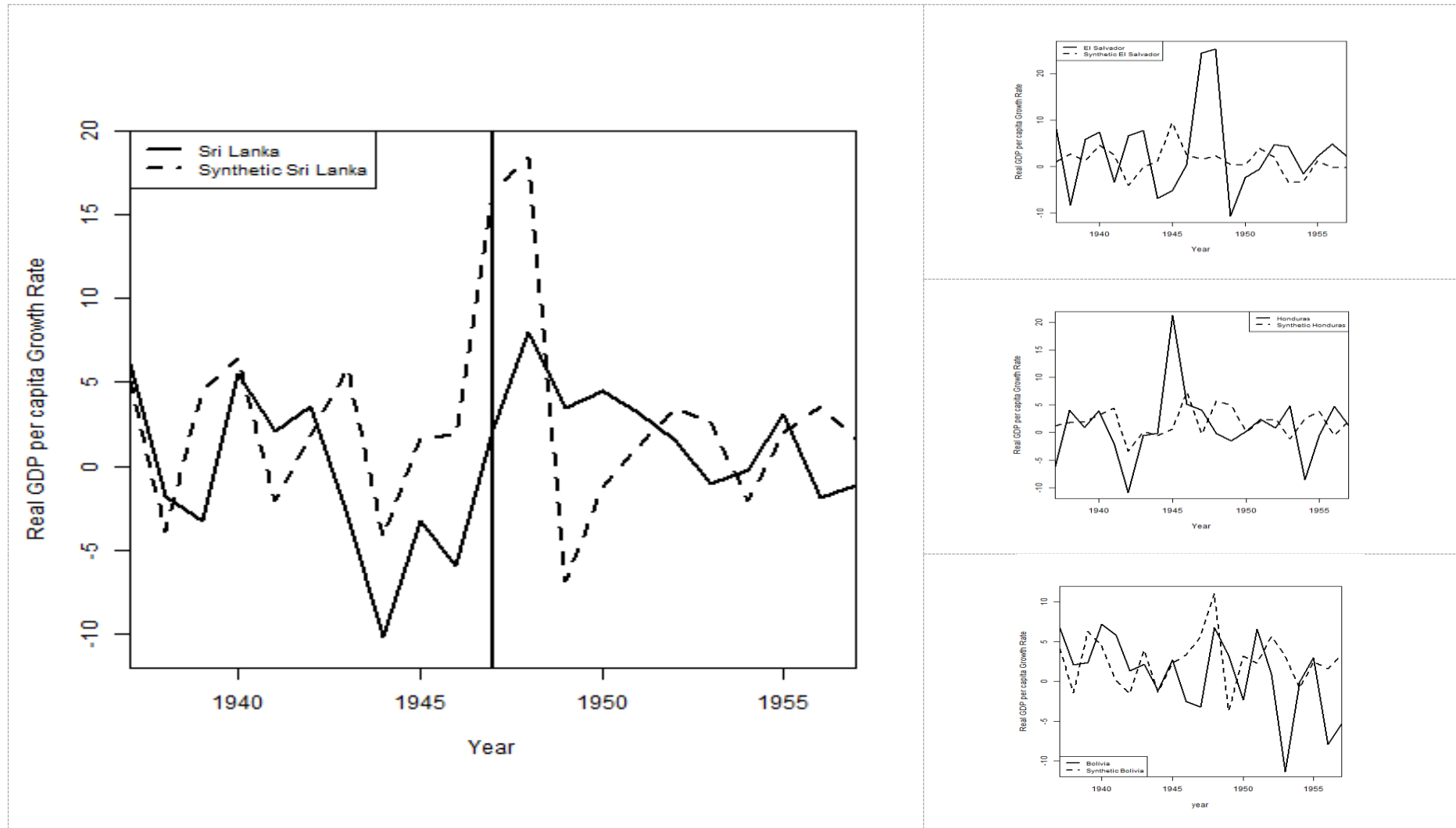


Figure H.2 - Sri Lanka and its Controls' Density Plots of the Average Treatment Effect (ATE)

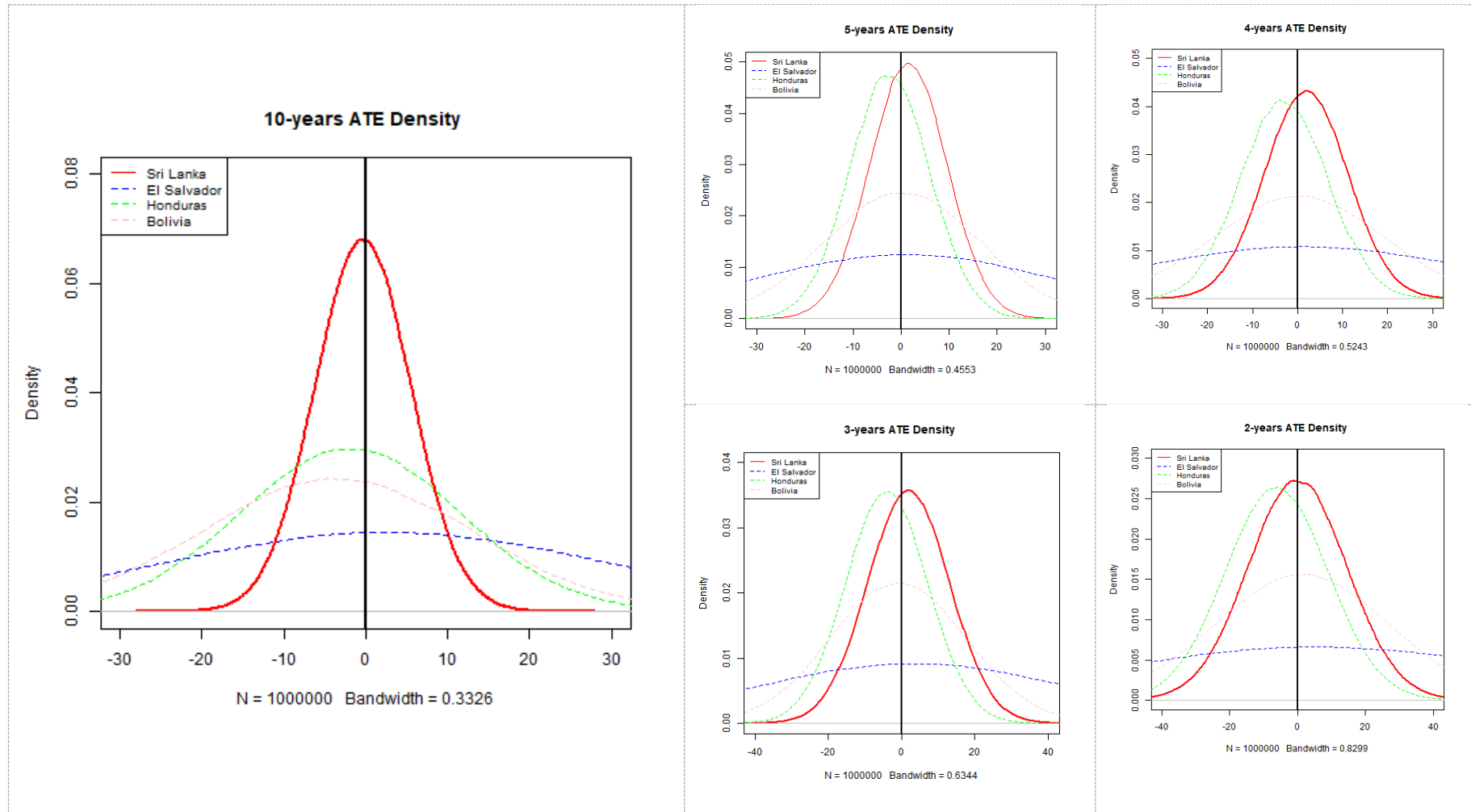
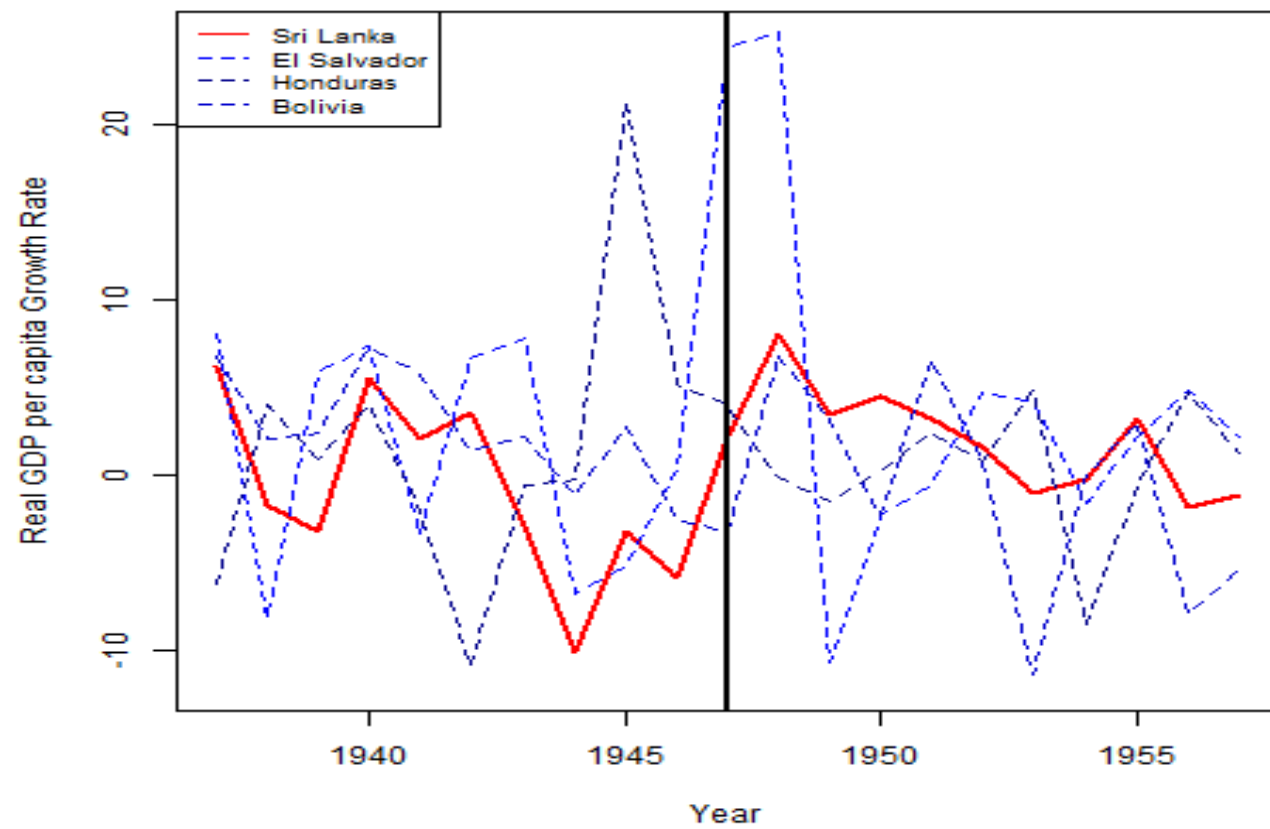


Figure H.3 – Sri Lanka and Controls' Placebo



I| Japan

I.1| In Asia and Oceania

Table I.1 - Japan's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
102	0.45	Philippines
120	0.55	South Korea

Table I.2 - Japan Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Child Mortality	99.17	250.09	242.00
Population Growth Rate	0.01	0.03	0.03
5-years Average GDP per capita	3179.80	1364.53	1396.28
3-years prior Average GDP per capita Growth Rate	6.93	1.53	1.80

Figure I.1 - Japan's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

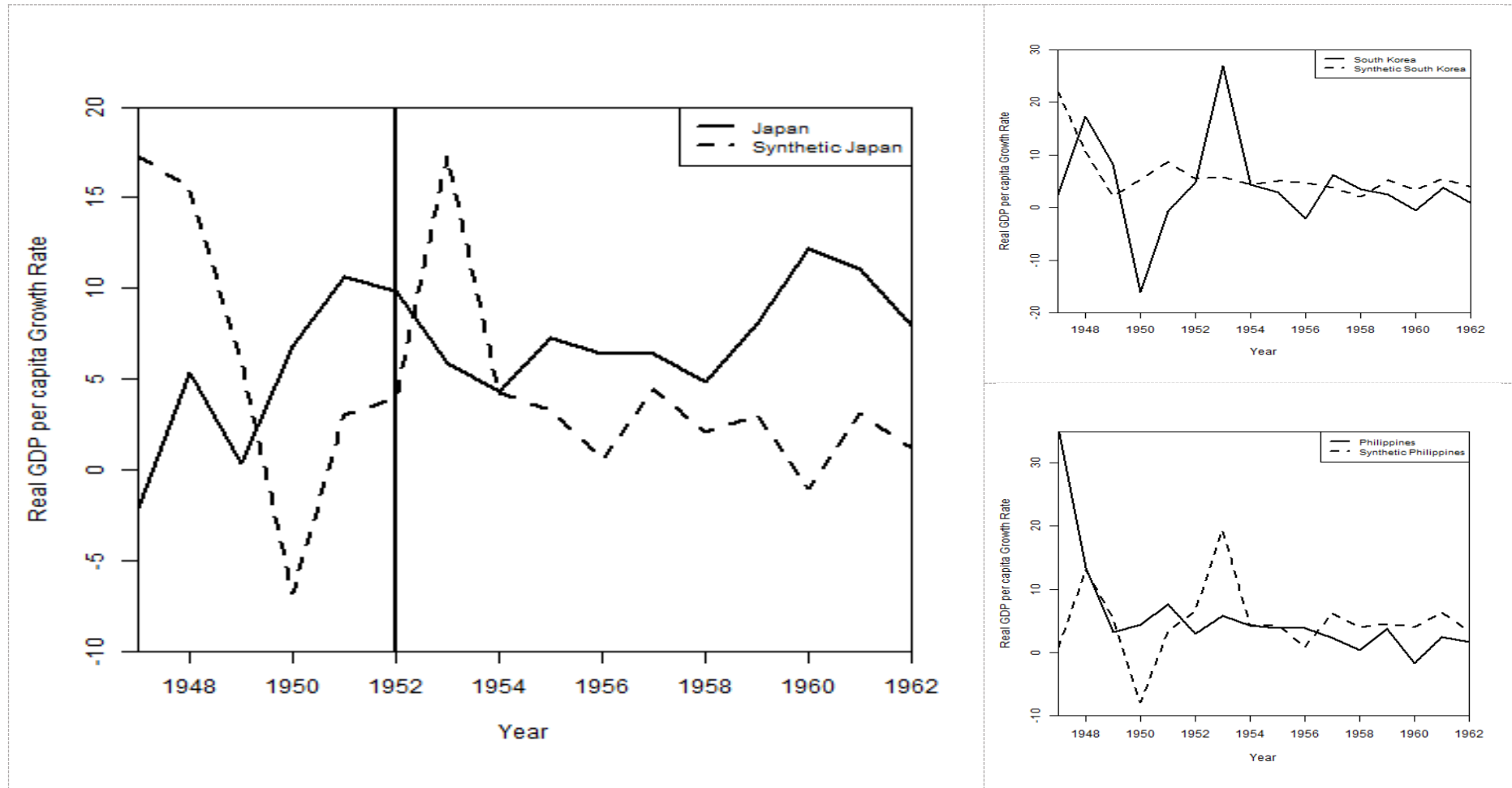


Figure I.2 - Japan and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

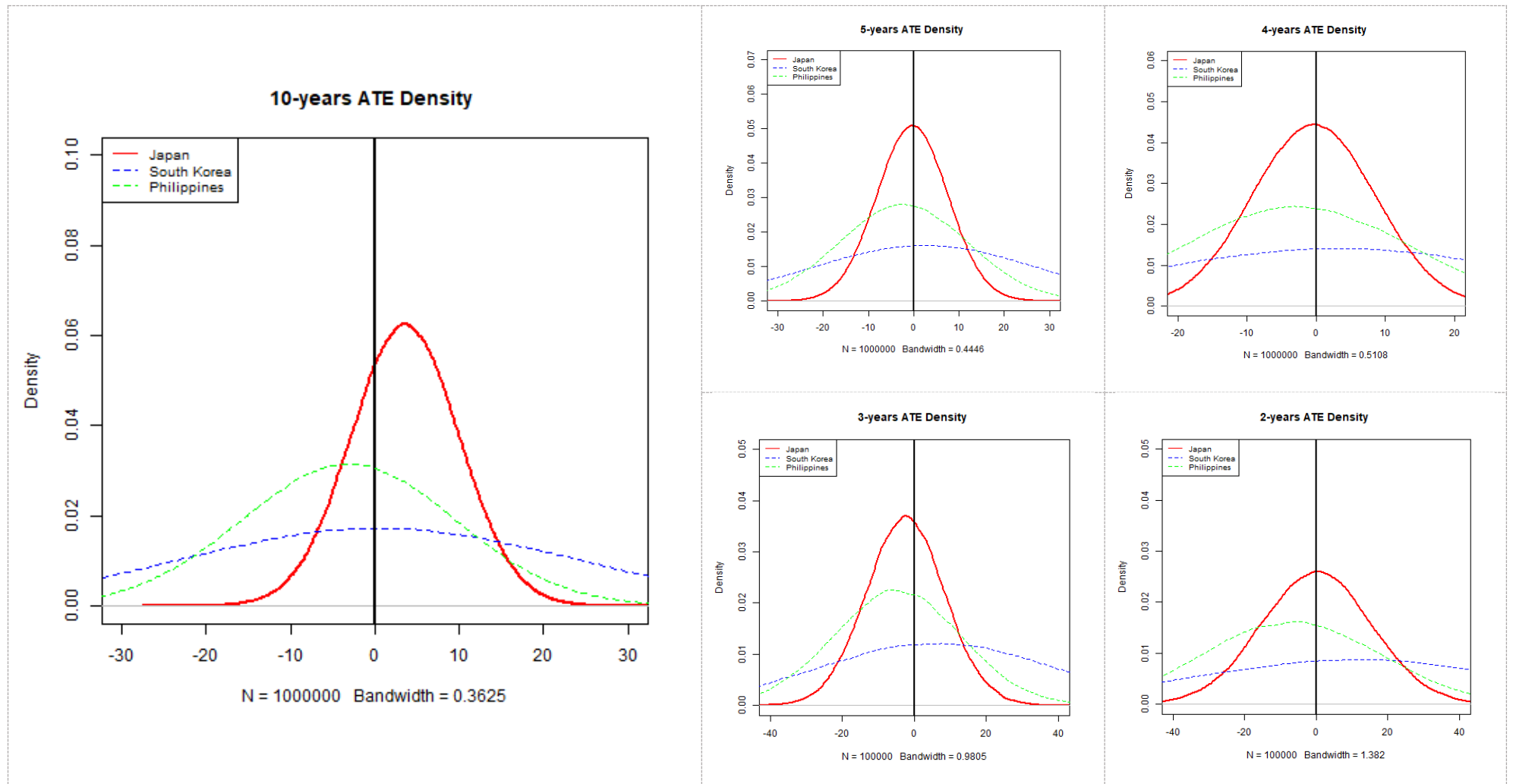


Figure I.3 – Japan and Controls’ Placebo with Donor Pool Countries in Europe

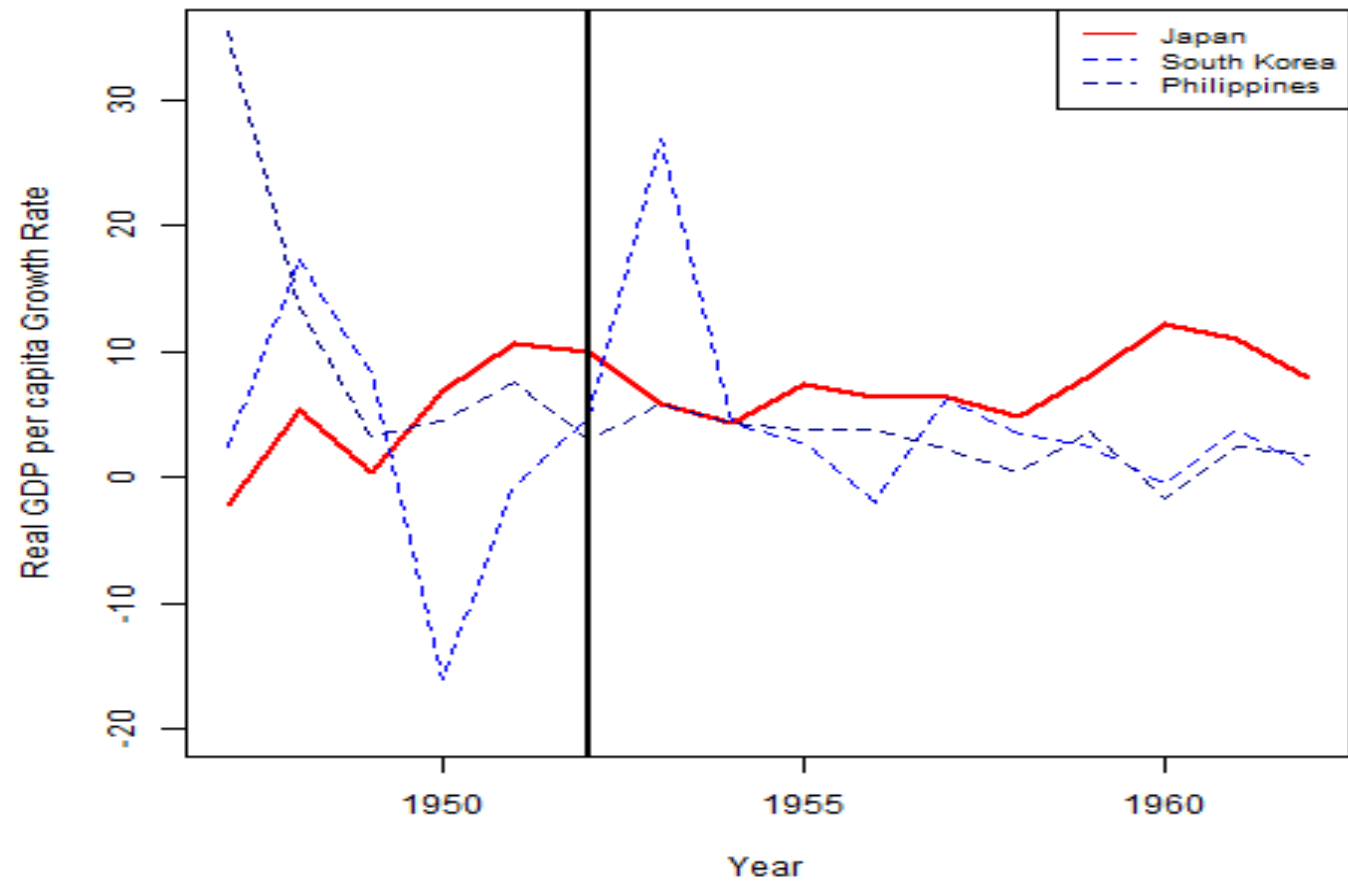


Table I.3 - Japan's Donor Pool Weights

	Weights	Countries
5	0.04	Argentina
13	0.00	Bolivia
16	0.00	Brazil
28	0.00	Colombia
32	0.00	Cuba
38	0.00	Ecuador
40	0.00	El Salvador
49	0.00	Greece
50	0.00	Guatemala
54	0.00	Honduras
81	0.00	Mexico
90	0.00	Nicaragua
99	0.17	Panama
100	0.00	Paraguay
101	0.00	Peru
104	0.00	Portugal
119	0.00	South Africa
122	0.78	Spain
137	0.00	Venezuela

Table I.4 - Japan Common Support

	Treated	Synthetic	Sample Mean
Child Mortality	114.00	126.94	205.21
Population Growth Rate	0.01	0.01	0.02
Primary Schooling	29.00	29.74	15.66
5-years Average GDP per capita	3603.57	3609.54	3277.89
3-years prior Average GDP per capita Growth Rate	-1.89	1.78	2.05

Figure I.4 - Japan's Synthetic Control and its Controls' Placebos

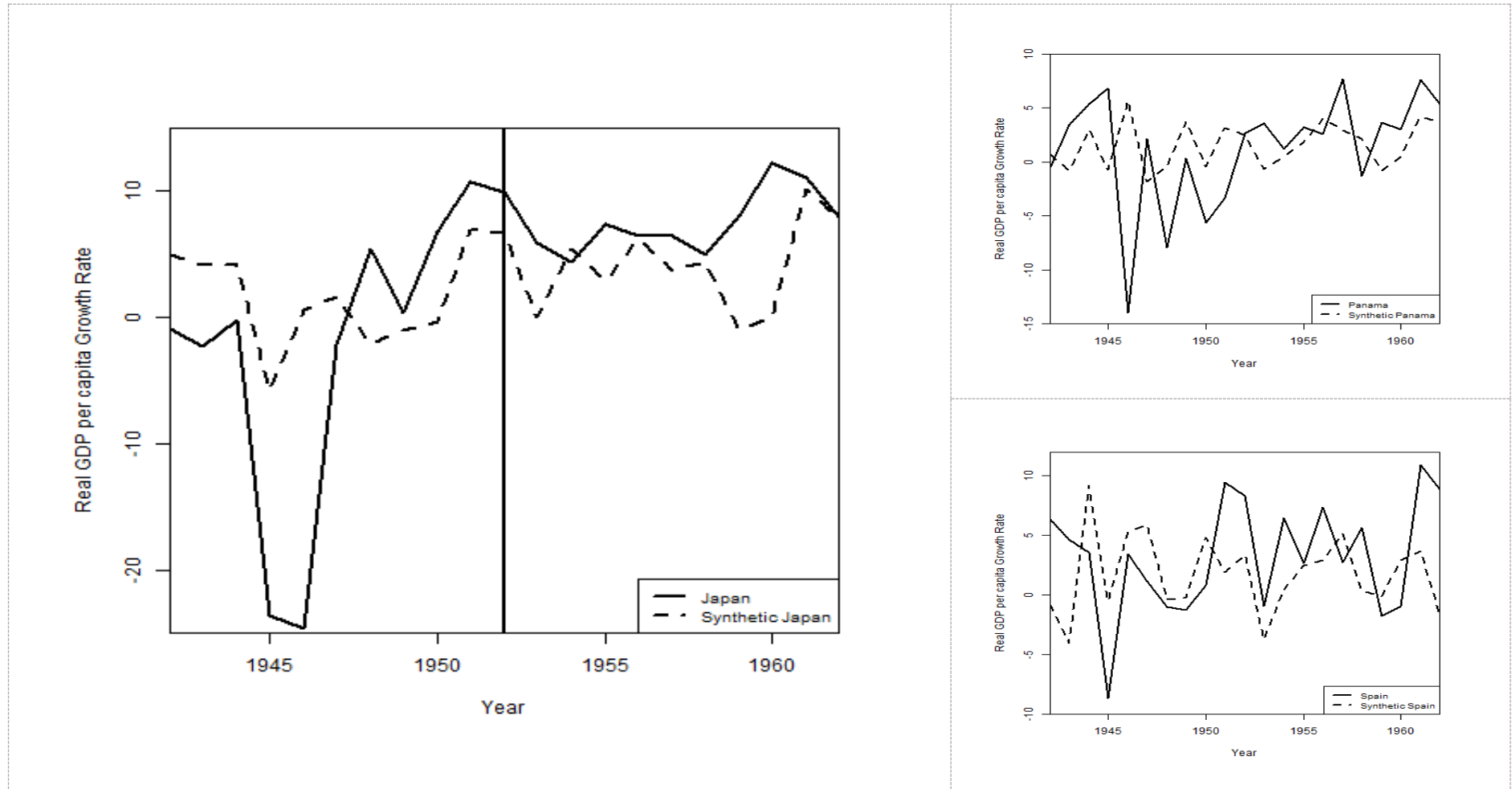


Figure I.5 - Japan and its Controls' Density Plots of the Average Treatment Effect (ATE)

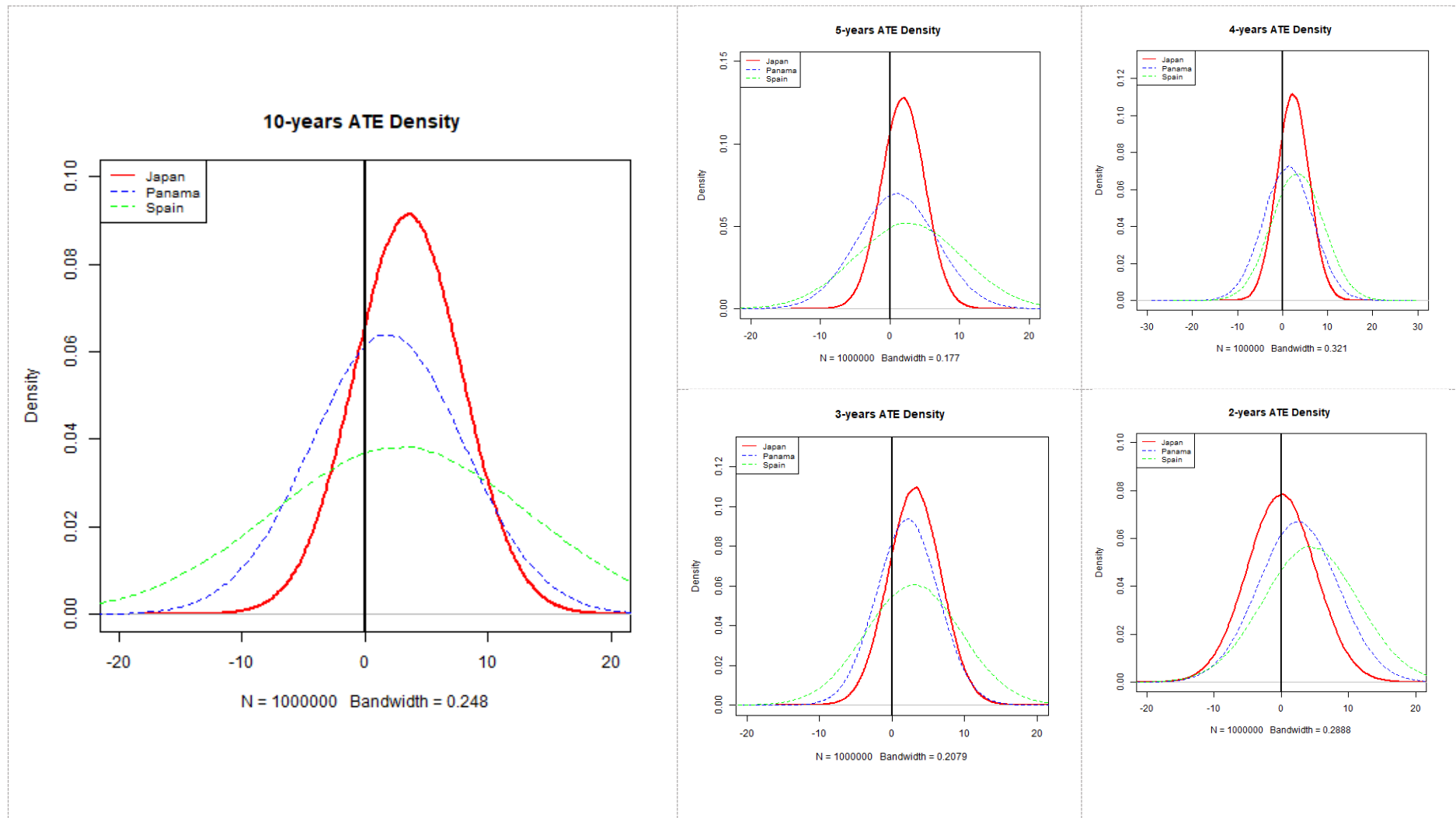
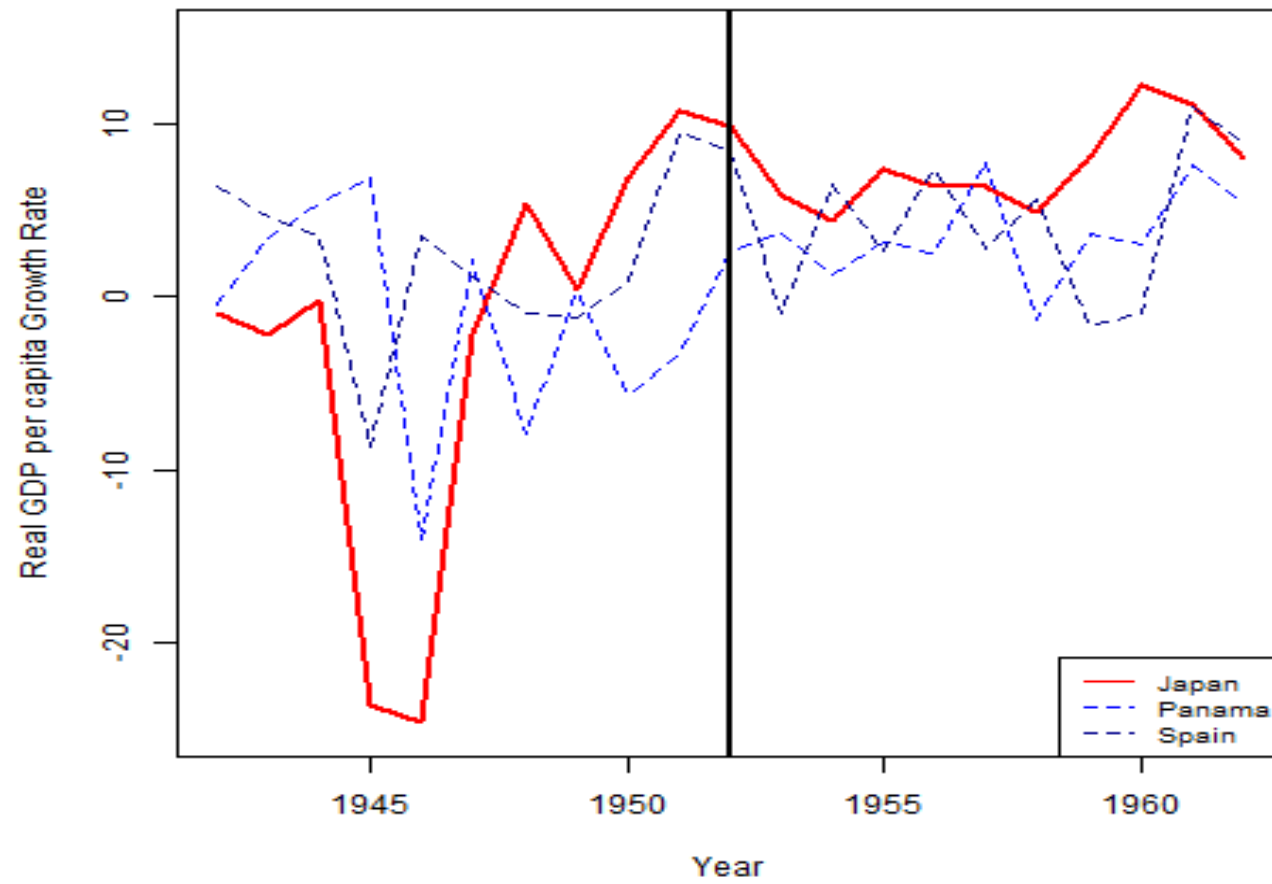


Figure I.6 – Japan and Controls' Placebo



J| Botswana

J.1| In Africa

Table J.1 - Botswana's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
3	0.00	Algeria
4	0.00	Angola
15	0.00	Benin
21	0.00	Burkina Faso
22	0.00	Burundi
26	0.00	Cape Verde
27	0.00	Central African Republic
28	0.00	Chad
32	0.00	Comoros
38	0.00	Democratic Republic Of The Congo
40	0.00	Djibouti
43	0.00	Egypt
45	0.00	Equatorial Guinea
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
54	0.00	Ghana
57	0.00	Guinea-Bissau
58	0.00	Guinea
74	0.00	Kenya
79	0.70	Lesotho
80	0.00	Liberia
84	0.00	Madagascar
85	0.00	Malawi
87	0.00	Mali
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
96	0.00	Namibia
101	0.00	Niger
102	0.00	Nigeria
119	0.00	Rwanda
120	0.00	São Tome and Príncipe
122	0.00	Senegal
124	0.00	Seychelles
125	0.00	Sierra Leone
128	0.00	South Africa
136	0.10	Tanzania
138	0.00	Togo
140	0.00	Tunisia
143	0.00	Uganda
153	0.00	Zambia
154	0.20	Zimbabwe

Table J.2 - Botswana Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Child Mortality	197.90	204.57	284.59
Population Growth Rate	0.02	0.02	0.02
5-years Average GDP per capita	524.30	829.13	1550.29
3-years prior Average GDP per capita Growth Rate	1.23	2.08	1.94

Figure J.1 - Botswana's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

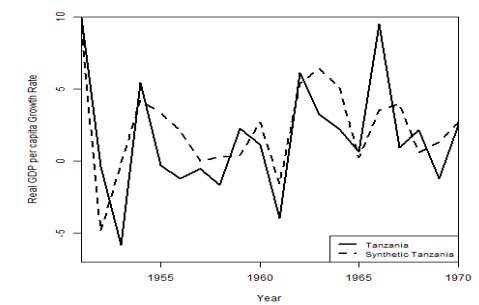
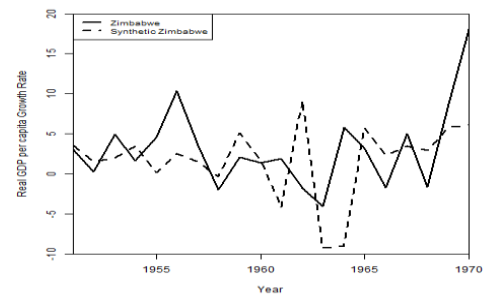
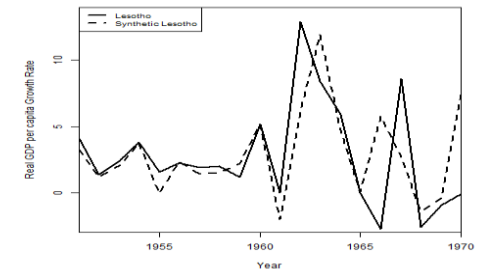
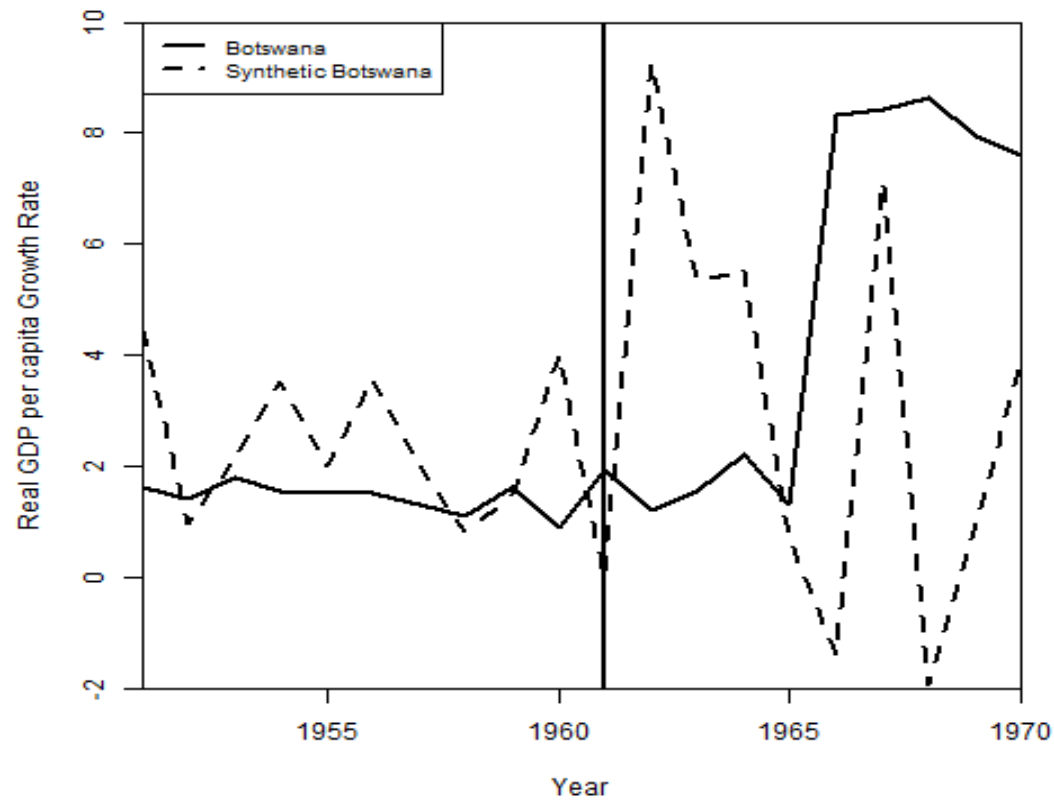


Figure J.2 - Botswana and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

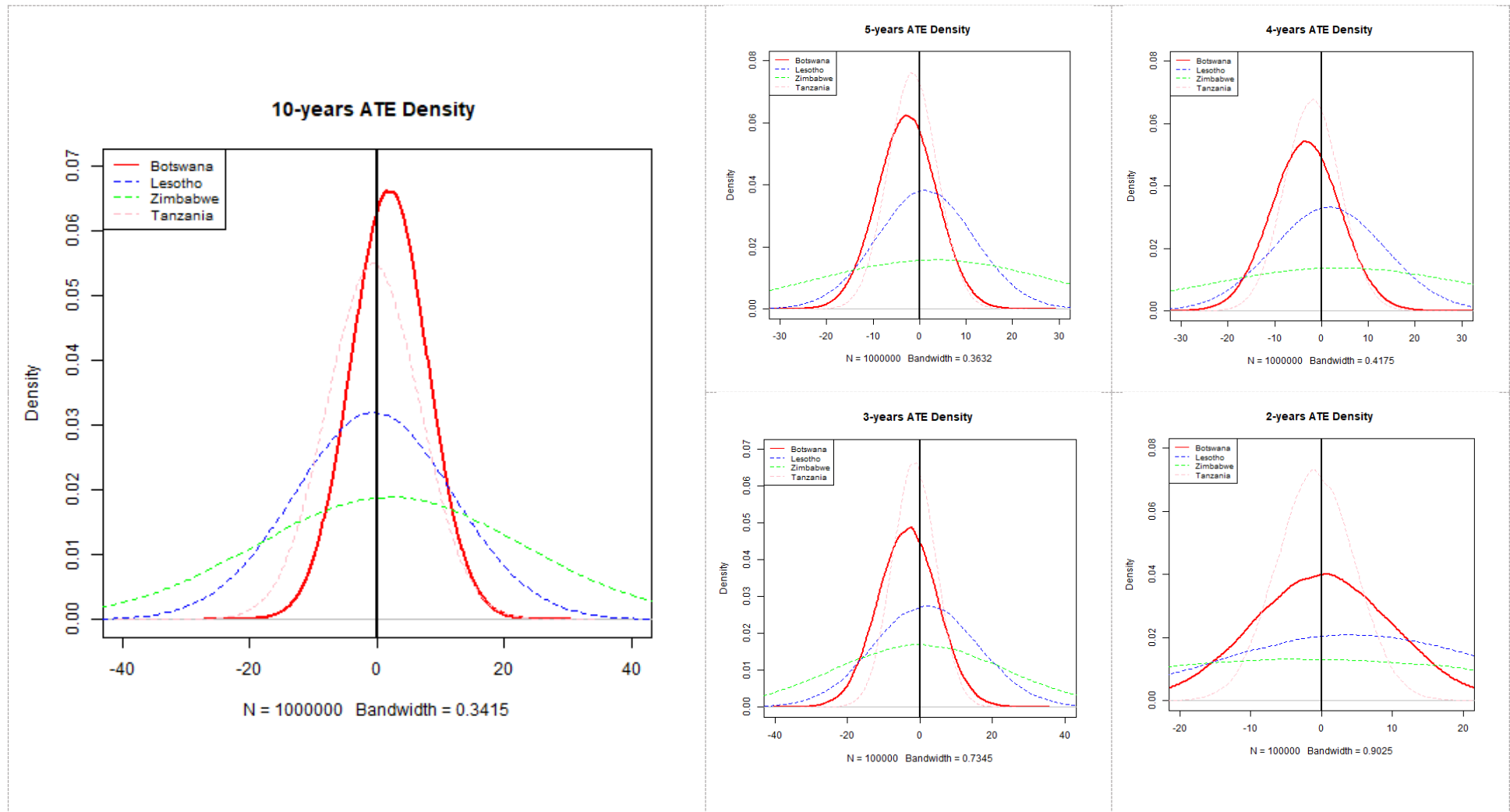


Figure J.3 – Botswana and Controls’ Placebo with Donor Pool Countries in Europe

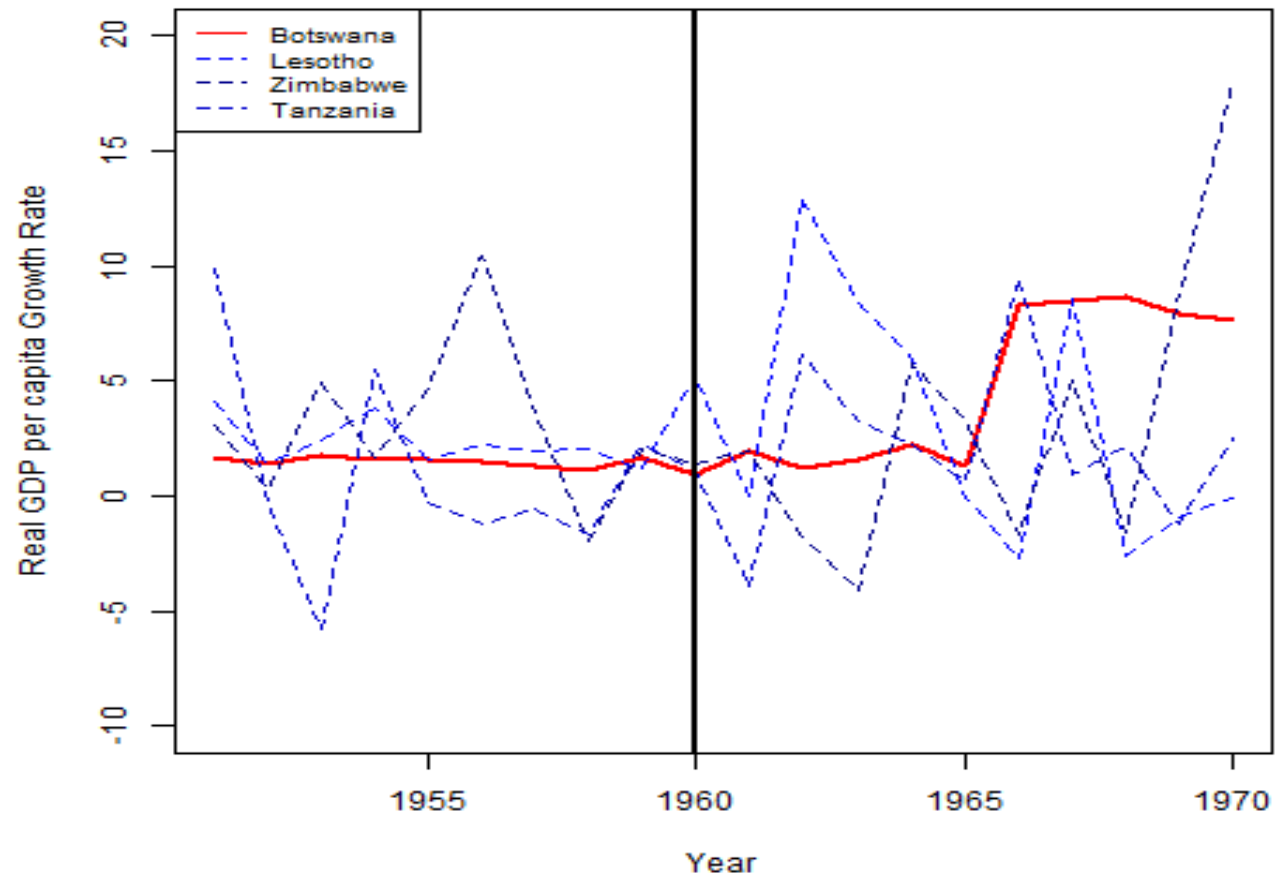


Table J.3 - Botswana's Donor Pool Weights

	Weights	Countries
1	0.00	Afghanistan
2	0.00	Albania
3	0.00	Algeria
4	0.00	Angola
10	0.00	Bahrain
15	0.00	Benin
16	0.00	Bolivia
19	0.00	Brazil
20	0.00	Bulgaria
21	0.00	Burkina Faso
22	0.00	Burundi
23	0.00	Cambodia
26	0.00	Cape Verde
27	0.00	Central African Republic
28	0.00	Chad
30	0.13	China
31	0.00	Colombia
32	0.00	Comoros
35	0.00	Cuba
38	0.00	Democratic Republic Of The Congo
40	0.00	Djibouti
41	0.00	Dominican Republic
42	0.00	Ecuador
43	0.00	Egypt
44	0.00	El Salatviador
45	0.00	Equatorial Guinea
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
54	0.00	Ghana
55	0.00	Greece
56	0.00	Guatemala
57	0.00	Guinea-Bissau
58	0.00	Guinea
59	0.00	Haiti

	Weights	Countries
60	0.00	Honduras
62	0.00	Hungary
65	0.00	Indonesia
66	0.00	Iraq
72	0.00	Jordan
74	0.00	Kenya
75	0.00	Kuwait
78	0.00	Lebanon
79	0.60	Lesotho
80	0.00	Liberia
84	0.00	Madagascar
85	0.00	Malawi
86	0.00	Malaysia
87	0.00	Mali
89	0.00	Mauritania
91	0.00	Mexico
92	0.00	Mongolia
94	0.00	Morocco
95	0.00	Mozambique
96	0.00	Namibia
97	0.00	Nepal
100	0.00	Nicaragua
101	0.00	Niger
102	0.00	Nigeria
105	0.00	Oman
106	0.00	Pakistan
108	0.00	Panama
109	0.20	Paraguay
110	0.00	Peru
111	0.00	Philippines
112	0.00	Poland
113	0.00	Portugal
114	0.00	Qatar
116	0.00	Romania
119	0.00	Rwanda
120	0.00	São Tome And Principe
121	0.00	Saudi Arabia
122	0.00	Senegal
124	0.00	Seychelles
125	0.00	Sierra Leone
126	0.00	Singapore
128	0.00	South Africa
129	0.00	South Korea
131	0.00	Spain
136	0.07	Tanzania
137	0.00	Thailand
138	0.00	Togo
140	0.00	Tunisia
143	0.00	Uganda
152	0.00	Yemen
153	0.00	Zambia
154	0.00	Zimbabwe

Table J.4 - Botswana Common Support

	Treated	Synthetic	Sample Mean
Child Mortality	194.82	194.97	238.96
Population Growth Rate	0.02	0.02	0.02
5-years Average GDP per capita	524.30	1088.67	3193.61
3-years prior Average GDP per capita Growth Rate	1.23	1.24	2.00

Figure J.4 - Botswana's Synthetic Control and its Controls' Placebos

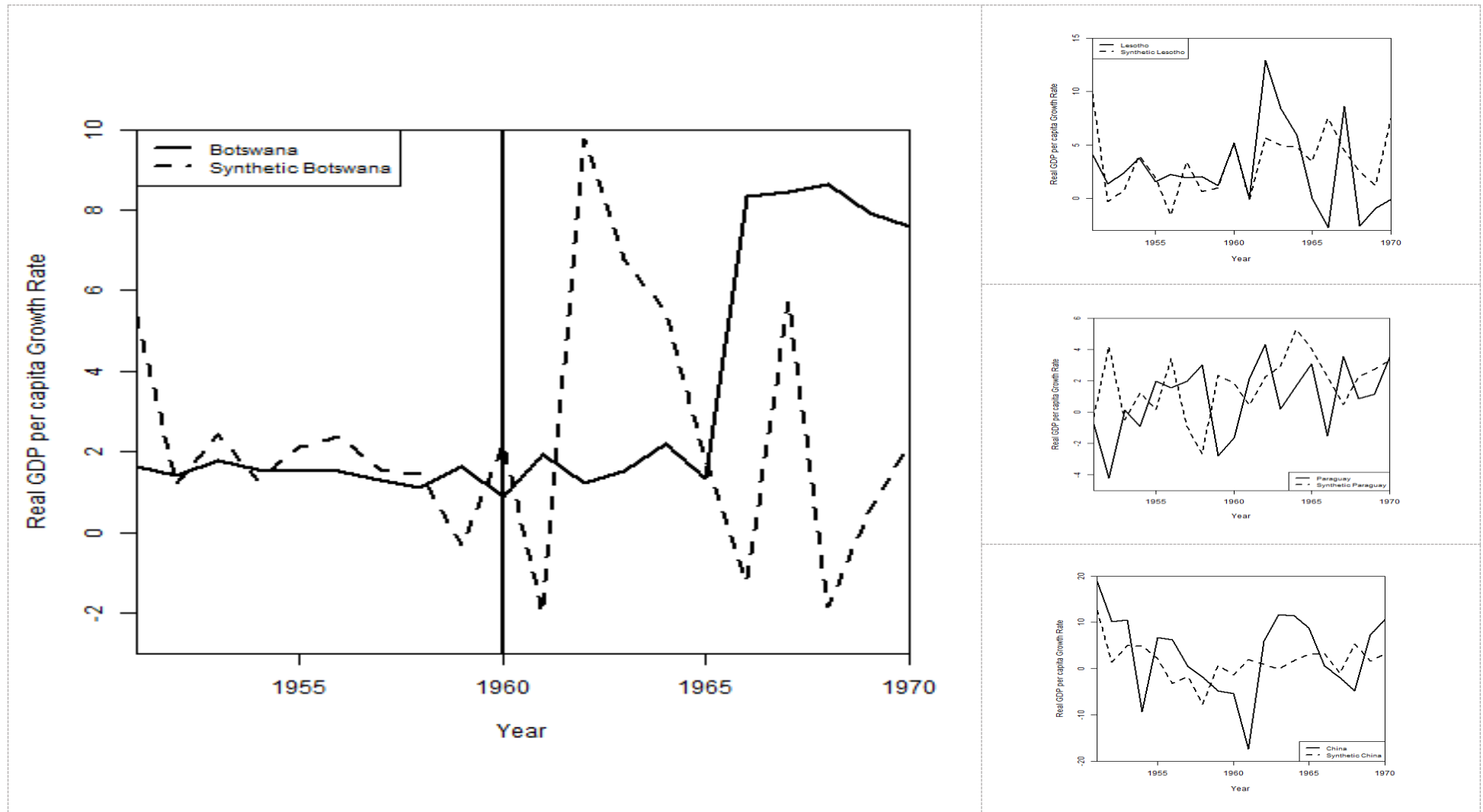


Figure J.5 - Botswana and its Controls' Density Plots of the Average Treatment Effect (ATE)

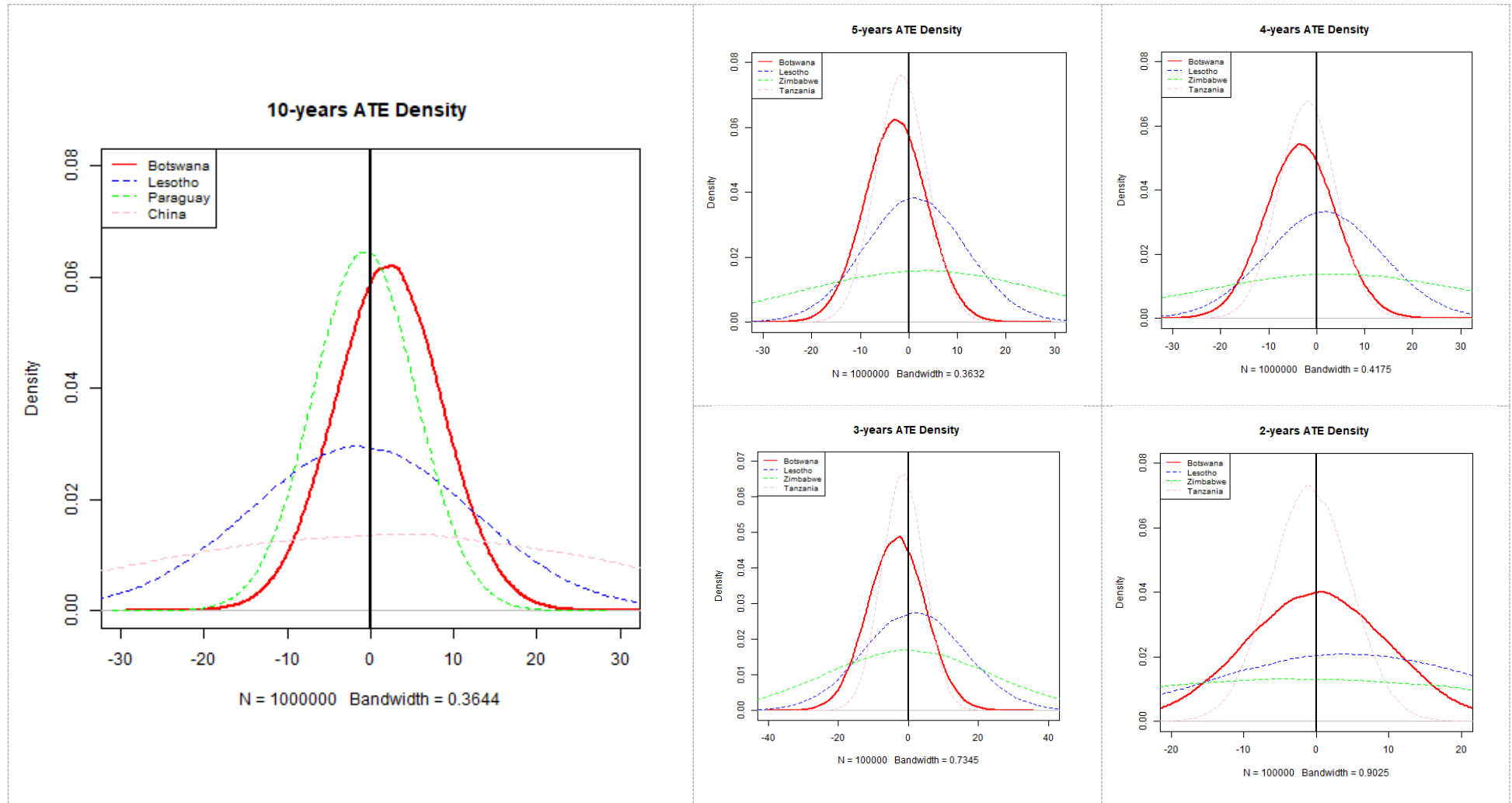
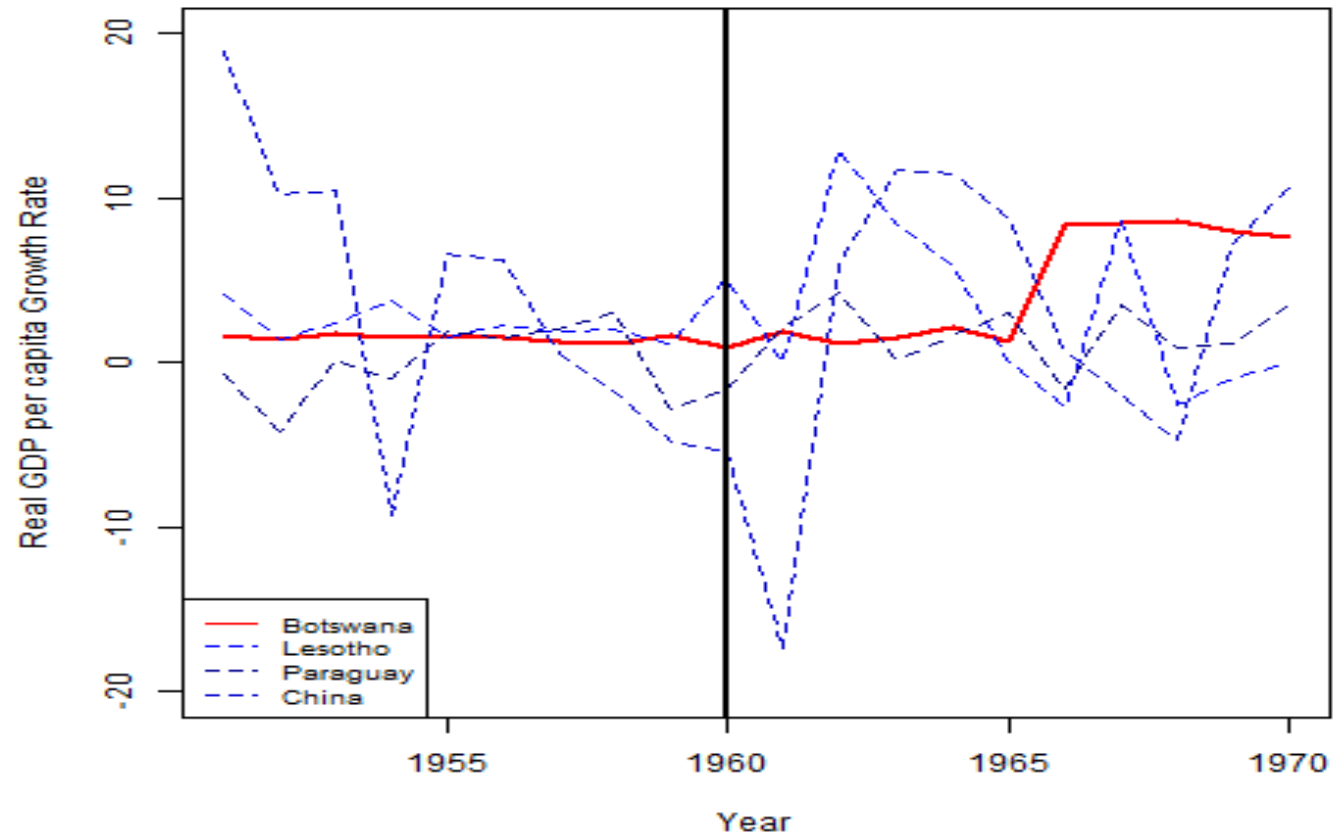


Figure J.6 – Botswana and Controls' Placebo



K| São Tomé & Príncipe

K.1| In Africa

Table K.1 - São Tomé & Príncipe's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
3	0.00	Algeria
4	0.00	Angola
21	0.00	Burkina Faso
22	0.00	Burundi
24	0.00	Cameroon
27	0.36	Central African Republic
28	0.00	Chad
32	0.00	Comoros
40	0.00	Djibouti
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
74	0.25	Kenya
80	0.00	Liberia
81	0.00	Libya
85	0.00	Malawi
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
102	0.00	Nigeria
120	0.00	Rwanda
125	0.39	Seychelles
126	0.00	Sierra Leone
140	0.00	Togo
142	0.00	Tunisia
145	0.00	Uganda
155	0.00	Zambia
156	0.00	Zimbabwe

Table K.2 - São Tomé & Príncipe Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Trade	27.60	799.17	3361.13
Child Mortality	90.00	103.29	174.46
Secondary Schooling	6.00	6.61	6.61
Population Growth Rate	0.02	0.02	0.03
5-years Average GDP per capita	2790.10	3113.76	2542.42
3-years prior Average GDP per capita Growth Rate	-3.35	2.03	-0.59

Figure K.1 - São Tomé & Príncipe's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

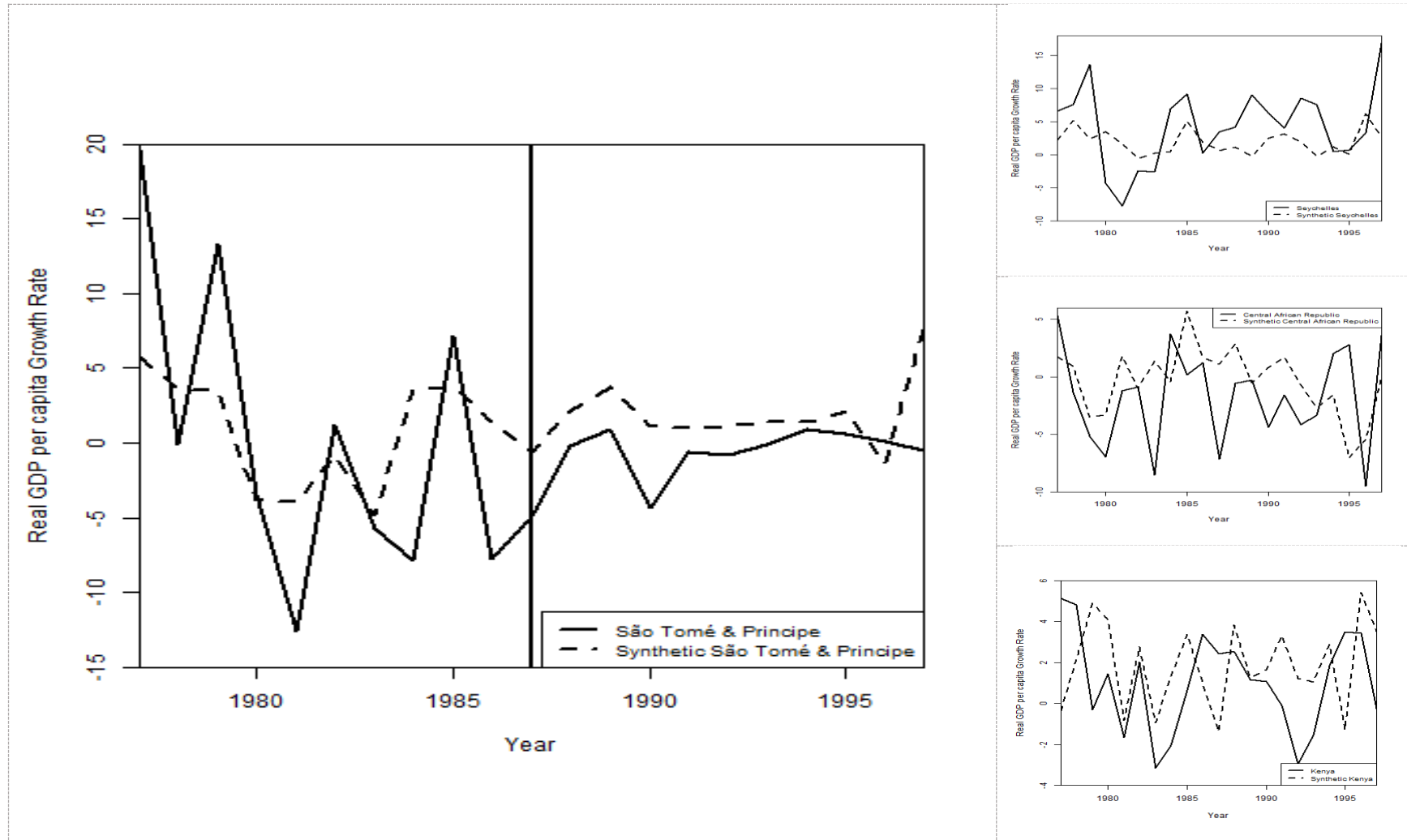


Figure K.2 - São Tomé & Príncipe and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

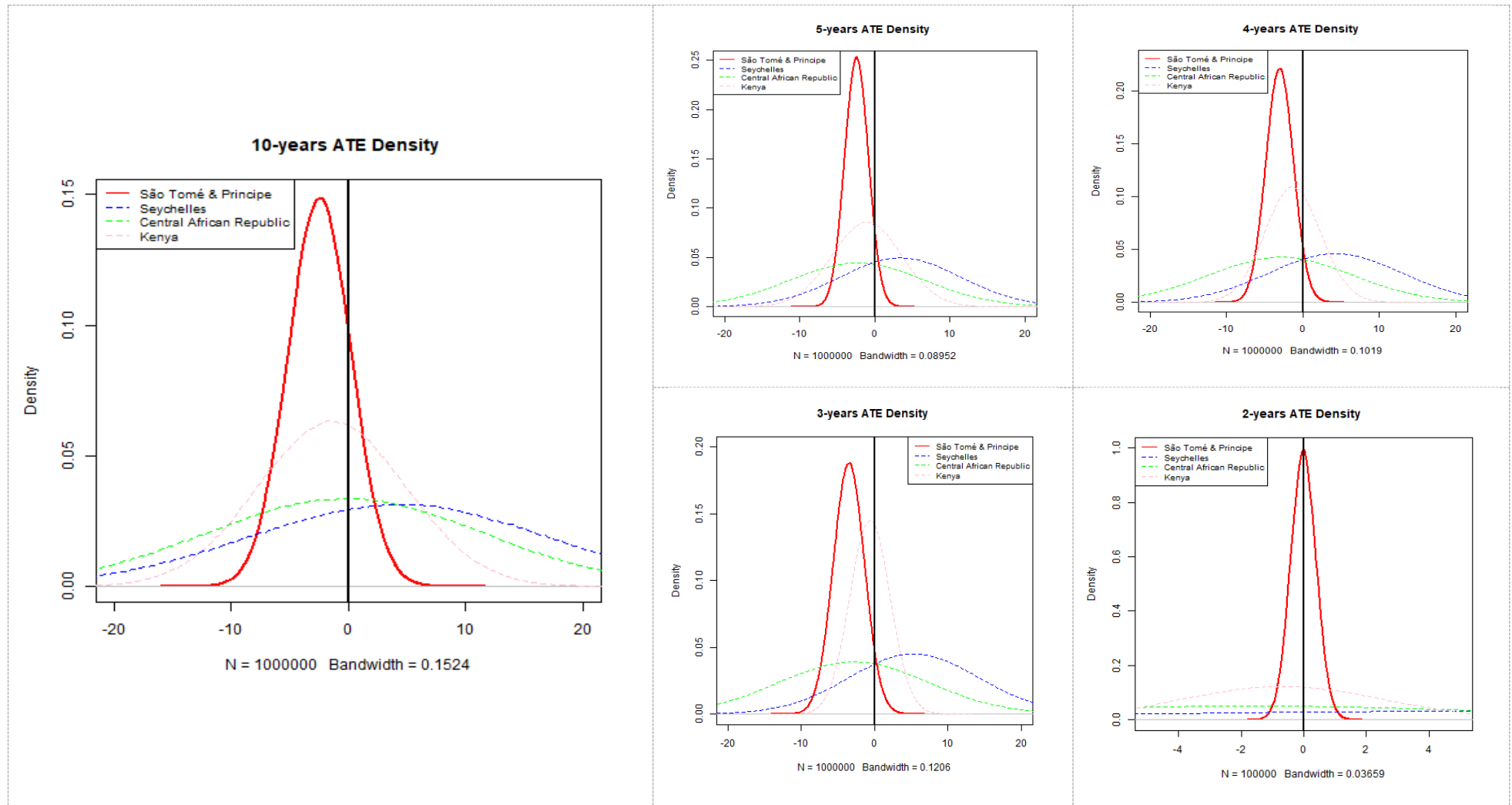


Figure K.3 – São Tomé & Príncipe and Controls' Placebo with Donor Pool Countries in Europe

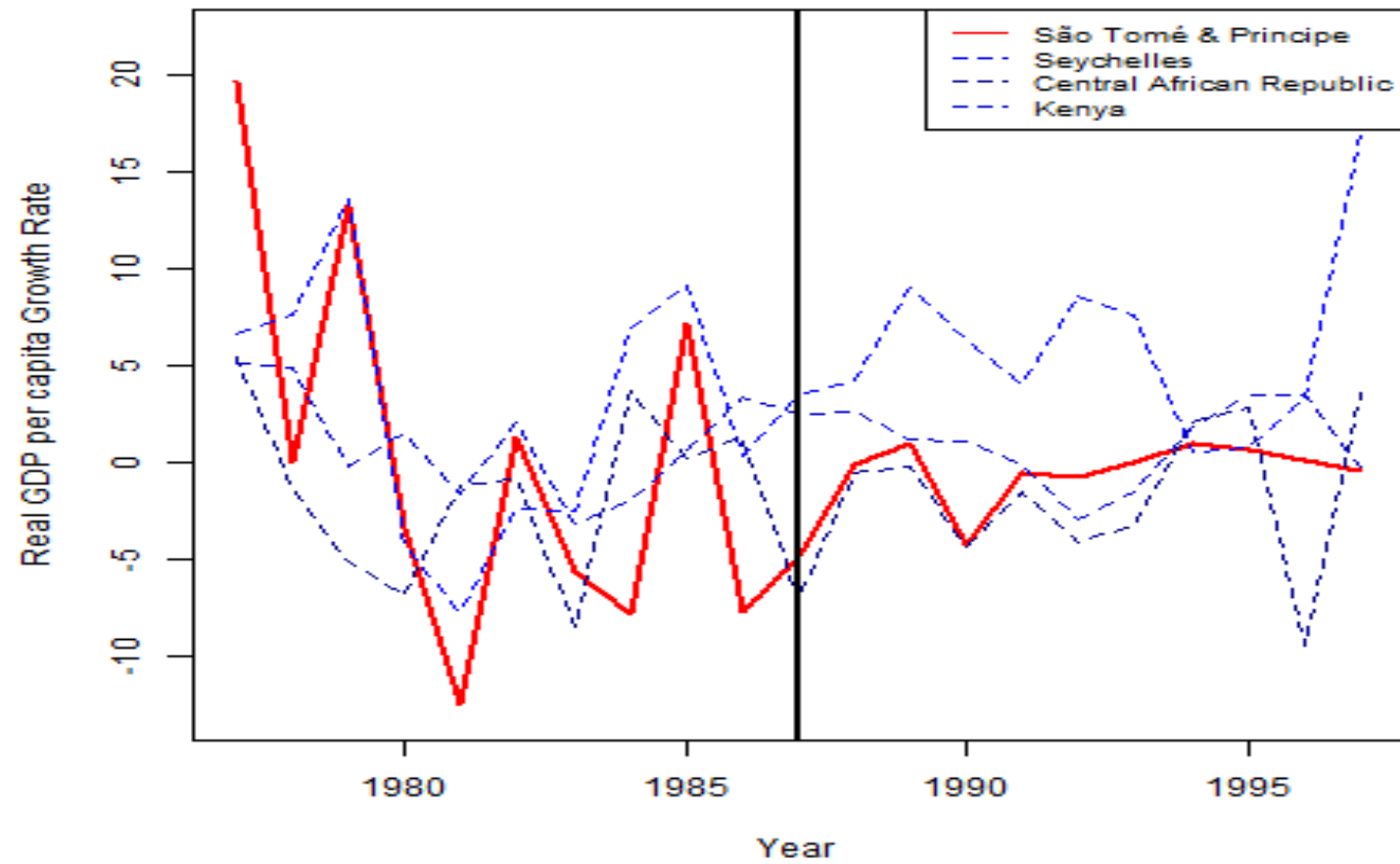


Table K.3 - São Tomé & Príncipe's Donor Pool Weights

	Weights	Countries
1	0.01	Afghanistan
2	0.34	Albania
3	0.00	Algeria
4	0.00	Angola
10	0.00	Bahrain
21	0.00	Burkina Faso
22	0.00	Burundi
23	0.00	Cambodia
24	0.00	Cameroon
27	0.00	Central African Republic
28	0.00	Chad
30	0.00	China
32	0.00	Comoros
35	0.00	Cuba
40	0.00	Djibouti
44	0.00	El Salvador
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
56	0.00	Guatemala
59	0.00	Haiti
65	0.00	Indonesia
66	0.00	Iraq

	Weights	Countries
72	0.00	Jordan
74	0.00	Kenya
75	0.00	Kuwait
78	0.00	Lebanon
80	0.00	Liberia
81	0.40	Libya
85	0.00	Malawi
86	0.00	Malaysia
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
102	0.00	Nigeria
106	0.00	Oman
107	0.00	Pakistan
115	0.00	Qatar
120	0.20	Rwanda
122	0.00	Saudi Arabia
125	0.00	Seychelles
126	0.00	Sierra Leone
127	0.00	Singapore
139	0.00	Thailand
140	0.00	Togo
142	0.00	Tunisia
145	0.00	Uganda
153	0.00	Vietnam
155	0.00	Zambia
156	0.04	Zimbabwe

Table K.4 - São Tomé & Príncipe Common Support

	Treated	Synthetic	Sample Mean
Trade	27.60	7617.51	8359.93
Child Mortality	90.00	96.64	133.78
Secondary Schooling	6.00	6.99	6.48
Population Growth Rate	0.02	0.03	0.03
5-years Average GDP per capita	2790.10	4699.98	4770.03
3-years prior Average GDP per capita Growth Rate	-3.35	-3.31	0.07

Figure K.4 - São Tomé & Príncipe's Synthetic Control and its Controls' Placebos

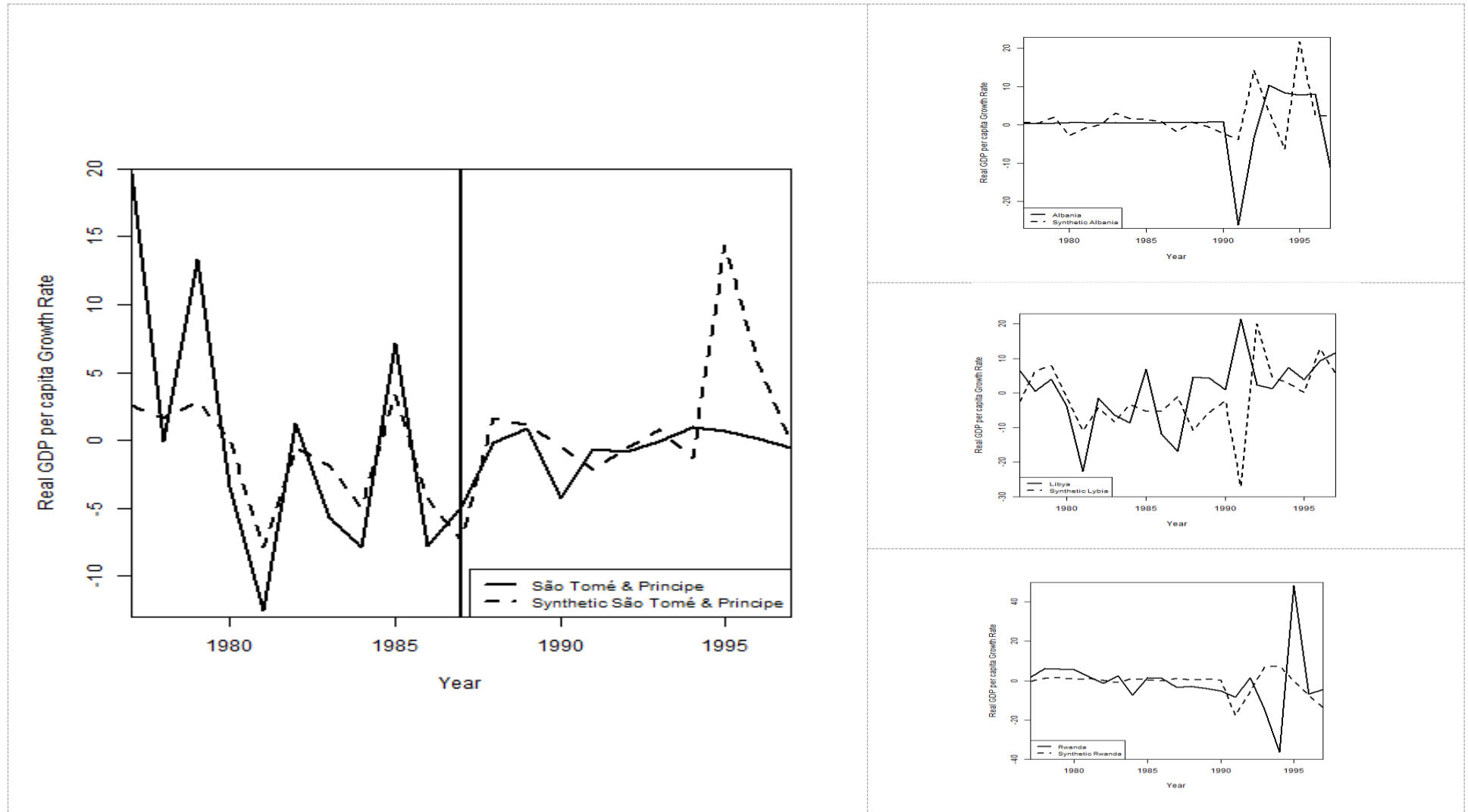


Figure K.5 - São Tomé & Príncipe and its Controls' Density Plots of the Average Treatment Effect (ATE)

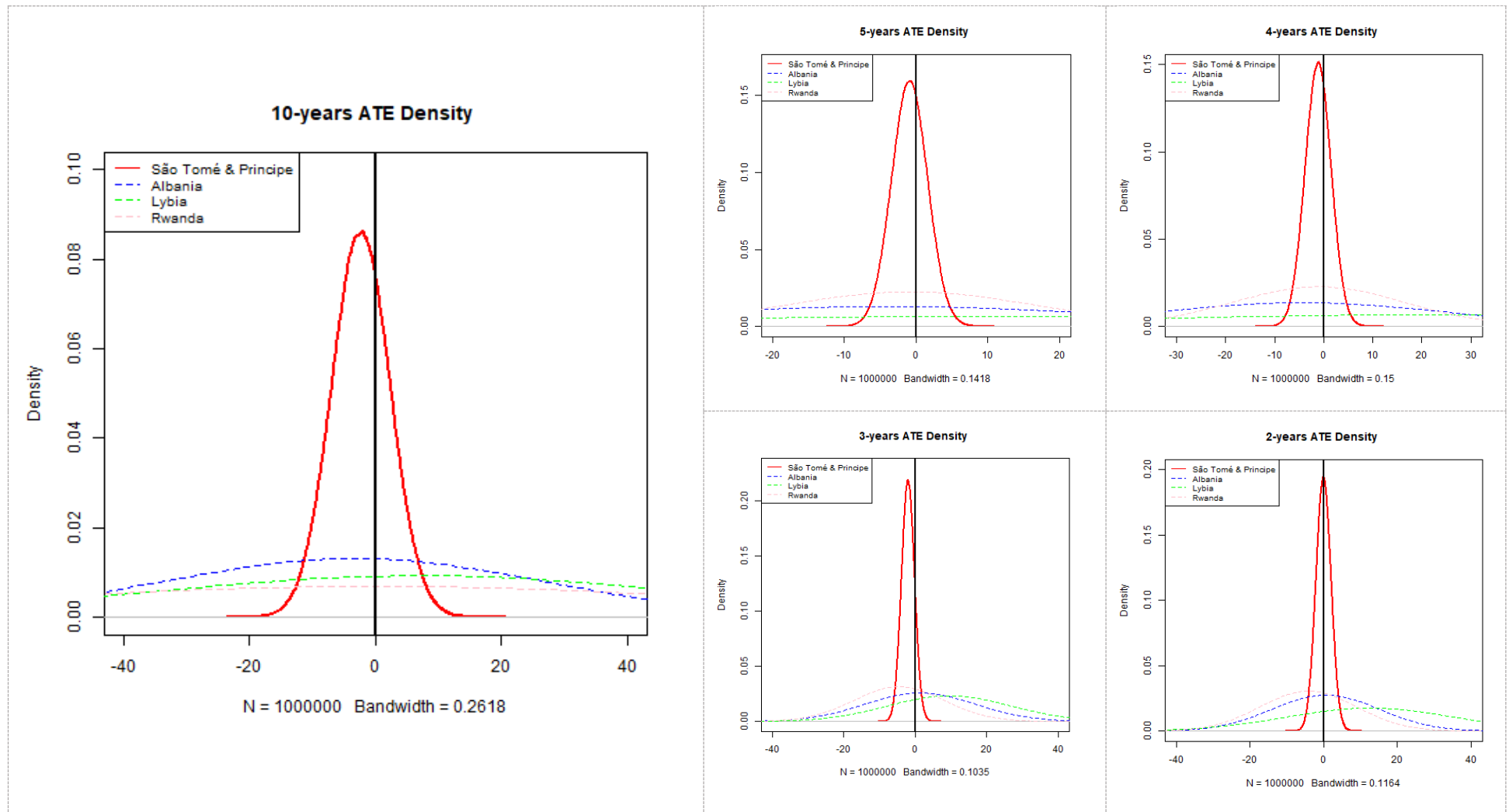
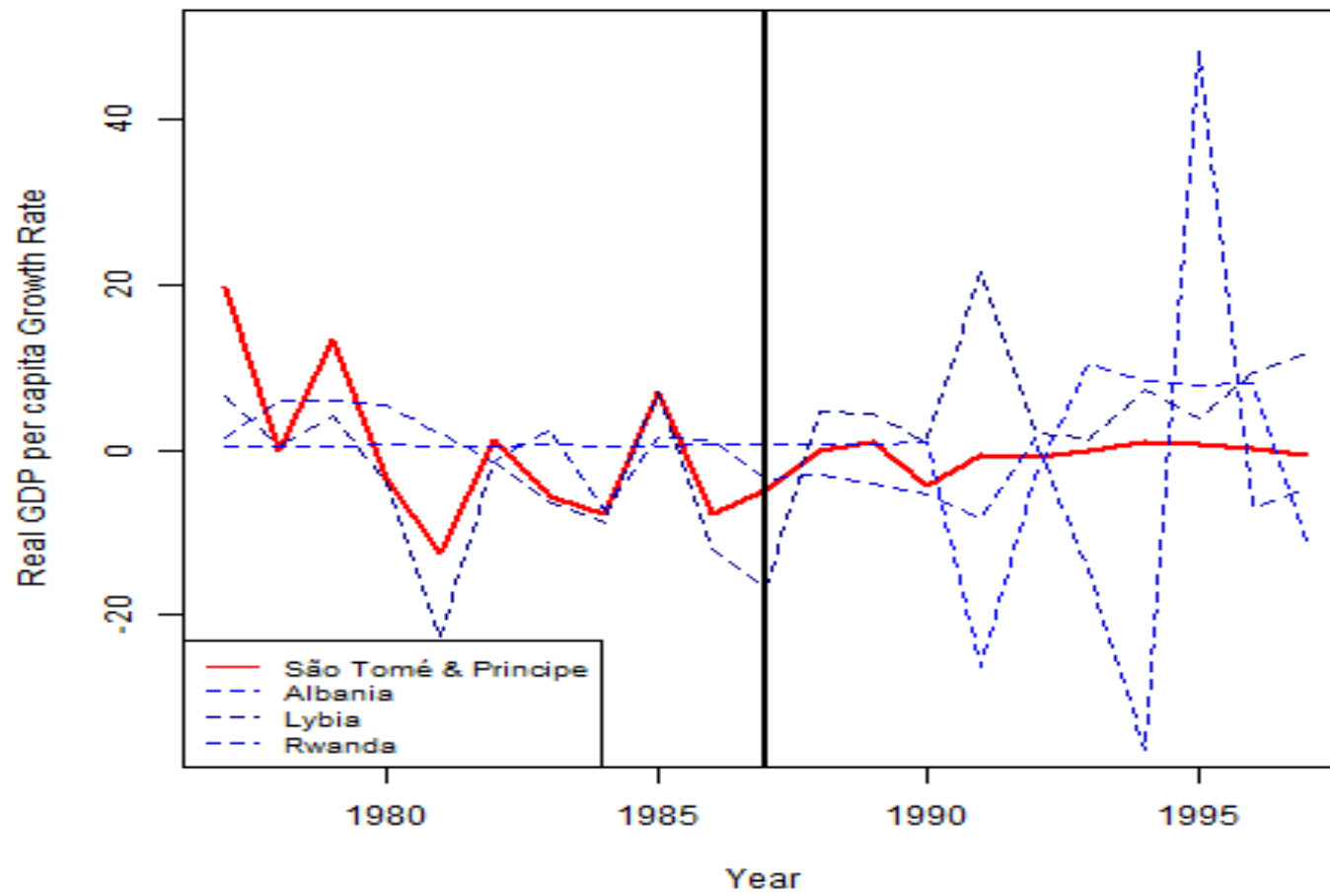


Figure K.6 – São Tomé & Príncipe and Controls' Placebo



L| Mauritius

L.1| In Africa

Table L.1 - Mauritius's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
3	0.00	Algeria
4	0.00	Angola
15	0.00	Benin
21	0.00	Burkina Faso
27	0.00	Central African Republic
28	0.00	Chad
38	0.00	Democratic Republic of the Congo
43	0.00	Egypt
47	0.00	Ethiopia
50	1.00	Gabon
51	0.00	The Gambia
54	0.00	Ghana
57	0.00	Guinea-Bissau
58	0.00	Guinea
74	0.00	Kenya
80	0.00	Liberia
81	0.00	Libya
84	0.00	Madagascar
85	0.00	Malawi
87	0.00	Mali
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
101	0.00	Niger
102	0.00	Nigeria
119	0.00	Rwanda
122	0.00	Senegal
125	0.00	Sierra Leone
128	0.00	South Africa
136	0.00	Tanzania
138	0.00	Togo
140	0.00	Tunisia
143	0.00	Uganda
153	0.00	Zambia
154	0.00	Zimbabwe

Table L.2 - Mauritius Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Trade	135.93	139.27	429.19
Child Mortality	95.47	214.18	268.91
Population Growth Rate	0.03	0.01	0.02
5-years Average GDP per capita	4645.50	4033.26	1617.54
3-years prior Average GDP per capita Growth Rate	1.43	2.81	2.47

Figure L.1 - Mauritius's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

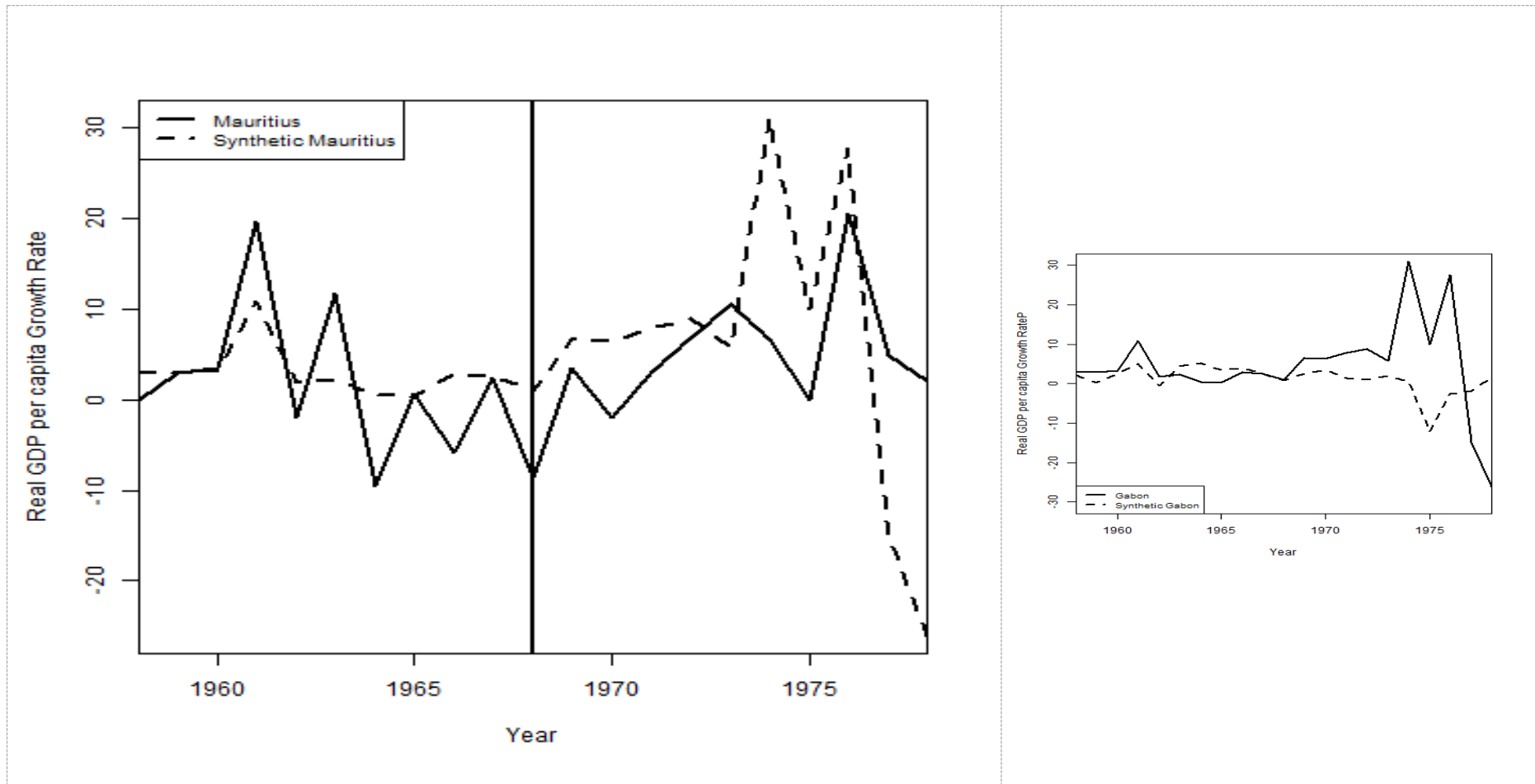


Figure L.2 - Mauritius and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

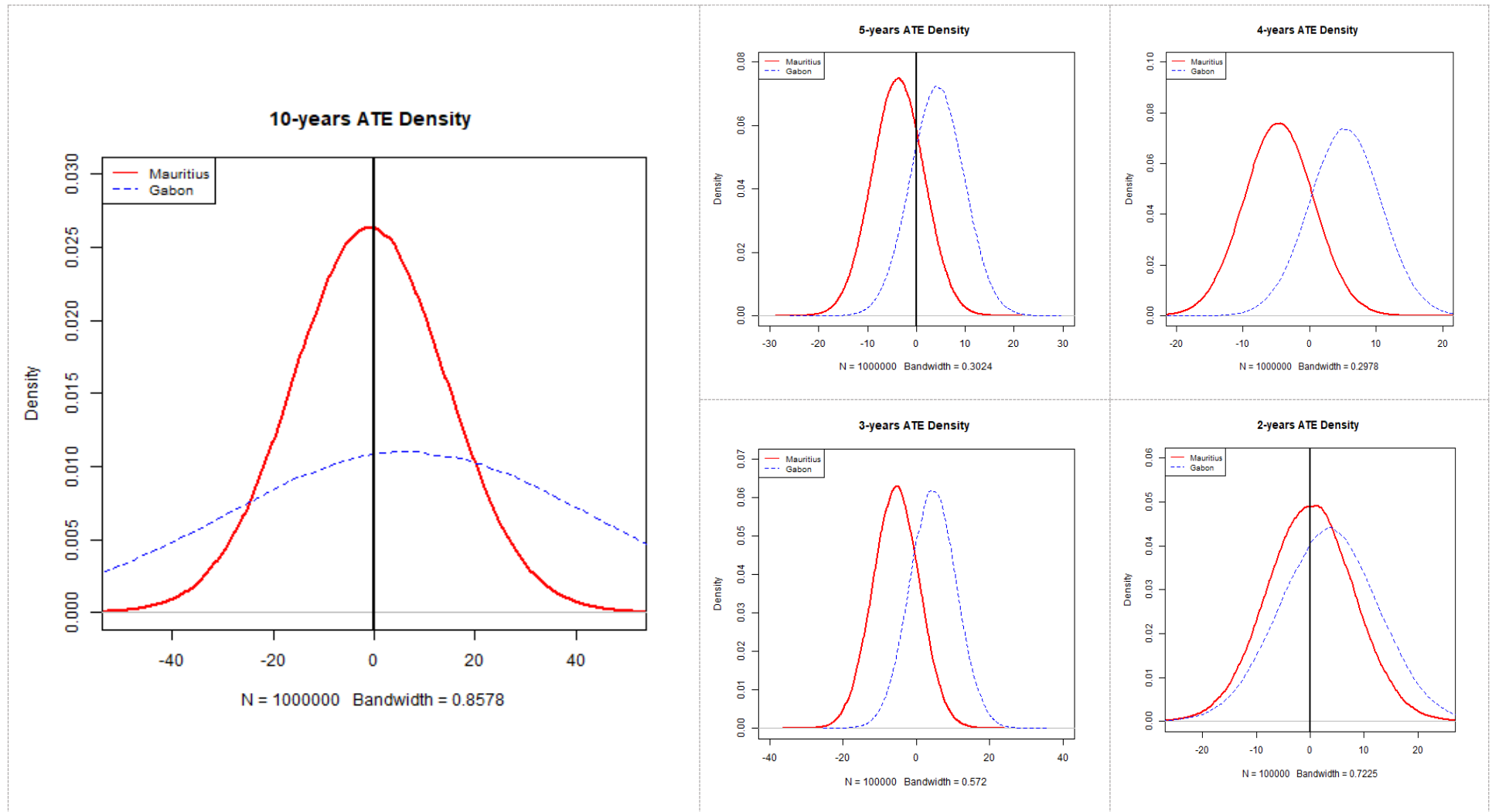


Figure L.3 – Mauritius and Controls' Placebo with Donor Pool Countries in Europe

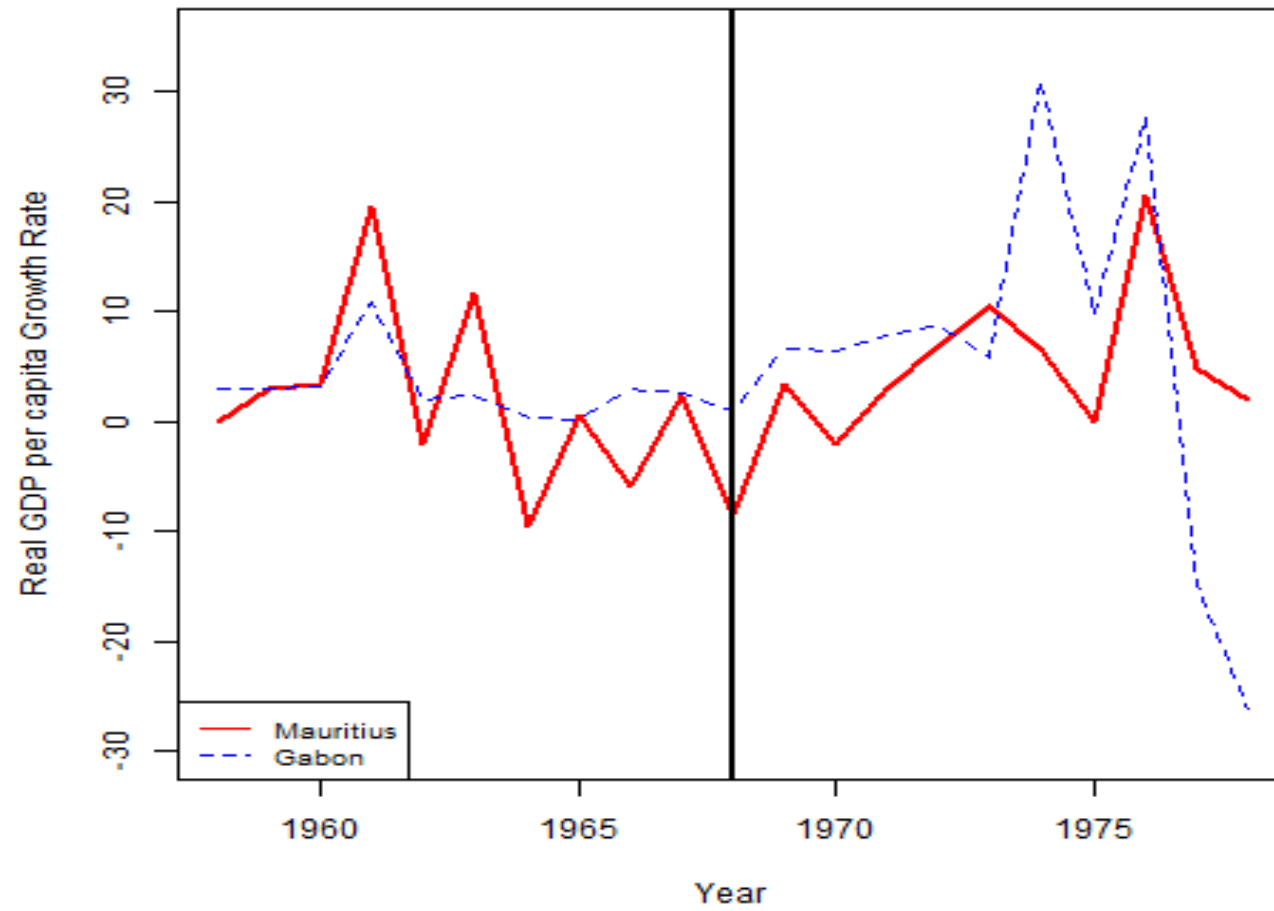


Table L.3 - Mauritius's Donor Pool Weights

	Weights	Countries
1	0.00	Afghanistan
2	0.00	Albania
3	0.00	Algeria
4	0.00	Angola
15	0.00	Benin
16	0.00	Bolivia
19	0.00	Brazil
20	0.00	Bulgaria
21	0.00	Burkina Faso
23	0.00	Cambodia
27	0.00	Central African Republic
28	0.00	Chad
30	0.00	China
31	0.00	Colombia
35	0.00	Cuba
38	0.00	Democratic Republic of the Congo
41	0.00	Dominican Republic
42	0.00	Ecuador
43	0.00	Egypt
44	0.00	El Salvador
47	0.00	Ethiopia
50	0.75	Gabon
51	0.00	The Gambia
54	0.00	Ghana
56	0.00	Guatemala
57	0.00	Guinea-Bissau
58	0.00	Guinea
59	0.00	Haiti
60	0.00	Honduras
62	0.00	Hungary
65	0.00	Indonesia
66	0.00	Iraq
72	0.24	Jordan
74	0.00	Kenya
75	0.01	Kuwait
78	0.00	Lebanon
80	0.00	Liberia
81	0.00	Libya
84	0.00	Madagascar
85	0.00	Malawi
86	0.00	Malaysia
87	0.00	Mali
89	0.00	Mauritania

	Weights	Countries
91	0.00	Mexico
92	0.00	Mongolia
94	0.00	Morocco
95	0.00	Mozambique
100	0.00	Nicaragua
101	0.00	Niger
102	0.00	Nigeria
106	0.00	Pakistan
108	0.00	Panama
109	0.00	Paraguay
110	0.00	Peru
111	0.00	Philippines
112	0.00	Poland
116	0.00	Romania
119	-0.00	Rwanda
121	0.00	Saudi Arabia
122	0.00	Senegal
125	0.00	Sierra Leone
126	0.00	Singapore
128	0.00	South Africa
129	0.00	South Korea
136	0.00	Tanzania
137	0.00	Thailand
138	0.00	Togo
140	0.00	Tunisia
143	0.00	Uganda
152	0.00	Yemen
153	0.00	Zambia
154	0.00	Zimbabwe

Table L.4 - Mauritius Common Support

	Treated	Synthetic	Sample Mean
Trade	135.93	155.15	760.46
Child Mortality	95.47	193.97	211.43
Population Growth Rate	0.03	0.03	0.03
5-years Average GDP per capita	4645.50	4240.57	2904.00
3-years prior Average GDP per capita Growth Rate	-2.88	0.63	2.56

Figure L.4 - Mauritius's Synthetic Control and its Controls' Placebos

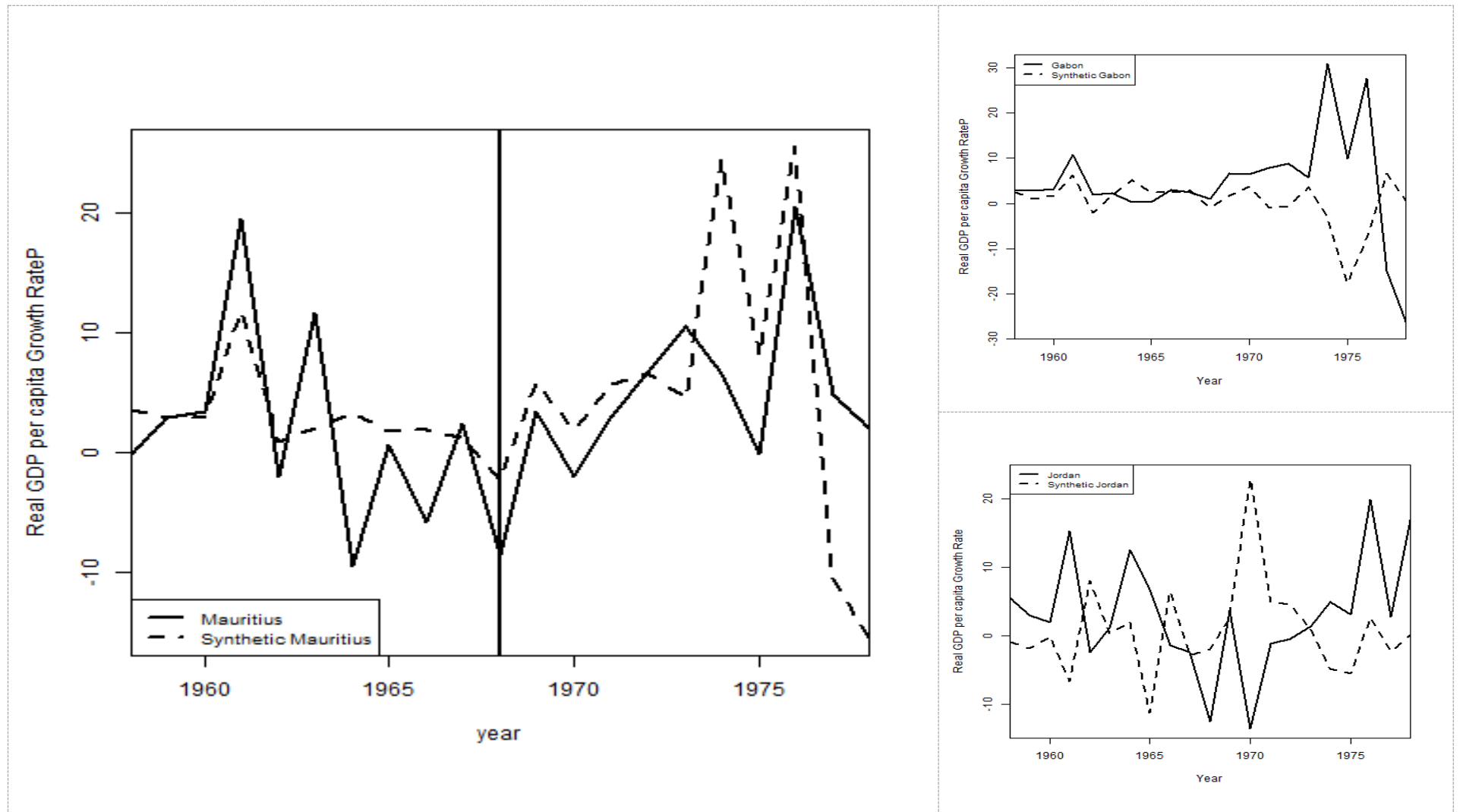


Figure L.5 - Mauritius and its Controls' Density Plots of the Average Treatment Effect (ATE)

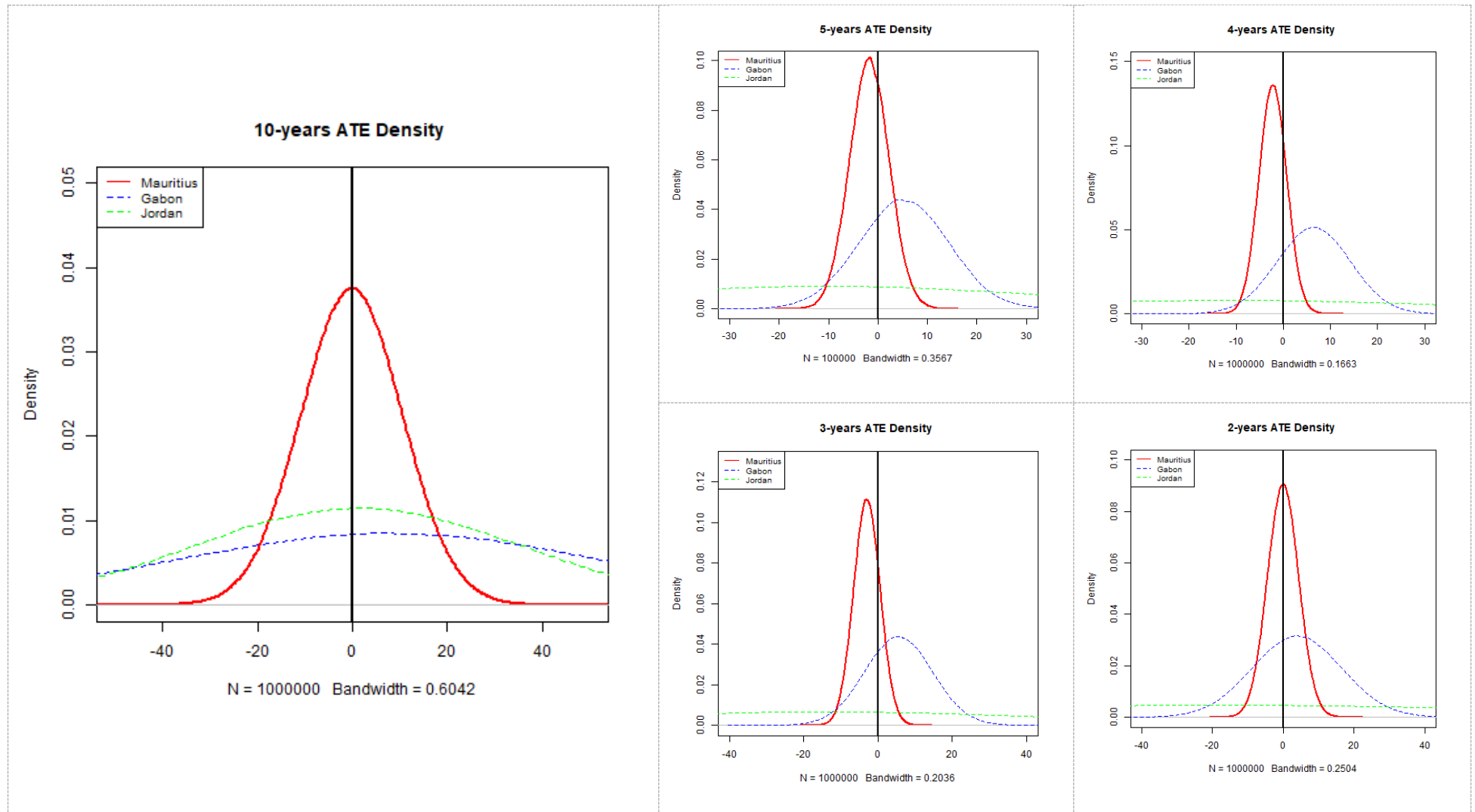
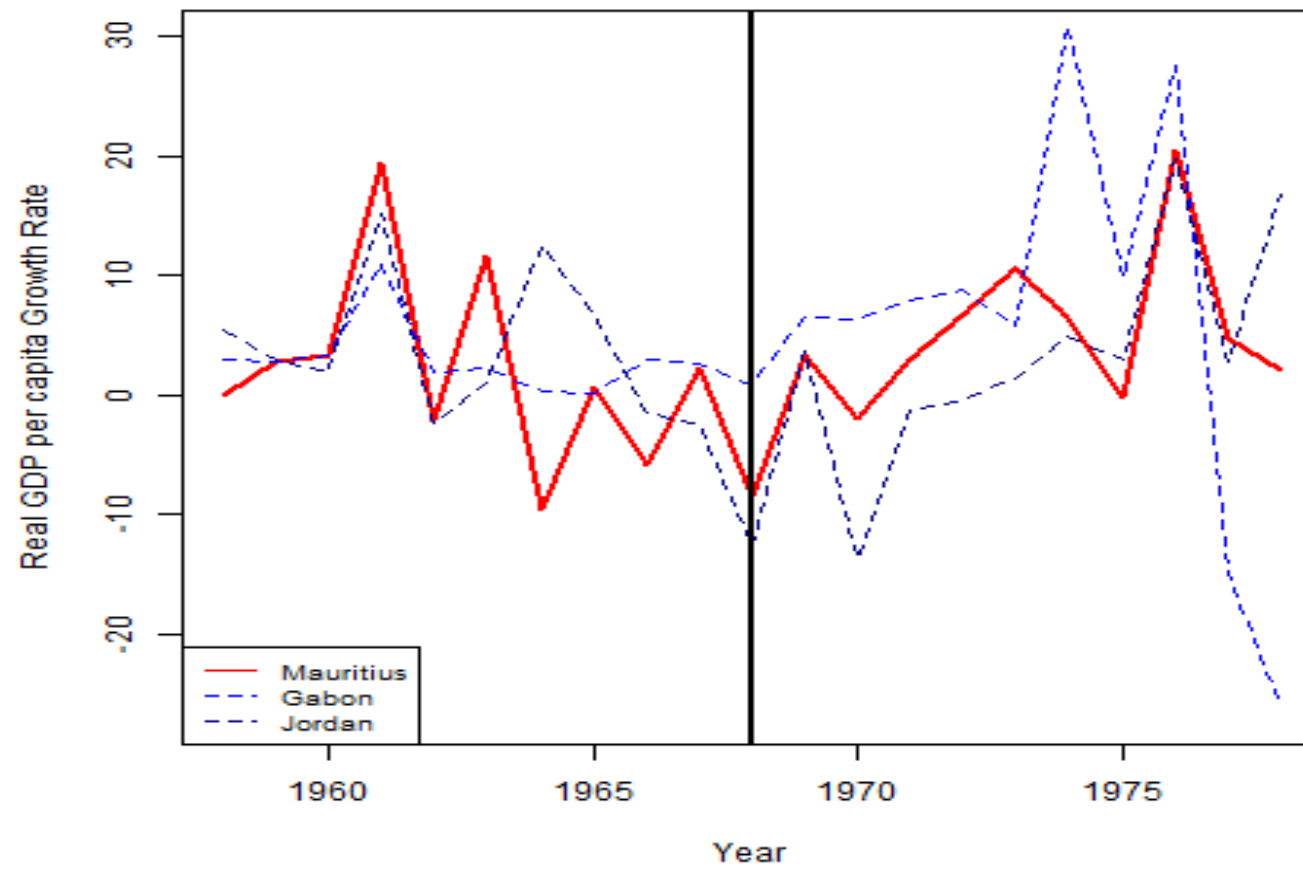


Figure L.6 – Mauritius and Controls' Placebo



M| South Korea

M.1|In Asia and Oceania

Table M.1 - South Korea's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
1	0.00	Afghanistan
10	0.00	Bahrain
11	0.11	Bangladesh
23	0.07	Cambodia
30	0.15	China
65	0.15	Indonesia
66	0.00	Iraq
72	0.00	Jordan
75	0.00	Kuwait
78	0.01	Lebanon
86	0.00	Malaysia
97	0.00	Nepal
106	0.00	Oman
107	0.00	Pakistan
115	0.00	Qatar
122	0.00	Saudi Arabia
127	0.51	Singapore
139	0.00	Thailand
147	0.00	United Arab Emirates

Table M.2 - South Korea Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Trade	20522.35	16264.95	10233.98
Investment	29.55	29.51	14.75
Child Mortality	44.26	82.06	114.11
Secondary Schooling	6.00	5.94	6.07
Population Growth Rate	0.02	0.02	0.04
5-years Average GDP per capita	4422.71	5724.84	10877.28
3-years prior Average GDP per capita Growth Rate	4.60	5.55	2.01

Figure M.1 - South Korea's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

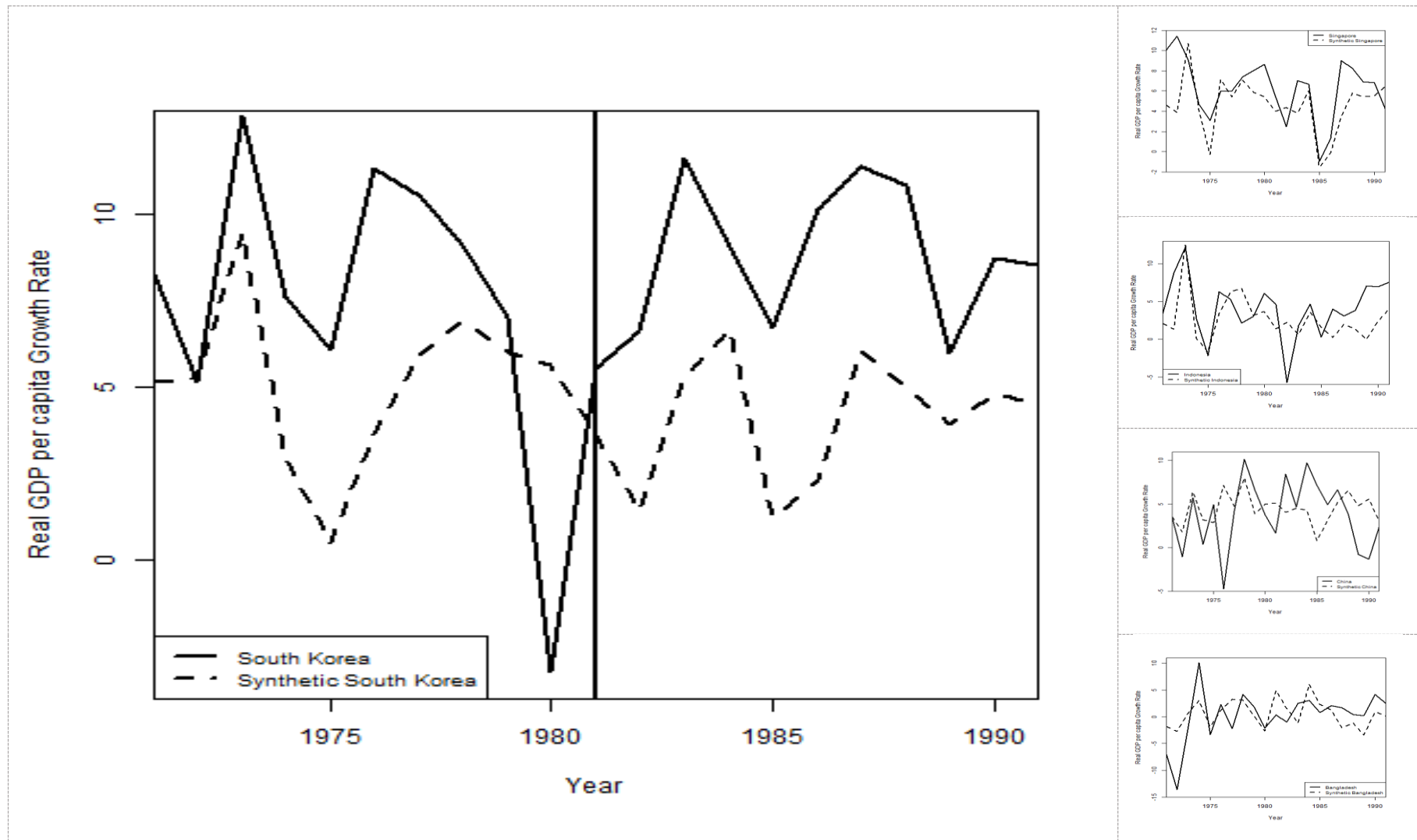


Figure M.2 - South Korea and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

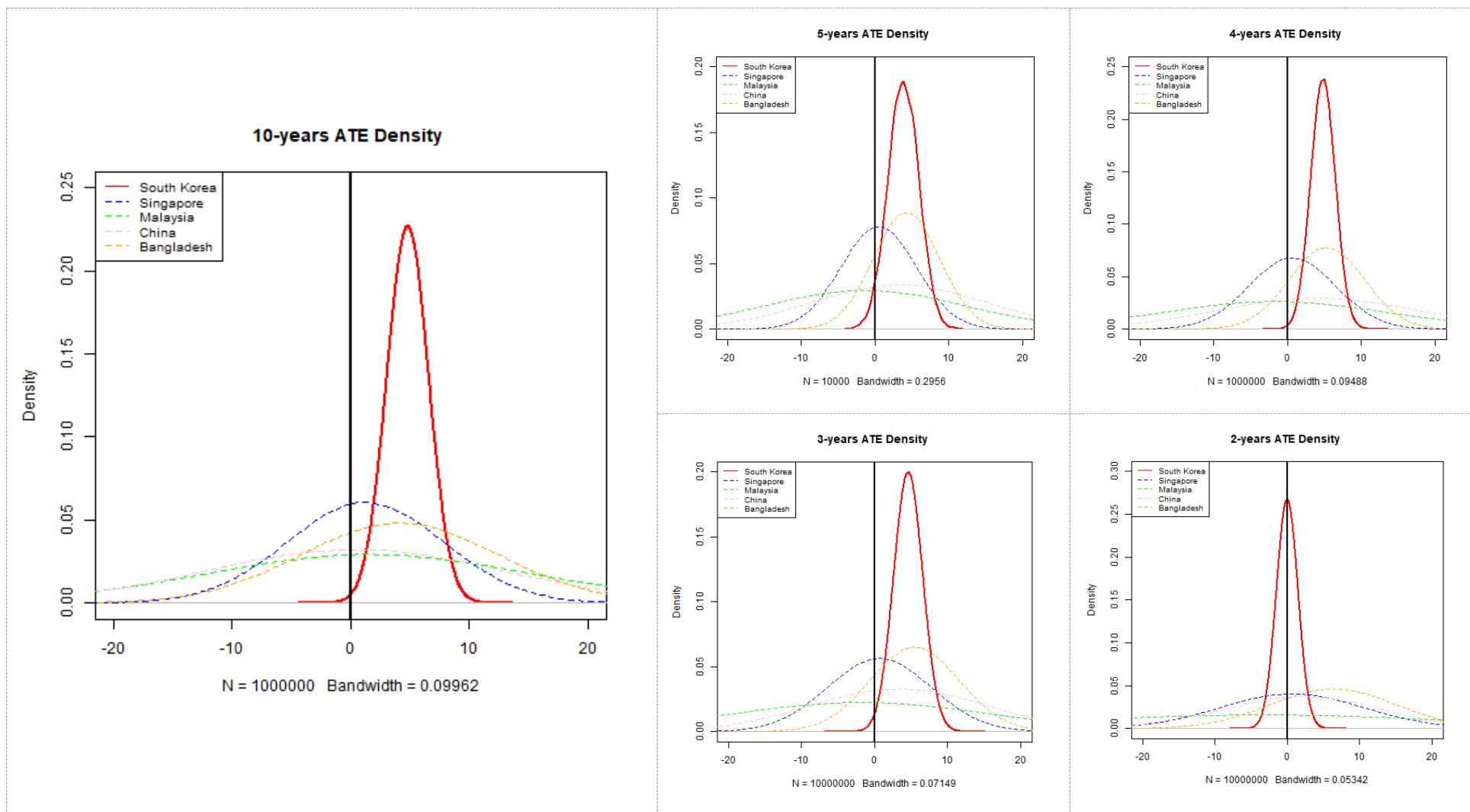


Figure M.3 – South Korea and Controls' Placebo with Donor Pool Countries in Europe

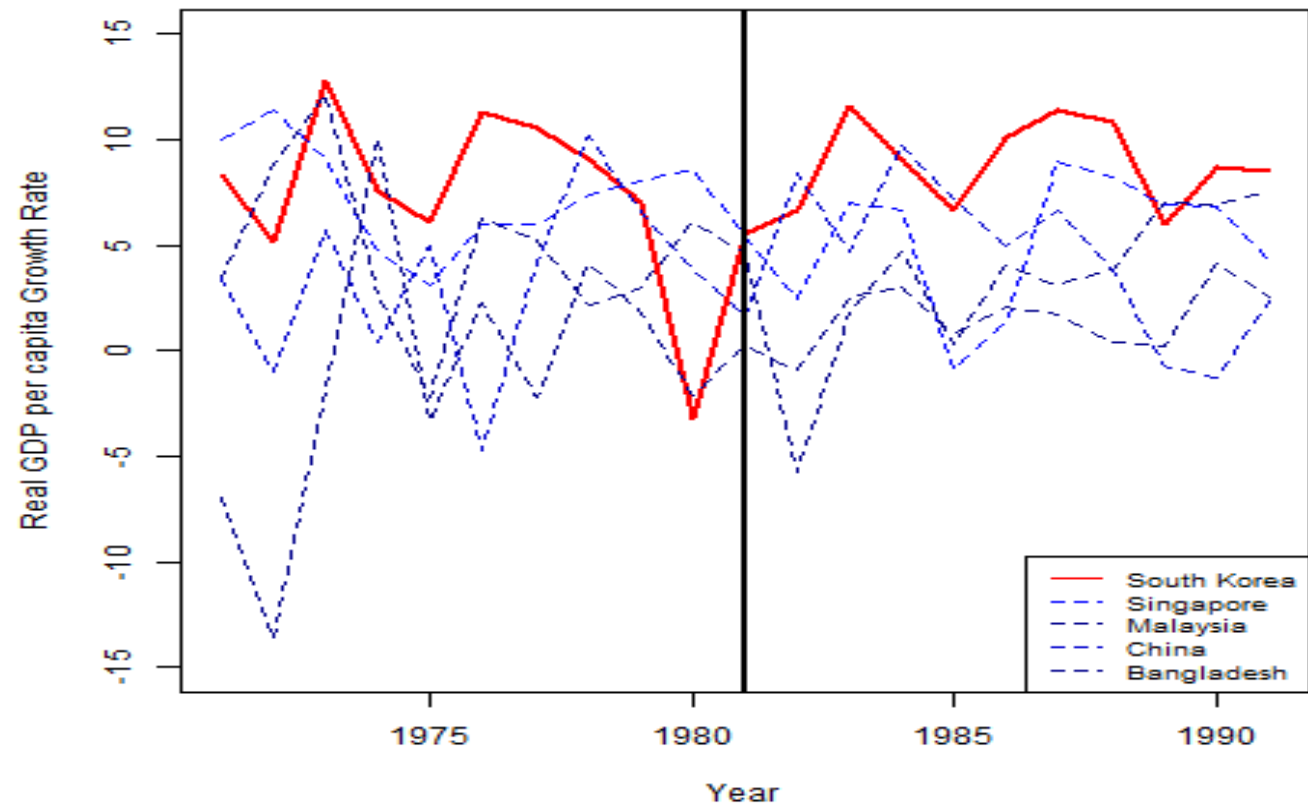


Table M.3 - South Korea's Donor Pool Weights

	Weights	Countries
1	0.00	Afghanistan
2	0.00	Albania
3	0.00	Algeria
4	0.00	Angola
10	0.00	Bahrain
11	0.00	Bangladesh
15	0.00	Benin
21	0.00	Burkina Faso
22	0.00	Burundi
23	0.01	Cambodia
24	0.00	Cameroon
27	0.00	Central African Republic
28	0.00	Chad
30	0.07	China
32	0.00	Comoros
35	0.00	Cuba
40	0.00	Djibouti
44	0.00	El Salvador
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
54	0.00	Ghana
56	0.00	Guatemala
59	0.00	Haiti
65	0.00	Indonesia
66	0.00	Iraq
72	0.00	Jordan
74	0.00	Kenya
75	0.00	Kuwait
78	0.00	Lebanon
80	0.00	Liberia
81	0.00	Libya
84	0.00	Madagascar
85	0.00	Malawi
86	0.00	Malaysia
87	0.00	Mali
89	0.00	Mauritania
91	0.00	Mexico
94	0.00	Morocco
95	0.00	Mozambique
97	0.00	Nepal

	Weights	Countries
101	0.00	Niger
102	0.08	Nigeria
106	0.00	Oman
107	0.00	Pakistan
110	0.00	Paraguay
115	0.00	Qatar
120	0.00	Rwanda
121	0.00	Sao Tome and Principe
122	0.01	Saudi Arabia
125	0.00	Seychelles
126	0.00	Sierra Leone
127	0.82	Singapore
138	0.00	Tanzania
139	0.00	Thailand
140	0.00	Togo
142	0.00	Tunisia
145	0.00	Uganda
147	0.00	United Arab Emirates
155	0.00	Zambia
156	0.00	Zimbabwe

Table M.4 - South Korea Common Support

	Treated	Synthetic	Sample Mean
Trade	20522.35	20437.44	4797.04
Investment	29.55	36.35	13.88
Child Mortality	44.26	44.67	164.83
Secondary Schooling	6.00	6.00	6.45
Population Growth Rate	0.02	0.02	0.03
5-years Average GDP per capita	4422.71	8254.62	5204.55
3-years prior Average GDP per capita Growth Rate	4.60	6.18	0.71

Figure M.4 - South Korea's Synthetic Control and its Controls' Placebos

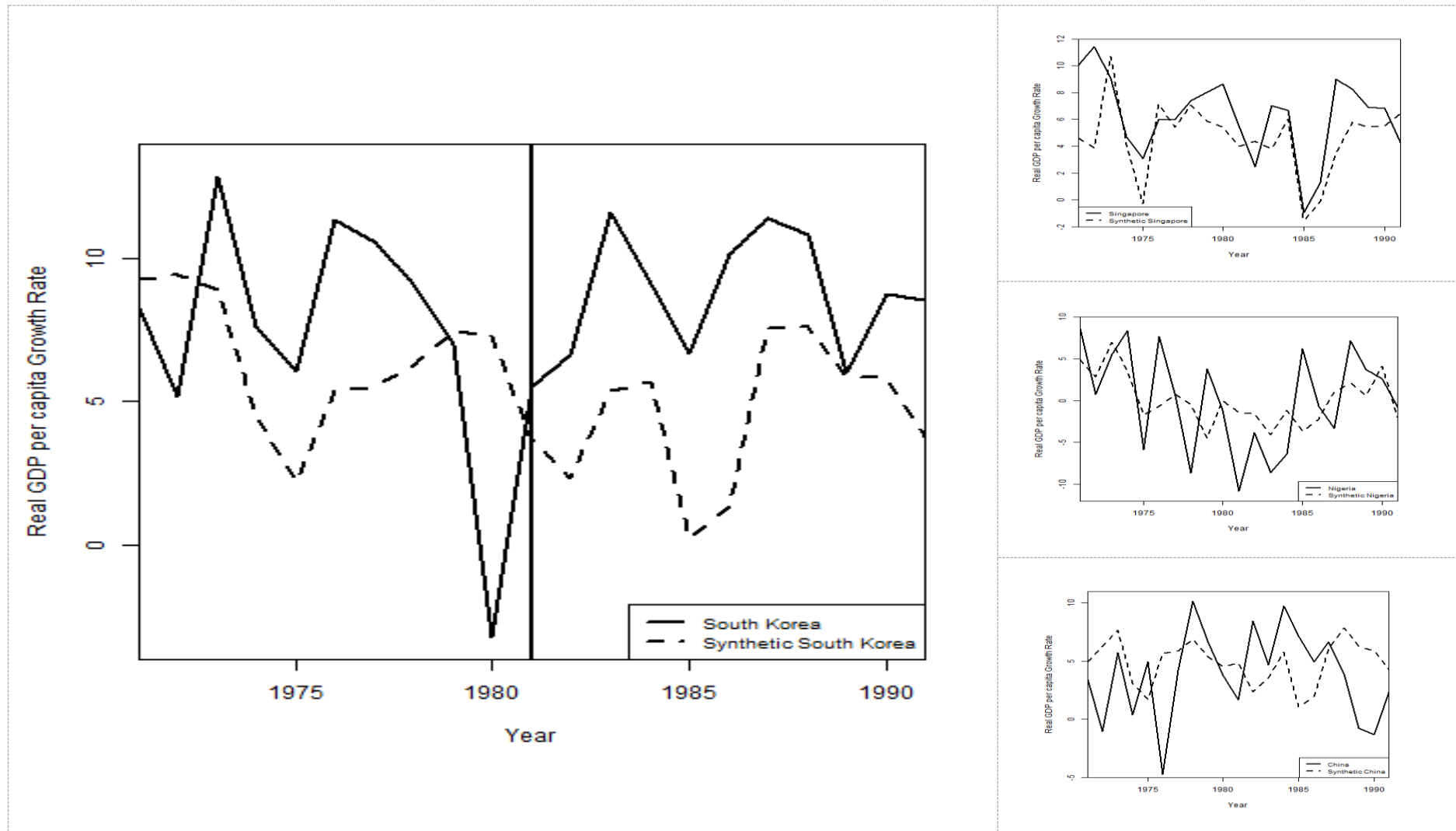


Figure M.5 - South Korea and its Controls' Density Plots of the Average Treatment Effect (ATE)

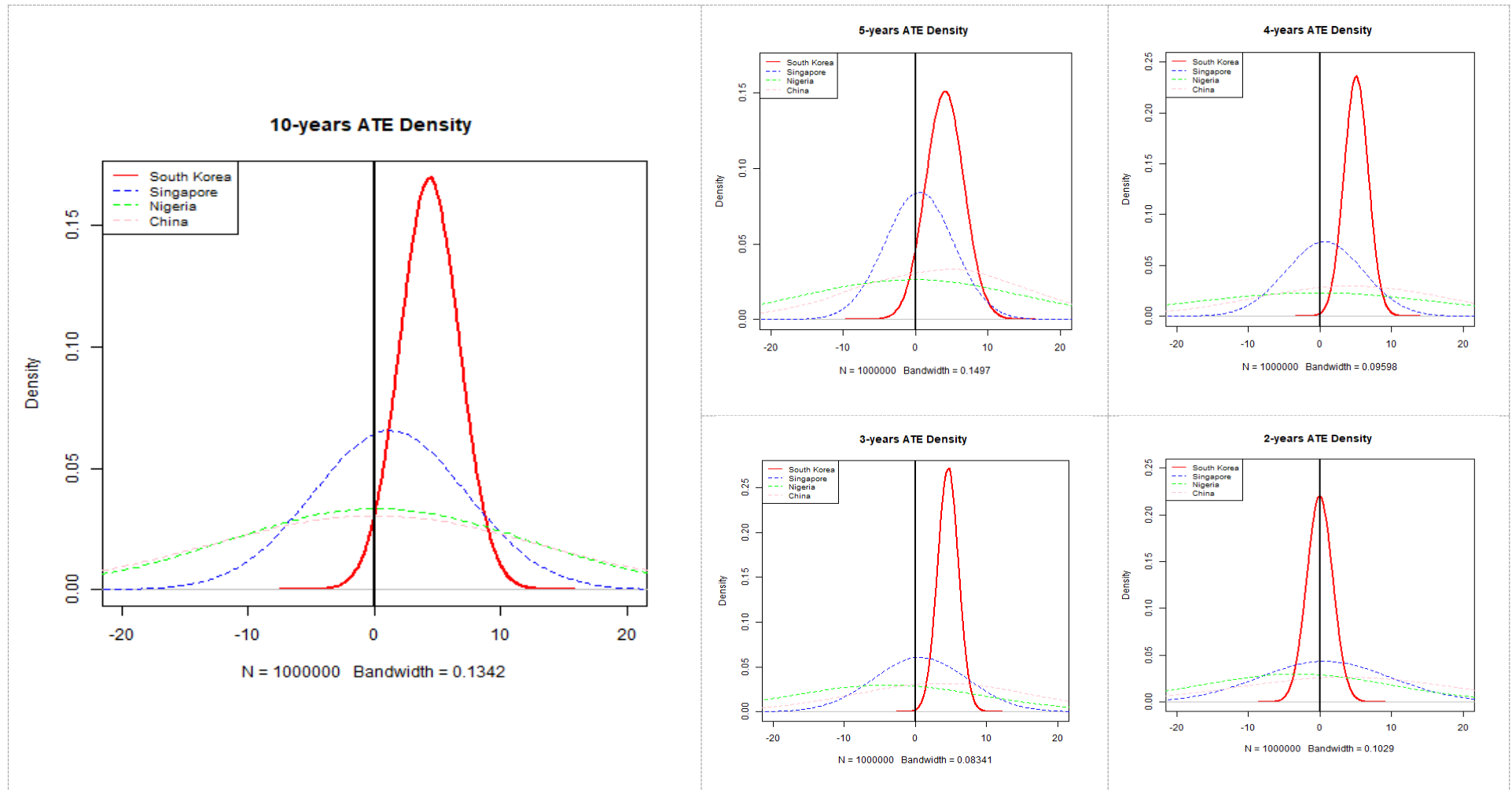
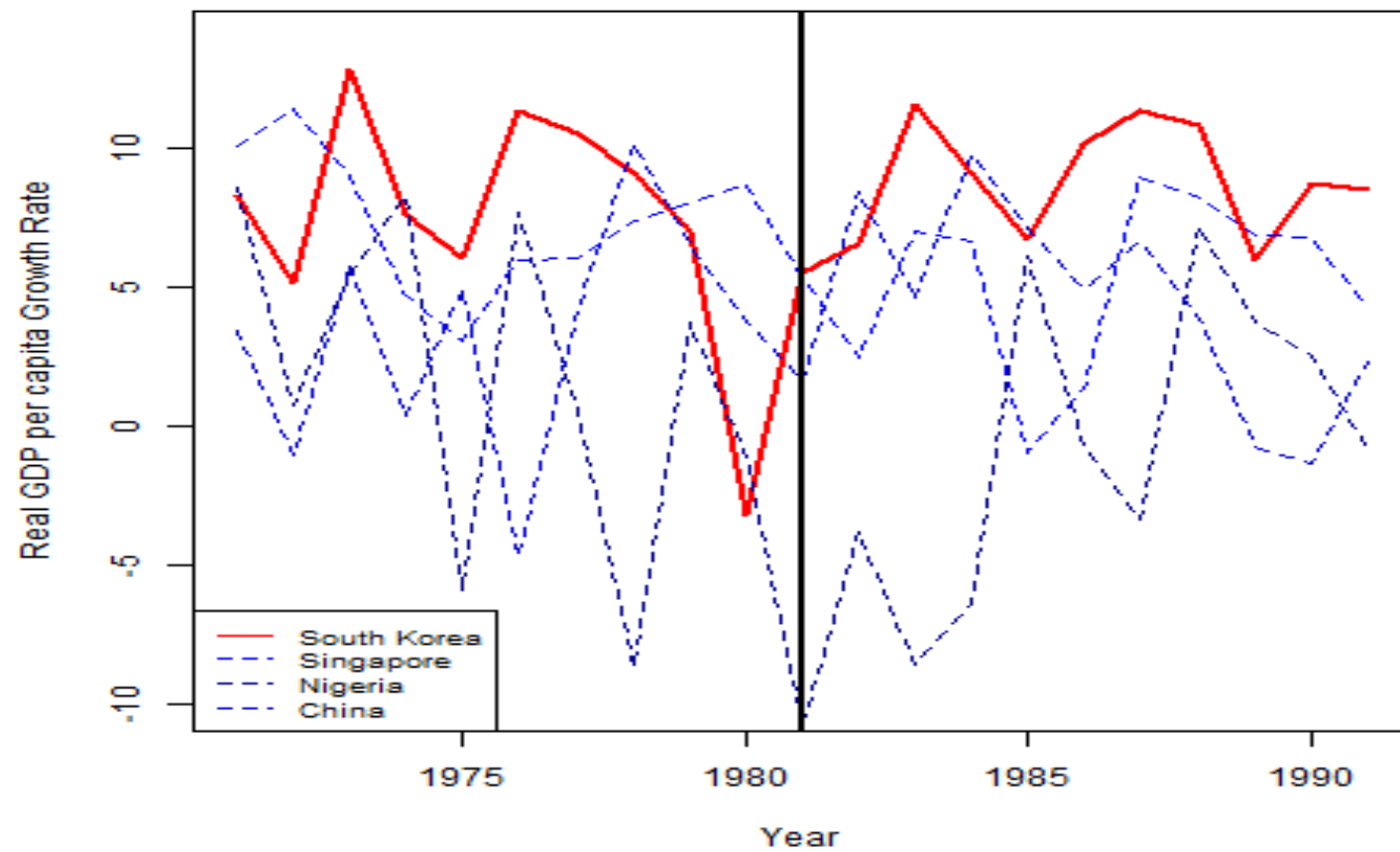


Figure M.6 – South Korea and Controls' Placebo



N| Philippines

N.1| In Asia and Oceania

Table N.1 - Philippines's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
1	0.00	Afghanistan
10	0.68	Bahrain
23	0.00	Cambodia
30	0.00	China
65	0.00	Indonesia
66	0.11	Iraq
72	0.00	Jordan
75	0.00	Kuwait
78	0.00	Lebanon
86	0.00	Malaysia
97	0.04	Nepal
106	0.00	Oman
107	0.00	Pakistan
115	0.00	Qatar
122	0.17	Saudi Arabia
127	0.00	Singapore
139	0.00	Thailand
153	0.00	Vietnam

Table N.2 - Philippines' Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Trade	10880.07	20259.58	16432.64
Investment	25.73	21.94	18.10
Child Mortality	77.60	52.77	88.33
Secondary Schooling	6.00	5.71	6.17
Population Growth Rate	0.03	0.04	0.03
5-years Average GDP per capita	3627.50	9028.21	8267.45
3-years prior Average GDP per capita Growth Rate	-4.74	-2.81	1.35

Figure N.1 - Philippines's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

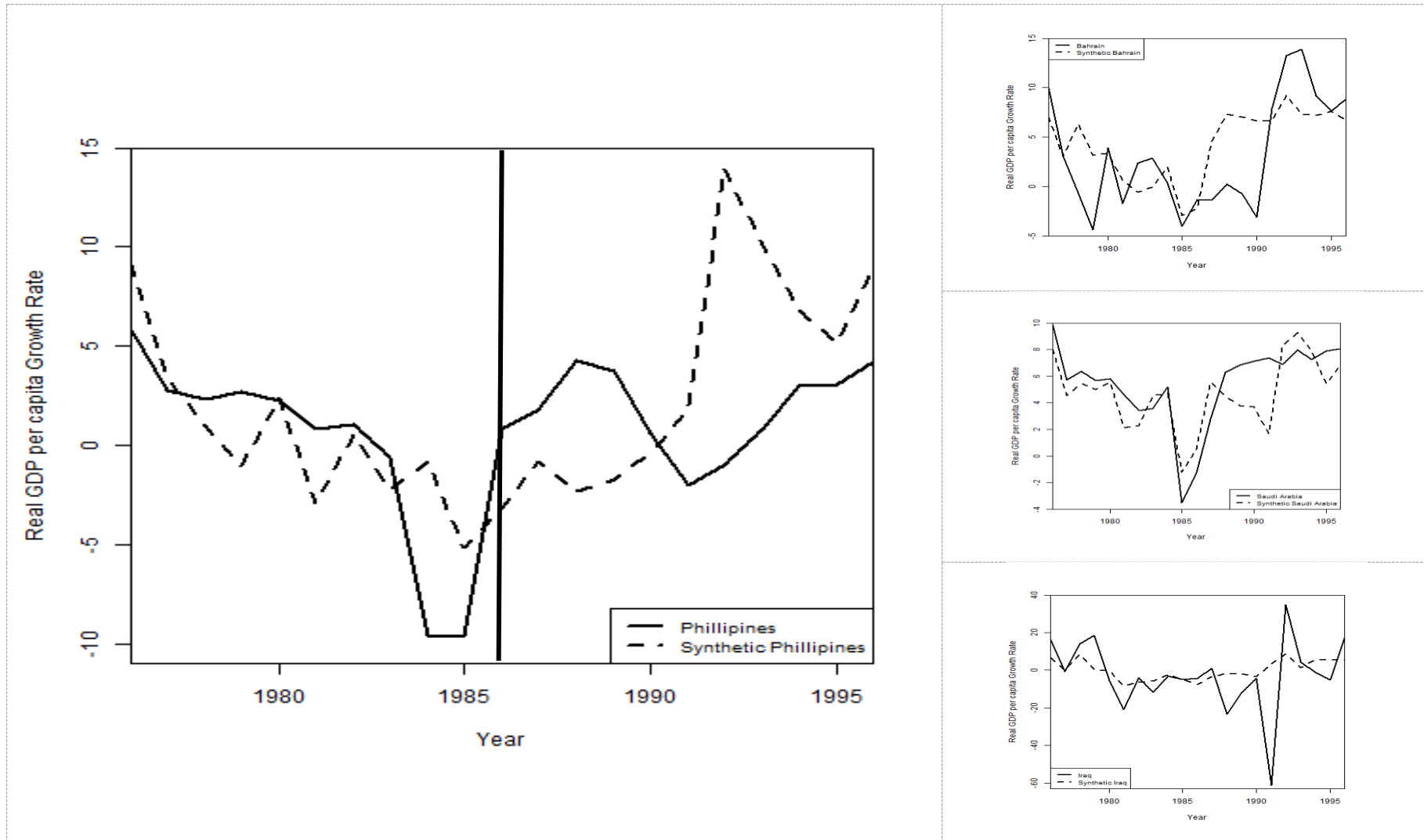


Figure N.2 - Philippines' and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

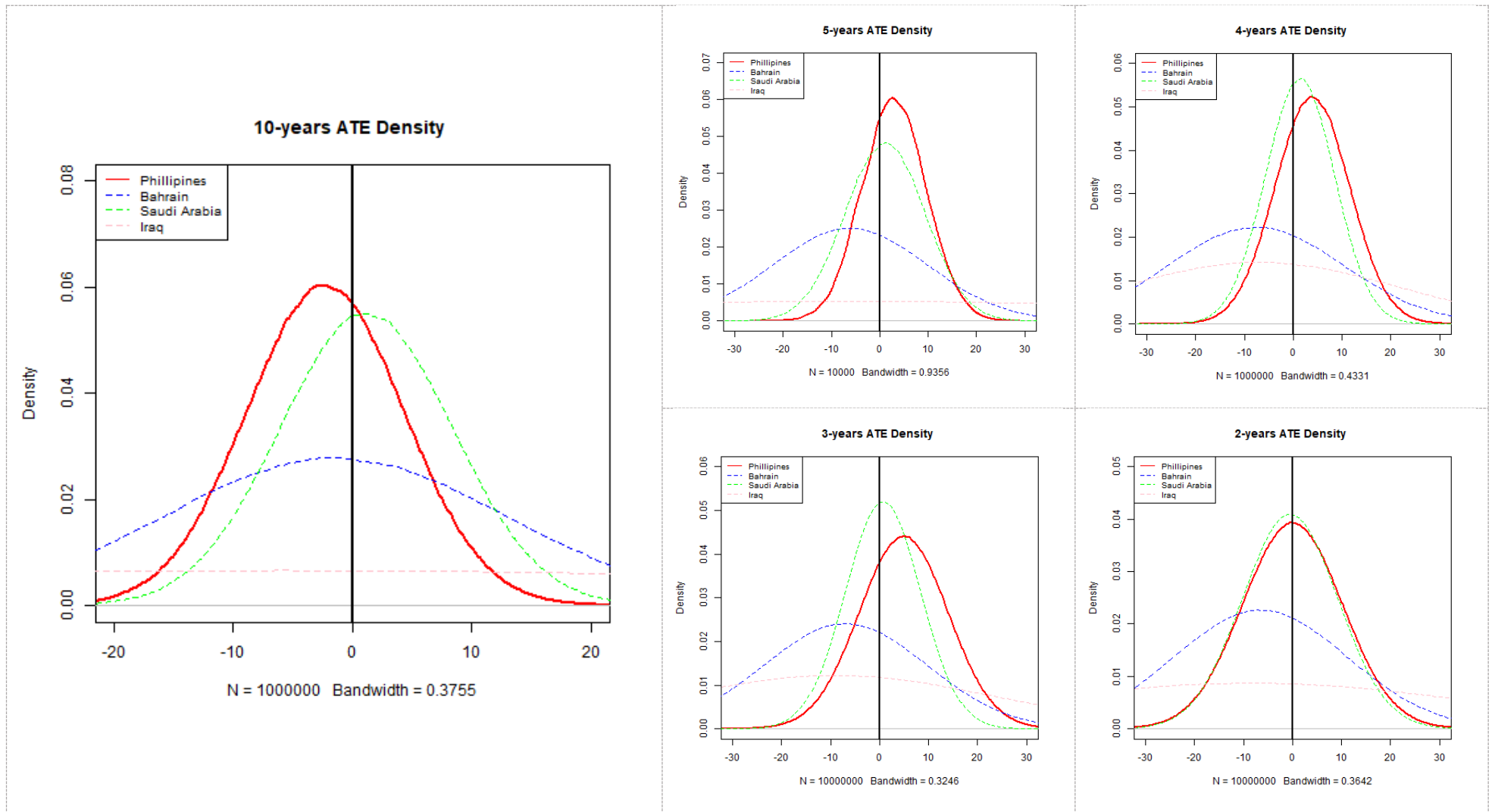


Figure N.3 – Philippines' and Controls' Placebo with Donor Pool Countries in Europe

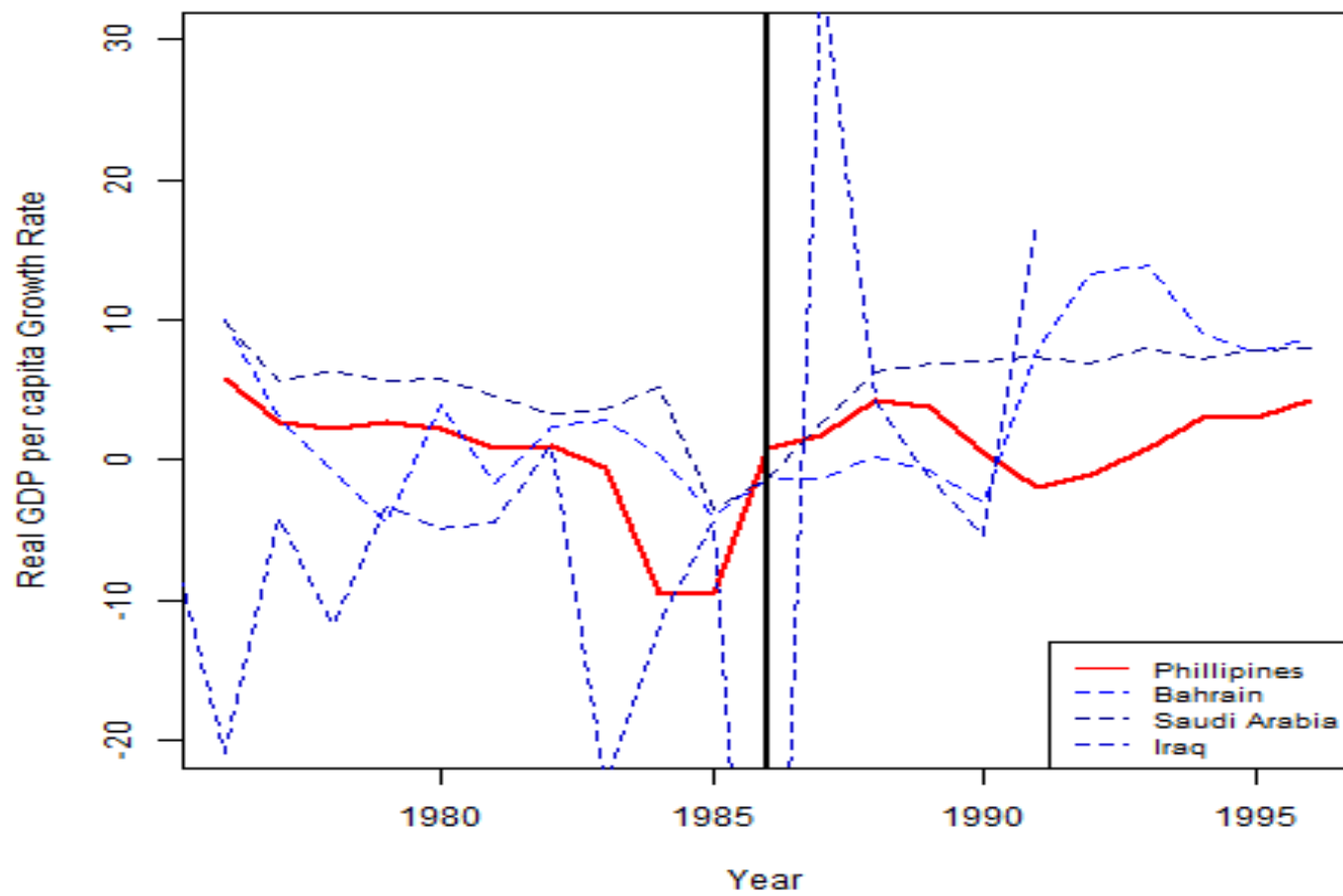


Table N.3 - Philippines's Donor Pool Weights

	Weights	Countries
2	0.00	Albania
3	0.00	Algeria
23	0.00	Cambodia
24	0.00	Cameroon
30	0.00	China
35	0.00	Cuba
43	0.00	Egypt
44	0.00	El Salvador
56	0.13	Guatemala
65	0.00	Indonesia
66	0.08	Iraq
74	0.00	Kenya
85	0.00	Malawi
86	0.38	Malaysia
94	0.00	Morocco
95	0.37	Mozambique
126	0.00	Sierra Leone
139	0.00	Thailand
142	0.00	Tunisia
145	0.00	Uganda
156	0.04	Zimbabwe

Table N.4 - Philippines' Common Support

	Treated	Synthetic	Sample Mean
Trade	10880.07	10518.04	8813.87
Investment	25.73	13.81	19.96
Child Mortality	77.60	132.73	129.97
Primary Schooling	16.00	16.38	14.86
Population Growth Rate	0.03	0.02	0.02
5-years Average GDP per capita	3627.50	4338.06	3263.54
3-years prior Average GDP per capita Growth Rate	-4.74	-2.57	0.60

Figure N.4 - Philippines' Synthetic Control and its Controls' Placebos

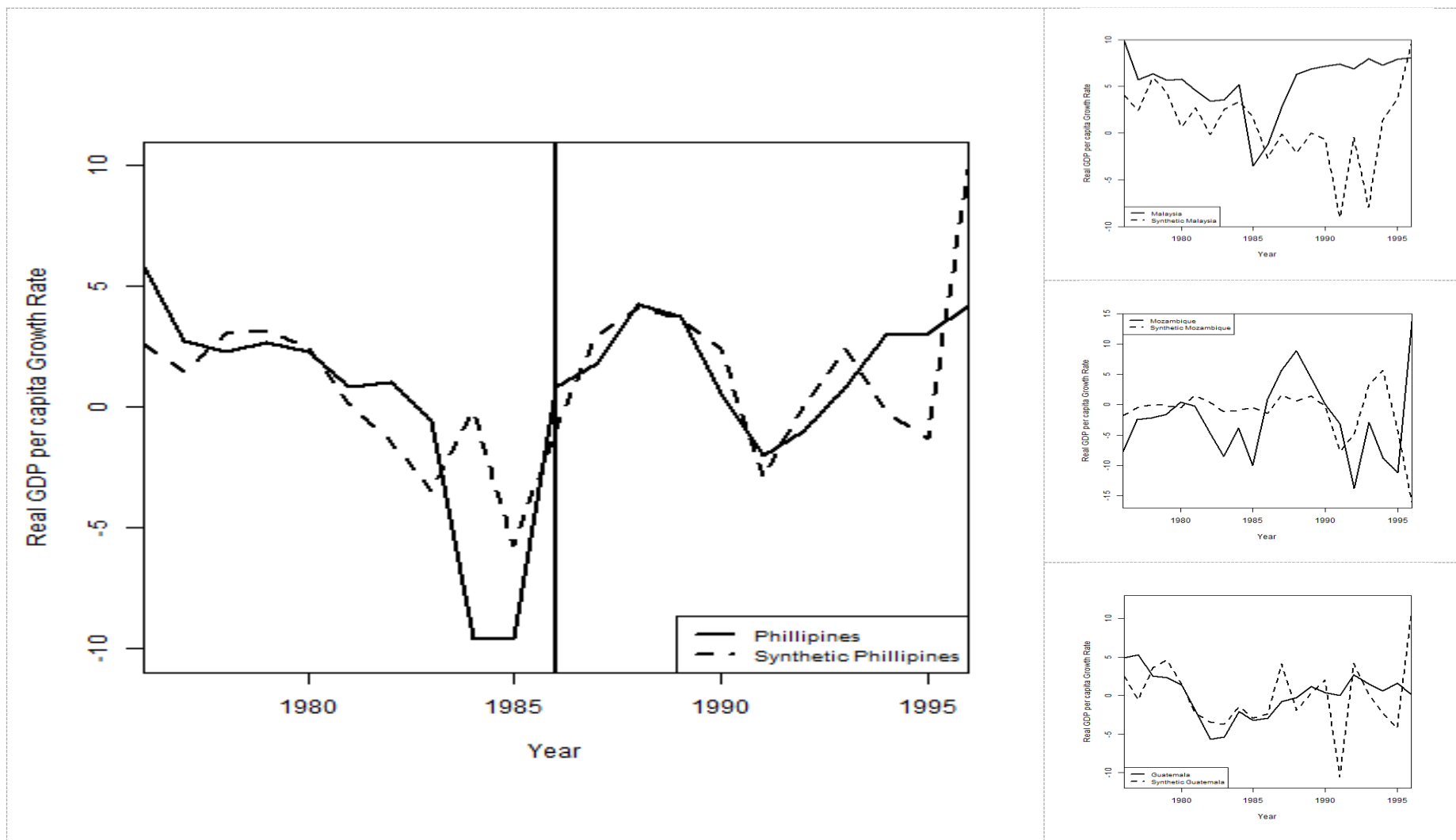


Figure N.5 - Philippines' and its Controls' Density Plots of the Average Treatment Effect (ATE)

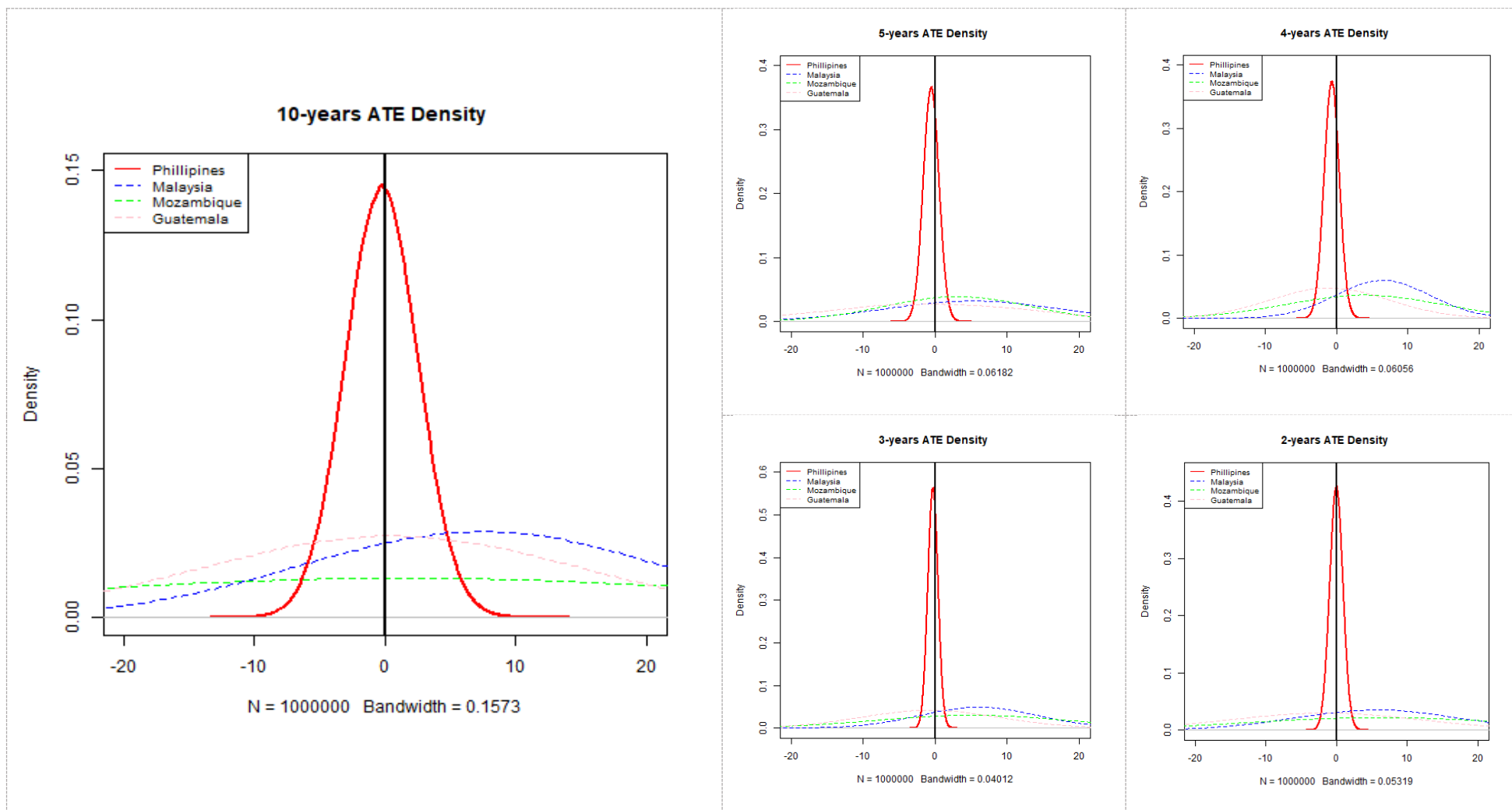
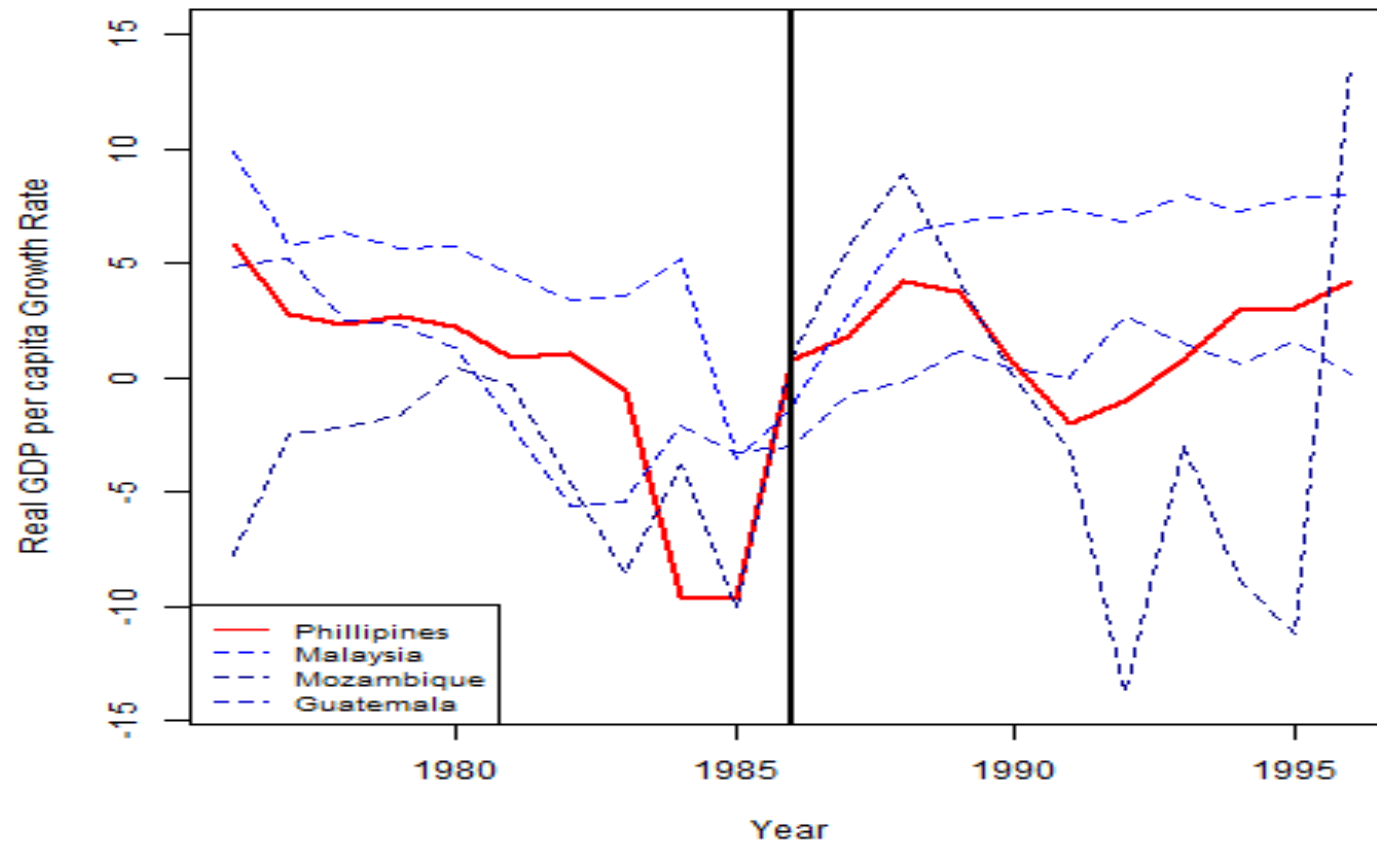


Figure N.6 – Philippines' and Controls' Placebo



O| Malta
O.1| In Europe

Table O.1 - Malta's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
2	0.09	Albania
20	0.00	Bulgaria
55	0.15	Greece
62	0.00	Hungary
112	0.76	Poland
113	0.00	Portugal
131	0.00	Spain

Table O.2 - Malta Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Child Mortality	48.79	96.74	101.07
Population Growth Rate	0.00	0.02	0.01
5-years Average GDP per capita	1929.60	4096.28	3802.24
Primary Schooling	9.50	27.79	32.86
Secondary Schooling	1.00	0.28	0.50
3-years prior Average GDP per capita Growth	0.89	3.04	4.67

Figure O.1 - Malta's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

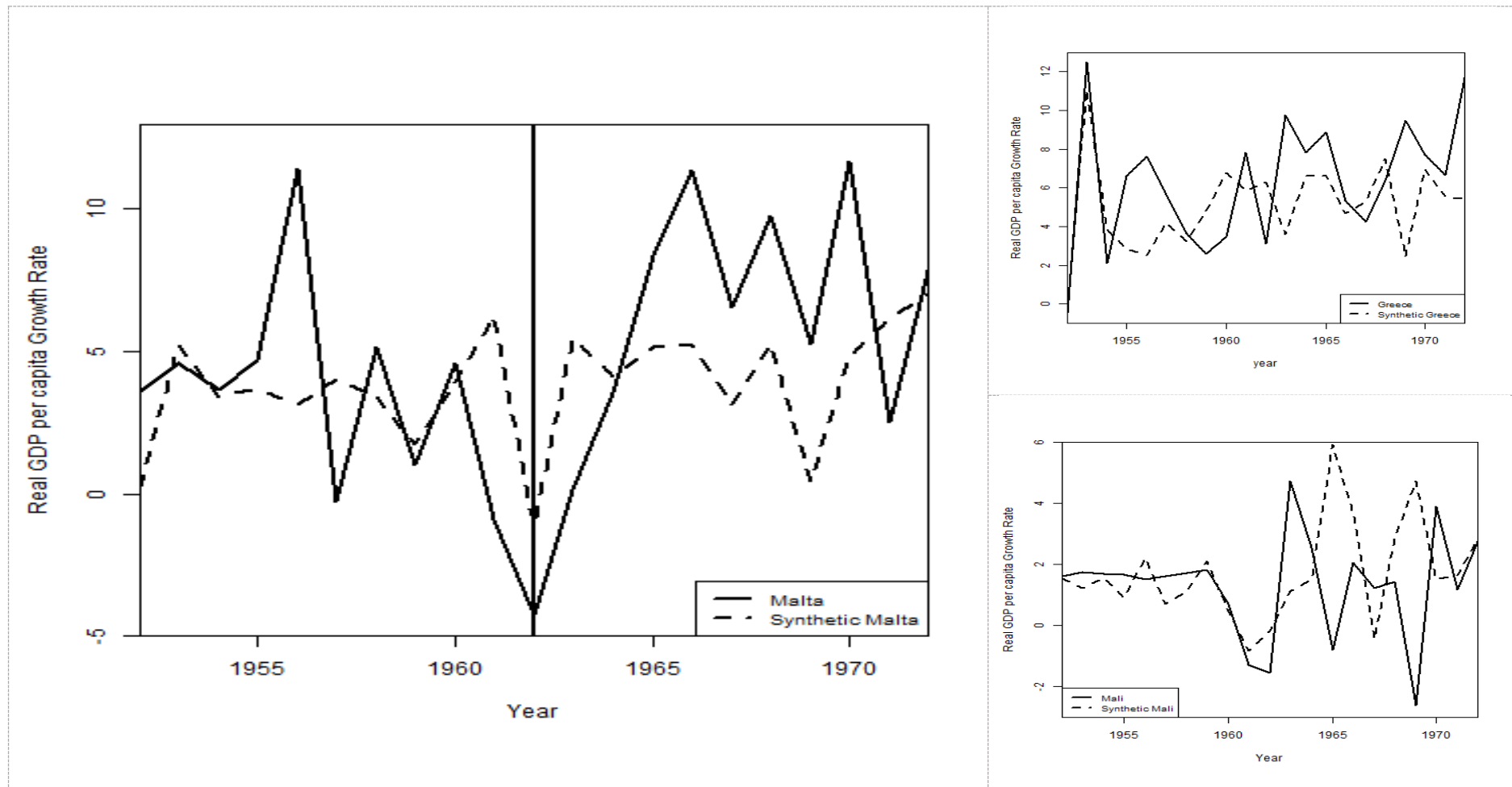


Figure O.2 - Malta and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

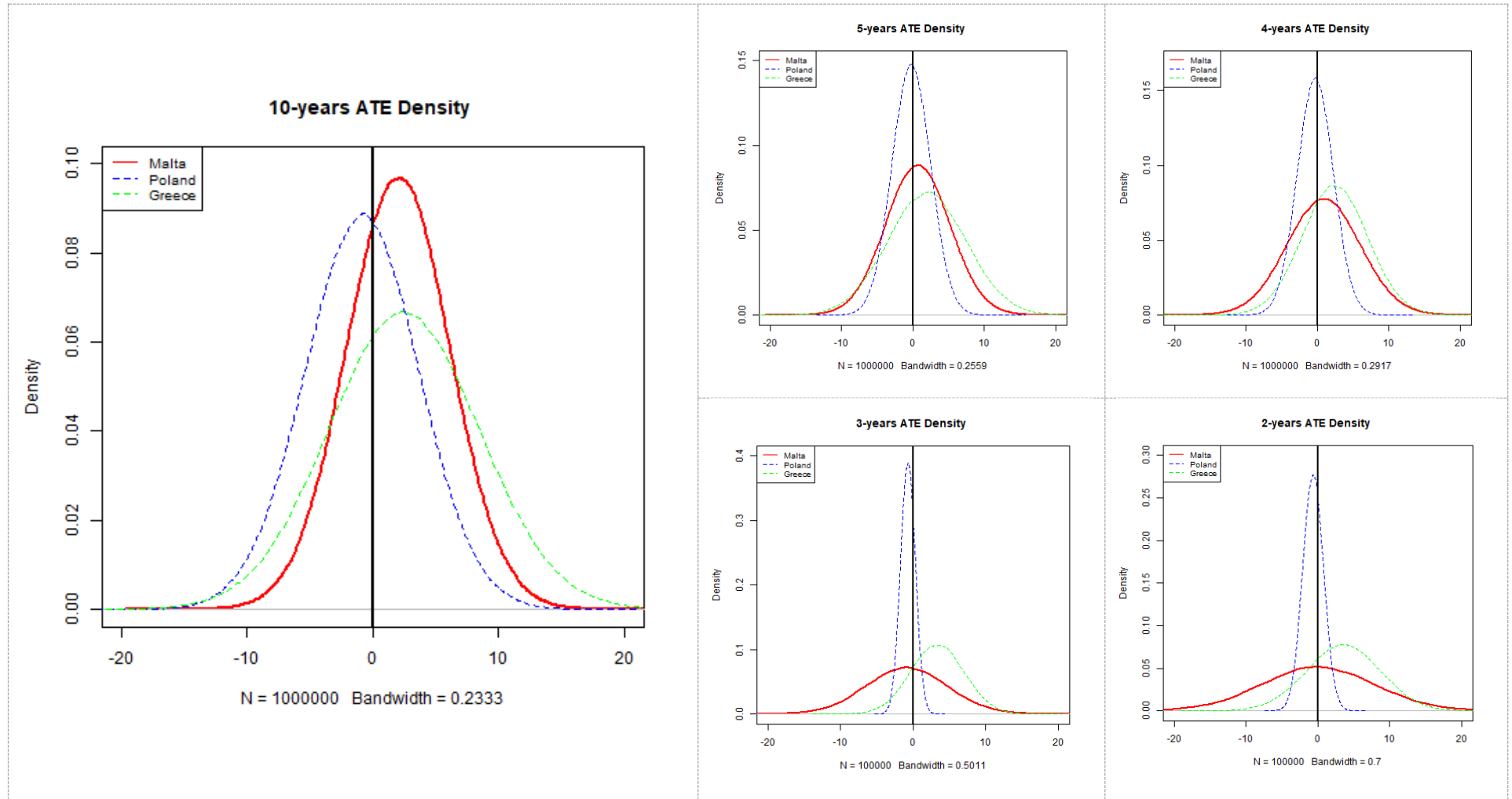
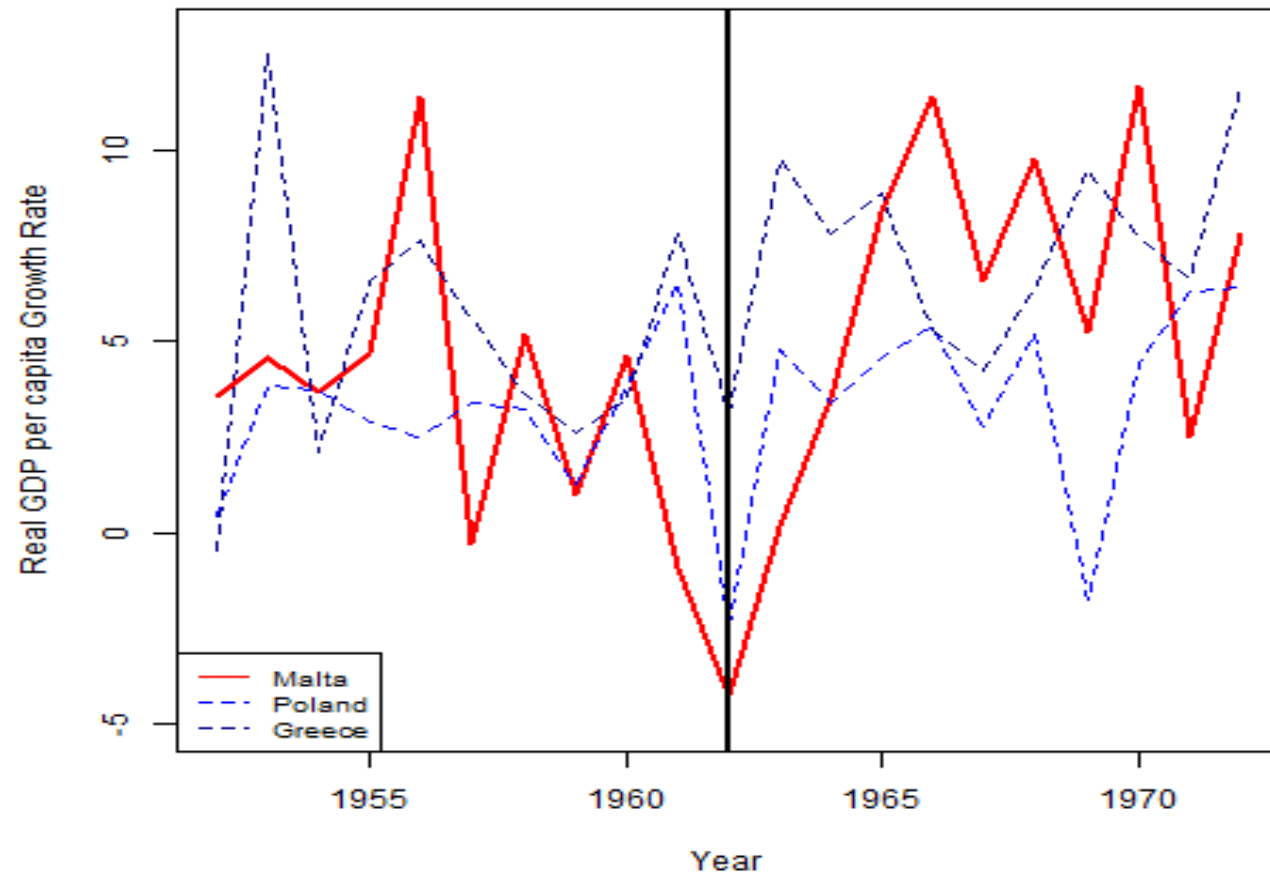


Figure O.3 – Malta and Controls' Placebo with Donor Pool Countries in Europe



O.2| In World

Table O.3 - Malta's Donor Pool Weights

	Weights	Countries
2	0.00	Albania
3	0.00	Algeria
15	0.06	Benin
16	0.00	Bolivia
19	0.00	Brazil
20	0.00	Bulgaria
23	0.00	Cambodia
30	0.07	China
31	0.00	Colombia
35	0.00	Cuba
41	0.00	Dominican Republic
42	0.00	Ecuador
43	0.00	Egypt
44	0.00	El Salvador
54	0.00	Ghana
55	0.39	Greece
56	0.00	Guatemala
60	0.00	Honduras
62	0.00	Hungary
65	0.00	Indonesia
66	0.00	Iraq
74	0.00	Kenya
85	0.00	Malawi
86	0.00	Malaysia
87	0.49	Mali
91	0.00	Mexico
94	0.00	Morocco
95	0.00	Mozambique
100	0.00	Nicaragua
101	0.00	Niger
108	0.00	Panama
109	0.00	Paraguay
110	0.00	Peru
111	0.00	Philippines
112	0.00	Poland
113	0.00	Portugal
122	0.00	Senegal
125	0.00	Sierra Leone
128	0.00	South Africa
129	0.00	South Korea
131	0.00	Spain
137	0.00	Thailand
140	0.00	Tunisia
143	0.00	Uganda
154	0.00	Zimbabwe

Table O.4 - Malta Common Support

	Treated	Synthetic	Sample Mean
Child Mortality	48.79	265.92	209.53
Population Growth Rate	0.00	0.01	0.02
5-years Average GDP per capita	1929.60	2069.60	2422.69
Primary Schooling1955.1960	9.50	8.24	14.46
Secondary	0.58	0.09	
3-years prior Average GDP per capita Growth Rate 1957.1962	0.89	1.66	2.04

Figure O.4 - Malta's Synthetic Control and its Controls' Placebos

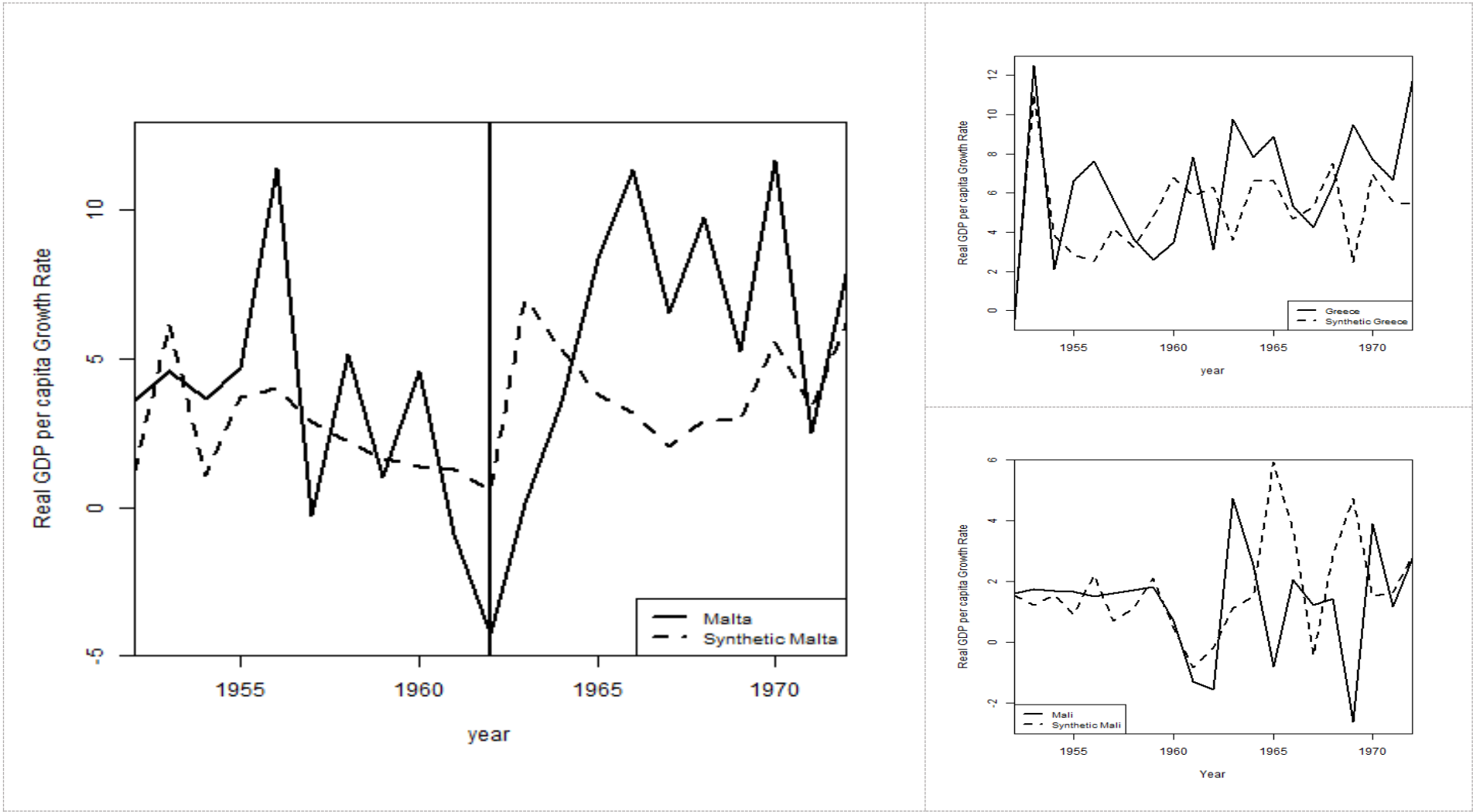


Figure O.5 - Malta and its Controls' Density Plots of the Average Treatment Effect (ATE)

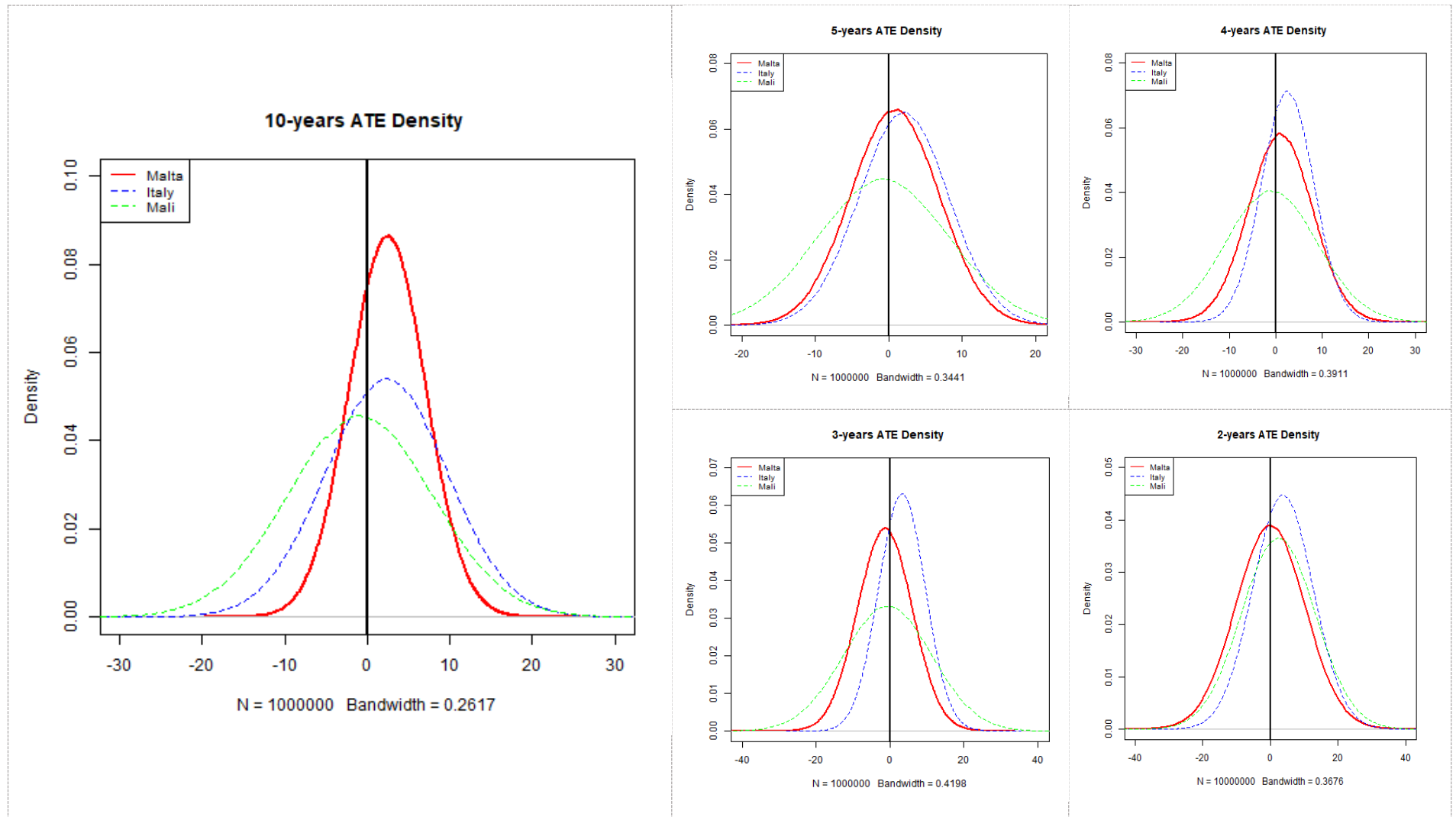
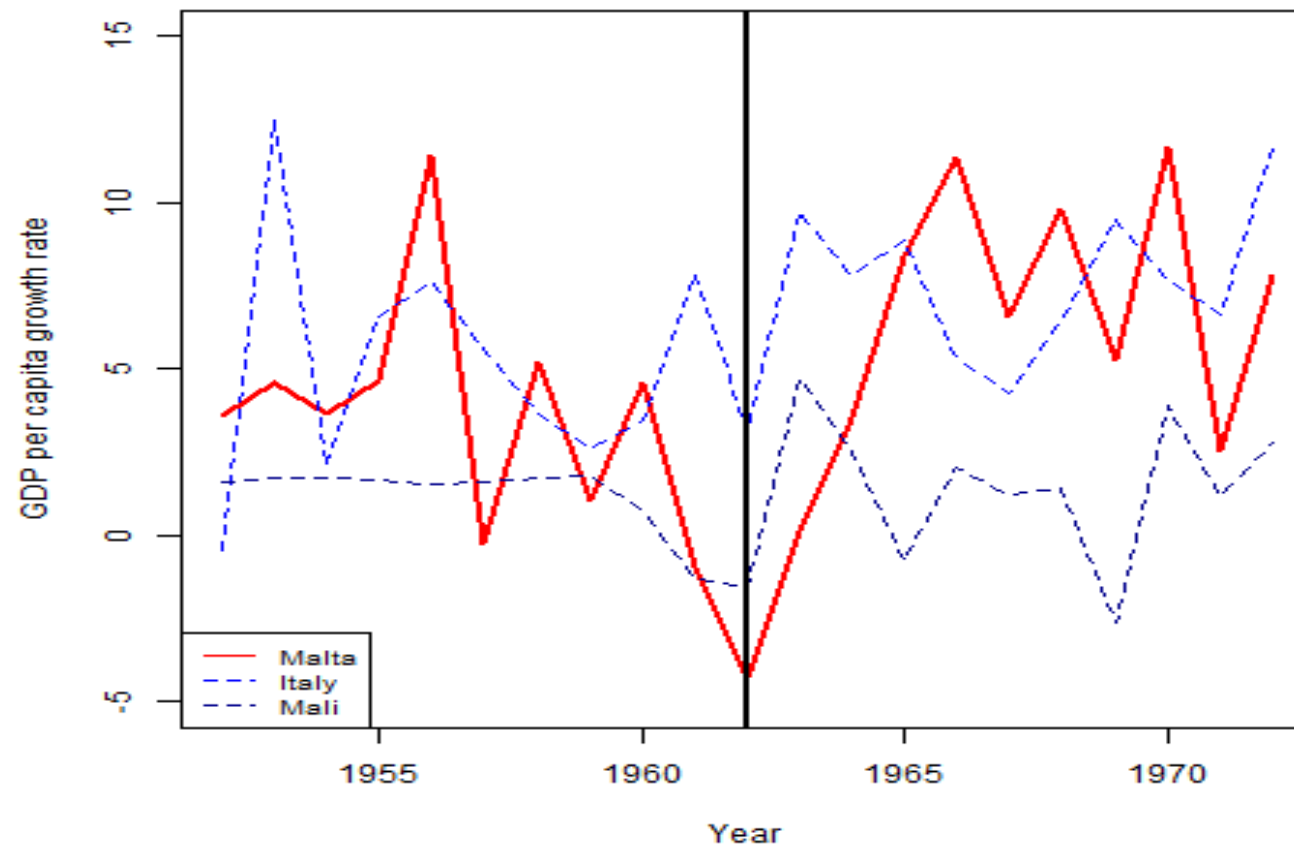


Figure O.6 – Malta and Controls' Placebo



P| Portugal
P.1| In Europe

Table P.1 - Portugal's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
20	0.00	Bulgaria
62	0.24	Hungary
113	0.00	Poland
117	0.76	Romania

Table P.2 - Portugal Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Trade	1480.52	2549.40	2850.26
Child Mortality	88.71	60.42	50.24
Population Growth Rate	-0.00	0.01	0.01
5-years Average GDP per capita	6236.20	3391.46	5304.95
3-years prior Average GDP per capita Growth Rate	7.11	5.71	3.82

Figure P.1 - Portugal's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

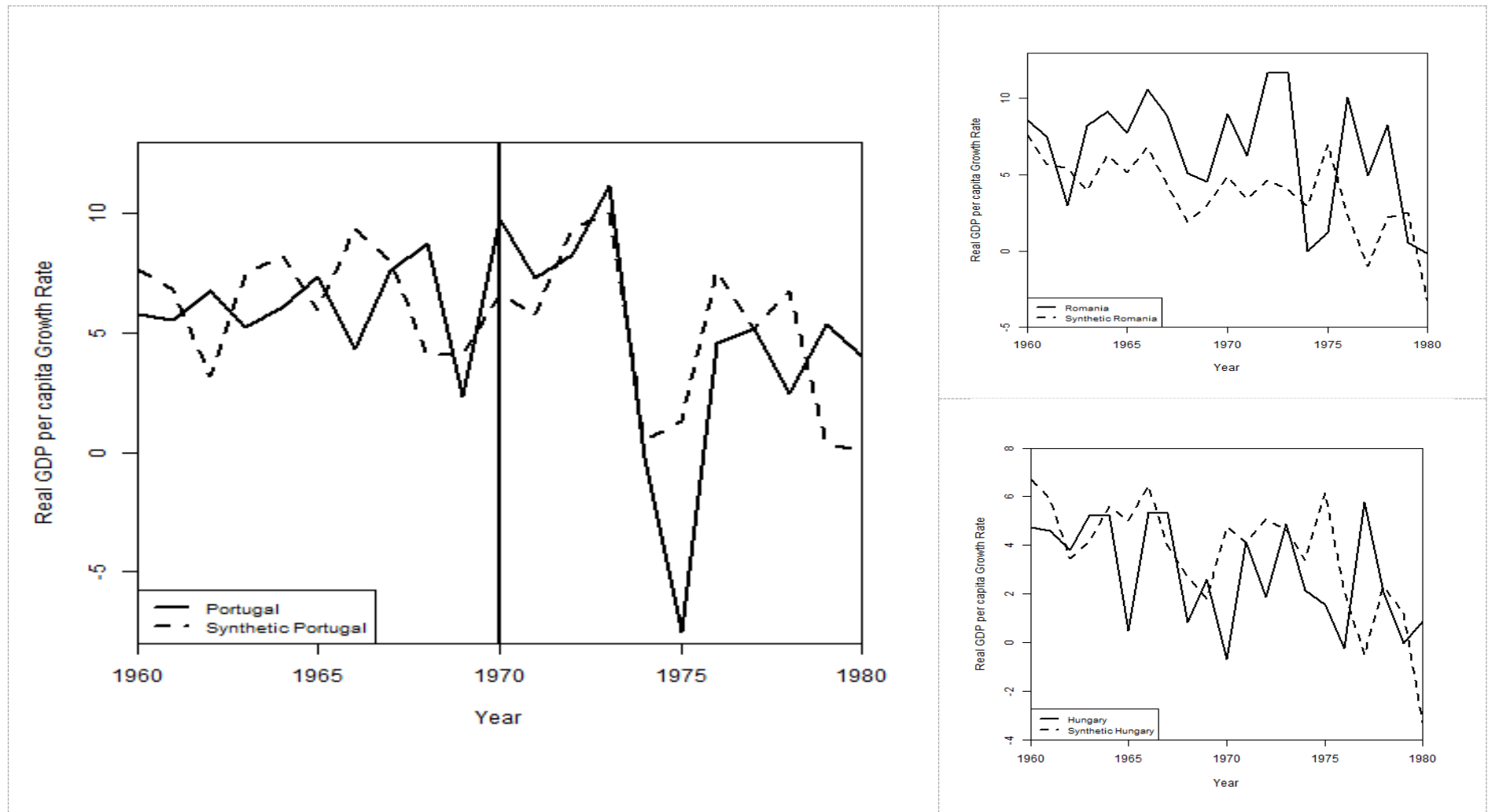


Figure P.2 - Portugal and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

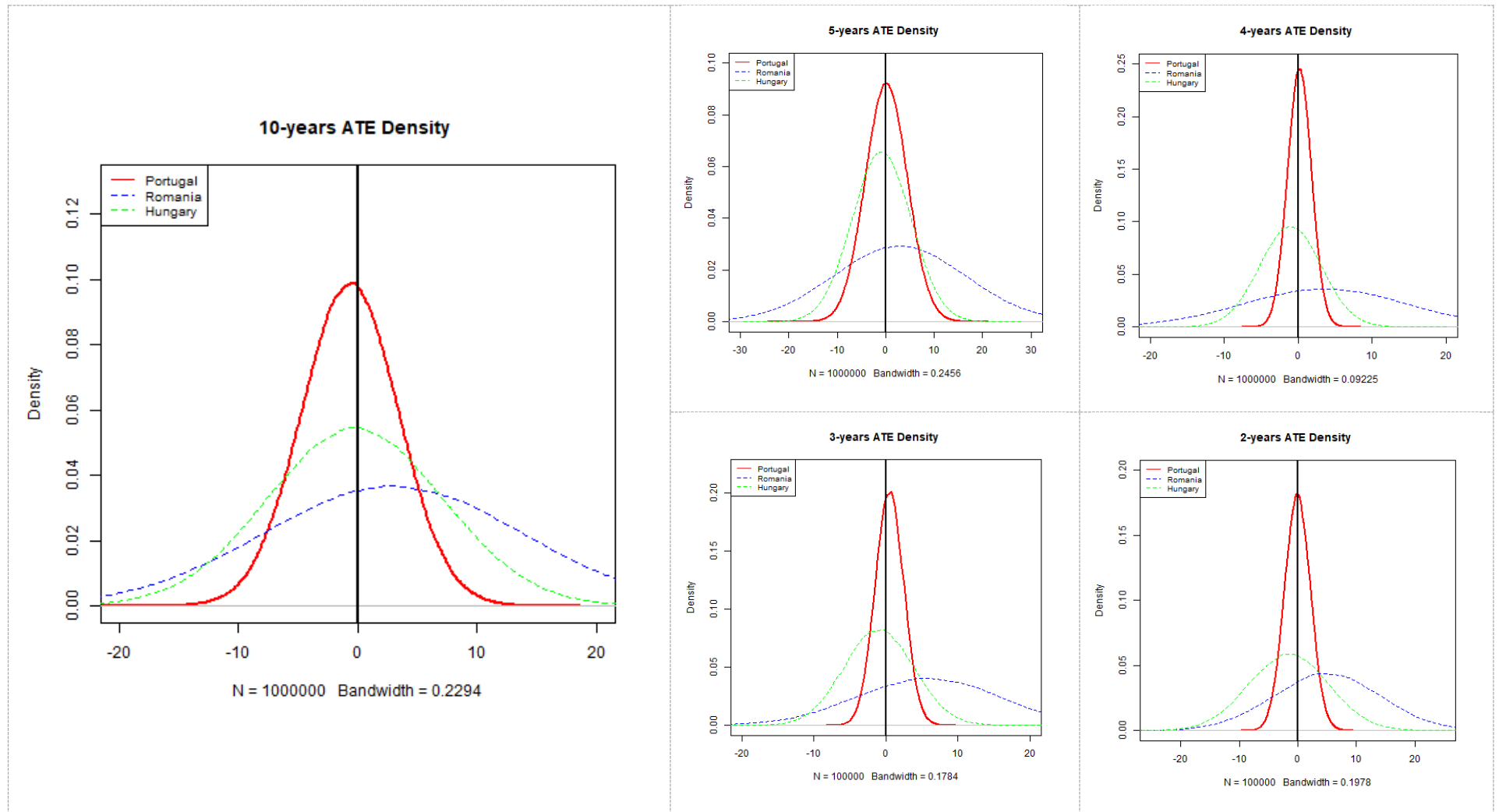


Figure P.3 – Portugal and Controls' Placebo with Donor Pool Countries in Europe

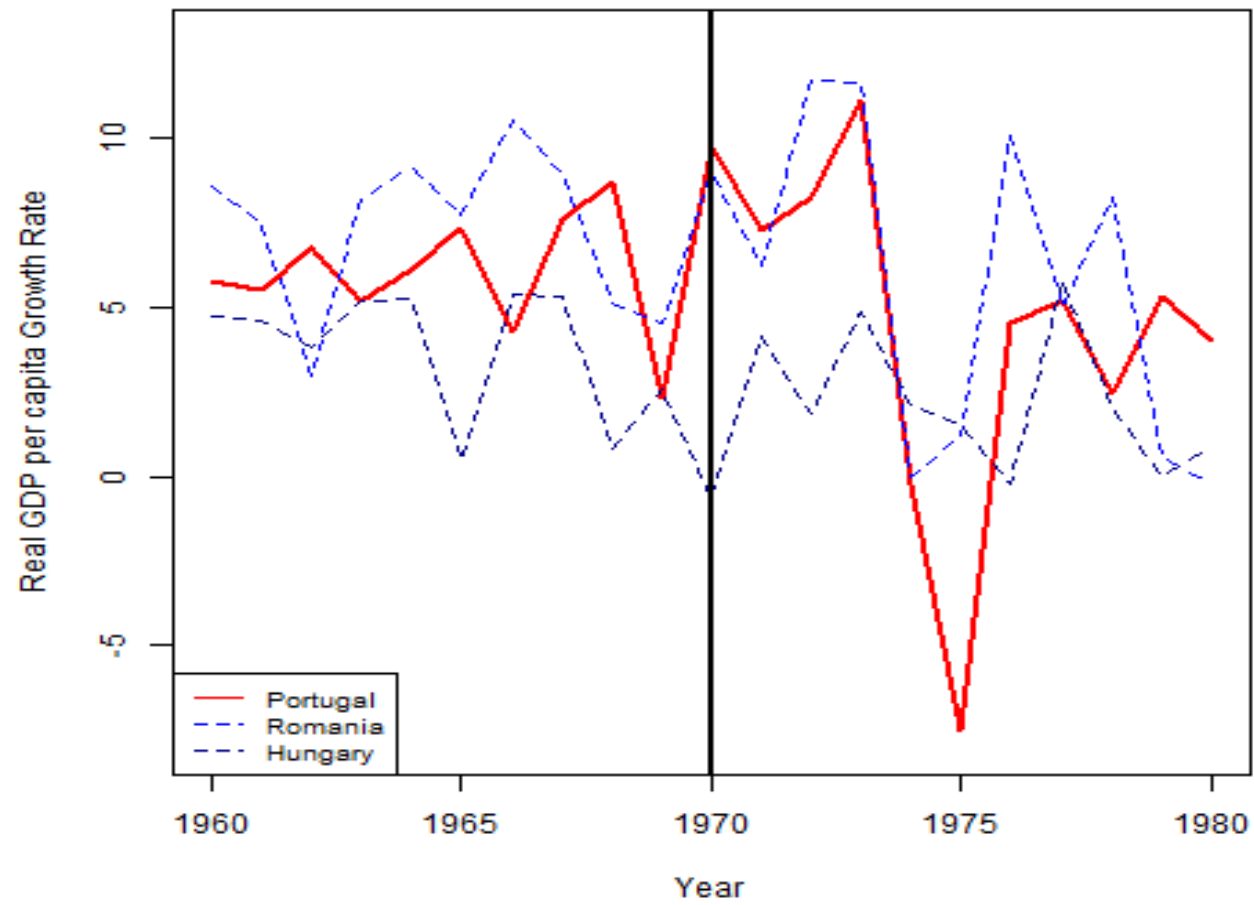


Table P.3 - Portugal's Donor Pool Weights

	Weights	Countries
1	0.00	Afghanistan
3	0.00	Algeria
15	0.00	Benin
16	0.00	Bolivia
19	0.00	Brazil
20	0.52	Bulgaria
21	0.00	Burkina Faso
22	0.00	Burundi
23	0.00	Cambodia
27	0.00	Central African Republic
28	0.00	Chad
30	0.00	China
31	0.00	Colombia
32	0.00	Comoros
35	0.00	Cuba
38	0.00	Democratic Republic of the Congo
41	0.00	Dominican Republic
43	0.00	Egypt
44	0.00	El Salvador
47	0.00	Ethiopia
50	0.07	Gabon
51	0.00	The Gambia
54	0.00	Ghana
56	0.00	Guatemala
57	0.33	Guinea-Bissau
58	0.00	Guinea
72	0.00	Jordan
74	0.00	Kenya
75	0.00	Kuwait
78	0.00	Lebanon
80	0.00	Liberia
81	0.00	Libya
84	0.00	Madagascar
85	0.00	Malawi
86	0.00	Malaysia
87	0.00	Mali
89	0.00	Mauritania
91	0.00	Mexico
94	0.00	Morocco
95	0.00	Mozambique

	Weights	Countries
100	0.00	Nicaragua
101	0.00	Niger
102	0.00	Nigeria
106	0.07	Oman
107	0.00	Pakistan
109	0.00	Panama
110	0.00	Paraguay
111	0.00	Peru
112	0.00	Philippines
115	0.00	Qatar
117	0.00	Romania
120	0.00	Rwanda
121	0.01	Sao Tome And Principe
122	0.00	Saudi Arabia
123	0.00	Senegal
125	0.00	Seychelles
126	0.00	Sierra Leone
127	0.00	Singapore
131	0.00	South Korea
138	0.00	Tanzania
139	0.00	Thailand
140	0.00	Togo
142	0.00	Tunisia
145	0.00	Uganda
154	0.00	Yemen
155	0.00	Zambia
156	0.00	Zimbabwe

Table P.4 - Portugal Common Support

	Treated	Synthetic	Sample Mean
Trade	1480.52	1493.05	762.08
Child Mortality	88.71	158.84	206.53
Population Growth Rate	-0.00	0.01	0.03
5-years Average GDP per capita	6236.20	3987.04	3683.62
3-years prior Average GDP per capita Growth Rate	7.11	6.45	3.42

Figure P.4 - Portugal's Synthetic Control and its Controls' Placebos

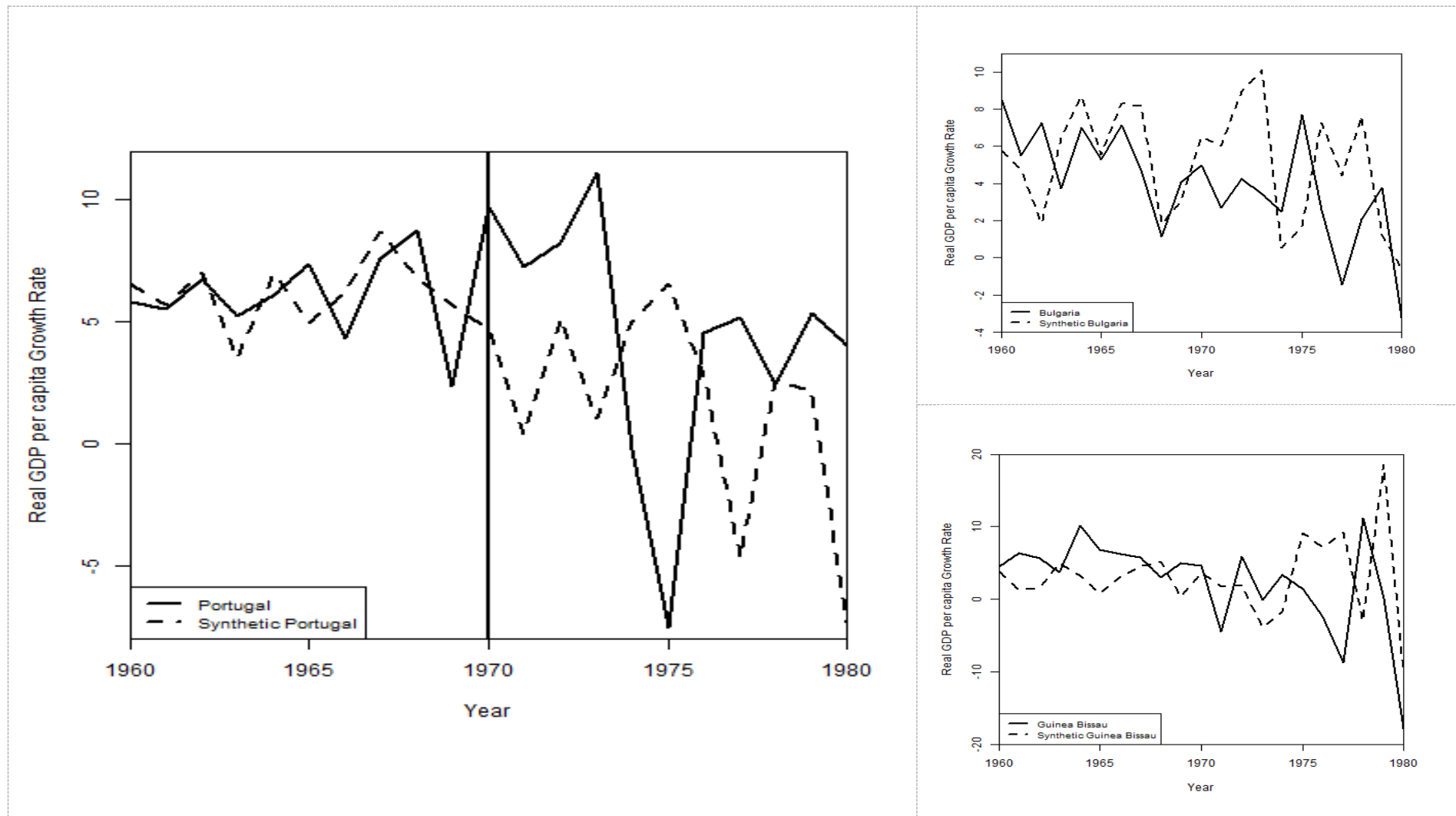


Figure P.5 - Portugal and its Controls' Density Plots of the Average Treatment Effect (ATE)

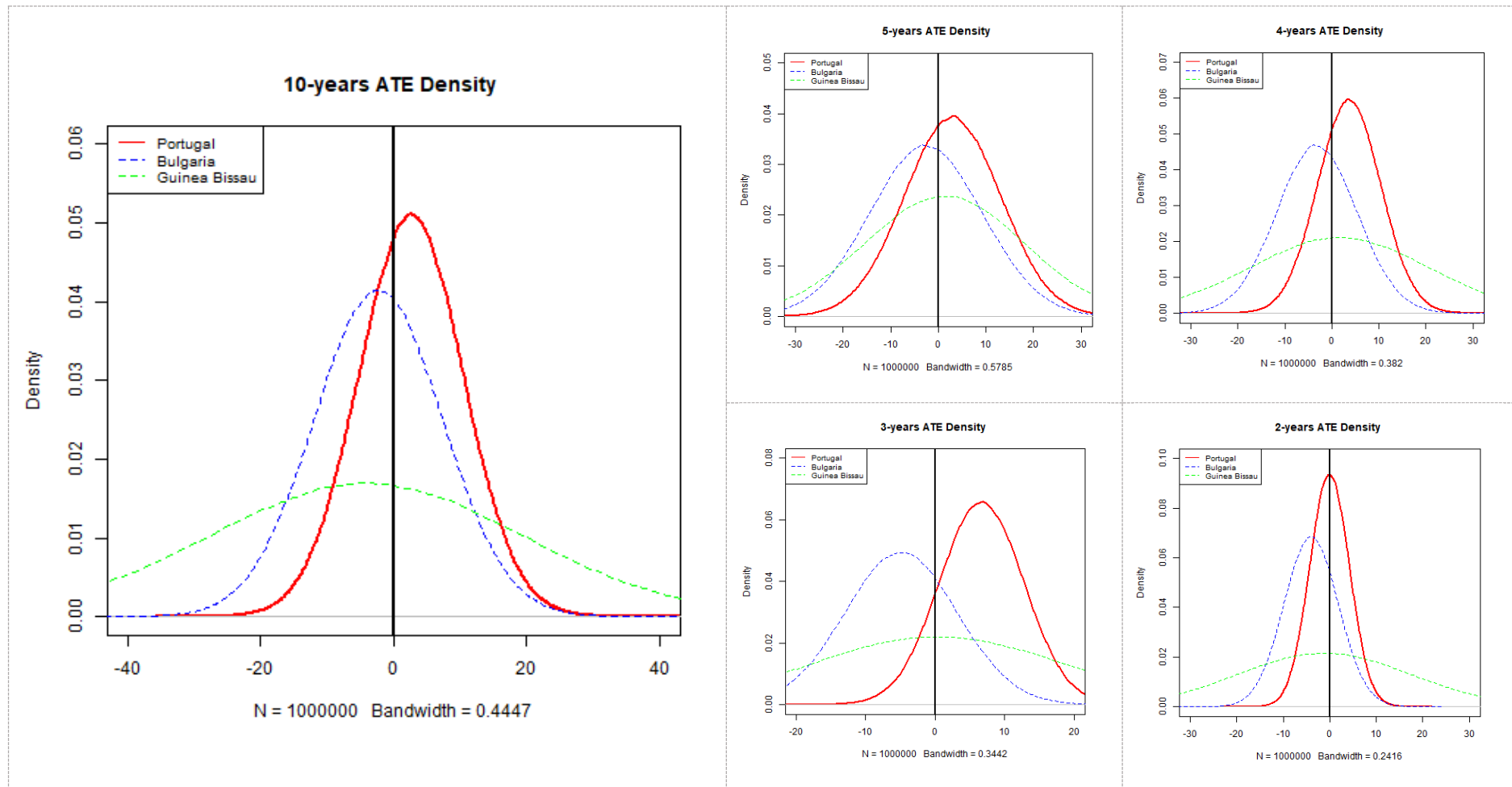
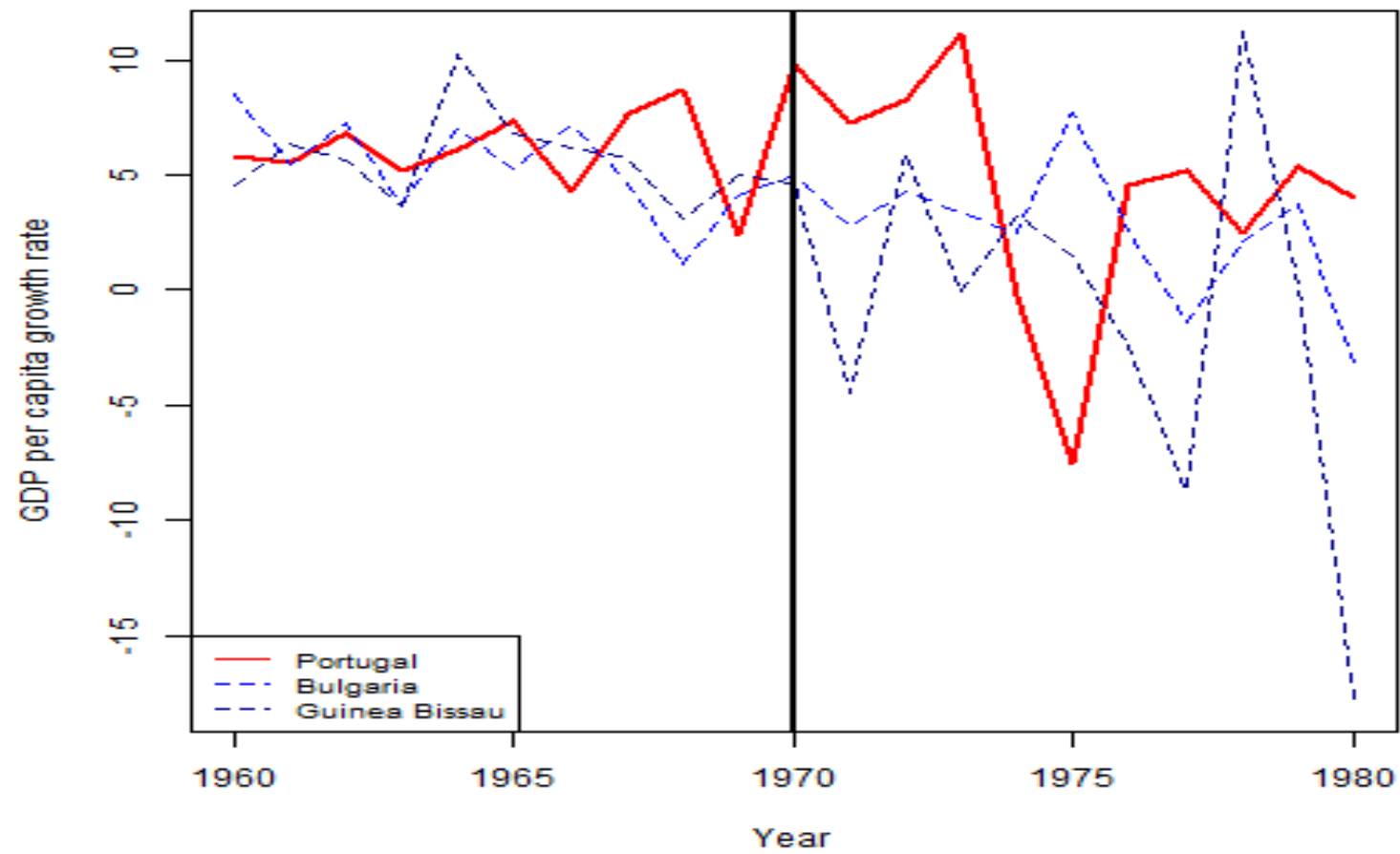


Figure P.6 – Portugal and Controls' Placebo



Q| Poland
Q.1| In Europe

Table Q.1 - Poland's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
2	0.00	Albania
124	1.00	Serbia

Table Q.2 - Poland Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Child Mortality	21.16	39.74	50.55
Population Growth Rate	0.01	0.01	0.01
5-years Average GDP per capita	9128.20	10176.16	6954.60
3-years prior Average GDP per capita Growth Rate	0.13	0.31	0.48

Figure Q.1 - Poland's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

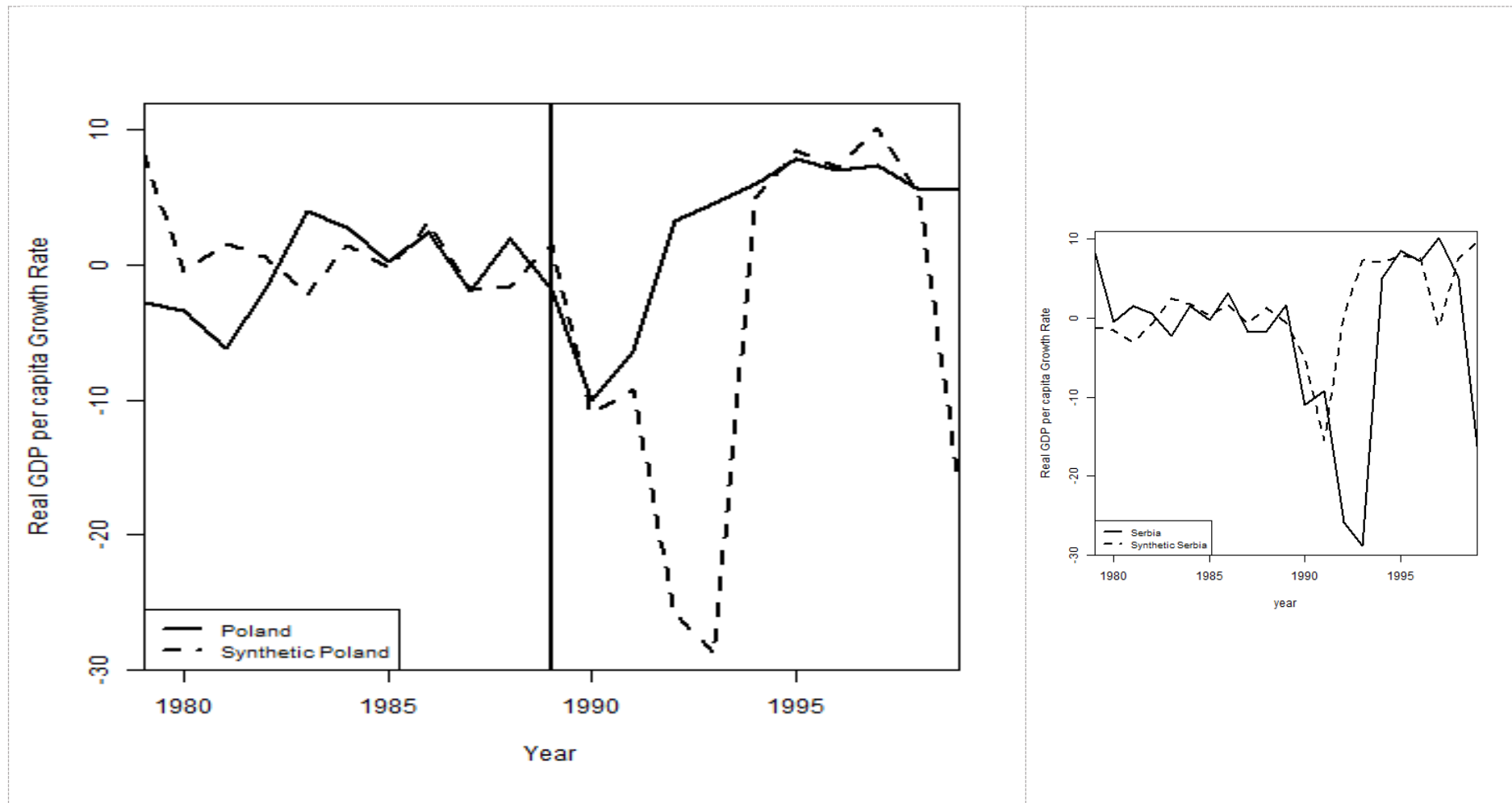


Figure Q.2 - Poland and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

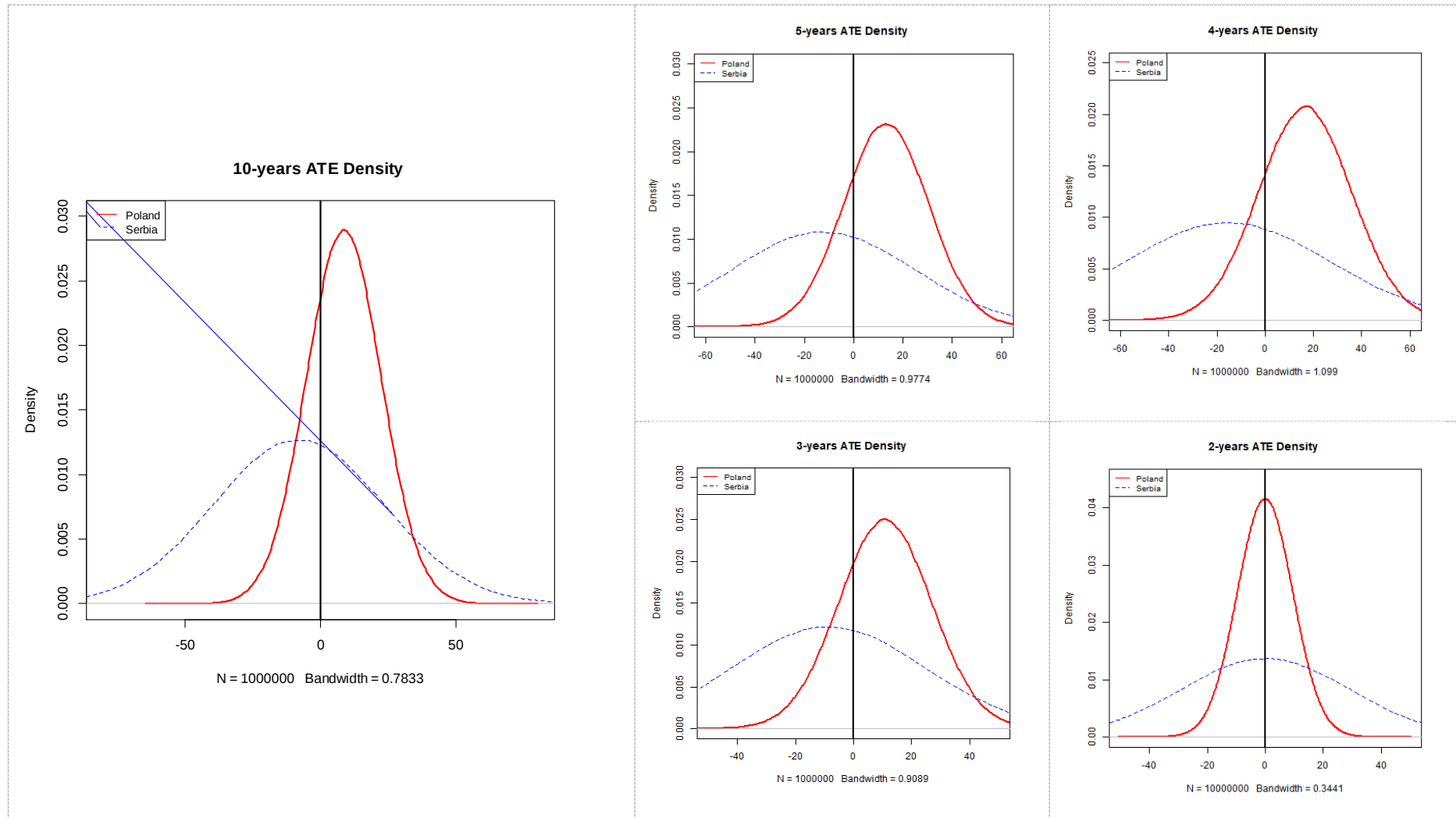


Figure Q.3 – Poland and Controls' Placebo with Donor Pool Countries in Europe

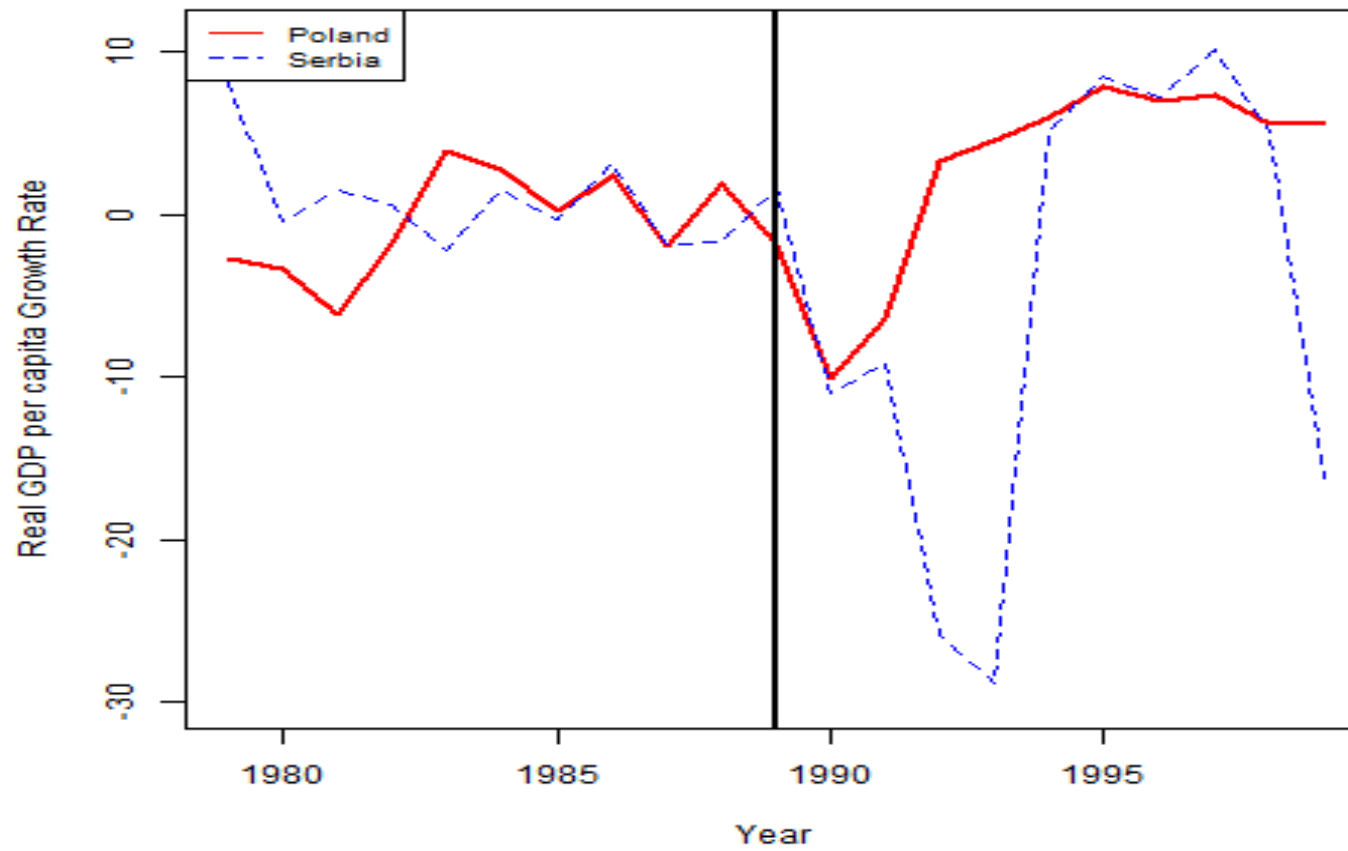


Table Q.3 - Poland's Donor Pool Weights

	Weights	Countries
1	0.00	Afghanistan
2	0.00	Albania
3	0.00	Algeria
4	0.00	Angola
10	0.00	Bahrain
21	0.00	Burkina Faso
22	0.00	Burundi
23	0.00	Cambodia
24	0.00	Cameroon
27	0.00	Central African Republic
28	0.00	Chad
30	0.00	China
32	0.00	Comoros
35	0.69	Cuba
38	0.00	Democratic Republic of the Congo
40	0.00	Djibouti
43	0.00	Egypt
45	0.00	Equatorial Guinea
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
56	0.00	Guatemala
57	0.00	Guinea-Bissau
58	0.00	Guinea
59	0.00	Haiti
65	0.00	Indonesia
66	0.00	Iraq
72	0.00	Jordan
74	0.00	Kenya
75	0.00	Kuwait
78	0.03	Lebanon
80	0.00	Liberia
81	0.00	Libya
85	0.00	Malawi
86	0.00	Malaysia
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
97	0.00	Nepal

	Weights	Countries
102	0.00	Nigeria
106	0.00	Oman
107	0.00	Pakistan
115	0.00	Qatar
120	0.00	Rwanda
122	0.00	Saudi Arabia
125	0.27	Seychelles
126	0.00	Sierra Leone
127	0.00	Singapore
140	0.00	Togo
142	0.00	Tunisia
145	0.00	Uganda
153	0.00	Vietnam
155	0.00	Zambia
156	0.00	Zimbabwe

Table Q.4 - Poland Common Support

	Treated	Synthetic	Sample Mean
Trade	27195.61	3699.14	8429.65
Child Mortality	21.16	21.21	137.24
Population Growth Rate	0.01	0.01	0.03
5-years Average GDP per capita	9128.20	4640.38	4463.36
3-years prior Average GDP per capita Growth Rate	0.13	0.12	-0.49

Figure Q.4 - Poland's Synthetic Control and its Controls' Placebos

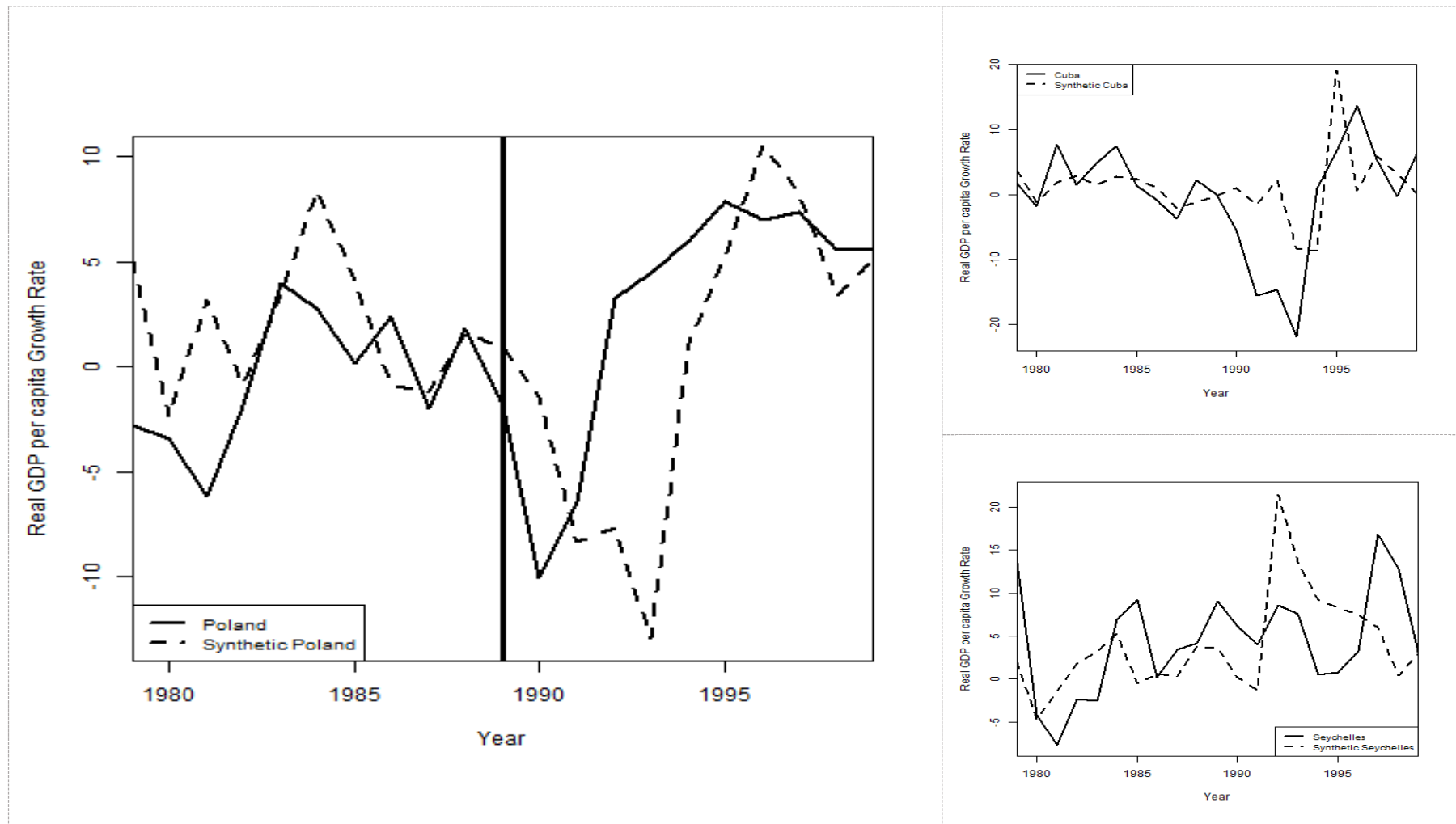


Figure Q.5 - Poland and its Controls' Density Plots of the Average Treatment Effect (ATE)

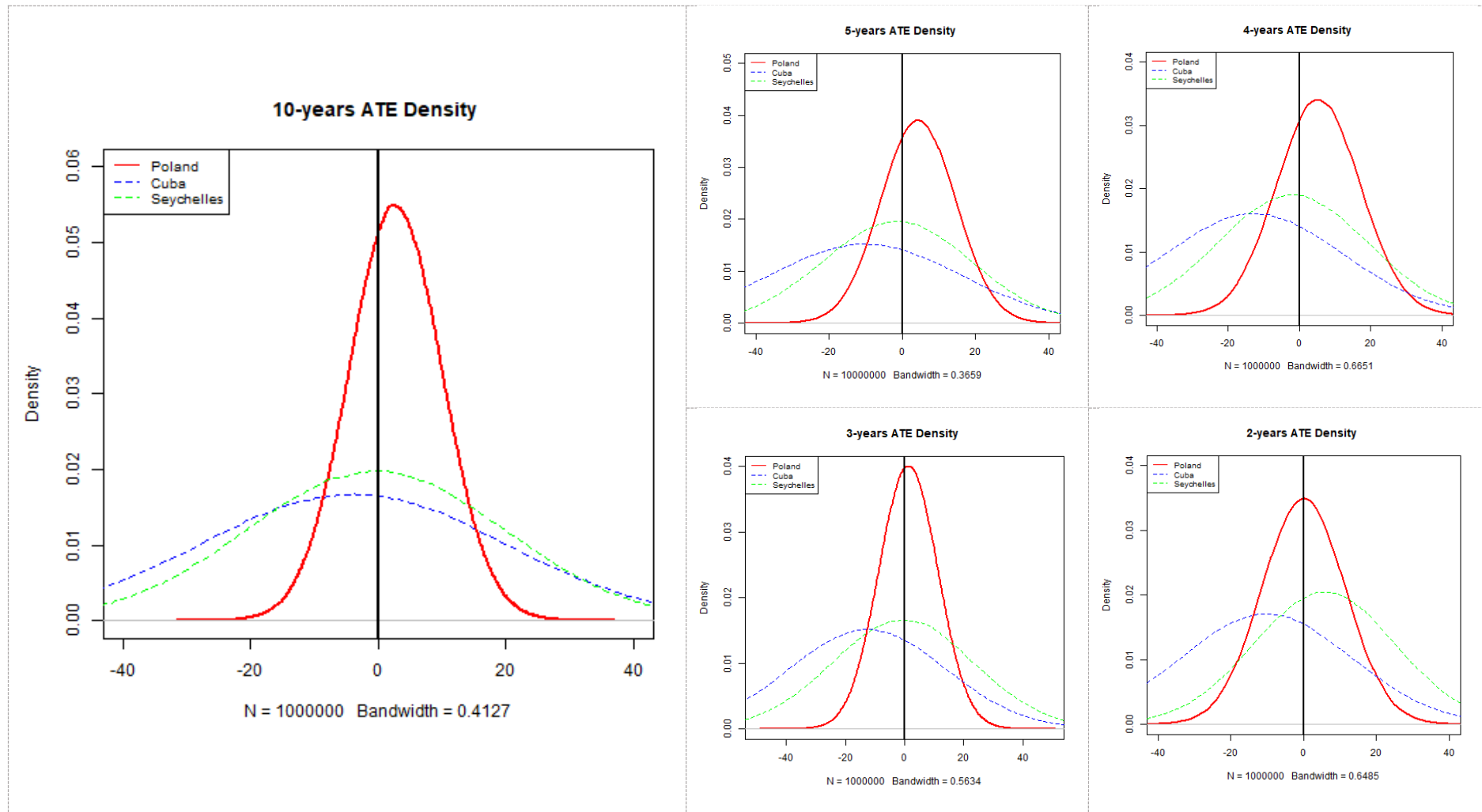
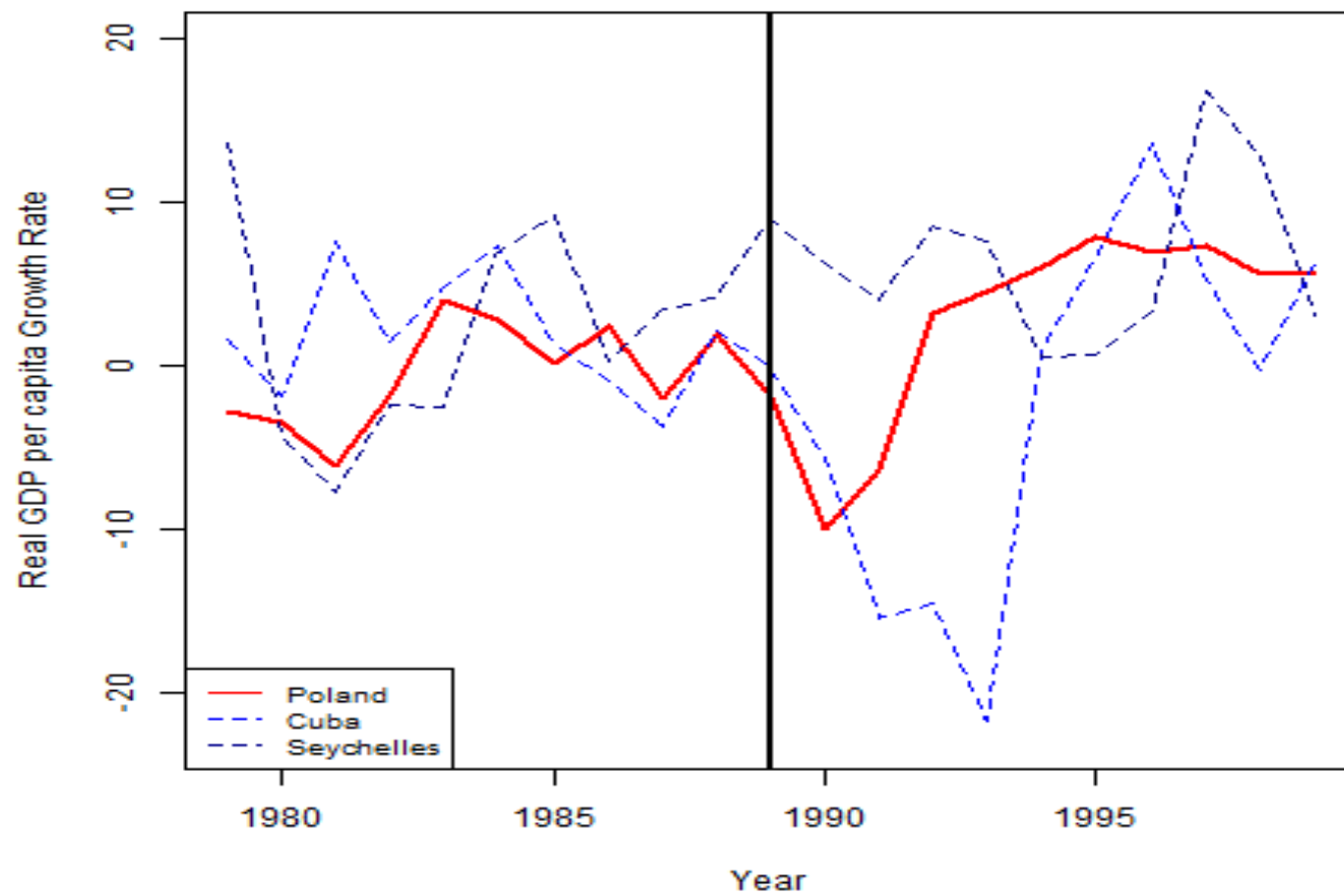


Figure Q.6 – Poland and Controls' Placebo



R| Brazil
R.1| In America

Table R.1 - Brazil's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
35	0.06	Cuba
44	0.00	El Salvador
56	0.80	Guatemala
91	0.14	Mexico
110	0.00	Paraguay

Table R.2 - Brazil Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Trade	32756.73	4988.06	6250.92
Investment	22.36	18.45	21.89
Child Mortality	104.02	117.77	84.20
Primary Schooling	5.50	11.77	17.70
Secondary Schooling	6.00	6.03	6.09
Population Growth Rate	0.02	0.02	0.02
5-years Average GDP per capita	6371.10	5705.65	4886.42
3-years prior Average GDP per capita Growth Rate	-1.64	-1.98	-0.58

Figure R.1 - Brazil's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

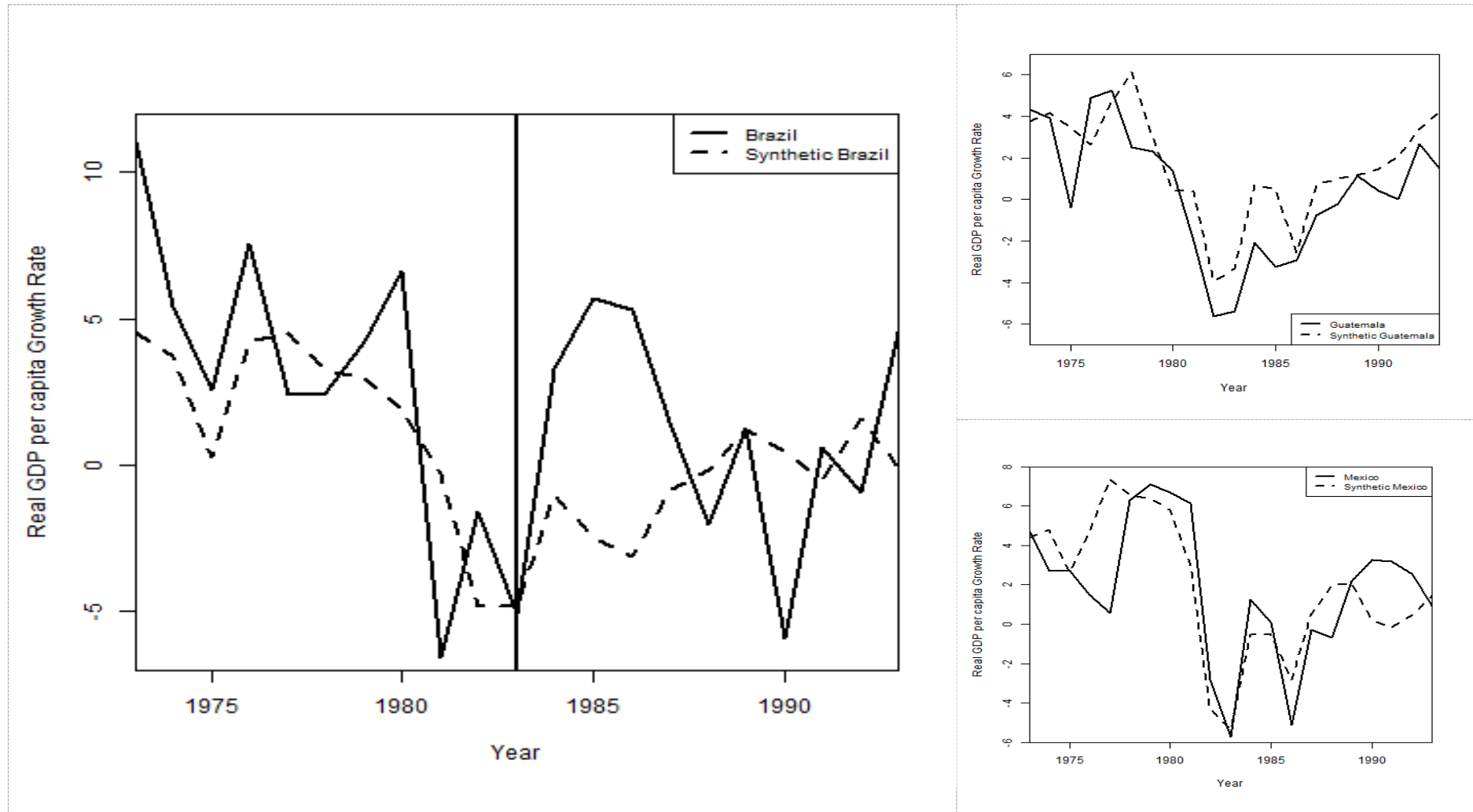


Figure R.2 - Brazil and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

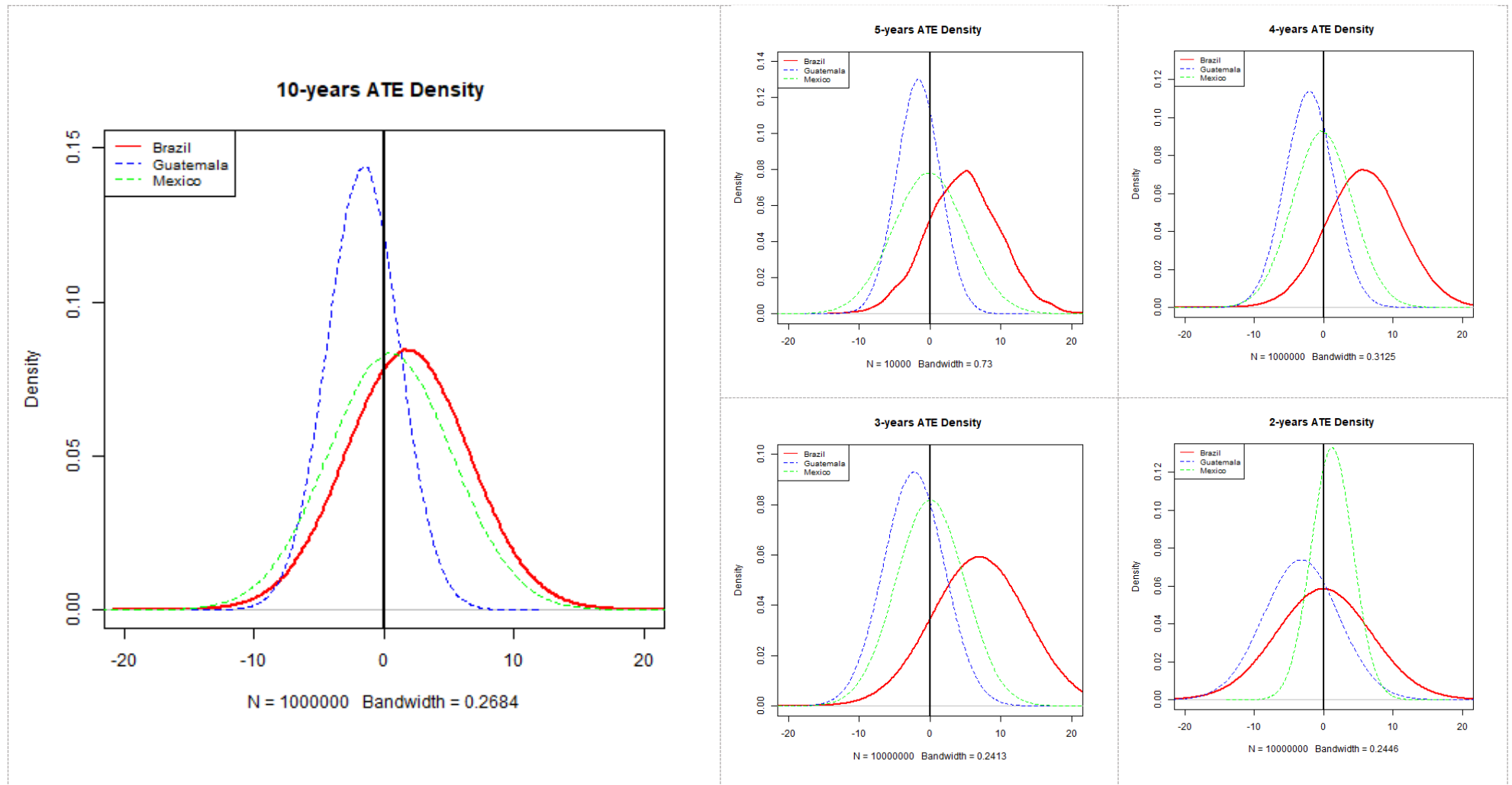


Figure R.3 – Brazil and Controls' Placebo with Donor Pool Countries in Europe

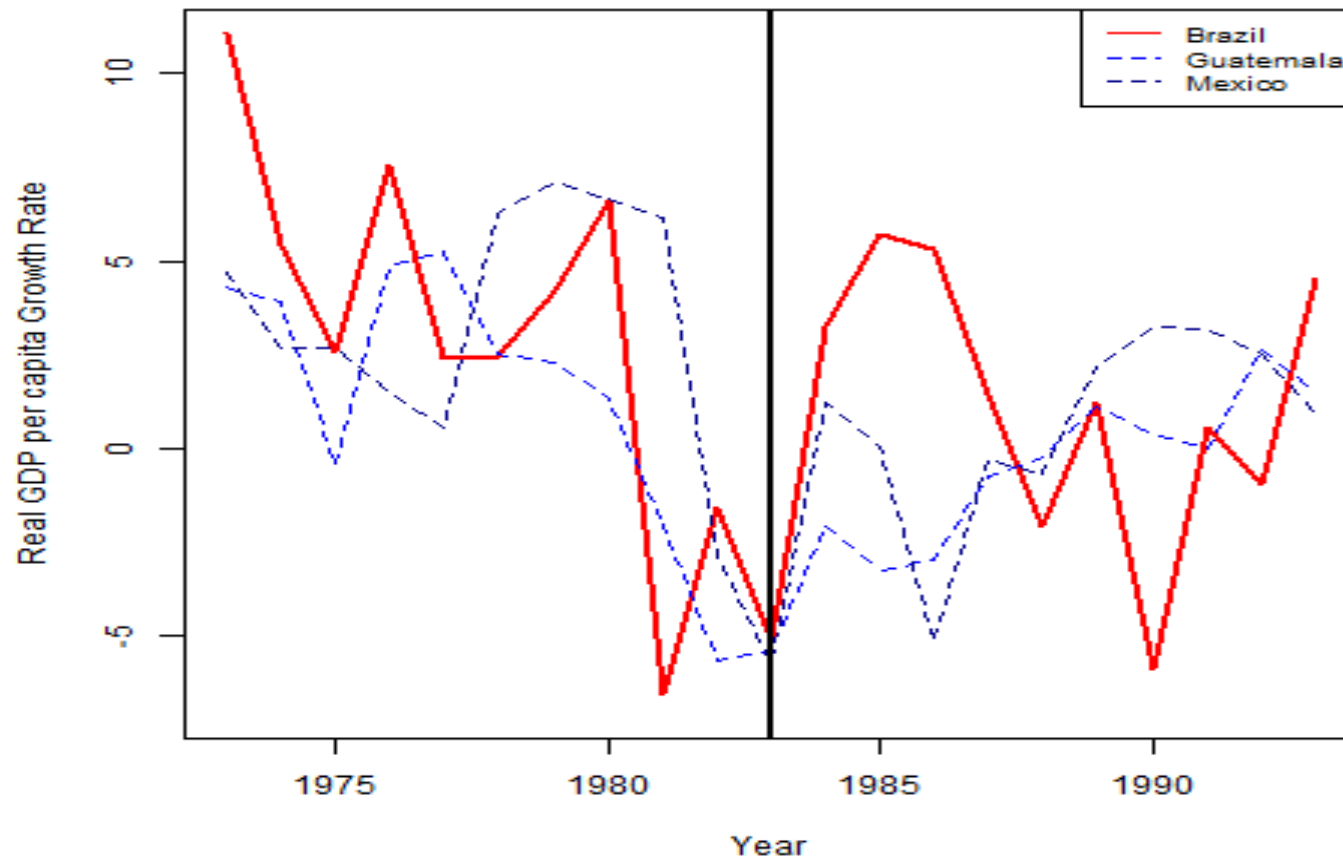


Table R.3 - Brazil's Donor Pool Weights

	Weights	Countries
3	0.21	Algeria
24	0.00	Cameroon
30	0.00	China
35	0.00	Cuba
44	0.00	El Salvador
54	0.12	Ghana
56	0.00	Guatemala
65	0.00	Indonesia
74	0.00	Kenya
85	0.00	Malawi
86	0.00	Malaysia
91	0.19	Mexico
94	0.47	Morocco
101	0.00	Niger
110	0.00	Paraguay
126	0.00	Sierra Leone
139	0.00	Thailand
142	0.00	Tunisia
145	0.00	Uganda
156	0.00	Zimbabwe

Table R.4 - Brazil Common Support

	Treated	Synthetic	Sample Mean
Trade	32756.73	9845.18	7011.81
Investment	22.36	23.65	20.96
Child Mortality	104.02	141.17	142.13
Primary Schooling	5.50	7.48	13.53
Secondary Schooling	6.00	6.81	6.36
Population Growth Rate	0.02	0.02	0.02
5-years Average GDP per capita	6371.10	4028.85	2951.89
3-years prior Average GDP per capita Growth Rate	-1.64	0.44	0.82

Figure R.4 - Brazil's Synthetic Control and its Controls' Placebos

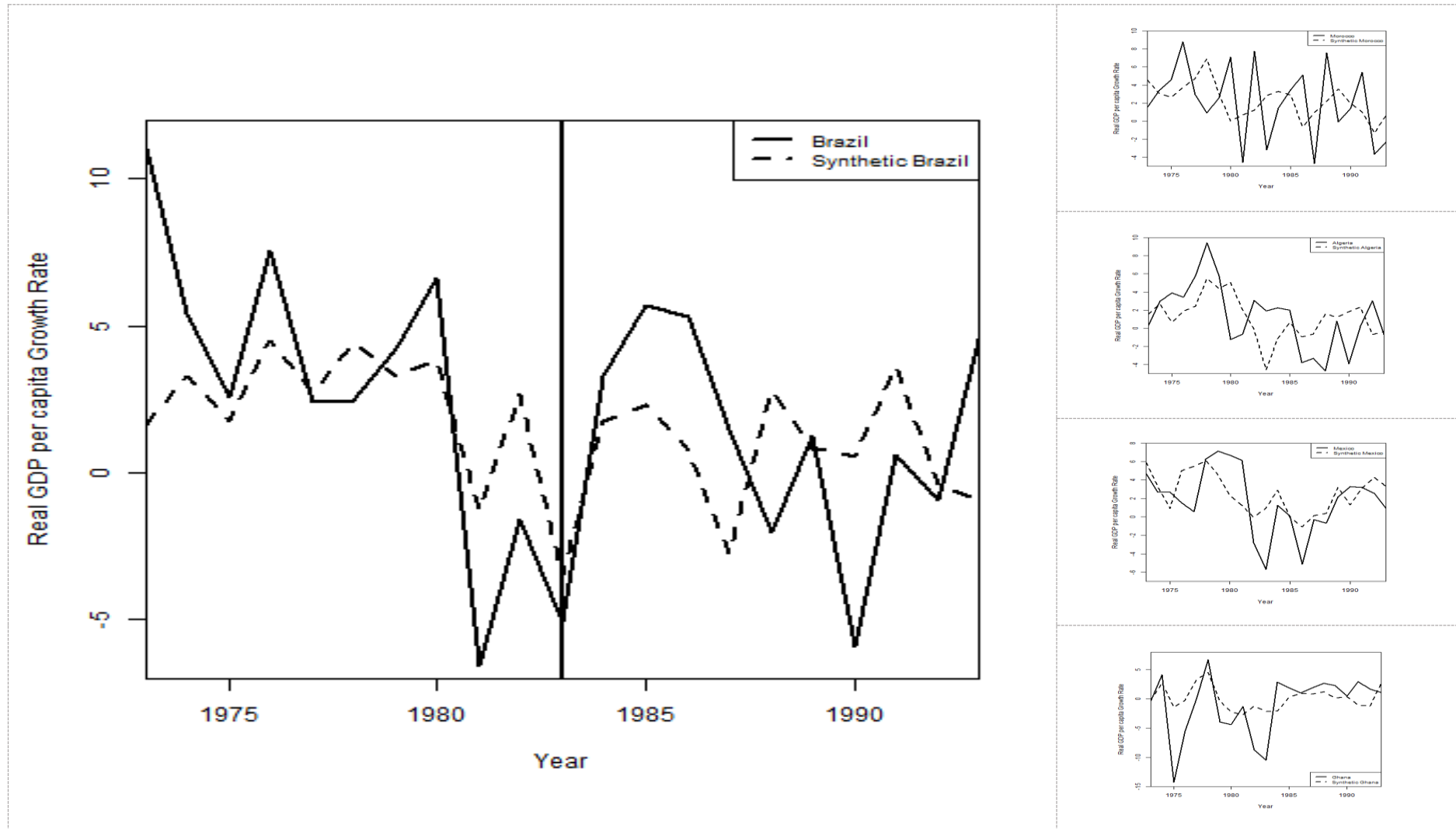


Figure R.5 - Brazil and its Controls' Density Plots of the Average Treatment Effect (ATE)

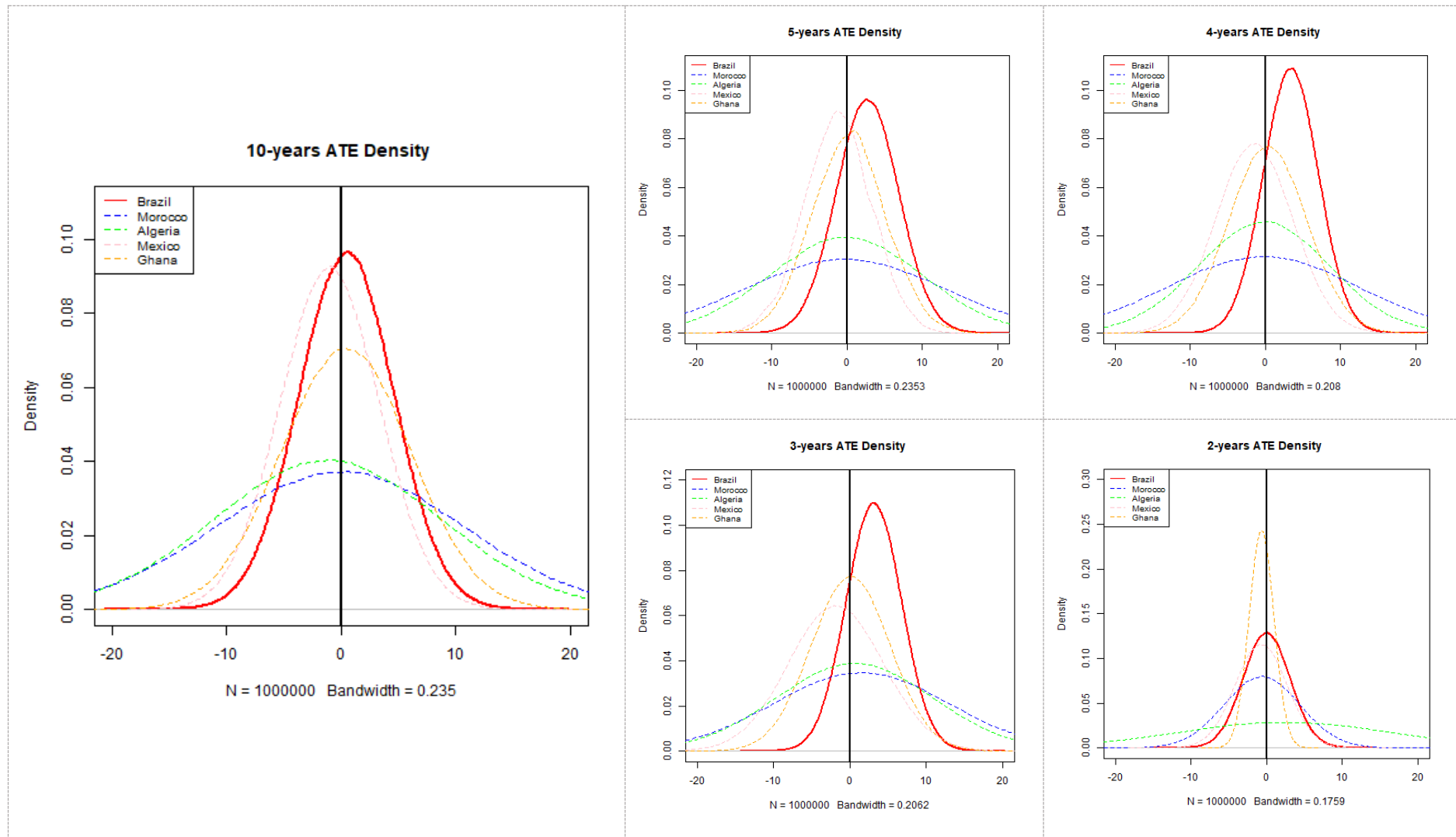
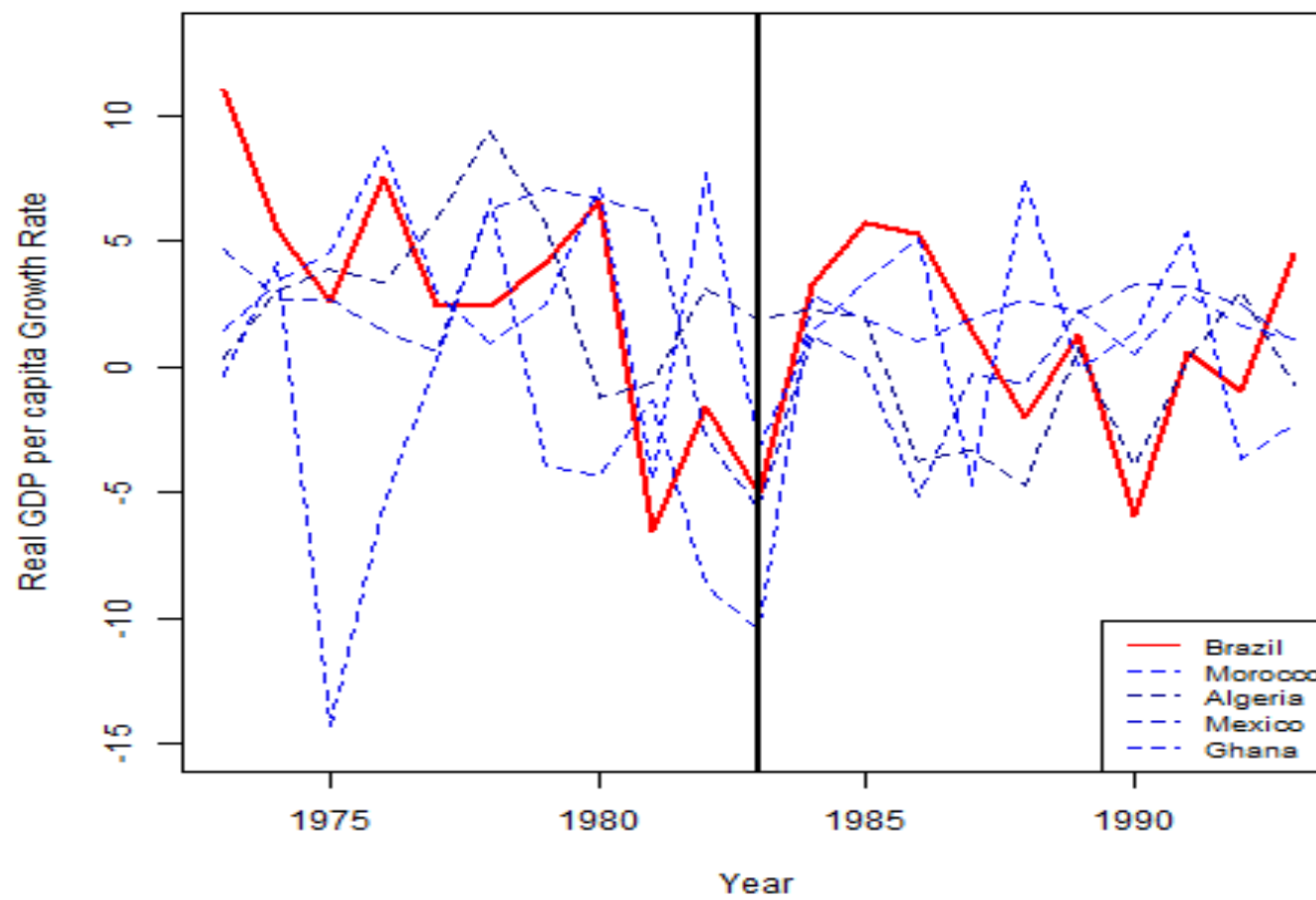


Figure R.6 – Brazil and Controls' Placebo



S| Bolivia

S.1| In America

Table S.1 - Bolivia's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
35	0.12	Cuba
44	0.40	El Salvador
56	0.48	Guatemala
91	0.00	Mexico
110	0.00	Paraguay

Table S.2 - Bolivia Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Trade	1234.35	2303.04	5688.09
Investment	18.82	18.43	21.80
Child Mortality	185.73	117.30	87.38
Primary Schooling	8.00	14.13	17.70
Secondary Schooling	6.00	6.03	6.09
Population Growth Rate	0.02	0.02	0.02
5-years Average GDP per capita	3926.80	4636.22	4886.42
3-years prior Average GDP per capita Growth Rate	-3.08	-2.83	0.83

Figure S.1 - Bolivia's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

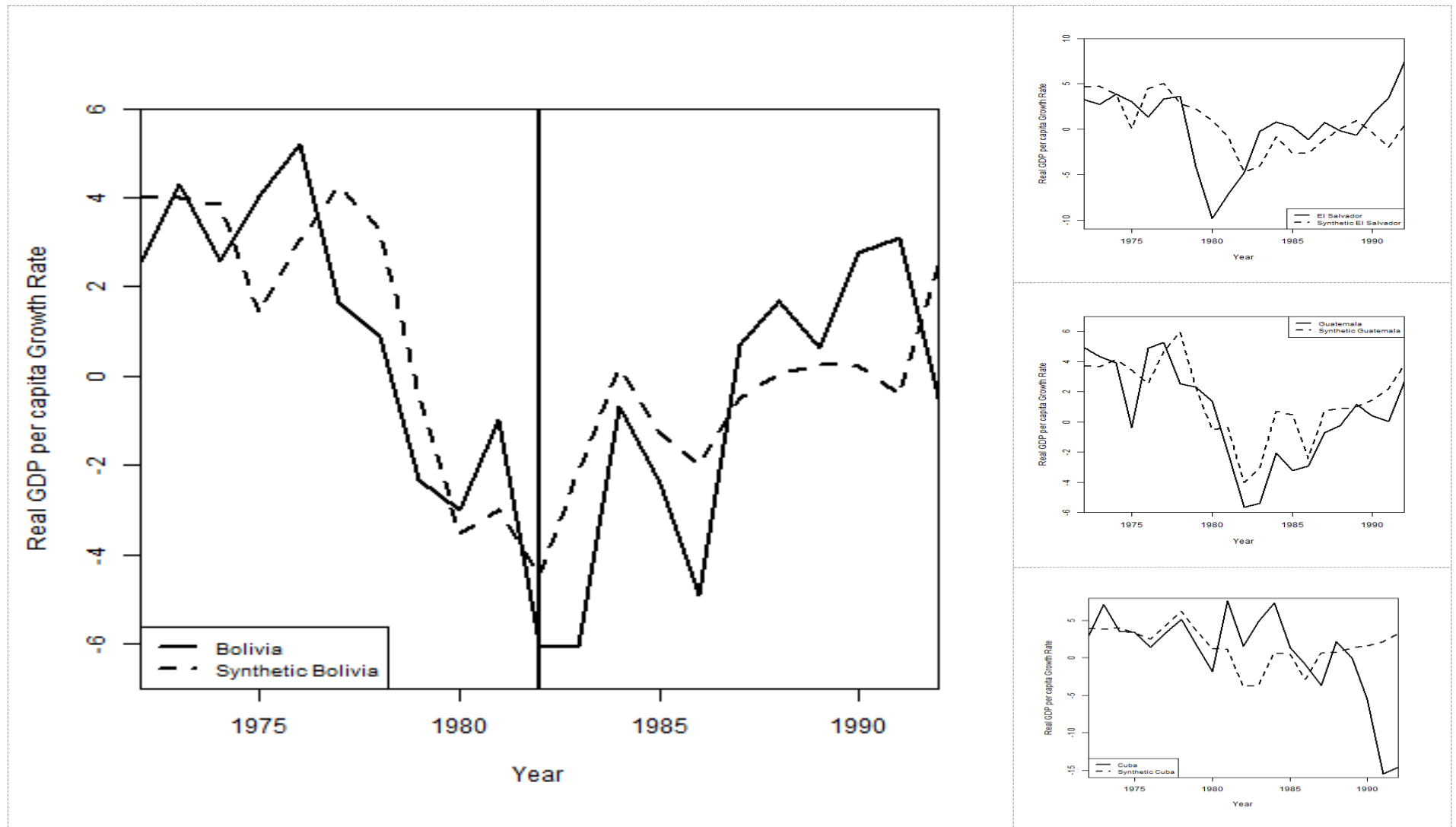


Figure S.2 - Bolivia and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

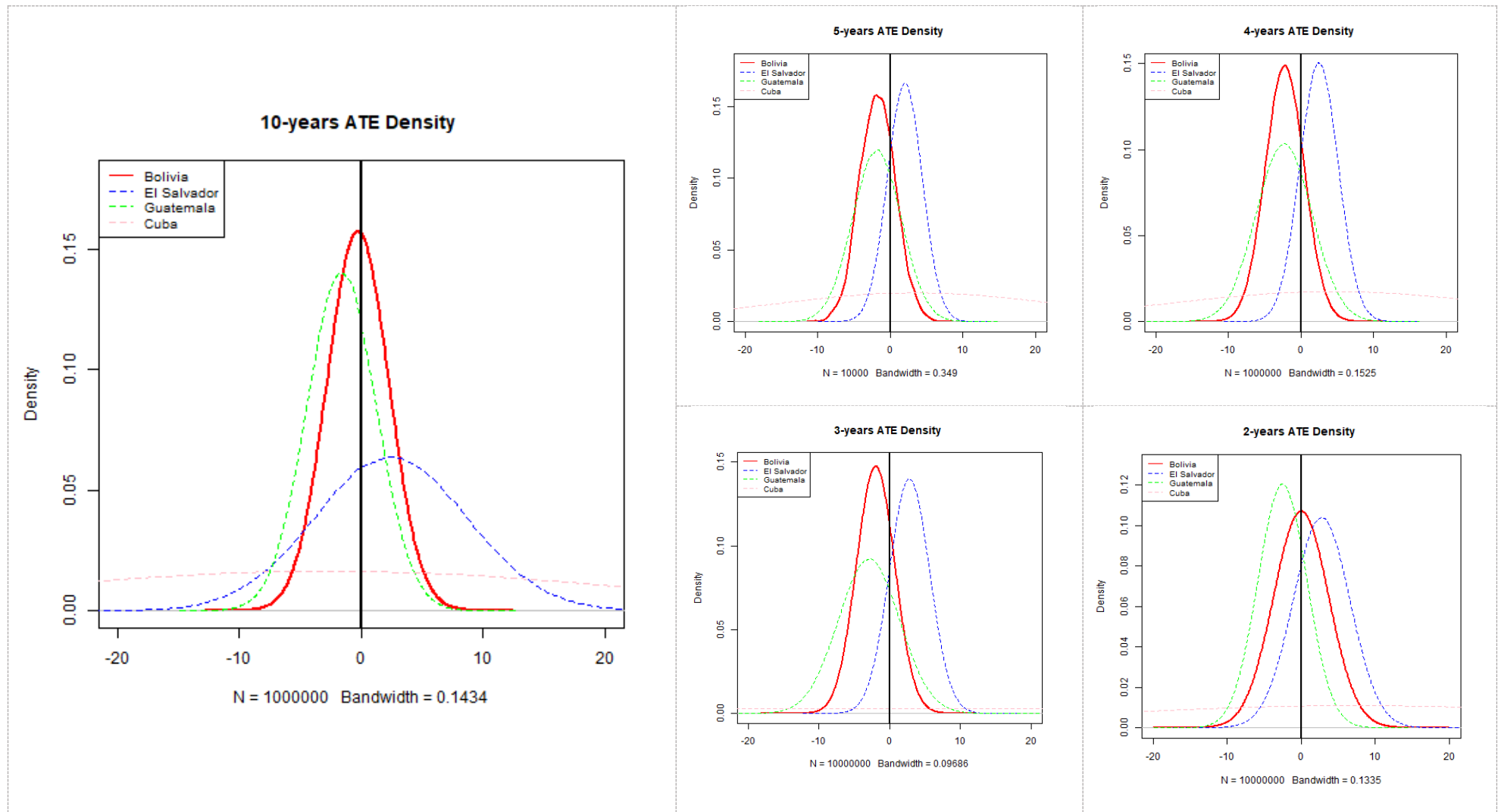


Figure S.3 – Bolivia and Controls' Placebo with Donor Pool Countries in Europe

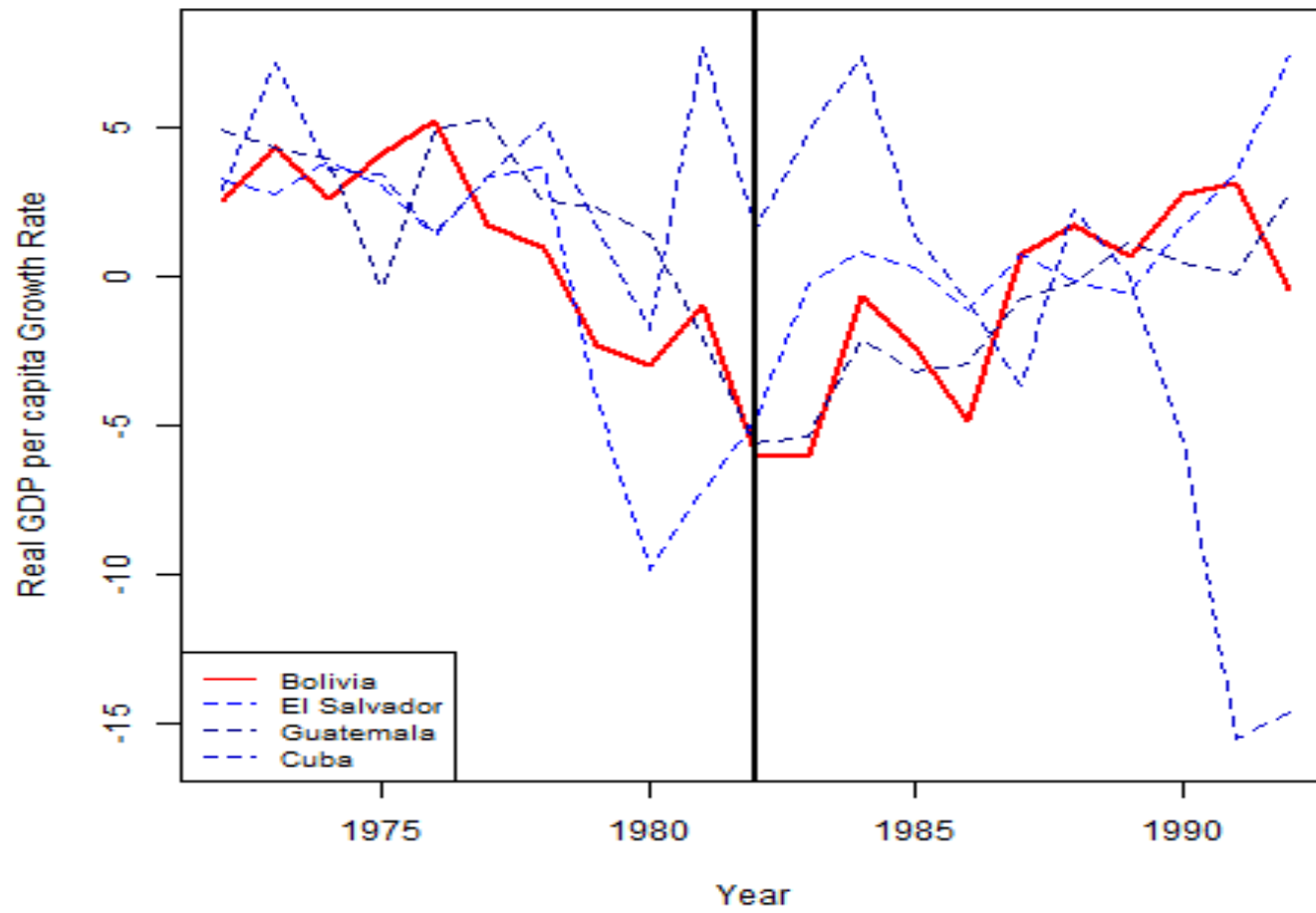


Table S.3 - Bolivia's Donor Pool Weights

	Weights	Countries
3	0.00	Algeria
24	0.00	Guatemala
30	0.00	Cameroon
35	0.05	China
44	0.46	Cuba
54	0.00	El Salvador
56	0.30	Ghana
65	0.00	Indonesia
74	0.00	Kenya
85	0.00	Malawi
86	0.00	Malaysia
87	0.06	Mali
91	0.00	Mexico
94	0.00	Morocco
101	0.00	Niger
110	0.00	Paraguay
126	0.12	Sierra Leone
139	0.00	Thailand
142	0.00	Tunisia
145	0.00	Uganda
156	0.00	Zimbabwe

Table S.4 - Bolivia Common Support

	Treated	Synthetic	Sample Mean
Trade	1234.35	1712.10	5931.46
Investment	18.82	18.86	21.09
Primary Schooling	8.00	12.36	
Secondary Schooling	6.00	6.10	6.33
Child Mortality	185.73	154.20	154.44
Population Growth Rate	0.02	0.02	0.02
5-years Average GDP per capita	3926.80	3924.43	2860.49
3-years prior Average GDP per capita Growth Rate	-3.08	-3.08	1.33

Figure S.4 - Bolivia's Synthetic Control and its Controls' Placebo

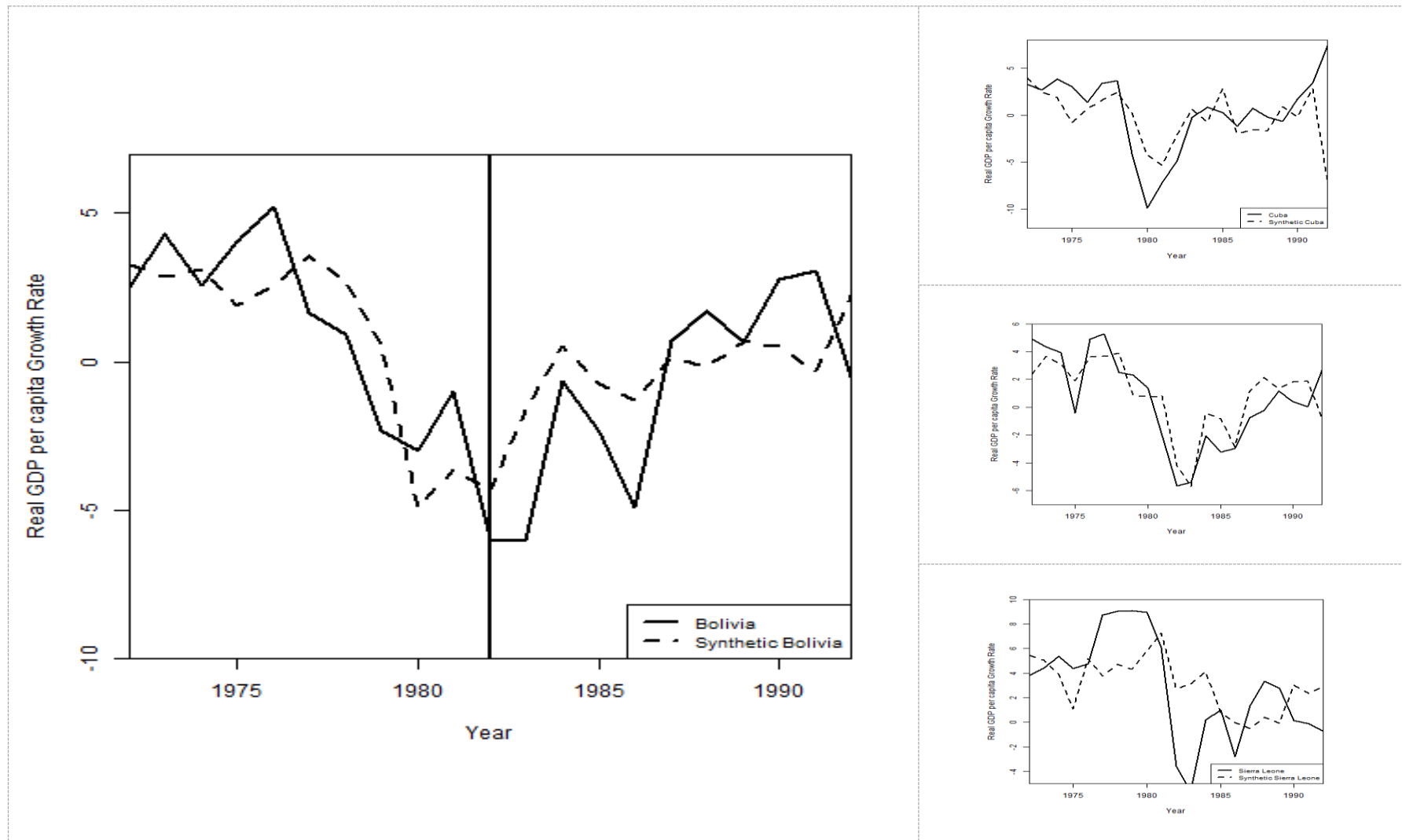


Figure S.5 - Bolivia and its Controls' Density Plots of the Average Treatment Effect (ATE)

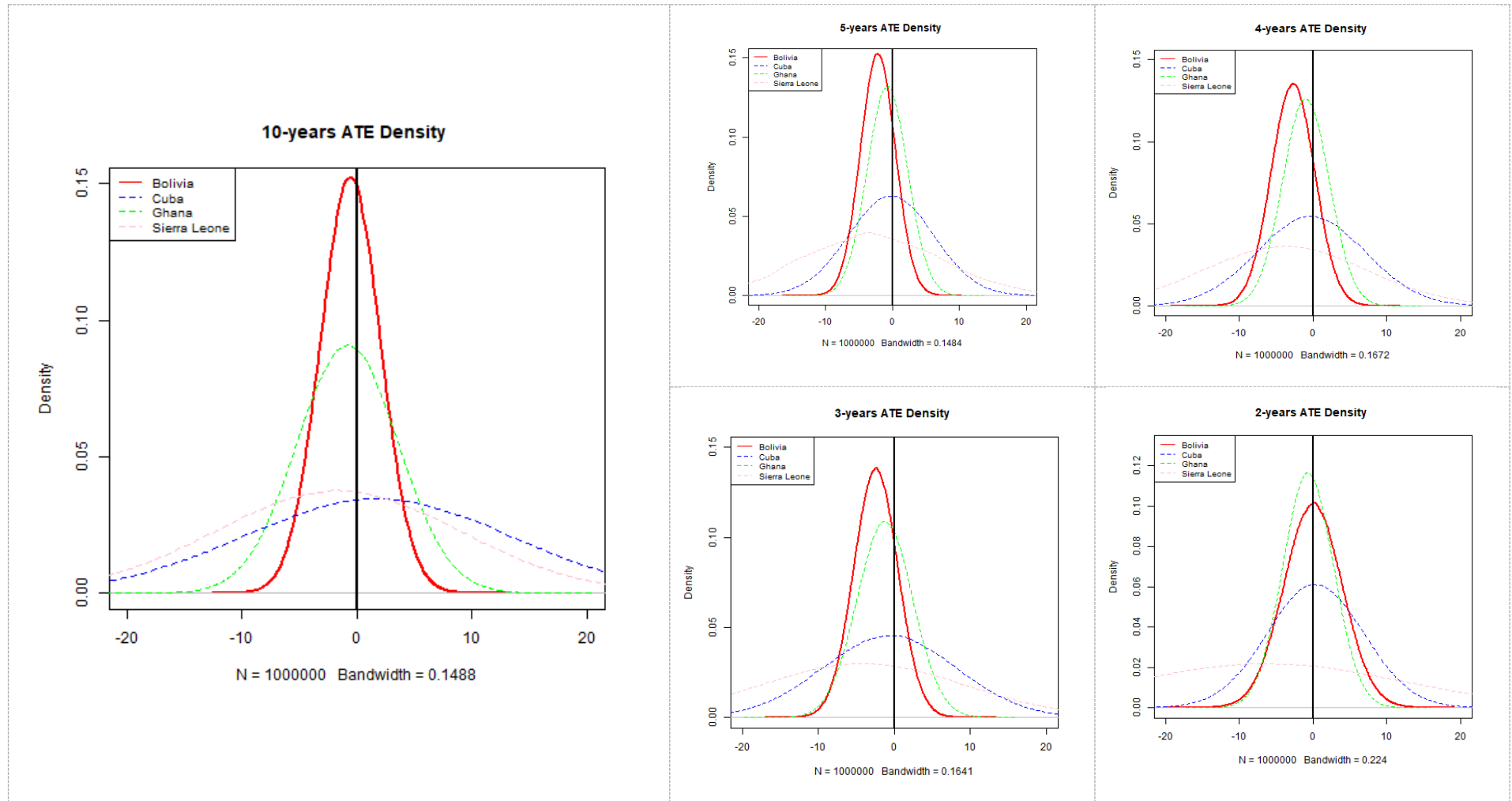
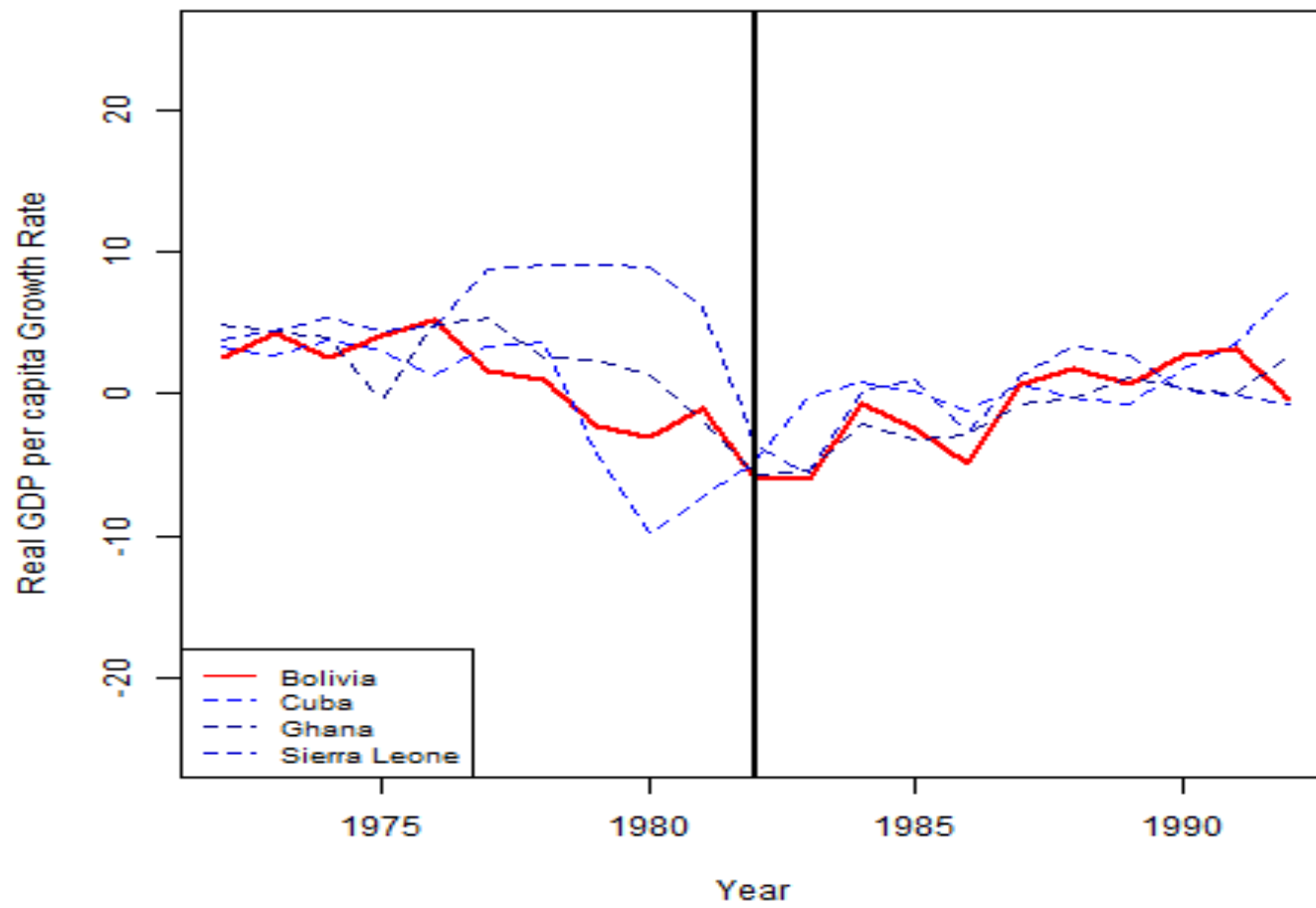


Figure S.6 – Bolivia and Controls' Placebo



T| Trinidad & Tobago

T.1| In America

Table T.1 - Trinidad & Tobago's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
16	0.00	Bolivia
19	0.29	Brazil
31	0.00	Colombia
35	0.20	Cuba
41	0.00	Dominican Republic
42	0.00	Ecuador
44	0.00	El Salvador
56	0.00	Guatemala
60	0.00	Honduras
91	0.00	Mexico
100	0.00	Nicaragua
108	0.00	Panama
109	0.00	Paraguay
110	0.51	Peru

Table T.2 - Trinidad & Tobago Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Trade	817.65	1732.54	783.83
Child Mortality	68.36	175.61	165.37
Primary Schooling	40.00	19.01	13.32
Population Growth Rate	0.02	0.03	0.03
5-years Average GDP per capita	6177.40	3239.69	2837.87
3-years prior Average GDP per capita Growth Rate	5.46	3.30	1.56

Figure T.1 - Trinidad & Tobago's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

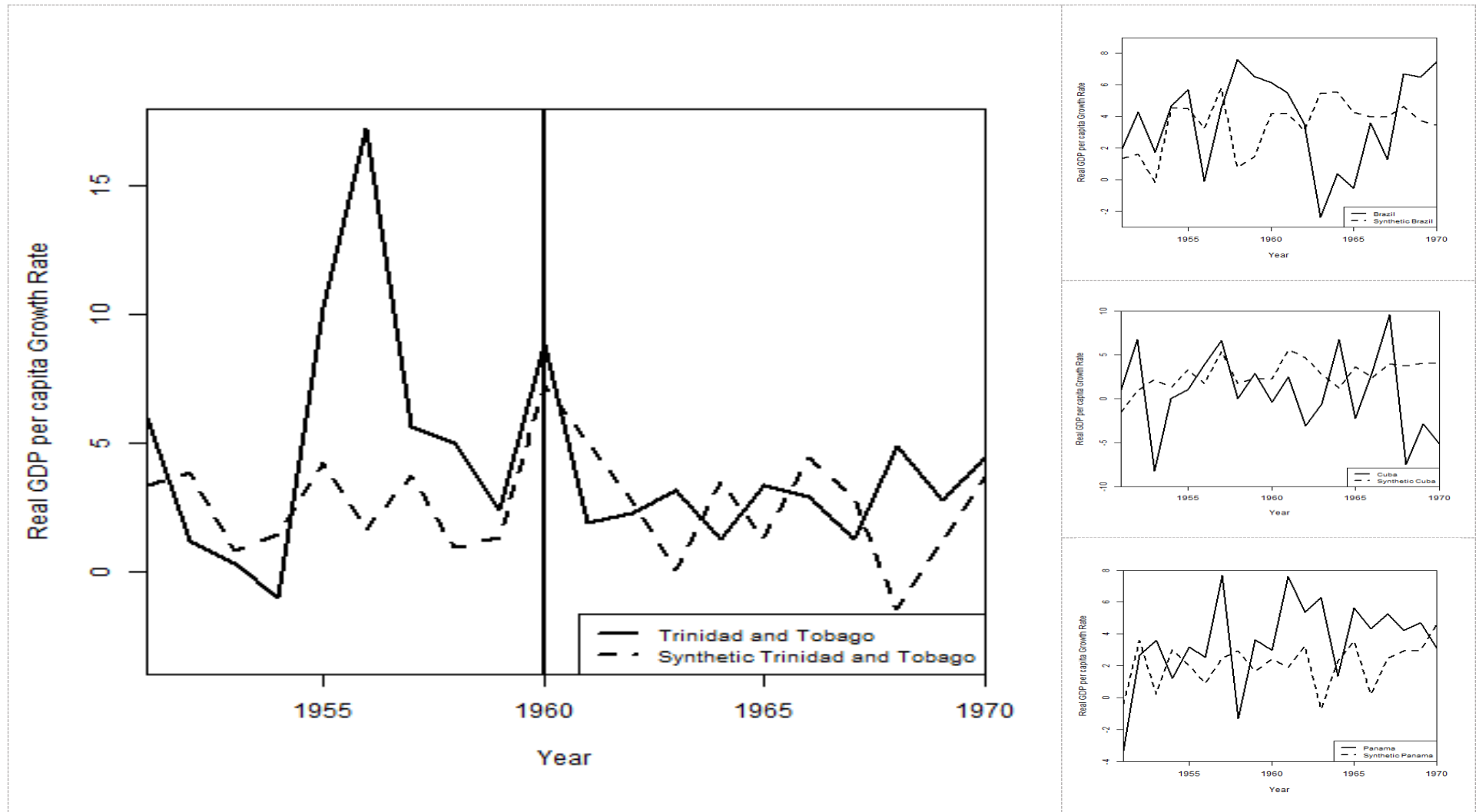


Figure T.2 - Trinidad & Tobago and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

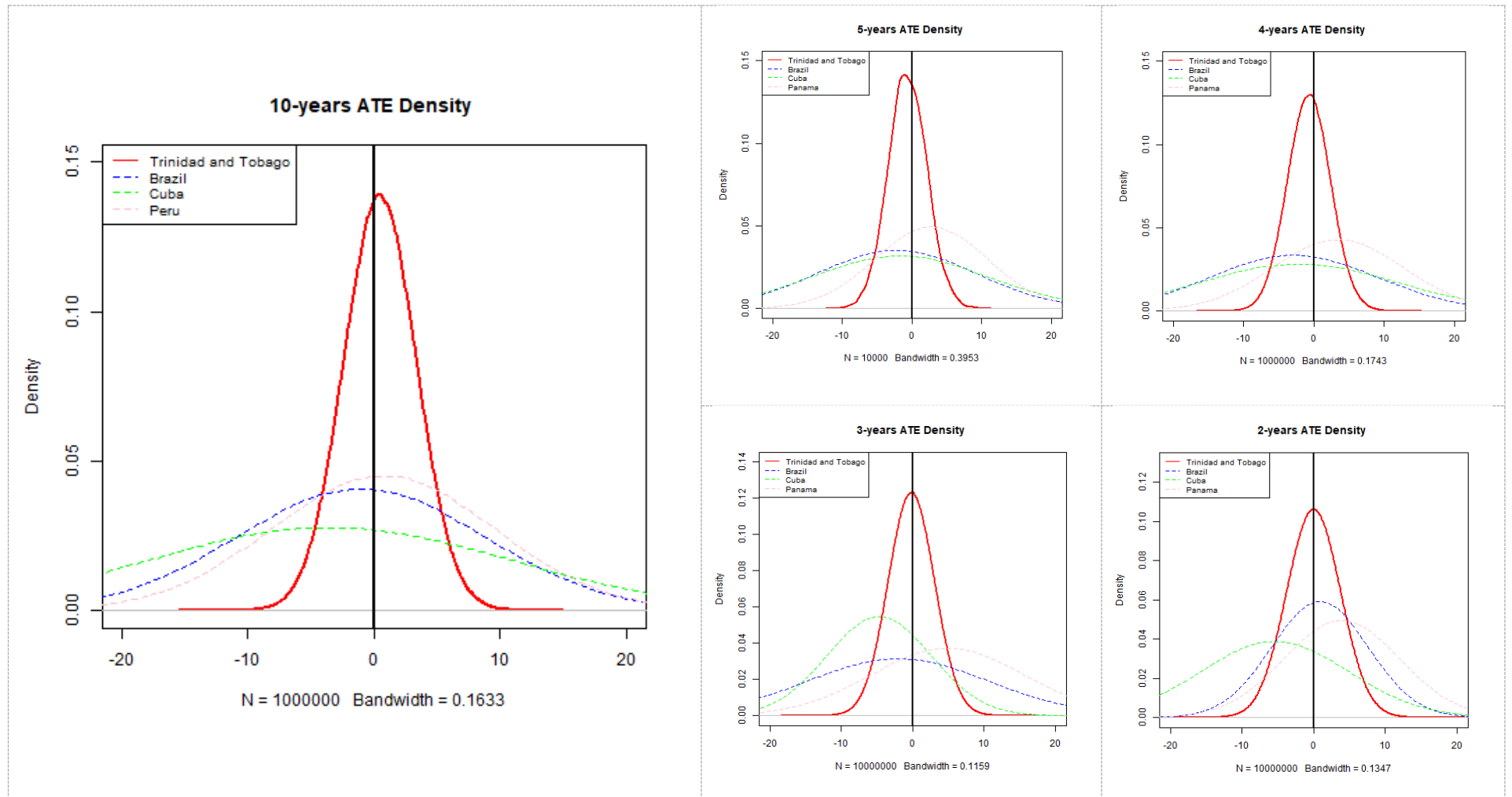


Figure T.3 – Trinidad & Tobago and Controls' Placebo with Donor Pool Countries in Europe

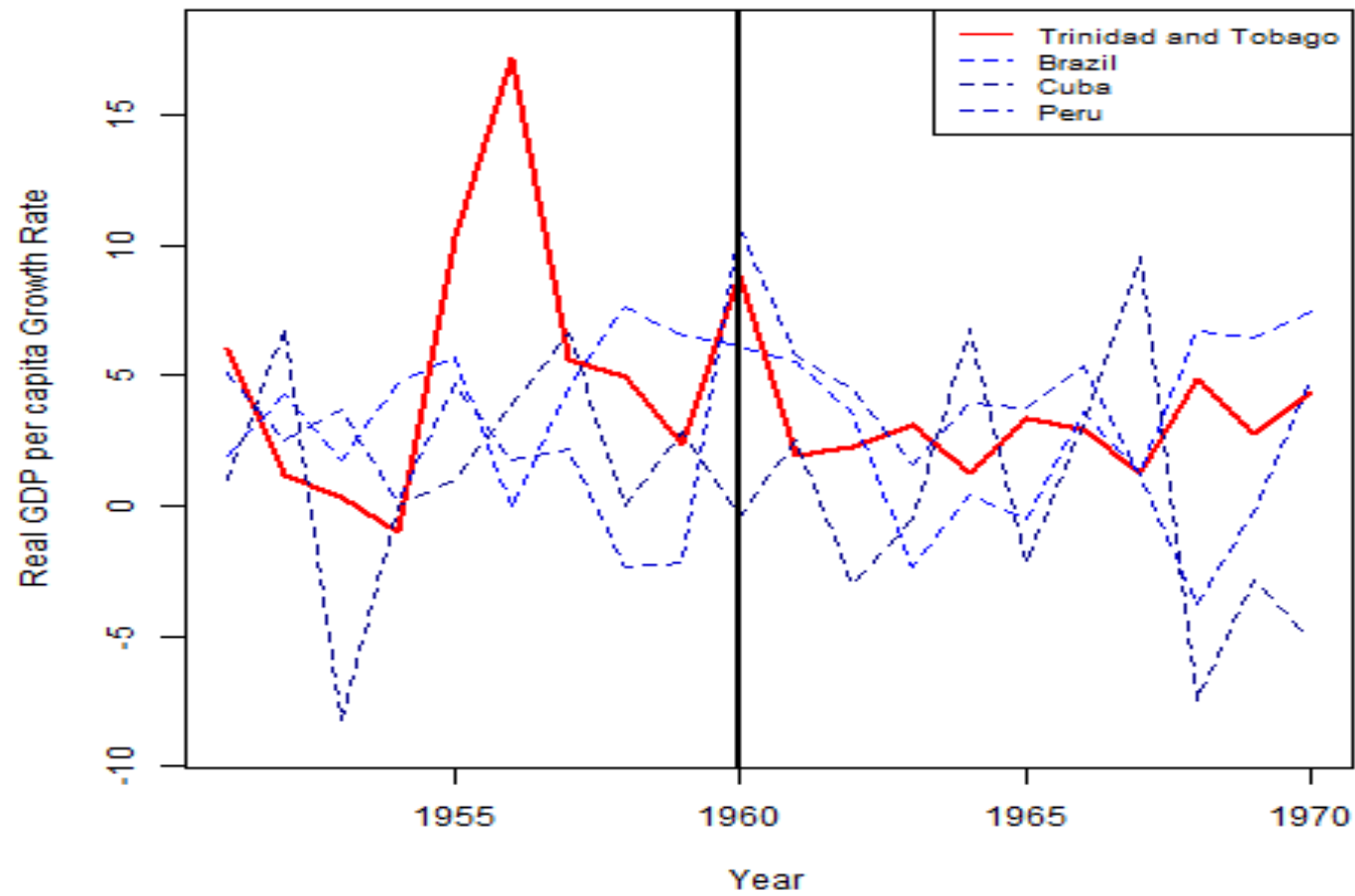


Table T.3 - Trinidad & Tobago's Donor Pool Weights

	Weights	Countries
2	0.00	Albania
3	0.20	Algeria
15	0.00	Benin
16	0.00	Bolivia
19	0.00	Brazil
20	0.00	Bulgaria
23	0.00	Cambodia
30	0.00	China
31	0.00	Colombia
35	0.00	Cuba
41	0.00	Dominican Republic
42	0.00	Ecuador
43	0.00	Egypt
44	0.00	El Salvador
54	0.00	Ghana
55	0.00	Greece
56	0.00	Guatemala
60	0.00	Honduras
62	0.51	Hungary
65	0.00	Indonesia
66	0.00	Iraq
74	0.00	Kenya
85	0.00	Malawi
86	0.00	Malaysia
87	0.00	Mali
91	0.03	Mexico
94	0.00	Morocco
95	0.00	Mozambique
100	0.00	Nicaragua
101	0.00	Niger
108	0.00	Panama
109	0.00	Paraguay
110	0.26	Peru
111	0.00	Philippines
112	0.00	Poland
113	0.00	Portugal
122	0.00	Senegal
125	0.00	Sierra Leone
128	0.00	South Africa
129	0.00	South Korea
131	0.00	Spain
137	0.00	Thailand
140	0.00	Tunisia
143	0.00	Uganda
154	0.00	Zimbabwe

Table T.4 - Trinidad & Tobago Common Support

	Treated	Synthetic	Sample Mean
Trade	817.65	1609.50	952.35
Child Mortality	68.36	141.13	193.98
Primary Schooling	40.00	38.37	14.46
Population Growth Rate	0.02	0.02	0.02
5-years Average GDP per capita	6177.40	3777.27	2281.97
3-years prior Average GDP per capita Growth Rate	5.46	5.20	2.10

Figure T.4 - Trinidad & Tobago's Synthetic Control and its Controls' Placebos

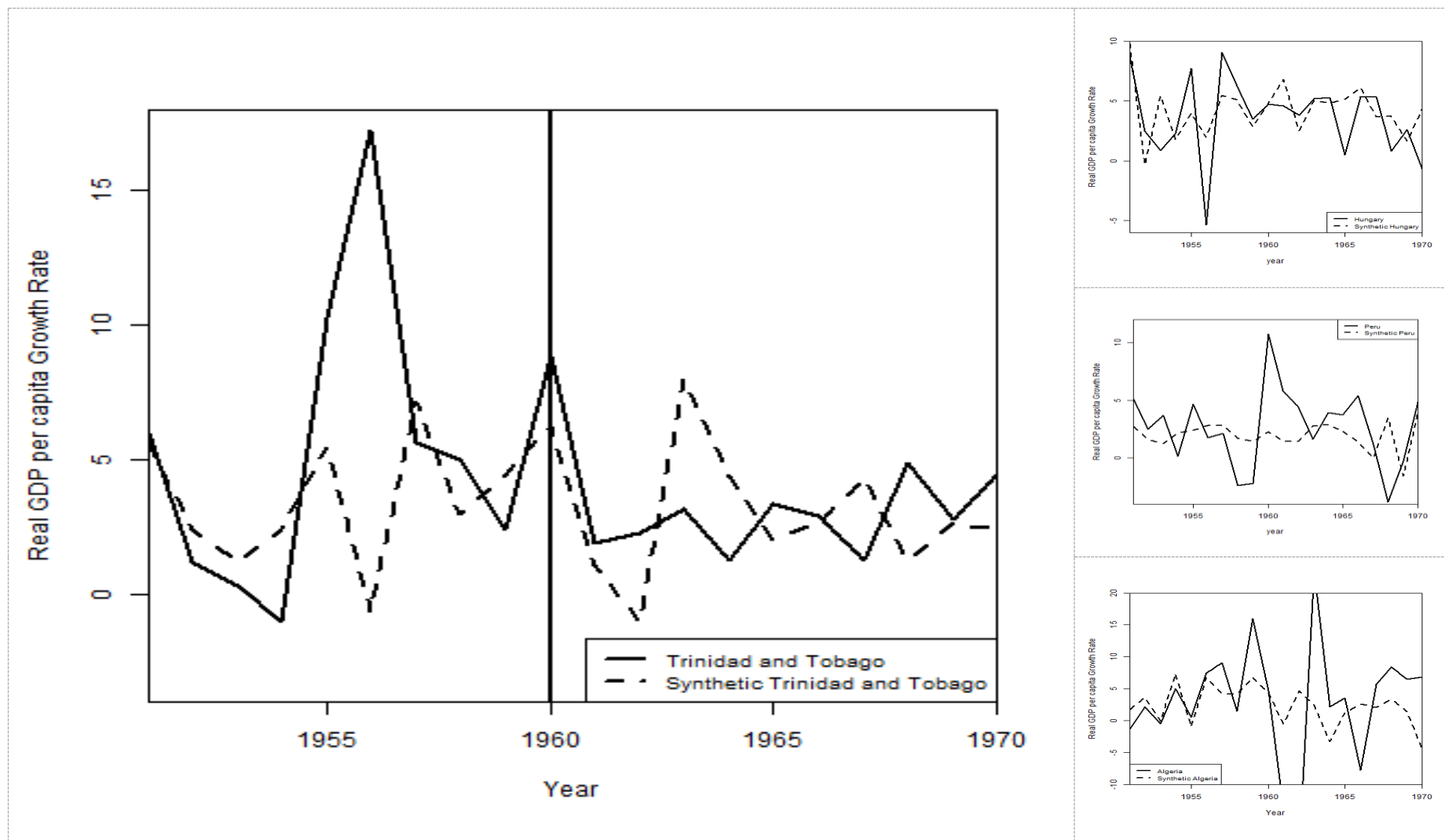


Figure T.5 - Trinidad & Tobago and its Controls' Density Plots of the Average Treatment Effect (ATE)

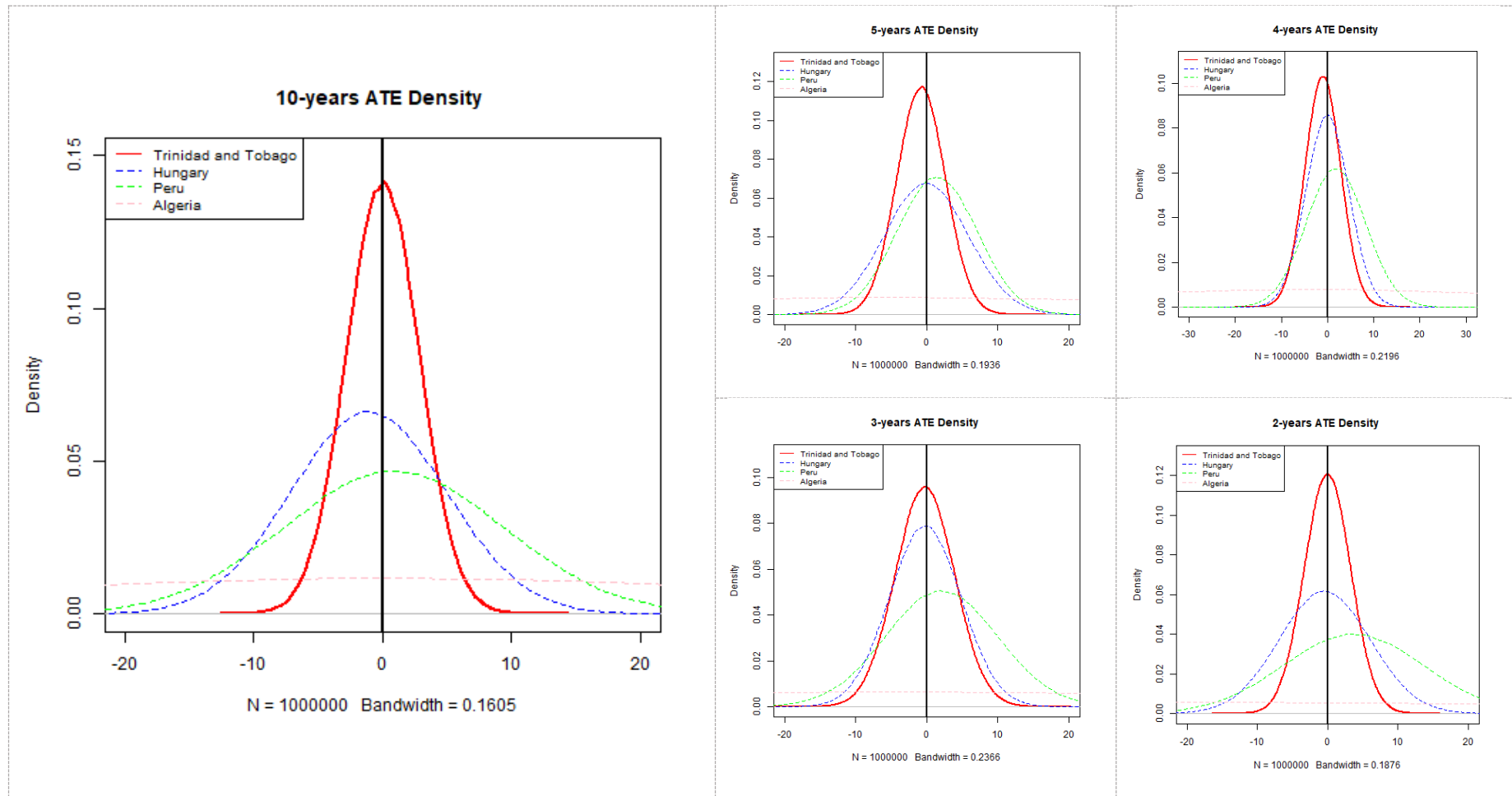
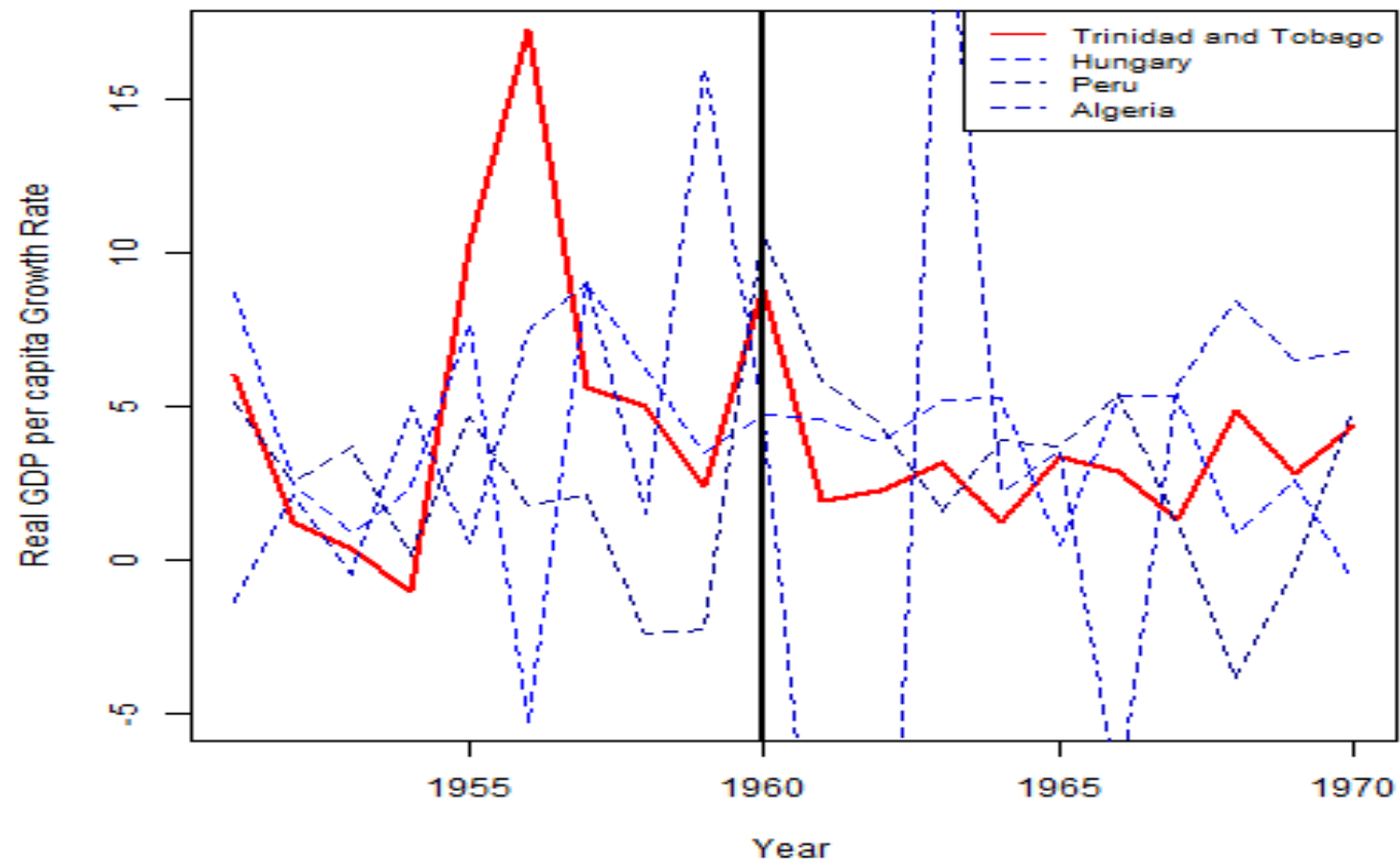


Figure T.6 – Trinidad & Tobago and Controls' Placebo



U| South Africa

U.1| In Africa

Table U.1 - South Africa's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
3	0.28	Algeria
4	0.00	Angola
22	0.00	Burundi
24	0.00	Cameroon
27	0.00	Central African Republic
28	0.00	Chad
32	0.00	Comoros
40	0.15	Djibouti
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
74	0.00	Kenya
80	0.03	Liberia
81	0.00	Libya
85	0.00	Malawi
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
102	0.00	Nigeria
120	0.00	Rwanda
125	0.24	Seychelles
140	0.00	Togo
142	0.00	Tunisia
145	0.00	Uganda
156	0.30	Zimbabwe

Table U.2 - South Africa Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Investment	19.45	19.56	16.31
Child Mortality	63.24	70.85	147.47
Population Growth Rate	0.02	0.02	0.03
Secondary Schooling	5.00	6.04	6.53
5-years Average GDP per capita	6571.40	4162.66	2556.12
3-years prior Average GDP per capita Growth Rate	0.28	0.46	-1.69

Figure U.1 - South Africa's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

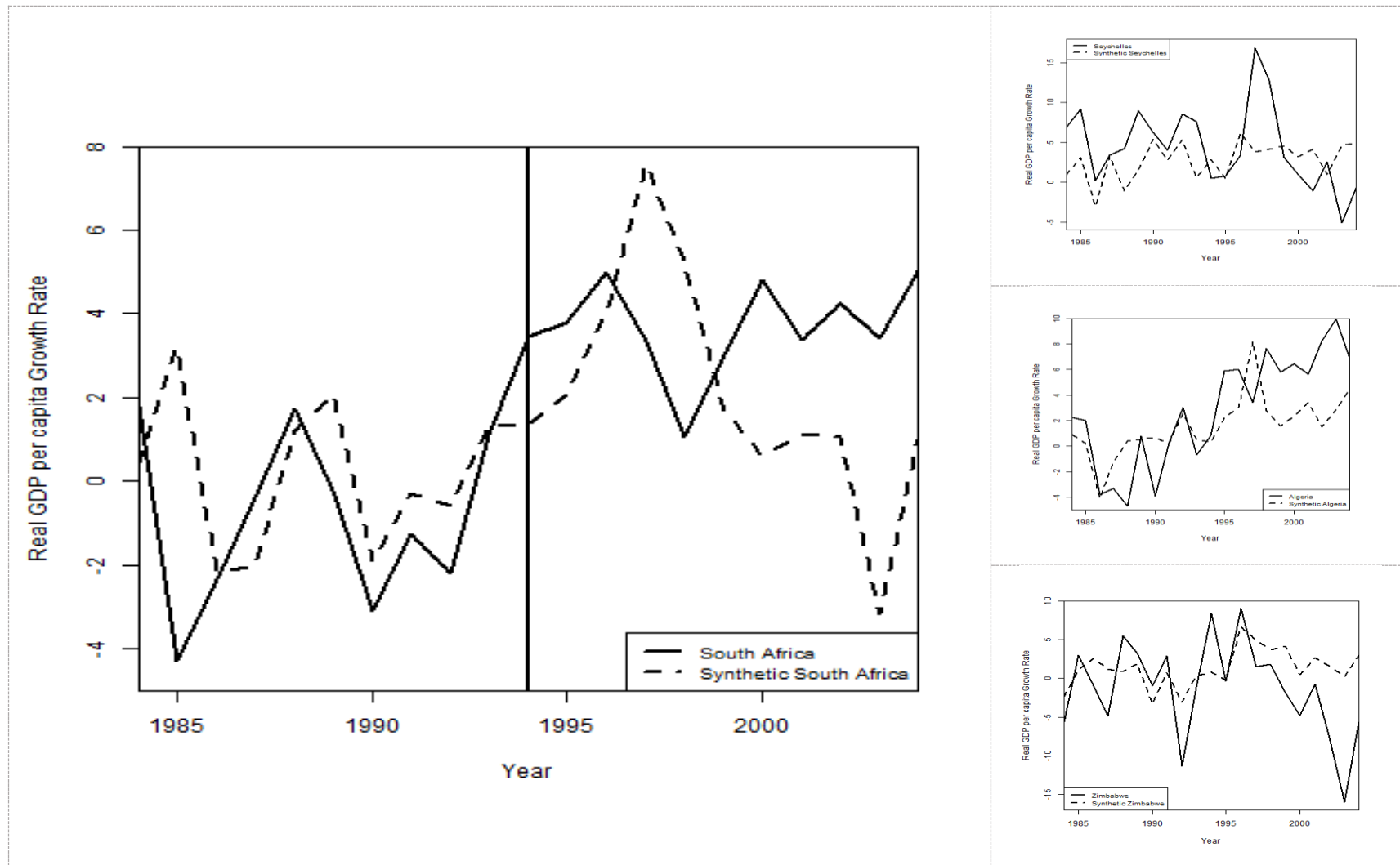


Figure U.2 - South Africa and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

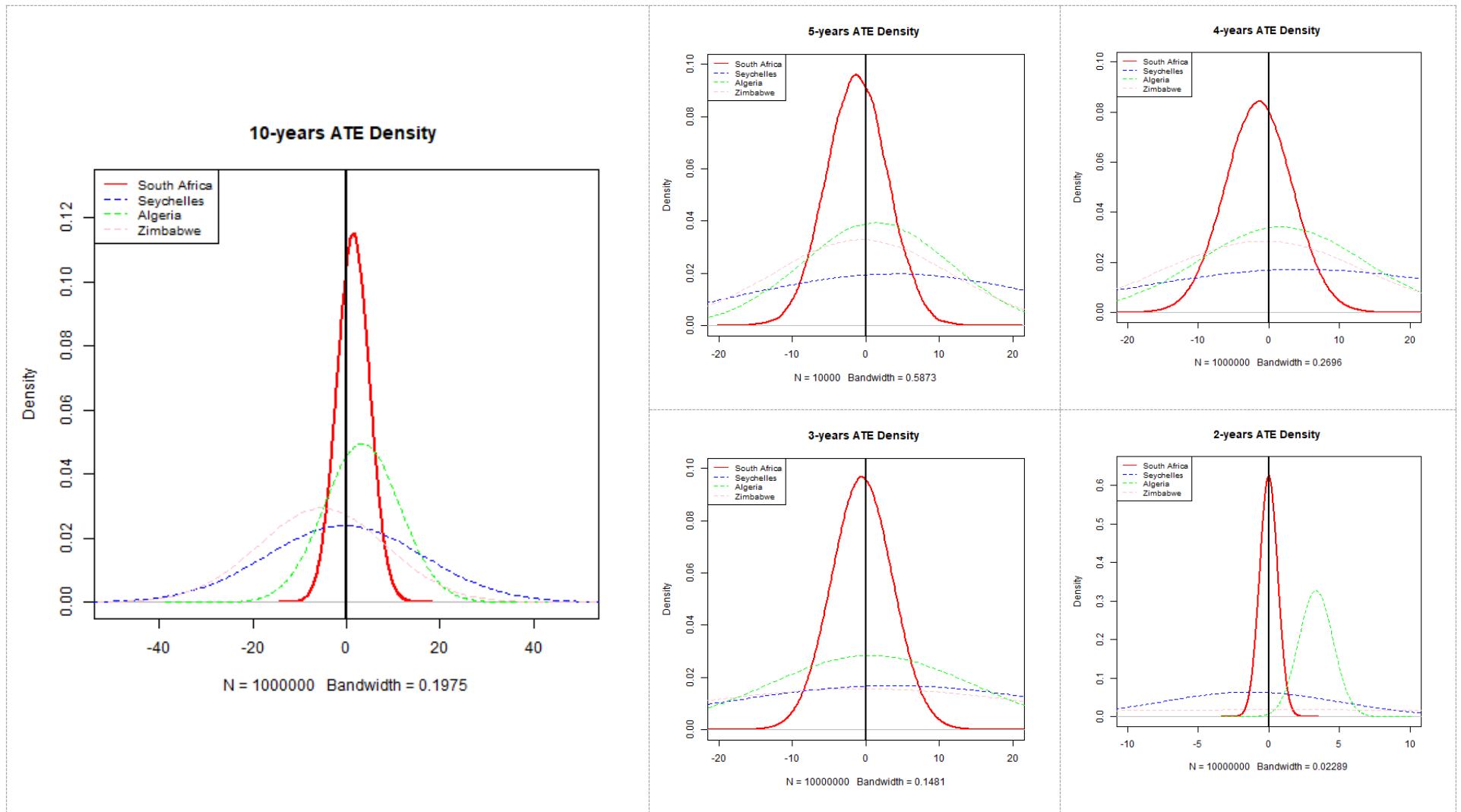


Figure U.3 – South Africa and Controls' Placebo with Donor Pool Countries in Europe

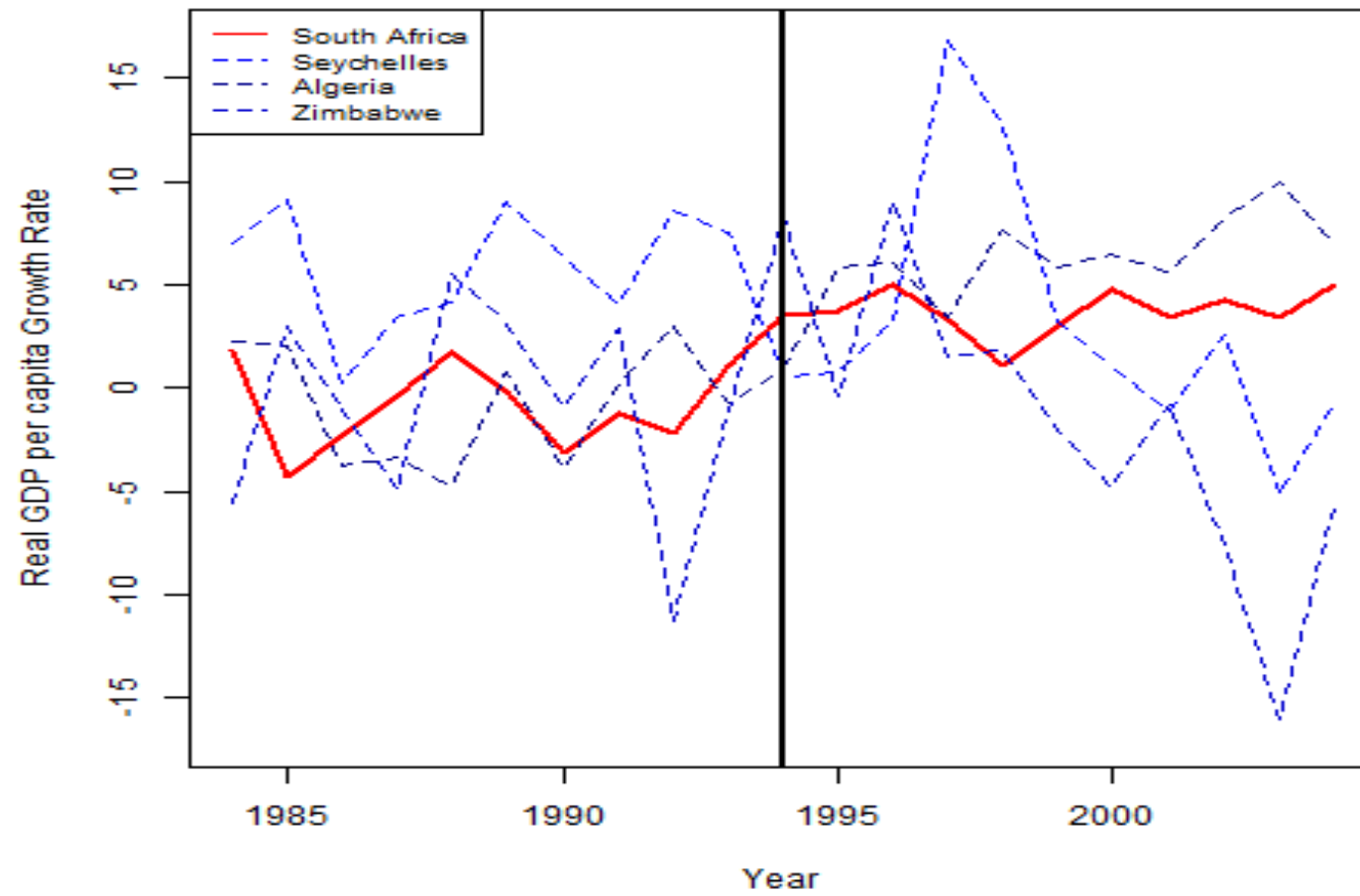


Table U.3 - South Africa's Donor Pool Weights

	Weights	Countries
1	0.00	Afghanistan
2	0.00	Albania
3	0.00	Algeria
4	0.00	Angola
10	0.00	Bahrain
22	0.00	Burundi
23	0.00	Cambodia
24	0.00	Cameroon
27	0.00	Central African Republic
28	0.00	Chad
30	0.00	China
32	0.00	Comoros
35	0.00	Cuba
40	0.00	Djibouti
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
59	0.00	Haiti
66	0.00	Iraq
72	0.00	Jordan
74	0.00	Kenya
75	0.00	Kuwait
78	0.00	Lebanon
80	0.12	Liberia
81	0.00	Libya
85	0.00	Malawi
86	0.00	Malaysia
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
97	0.61	Nepal
102	0.00	Nigeria
106	0.00	Oman
107	0.00	Pakistan
115	0.16	Qatar
120	0.00	Rwanda
122	0.00	Saudi Arabia
125	0.01	Seychelles
127	0.10	Singapore
140	0.00	Togo
142	0.00	Tunisia
145	0.00	Uganda
153	0.00	Vietnam
156	0.00	Zimbabwe

Table U.4 - South Africa Common Support

	Treated	Synthetic	Sample Mean
Investment	19.45	16.58	17.03
Child Mortality	63.24	124.72	111.50
Secondary Schooling	5.00	5.38	6.44
Population Growth Rate	0.02	0.02	0.03
5-years Average GDP per capita	6571.40	6466.57	4437.60
3-years prior Average GDP per capita Growth Rate	-0.40	-0.22	0.44

Figure U.4 - South Africa's Synthetic Control and its Controls' Placebos

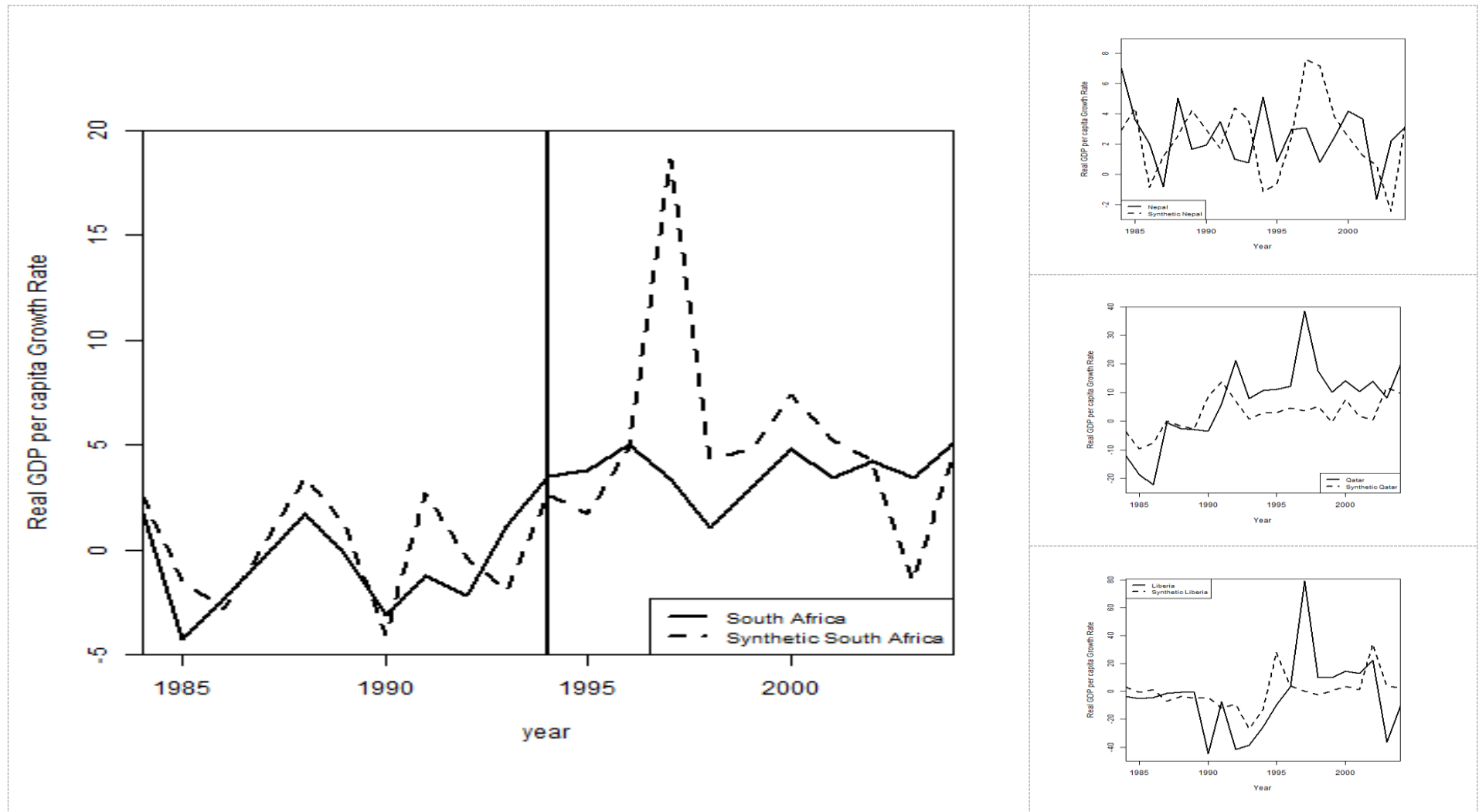


Figure U.5 - South Africa and its Controls' Density Plots of the Average Treatment Effect (ATE)

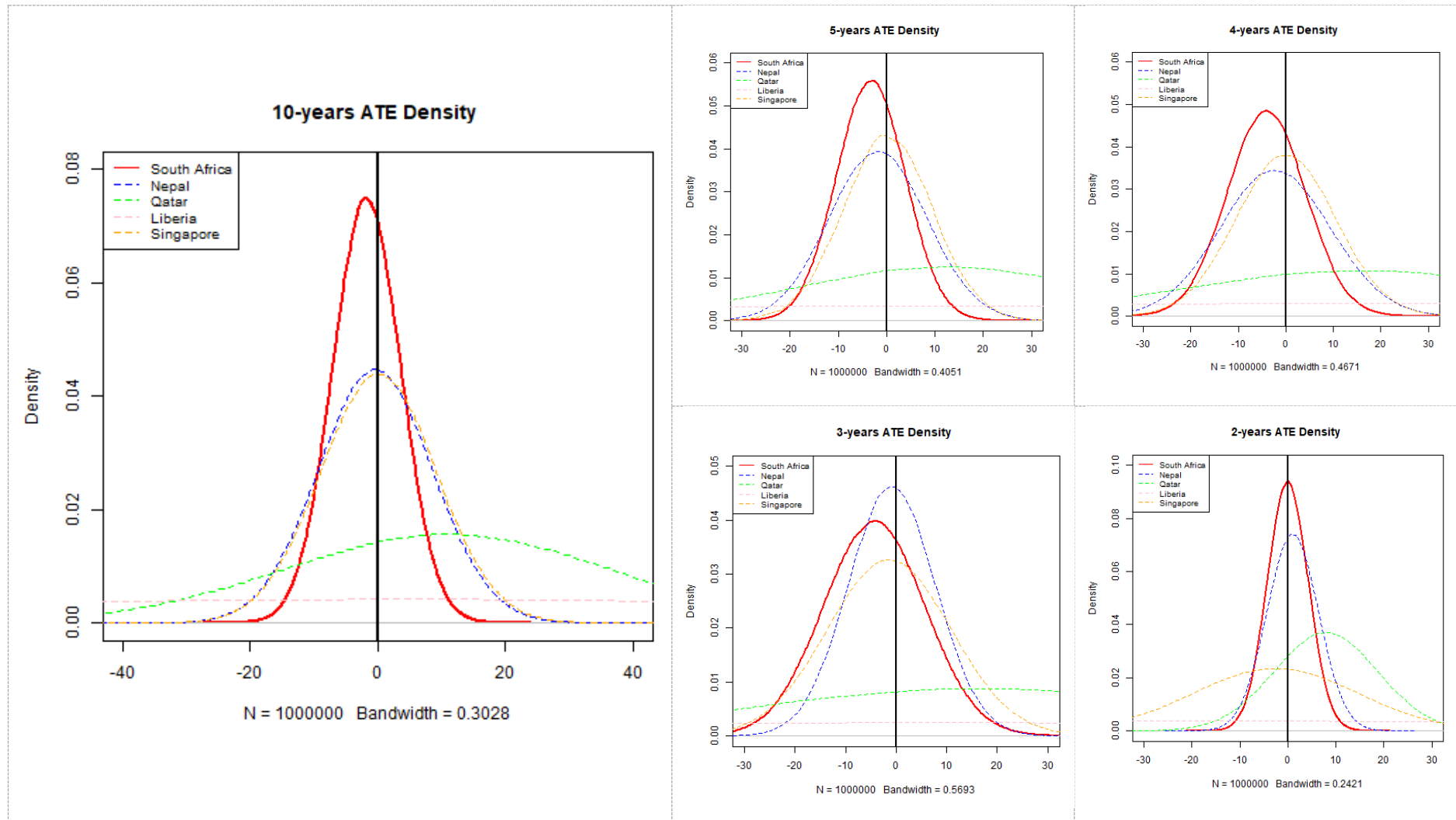
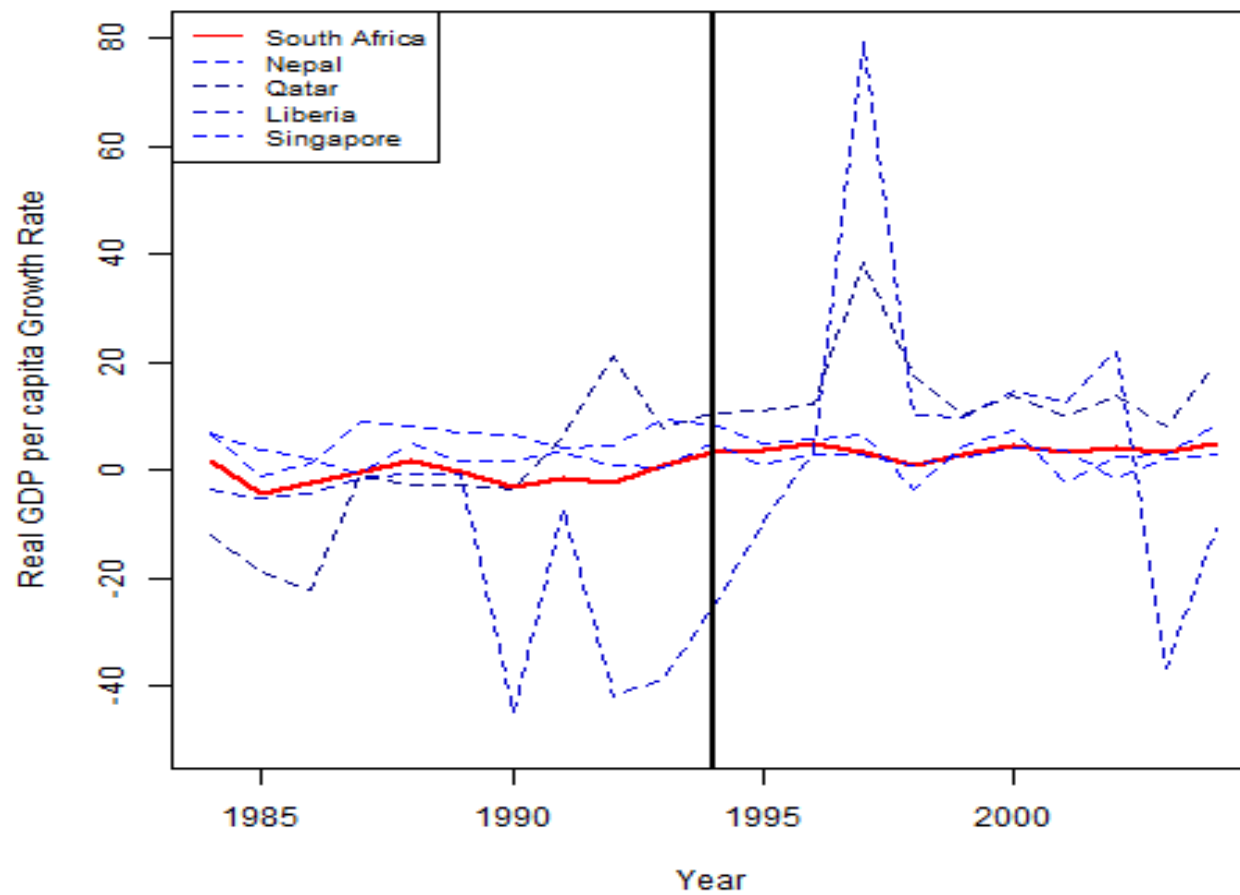


Figure U.6 – South Africa and Controls' Placebo



V| Lesotho
V.1| In Africa

Table V.1 - Lesotho's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
3	0.00	Algeria
4	0.00	Angola
22	0.00	Burundi
24	0.00	Cameroon
27	0.00	Central African Republic
28	0.00	Chad
40	0.00	Djibouti
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
74	0.00	Kenya
81	0.00	Libya
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
102	0.22	Nigeria
120	0.04	Rwanda
125	0.27	Seychelles
140	0.00	Togo
145	0.00	Uganda
156	0.47	Zimbabwe

Table V.2 - Lesotho Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Child Mortality	107.75	102.39	130.31
Secondary Schooling	5.00	5.93	6.38
Population Growth Rate	0.01	0.01	0.02
5-years Average GDP per capita	1908.52	4359.06	2827.38
3-years prior Average GDP per capita Growth Rate 1998.2002	0.20	1.15	1.94

Figure V.1 - Lesotho's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

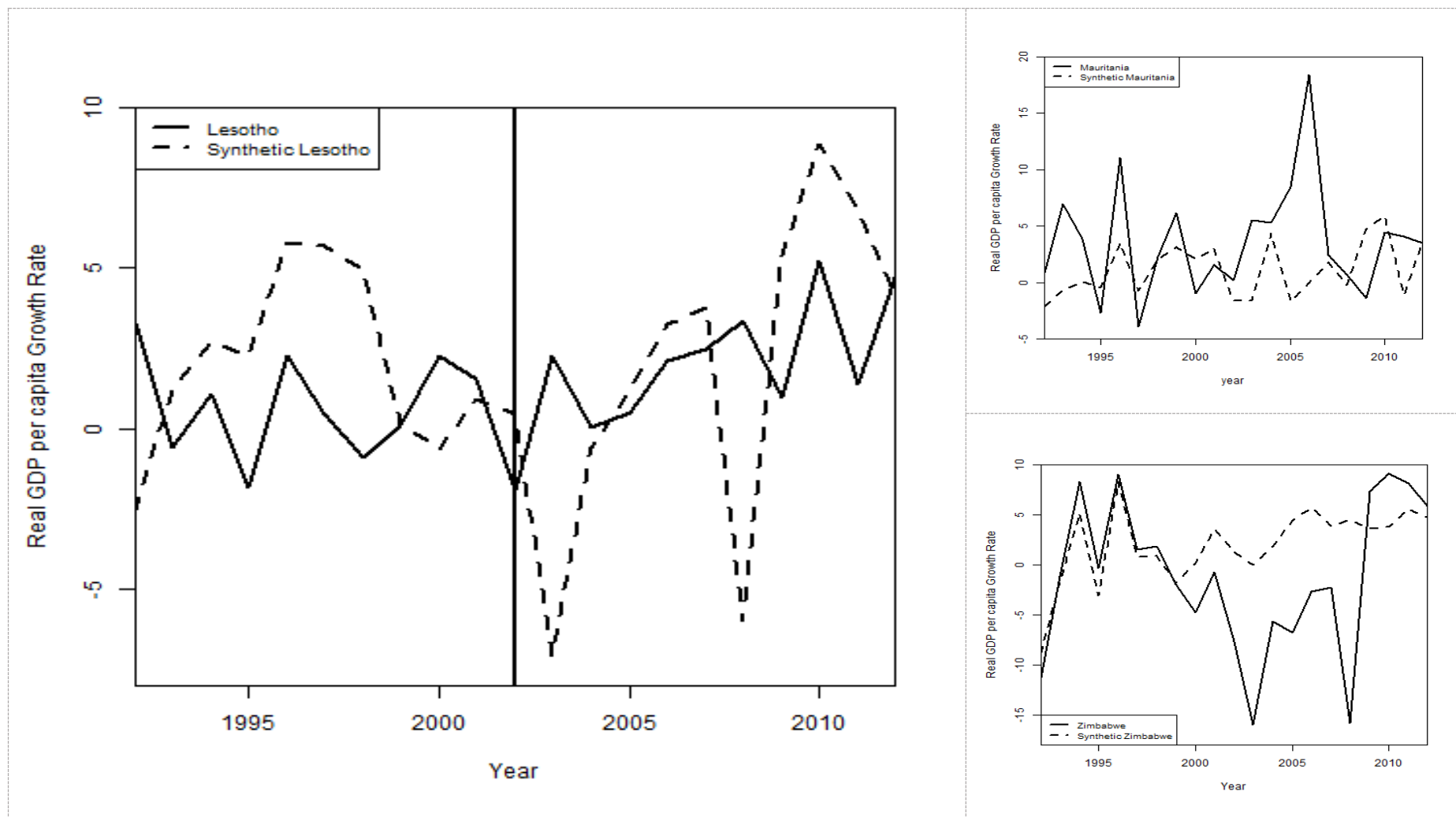


Figure V.2 - Lesotho and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

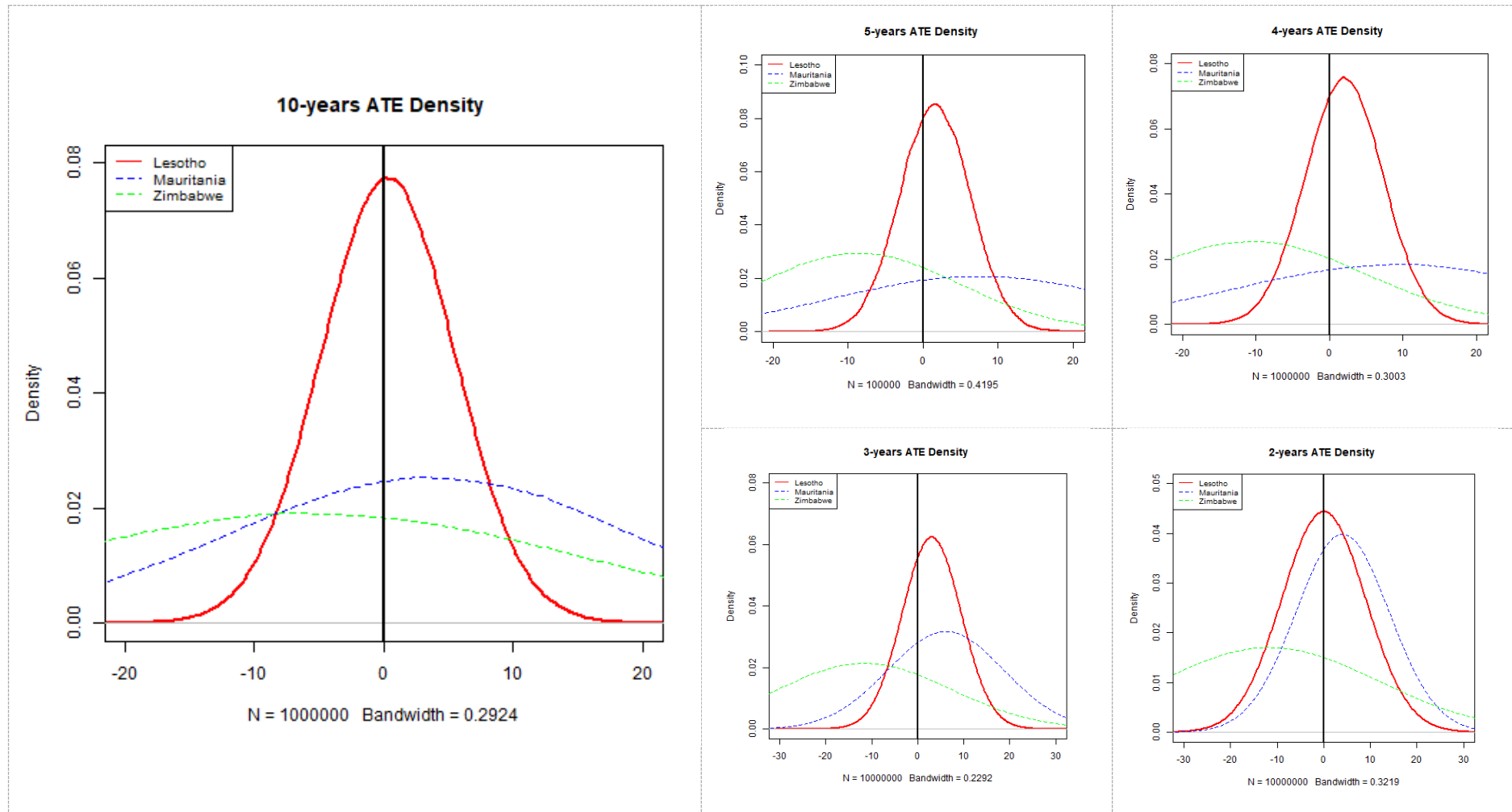


Figure V.3 – Lesotho and Controls’ Placebo with Donor Pool Countries in Europe

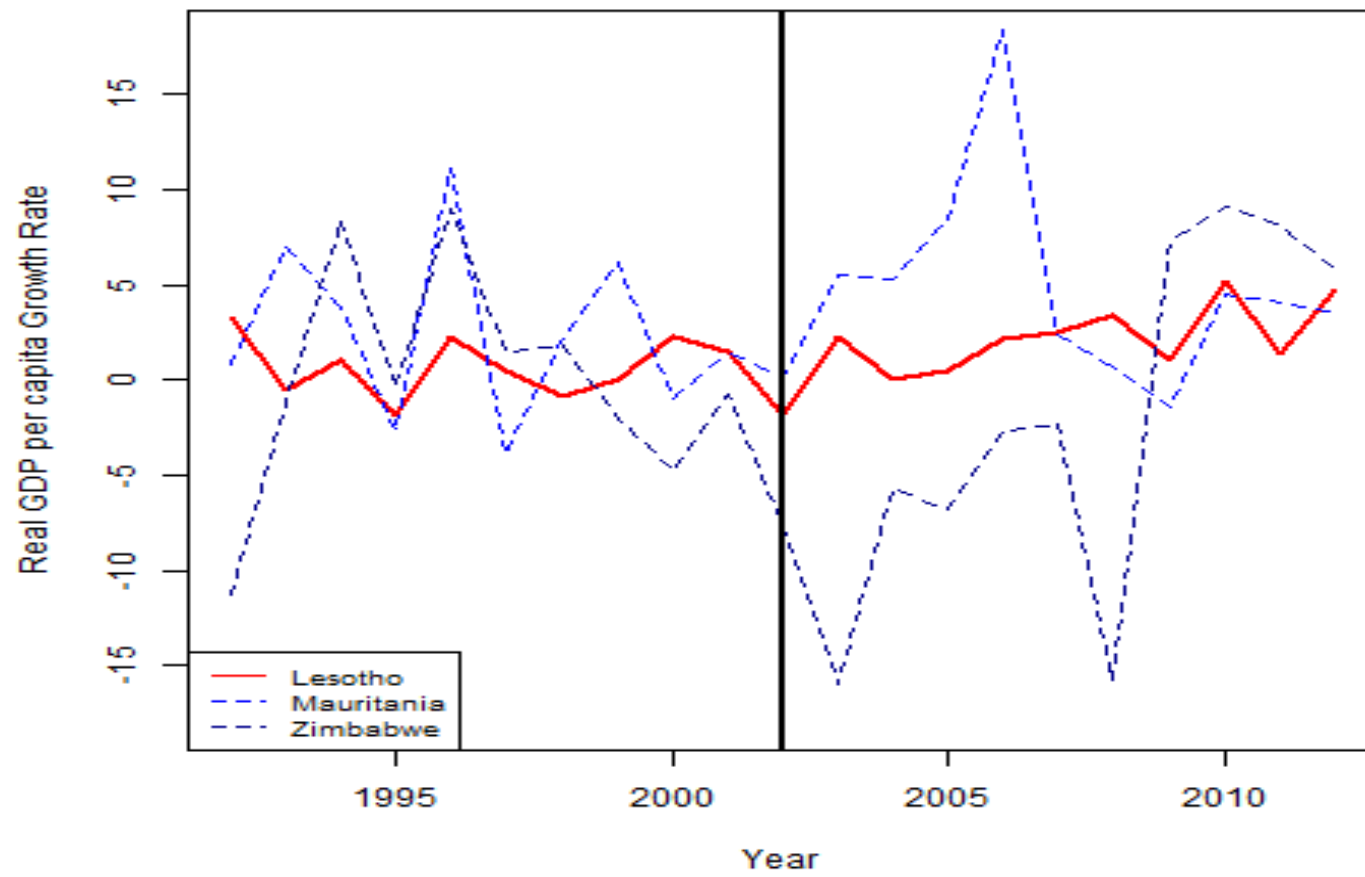


Table V.3 - Lesotho's Donor Pool Weights

	Weights	Countries
1	0.00	Afghanistan
3	0.00	Algeria
4	0.00	Angola
10	0.00	Bahrain
22	0.00	Burundi
23	0.00	Cambodia
24	0.00	Cameroon
27	0.00	Central African Republic
28	0.00	Chad
30	0.00	China
35	0.00	Cuba
40	0.00	Djibouti
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
59	0.00	Haiti
66	0.00	Iraq
72	0.00	Jordan
74	0.00	Kenya
75	0.00	Kuwait
76	0.00	Kyrgyzstan
78	0.00	Lebanon
81	0.00	Libya
86	0.00	Malaysia
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
102	0.24	Nigeria
106	0.00	Oman
107	0.00	Pakistan
115	0.00	Qatar
120	-0.00	Rwanda
122	0.00	Saudi Arabia
125	0.00	Seychelles
127	0.29	Singapore
137	0.00	Tajikistan
140	0.00	Togo
144	0.00	Turkmenistan
145	0.00	Uganda
151	0.00	Uzbekistan
153	0.00	Vietnam
156	0.47	Zimbabwe

Table V.4 - Lesotho Common Support

	Treated	Synthetic	Sample Mean
Child Mortality	107.75	96.07	91.20
Secondary Schooling	5.68	6.38	
Population Growth Rate	0.01	0.02	0.02
5-years Average GDP per capita	1908.52	10015.67	5610.36
3-years prior Average GDP per capita Growth Rate 2000.2002	0.62	0.75	4.28

Figure V.4 - Lesotho's Synthetic Control and its Controls' Placebos

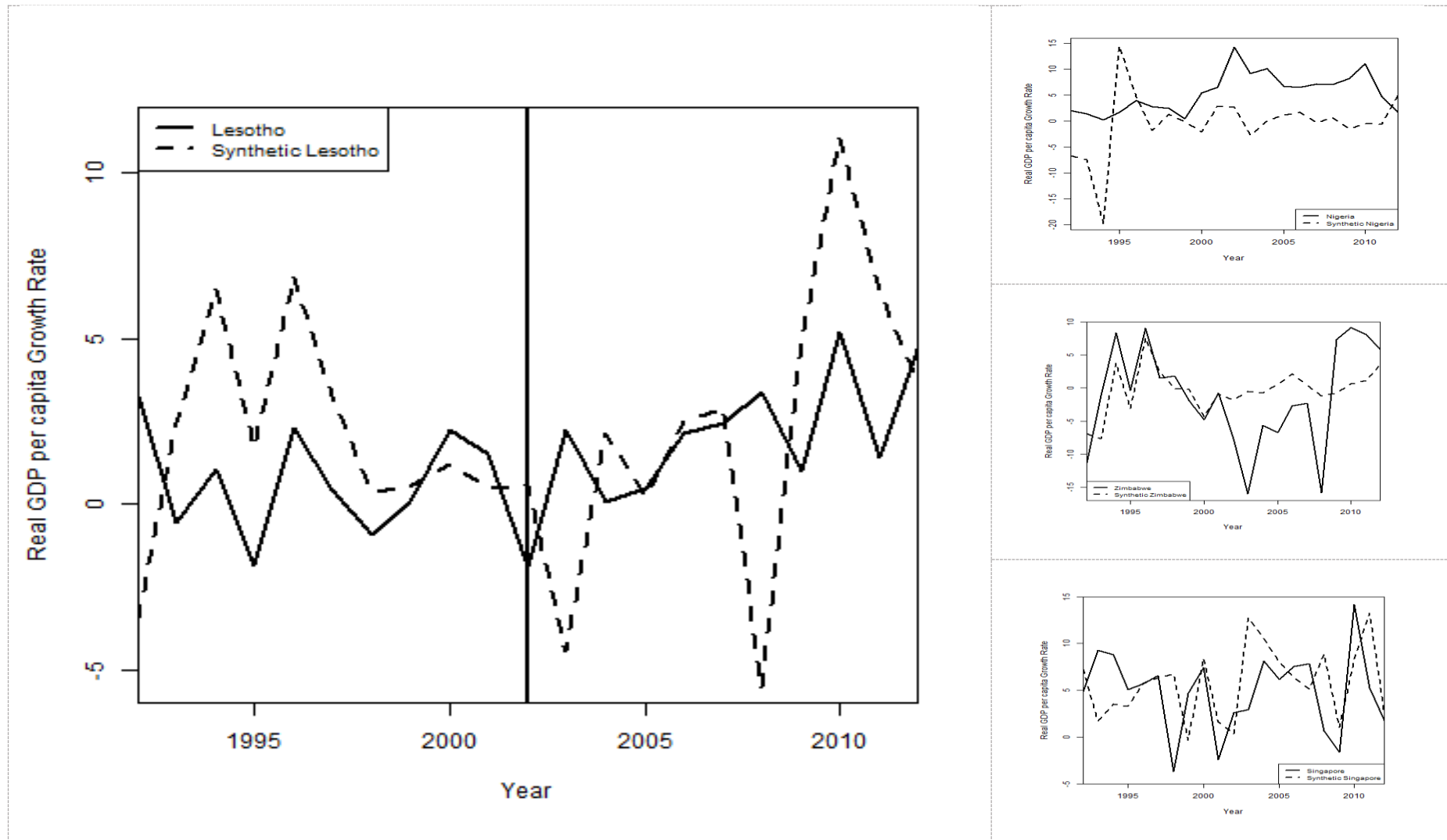


Figure V.5 - Lesotho and its Controls' Density Plots of the Average Treatment Effect (ATE)

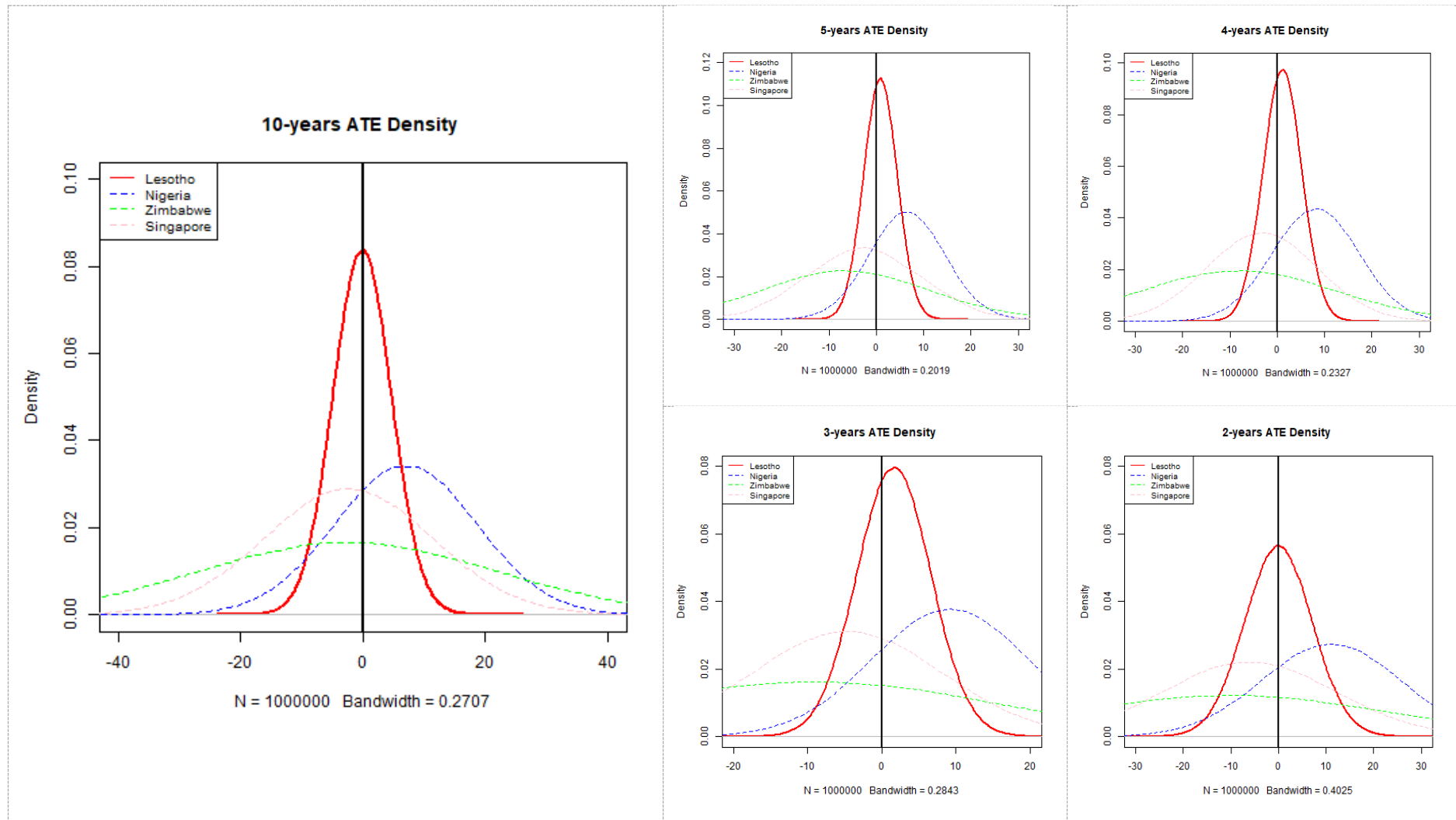


Figure V.6 – Lesotho and Controls' Placebo

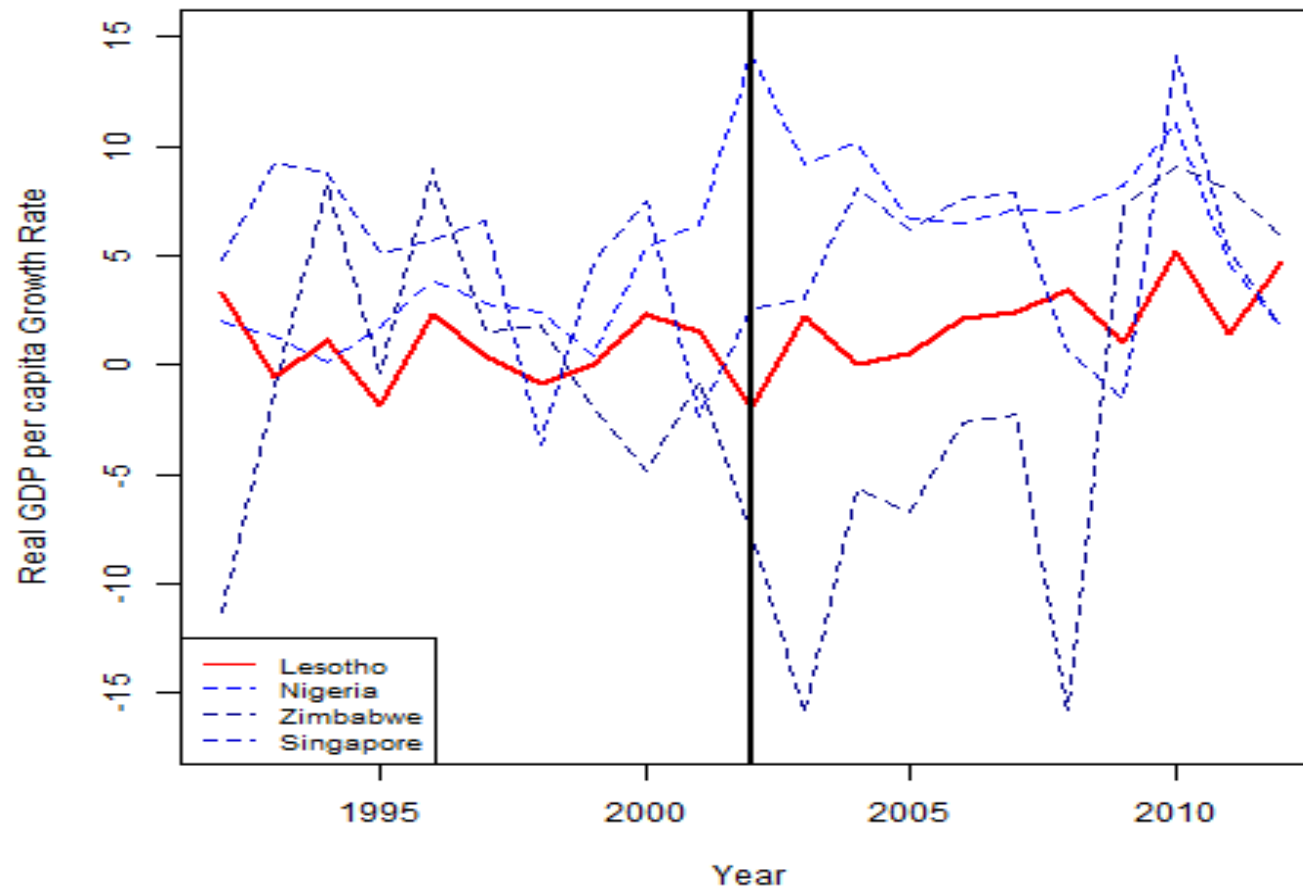


Table W.1 - Liberia's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
3	0.00	Algeria
4	0.34	Angola
22	0.00	Burundi
24	0.00	Cameroon
27	0.66	Central African Republic
28	0.00	Chad
40	0.00	Djibouti
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
74	0.00	Kenya
81	0.00	Libya
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
120	0.00	Rwanda
125	0.00	Seychelles
145	0.00	Uganda
156	0.00	Zimbabwe

Table W.2 - Liberia Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Trade	5687.88	3905.49	5813.40
Investment	12.00	16.20	16.55
Child Mortality	186.46	181.42	118.08
Secondary Schooling	6.00	6.00	6.36
Population Growth Rate	0.04	0.03	0.02
5-years Average GDP per capita	884.55	1233.76	3221.48
3-years prior Average GDP per capita Growth Rate 2001.2005	-2.54	2.92	3.29

Figure W.1 - Liberia's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

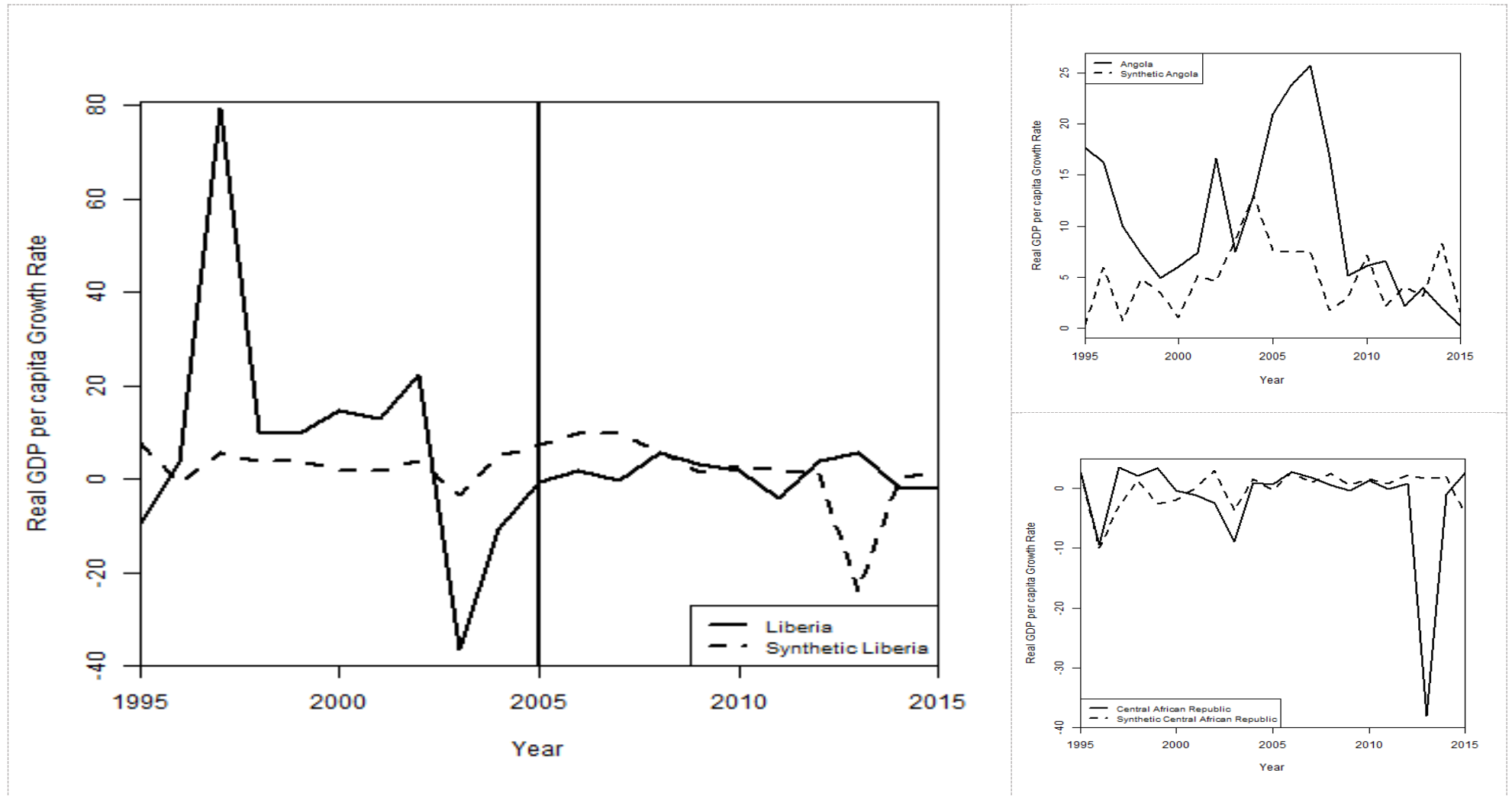


Figure W.2 - Liberia and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

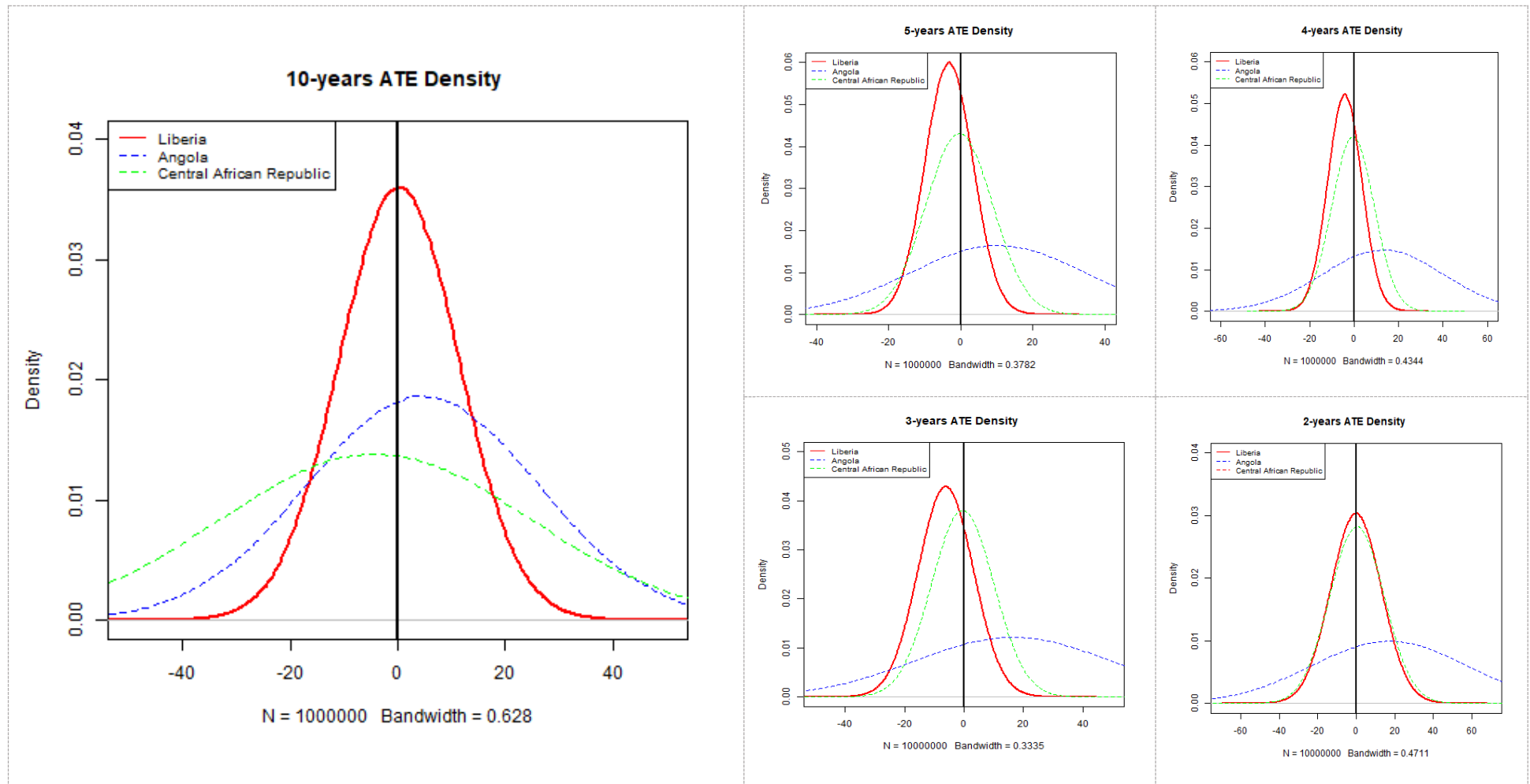


Figure W.3 – Liberia and Controls' Placebo with Donor Pool Countries in Europe

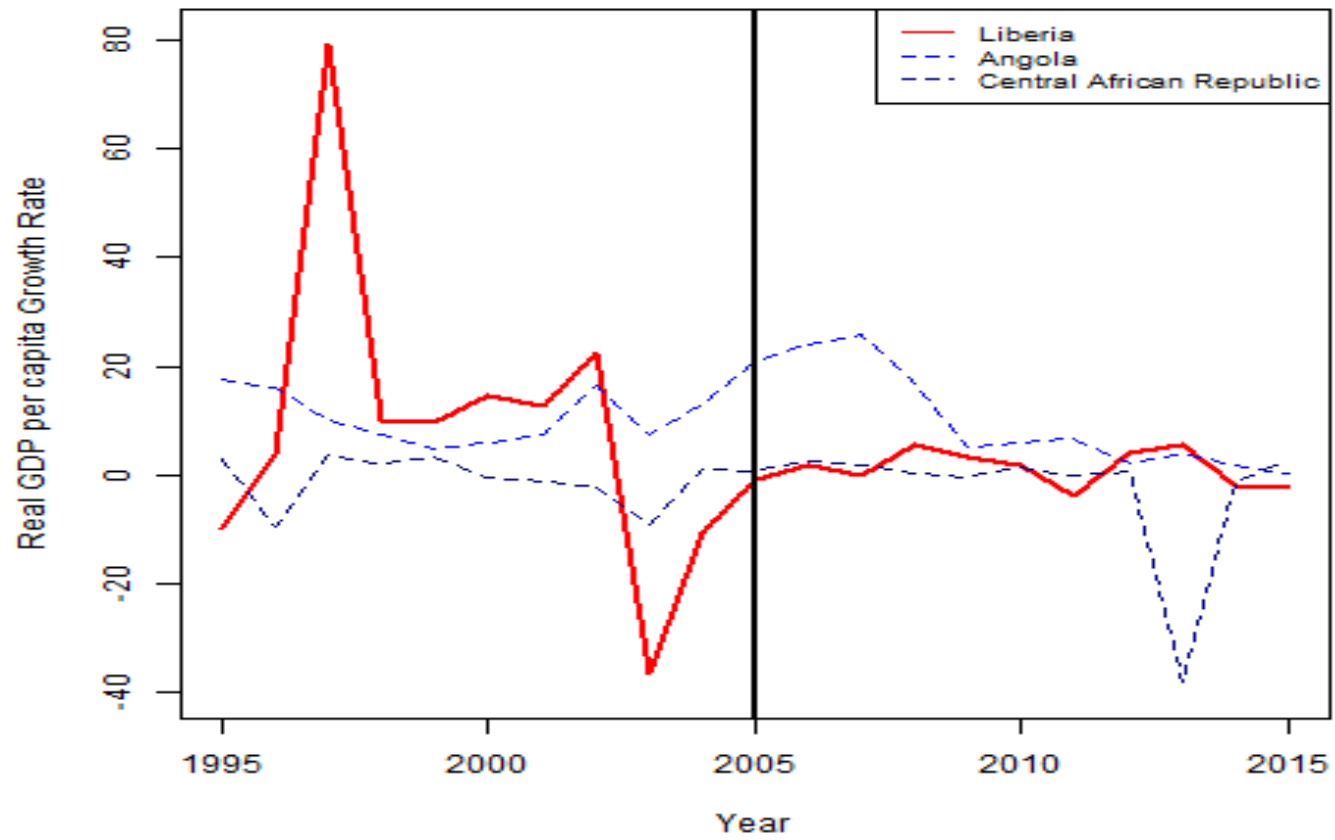


Table W.3 - Liberia's Donor Pool Weights

	Weights	Countries
1	0.00	Afghanistan
3	0.00	Algeria
4	0.00	Angola
10	0.00	Bahrain
22	0.00	Burundi
23	0.00	Cambodia
24	0.00	Cameroon
27	0.00	Central African Republic
28	0.00	Chad
30	0.00	China
35	0.00	Cuba
40	0.00	Djibouti
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
59	0.00	Haiti
66	0.00	Iraq
72	0.00	Jordan
74	0.00	Kenya
75	0.00	Kuwait
76	0.00	Kyrgyzstan
78	0.00	Lebanon
81	0.00	Libya
86	0.00	Malaysia
89	0.00	Mauritania
94	0.00	Morocco
95	0.19	Mozambique
106	0.00	Oman
107	0.00	Pakistan
115	0.00	Qatar
120	0.00	Rwanda
122	0.00	Saudi Arabia
125	0.00	Seychelles
127	0.00	Singapore
137	0.00	Tajikistan
144	0.00	Turkmenistan
145	0.00	Uganda
147	0.49	United Arab Emirates
151	0.00	Uzbekistan
153	0.00	Vietnam
156	0.32	Zimbabwe

Table W.4 - Liberia Common Support

	Treated	Synthetic	Sample Mean
Trade	5687.88	42064.42	44499.11
Investment	12.00	12.75	18.30
Child Mortality	186.46	72.02	78.95
Secondary Schooling	6.00	6.05	6.36
Population Growth Rate	0.04	0.04	0.02
5-years Average GDP per capita	884.55	18470.32	7549.61
3-years prior Average GDP per capita Growth Rate	-2.54	0.30	5.17

Figure W.4 - Liberia's Synthetic Control and its Controls' Placebos

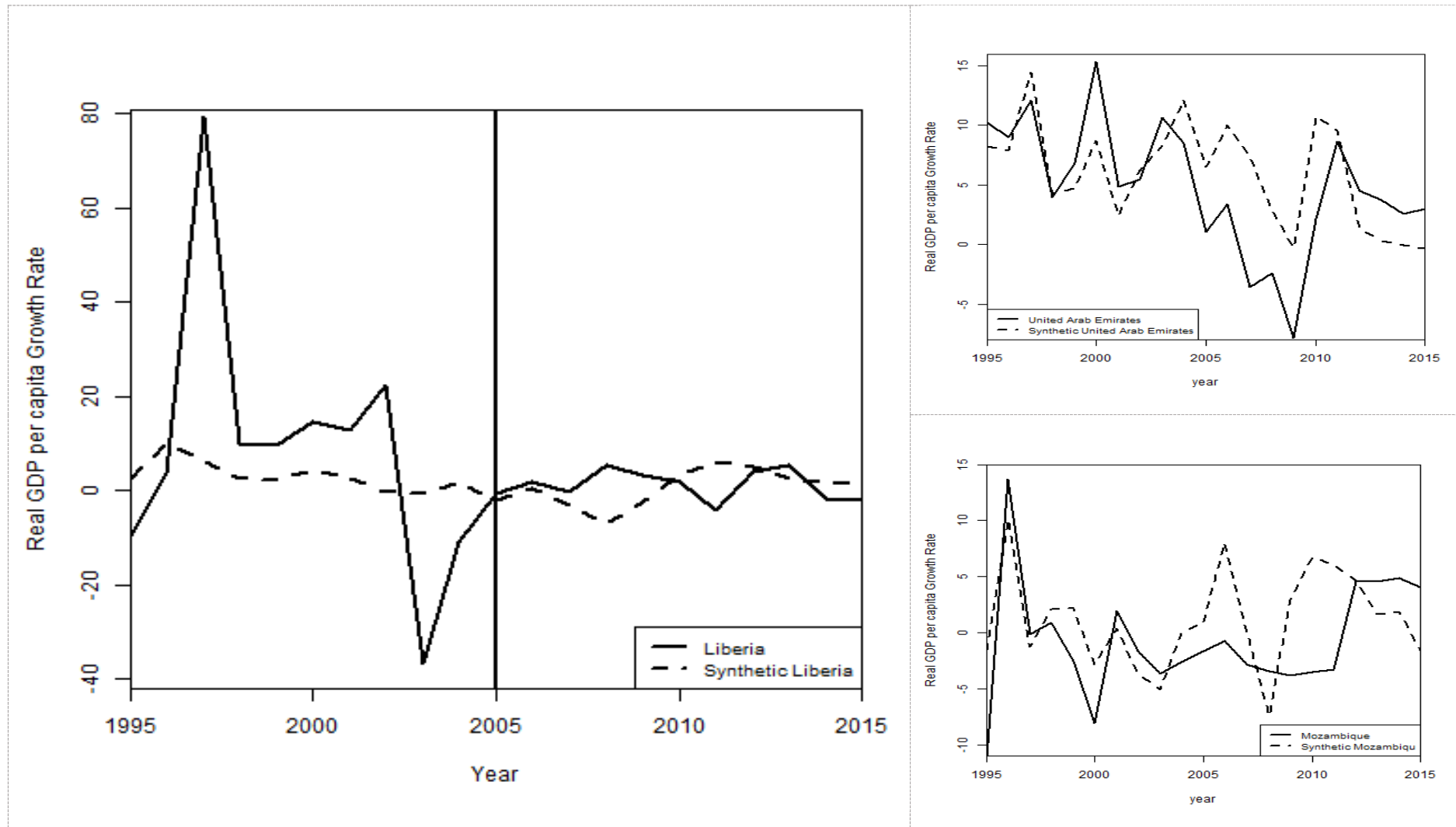


Figure W.5 - Liberia and its Controls' Density Plots of the Average Treatment Effect (ATE)

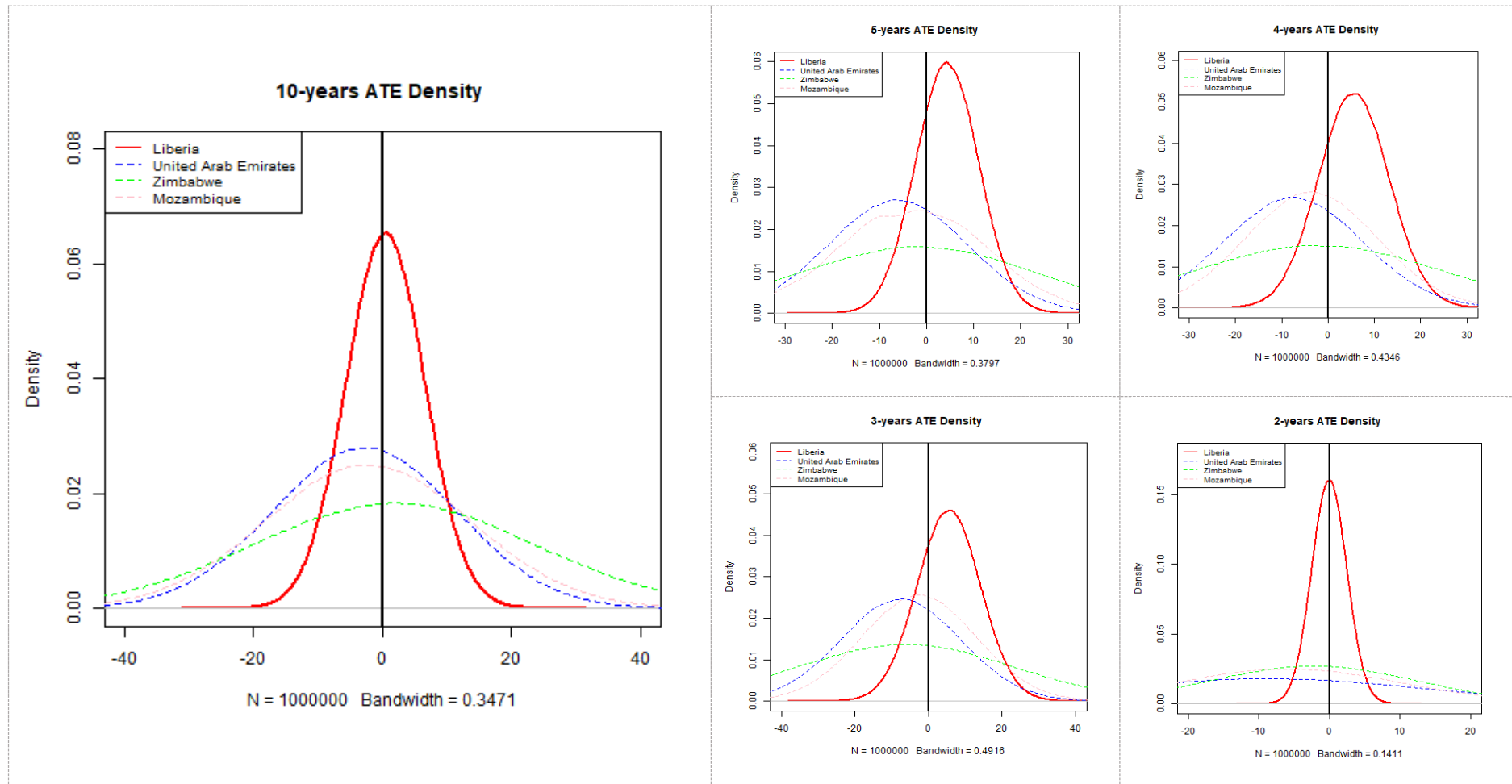
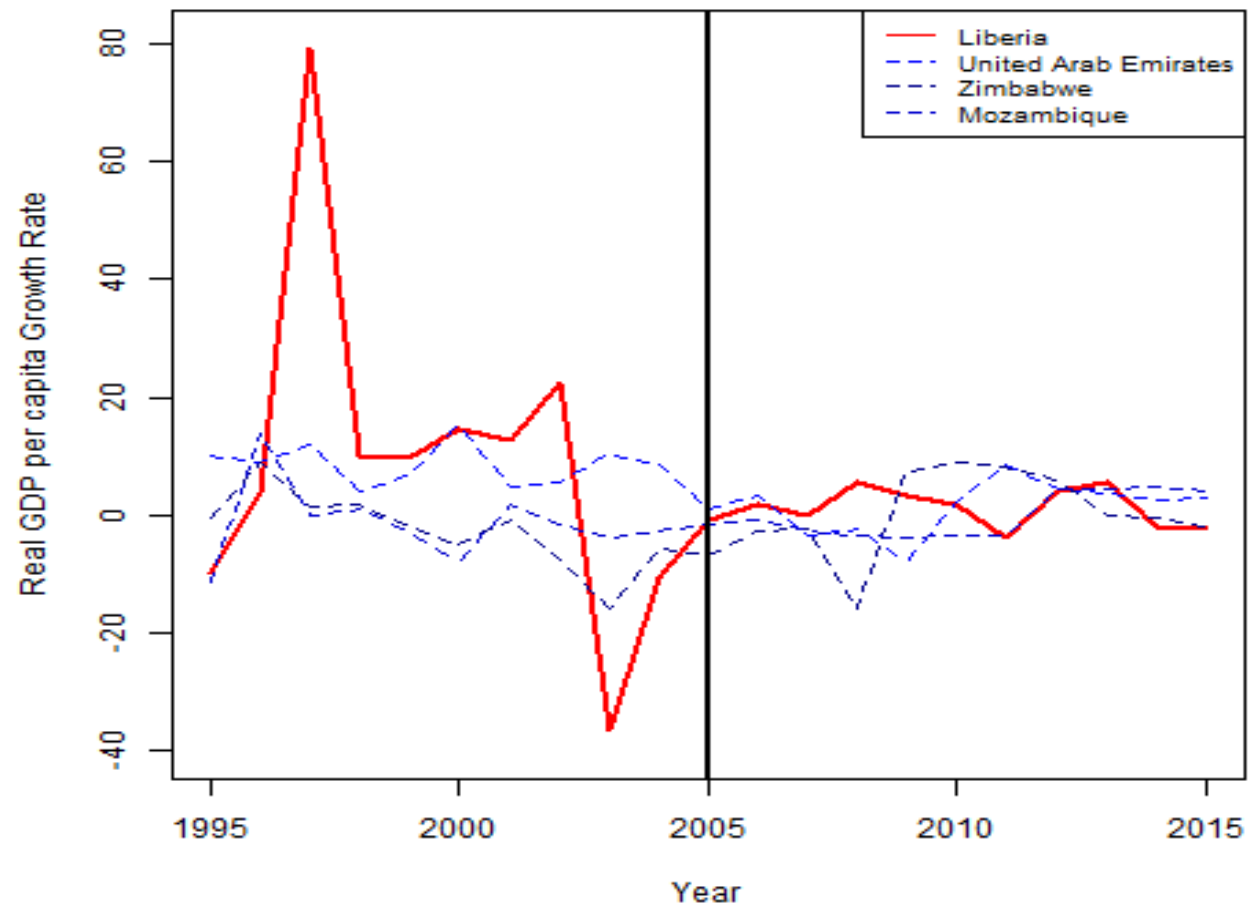


Figure W.6 – Liberia and Controls' Placebo



X| Indonesia

X.1| In Asia

Table X.1 - Indonesia's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
1	0.00	Afghanistan
10	0.00	Bahrain
23	0.00	Cambodia
30	0.02	China
66	0.00	Iraq
72	0.00	Jordan
75	0.01	Kuwait
78	0.01	Lebanon
86	0.60	Malaysia
97	0.18	Nepal
106	0.00	Oman
107	0.15	Pakistan
115	0.01	Qatar
122	0.00	Saudi Arabia
127	0.00	Singapore
153	0.01	Vietnam

Table X.2 - Indonesia Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Trade	61513.62	61857.05	36542.56
Investment	29.73	29.60	19.36
Child Mortality	77.20	55.96	56.95
Secondary Schooling	6.00	6.00	6.24
Population Growth Rate	0.02	0.03	0.03
5-years Average GDP per capita	3986.03	5922.43	7408.40
3-years prior Average GDP per capita Growth Rate	5.79	5.60	6.11

Figure X.1 - Indonesia's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

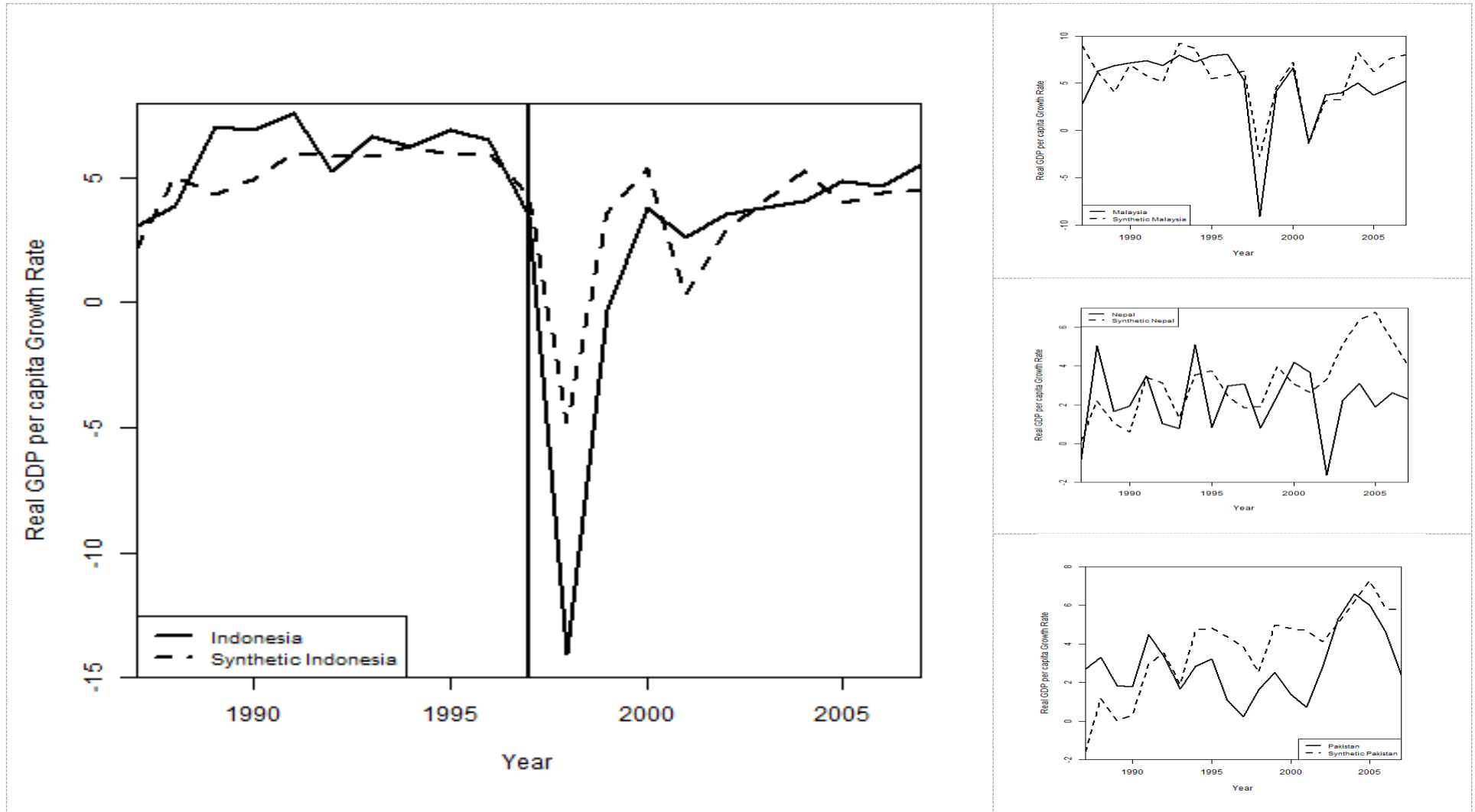


Figure X.2 - Indonesia and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

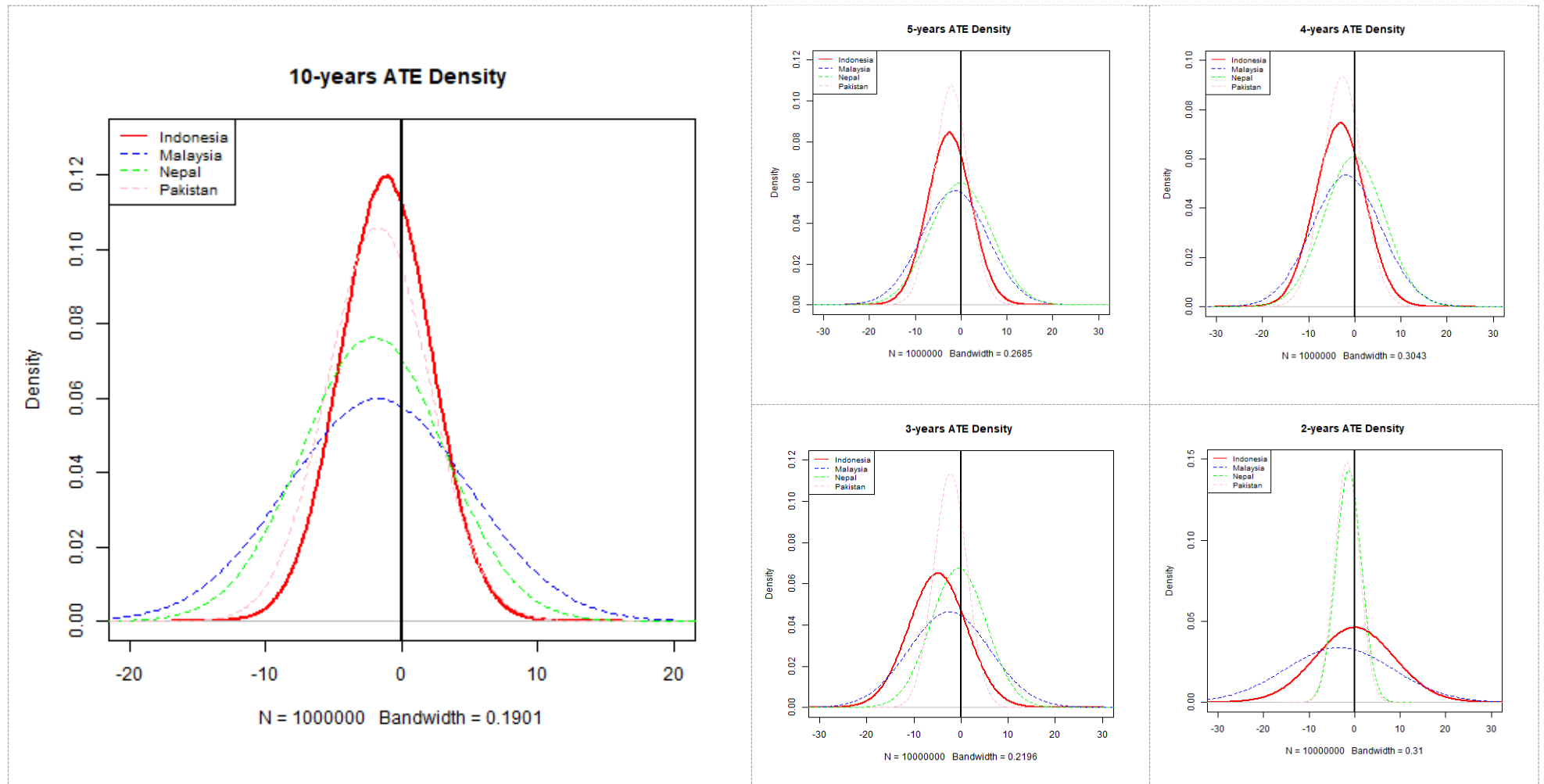


Figure X.3 – Indonesia and Controls' Placebo with Donor Pool Countries in Europe

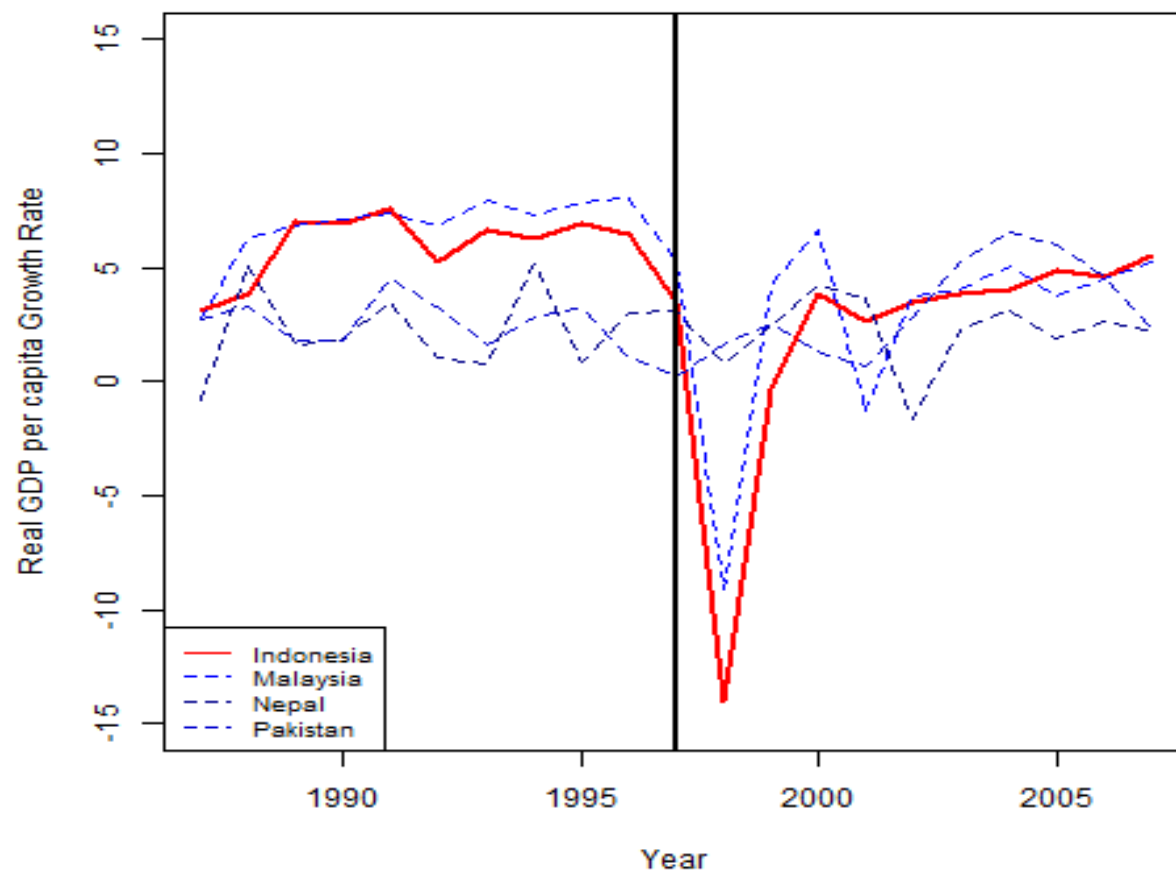


Table X.3 - Indonesia's Donor Pool Weights

	Weights	Countries
1	0.00	Afghanistan
3	0.01	Algeria
4	0.00	Angola
10	0.01	Bahrain
22	0.00	Burundi
23	0.00	Cambodia
24	0.00	Cameroon
27	0.00	Central African Republic
28	0.00	Chad
30	0.30	China
35	0.00	Cuba
40	0.00	Djibouti
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
59	0.01	Haiti
66	0.00	Iraq
72	0.00	Jordan
74	0.00	Kenya
75	0.00	Kuwait
78	0.01	Lebanon
81	0.01	Libya
85	0.01	Malawi
86	0.01	Malaysia
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
97	0.01	Nepal
102	0.15	Nigeria
106	0.00	Oman
107	0.00	Pakistan
115	0.01	Qatar
120	0.02	Rwanda
122	0.00	Saudi Arabia
125	0.21	Seychelles
127	0.00	Singapore
140	0.00	Togo
142	0.00	Tunisia
145	0.00	Uganda
153	0.15	Vietnam
156	0.01	Zimbabwe

Table X.4 - Indonesia Common Support

	Treated	Synthetic	Sample Mean
Trade	61513.62	61517.45	16780.04
Investment	29.73	29.72	17.75
Child Mortality	77.20	77.24	103.64
Secondary Schooling	6.00	6.00	6.35
Population Growth Rate	0.02	0.02	0.03
5-years Average GDP per capita	3986.03	3987.93	4491.27
3-years prior Average GDP per capita Growth Rate	5.63	5.63	4.80

Figure X.4 - Indonesia's Synthetic Control and its Controls' Placebos

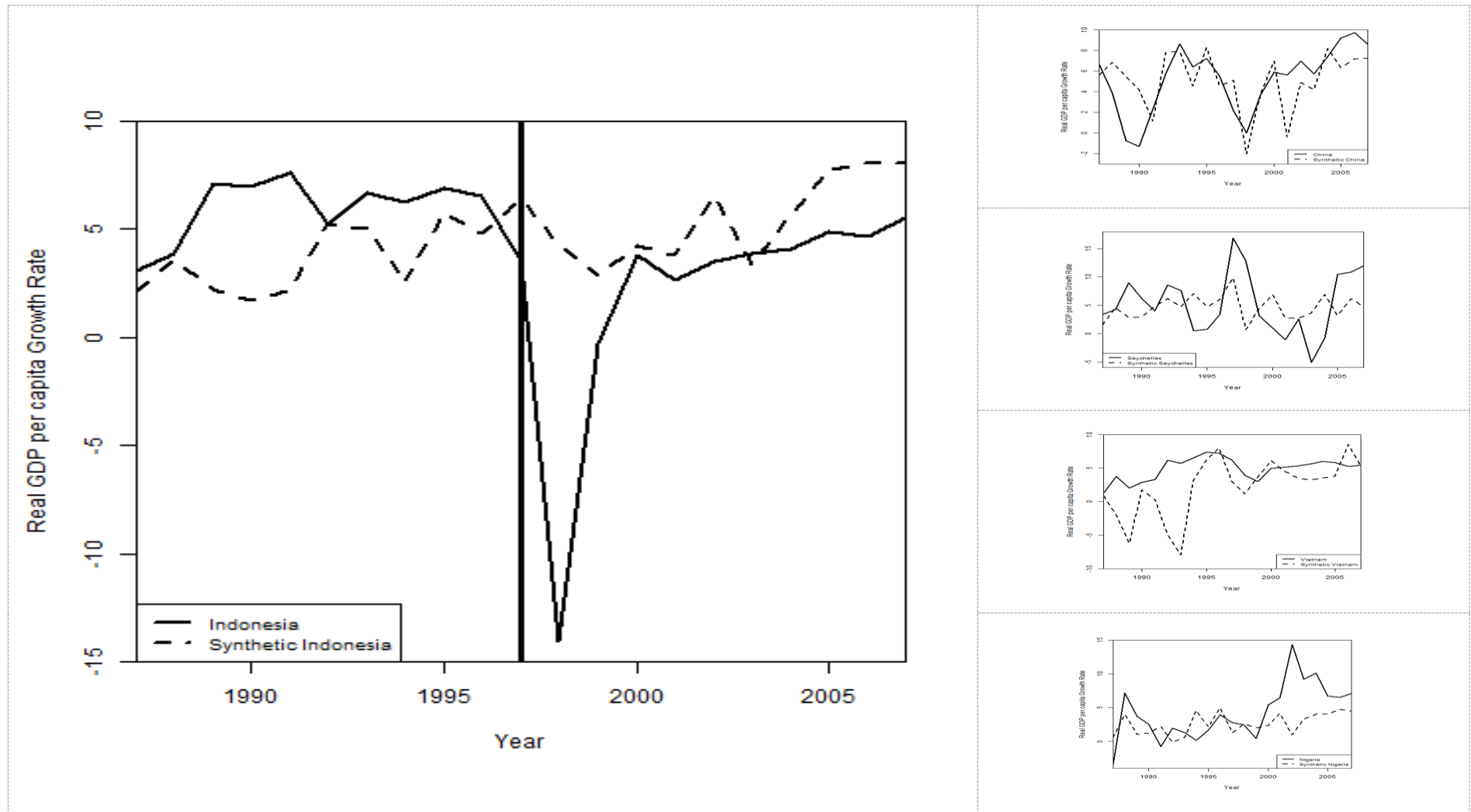


Figure X.5 - Indonesia and its Controls' Density Plots of the Average Treatment Effect (ATE)

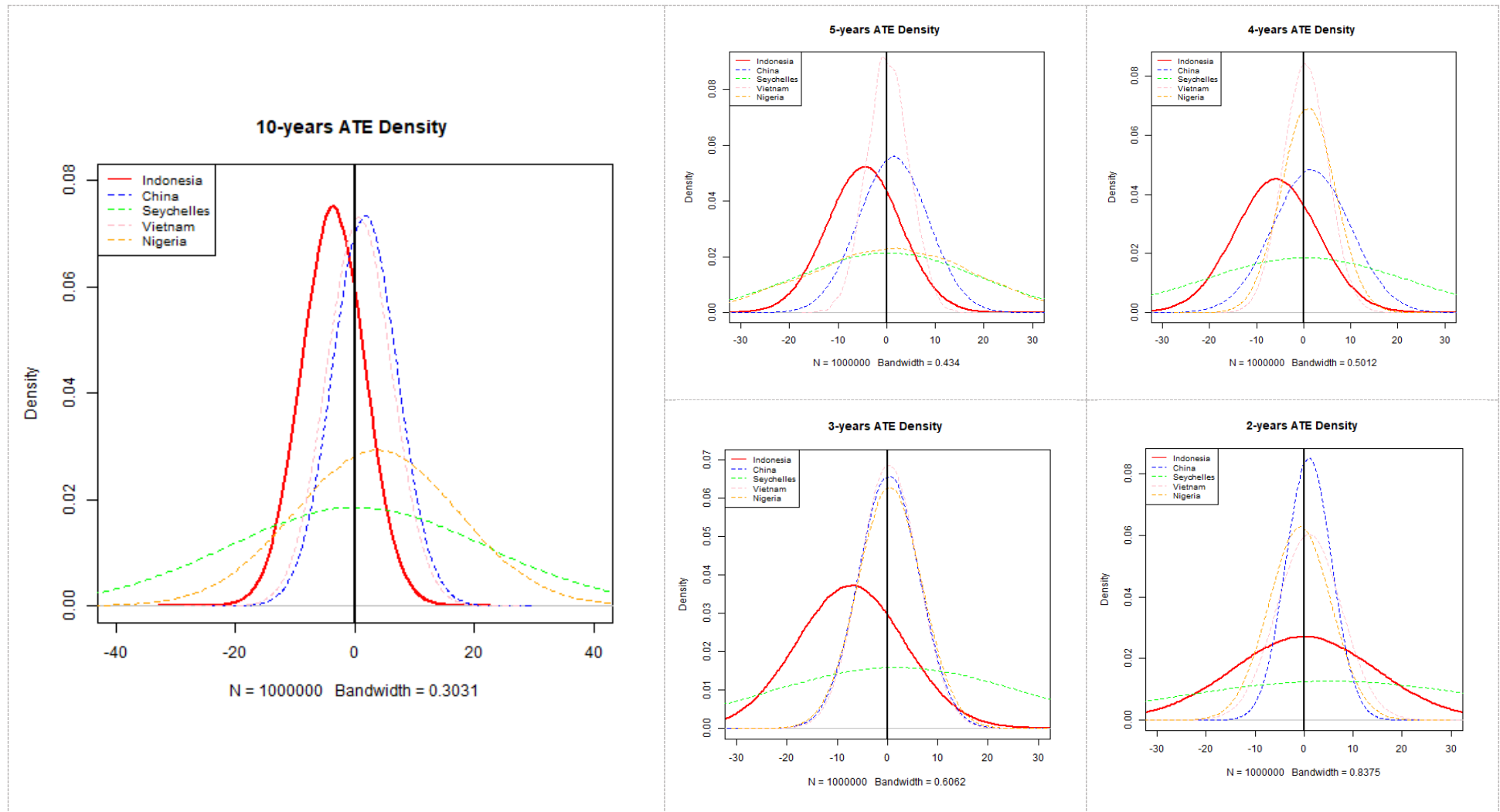
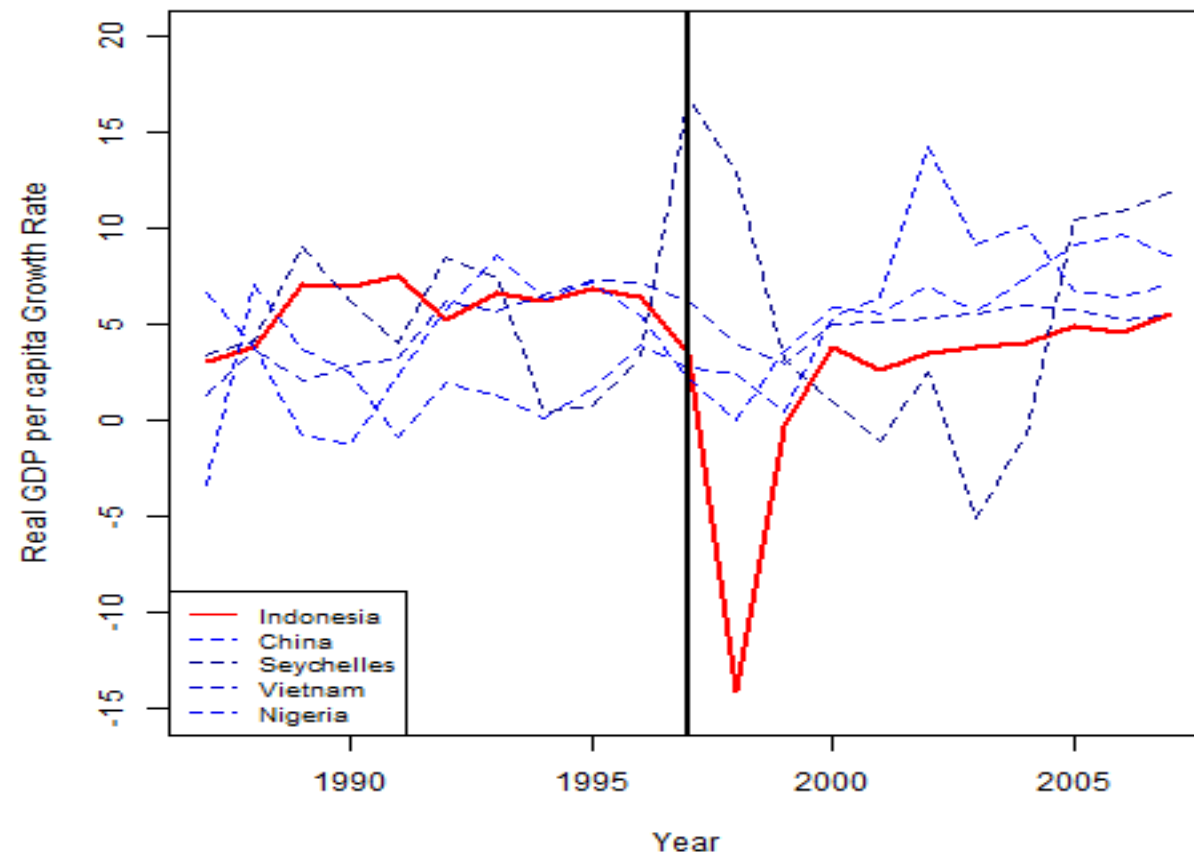


Figure X.6 – Indonesia and Controls' Placebo



Y| Georgia

Y.1| In Asia

Table Y.1 - Georgia's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
1	0.00	Afghanistan
10	0.00	Bahrain
23	0.00	Cambodia
30	0.30	China
66	0.00	Iraq
72	0.00	Jordan
75	0.22	Kuwait
76	0.48	Kyrgyzstan
78	0.00	Lebanon
86	0.00	Malaysia
106	0.00	Oman
107	0.00	Pakistan
115	0.00	Qatar
122	0.00	Saudi Arabia
127	0.00	Singapore
137	0.00	Tajikistan
144	0.01	Turkmenistan
147	0.00	United Arab Emirates
151	0.00	Uzbekistan
153	0.00	Vietnam

Table Y.2 - Georgia Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Trade	1202.14	221793.37	73082.32
Investment	21.64	22.33	20.60
Child Mortality	37.84	39.77	45.75
Secondary Schooling	6.82	6.92	6.37
Population Growth Rate	-0.02	0.01	0.02
5-years Average GDP per capita	5572.40	7975.93	9877.50
3-years prior Average GDP per capita Growth Rate	6.74	6.03	7.60

Figure Y.1 - Georgia's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

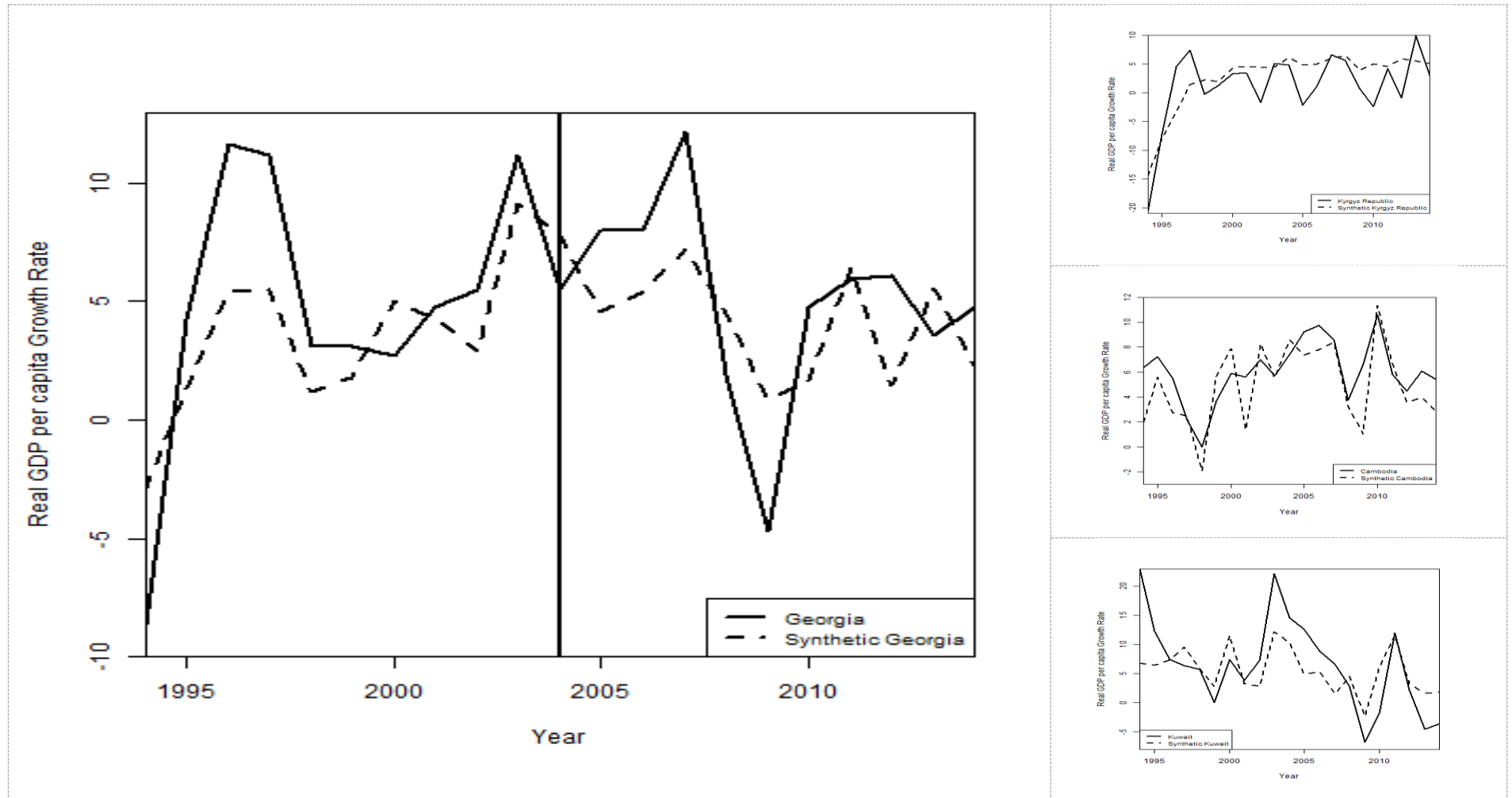


Figure Y.2 - Georgia and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

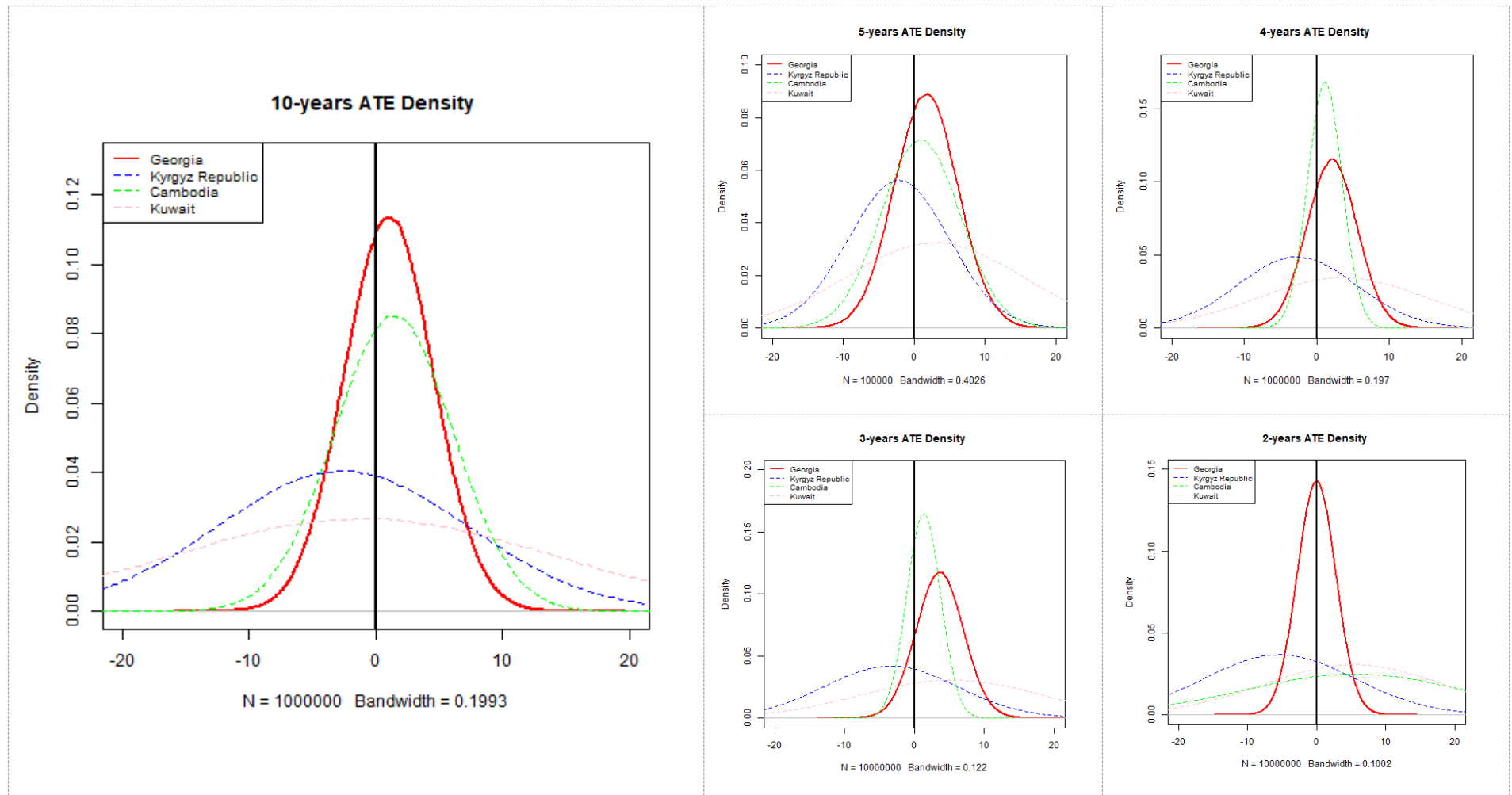


Figure Y.3 – Georgia and Controls’ Placebo with Donor Pool Countries in Europe

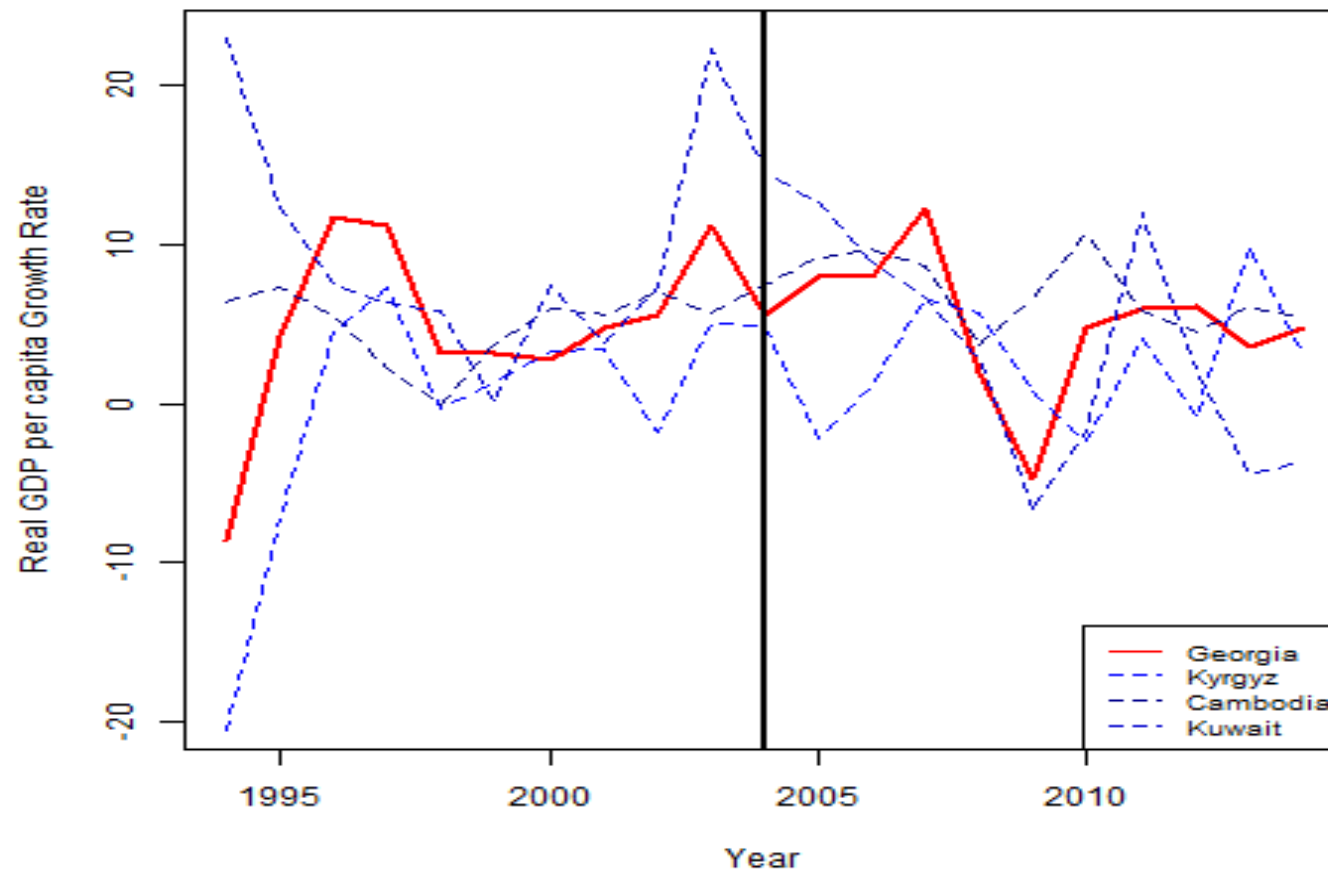


Table Y.3 - Georgia's Donor Pool Weights

	Weights	Countries
1	0.00	Afghanistan
3	0.00	Algeria
4	0.00	Angola
10	0.00	Bahrain
22	0.00	Burundi
23	0.00	Cambodia
24	0.00	Cameroon
27	0.00	Central African Republic
28	0.00	Chad
30	0.00	China
35	0.30	Cuba
40	0.00	Djibouti
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
59	0.00	Haiti
66	0.00	Iraq
72	0.00	Jordan
74	0.00	Kenya
75	0.10	Kuwait
76	0.35	Kyrgyzstan
78	0.00	Lebanon
81	0.00	Libya
86	0.00	Malaysia
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
106	0.00	Oman
107	0.00	Pakistan
115	0.00	Qatar
120	0.00	Rwanda
122	0.00	Saudi Arabia
125	0.00	Seychelles
127	0.00	Singapore
137	0.00	Tajikistan
144	0.04	Turkmenistan
145	0.00	Uganda
147	0.00	United Arab Emirates
151	0.00	Uzbekistan
153	0.21	Vietnam
156	0.00	Zimbabwe

Table Y.4 - Georgia Common Support

	Treated	Synthetic	Sample Mean
Trade	1202.14	10233.31	38165.47
Investment	21.64	17.76	18.23
Child Mortality	37.84	32.17	81.55
Secondary Schooling	6.82	6.80	6.36
Population Growth Rate	-0.02	0.01	0.02
5-years Average GDP per capita	5572.40	5231.38	6310.70
3-years prior Average GDP per capita Growth Rate	6.74	4.99	5.12

Figure Y.4 - Georgia's Synthetic Control and its Controls' Placebos

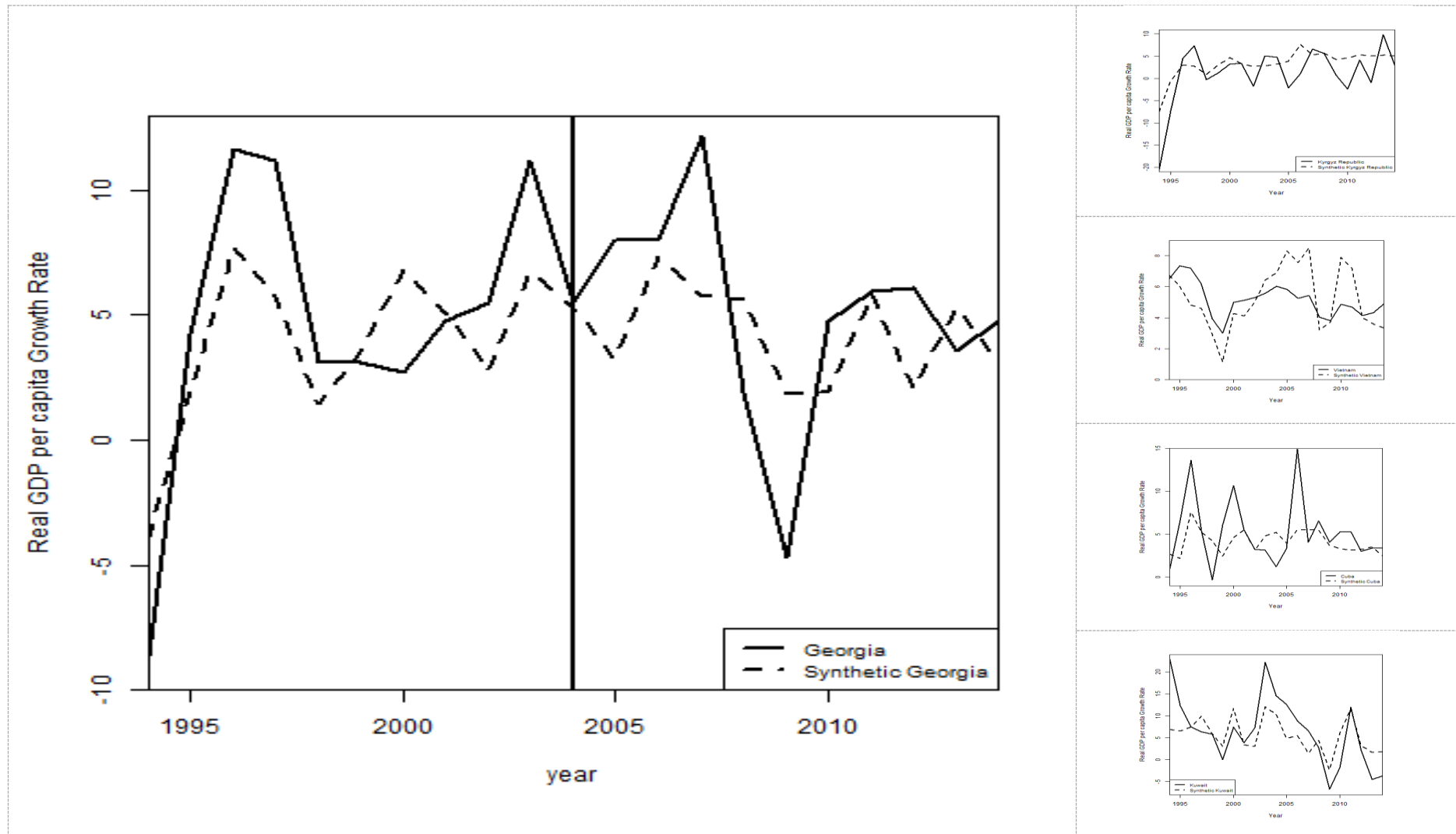


Figure Y.5 - Georgia and its Controls' Density Plots of the Average Treatment Effect (ATE)

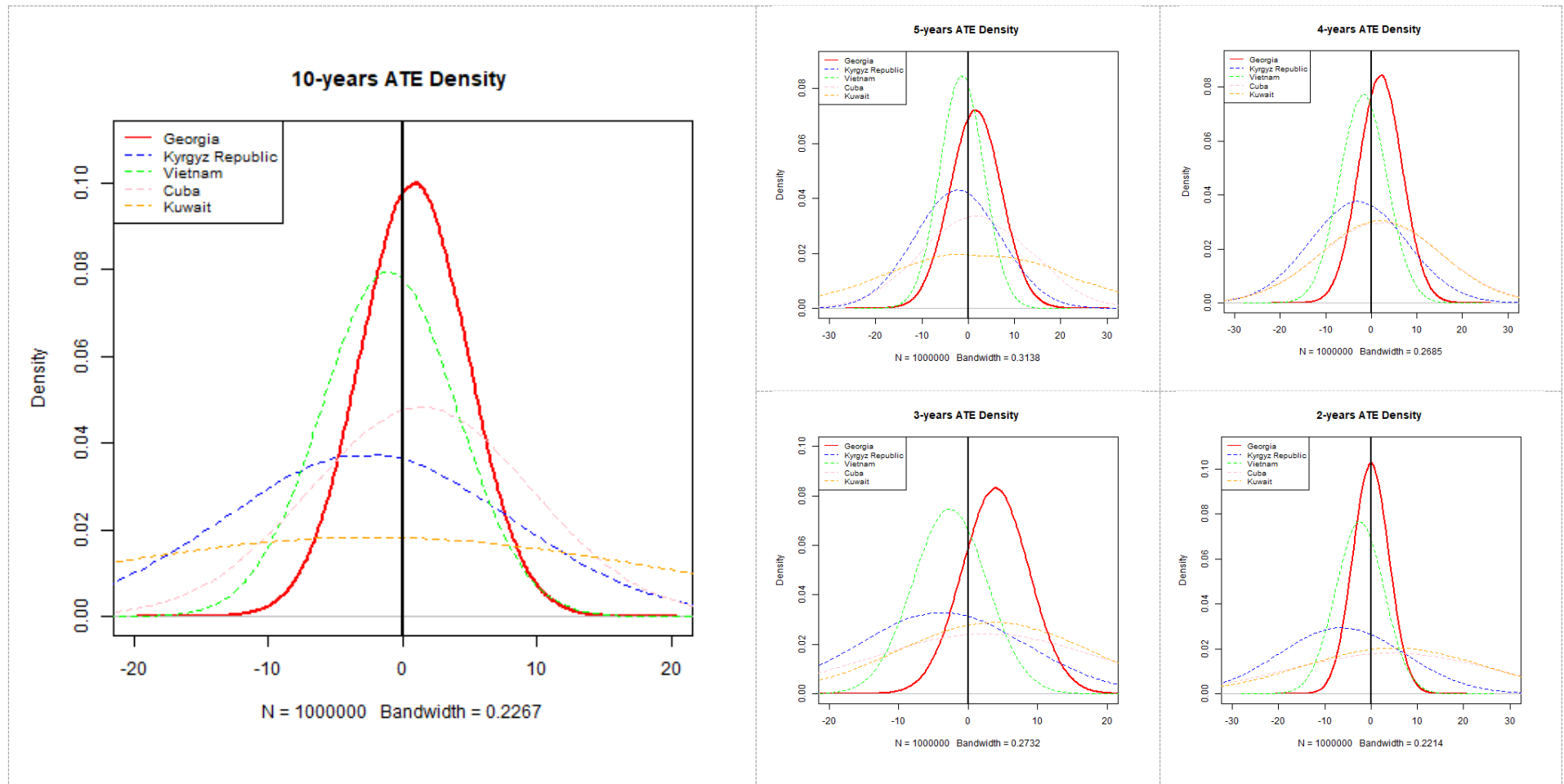
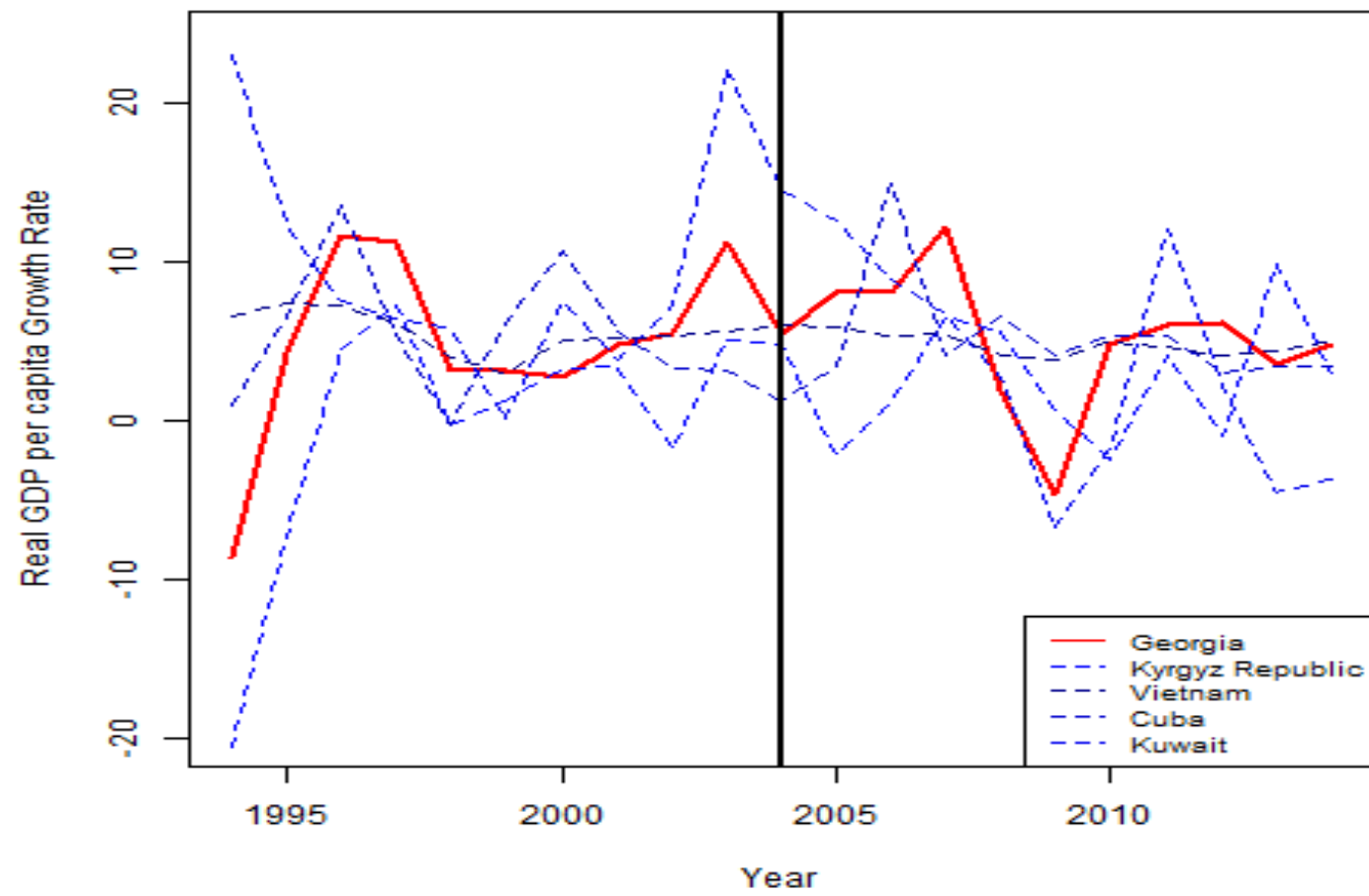


Figure Y.6 – Georgia and Controls' Placebo



Z| Czech Republic

Z.1| In Europe

Table Z.1 - Czech Republic's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
2	1.00	Albania
124	0.00	Serbia

Table Z.2 - Czech Republic Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Child Mortality	14.55	57.09	47.71
Population Growth Rate	0.00	0.02	0.01
5-years Average GDP per capita	12476.47	3786.80	7110.60
3-years prior Average GDP per capita Growth Rate	1.78	0.72	-1.26

Figure Z.1 - Czech Republic's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

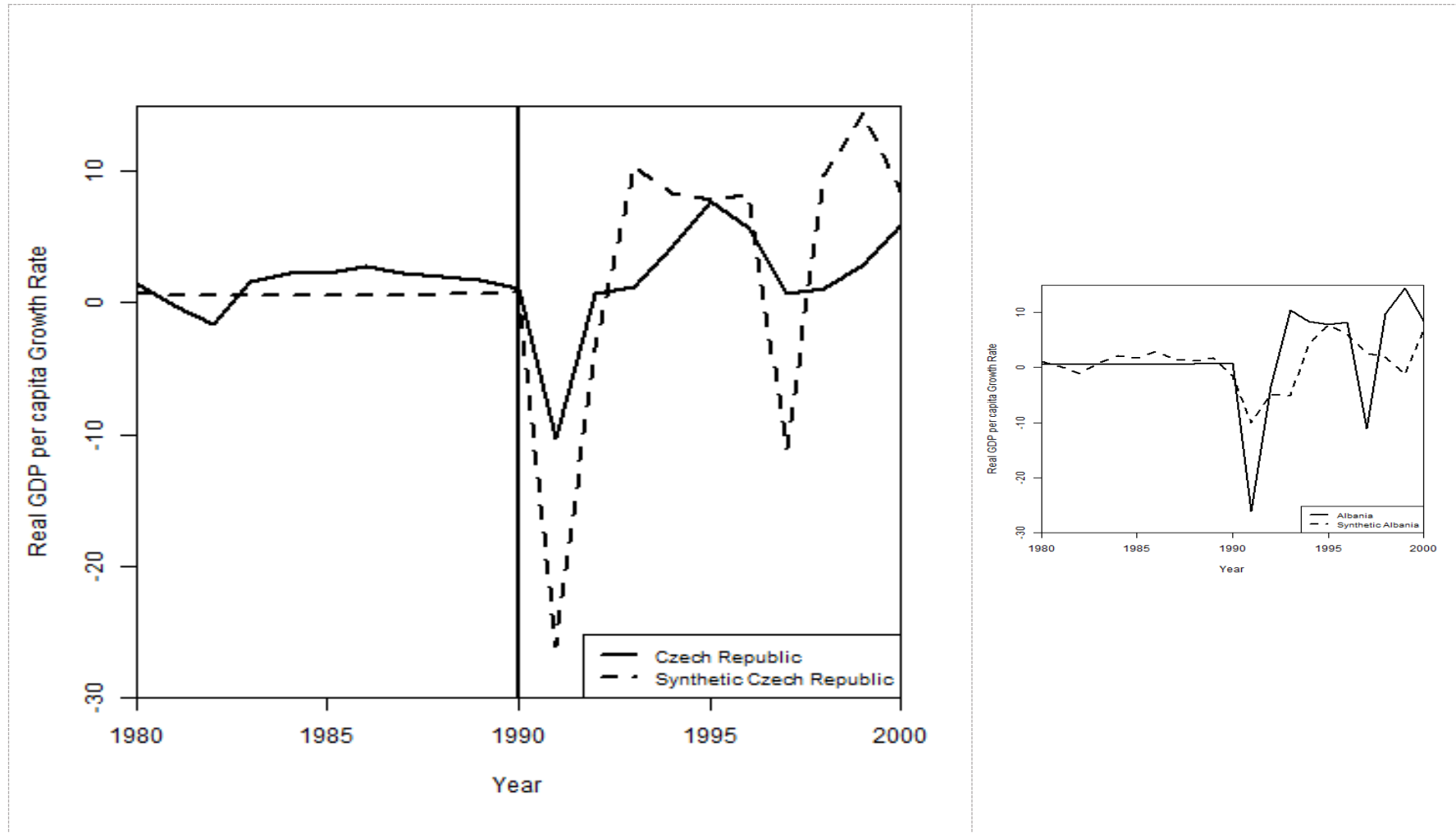


Figure Z.2 - Czech Republic and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

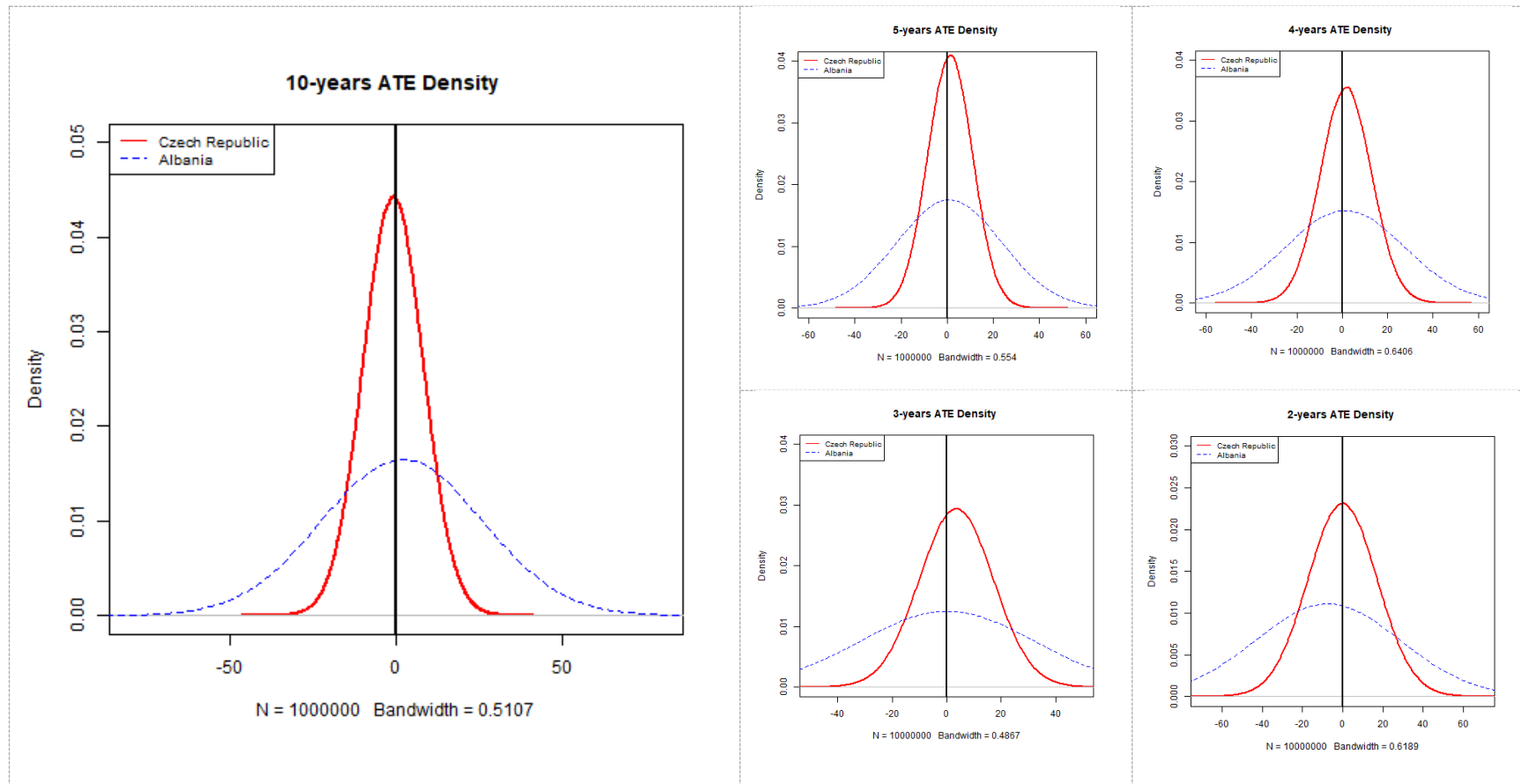


Figure Z.3 – Czech Republic and Controls' Placebo with Donor Pool Countries in Europe

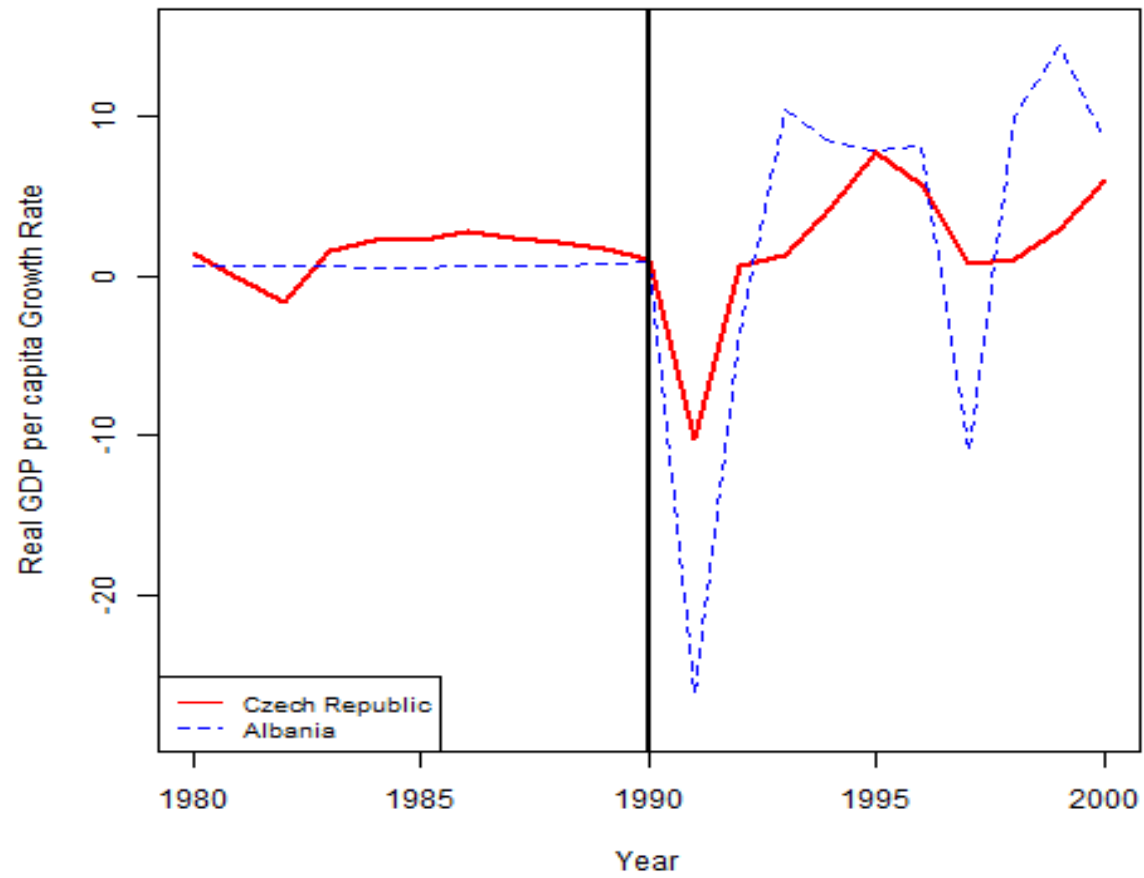


Table Z.3 - Czech Republic's Donor Pool Weights

	Weights	Countries
1	0.00	Afghanistan
2	0.74	Albania
3	0.00	Algeria
4	0.00	Angola
10	0.00	Bahrain
22	0.00	Burundi
23	0.00	Cambodia
24	0.00	Cameroon
27	0.00	Central African Republic
28	0.00	Chad
30	0.00	China
32	0.00	Comoros
35	0.00	Cuba
40	0.00	Djibouti
47	0.00	Ethiopia
50	0.00	Gabon
51	0.00	The Gambia
59	0.00	Haiti
66	0.00	Iraq
72	0.00	Jordan
74	0.00	Kenya
75	0.05	Kuwait
78	0.02	Lebanon
79	0.00	Lesotho
80	0.00	Liberia
81	0.00	Libya
85	0.00	Malawi
86	0.00	Malaysia
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
97	0.00	Nepal
102	0.00	Nigeria
106	0.00	Oman
107	0.00	Pakistan
115	0.00	Qatar
120	0.00	Rwanda
122	0.00	Saudi Arabia
125	0.00	Seychelles
126	0.00	Sierra Leone
127	0.19	Singapore
140	0.00	Togo
142	0.00	Tunisia
145	0.00	Uganda
153	0.00	Vietnam
156	0.00	Zimbabwe

Table Z.4 - Czech Republic Common Support

	Treated	Synthetic	Sample Mean
Child Mortality	14.55	46.32	124.54
Secondary Schooling	8.00	7.60	6.47
Population Growth Rate	0.00	0.02	0.03
5-years Average GDP per capita	12476.47	6686.52	4572.99
3-years prior Average GDP per capita Growth Rate	1.78	1.49	-0.64

Figure Z.4 - Czech Republic's Synthetic Control and its Controls' Placebos

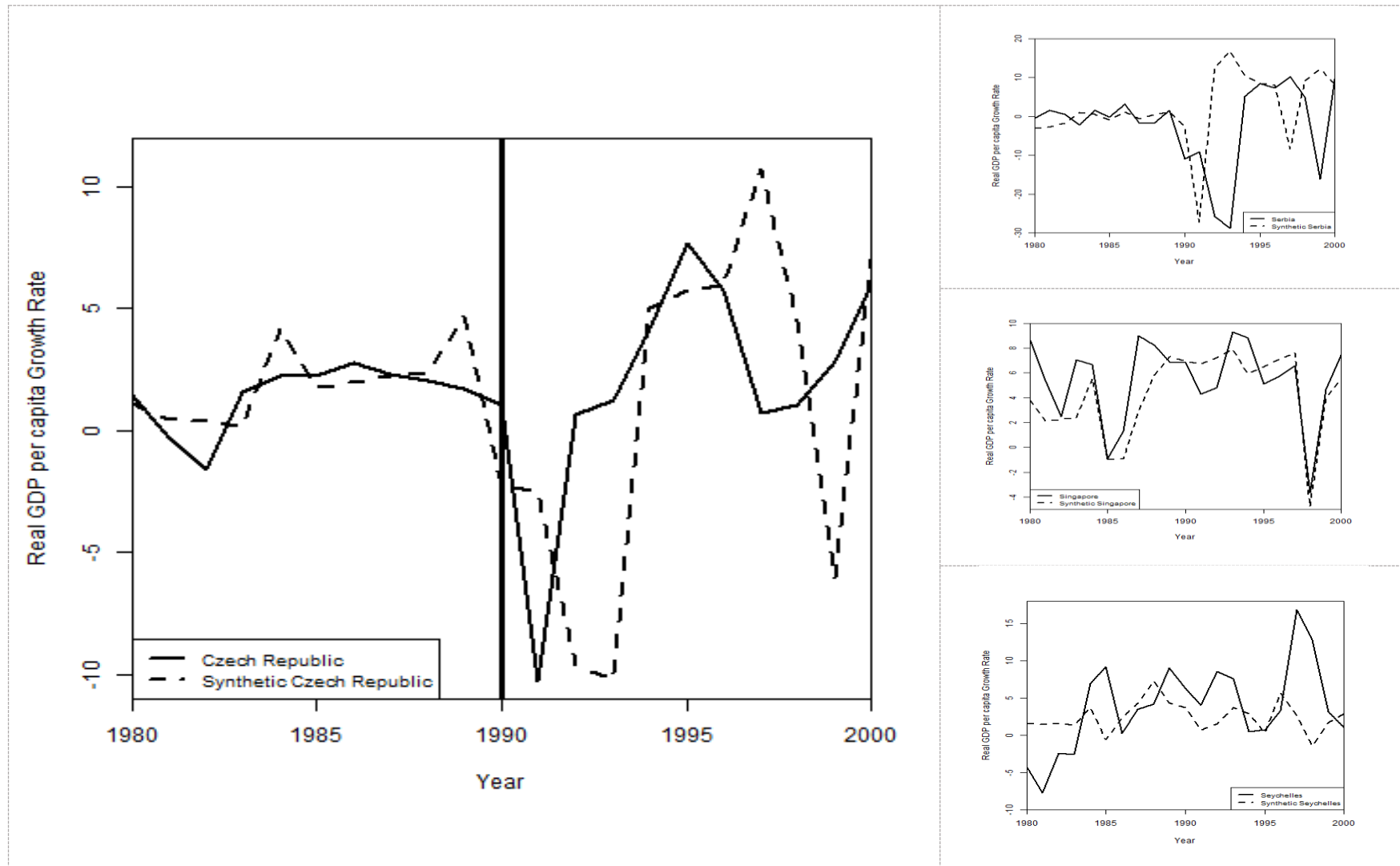


Figure Z.5 - Czech Republic and its Controls' Density Plots of the Average Treatment Effect (ATE)

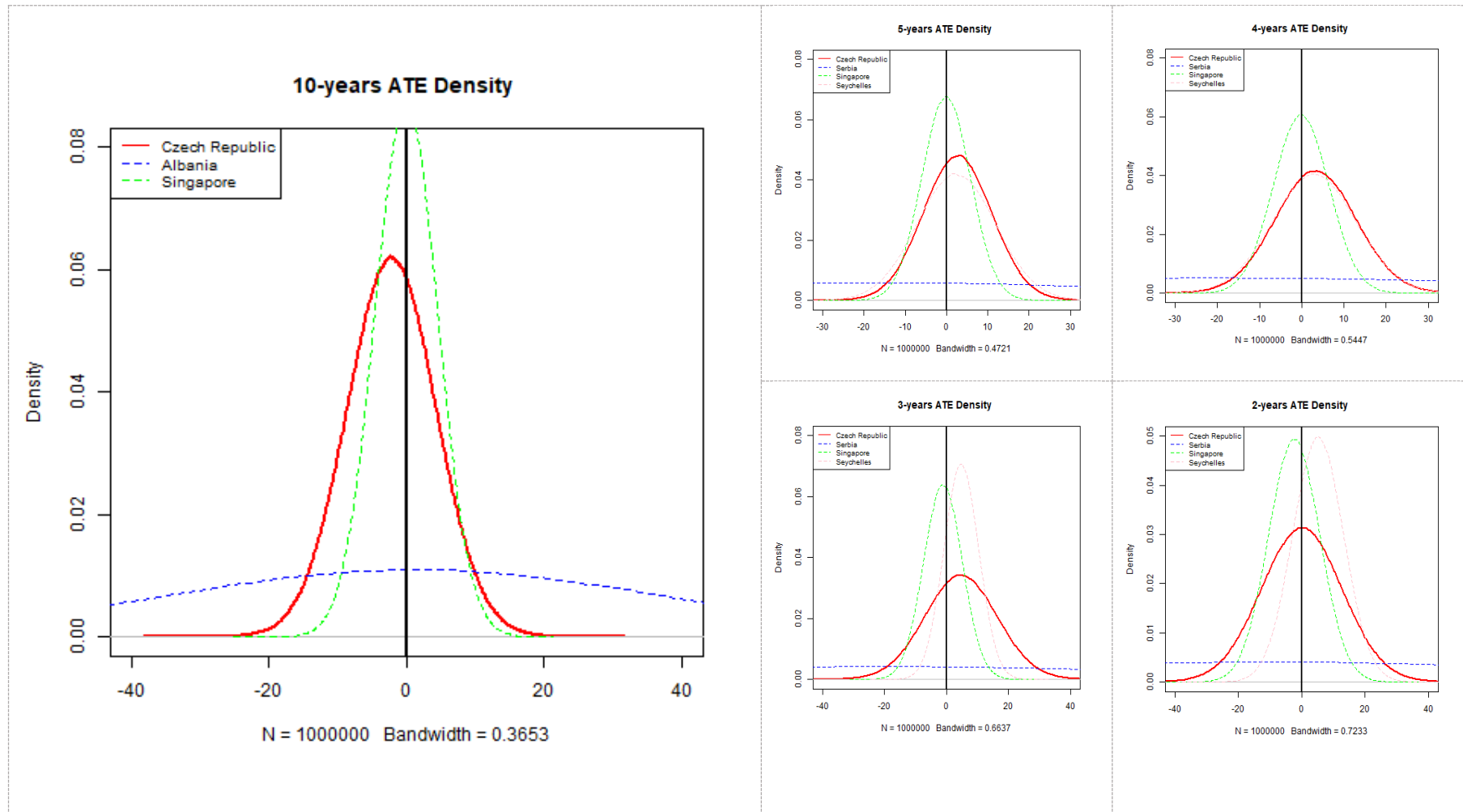
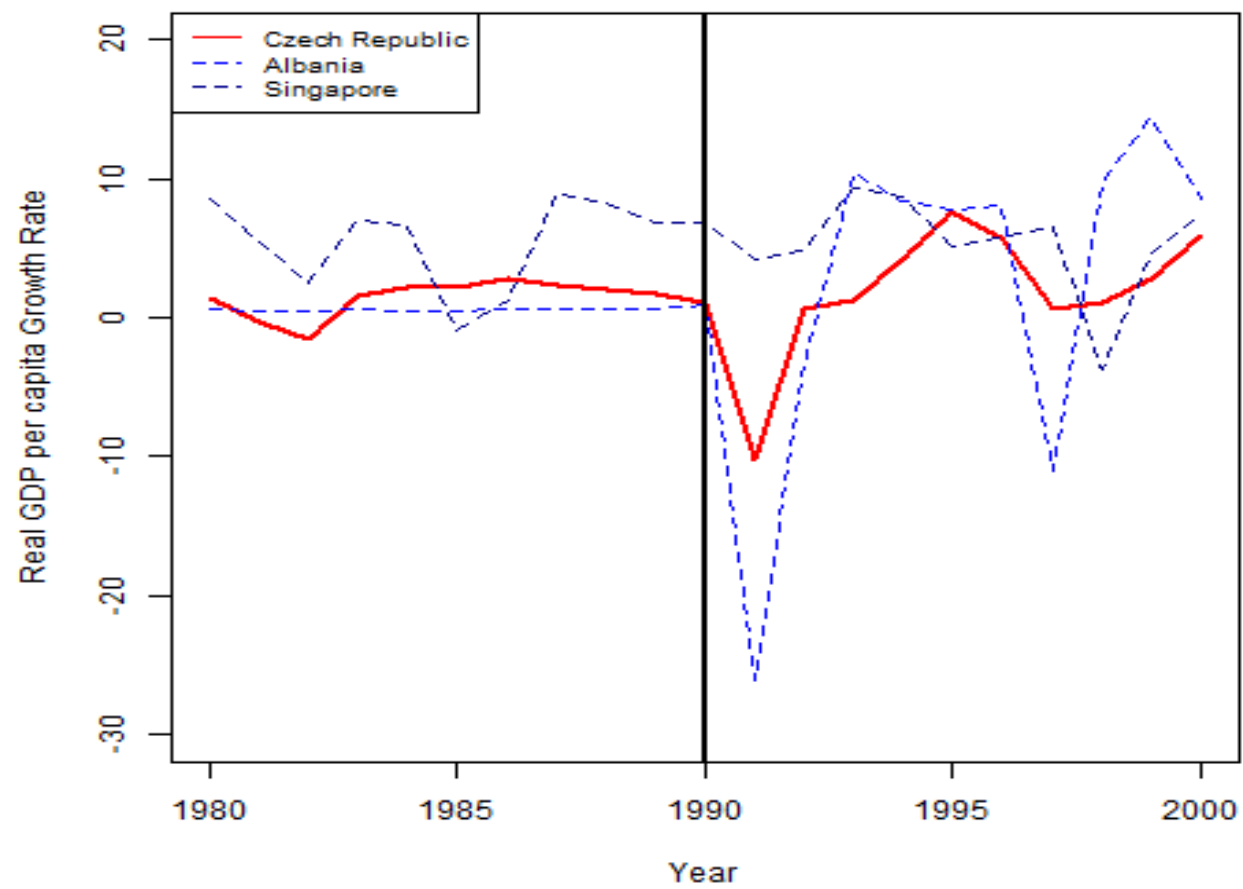


Figure Z.6 – Czech Republic and Controls' Placebo



AA| Serbia
AA.1| In World

Table AA.1 - Serbia's Donor Pool Weights

	Weights	Countries
3	0.00	Algeria
10	0.00	Bahrain
22	0.00	Burundi
23	0.00	Cambodia
24	0.00	Cameroon
27	0.00	Central African Republic
28	0.00	Chad
30	0.00	China
35	0.74	Cuba
40	0.00	Djibouti
43	0.00	Egypt
45	0.00	Equatorial Guinea
50	0.00	Gabon
51	0.00	The Gambia
57	0.00	Guinea-Bissau
58	0.00	Guinea
59	0.00	Haiti
72	0.00	Jordan
74	0.00	Kenya
75	0.26	Kuwait
76	0.00	Kyrgyzstan
78	0.00	Lebanon
81	0.00	Libya
86	0.00	Malaysia
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
102	0.00	Nigeria
106	0.00	Oman
107	0.00	Pakistan
115	0.00	Qatar
120	0.00	Rwanda
122	0.00	Saudi Arabia
125	0.00	Seychelles
127	0.00	Singapore
137	0.00	Tajikistan
140	0.00	Togo
142	0.00	Tunisia
145	0.00	Uganda
151	0.00	Uzbekistan
153	0.00	Vietnam
156	0.00	Zimbabwe

Table AA.2 - Serbia Common Support

	Treated	Synthetic	Sample Mean
Investment	12.00	12.51	21.85
Child Mortality	19.55	11.77	94.97
Population Growth Rate	0.00	0.00	0.02
5-years Average GDP per capita1990.2000	7931.47	7930.48	5400.48
3-years prior Average GDP per capita Growth Rate	2.11	5.33	3.85

Figure AA.1 - Serbia's Synthetic Control and its Controls' Placebos

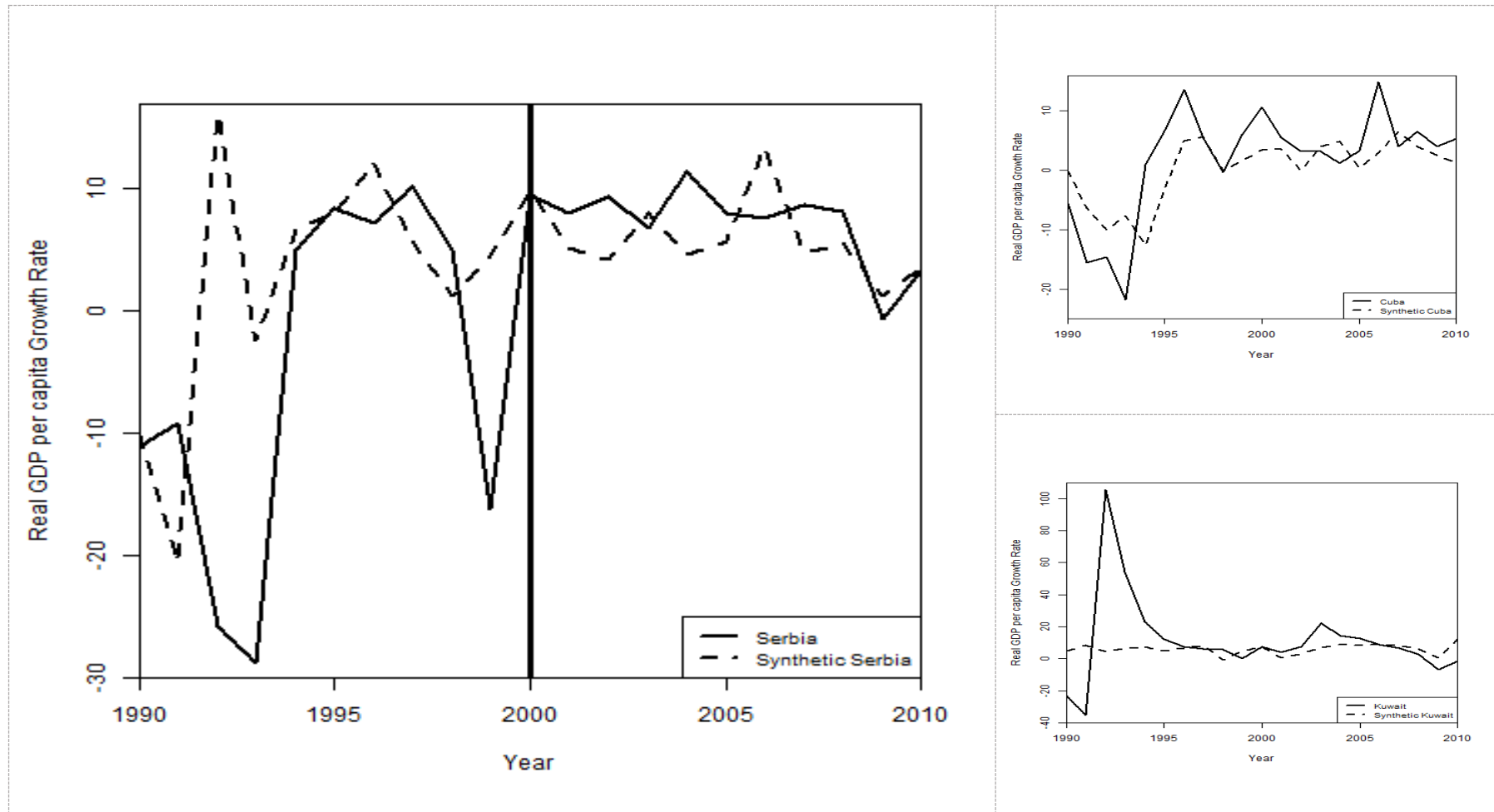


Figure AA.2 - Serbia and its Controls' Density Plots of the Average Treatment Effect (ATE)

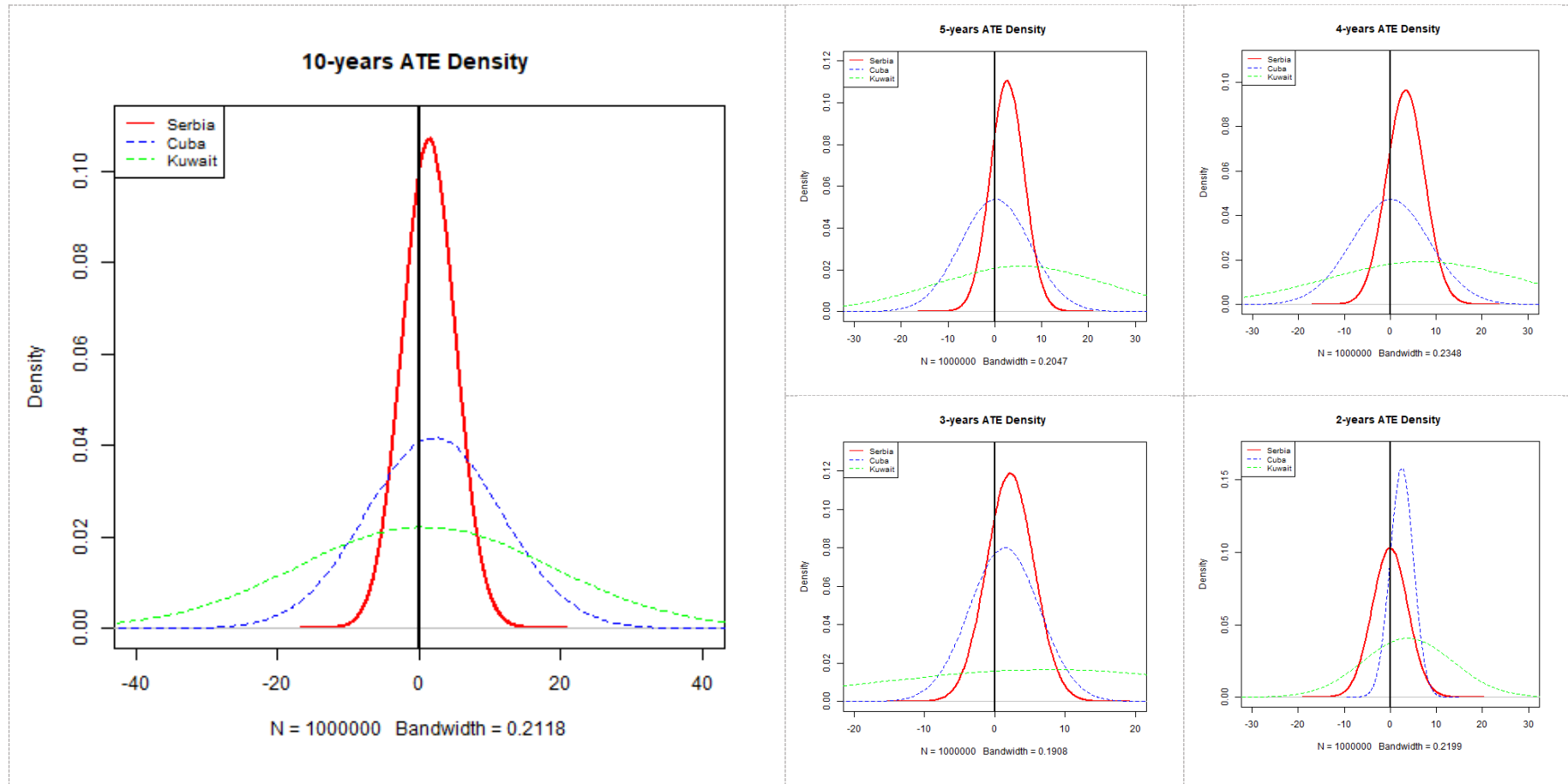
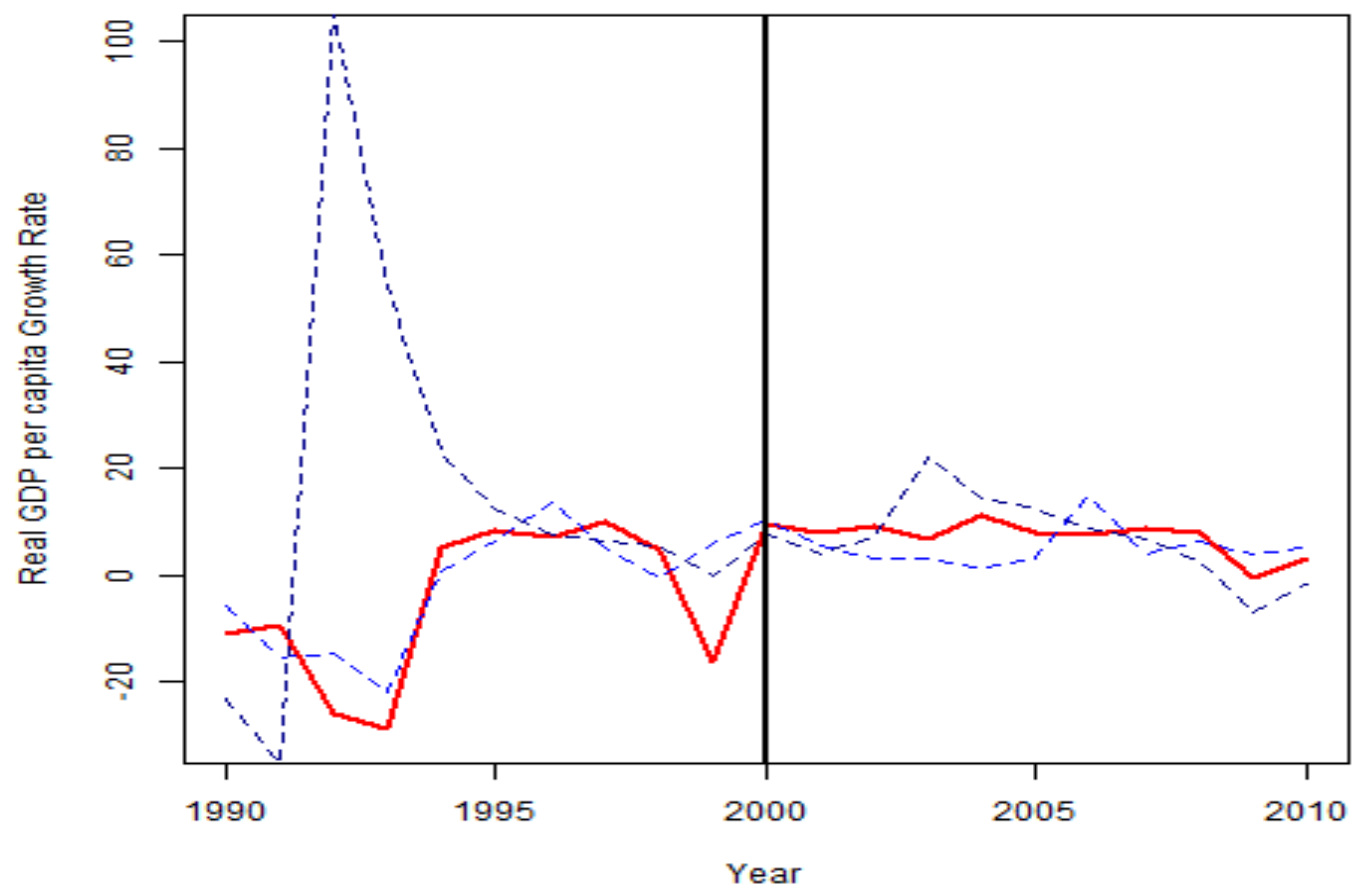


Figure AA.3 – Serbia and Controls' Placebo



BB| Peru
BB.1| In America

Table BB.1 - Peru's Donor Pool Weights with Donor Pool Countries in America

	Weights	Countries
35	0.15	Cuba
59	0.85	Haiti

Table BB.2 - Peru Common Support with Donor Pool Countries in America

	Treated	Synthetic	Sample Mean
Trade	12136.07	1392.16	2490.85
Investment	18.18	18.22	14.96
Secondary Schooling	6.31	6.18	
Child Mortality	54.73	103.03	64.90
Population Growth Rate	0.02	0.02	0.01
5-years Average GDP per capita	5383.17	1764.06	2436.91
3-years prior Average GDP per capita Growth Rate	-0.07	1.48	3.13

Figure BB.1 - Peru's Synthetic Control and its Controls' Placebos with Donor Pool Countries in America

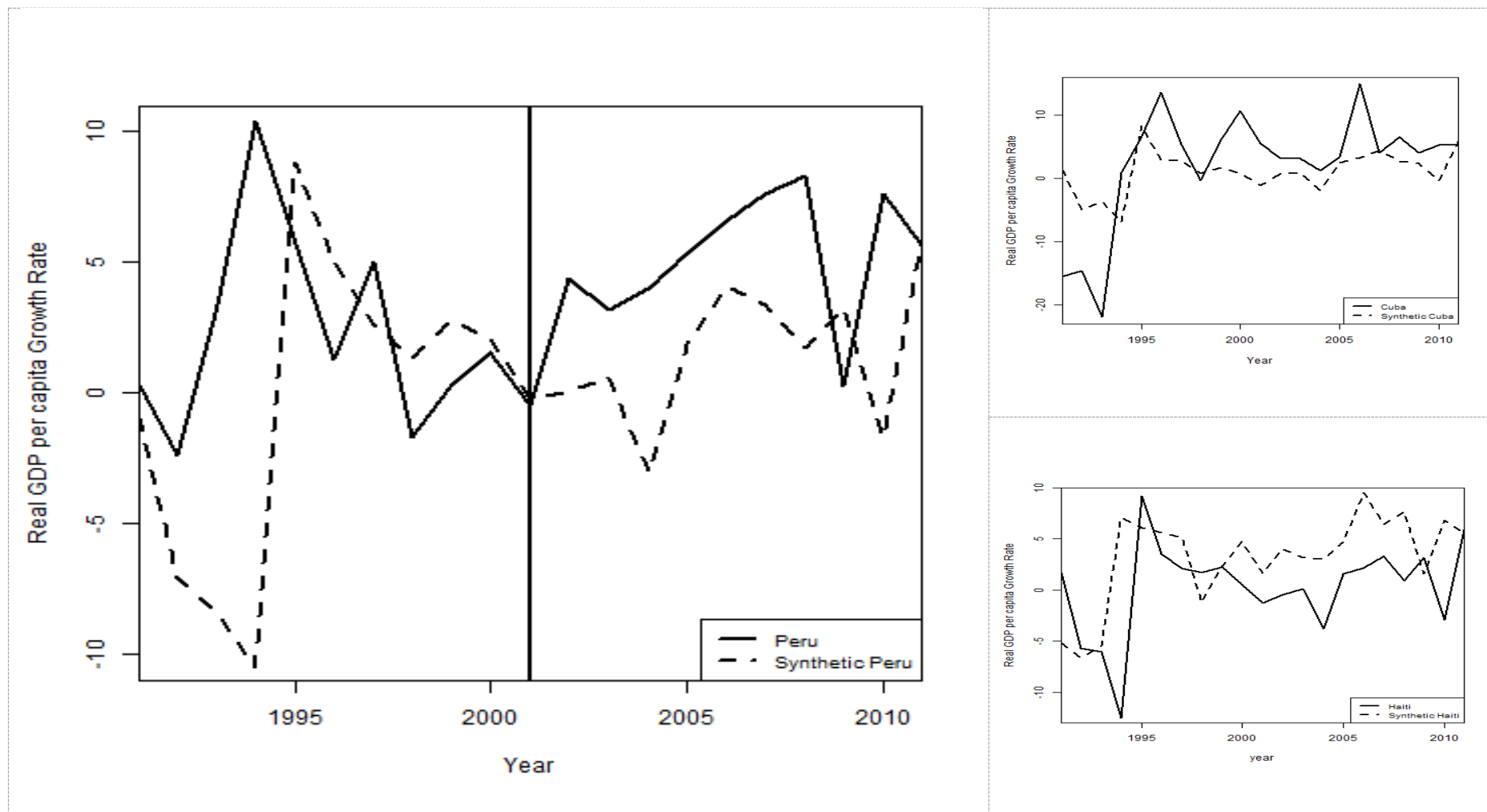


Figure BB.2 - Peru and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in America

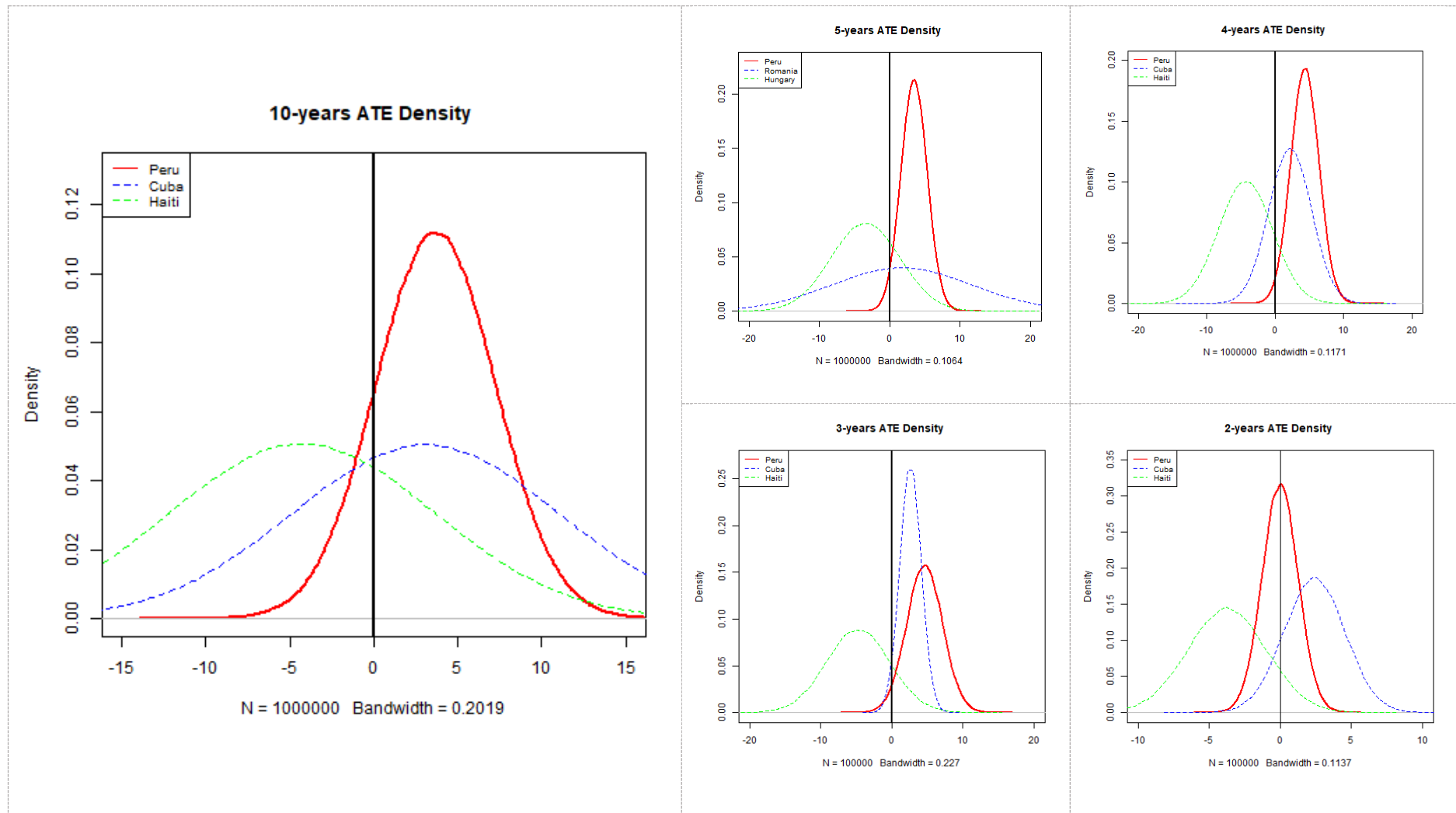


Figure BB.3 – Peru and Controls’ Placebo with Donor Pool Countries in America

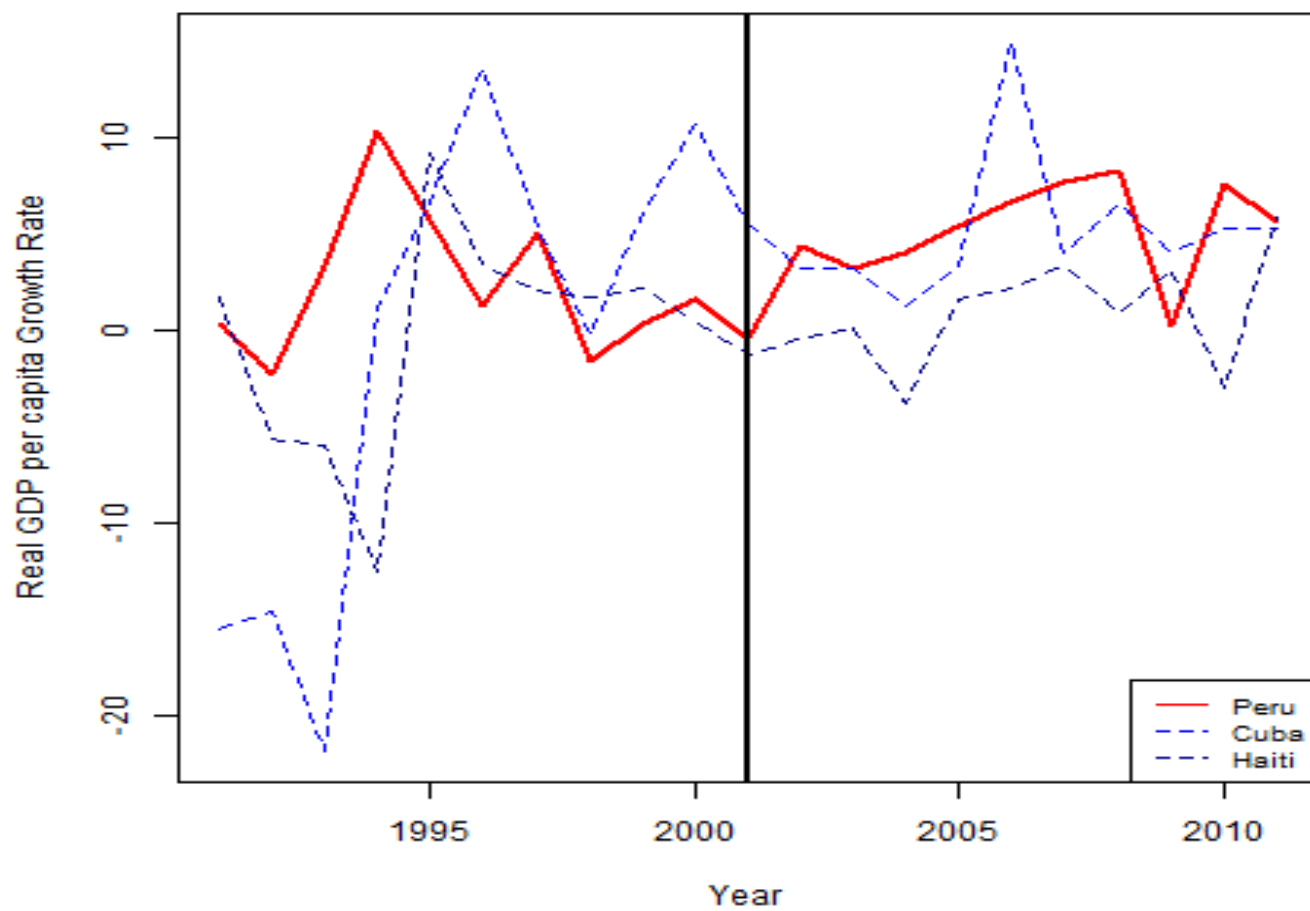


Table BB.3 - Peru's Donor Pool Weights

	Weights	Countries
3	0.00	Algeria
4	0.00	Angola
10	0.00	Bahrain
22	0.00	Burundi
23	0.00	Cambodia
24	0.00	Cameroon
27	0.00	Central African Republic
28	0.00	Chad
30	0.00	China
35	0.05	Cuba
40	0.00	Djibouti
50	0.00	Gabon
51	0.01	The Gambia
59	0.00	Haiti
66	0.00	Iraq
72	0.00	Jordan
74	0.00	Kenya
75	0.00	Kuwait
76	0.00	Kyrgyzstan
78	0.00	Lebanon
81	0.00	Libya
86	0.00	Malaysia
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
102	0.00	Nigeria
106	0.00	Oman
107	0.00	Pakistan
115	0.00	Qatar
120	0.00	Rwanda
122	0.00	Saudi Arabia
125	0.00	Seychelles
127	0.56	Singapore
137	0.00	Tajikistan
140	0.00	Togo
142	0.00	Tunisia
144	0.00	Turkmenistan
145	0.00	Uganda
151	0.00	Uzbekistan
153	0.00	Vietnam
156	0.38	Zimbabwe

Table BB.4 - Peru Common Support

	Treated	Synthetic	Sample Mean
Trade	12136.07	120886.20	25907.25
Investment	18.18	26.17	21.80
Child Mortality	54.73	42.54	88.75
Secondary Schooling	5.49	6.43	
Population Growth Rate	0.02	0.02	0.02
5-years Average GDP per capita	5383.17	17609.08	5862.82
3-years prior Average GDP per capita Growth Rate	0.55	0.78	4.04

Figure BB.4 - Peru's Synthetic Control and its Controls' Placebos

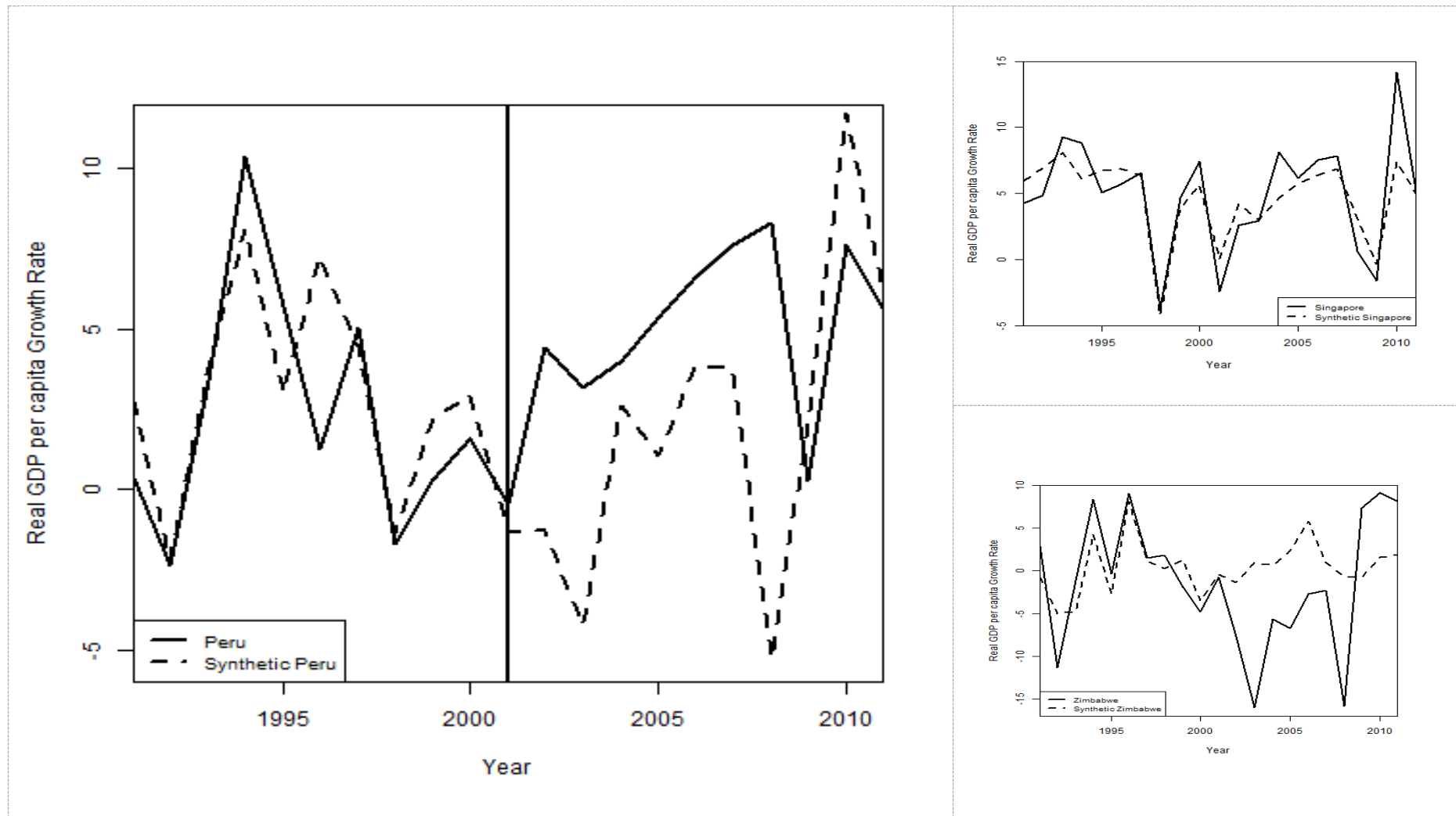


Figure BB.5 - Peru and its Controls' Density Plots of the Average Treatment Effect (ATE)

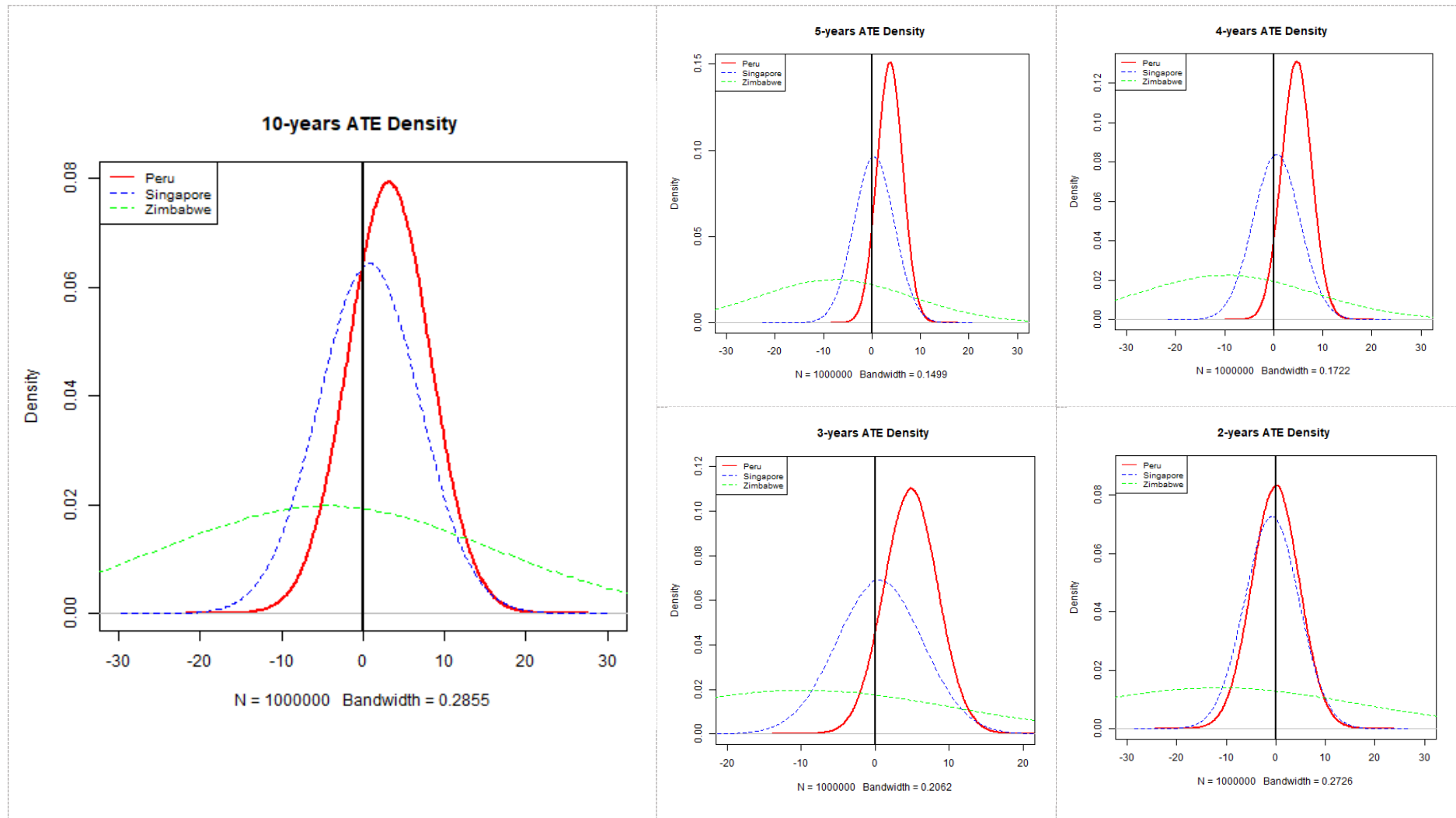
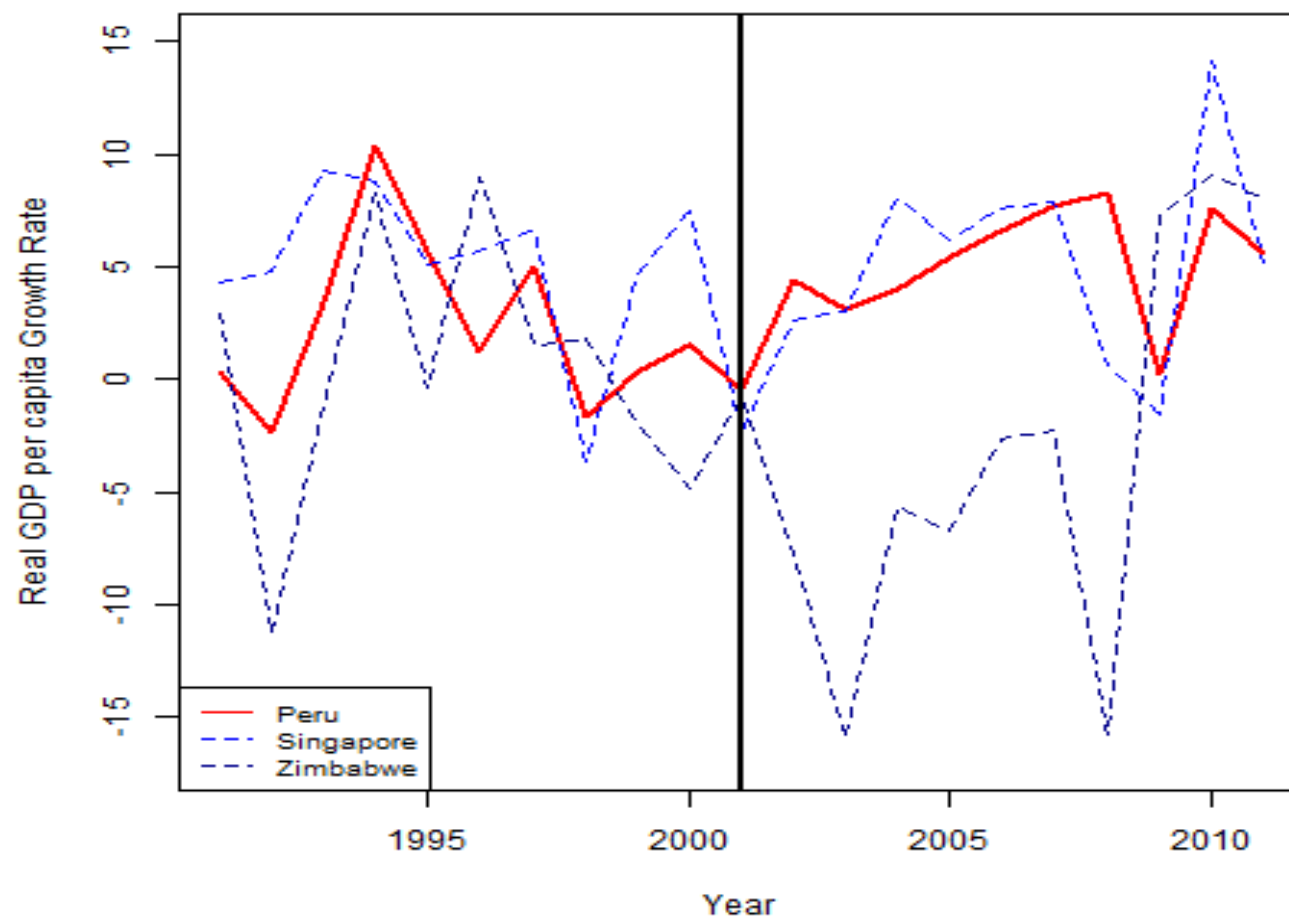


Figure BB.6 – Peru and Controls' Placebo



CC| Colombia
 CC.1| In America

Table CC.1 - Colombia's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
35	0.40	Cuba
59	0.60	Haiti

Table CC.2 - Colombia Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Trade	9137.99	2229.30	2623.25
Investment	20.55	20.83	21.55
Child Mortality	44.34	106.75	91.81
Population Growth Rate	0.02	0.02	0.01
5-years Average GDP per capita	6710.00	2889.50	3159.30
3-years prior Average GDP per capita Growth Rate	2.13	-1.83	-1.83

Figure CC.1 - Colombia's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

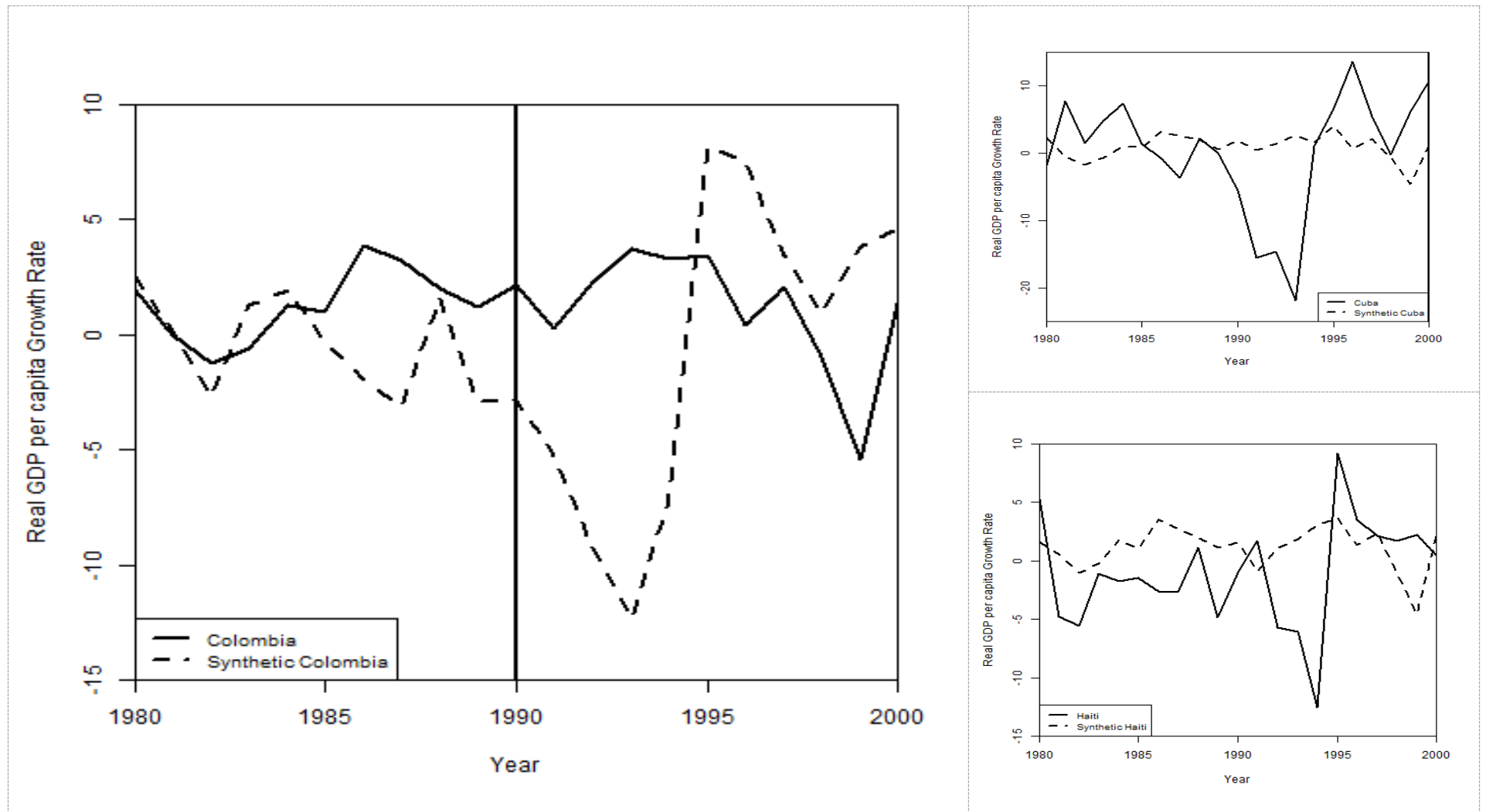


Figure CC.2 - Colombia and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

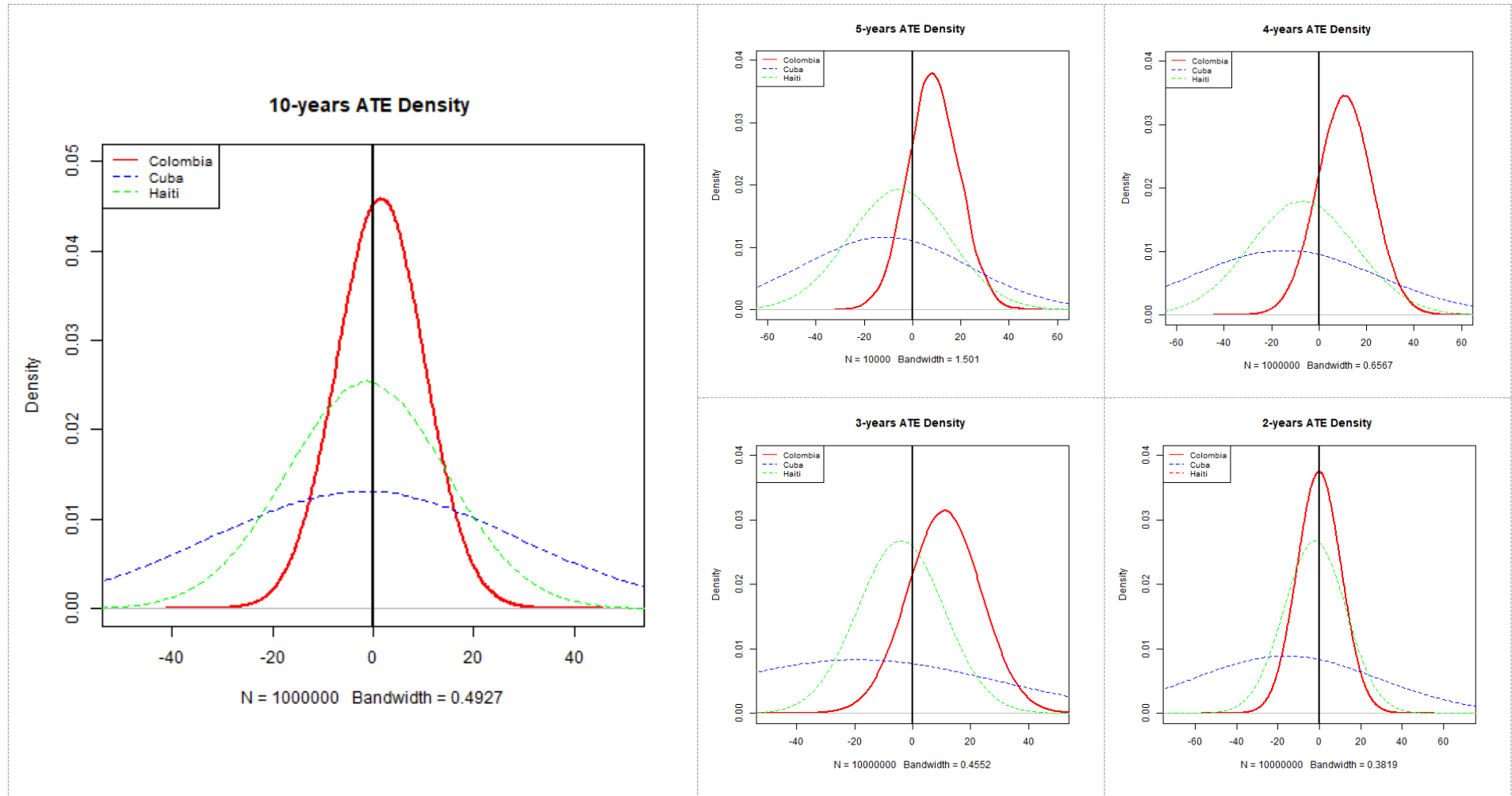
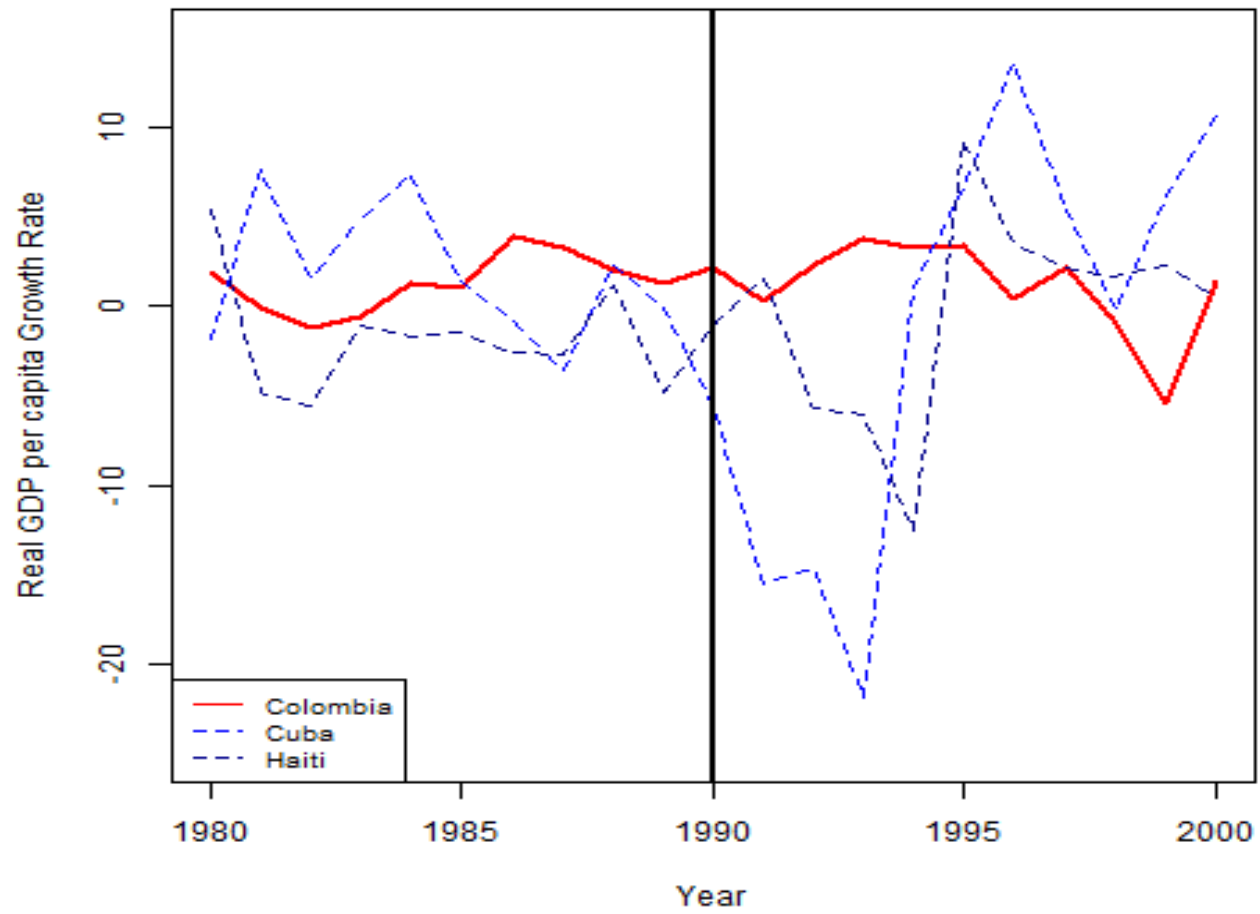


Figure CC.3 – Colombia and Controls' Placebo with Donor Pool Countries in Europe



DD| Mexico
DD.1| In America

Table DD.1 - Mexico's Donor Pool Weights with Donor Pool Countries in Europe

	Weights	Countries
35	0.09	Cuba
59	0.91	Haiti

Table DD.2 - Mexico Common Support with Donor Pool Countries in Europe

	Treated	Synthetic	Sample Mean
Trade	70016.35	891.12	2169.18
Investment	22.55	17.66	18.06
Child Mortality	47.40	136.85	81.48
Population Growth Rate	0.02	0.02	0.01
5-years Average GDP per capita	9704.90	2066.01	3293.15
3-years prior Average GDP per capita Growth Rate	2.25	1.18	3.02

Figure DD.1 - Mexico's Synthetic Control and its Controls' Placebos with Donor Pool Countries in Europe

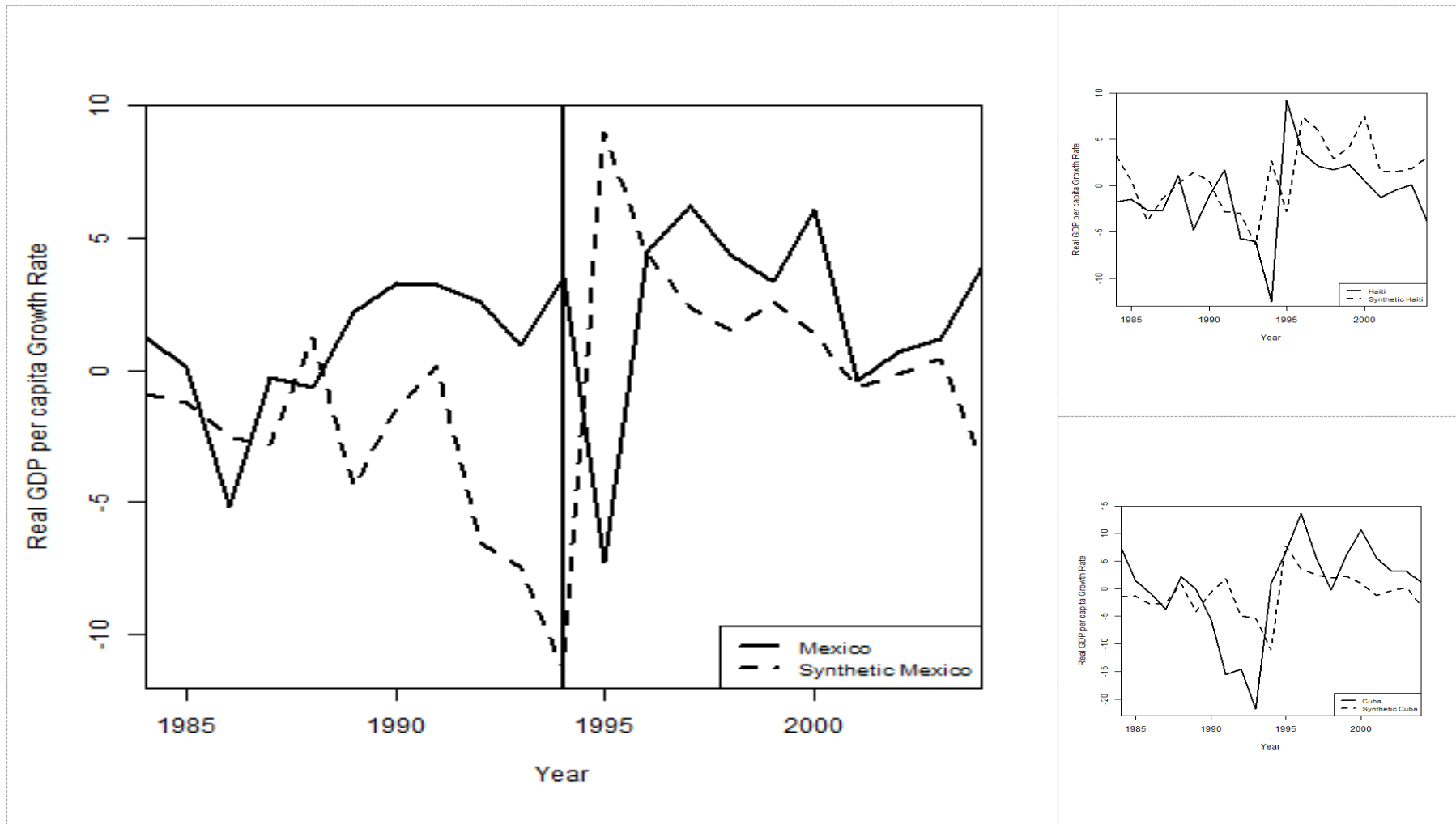


Figure DD.2 - Mexico and its Controls' Density Plots of the Average Treatment Effect with Donor Pool Countries in Europe

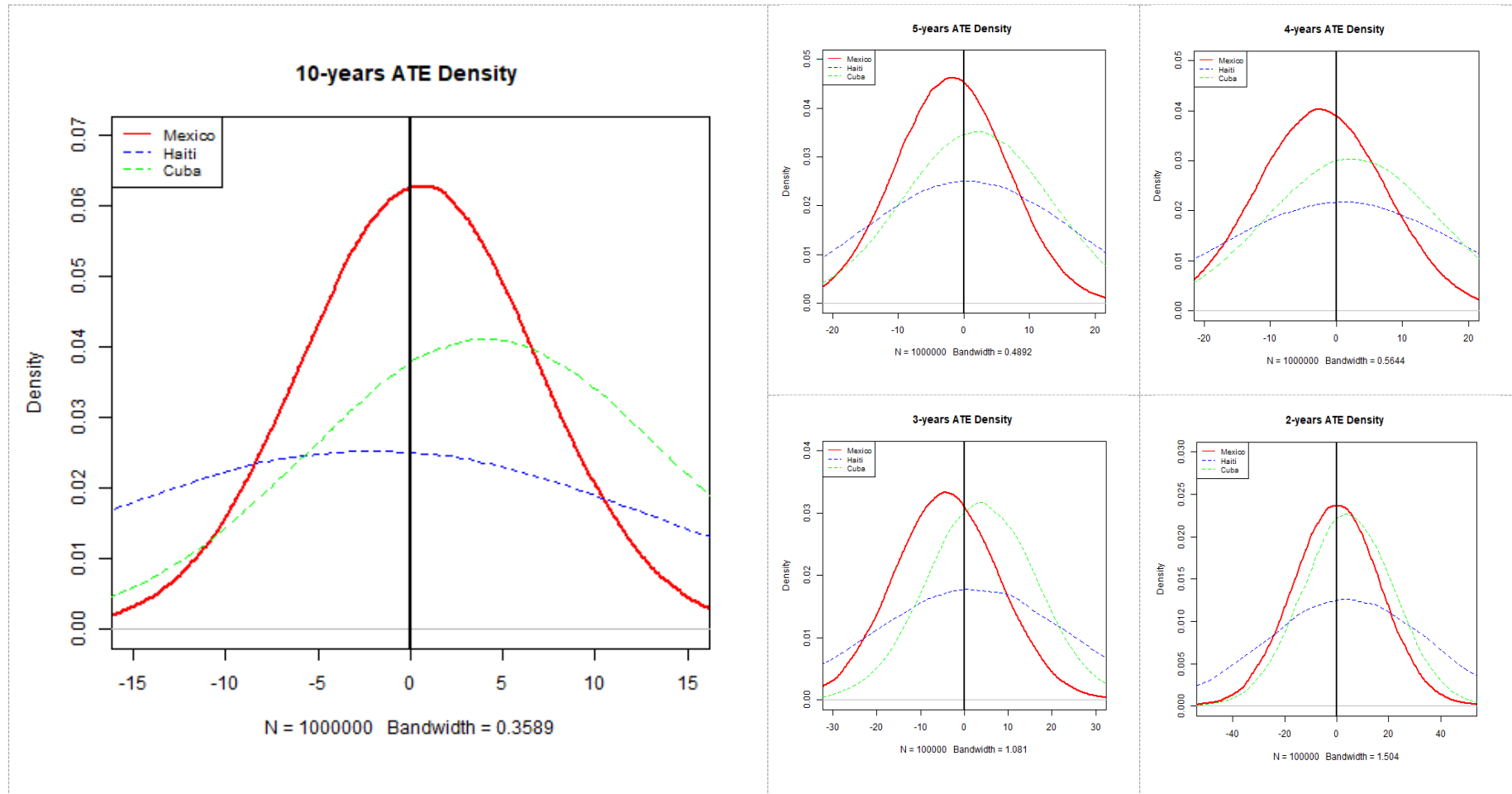


Figure DD.3 – Mexico and Controls' Placebo with Donor Pool Countries in Europe

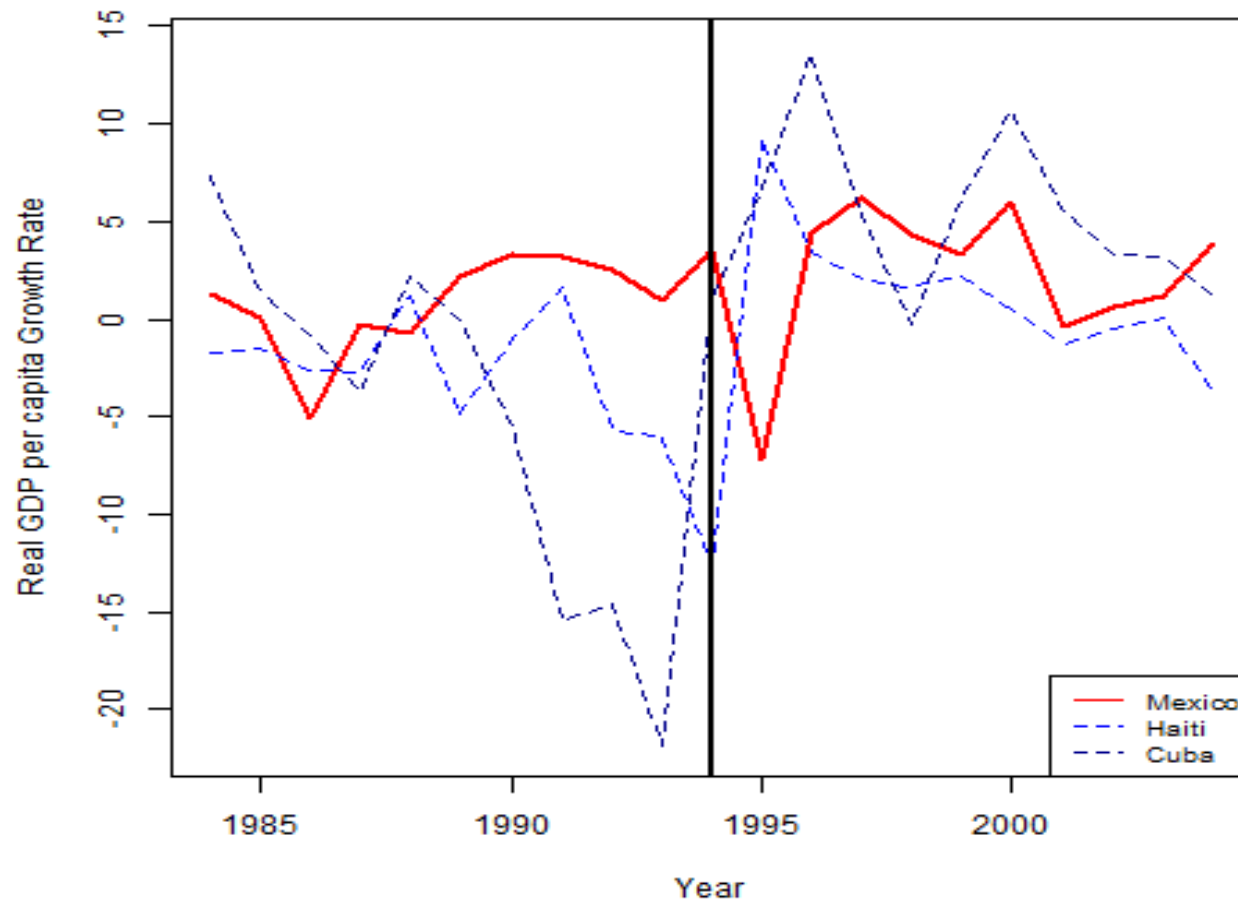


Table DD.3 - Mexico's Donor Pool Weights

	Weights	Countries
2	0.00	Albania
3	0.00	Algeria
4	0.00	Angola
10	0.00	Bahrain
22	0.00	Burundi
23	0.00	Cambodia
24	0.00	Cameroon
27	0.00	Central African Republic
28	0.00	Chad
30	0.21	China
32	0.00	Comoros
35	0.22	Cuba
40	0.00	Djibouti
50	0.00	Gabon
51	0.00	The Gambia
59	0.00	Haiti
72	0.00	Jordan
74	0.00	Kenya
75	0.02	Kuwait
78	0.00	Lebanon
81	0.00	Libya
85	0.00	Malawi
86	0.00	Malaysia
89	0.00	Mauritania
94	0.00	Morocco
95	0.00	Mozambique
97	0.00	Nepal
102	0.00	Nigeria
106	0.00	Oman
107	0.00	Pakistan
115	0.00	Qatar
120	0.02	Rwanda
122	0.40	Saudi Arabia
125	0.08	Seychelles
127	0.00	Singapore
140	0.00	Togo
142	0.00	Tunisia
145	0.03	Uganda
153	0.00	Vietnam
156	0.00	Zimbabwe

Table DD.4 - Mexico Common Support

	Treated	Synthetic	Sample Mean
Trade	70016.35	51569.60	12282.65
Investment	22.55	23.53	21.64
Child Mortality	47.40	46.87	105.20
Secondary Schooling	6.00	6.00	6.48
Population Growth Rate	0.02	0.02	0.03
5-years Average GDP per capita	9704.90	9038.80	4575.02
3-years prior Average GDP per capita Growth Rate	2.69	2.56	1.90

Figure DD.4 - Mexico's Synthetic Control and its Controls' Placebos

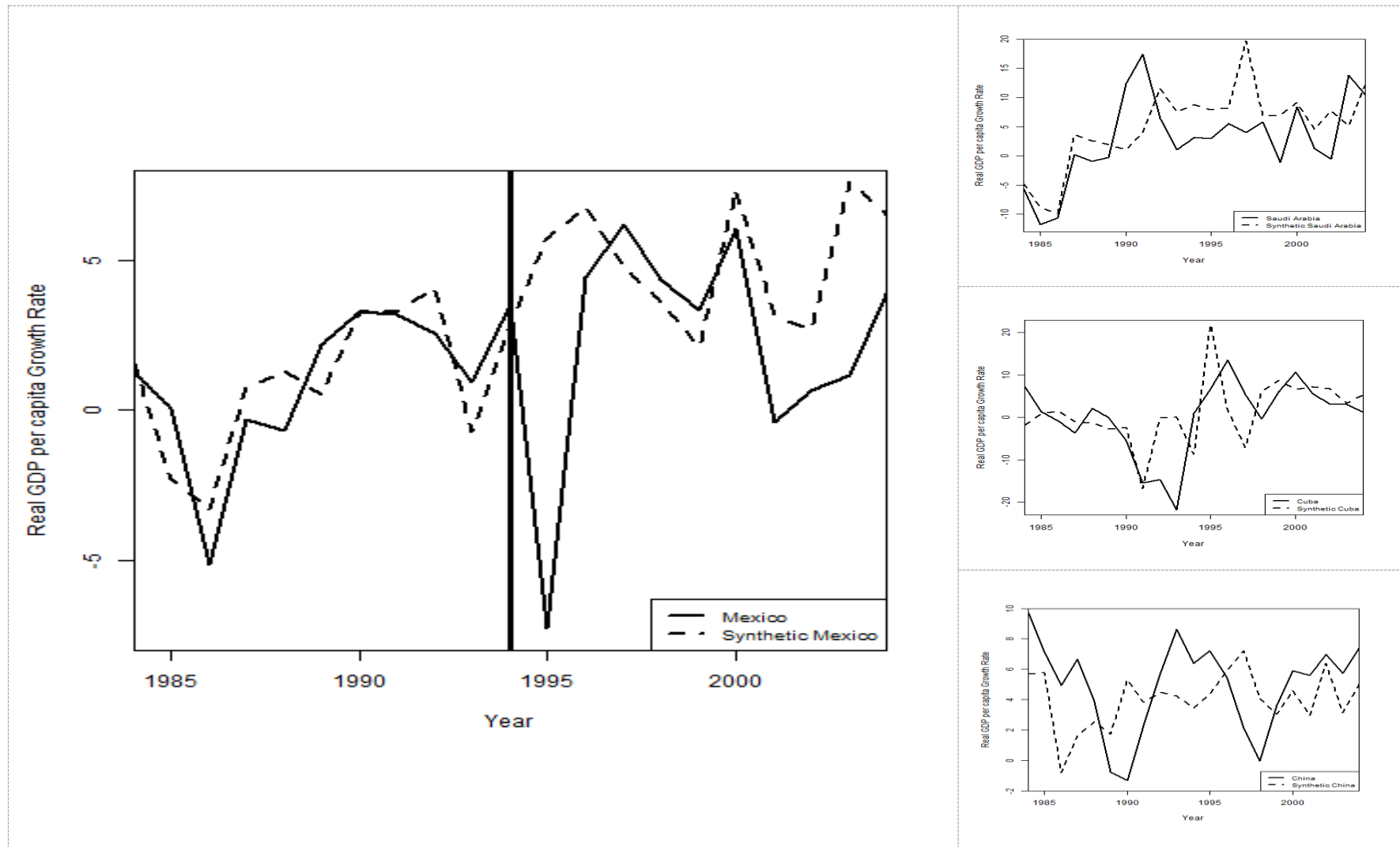


Figure DD.5 - Mexico and its Controls' Density Plots of the Average Treatment Effect (ATE)

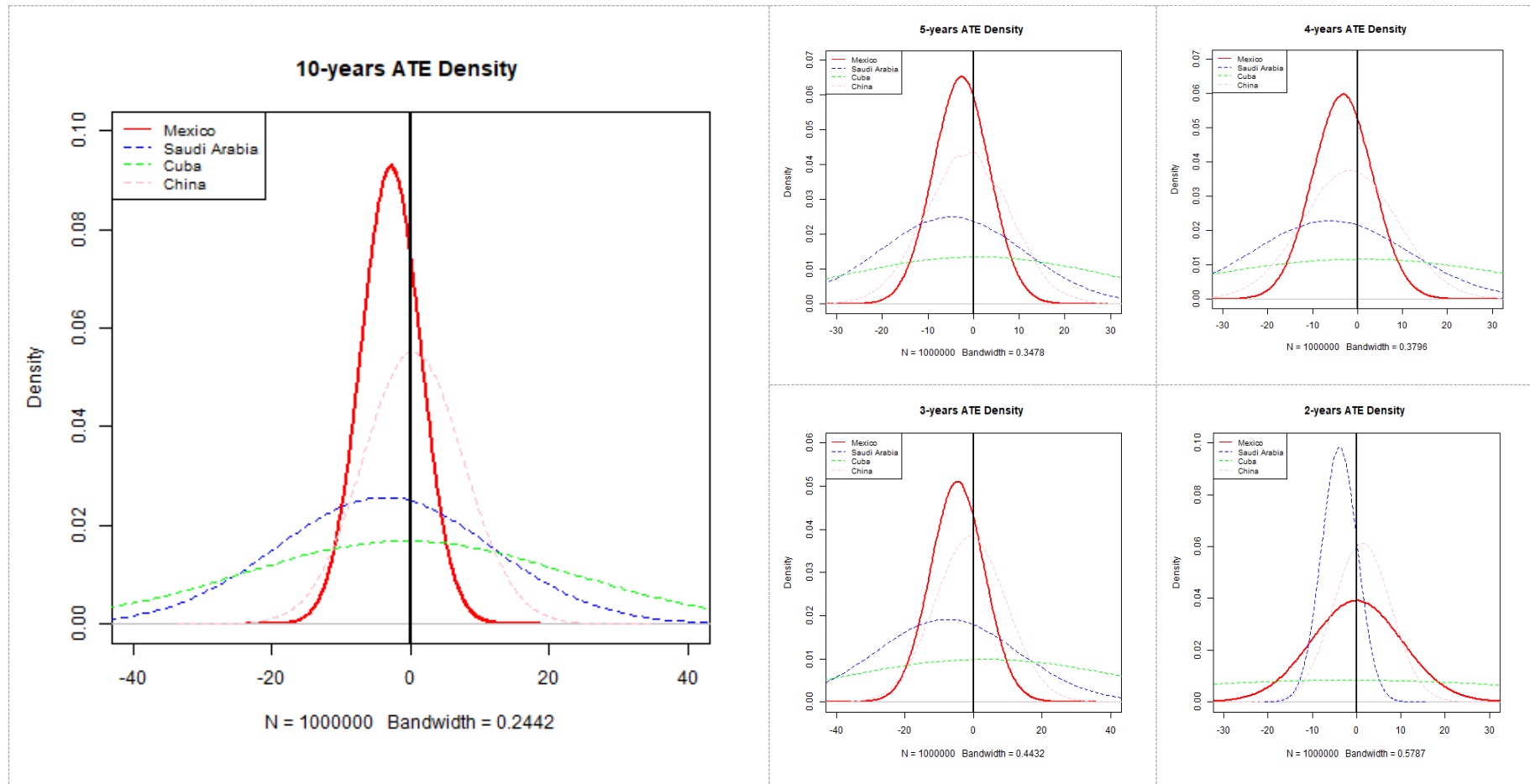


Figure DD.6 – Mexico and Controls' Placebo

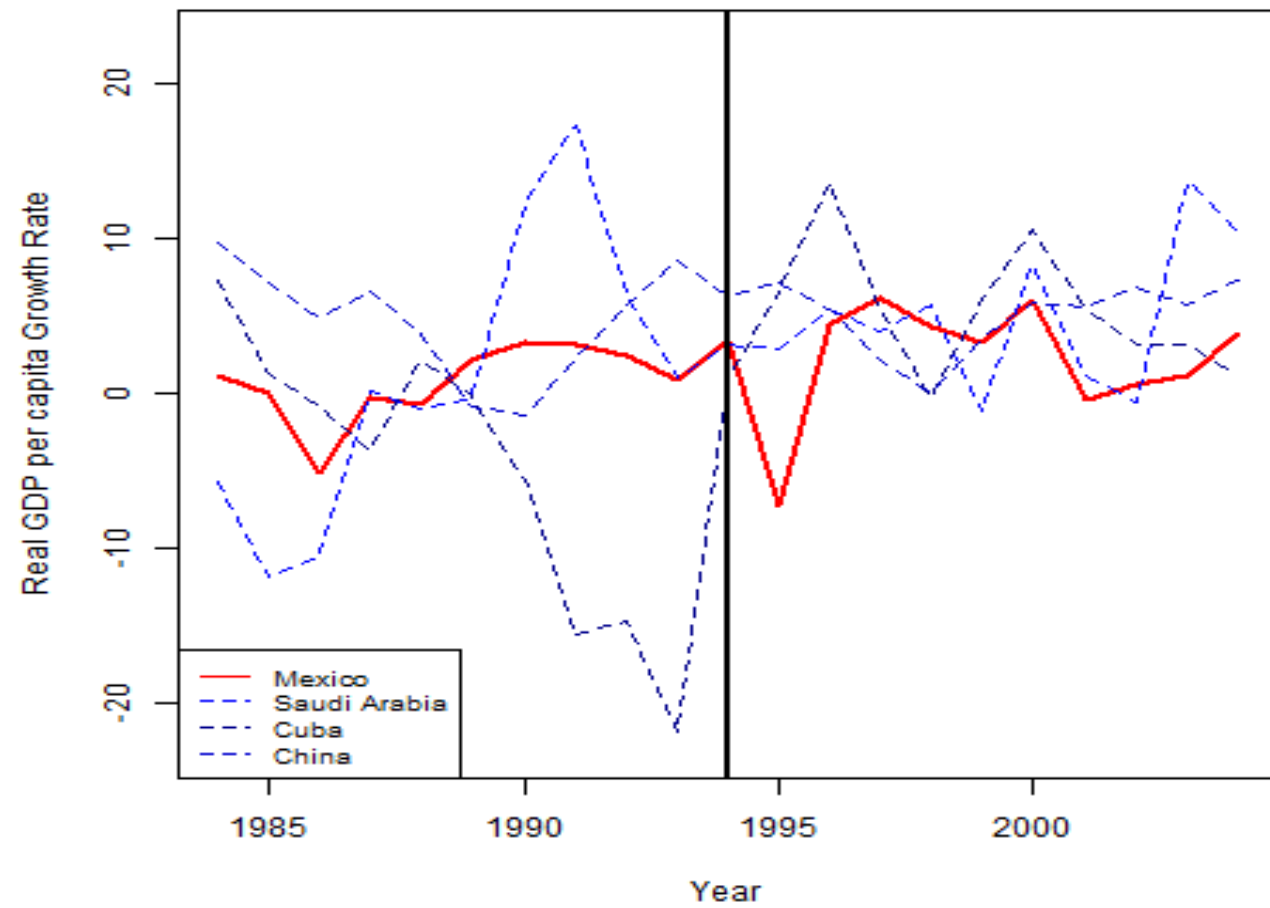


Table EE.1 – The democratisation effect on economic growth for each year after the democratisation episode in the same continent experience – 1st Placebo

Countries	τ_t	τ_{t+1}	τ_{t+2}	τ_{t+3}	τ_{t+4}	τ_{t+5}	τ_{t+6}	τ_{t+7}	τ_{t+8}	τ_{t+9}	τ_{t+10}
Norway	4	5	-6	-1	4	-1	5	1	7	7	-1
Finland	0	-11	6	1	3	5	-3	-7	-2	-2	17
Canada	5	-11	2	17	8	-2	-7	2	25	5	-7
Belgium	-11	-2	44	13	-54	10	9	-4	0	5	-1
Italy	-11	-2	44	13	-54	10	9	-4	0	5	-1
Costa Rica	7	-1	13	-11	-2	-4	3	3	-4	10	-6
Japan	-1	21	0	-2	-7	2	1	-3	-4	-2	-3
Botswana	0	2	7	-4	1	0	-9	6	-1	-1	-7
Trinidad and Tobago	2	1	0	-8	-5	-5	0	-3	2	3	4
Malta	-8	0	-1	-1	1	-2	0	-6	-1	1	0
Mauritius	0	4	3	6	8	4	30	22	30	-13	-28
Portugal	4	3	7	8	-3	-6	8	6	6	-2	3
South Korea	1	-2	3	1	1	1	6	2	1	1	-2
Bolivia	0	4	2	3	2	2	0	-2	2	5	7
Brazil	-2	-3	-4	0	-1	-1	0	-1	-2	-1	-3
Phillipines	1	-6	-7	-8	-10	1	4	7	2	0	2
São Tome	3	3	9	4	1	7	8	-1	1	-3	14
Poland	2	-6	6	-26	-36	-2	1	0	11	-3	-26
Czech Republic	2	-16	2	15	4	0	2	-14	8	16	2
South Africa	-2	0	-3	13	9	-1	-2	-5	2	-10	-6
Mexico	-15	12	-4	-4	-1	-2	-7	-3	-2	-2	-7
Indonesia	-1	-6	0	-1	0	1	1	-3	-3	-3	-3
Peru	7	3	2	3	1	12	0	4	2	6	0
Lesotho	2	7	1	10	18	1	1	-6	-1	5	0
Georgia	-1	-7	-4	1	-1	-3	-7	0	-7	4	-2
Liberia	13	16	18	15	2	-1	4	-2	1	-6	-1

Table EE.2 – The democratisation effect on economic growth for each year after the democratisation episode in the same continent experience – 2nd Placebo

Countries	τ_t	τ_{t+1}	τ_{t+2}	τ_{t+3}	τ_{t+4}	τ_{t+5}	τ_{t+6}	τ_{t+7}	τ_{t+8}	τ_{t+9}	τ_{t+10}
Norway	4	5	-6	-1	4	-1	5	1	7	7	-1
Finland	2	0	-6	-4	-7	1	7	3	1	2	-15
Canada	-4	2	-4	-5	-1	-5	-1	1	-12	-2	-1
Belgium	-26	-26	-16	17	175	-19	-24	22	-1	4	-2
Italy	27	24	-2	-20	-135	14	18	-18	1	-5	2
Costa Rica	4	-3	5	-3	3	-4	-2	-2	-2	-1	-1
Japan	-4	-14	0	-1	3	-4	-4	-1	-6	-4	-2
Botswana	0	6	-11	5	15	-3	-4	1	-5	3	12
Trinidad and Tobago	-3	-3	-8	-3	6	-6	1	6	-11	-7	-9
Malta	-1	5	2	3	0	-1	1	7	1	1	5
Portugal	-5	0	-3	0	-1	-5	-2	6	0	-1	4
South Korea	3	-8	1	1	-1	4	1	3	7	5	4
Bolivia	-2	-2	-3	-4	-1	-1	-1	0	-1	-2	-1
Brazil	0	2	1	-2	-1	-3	0	3	3	2	-1
Phillipines	-2	-3	2	3	3	6	-1	-1	-1	2	1
São Tome	-8	-3	0	-5	-3	-3	-1	4	10	-4	4
South Africa	1	4	3	-5	5	4	4	2	7	7	2
Mexico	12	-1	10	3	-2	4	10	7	4	3	4
Indonesia	1	-1	-2	1	1	-5	-3	-3	-5	-3	-2
Peru	-3	-4	-3	-7	-3	-7	-3	-7	2	-10	0
Lesotho	-9	-16	-7	-11	-8	-6	-20	4	5	3	1
Georgia	-1	2	2	0	0	6	-1	-1	1	2	3
Liberia	1	0	1	-2	-1	0	-1	-1	-40	-3	7

Table EE.3 – The democratisation effect on economic growth for each year after the democratisation episode in the same continent experience – 3rd Placebo

Countries	τ_t	τ_{t+1}	τ_{t+2}	τ_{t+3}	τ_{t+4}	τ_{t+5}	τ_{t+6}	τ_{t+7}	τ_{t+8}	τ_{t+9}	τ_{t+10}
Canada	-2	4	1	3	4	-2	6	-5	2	6	-8
Italy	-26	-26	-16	17	175	-19	-24	22	-1	4	-2
Costa Rica	4	7	-2	1	2	4	5	5	-4	4	-4
Botswana	-2	-2	1	-3	-3	0	6	-3	2	-3	0
Trinidad and Tobago	7	5	2	2	2	0	3	-1	-7	-1	2
South Korea	-3	4	0	5	6	2	1	-3	-6	-7	-1
Bolivia	5	9	7	1	2	-4	1	-1	-7	-18	-18
Phillipines	3	4	-22	-10	-1	-65	26	3	-7	-11	12
São Tome	4	-1	0	-1	-3	-4	-3	-1	5	-2	-4
South Africa	8	0	2	-3	-2	-6	-5	-3	-9	-16	-9
Indonesia	-4	-1	-2	-3	-4	-1	0	0	-1	-1	-3
Georgia	4	8	3	5	-2	-4	-8	0	-1	-6	-5

Table EE.4 – The democratisation effect on economic growth for each year after the democratisation episode in the world experience – 1st Placebo

Countries	τ_t	τ_{t+1}	τ_{t+2}	τ_{t+3}	τ_{t+4}	τ_{t+5}	τ_{t+6}	τ_{t+7}	τ_{t+8}	τ_{t+9}	τ_{t+10}
Norway	2	7	-3	-1	1	0	2	4	6	0	-2
Finland	0	-3	-3	-5	-2	5	4	1	1	0	-5
Canada	8	-9	-5	11	4	-3	-4	-1	18	-3	-9
Belgium	11	-10	-7	14	-10	-2	-5	-2	-10	-3	5
Italy	-22	-16	44	24	1	0	-2	3	-2	8	1
Sri Lanka	23	23	-11	-3	-4	3	8	2	1	5	2
Costa Rica	7	-1	13	-11	-2	-4	3	3	-4	10	-6
Japan	0	4	1	1	-1	5	-3	4	3	3	2
Barbados	6	4	0	1	0	2	-2	2	2	1	2
Botswana	0	0	7	3	1	-3	-10	4	-5	-2	-8
Trinidad and Tobago	0	-2	1	0	0	-5	-1	2	-3	1	-5
Malta	-3	6	1	2	1	-1	-1	7	1	1	6
Mauritius	2	5	3	9	9	2	34	28	35	-21	-27
Portugal	-2	-3	-5	-7	2	6	-5	-6	-6	3	-3
South Korea	1	-2	3	1	1	1	6	2	1	1	-2
Bolivia	-3	-1	2	-3	1	2	1	-2	2	1	14
Brazil	-6	-2	1	6	-6	5	-4	-1	4	-2	-3
Phillipines	1	3	8	7	8	16	7	16	6	4	-1
São Tome	2	0	1	3	-22	-18	7	15	-14	6	-14
Poland	0	-7	-14	-17	-14	10	-12	13	0	-4	6
Czech Republic	1	-25	-4	13	19	-10	4	-12	7	13	6
Colombia	4	1	5	9	-5	-9	-6	10	8	0	-4
South Africa	6	1	1	-5	-6	-1	2	2	-2	5	0
Mexico	-6	-5	-3	-16	-1	-8	-1	-3	-8	9	-2
Indonesia	-3	2	0	-1	6	2	2	-1	3	3	1
Serbia	7	2	3	-1	-4	3	12	-3	3	2	4
Peru	-2	-2	0	3	0	1	1	-2	-1	7	0
Lesotho	12	12	10	6	5	7	6	10	12	5	-3
Georgia	2	-6	-7	1	0	-4	-7	-1	-6	5	-2
Liberia	-5	-7	-11	-5	-8	-9	-1	3	3	3	3

Table EE.5 – The democratisation effect on economic growth for each year after the democratisation episode in the world experience – 2nd Placebo

Countries	τ_t	τ_{t+1}	τ_{t+2}	τ_{t+3}	τ_{t+4}	τ_{t+5}	τ_{t+6}	τ_{t+7}	τ_{t+8}	τ_{t+9}	τ_{t+10}
Norway	2	7	-3	-1	1	0	2	4	6	0	-2
Finland	-3	-1	-1	10	-1	-1	-3	0	2	-2	10
Canada	-1	-1	-1	2	-2	-5	-4	-1	2	-5	0
Belgium	-22	-16	44	24	1	0	-2	3	-2	8	1
Italy	11	-10	-7	14	-10	-2	-5	-2	-10	-3	5
Sri Lanka	4	-6	-7	0	0	-2	6	-11	-4	5	-1
Costa Rica	1	4	-1	7	-2	3	4	2	4	-2	-1
Japan	5	3	6	0	4	-2	5	-2	-4	7	10
Barbados	1	-1	3	4	17	-3	11	-10	-1	-7	3
Botswana	-3	2	2	-3	-4	-1	-4	3	-1	-2	0
Trinidad and Tobago	8	4	3	-1	1	1	4	1	-7	1	1
Malta	-1	4	1	-7	-2	2	-1	-7	2	0	0
Mauritius	-11	1	-37	-6	-5	1	10	9	17	5	17
Portugal	1	-6	4	4	5	-8	-10	-18	14	-18	-8
South Korea	-9	-2	-5	-5	10	2	-4	5	3	-2	1
Bolivia	-1	0	-2	-2	0	-2	-2	0	-1	-2	3
Brazil	6	3	1	-3	-3	-6	0	-6	-2	4	0
Phillipines	2	4	8	3	0	5	-9	-6	-14	-7	30
São Tome	-16	15	10	3	49	-18	-3	5	4	-4	6
Poland	5	6	5	-13	-6	-9	-8	-4	11	12	0
Czech Republic	0	-2	-2	1	3	-1	-1	-1	1	1	2
Colombia	-5	-5	5	-5	-2	-2	-6	-3	-4	-4	-3
South Africa	8	8	8	35	12	10	7	8	13	-4	10
Mexico	10	-15	12	12	-6	-3	4	-2	-3	0	-4
Indonesia	7	12	-1	-6	-4	0	-9	-8	7	5	7
Serbia	0	3	4	15	6	4	0	-2	-3	-7	-14
Peru	0	-6	-17	-6	-9	-8	-3	-15	8	7	6
Lesotho	-6	-15	-5	-7	-5	-3	-15	8	8	7	2
Georgia	-1	-3	-2	-3	1	0	-3	-3	0	1	2
Liberia	-6	-3	-1	-14	10	11	10	3	12	-3	-6

Table EE.6 – The democratisation effect on economic growth for each year after the democratisation episode in the world experience – 3rd Placebo

Countries	τ_t	τ_{t+1}	τ_{t+2}	τ_{t+3}	τ_{t+4}	τ_{t+5}	τ_{t+6}	τ_{t+7}	τ_{t+8}	τ_{t+9}	τ_{t+10}
Canada	10	-1	0	-3	1	2	-1	8	-5	3	1
Italy	3	4	-7	-11	-10	9	-3	6	-4	-15	1
Sri Lanka	-9	-4	7	-6	4	-5	-15	1	0	-10	-9
Costa Rica	5	7	-3	0	6	5	3	5	-3	3	-3
Botswana	-4	-19	5	12	10	6	-3	-1	-10	6	7
Trinidad and Tobago	0	-13	-25	21	5	2	-10	4	5	5	11
South Korea	-3	6	1	4	6	3	1	-4	-7	-7	-2
Bolivia	-6	-9	-4	0	-3	2	3	3	-3	-2	-4
Brazil	-7	-2	0	-4	0	-1	-1	2	0	-2	-2
Phillipines	-1	-5	2	1	-2	11	-2	1	3	6	-10
São Tome	-5	-3	-5	-5	10	7	-21	-44	48	1	9
Colombia	0	12	-6	6	3	1	3	3	11	8	5
South Africa	-12	-38	0	79	13	9	11	12	-12	-41	-13
Mexico	3	3	0	-5	-4	1	1	3	1	3	2
Indonesia	3	3	-1	-1	1	2	2	2	2	-3	0
Lesotho	2	-10	-2	-2	1	3	-8	-3	6	-8	-1
Georgia	-4	-1	9	-1	1	0	2	2	0	0	1
Liberia	-3	-9	-3	4	-7	-10	-9	0	3	3	6

Table EE.7 – Average Treatment Effect of the democratisation episode on economic growth for grouped time period in the same continent experience – 1st Placebo

Countries	2-years ATE	3-years ATE	4-years ATE	5-years ATE	10-years ATE
Norway	-0,4	-0,5	0,5	0,3	2,0
Finland	-2,6	-1,5	-0,4	-0,3	0,6
Canada	-4,9	2,4	3,8	3,0	-3,0
Belgium	20,9	18,3	0,2	0,1	1,9
Italy	20,9	18,3	0,2	0,1	1,9
Costa Rica	6,1	0,3	-0,3	-0,3	0,1
Japan	10,5	6,2	3,0	2,4	0,5
Botswana	3,7	3,6	3,0	2,4	-1,2
Trinidad and Tobago	0,9	-2,0	-2,8	-2,3	-1,0
Malta	-0,7	-0,7	-0,3	-0,2	-0,9
Mauritius	3,5	4,5	5,3	4,3	6,7
Portugal	5,0	5,9	3,7	2,9	3,0
South Korea	0,7	0,7	0,6	0,5	1,2
Bolivia	2,7	2,8	2,5	2,0	2,4
Brazil	-3,2	-2,3	-2,1	-1,7	-1,6
Phillipines	-6,5	-6,9	-7,6	-6,1	-1,5
São Tome	6,2	5,4	4,3	3,4	4,3
Poland	0,2	-8,6	-15,4	-12,4	-8,1
Czech Republic	-7,3	0,3	1,2	1,0	1,9
South Africa	-1,3	3,5	4,8	3,8	-0,4
Mexico	4,0	1,4	0,8	0,6	-1,9
Indonesia	-3,4	-2,4	-1,8	-1,4	-1,7
Serbia	2,4	2,6	2,2	1,7	3,1
Lesotho	4,0	6,1	9,2	7,3	3,6
Georgia	-5,4	-3,4	-2,7	-2,2	-2,6
Liberia	17,3	16,6	12,9	10,4	4,6

Table EE.8 – Average Treatment Effect of the democratisation episode on economic growth for grouped time period in the same continent experience – 2nd Placebo

Countries	2-years ATE	3-years ATE	4-years ATE	5-years ATE	10-years ATE
Norway	0,3	1,1	1,2	0,9	-0,3
Finland	-2,7	-3,0	-4,0	-3,2	-1,8
Canada	-0,9	-2,4	-2,1	-1,7	2,9
Belgium	-20,9	-8,4	37,3	29,9	12,9
Italy	10,7	0,5	-33,4	-26,7	-12,2
Costa Rica	0,9	-0,3	0,6	0,5	-0,9
Japan	-6,8	-4,7	-2,8	-2,3	-3,1
Botswana	1,9	0,3	-0,6	-0,5	-0,7
Trinidad and Tobago	-5,4	-4,7	-2,2	-1,7	-3,6
Malta	3,5	3,3	2,4	2,0	2,5
Portugal	-1,6	-1,0	-1,0	-0,8	-0,2
South Korea	-3,4	-1,9	-1,7	-1,4	1,6
Bolivia	-2,5	-2,9	-2,3	-1,9	-1,6
Brazil	1,2	0,0	-0,2	-0,2	0,5
Phillipines	-0,5	0,7	1,4	1,1	1,2
São Tome	-1,6	-2,8	-2,9	-2,3	-0,3
South Africa	3,3	0,6	1,7	1,4	3,4
Mexico	4,5	4,0	2,4	1,9	4,1
Indonesia	-1,3	-0,5	-0,1	-0,1	-2,1
Serbia - world	-3,7	-4,8	-4,3	-3,5	-4,3
Lesotho	-11,7	-11,5	-10,7	-8,6	-5,7
Georgia	1,9	1,3	1,1	0,9	1,4
Liberia	0,4	-0,4	-0,5	-0,4	-4,0

Table EE.9 – Average Treatment Effect of the democratisation episode on economic growth for grouped time period in the same continent experience – 3rd Placebo

Countries	2-years ATE	3-years ATE	4-years ATE	5-years ATE	10-years ATE
Canada	2,5	2,8	3,1	2,5	-1,1
Italy	-20,9	-8,4	37,3	29,9	12,9
Costa Rica	2,6	2,2	2,2	1,7	1,8
Botswana	-7,2	-0,8	1,8	1,4	1,2
Trinidad and Tobago	3,2	2,9	2,8	2,2	0,7
South Korea	2,3	3,3	4,1	3,3	0,4
Bolivia	7,6	5,3	4,5	3,6	-2,9
Phillipines	-8,7	-9,0	-7,0	-5,6	-7,0
São Tome	-0,7	-0,6	-1,3	-1,1	-1,4
South Africa	1,1	-0,4	-0,8	-0,6	-5,2
Indonesia	-1,7	-2,3	-2,7	-2,1	-1,7
Georgia	5,5	5,4	3,6	2,9	-1,0

Table EE.10 – Average Treatment Effect of the democratisation episode on economic growth for grouped time period in world experience – 1st Placebo

Countries	2-years ATE	3-years ATE	4-years ATE	5-years ATE	10-years ATE
Norway	2,0	1,0	1,1	0,8	1,5
Finland	-2,9	-3,6	-3,3	-2,6	-0,7
Canada	-7,0	-0,8	0,3	0,2	0,0
Belgium	-8,4	-1,0	-3,2	-2,5	-2,9
Italy	14,2	17,4	13,4	10,7	6,1
Sri Lanka	5,9	3,0	1,2	0,9	2,5
Costa Rica	6,1	0,3	-0,4	-0,3	0,0
Japan	2,5	2,1	1,2	1,0	1,8
Barbados	2,0	1,8	1,2	1,0	1,1
Botswana	4,4	1,7	1,6	1,3	-0,5
Trinidad and Tobago	-0,4	-0,2	-0,1	-0,1	-1,1
Malta	3,7	3,2	2,6	2,0	2,3
Mauritius	3,8	5,5	6,5	5,2	7,7
Portugal	-4,0	-4,9	-3,2	-2,6	-2,3
South Korea	0,7	0,7	0,6	0,5	1,2
Bolivia	0,3	-0,6	-0,3	-0,2	1,8
Brazil	-0,6	1,5	-0,3	-0,2	-0,1
Phillipines	5,6	6,0	6,5	5,2	7,4
São Tome & Principe	0,5	1,4	-4,6	-3,6	-3,6
Poland	-10,3	-12,5	-12,7	-10,2	-3,9
Czech Republic	-14,5	-5,3	0,9	0,7	1,2
Colombia	2,9	5,1	2,5	2,0	0,9
South Africa	1,0	-0,8	-2,2	-1,8	-0,4
Mexico	-3,9	-7,8	-6,1	-4,9	-3,8
Indonesia	1,0	0,3	1,7	1,4	1,6
Serbia	2,5	1,4	0,1	0,1	2,1
Peru	-0,8	0,6	0,6	0,4	0,7
Lesotho	11,1	9,2	8,1	6,5	7,0
Georgia	-6,3	-3,7	-2,8	-2,3	-2,7
Liberia	-8,8	-7,6	-7,6	-6,1	-2,8

Table EE.11 – Average Treatment Effect of the democratisation episode on economic growth for grouped time period in the world experience – 2nd Placebo

Countries	2-years ATE	3-years ATE	4-years ATE	5-years ATE	10-years ATE
Norway	1,4	1,0	1,5	1,4	0,7
Finland	-0,9	2,6	1,7	1,3	1,3
Canada	-1,2	-0,1	-0,6	-0,5	1,5
Belgium	14,2	17,4	13,4	10,7	6,1
Italy	-8,4	-1,0	-3,2	-2,5	-2,9
Sri Lanka	-6,2	-4,1	-3,0	-2,4	-1,9
Costa Rica	1,4	3,2	2,0	1,6	1,8
Japan	4,4	3,0	3,3	2,7	2,8
Barbados	1,2	2,0	5,9	4,7	1,7
Botswana	-2,4	0,1	3,8	3,0	2,0
Trinidad and Tobago	3,7	2,1	1,8	1,4	0,9
Malta	2,3	-0,7	-0,9	-0,7	-0,9
Mauritius	-17,7	-13,9	-11,7	-9,3	1,1
Portugal	-1,2	0,5	1,6	1,3	-4,1
South Korea	-3,4	-4,0	-0,5	-0,4	0,3
Bolivia	-0,7	-1,2	-1,0	-0,8	-0,8
Brazil	2,4	0,6	-0,2	-0,1	-1,2
Phillipines	6,1	5,1	3,9	3,1	1,3
São Tome & Principe	12,6	9,5	19,2	15,4	6,7
Poland	5,7	-0,5	-1,9	-1,5	-0,4
Czech Republic	-2,4	-1,1	-0,1	-0,1	-0,1
Colombia	0,1	-1,4	-1,5	-1,2	-2,8
South Africa	7,9	16,8	15,7	12,6	10,8
Mexico	-1,7	3,0	0,7	0,5	-0,6
Indonesia	5,4	1,7	0,3	0,2	0,4
Serbia	3,8	7,6	7,2	5,7	0,7
Peru	-11,6	-9,8	-9,7	-7,7	-4,4
Lesotho	-10,2	-9,2	-8,1	-6,5	-2,4
Georgia	-2,4	-2,6	-1,8	-1,4	-1,0
Liberia	-2,3	-6,2	-2,2	-1,7	1,8

Table EE.12 – Average Treatment Effect of the democratisation episode on economic growth for grouped time period in the world experience – 3rd Placebo

Countries	2-years ATE	3-years ATE	4-years ATE	5-years ATE	10-years ATE
Canada	-0,7	-1,5	-0,9	-0,7	-0,4
Italy	-1,7	-4,8	-6,0	-4,8	-3,0
Sri Lanka	1,3	-0,9	0,4	0,3	-3,5
Costa Rica	1,9	1,3	2,5	2,0	2,1
Botswana	-0,8	-1,6	-1,9	-1,6	-0,6
Trinidad and Tobago	-19,2	-5,8	-3,0	-2,4	0,5
South Korea	3,6	3,7	4,3	3,5	0,1
Bolivia	-6,3	-4,2	-3,8	-3,1	-1,7
Brazil	-0,7	-1,8	-1,5	-1,2	-1,0
Phillipines	-1,6	-0,8	-1,0	-0,8	0,5
São Tome	-4,2	-4,6	-1,1	-0,9	-0,5
Peru	2,7	3,7	3,4	2,7	4,5
South Africa	-19,0	13,8	13,5	10,8	2,0
Mexico	1,2	-0,9	-1,7	-1,3	0,3
Indonesia	1,0	0,3	0,4	0,3	0,7
Lesotho	-6,1	-4,7	-3,2	-2,6	-2,4
Georgia	4,4	2,4	2,1	1,7	1,3
Liberia	-5,9	-2,6	-3,6	-2,9	-2,3

FF| By Continent

FF.1| Africa

Table FF.1 - Africa's Countries Synthetic Control with countries from Africa in the Donor Pool

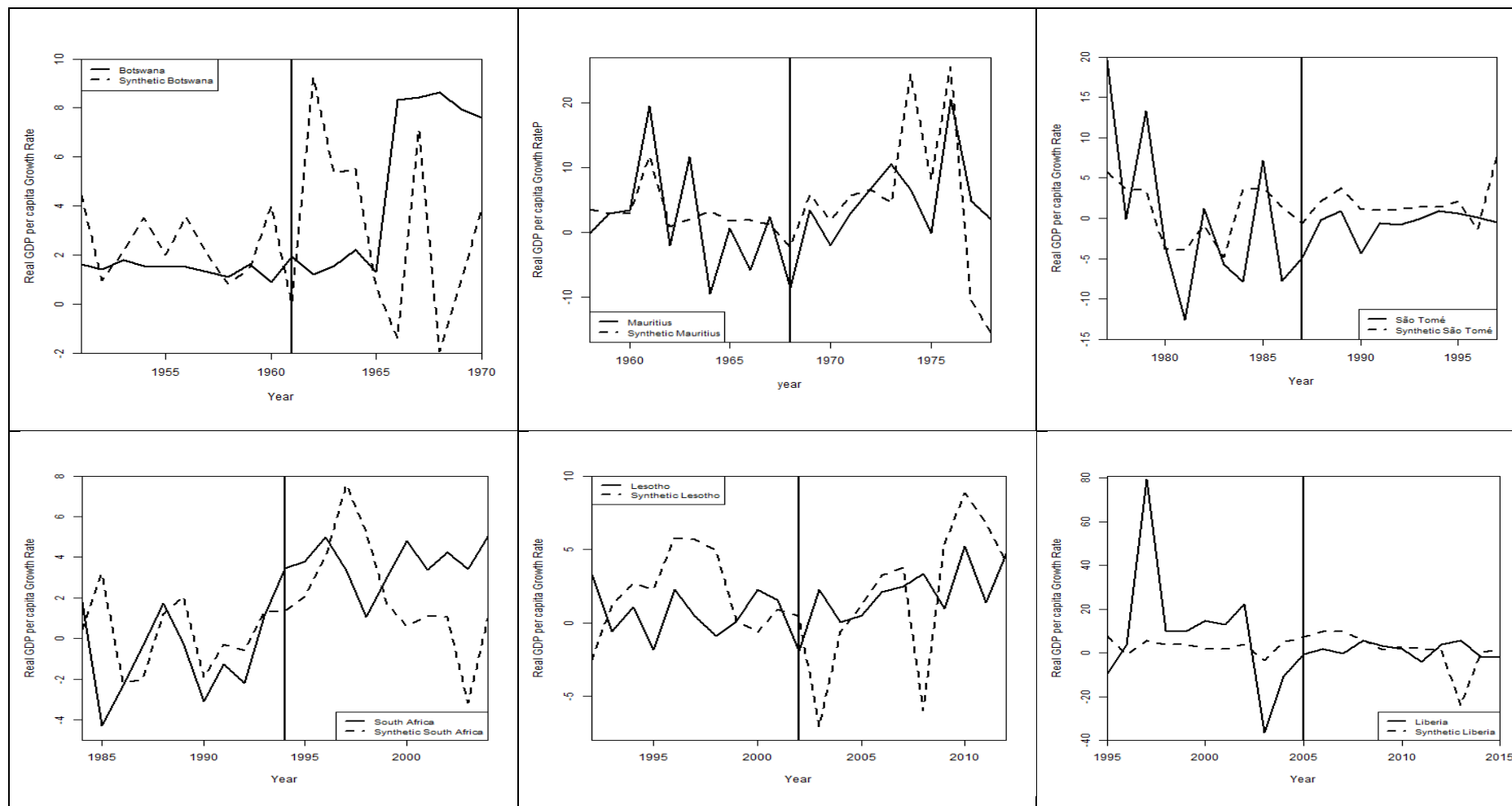


Table FF.2 - Africa's and Countries Controls' Placebo with Donor Pool Countries in Africa

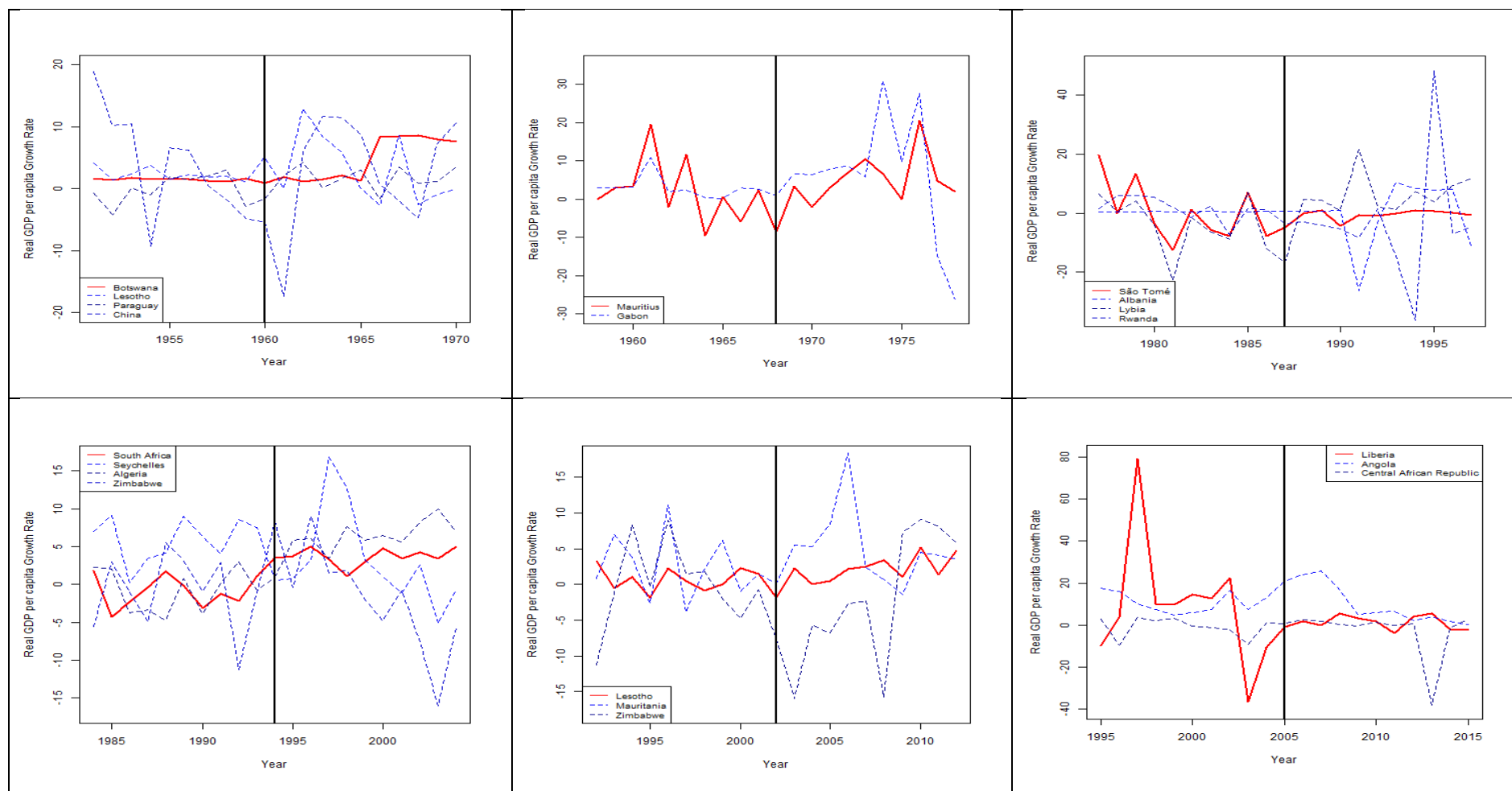


Table FF.3 - Africa's Countries Synthetic Control with Donor Pool Countries in the World

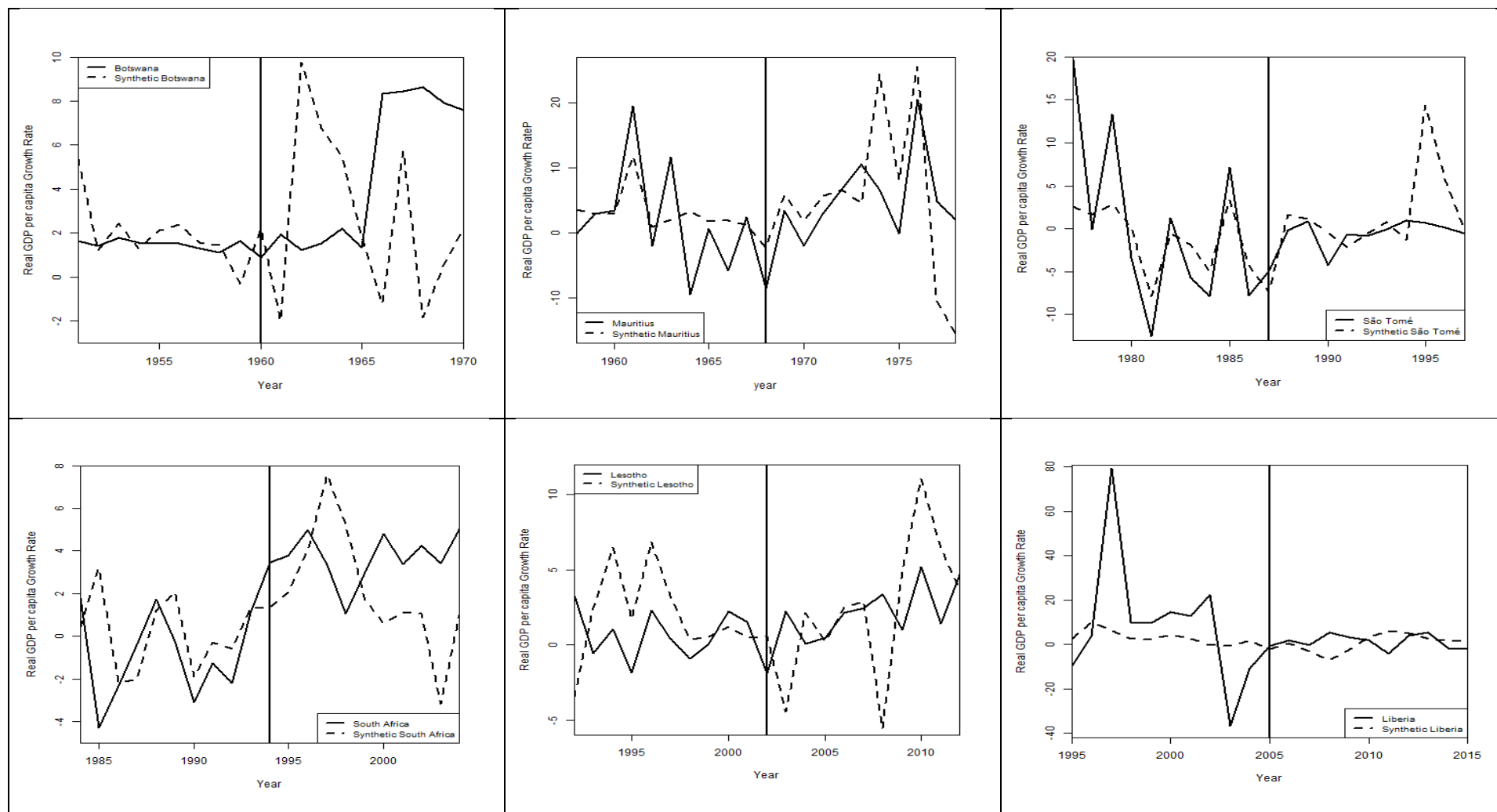


Table FF.4 - Africa's and Countries Controls' Placebo with Donor Pool Countries in the World

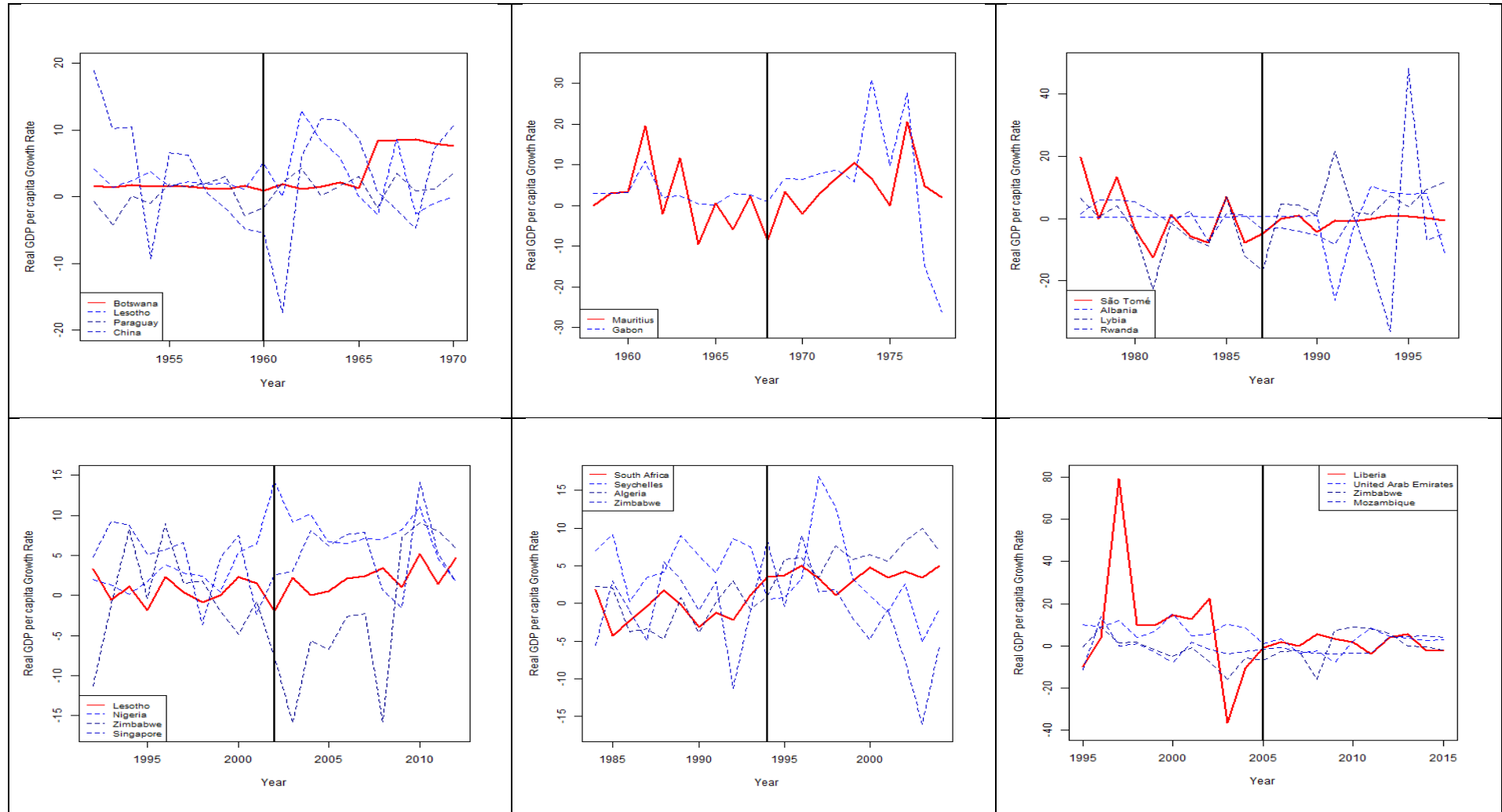


Table FF.5 - Asia and Oceania's Countries Synthetic Control with countries from Asia and Oceania in the Donor Pool

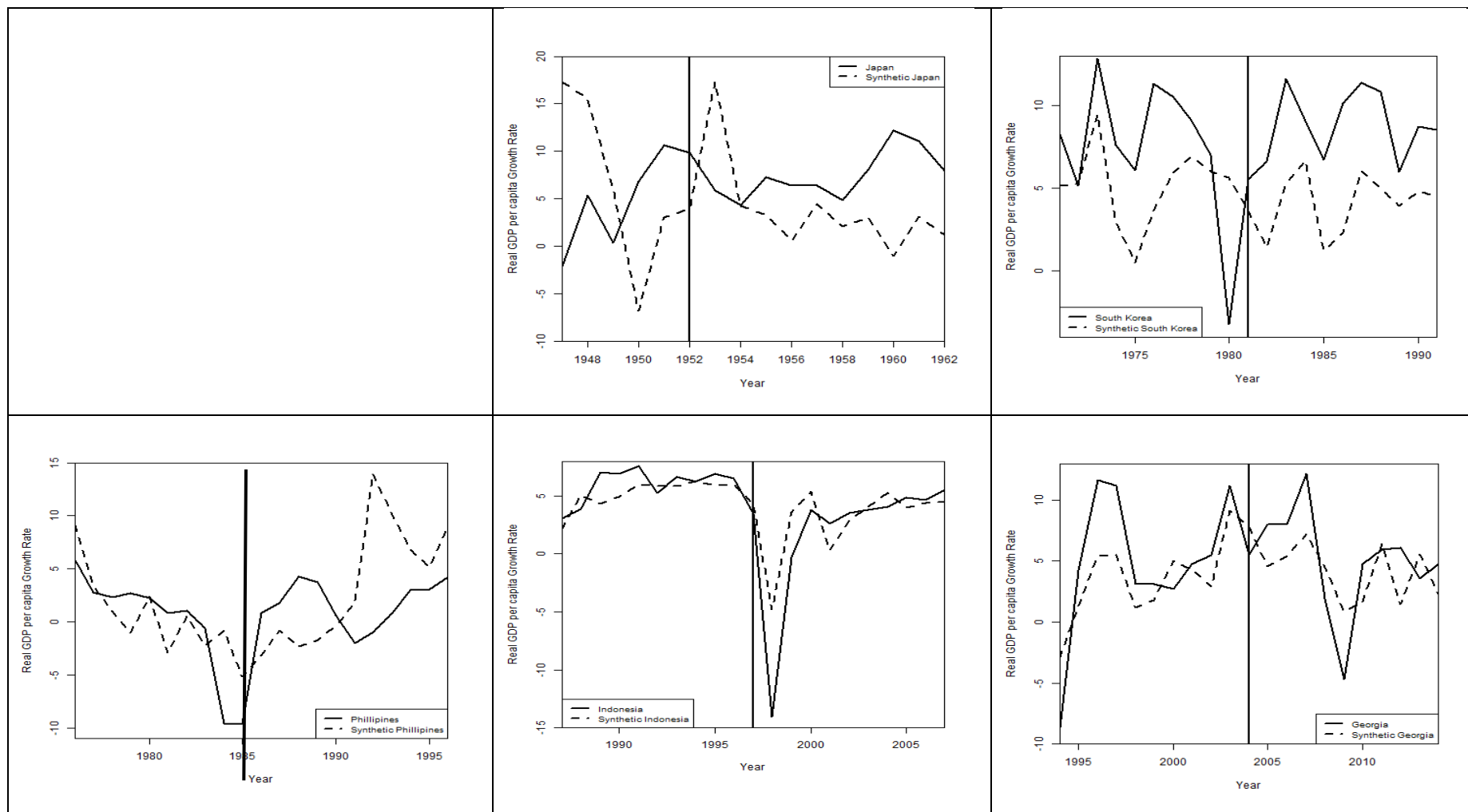


Table FF.6 - Asia and Oceania's and Countries Controls' Placebo with Donor Pool Countries in Asia and Oceania

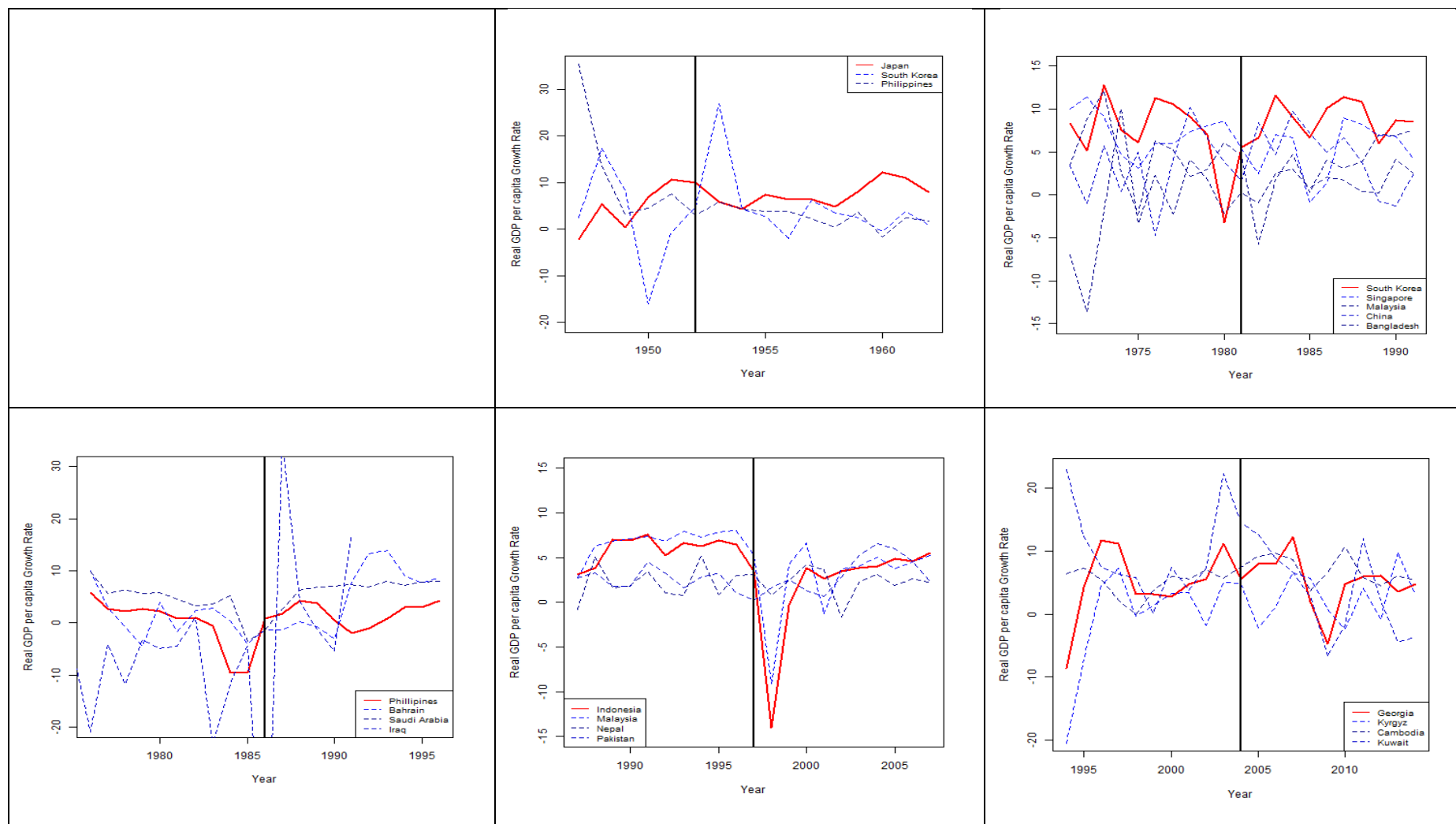


Table FF.7 - Asia and Oceania's Countries Synthetic Control with Donor Pool Countries in the World

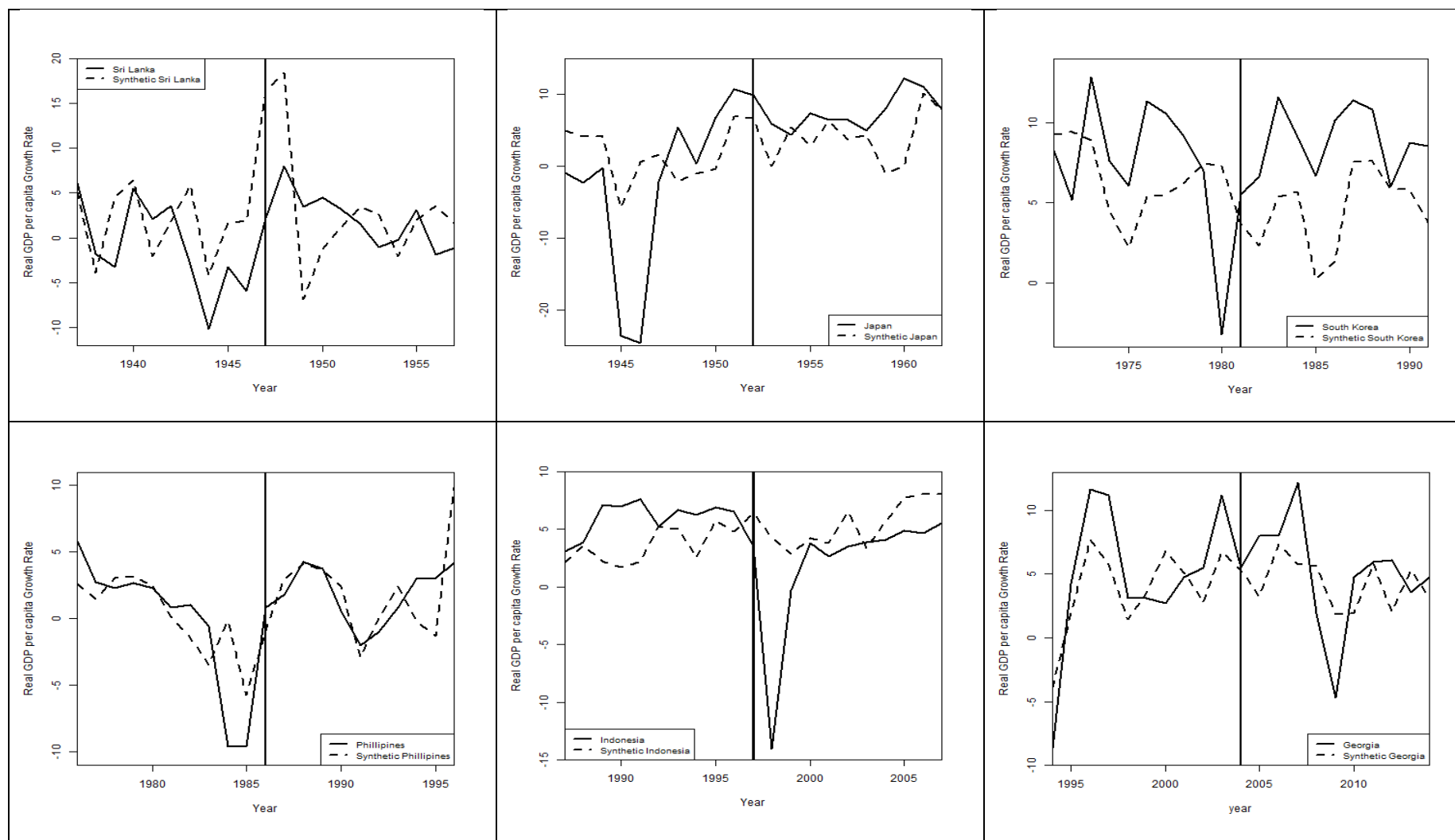
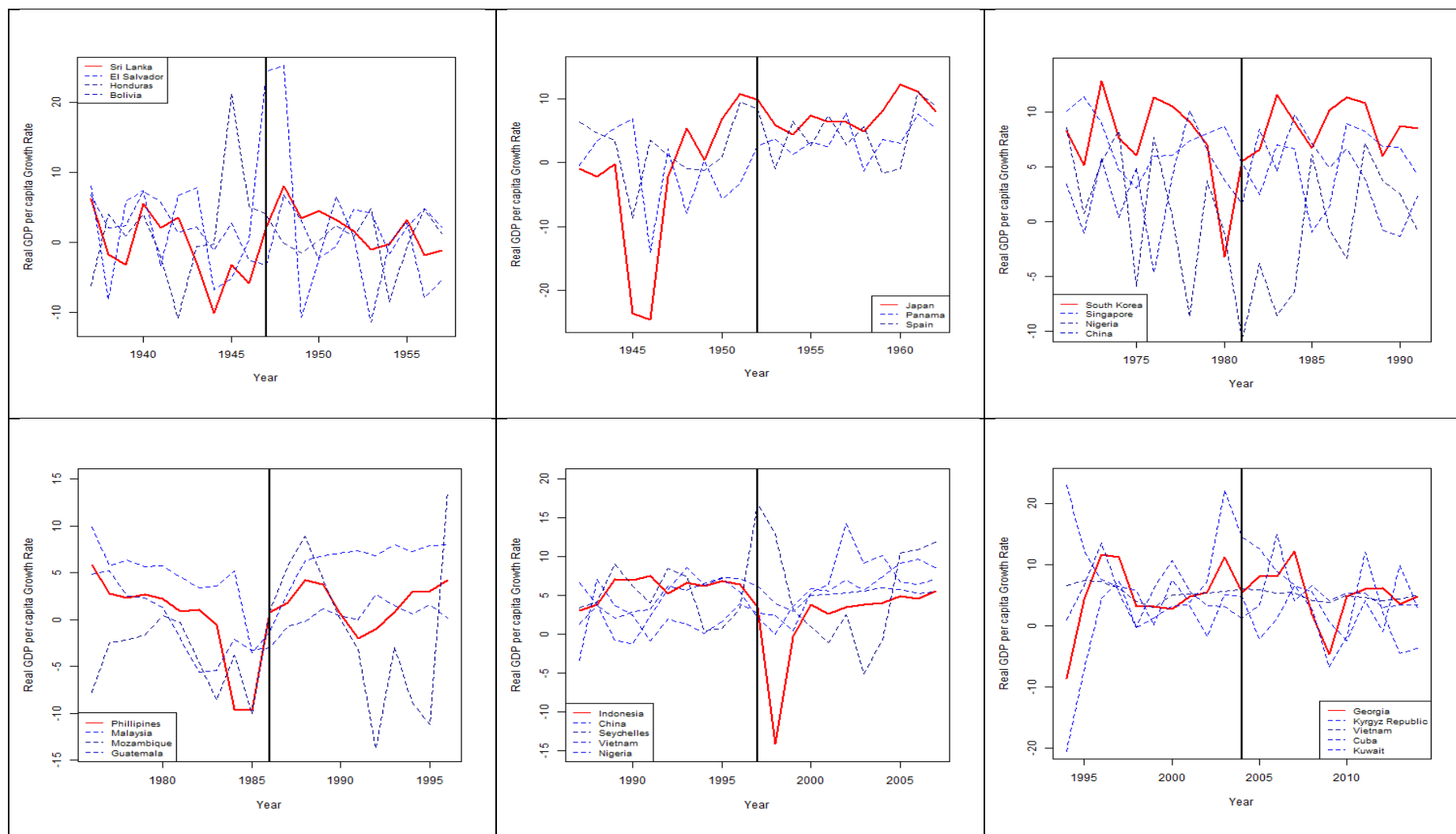


Table FF.8 - Asia and Oceania's and Countries Controls' Placebo with Donor Pool Countries in the World



FF.3| Europe

Table FF.9 - Europe's Countries Synthetic Control with countries from Europe in the Donor Pool

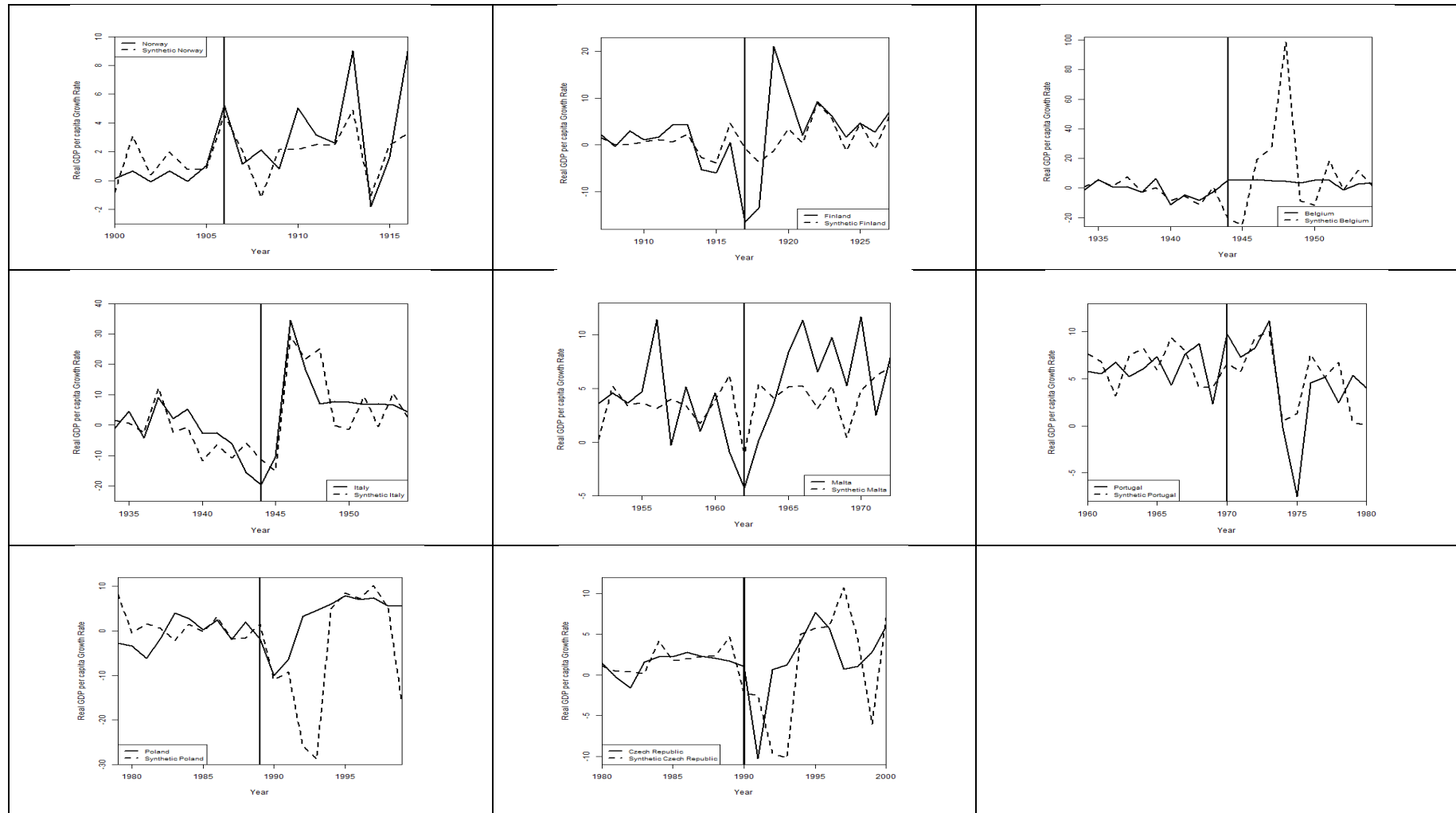


Table FF.10 - Europe's and Countries Controls' Placebo with Donor Pool Countries in Europe

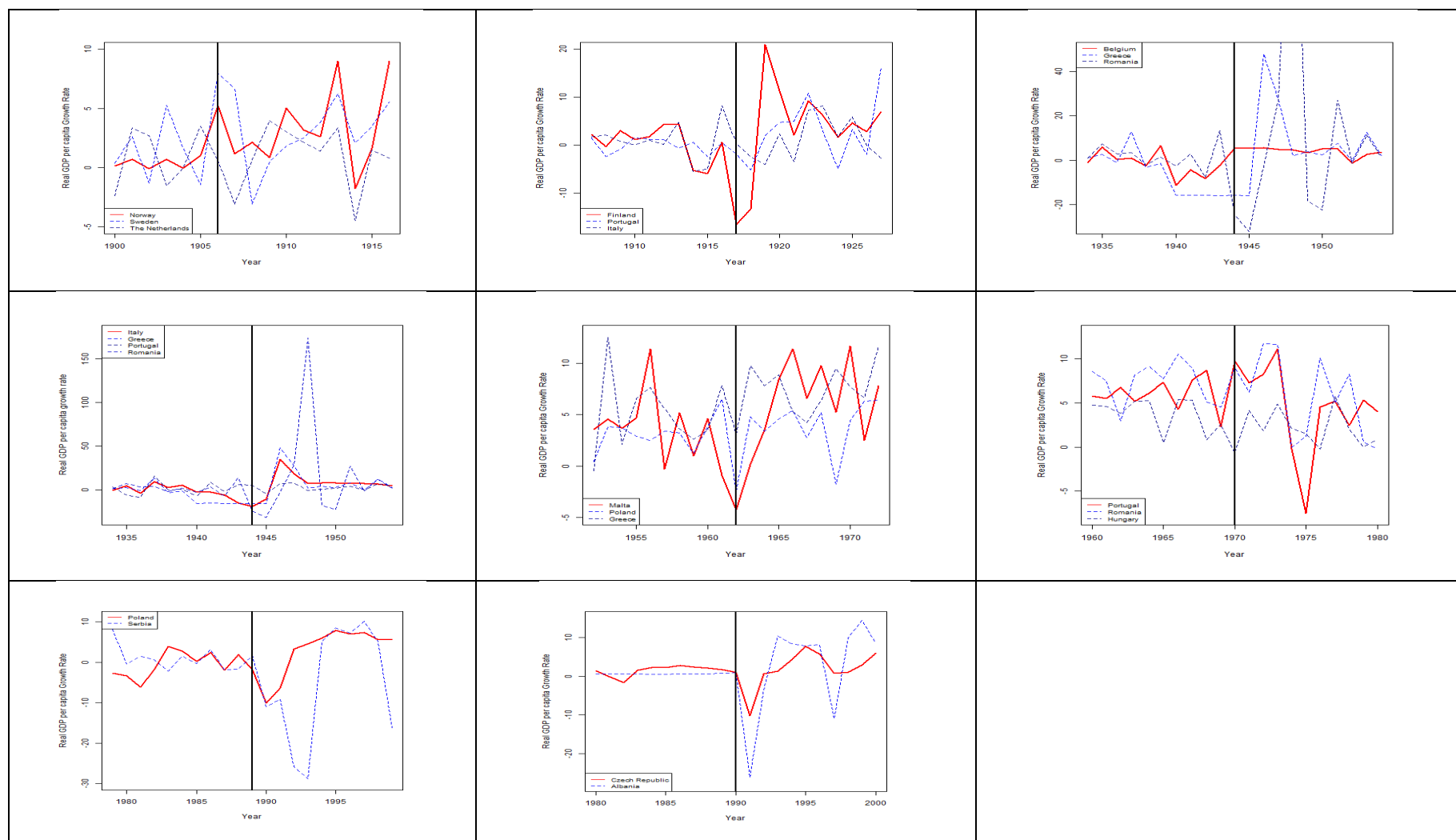


Table FF.11 - Europe's Countries Synthetic Control with Donor Pool Countries in the World

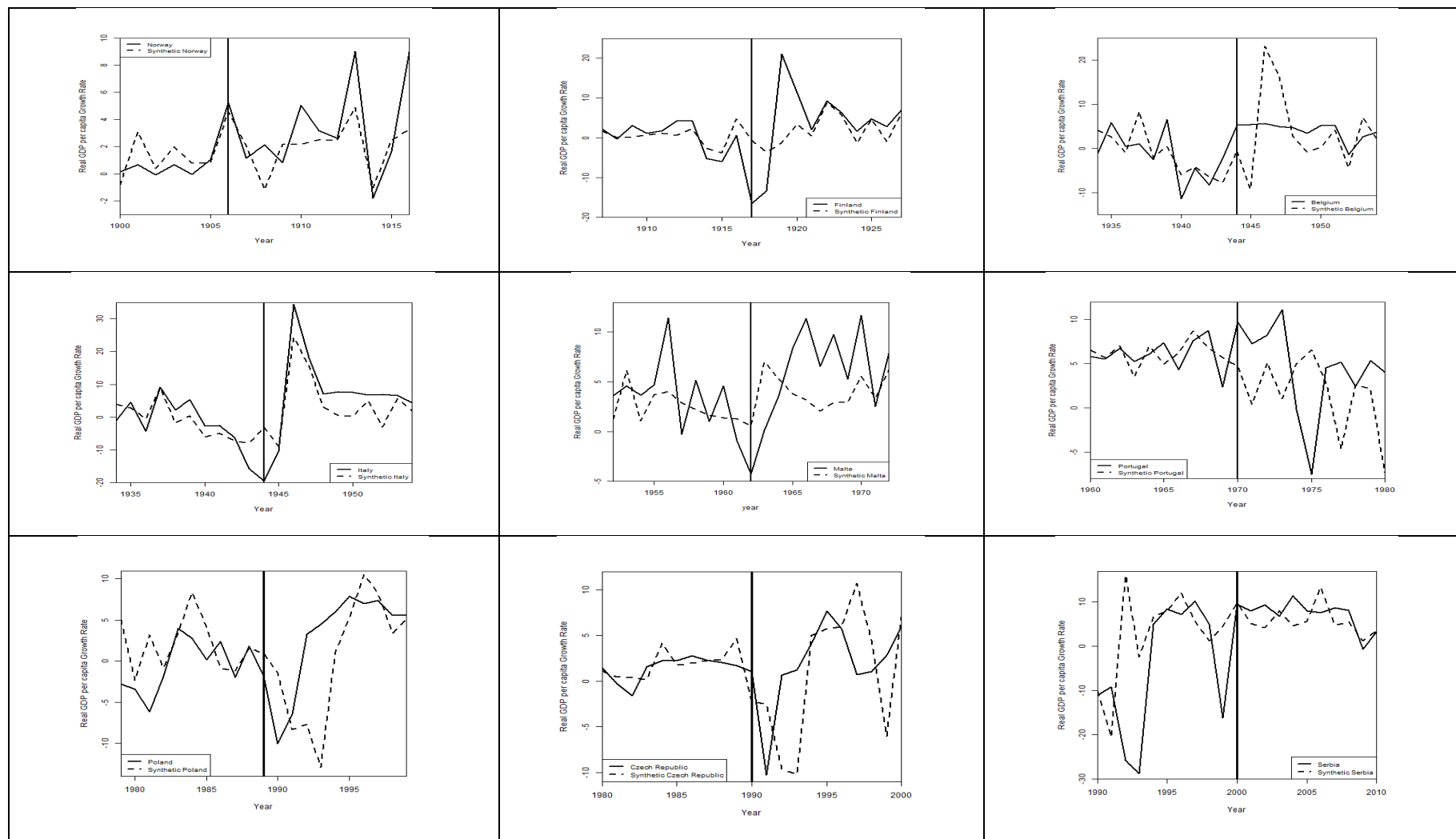
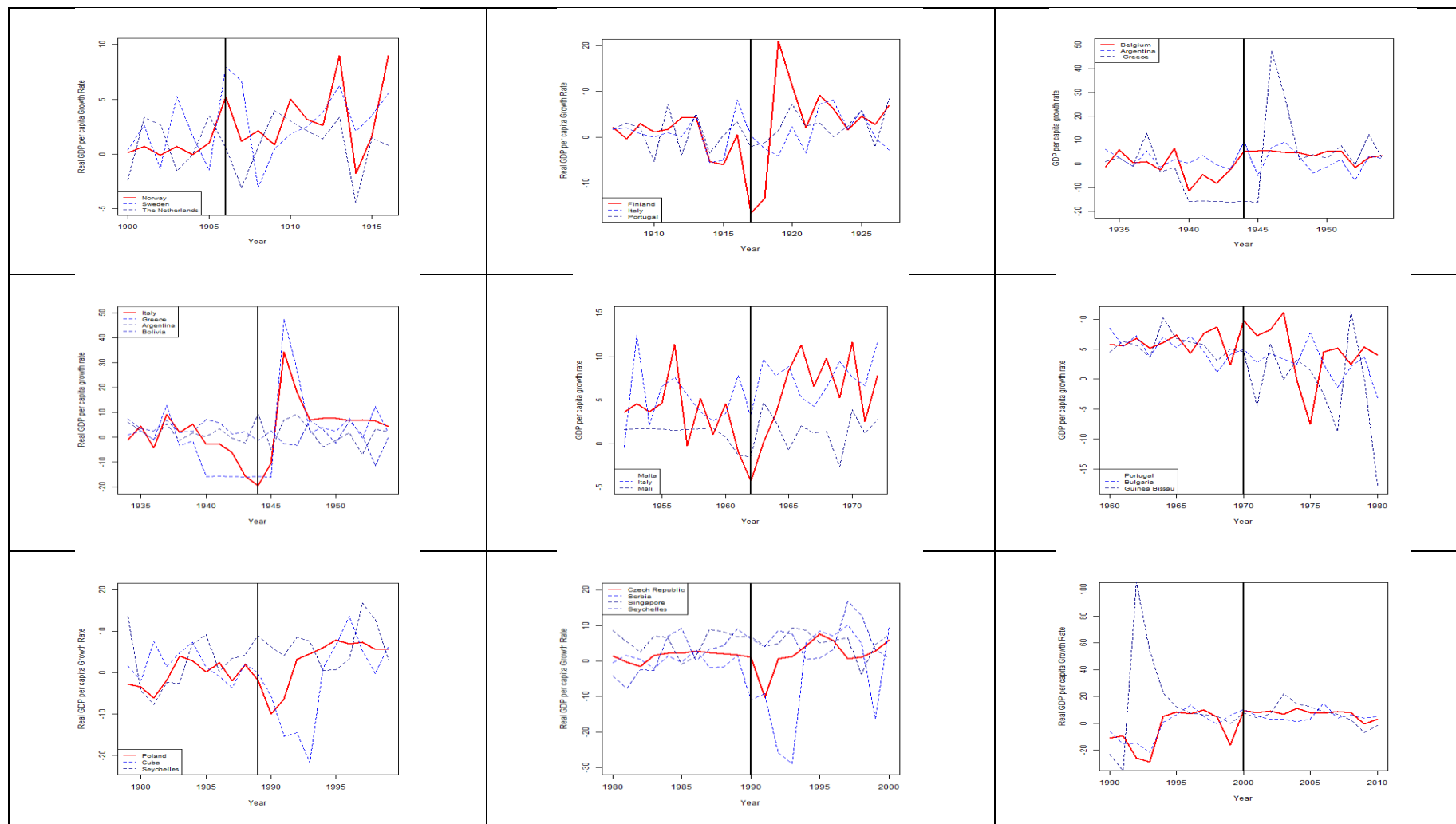


Table FF.12 - Europe's and Countries Controls' Placebo with Donor Pool Countries in the World



FF.4| America

Table FF.13 - America's Countries Synthetic Control with countries from America in the Donor Pool

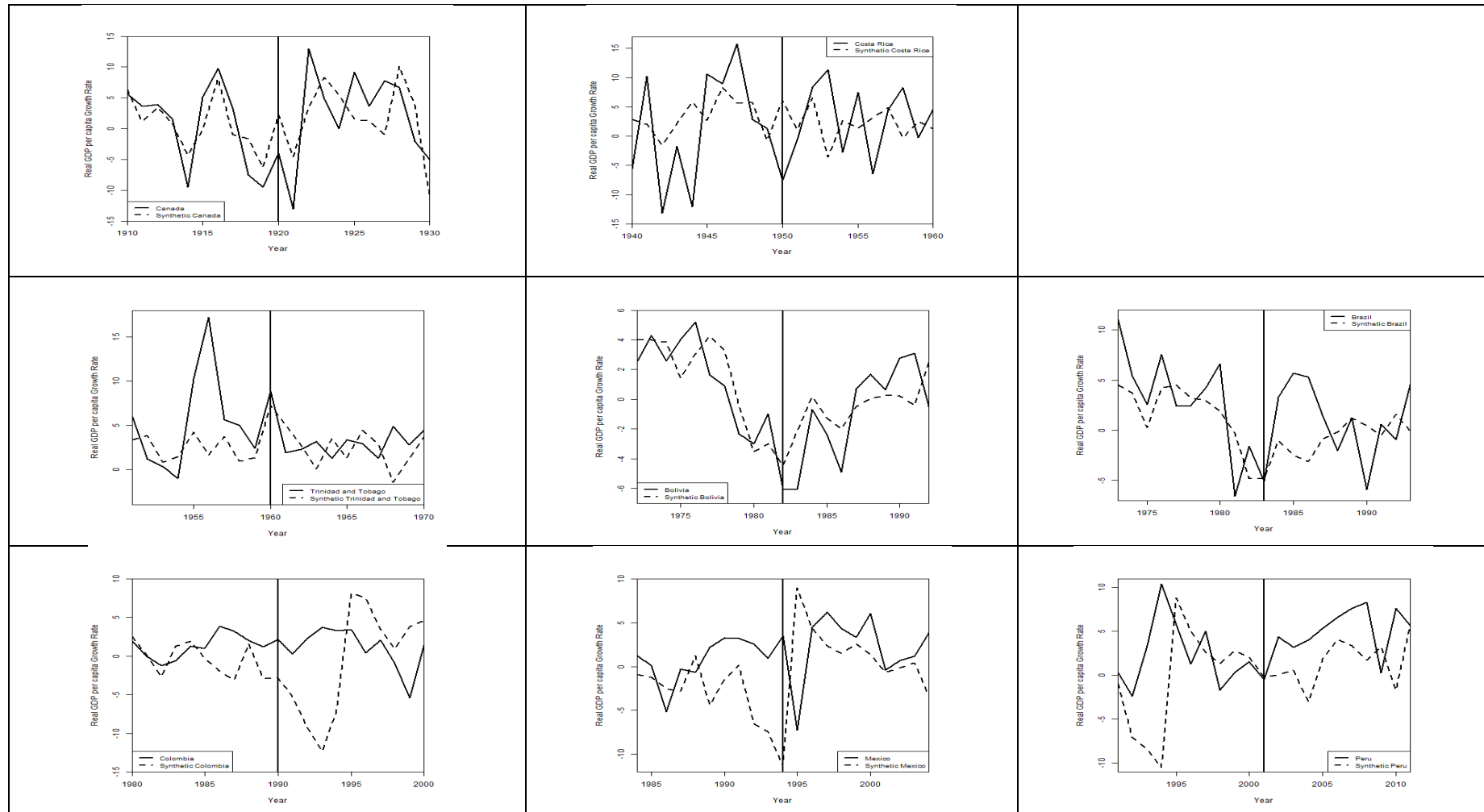


Table FF.14 - America's and Countries Controls' Placebo with Donor Pool Countries in America

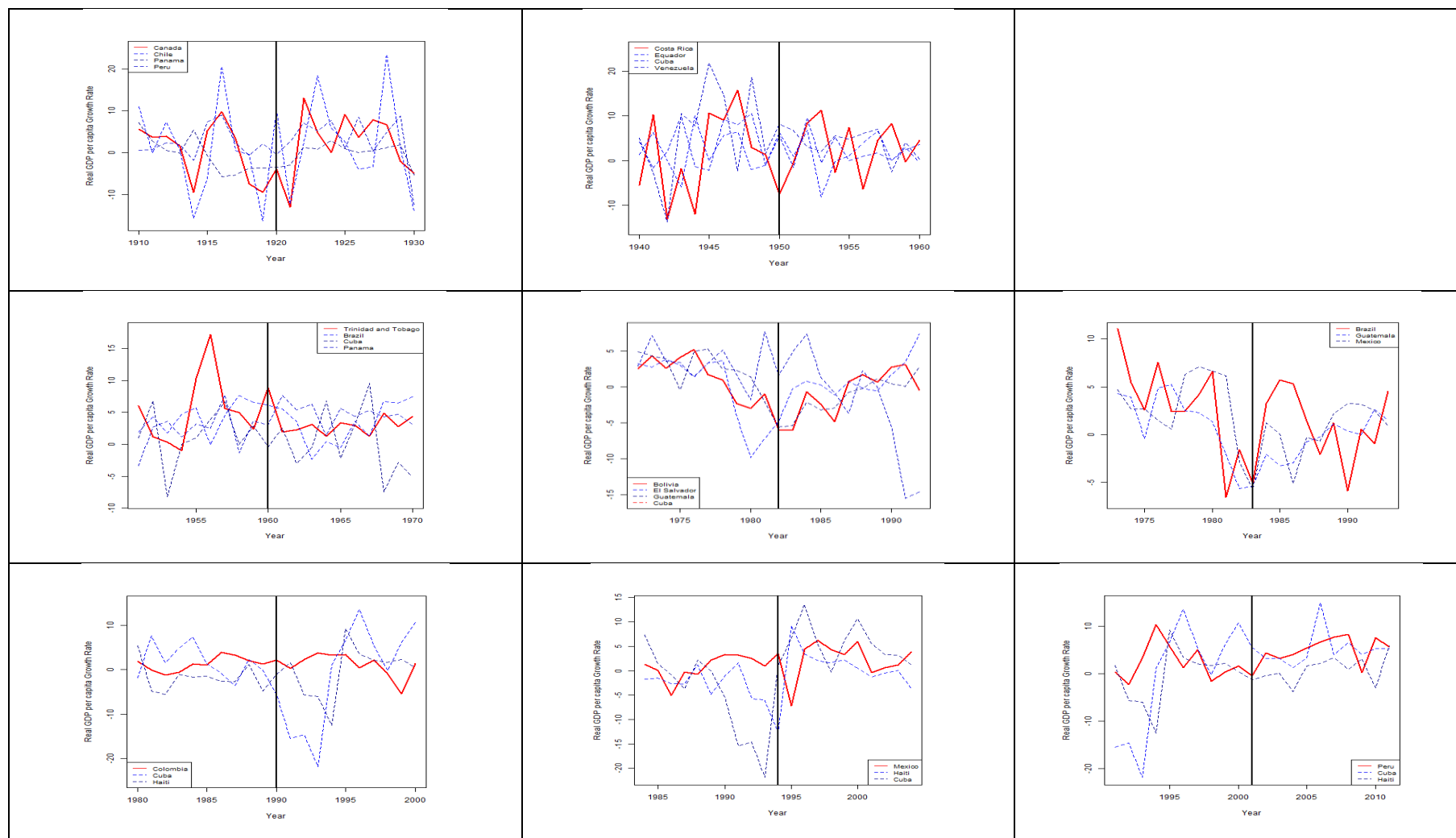


Table FF.15 - America's Countries Synthetic Control with Donor Pool Countries in the World

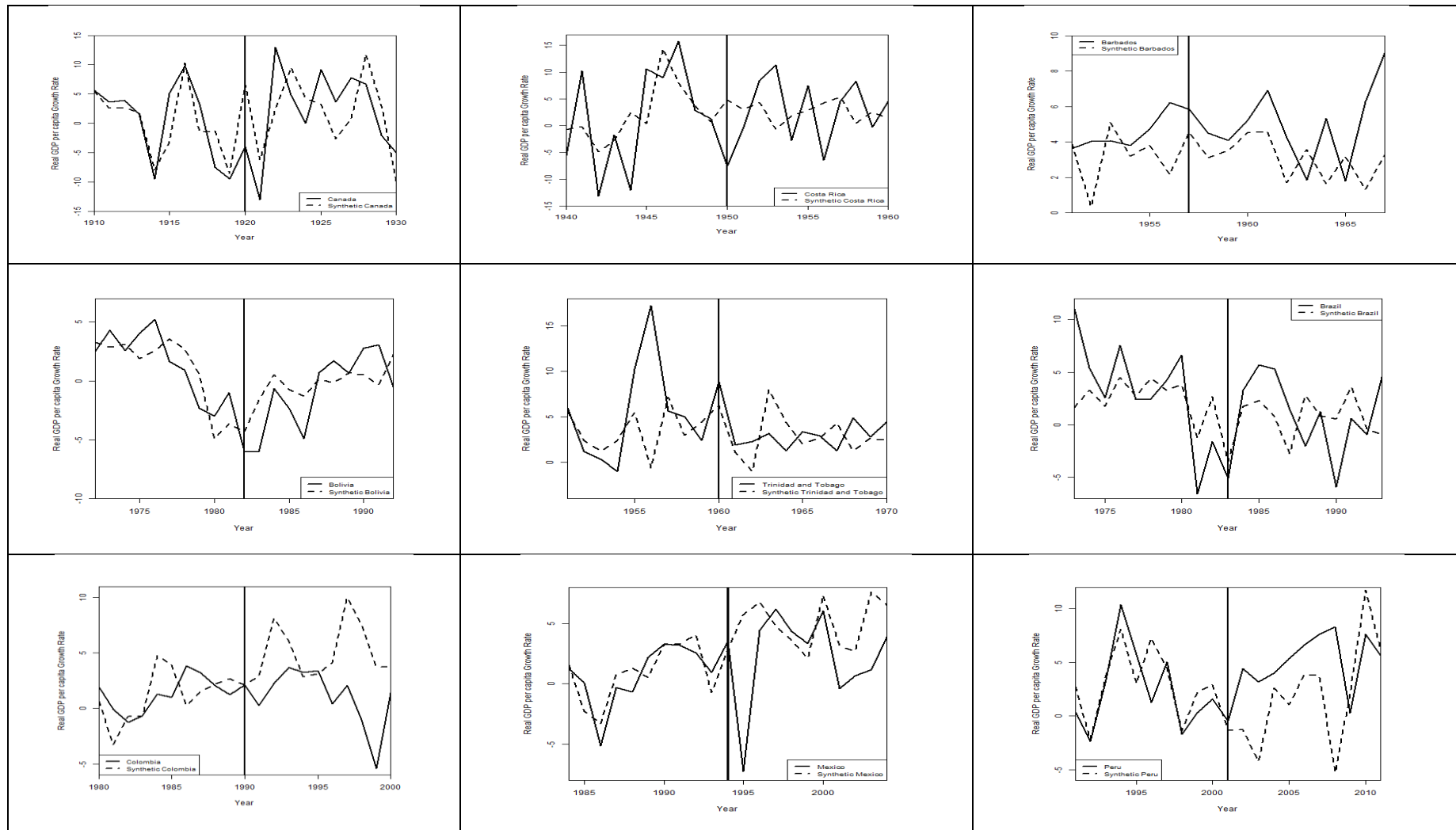
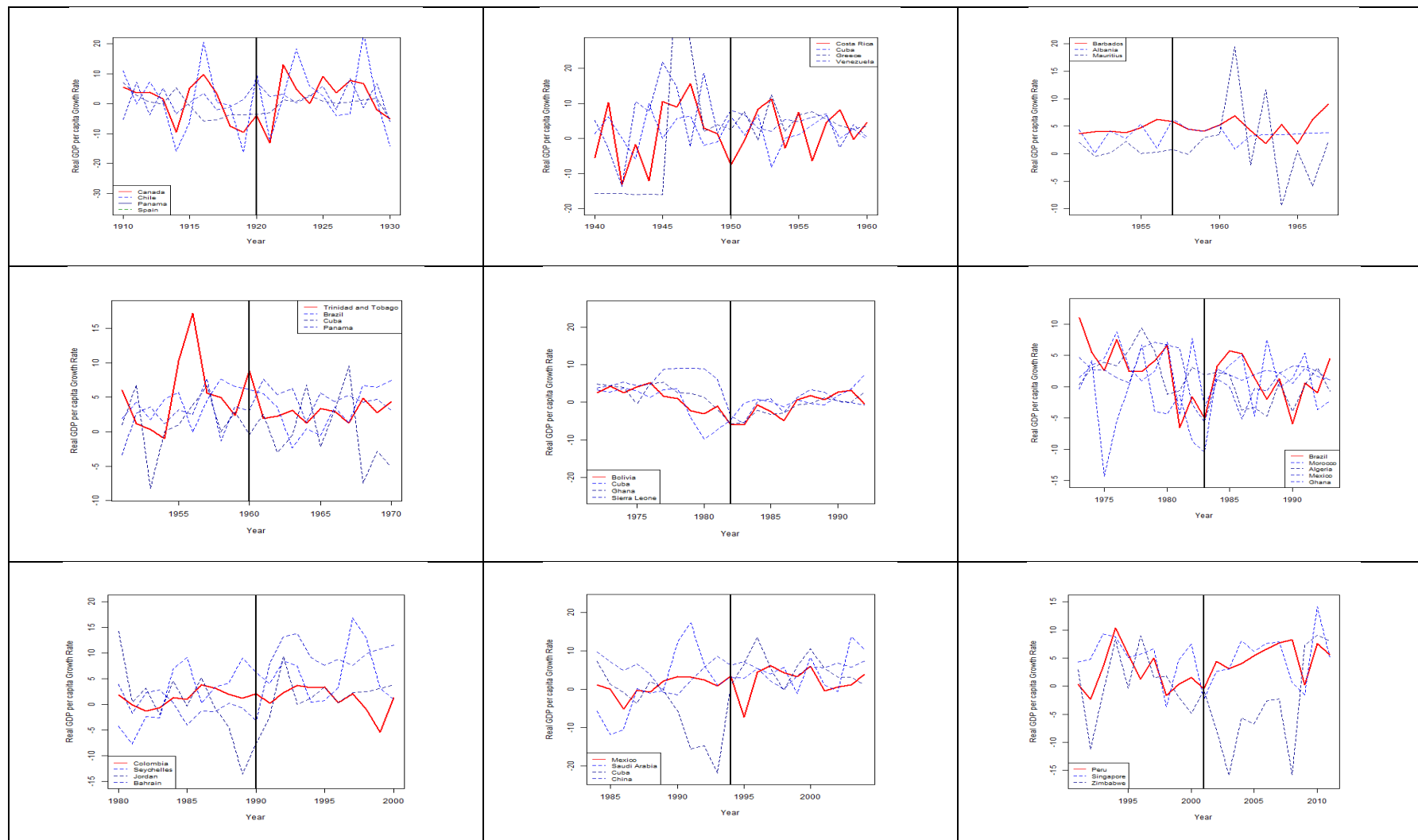


Table FF.16 - America's and Countries Controls' Placebo with Donor Pool Countries in the World



GG| By Year
GG.1| From 1900 to 1929

Figure GG.1 - *Synthetic Control of the democratisation episodes between 1900 and 1929, with controls from the same continent (experience one)*



Figure GG.2 - *Placebos of the democratisation episodes between 1900 and 1929, with controls from the same continent (experience one)*

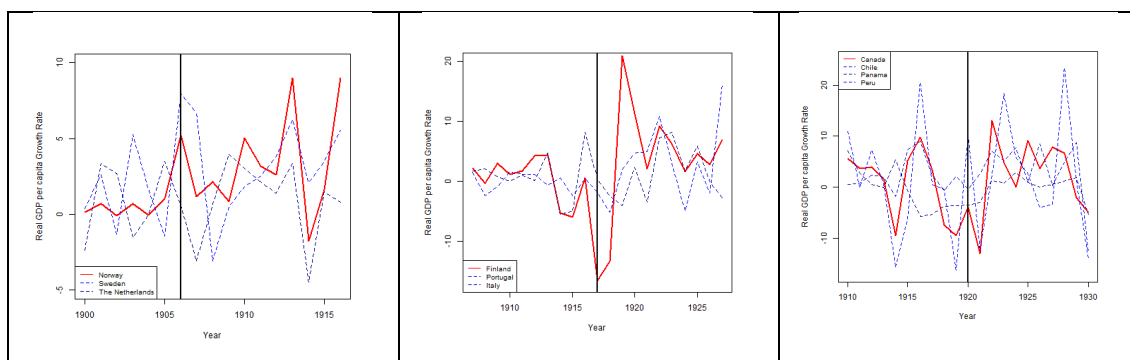


Figure GG.3 - *Synthetic Control of the democratisation episodes between 1900 and 1929, with controls from the world (experience two)*

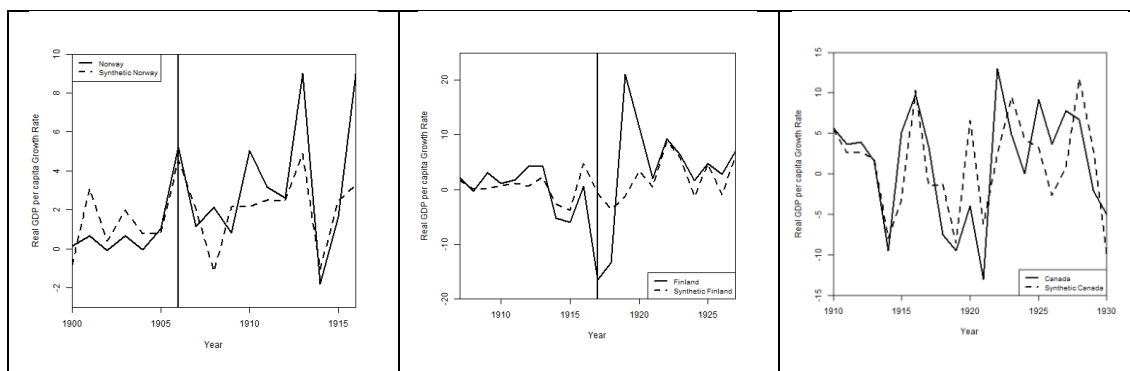
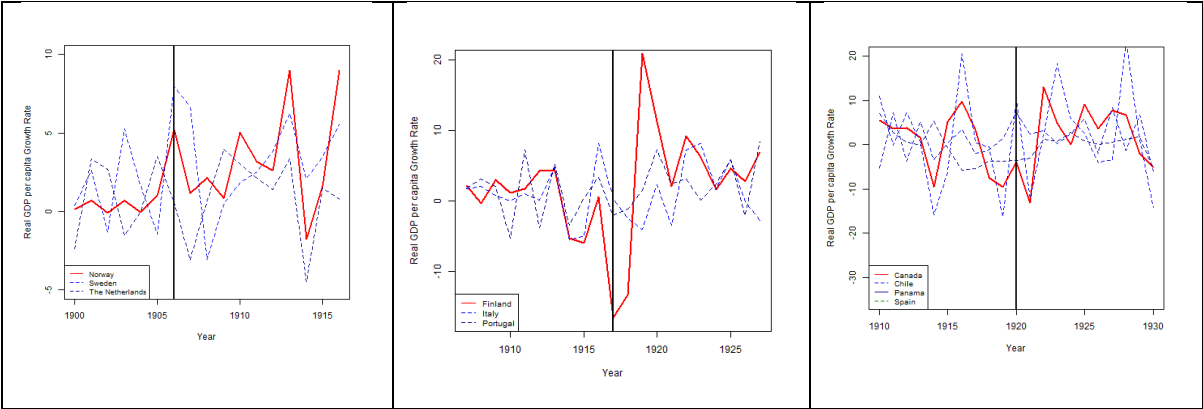


Figure GG.4 - Placebos of the democratisation episodes between 1900 and 1929, with controls from the world (experience two)



GG.2| From 1930 to 1959

Figure GG.5 - Synthetic Control of the democratisation episodes between 1930 and 1959, with controls from the same continent (experience one)

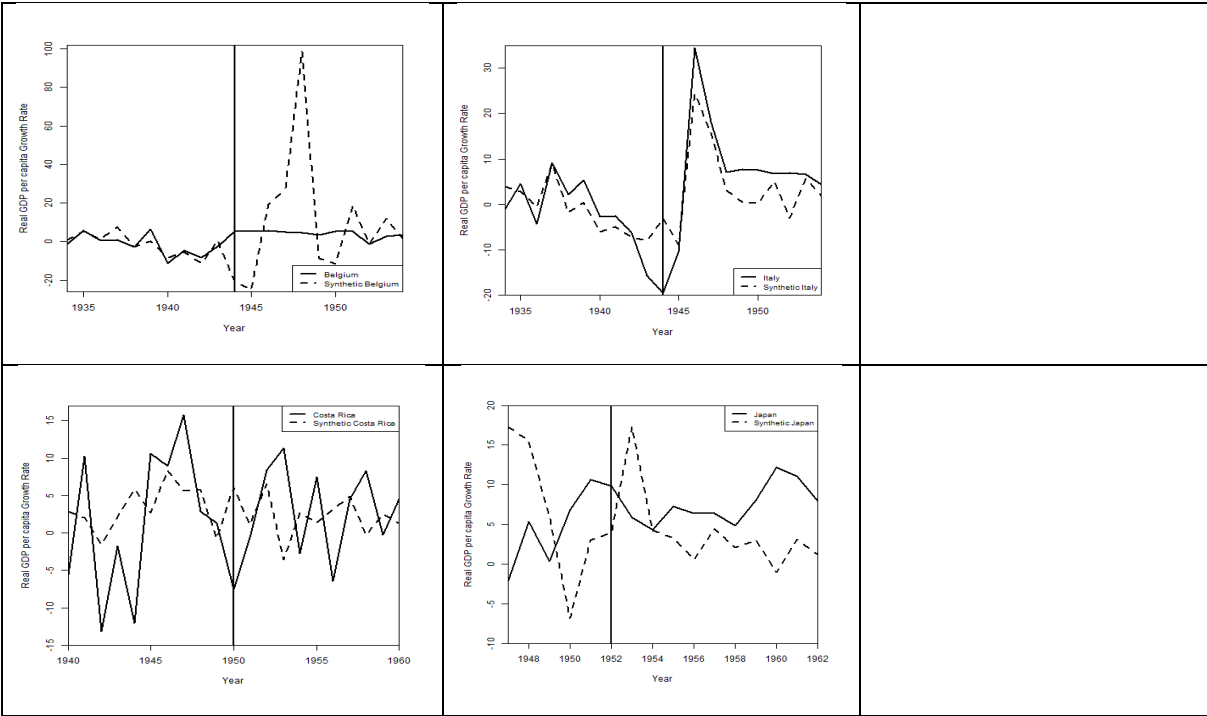


Figure GG.6 - Placebos of the democratisation episodes between 1900 and 1929, with controls from the same continent (experience one)

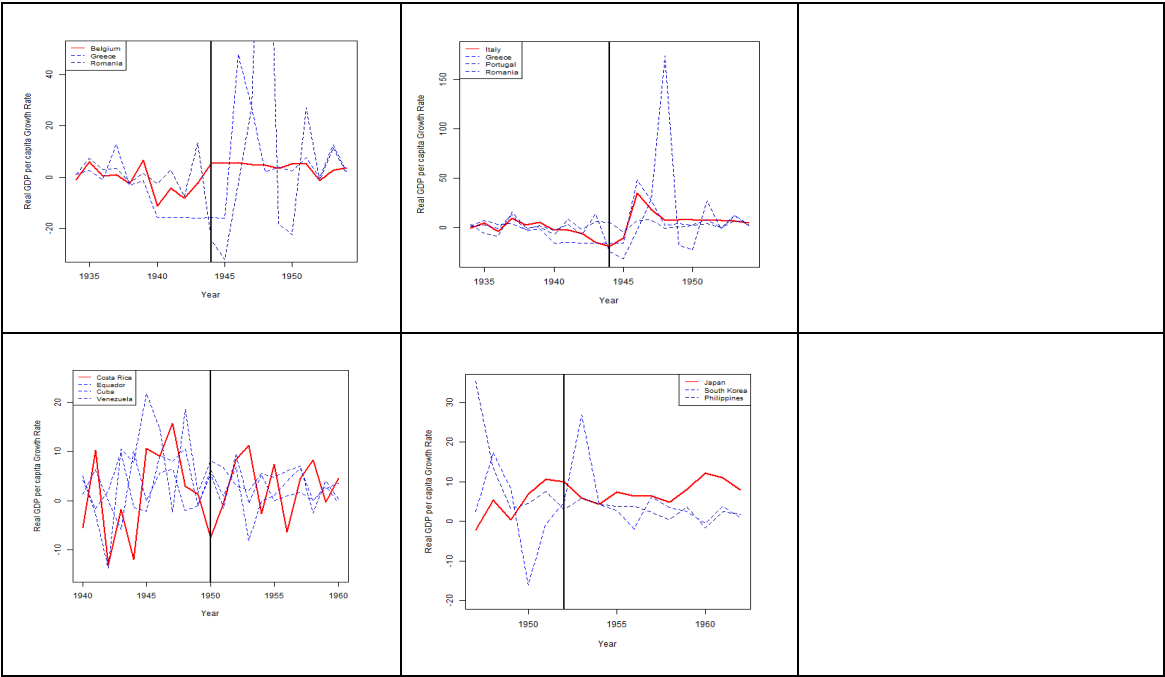


Figure GG.7 - Synthetic Control of the democratisation episodes between 1900 and 1929, with controls from the world (experience two)

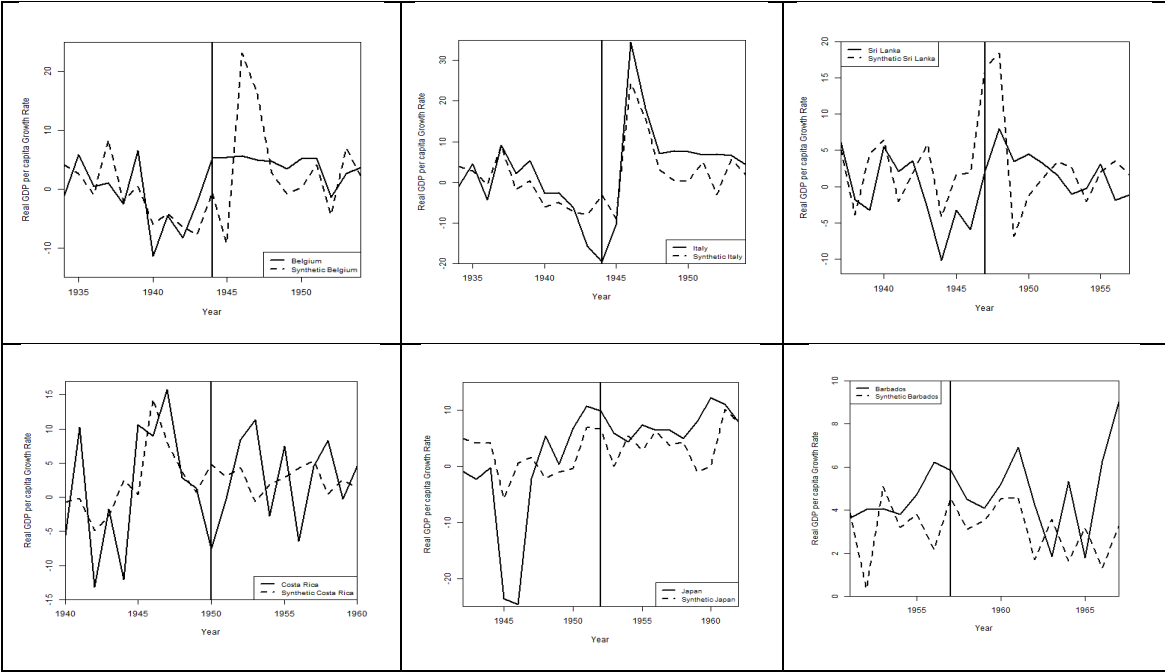
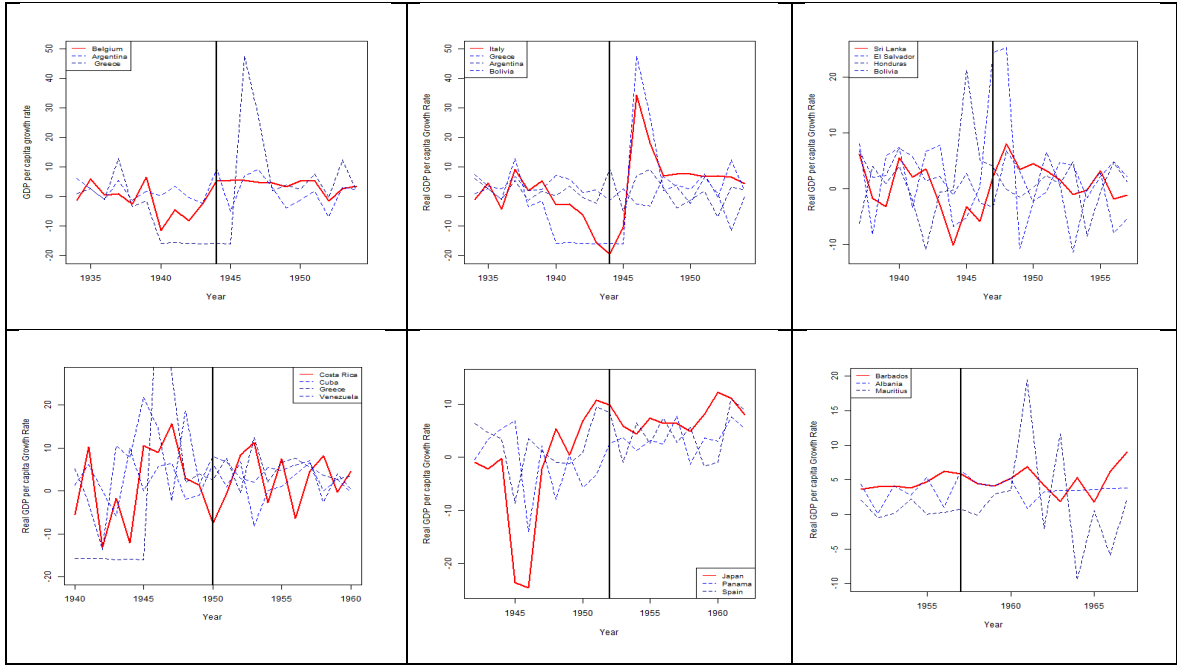


Figure GG.8 - Placebos of the democratisation episodes between 1900 and 1929, with controls from the world (experience two)



GG.3| From 1960 to 1989

Figure GG.9 - *Synthetic Control* of the democratisation episodes between 1960 and 1989, with controls from the same continent (experience one)

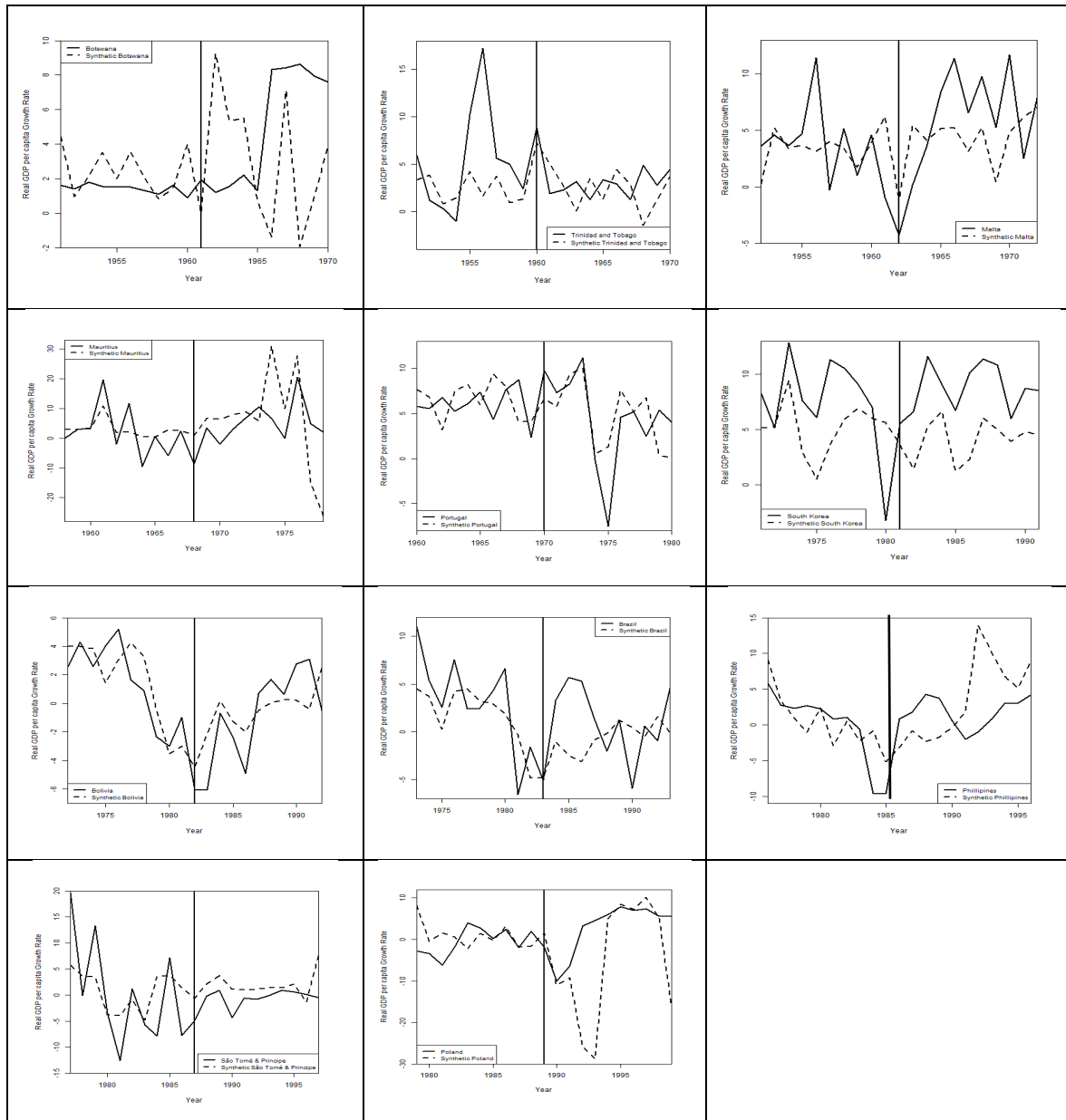


Figure GG.10 - Placebos of the democratisation episodes between 1900 and 1929, with controls from the same continent (experience one)

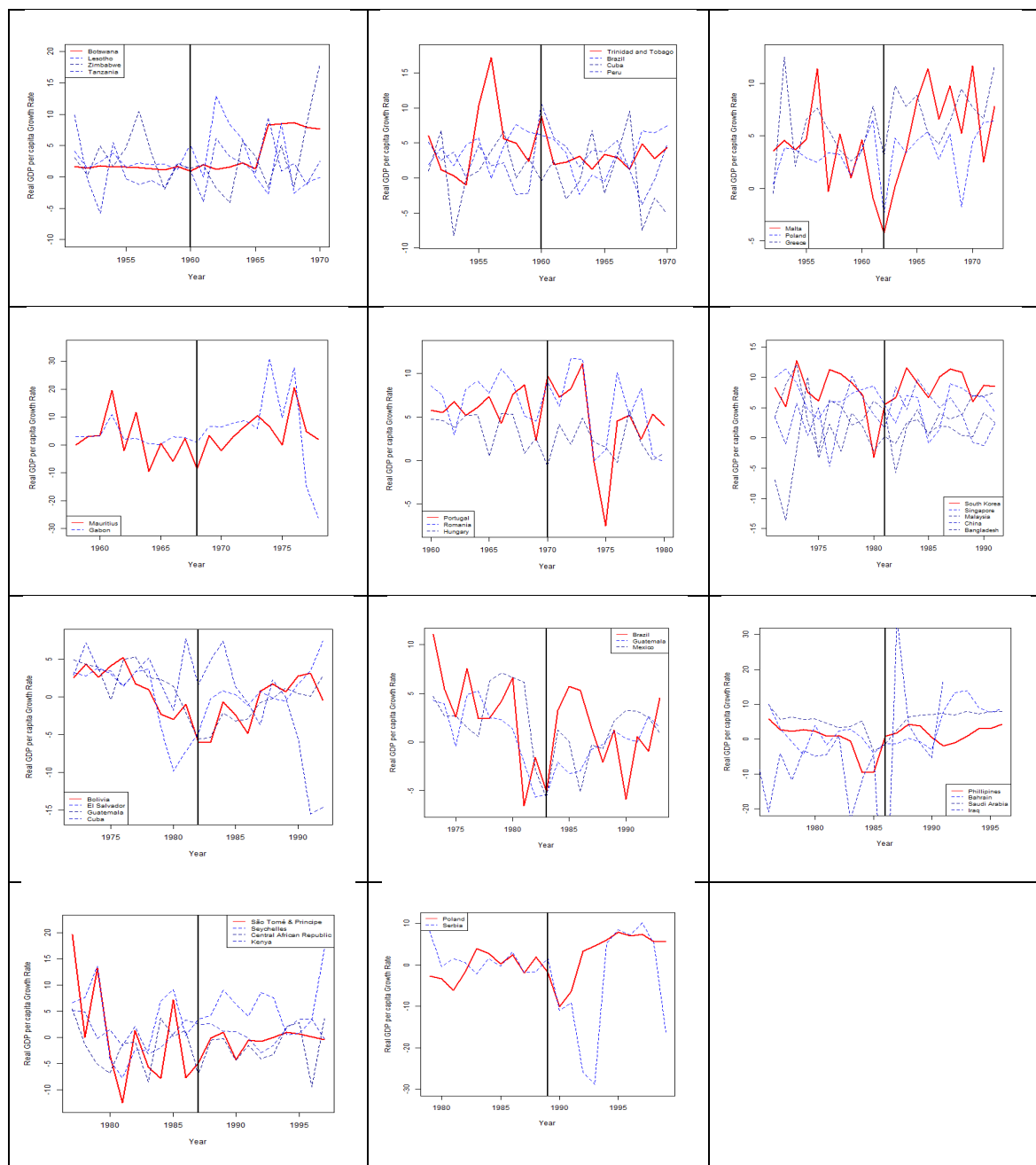


Figure GG.11 - Synthetic Control of the democratisation episodes between 1900 and 1929, with controls from the world (experience two)

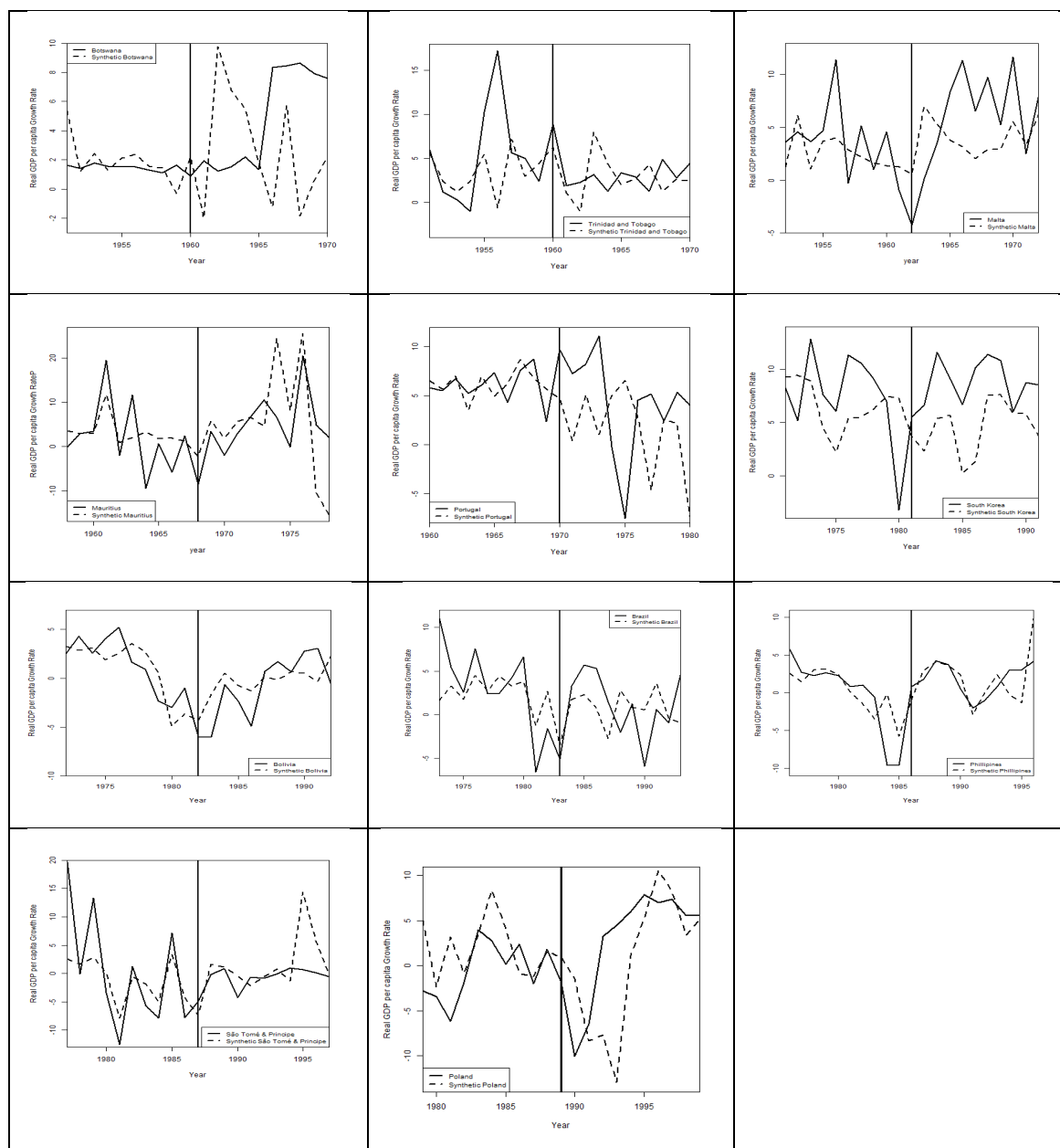
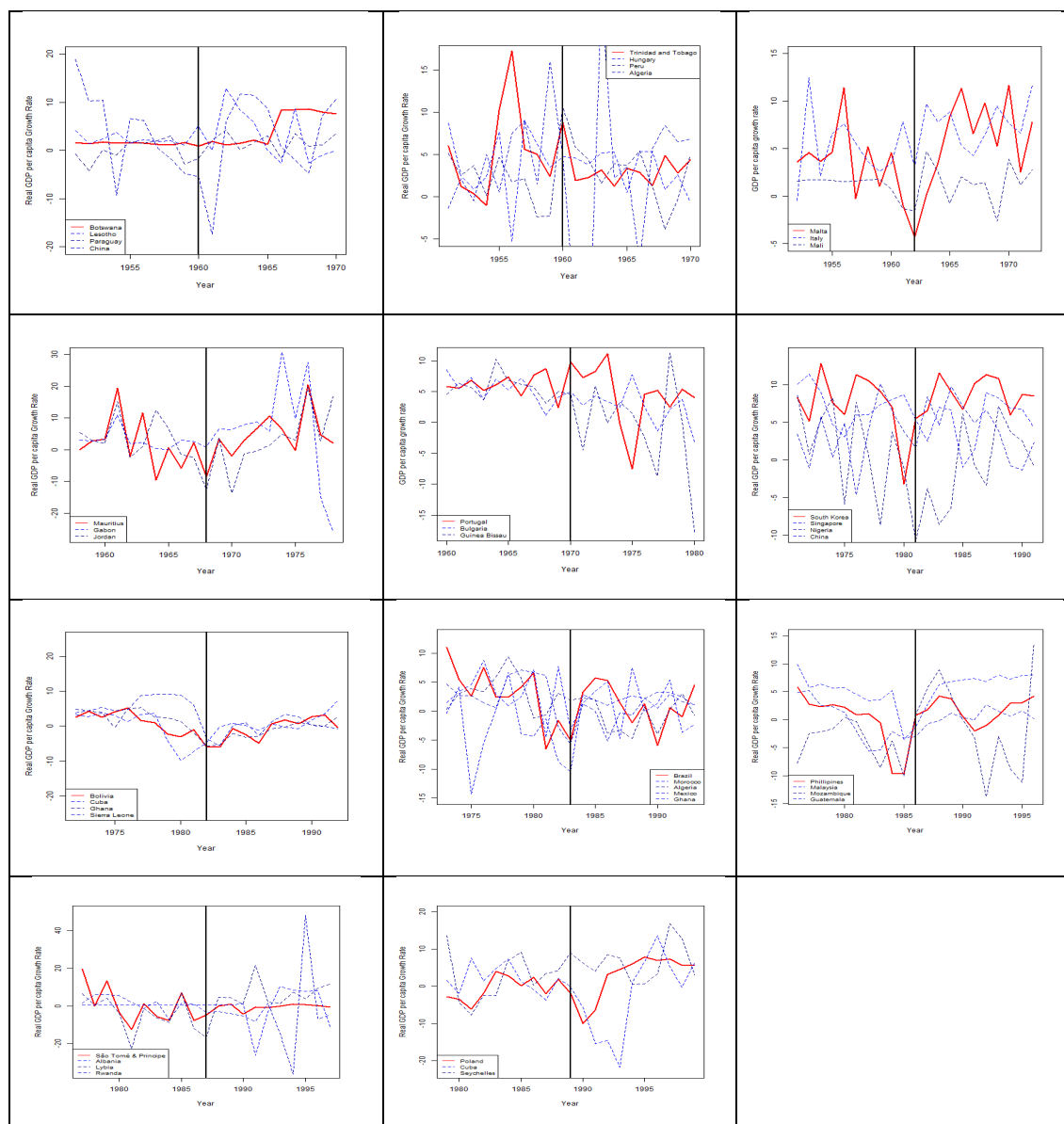


Figure GG.12 - Placebos of the democratisation episodes between 1900 and 1929, with controls from the world (experience two)



GG.4| From 1990 to 2010

Figure GG.13 - Synthetic Control of the democratisation episodes between 1900 and 1929, with controls from the same continent (experience one)

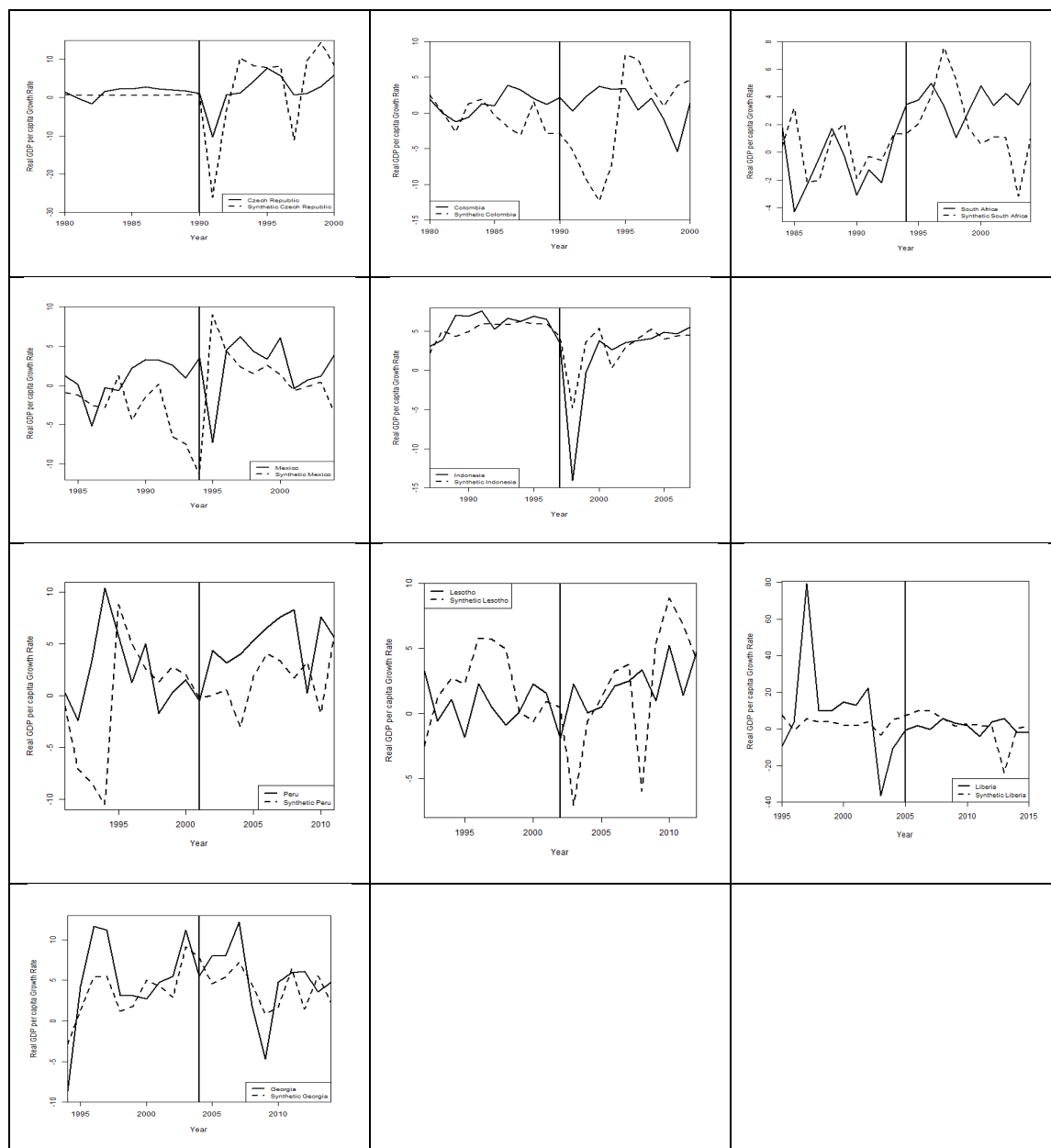


Figure GG.14 - Placebos of the democratisation episodes between 1900 and 1929, with controls from the same continent (experience one)

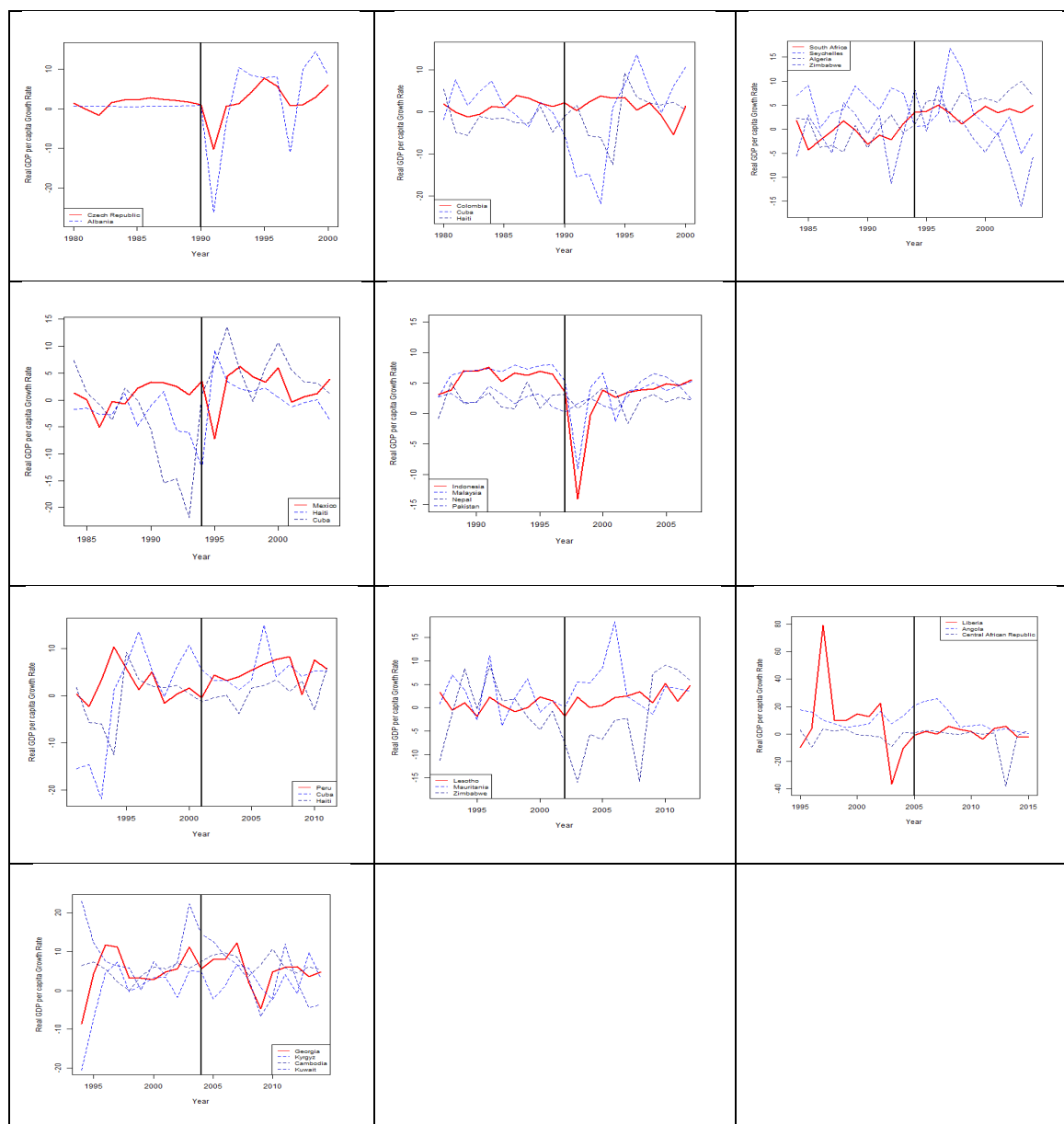


Figure GG.15 - *Synthetic Control of the democratisation episodes between 1900 and 1929, with controls from the world (experience two)*

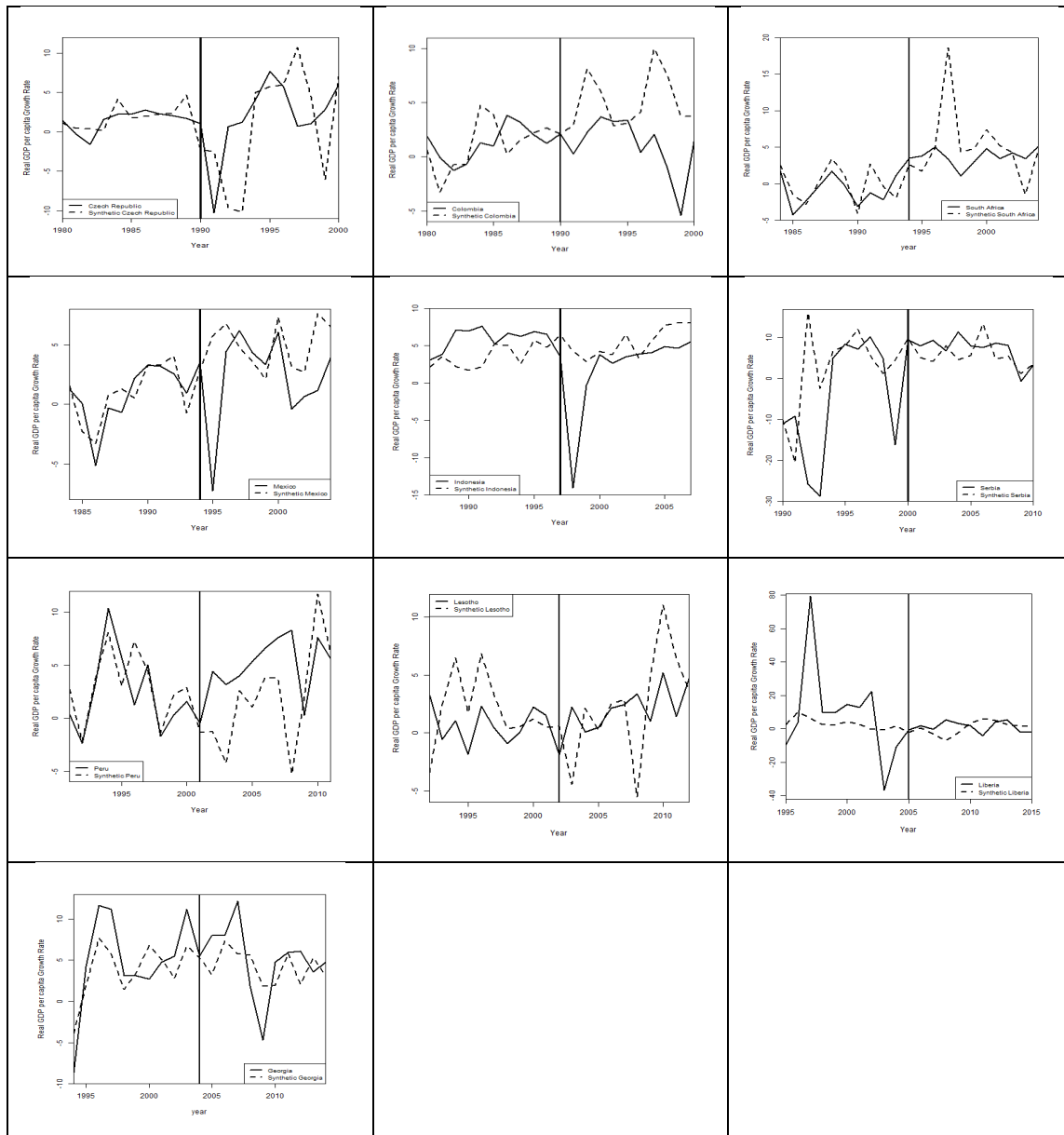


Figure GG.16 - Placebos of the democratisation episodes between 1900 and 1929, with controls from the world (experience two)

