



**UNIVERSITA' DEGLI STUDI DI PADOVA**

**DIPARTIMENTO DI SCIENZE ECONOMICHE ED AZIENDALI "M.  
FANNO"**

**CORSO DI LAUREA MAGISTRALE IN  
ECONOMICS AND FINANCE**

**TESI DI LAUREA**

**ASSESSING THE IMPACT OF ECONOMIC SANCTIONS IMPOSED ON  
FASCIST ITALY BY THE LEAGUE OF NATIONS: AN EMPIRICAL  
STUDY**

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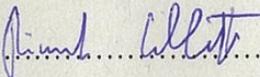
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## **Abstract**

The focus on economic sanctions has significantly intensified over the past decade, particularly in light of cases involving Iran and Russia. This interest has further heightened, notably following developments related to the Ukraine conflict. While these coercive measures are increasingly employed by Western nations as an alternative to war, their roots trace back to earlier times. This study delves into an underexplored chapter in the history of sanctions, centering on the case of Fascist Italy facing sanctions from the League of Nations following the invasion of Ethiopia (1935-1936), an episode often overlooked in contemporary academic literature. The primary objective is to analyze how these sanctions, the first in history where a nation faced punitive measures from a collective of nations coordinated by a supranational body, impacted the macroeconomic indicators of Fascist Italy. The study reconstructs the events that led to the League of Nations imposing sanctions on Italy, evaluating their effects on key macroeconomic indicators. To assess the sanction's impact, the Difference-in-Differences estimator is employed, followed by a robustness check using the Synthetic Control Method. This study aspires to provide insights and reflections on historical events that remain relevant to contemporary narratives surrounding economic sanctions.

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# 1 Introduction

The economic sanctions imposed on fascist Italy by the League of Nations represent a pivotal moment in the annals of international diplomacy. This unprecedented endeavor marked the first-ever test of the effectiveness of economic sanctions as a mechanism to disrupt a military campaign. It also served as the inaugural instance in history where a supranational organization, the League of Nations, dared to impose sanctions on a major great power. The League's pursuit of collective security, however, was not without its complexities. It was primarily steered by France and, most notably, Great Britain, each striving to reconcile their realpolitik objectives of containing Germany with the League's broader goal of preserving the post-World War I status quo.

Despite its novel approach, the sanctions placed on Italy were far from as severe as they could have been, with essential goods such as coal and oil remaining outside the ambit of these punitive measures. This decision was strategic, designed to exert pressure on Italy while avoiding a complete industrial paralysis that the shortage of coal and oil would certainly have provoked<sup>1</sup>. Despite the significance of this moment in history, there is a noticeable scarcity of scholarly literature that has comprehensively evaluated the impact of these economic sanctions on the Italian economy.

This thesis aims to bridge that gap by investigating the multifaceted effects of the League of Nations' economic sanctions on certain macroeconomic variables within Italy. Utilizing a two-pronged approach, this study employs a classic Difference-in-Differences regression analysis as its primary methodology. This method reveals significant negative impacts on imports, a less pronounced negative effect on exports, a considerable negative influence on real consumption, and potentially adverse consequences for the industrial sector. Furthermore, the research employs a Synthetic Control Method as a robustness test, which corroborates the adverse impacts on imports, exports, real consumption, and industrial production. However, this analysis does not reveal significant effects on prices, unemployment or real GDP.

The economic sanctions imposed on fascist Italy, with their intricate geopolitical underpinnings and multifaceted economic consequences, stand as a remarkable case study in the realm of

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<sup>1</sup> RISTUCCIA, C. A., 2000. The 1935 Sanctions against Italy: Would coal and oil have made a difference? *European Review of Economic History*, 4(1), 85–110.

international relations and economic history. By scrutinizing the effects of these sanctions on the Italian economy, this thesis seeks to shed light on an often-overlooked aspect of the League of Nations' collective security experiment and its broader implications for the evolution of international diplomacy and economic warfare.

## 2 Historical background

### 2.1 The concept of economic sanctions

Economic sanctions are a tool, proper of foreign policy, through which a country, or a set of countries, try to hamper the economic growth of a target country, through the application of tariffs, trade barriers and restrictions on financial transactions. The reason why economic sanctions might be used can be economic, but most often are political, military or regarding social issues (like the economic sanctions imposed on Rhodesia and South Africa in the past century). Economic sanctions were conceived as a regulated instrument in the international community with the birth of the League of Nations in 1920, though sanctions in the form of blockades or embargos were applied also before during World War I or the Napoleonic Wars (the Continental System through which Napoleon put an embargo against the British Empire). In particular, the usage of economic sanctions was intended, according to Article 16 of the Covenant of the League of Nations, in case that “any Member of the League resort to war in disregard of its covenants under Articles 12, 13 or 15”. So if a country declared war to another Member, violating Articles 12<sup>2</sup>, 13<sup>3</sup> and 15<sup>4</sup>, all other Members had to “undertake immediately to subject it to the severance of all trade or financial relations, the prohibition of all intercourse between their nationals and the nationals of the covenant-breaking State, and the prevention of all financial, commercial or personal intercourse between the nationals of the covenant-breaking State and the nationals of any other State, whether a Member of the League or not”<sup>5</sup>. It is clear that the aim of such economic sanctions was primarily to obstacle the war effectiveness of the aggressor State, wearing down its logistics, its supplies, its industrial production and its ability to finance the war. The main idea was to hurt a country’s economy without waging a war against it, especially since a war often carries a social cost that can

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<sup>2</sup> Art 12: “The Members of the League agree that, if there should arise between them any dispute likely to lead to a rupture they will submit the matter either to arbitration or judicial settlement or to enquiry by the Council, and they agree in no case to resort to war until three months after the award by the arbitrators or the judicial decision, or the report by the Council.”

<sup>3</sup> Art 13: “The Members of the League agree that whenever any dispute shall arise between them which they recognise to be suitable for submission to arbitration or judicial settlement and which cannot be satisfactorily settled by diplomacy, they will submit the whole subject-matter to arbitration or judicial settlement.”

<sup>4</sup> Art 15: “If there should arise between Members of the League any dispute likely to lead to a rupture, which is not submitted to arbitration or judicial settlement in accordance with Article 13, the Members of the League agree that they will submit the matter to the Council. Any party to the dispute may effect such submission by giving notice of the existence of the dispute to the Secretary General, who will make all necessary arrangements for a full investigation and consideration thereof.”

<sup>5</sup> Art 16 of the Covenant of the League of Nations

be unbearable for the country that wages it, and it is rarely popular among the citizens (a factor that must not be neglected by the government especially in a democracy). Economic sanctions, which are basically a sort of “economic war”, are definitely less risky, though they can still bring some unintended consequences<sup>6</sup> (e.g. some economic sanctions might harm the sanctioning economy more than the sanctioned one, or spillovers might affect negatively also the economy of non-target countries). Previously we argued that countries may have four reasons for which they would be willing to impose economic sanctions against another country:

1. **Economic reasons:** a country A imposes economic sanctions on country B for economic reasons when there is a feeling that the economic and trade policies of country B are harming unfairly the economic interests of country A. Usually such sanctions are imposed on a very limited range of companies or economic actors and take the form of import tariffs and visa restrictions. Generally, economic reasons are strictly linked with political rivalry. An example is the measures the Trump administration took against China during its entire mandate (see National Defense Authorization Act for Fiscal Year 2019<sup>7</sup> and the exclusion of China from U.S. government procurement contracts for alleged currency manipulation<sup>8</sup>).
2. **Political reasons:** a country A imposes economic sanctions on country B for political reasons when there is a strong political attrition between the two. Such attrition is often characterized by ideological incompatibility of the two regimes. One example is the American embargo imposed on Cuba in 1958<sup>9</sup> after the Cuban revolution and the overthrow of Fulgencio Batista, whose regime was backed by America<sup>10</sup>. The embargo was clearly motivated by political reasons, because the new Castroist regime was definitely not an ally of the US. Another example is the American sanctions on Iran after the Islamic revolution.
3. **Military reasons:** a country A imposes economic sanctions on country B for military reasons when country B is conducting a military operation that is condemned by country A, which tries to obstacle the military capacity of country B, targeting its logistics, so that

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<sup>6</sup> KEERATI, R., 2022. The Unintended Consequences of Financial Sanctions. Available at SSRN: <https://ssrn.com/abstract=4049281> or <http://dx.doi.org/10.2139/ssrn.4049281>

<sup>7</sup> "Trump signs bill banning government use of Huawei and ZTE tech". 13 August 2018. Archived from the original on 2019-05-29. Retrieved 2021-03-02.

<sup>8</sup> SHALAL, A., LAWDER, D., WROUGHTON, L., BRICE, M., 2019. "U.S. designates China as currency manipulator for first time in decades". *Reuters*, Archived from the original on December 24, 2020. Retrieved March 2, 2021.

<sup>9</sup> HUFBAUER, G., C., SCHOTT, J., J., ELLIOTT, K., A., 2011. Case Studies in Economic Sanctions and Terrorism. Case 60-3: US v. Cuba (1960– : Castro). *Peterson Institute for International Economics*, October 2011

<sup>10</sup> Remarks of Senator John F. Kennedy at Democratic Dinner, Cincinnati, Ohio, October 6, 1960 from the John F. Kennedy Presidential Library.

its chances of reaching the military goals it wanted decrease, or their achievement is obtained at a much higher cost. An example of this is the current economic sanctions the West imposed on Russia after its invasion of Ukraine<sup>11</sup>.

4. **Social issues reasons:** a country A imposes economic sanctions on country B for social issues reasons when the regime of country B is carrying on certain policies that are considered unacceptable according to the moral code of country A, because they are considered human rights violations. Usually such sanctions are applied multilaterally by a large group of members of the international community and the UN is involved. The previous century offered various examples: the anti-apartheid sanctions on South Africa<sup>12</sup> and Rhodesia<sup>13</sup>, or the embargo against Somalia after the fall of Siad Barre's regime<sup>14</sup>.

After distinguishing the various reasons why a country might be sanctioned, we should also investigate the goals of the economic sanctions, namely what the sanctioning countries want to achieve. Generally, we could argue that economic sanctions are used as a coercive method alternative to war, so the idea is to damage the target country so much that it has to step back from the policy or the action it was carrying on. Therefore, most often economic sanctions are used as a tool to pursue a regime change, attempting to provoke social unrest in the target country that would result in a revolution, sometimes they are used with the goal of making the target country lose a war. In short, economic sanctions are tools of indirect and proxy wars.

## 2.2 How economic sanctions succeed (or fail)

The debate on whether economic sanctions are successful as a pressure tool to induce policy changes is still unresolved. The common wisdom among economists nowadays is that they do not achieve very much, but in some cases they proved to be effective. In this paragraph we investigate how and when economic sanctions can be effective. Table 2.1<sup>15</sup> reports some key characteristics of 172 economic sanction episodes since WWII. We notice that after 1990 the usage of economic sanctions has risen by a lot and, looking at the share of target's trade, they proved to be twice as effective as the previous period 1946-1989, destroying on average twice the GDP that was

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<sup>11</sup> [https://www.europarl.europa.eu/RegData/etudes/IDAN/2022/699526/IPOL\\_IDA\(2022\)699526\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/IDAN/2022/699526/IPOL_IDA(2022)699526_EN.pdf)

<sup>12</sup> LEVY, P., I., 1999. Sanctions on South Africa: what did they do? *Economic Growth Center*, Yale University

<sup>13</sup> MCKINNELL, R., 1969. Sanctions and the Rhodesian Economy. *The Journal of Modern African Studies*, 7(4), 559-581

<sup>14</sup> MUSAU, S., M., 2021. Ineffectiveness of sanctions: a case study of Somalia, *IRPJ*, 13<sup>th</sup> May 2021

<sup>15</sup> VAN BERGEIJK, P., A., G., 2012. Failure and success of economic sanctions, *VOX*, CEPR, 27<sup>th</sup> March 2012

destroyed between 1946 and 1989. A possible explanation of such rise in the share of target's trade hit by the sanctions is that after the fall of the Soviet Union we entered the globalization era where international trade increased much<sup>16</sup>. Globalization has increased the importance of international trade and direct foreign investments, so that nowadays countries are much more vulnerable to economic sanctions due to interdependences in the global value chain.

Table 2.1

|                                    | 1946-1989 |     | after 1990 |     |
|------------------------------------|-----------|-----|------------|-----|
|                                    | yes       | no  | yes        | no  |
| ongoing sanctions                  |           |     |            |     |
| annual average number of sanctions | 2.6       | 2.3 | 4.5        | 3.8 |
| share of successes                 | 32%       | 34% | 39%        | 40% |
| share of target's trade            | 22%       | 23% | 45%        | 45% |
| percentage of target's GDP         | 6%        | 6%  | 11%        | 10% |
| period (years)                     | 8.9       | 7.8 | 4.2        | 4.1 |

In general, 9 factors are determinant for the effectiveness and ineffectiveness of economic sanctions:

1. Trade linkage;
2. Sanction duration;
3. Prior relations;
4. Size of sender and target countries;
5. Types of sanctions;
6. Economic health and political stability of target countries;
7. Cost of sanctions to target;
8. Cost of sanctions to sender;
9. International cooperation against the target or international assistance to the target.

Trade linkage is defined in absolute terms as the value of the goods that are exchanged between two countries, and in relative terms as the portion of the trade that a country has with another

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<sup>16</sup> SURUGIU, M., R., SURUGIU, C., 2015. International Trade, Globalization and Economic Interdependence between European Countries: Implications for Businesses and Marketing Framework, *Procedia Economics and Finance*

relatively to the total amount of trade with the rest of the world. The reason to consider the role of trade is that sanctions cannot change the behavior of a country if the amount of trade between sanction sender and sanction target is negligible. Hence, the level of pre-sanction trade that could be hit by sanctions is determinant. In most of the successes of economic sanctions, the sender country accounted for almost 33% of target country's total trade<sup>17</sup>. A historical example about the importance of trade linkage in the success or failure of sanctions is provided by the case of Canada that withdrew the landing rights to South African airplanes<sup>18</sup>. After the imposition of this package of sanctions, not a single South African airplane landed in Canada. The problem is that even before the sanctions South African airplanes were not landing in Canada. So this makes it clear that those sanctions were practically useless, and merely symbolic.

Sanction duration is also a key determinant: the longer sanctions are in effect, the better the target can adjust. In fact, generally, sanctions are most effective at the beginning, and their effectiveness decreases with time, after the target country has adopted counter-measures just like reallocation of the factors of production or new trading partners who can supply them the items that can no longer be imported from countries adhering to the sanctions. For this reason, the conventional wisdom today says that it is better to strike immediately as much as possible to inflict the maximum damage with economic sanctions. However, it could be argued that the longer the sanction duration, the higher the damage inflicted on the target country. In fact, if the sanctioned economy cannot find alternative suppliers of the commodities subjected to the embargo, its stocks, accumulated previously, will be depleted. Hence, the larger the stocks of sanctioned items, the longer the sanctions must be maintained in order to be effective, provided that there are no alternative suppliers who do not comply with the sanctions. In short, the effectiveness of economic sanctions can be represented by a logarithmic function (where on the horizontal axis there is time, and on the vertical one there is effectiveness) rather than an exponential, but the "breaking point" that lies on the function line is determined by the amount of stocks stored in the target country, notwithstanding the assumption of the absence of alternative suppliers.

Prior relations are determinant for the effectiveness of economic sanctions because if before sanctions the relations between target and sender were already bad, then it is very likely that the

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<sup>17</sup> HUFBAUER, G., C., SCHOTT, J., J., ELLIOTT, K., A., OEGG, B., 2008. *Economic Sanctions Reconsidered*. Columbia University Press, 15 nov 2008, 90

<sup>18</sup> HARKNESS, J., 1990. "Marshall, Lerner & Botha: Canada's Economic Sanctions on South Africa", *Canadian Public Policy / Analyse de Politiques*, Vol. 16, No. 2 (Jun., 1990), 155-160

target country had already prepared to receive them by finding a way to bypass them. Conversely, if prior relations were good, then it is more likely that the target country is caught unprepared.

Talking about the size of sender and target countries, in the vast majority of cases the economy of the sender country is larger than that of the target, and in most cases even far larger. The sender's GNP is more than 10 times greater than the target's GNP in 80% of cases, and in half the cases, the ratio is greater than 100<sup>19</sup>. However, it does not seem that the size of the sender country compared to the target matters significantly, in fact the success ratio when the GNP ratio is below 10 is approximately 30%<sup>20</sup>, similar to the record observed in cases characterized by higher ratios. In short, we can argue that large countries are more likely to use economic sanctions as a tool of foreign policy, but the economic size does not significantly matter.

As regards the types of sanctions, 3 kinds can be distinguished: trade sanctions, financial sanctions and asset freezes. When sender countries impose trade sanctions on target countries, they usually implement export controls more frequently than import controls, because the former ordinarily has a dominant market position over the latter, provided that they are suppliers of some key exports (especially high-tech goods and military equipment). On the other hand, sanctioning imports, by importing less goods from the target country, may be not as effective because there could be other alternative purchasers. For example, if the US decided to sanction EU countries, discontinuing the sale of advanced military equipment, it would inflict a serious damage to European countries' capacity of keeping their armies efficient and ready, obliging them either to develop their military technologies on their own, or to find other sellers. Conversely, if a country — say China — decided to sanction imports of wheat — say from Russia — this would hardly create significant troubles for the Russian economy, because Russia could easily find other buyers of their wheat. Imposing financial sanctions essentially means that the sender country delays or denies credits or grants to the target country. The most common type of financial sanction is the interruption of official development assistance. Usually financial sanctions are used jointly with trade sanctions. Asset freezes are an exceptional sanction measure, which consists in seizing bank accounts, merchandise, accounts receivable and any real asset owned by the target country, its corporations or citizens.

The economic costs of sanctions as a percentage of target-country GNP were substantially higher on average when finance alone was interrupted (1,7%) in comparison to episodes where only trade

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<sup>19</sup> HUFBAUER, G., C., SCHOTT, J., J., ELLIOTT, K., A., OEGG, B., 2008. *Economic Sanctions Reconsidered*. Columbia University Press, 15 nov 2008, 89

<sup>20</sup> Ibidem, 89

was interrupted (0,7%). When both trade and financial sanctions were applied jointly, the costs of the sanctions for the target country was even higher (2,9% of GNP). When it comes to economic health and political stability of the target, we can argue that low economic growth and high inflation make a country more vulnerable to economic sanctions, as it seems obvious. While it is superfluous to explain why the costs of the sanctions matter for the target country, it is worth saying something about the costs for the sender country. The sender country always pays a price when imposing sanctions. The immediate price is paid by domestic firms that have to find new suppliers or new foreign markets to sell their products. In general, the sender country should seek to maximize the ratio of costs inflicted to costs incurred. High costs to domestic agents could undermine support for the sanctions and make them difficult to maintain over time. At the same time, if minimizing costs appears to take precedence over making the sanctions effective, then this could send a signal of weak resolve and encourage the target to hold out.

Speaking about the international cooperation against the target, the greater the number of countries that choose to participate in the sanctions, the more effective they become, since this way the possibility for the target to bypass the sanctions and obtain supplies from a third country increases. Vice versa, the more international assistance is provided to the target, the less effective the sanctions will be.

Before we argued that sometimes economic sanctions have the goal of a regime change. According to Hufbauer, Schott, Elliot and Oegg (2008), this case accounts for 39% of sanction impositions<sup>21</sup>, and 34% of these attempts were successful<sup>22</sup>. However, the debate on the success rates of economic sanctions is still open. In fact, it is not easy to establish whether a regime change occurred because of the sanctions or for other reasons (e.g. internal instability). Other objectives sender countries might want to pursue are: modest changes in policy, disrupting military adventures, impairing military potential and other major policy changes<sup>23</sup>. An example of sanctions inflicted with the objective of inducing modest changes in policy is when the United States imposed sanctions on Nicaragua between 1992 and 1995 to make the government to establish a more efficient control of its military and to resolve some expropriation cases. When the goal is inducing minor policy changes, economic sanctions are often successful. To illustrate a case of sanctions inflicted with the aim of disrupting military adventures we can cite the current sanctions on Russia in the

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<sup>21</sup> Ibidem, 67

<sup>22</sup> Ibidem, 158

<sup>23</sup> Ibidem, 66-74

aftermath of its invasion of Ukraine, or also the case we are going to examine here, namely the Italian invasion of Abyssinia. In this case, the success ratio is very low, corresponding to 20%<sup>24</sup>, and it should also be mentioned that after 1960 sanctions with the aim of making a country lose a war always failed. Talking about impairing military potential, a case example is the sanctions imposed on Saddam Hussein's regime that allegedly prevented him from developing weapons of mass destruction (let alone the fact that the US intelligence believed he had them). In this latter case, it is estimated that around 33% of the attempts were successful<sup>25</sup>, with the likelihood of success depending on the prior good economic relations (the better the relations, the higher the likelihood of success). It should be noted, however, that the likelihood of success strictly depends on the goal the economic sanctions are meant to reach. This means that the odds are not determined only by economic factors, but also by political will and leaders' communication. In fact, sometimes the declared goals of the economic sanctions do not coincide with the real goals a government wants to pursue, or, vice versa, a government might claim that their sanctions worked even when their initial intention was to achieve a better result. Thus, the statistics showing the success rate of sanctions might be altered by political goals and propaganda. The chances for sanctions to be effective depend on setting realistic goals and disclosing the truth to the public opinion. This is how the success rate is influenced: the more the goals are realistic, the higher the probability of having a success; the less the bias between real goals and announced goals, the lower the distortion of the success rate. Sometimes it is even unclear what economic sanctions want to obtain, making researchers' job more difficult. This annotation serves as a disclaimer about the success shares of economic sanctions just exposed in this paragraph: they might not be fully precise. In short, the entity of the success rate depends on setting realistic goals, the reliability of the success rate depends on the disclosure of the actual goals. For example, what is the goal of sanctioning Russia after its invasion of Ukraine? If the goal is the withdrawal of Russian troops from Ukraine, this has clearly failed. If the goal is a regime change, this has also clearly failed. If the goal is impairing Russia's military potential, for the moment the outcome is unclear but still it is hard to tell what amount of impairment would allow us to claim that sanctions worked. All these goals were announced by US and EU institutions in the immediate aftermath of the first package of sanctions, hence the record of the outcome of the sanctions will be hard. Although establishing whether sanctions are effective faces several unsolved problems, the evaluation of the impact of the

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<sup>24</sup> Ibidem, 70

<sup>25</sup> Ibidem, 71

sanctions on a target country's economy is still possible. After providing a general theoretical overview of the economics sanctions, this paper is going to analyze deeply one single case study: namely the impact of the sanctions imposed by the League of Nations against fascist Italy after its invasion of Ethiopia in 1935.

### **2.3 The Italian imperialistic project**

The decision to invade Ethiopia was made by Mussolini in 1932, even though he was already considering this idea during the 1920s<sup>26</sup>. In November 1932, the dictator urged the Minister of the Colonies Emilio De Bono to prepare the plans for a military campaign against Ethiopia. At the time, Italy had few colonial dominions. Eritrea, whose colonization began when the Italian government took over control of the port of Assab (which had been already bought by the Italian Rubattino Shipping Company in 1869) in 1882, and the port of Massawa in 1885, was the first colony ever acquired by the Kingdom of Italy. Then came the turn of Somalia, whose colony was formally instituted as an administrative entity in 1908 (although the Italian control de facto began in the late 19<sup>th</sup> century). The Concession of Tianjin was obtained in 1901 after Italy's participation in the repression of the Boxer rebellion. Finally, Italy conquered the Dodecanese and Libya, taken out of the hands of the Ottomans in the the Italo-Turkish war (1911-12) and pacified by the Regio Esercito during the 1920s, after defeating the fierce resistance of the Senussi guerrillas. It was not the first time the Italians aimed at conquering Abyssinia. An attempt had already been made by the Crispi ministry in 1895-96, when the Italians occupied the Tigray, but then were pushed back at Adwa (1896), where the Italian army suffered one of the major defeats of its history. After the defeat of Adwa, the Treaty of Addis Ababa was signed, which established that Italy recognized Ethiopia as a fully independent country (previously, it was de facto an Italian protectorate, since, according to the Treaty of Wuchale signed in 1889, Ethiopia could not manage its foreign affairs without Italy's approval). The defeat at Adwa and the subsequent peace treaty were significant humiliations for Italy. Italy had to abandon its ambitions of controlling most of the Horn of Africa at that time, leading to significant consequences in the Italian political landscape and the resignation of Crispi. Despite the fact that Italy realistically could not have achieved dominance in East Africa in the short term, its interest in the region, especially Ethiopia, persisted even after the unfortunate outcome of the First Italo-Ethiopian War.

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<sup>26</sup> DOMINIONI, M., 2008. *Lo sfascio dell'impero. Gli italiani in Etiopia 1936-1941*, Roma-Bari, Editori Laterza, 8

At the beginning of the 20<sup>th</sup> century, although an agreement among Italy, Britain and France had been made in 1906, which established that the territorial integrity of Ethiopia had to be respected, Italy was still planning to attract Abyssinia into its sphere of influence<sup>27</sup>. After the Great War, Italy had still the ambition of enlarging its colonial dominions in Africa. The Entente had convinced Italy to side with them in the Great War also by promising some colonial compensations in case Britain and France enlarged their colonial empire at the expense of the German territories in Africa. That promise was vague though. Article 13 of the Treaty of London (1915) stated that “In the event of France and Great Britain increasing their colonial territories in Africa at the expense of Germany, those two Powers agree in principle that Italy may claim some equitable compensation, particularly as regards the settlement in her favour of the questions relative to the frontiers of the Italian colonies of Eritrea, Somaliland and Libya and the neighbouring colonies belonging to France and Great Britain”. At the Paris Peace Conference in 1919 the Italian delegation, relying on that clause, made demands for territorial compensation in Africa. In particular, the Italians requested the British Somaliland, the French Somalia and Jubaland<sup>28</sup>, to unify the controlled territories in the Horn of Africa. Alternatively, Italy claimed the former German colony of Cameroon or Togoland<sup>29</sup>. A further alternative request was the control of the Portuguese colony of Angola<sup>30</sup>. All these demands were denied. The rejection of Italy's territorial demands, which extended not only to Africa but predominantly in the Balkans, was primarily due to the strong opposition of the President of the United States, Woodrow Wilson. This rejection provided Italian nationalists with an opportunity to create the myth of the “vittoria mutilate”, which implies the belief that Italians were not adequately rewarded for their participation in the war. It was argued that the Allies had reneged on most of their promises regarding territorial concessions outlined in the Pact of London.

This scenario contributed to the creation of the cultural humus that allowed fascism to emerge and eventually seize power. Fascism inherited from the Liberal Period an unpacified Libya and a still not fully controlled Somalia, and there was not a defined project of modernization and economic development of the colonies. At the beginning, the fascist colonial policy was in continuity with the one of the Liberal Period. In a speech at the Camera dei Deputati in November 1922 Mussolini declared: “The fundamental cornerstone of our political action in East Africa remains the rigorous

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<sup>27</sup> HESS, R., L., 1963. Italy and Africa: Colonial Ambitions in the First World War. *The Journal of African History*, vol. 4, no. 1, 1963, 105–26.

<sup>28</sup> *Ibidem*, 117.

<sup>29</sup> Ministero Affari Esteri. *I documenti Diplomatici italiani*, VI Serie, vol. III, 746

<sup>30</sup> HESS, R., L., 1963. Italy and Africa: Colonial Ambitions in the First World War. *The Journal of African History*, vol. 4, no. 1, 1963, 125

maintenance of the integrity of Ethiopia, with which we intend to promote, both through Eritrea and through Somalia, intense and fruitful trade relations”<sup>31</sup>. The reason why initially the fascist regime paid little attention to pursuing an active colonial policy was mostly dictated by pragmatism. Mussolini was too busy with consolidating his power within the country to design expansionist plans. In fact, the Italian ambitions of building an empire, inspired by the glories of ancient Rome, which were at that time vivid and all-pervading in the Italian nationalistic rhetoric, would have necessarily collided with the interests of the British empire. Indeed, in order to fulfill the Italian imperial aspirations, it would have been necessary to change the international status quo of that time, altering the balance of power, which saw Britain as the main colonial power, with an ambitious and subversive plan. Such a project would have not certainly pleased the British, and Mussolini could have not afforded the enmity of Britain in that moment. For this reason, the Duce sought the British friendship during the first years of his rule, continuing the traditional foreign policy of the Liberal Period. In accordance with this political stance, Italy reached an agreement with Great Britain in 1925, whereby the two sides divided Ethiopia into spheres of economic influence and promised to support each other in obtaining concessions in Abyssinia: for Italy a railway connecting Eritrea with Somalia and for Britain a dam on Lake Tana<sup>32</sup>. This arrangement, which was in any case inconclusive due to the opposition of the Ethiopian government, proves that the Italian interest in East Africa, and specifically Ethiopia, was still alive at that time, although the means used to pursue it were entirely diplomatic. However, by the second half of 1925 Italy’s official foreign policy guidelines became more aggressive. Mussolini had finally consolidated his power, making himself dictator, banning all the other political parties and overcoming the crisis provoked by the murder of the member of the Parliament Giacomo Matteotti. As a consequence, he decided to manage the Italian foreign policy directly. In a letter sent to the Minister of the Colonies Lanza di Scalea on the 8<sup>th</sup> July 1926 Mussolini issued aggressive directives in preparation for a “breakdown” of the Ethiopian empire<sup>33</sup>. The regime started showing a rampant interest in increasing the Italian projection in Africa, where the fascist government was planning to allocate masses of farmers from the homeland, to alleviate the pressure caused by the high demographic growth in Italy and exploit the exceeding unemployed labour. Thus, the fascist colonial program was taking shape: the aim was to initialize an agenda of public investments in the colonies to build

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<sup>31</sup> Ministero Affari Esteri. *I documenti diplomatici italiani*, VII Serie, vol. I, doc. 222

<sup>32</sup> IADAROLA, A., 1979. The Anglo-Italian agreement of 1925: Mussolini's "carte blanche" for war against Ethiopia. *Northeast African Studies*, Vol. 1, No. 1, 45-56

<sup>33</sup> DEL BOCA, A., 1979. *Gli italiani in Africa Orientale. vol. II. La conquista dell'impero*. Milano: Mondadori.

infrastructures and agricultural facilities that could attract settlers from the Italian mainland<sup>34</sup> and thereby keep all potential labour force in Italy, putting an end to the historical record of Italian emigration abroad. In a number of speeches in 1926 Mussolini pointed out the necessity for Italy, characterized by a “prolific” and young population and yet so limited territories, to expand and feed its “hunger for land”<sup>35</sup>. However, in practice, the expansionist vague desires had to be postponed also because London and Paris warned Rome and Mussolini finally was convinced that the time was not ripe. French and British firm opposition to the Italian imperialistic designs made the Duce adopt a more prudent approach regarding the Ethiopian issue. After having almost broken off diplomatic relation with Ethiopia in 1926, when Italy and Great Britain put pressure on the Abyssinian government for economic concessions and this latter made a protest to the League of Nations, the Duce sent the Duke of the Abruzzi to Addis Ababa to sign a Treaty of Friendship and Arbitration (1928). Such a treaty provided: a concession to Ethiopia at the Red Sea port of Assab in the Italian colony of Eritrea; a road connecting Assab to Dessiè; the concession of the transport of goods along that road to an Italo-Ethiopian company; the definition of the border between Italian Somaliland and Ethiopia; friendship for 20 years<sup>36</sup>. Through this treaty Italy hoped to penetrate Ethiopia economically, whereas Ethiopia acquired an outlet to the sea. Britain supported Italy with this agreement, provided that this latter refused every claim on Yemen.

## **2.4 An overview of the Italian economy: 1920s – half of 1930s**

The prudent Italian foreign policy lasted during all the remaining years of the 1920s, also because the fascist government had to face other internal issues. Mussolini’s focus between 1925 and the early 1930s was mainly on two internal “battles”: the Battle for Grain and the Battle for the lira. Both measures were meant to adjust the macroeconomic situation of Italy and its public finances. The Battle for Grain was an anticipation of the autarkic measures Italy implemented after the imposition of the sanctions by the League of Nations. The aim was to make the country self-sufficient from the foreign wheat and eliminate the deficit of the trade balance in that sector. In 1925, in fact, Italy’s average annual production of wheat between 1921 and 1924 was 47,88 million of quintals and the average annual imports of wheat were 26 million of quintals<sup>37</sup>. By the end of

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<sup>34</sup> ASTUTO, R., 1940. Popolamento ed equilibrio demografico in Africa Orientale Italiana, *Rassegna economica dell’Africa italiana*. In: A., GAGLIARDI, ed.by, 2016. La mancata «valorizzazione» dell’impero. Le colonie italiane in Africa orientale e l’economia dell’Italia fascista. *Storicamente*, 12, no. 3

<sup>35</sup> DEL BOCA, A., 1991. *Gli italiani in Libia. Vol. II. Dal fascismo a Gheddafi*. Milano: Mondadori, 85

<sup>36</sup> Regio Decreto 24 dicembre 1928, n. 3301

<sup>37</sup> BALISTRERI, N., ed.by, 1941. *Il grano e la guerra*. 1st edition. Verona: Mondadori. 14-15

the 30s, the average annual production reached 80 million of quintals, making Italy the 5<sup>th</sup> largest producer of grain in the world<sup>38</sup>, satisfying almost entirely the national demand of wheat. On the other hand, the Battle for the lira was initiated after years of depreciation of the Italian currency due to the rapid increase of liquidity in the economy, since the Italian government had financed the war effort in the Great War and its early post-war deficits by borrowing.

Table 2.2

| <b>Money Supply, Liquid Assets and Liquidity Ratio 1919-1929 (billions of lire)</b> |          |          |              |                |                 |                 |
|---|----------|----------|--------------|----------------|-----------------|-----------------|
| Year  | Currency | Deposits | Money Supply | Treasury Bills | Total Liquidity | Liquidity Ratio |
| 1919  | 21,3     | 27,4     | 48,7         | 31,3           | 80              | 62              |
| 1920  | 25       | 34,6     | 59,6         | 34,6           | 94,2            | 81,9            |
| 1921  | 24       | 34,1     | 58,1         | 38,6           | 96,7            | 83,4            |
| 1922  | 22,2     | 36,7     | 58,9         | 40,2           | 99,1            | 81,9            |
| 1923  | 20,5     | 46,6     | 67,1         | 38,3           | 105,4           | 85,7            |
| 1924  | 21,8     | 53,9     | 75,7         | 33,7           | 109,4           | 88,5            |
| 1925  | 22,3     | 57,7     | 80           | 30,8           | 110,8           | 86              |
| 1926  | 21,7     | 67,9     | 89,6         | 27,6           | 117,2           | 90,1            |
| 1927  | 20,9     | 71       | 91,9         | 15,9           | 107,8           | 83              |
| 1928  | 20,4     | 74,9     | 95,3         | 8,4            | 103,7           | 74,6            |
| 1929  | 20,8     | 75,9     | 96,6         | 8,6            | 105,2           | 74,1            |

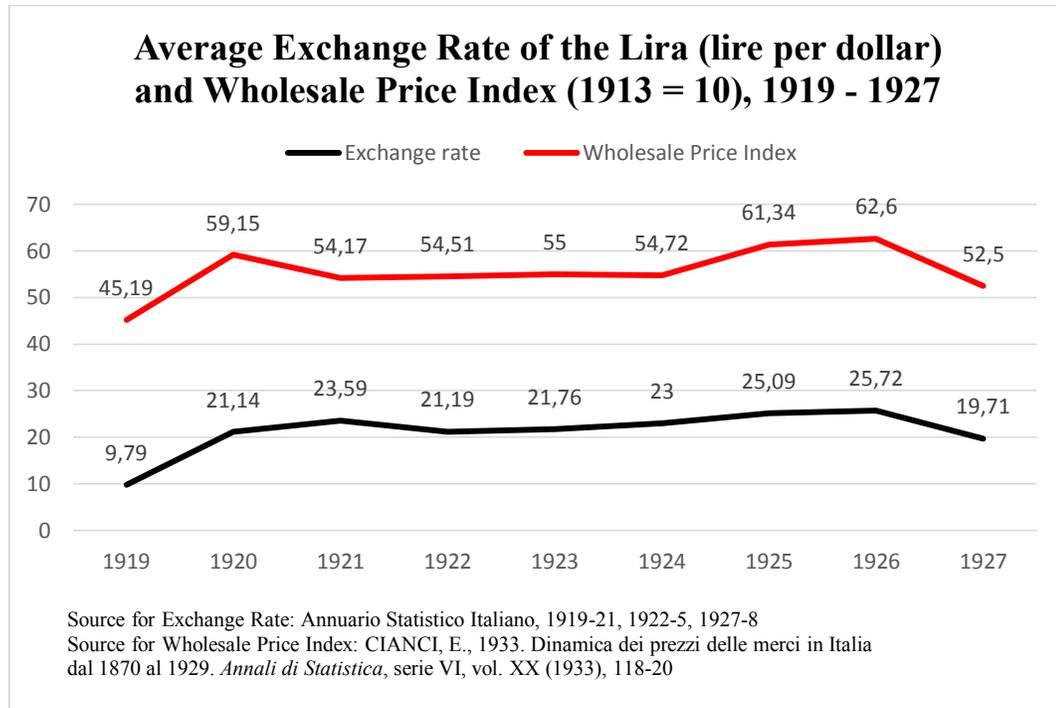
Source: Money supply from G. Fuà, ed. *Lo Sviluppo Economico in Italia*, III, Statistical Appendix, Table XII.6.I. Treasury bills from F. Répaci, *La Finanza Pubblica in Italia nel Secolo 1861-1960* (Bologna, 1962), Table 78. Gross domestic produce from Fuà, op. cit. Table XII.4.I.A.

After a triennium when the lira remained stable and the economy was performing rather well recovering from the hard times of the war, at the end of 1924 the speculative pressures against the lira increased, and during 1925 the lira depreciated once again.

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<sup>38</sup> Ibidem, 8

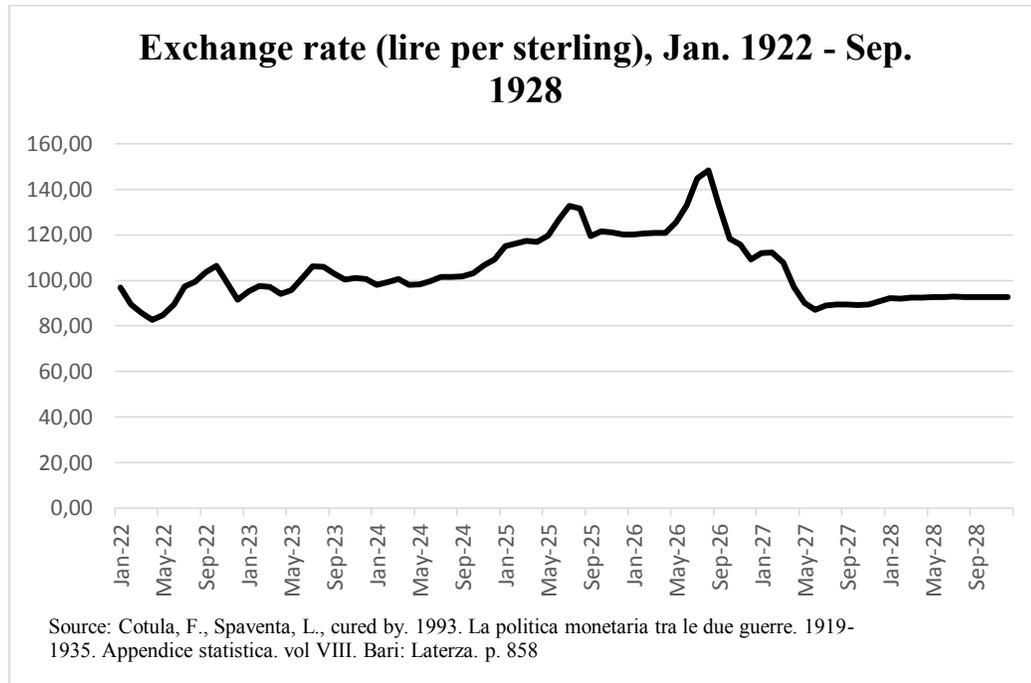
Figure 2.1



The domestic prices followed a similar pattern. After 1924 the economy was faced with two problems that could threaten the economic growth: inflation and the currency speculations<sup>39</sup>. In 1926 Mussolini decided that the time had come to appreciate the lira and stabilize it at the target of “quota 90” (namely fix the exchange rate sterling/lira at 1:90) in order to fight inflation and restore the trust and the reputation of the Italian currency, similarly to the deflationary monetary policies carried out by Britain, France and Germany that allowed all these countries to return into the Gold Exchange Standard once again.

<sup>39</sup> COHEN, J., S., Nov. 1972. The 1927 Revaluation of the Lira: A Study in Political Economy. *The Economic History Review*, Vol. 25, No. 4. 642- 654

Figure 2.2



The target was successfully achieved: in 1927 the lira returned into the Gold Exchange Standard. However, the appreciation of the lira came at a high cost. Italian exports were damaged by this monetary policy, since the upward adjustment of the currency made Italian products more expensive for foreign acquirers. The inevitable negative effect on the balance of payments was partially mitigated by an increase of the unemployment rate and a reduction from 10% to 20%, that led to a compression of domestic demand<sup>40</sup> and, hence, a reduction of importations. The 1920s were challenging years from the economic point of view. They began with a wrecked economy that was steadily recovering, but then the inflationary danger and the instability of the international payments system due to the high fluctuations in the foreign exchange markets obliged European governments, included, as seen previously, the fascist regime, to adopt deflationary monetary policies that had severe consequences for the economy. Even though at the end of the 1920s the international payments system of the Gold Exchange Standard had successfully been restored, this order did not last long. The arrival of the Great Depression in 1929 caused a big turmoil in European economies, whose governments drastically reviewed their previous economic policies. Italy was hit as well, even though to a lesser extent than countries like Germany, in a significant way. Firstly, the crisis ran over the financial sector. In 1930 one of the major Italian banks, Credito Italiano, was insolvent. In 1931 also the largest and most prestigious Banca Commerciale went bankrupt,

<sup>40</sup> Ibidem, 648

followed by Banco di Roma and other banks. In the period 1928–1936 the number of active banks fell from 3860 to 2099 (a reduction of 46%)<sup>41</sup>. The government intervention was rapid, supplying liquidity and credits to bail out insolvent banks through Bank of Italy. However, the liquidity crisis of the three largest Italian banks, which owned directly or via holding corporations a significant share of the equity of the Italian industrial corporations, made the financial crisis soon reach the real economy. At that time the Italian economy was still adjusting in the aftermath of the lira appreciation, bearing a deflationary process which was then exacerbated by the credit shortage, caused by the liquidity crisis, and by the decrease of foreign demand (since the crisis had already hit the other foreign trade partners).

Figure 2.3



As a consequence, the manufacturing sector was negatively affected, reducing the industrial production, as more and more firms went broke. The regime reacted by opening the so-called “Dirigiste Period”, characterized by a more direct intervention and control of the economy by the government, through the creation of a state holding company, the Istituto per la Rifondazione Industriale (IRI) in 1933. IRI bought all the equities held by the major universal banks, becoming the owner of most part of the Italian heavy industry. At the same time, a radical restructuring of

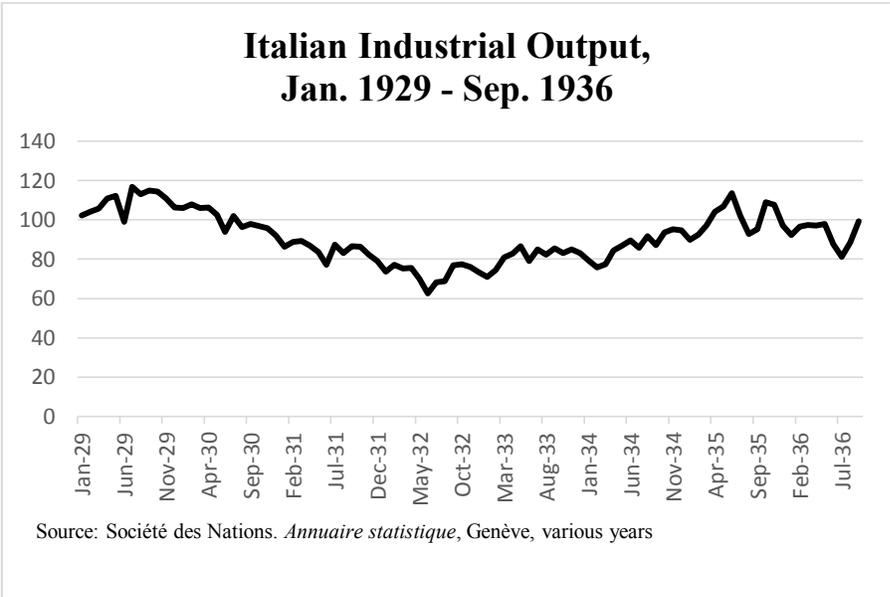
<sup>41</sup> MATTESINI, F., QUINTIERI, B., 1997. Italy and the Great Depression: An Analysis of the Italian Economy, 1929–1936. *Explorations in Economic History*, 34, 265–294

the Italian intermediation system took place, separating short and long term credit and not allowing banks to hold firms' equity.

Figure 2.4



Figure 2.5



At the outset, the IRI (Istituto per la Ricostruzione Industriale) was initially conceived as a temporary measure to rescue insolvent banks and firms by purchasing their equity. The ultimate goal was to privatize them once again by 1937. However, in 1937 the government transformed it into a permanent public institution. In 1934, IRI stipulated with the three major banks, Commerciale, Credito and Banco di Roma, three distinct agreements with which the credit

institutions transferred their industrial holdings and loans to companies to IRI, in exchange for liquidity, necessary to follow the banking activity<sup>42</sup>. After acquiring the shareholdings, the main concern of IRI became repaying Bank of Italy the capital received to acquire the financial companies. Once the shares were transferred to IRI, the latter launched its own credit mobilization campaign through the instrument of industrial bonds guaranteed by the government. This way, IRI became the owner of over 40% of the entire national share capital<sup>43</sup> and practically the largest Italian entrepreneur, owning companies such as Ansaldo, SME, Terni, SIP, Alfa Romeo, Ilva and Navigazione Generale Italiana, as well as owning Banca Commerciale, Credito Italiano and Banco di Roma<sup>44</sup>. IRI was the owner of most part of the arms industry, of the telecommunications services, of a big part of the steel sector, of the majority of the electricity production, of high shares of the textile and chemical sector and of the shipping industry<sup>45</sup>. By 1939, fascist Italy attained the highest rate of state ownership of an economy in the world other than the Soviet Union<sup>46</sup>. Other measures the regime adopted during the 1930s were: incentives for mergers, takeovers and the formation of cartels, and a deep reform of the banking system. In June 1932, an act that incentivized and regulated the constitution of cartels (“consorzi obbligatori”) was issued<sup>47</sup>. It is very likely that the Italian government wanted to pursue a higher concentration of capitals in the attempt of tackling deflation and increase the financial solidity of Italian firms. In fact, in oligopolistic or monopolistic markets prices are higher than in a competitive market. After all, a similar purpose had the American National Industrial Recovery Act issued exactly one year later<sup>48</sup>.

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<sup>42</sup> COLAJANNI, N., 1995. *Storia della banca in Italia. Da Cavour a Ciampi*. Roma: Newton Compton Editori

<sup>43</sup> FELICE, E., 2015. *Ascesa e declino: storia economica d'Italia*. Bologna: Il Mulino

<sup>44</sup> CASTRONOVO, V., 2012. *Storia dell'IRI. 1. Dalle origini al dopoguerra*. Bari: Editori Laterza

<sup>45</sup> FRANZINELLI, M., MAGNANI, M., 2009. *Beneduce, il finanziere di Mussolini*. Milano: Mondadori.

<sup>46</sup> KNIGHT, P., 2003. *Mussolini and Fascism: Questions and Analysis in History*. New York: Routledge. 65

<sup>47</sup> L. 16 Giugno 1932, n. 834

<sup>48</sup> TAYLOR, J., E., 2002. The Output Effects of Government Sponsored Cartels during the New Deal. *The Journal of Industrial Economics*, Vol. 50, No. 1, 1-10

Table 2.3

| Size classes with respect to<br>share capital (Lire) | 1916            |          | 1932     |          | 1941     |          |
|--|-----------------|----------|----------|----------|----------|----------|
|  | <i>I</i>        | <i>2</i> | <i>I</i> | <i>2</i> | <i>I</i> | <i>2</i> |
|  | until 1 million | 72,06    | 11,86    | 77,40    | 6,68     | 86,34    |
| from 1 to 50 millions                                | 27,65           | 69,11    | 21,71    | 41,61    | 12,99    | 30,65    |
| from 50 to 100 millions                              | 0,16            | 6,25     | 0,43     | 10,11    | 0,33     | 10,19    |
| from 100 to 250 millions                             | 0,10            | 8,33     | 0,29     | 15,89    | 0,19     | 12,86    |
| from 250 to 500 millions                             | 0,13            | 4,45     | 0,12     | 13,35    | 0,09     | 12,92    |
| over 500 millions                                    | 0,00            | 0,00     | 0,05     | 12,36    | 0,06     | 24,64    |

1: percentage on the total number of Italian joint-stock company

2: percentage of share capital on the total share capital of all Italian joint-stock companies

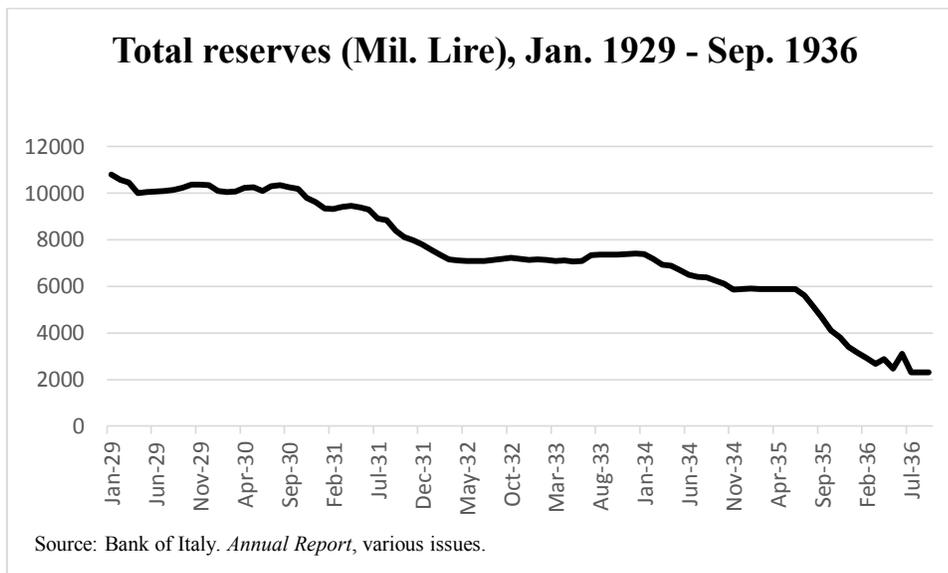
Source: COPPOLA D'ANNA, F., 1946. *Le società per azioni in Italia*. Ministero per la Costituente, Rapporto, ecc, cit, II: Industria; III: Appendice alla relazione (Questionari e monografie). 249

As it can be seen from Table 2.3, the large joint-stock companies (those with a capitalization of over 50 million lire) accounted for 0,39% of the total and held 19,03% of the share capital in 1916; the two values reached 0,89% and 51,71% in 1932 to finally reach 0,67% and 60,61% in 1941. As for the banking system, the focus of the reform was the abolition of mixed banking, namely banks which combined commercial banking (deposit banking or short-term credits) and industrial banking (investment banking or medium/long-term credits), which was accomplished with the “Menichella reform” in 1936<sup>49</sup>. The Istituto Mobiliare Italiano (IMI), whose task was to finance the industry, was founded in 1931, since the three major banks (Banca Commerciale Italiana, Banco di Roma and Credito Italiano) were now classified as “banks of national interest”, and were forced to operate only in the commercial banking for consumers, unable to give industrial loans or control the industrial equity. Meanwhile, the government was still attempting to defend the currency, steadily depleting its foreign exchange reserves, contrary to the opinion of the governor of Bank of Italy, Vincenzo Azzolini, who claimed that the obstinacy to keep the value of the lira stable would prevent the government from adopting a more appropriate monetary policy to offset

<sup>49</sup> Regio Decreto Legge 12 marzo 1936, n. 375

the crisis<sup>50</sup>. At that time, in fact, in Italy there was capital mobility and a fixed exchange rate, hence, the central bank could not use monetary policy as an economic tool, but it had to coordinate with other central banks to establish the interest and discount rates.

Figure 2.6



After Britain and the United States left the Gold Exchange Standard respectively in 1931 and 1933, depreciating their currencies, in Italy there was the dilemma on whether to abandon the Gold Standard and let the lira depreciate, or keep going with maintaining an over-appreciated lira in spite of the deflationary side effects. In order to defend the lira, it was imperative to keep high discount rates in order to prevent capital outflows. Finally, it was decided that Italy had to maintain the Gold Standard. The decision to defend the lira without imposing restrictions until 1934<sup>51</sup>, together with the constant deficits in the balance of payments, obliged Bank of Italy to continue its restrictive monetary policies.

<sup>50</sup> COTULA, F., SPAVENTA, L., ed.by. 1993. *La politica monetaria tra le due guerre. 1919-1935*. vol VIII. Bari: Editori Laterza. 117

<sup>51</sup> Ibidem, 196

Figure 2.7



This resulted, as mentioned before, in a contraction of the monetary base, which is consistent with the fall in prices and wage compression.

Figure 2.8

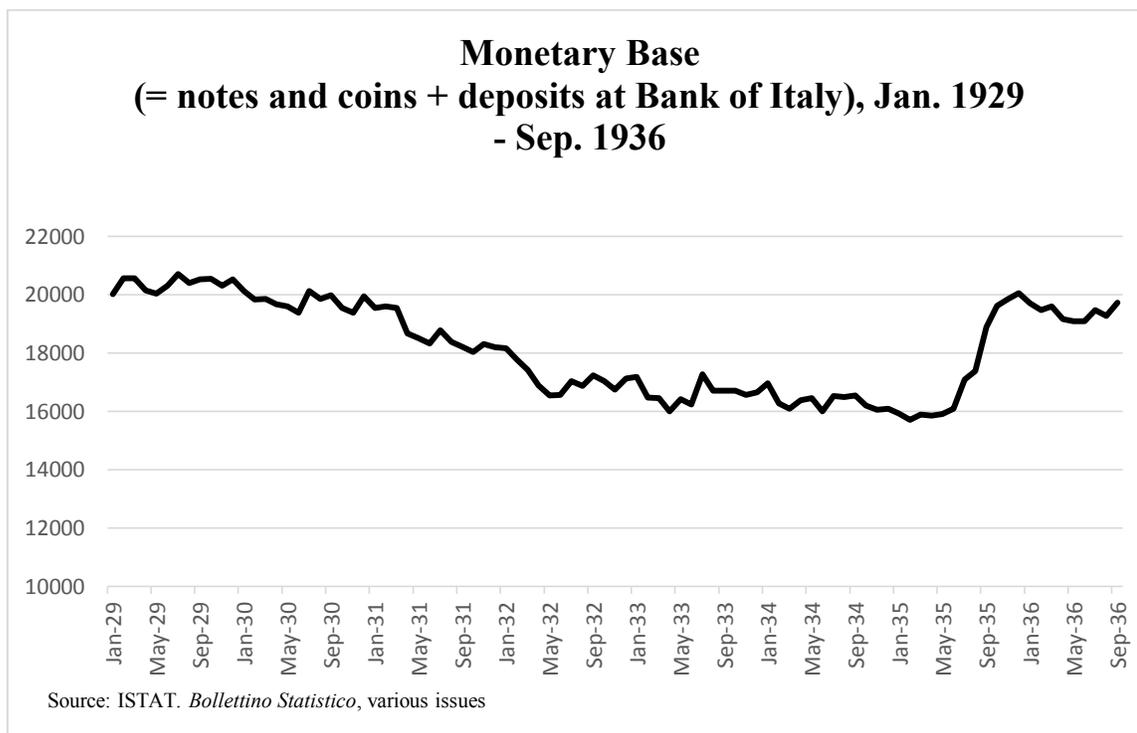
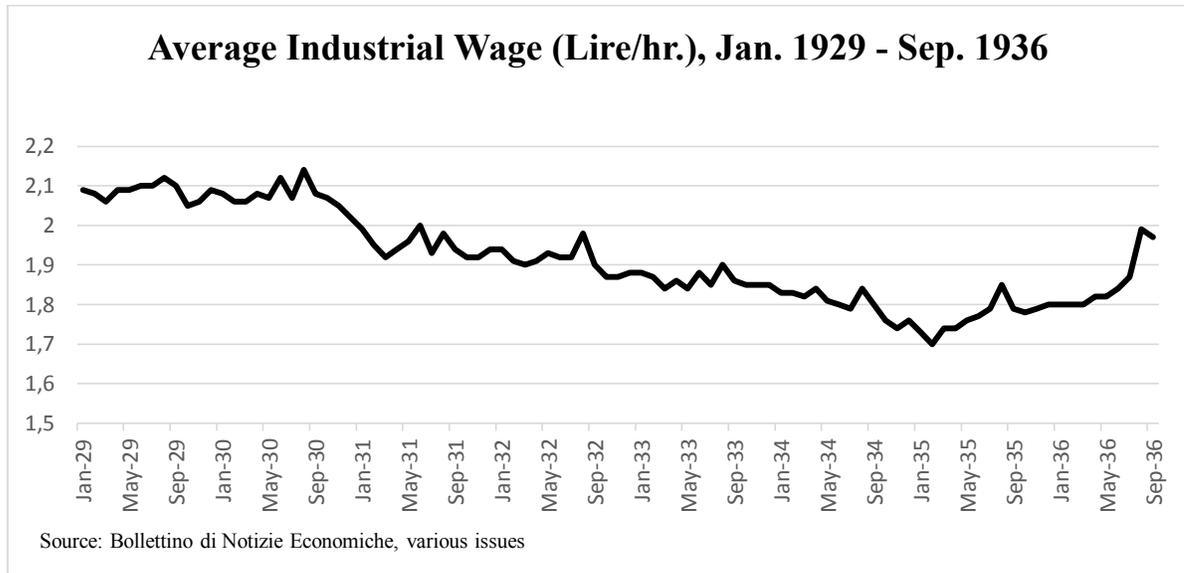


Figure 2.9



To summarize, in Italy until before the Ethiopian war liberal ideas had prevailed, both in postponing capital controls and in avoiding intervention to counteract the depression and the fall in domestic prices. At the same time, however, state intervention in the economy had spread to other fields. Thanks to the dictatorial regime a deflationary strategy could be pursued with a high exchange rate, in which a crucial element was the forced reduction of nominal incomes. It is also due to the presence of a dictatorship that it was possible to deal with the problem of banking crises in an extremely energetic and radical way.

## 2.5 Prelude to the invasion of Ethiopia

While the information provided may appear to be an extensive digression, it is crucial for contextualizing and understanding the Italian economic situation prior to the war in Ethiopia. This background is necessary to assess the impact of the sanctions that followed. Now, we will continue with the narrative of the events that led to the war in Ethiopia, as well as the League of Nations' decision to impose sanctions. This narrative will be seasoned with details of the economic measures taken by the Italian government before and after the invasion. After the aforementioned Treaty of Friendship and Arbitration signed between Italy and Ethiopia in 1928, the Italian government had not given up its ambitions to conquer Ethiopia. In a letter addressed to the Minister of Finance Giuseppe Volpi, Luigi Federzoni, at that time Minister of the Colonies, wrote that, by order of Mussolini, it was necessary to prepare all the logistics needed “in the event of a war against the

Abyssinian empire”<sup>52</sup>. By 1932, the repression of the Senussi guerrilla was completed and Libya was finally pacified. Therefore, Italy could employ its military potential elsewhere. In the late 1920s and early 1930s, in spite of the Treaty of Friendship and Arbitration, Italy was acting to undermine the integrity of the Ethiopian empire, corrupting some of the most influential members of the Abyssinian society one by one. As the anthropologist Carleton S. Coon, who was at that time in Ethiopia for scientific reasons, noticed: ”Italian designs on Ethiopia’s political integrity were, as far back as the fall of 1933, becoming increasingly obvious. The most evident external sign of this was the presence in the Ethiopian capital of numerous horsemen, Eritreans by birth, dressed in well-cut khaki uniforms, and crowned with high red fezzes surmounted by elegant pheasant plumes. These horsemen rode about fully armed, delivering messages for the Italian Legation and running its errands. It was impossible to go out upon the street without seeing at least one of them, and their presence was a constant psychological affront to Ethiopians. An innocent stranger newly arrived in Addis Ababa, and seeing these ornate messenger boys for the first time, might well imagine them to be some crack corps of native police”<sup>53</sup>.

However, in order to realize their plans, the Italians knew they needed some sort of green light from France and Britain. On 5<sup>th</sup> March 1931, the Minister of Foreign Affairs Dino Grandi said before the Grand Council of Fascism: ”It is in Africa, not in Europe, where we can find the solution of our national problem. It is about Africa that we propose to speak to France”<sup>54</sup>. In December 1931, the ambassador Raffaele Guariglia wrote in a report addressed to Grandi that “a precise agreement with France and (as of today) secondly with England is necessary to deal with Ethiopia on our own”<sup>55</sup>. Actually, in that moment an entente with France seemed the most likely and logical move. Rome could offer Paris its support against Germany, which had just retaken the Rhineland and was now threatening to annex Austria, and to give up any claim over Tunisia and West Mediterranean in exchange for French clearance for invading Ethiopia. The diplomatic dialogue between France and Italy regarding the colonial issue became more intense after Pierre Laval became prime minister in 1931. Laval was in favour of a political rapprochement with Italy in order to contain Germany<sup>56</sup>, a necessity that became more compelling after the victory of the NSDAP at

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<sup>52</sup> FUNKE, M., 1970. *Sanktionen und Kanonen*. Düsseldorf: Droste Verlag. 11

<sup>53</sup> COON, C., S., 1935. A Realist Looks at Ethiopia. *The Atlantic*, September 1935

<sup>54</sup> ASMAE, Archivio Grandi, *Relazioni di Grandi davanti il Gran Consiglio del Fascismo*, 5th March 1931

<sup>55</sup> ASMAE, Archivio Guariglia, *Relazione del Direttore Generale per gli affari politici, economici, commerciali e privati di Europa e Levante, Guariglia, al Ministro degli Esteri, Grandi*. 16th December 1931

<sup>56</sup> PALAYRET, J., 1998. *L’Alliance impossible: diplomatie et outil militaire dans les relations franco-italiennes. (1929-1938)*. PhD thesis. Strasbourg: Université Robert Schuman. 39

the German elections in 1933. During the Franco-Italian diplomatic talks, in various occasions, the French seemed to share the Italian point of view of not being rewarded enough at Versailles, and implied their willingness to offer some sort of colonial compensation to Italy. At first, the focus was on Cameroon, then on Ethiopia. In November 1932, Mussolini requested the Minister of the Colonies Emilio De Bono to prepare plans for the invasion of Ethiopia, while the Italian government was weaving the diplomatic web. A potential turning point could have been the Quadripartite Agreement, signed in Rome on 15<sup>th</sup> July 1933 between France, Italy, Britain and Nazi Germany, upon the initiative of Mussolini, whose intention was to constrain the German expansionistic threats. However, the pact was not ratified by the French parliament. While an agreement with France seemed possible, the task of convincing Britain to give Italy a free hand to invade Ethiopia appeared much more arduous. Britain, in fact, felt threatened by Italian expansionist ambitions in the Mediterranean sea and in Africa, regions where it was determined to defend the status quo that saw the British empire as hegemonic power. In January 1933, British Foreign Secretary Sir John Simon traveled to Rome to meet with Mussolini, in an attempt to resolve the issue of Ethiopia peacefully. The meeting was marked by tension and disagreement. Simon attempted to persuade Mussolini to abandon his plans for expansion in Africa and to respect the sovereignty of Ethiopia. Mussolini, however, was determined to pursue his ambitions for Italian expansion and refused to back down. On 18<sup>th</sup> May 1934 the Duce wrote the article “*Verso il riarmo*”, where he announced a rearmament plan, in the aftermath of the failure of the Geneva Conference on disarmament. In the meantime, Great Britain was negotiating with the Abyssinian emperor Haile Selassie over the concession to Ethiopia of the port of Zeila in British Somaliland in exchange for some corrections of the borders with British Somaliland, Sudan and Kenya<sup>57</sup>. The area that should have been incorporated into British Somaliland, however, included the village of Walwal, which was occupied by Italian troops, since it was in the middle of a region where the border between Ethiopia and Italian Somaliland was not well defined. When, in November 1934, the Anglo-Ethiopian commission that was defining the borders between British Somaliland and Ethiopia arrived at Walwal and found the Italian garrison, tension mounted. On 5<sup>th</sup> December 1934, the Walwal incident, which started the Abyssinian crisis, occurred. Since the statements exchanged between Italy and Ethiopia in the following days did not resolve the crisis, the Negus Haile Selassie appealed to the League of Nations for arbitration on 3<sup>rd</sup> January 1935. Mussolini, at this moment, had already decided that the Walwal incident would have been the *casus belli* of the invasion of

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<sup>57</sup> MARZARI, F., 1972. La questione etiopica. *Rivista di Studi Politici Internazionali*, Vol. 39, No. 3, 397

Abyssinia. The international situation in Europe was favourable, as France and Britain were too focused on containing Germany. On 7<sup>th</sup> January 1935, Mussolini signed an agreement with French Prime Minister Laval that foresees the correction of the borders between Libya and Chad and the transfer of a small territory from French Somalia to Italian Eritrea, but above all Italy was given free hand by the French government to occupy Ethiopia<sup>58</sup>. Meanwhile Britain and France were putting pressure on Ethiopia to not include on the agenda of the Council of the League of Nations the Abyssinian crisis, and, rather, to discuss bilaterally the issue with Italy, according to the arbitration procedure foreseen by the treaty of 1928<sup>59</sup>. However, during the diplomatic talks between the two sides, Italy was carrying on its military build-up in East Africa. On 17<sup>th</sup> March, Ethiopia appealed again not only to the arbitration procedure of the League of Nations, but also to Article 10 of the Covenant, claiming that the integrity and the independence of Ethiopia were threatened. In spite of this, the appeals of the Negus did not yield the desired results. The previous day, in fact, the German government had reintroduced the conscription, infringing the Treaty of Versailles. This fact alarmed the European great powers, which were in this moment more focused on containing Germany rather than helping Ethiopia, and they especially feared an Italo-German rapprochement. Hence, it was vital for London and Paris to keep Rome on their side. In this regard, on 14<sup>th</sup> April French prime minister Pierre-Étienne Flandin (with Pierre Laval), British prime minister Ramsay MacDonald, and Italian prime minister Benito Mussolini made an agreement in Stresa, whose purpose was essentially to show a united front against German expansionism, reaffirm the spirit of Locarno treaties and safeguard the independence of Austria. However, the arbitration procedure was still ongoing, and the credibility of the League of Nations was at stake. On one hand, had the League of Nations allowed Italy to invade Ethiopia without consequences, it would have failed in its essential purpose: preventing wars between member states. On the other hand, had Italy not been satisfied regarding the Ethiopian issue, Rome would have probably withdrawn from the League of Nations, undermining, again, its credibility (without Italy and Japan, which withdrew in 1933, France and Britain would have been the only permanent members of the Executive Council). The puzzle was not an easy one to solve. After the Conference of Stresa, Mussolini interpreted the British silence over Italian invasion plans as an acquiescence. However, the position of Britain remained ambiguous, since it was facing the trade-off between keeping good relationships with Italy and save the League of Nations credibility. Moreover, the British

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<sup>58</sup> PIAZZA, C., 1985. Pierre Laval e la politica italiana per l'Africa orientale. *Africa: Rivista trimestrale di studi e documentazione dell'Istituto italiano per l'Africa e l'Oriente*, Anno 40, No. 4, 611-636

<sup>59</sup> MARZARI, F., 1972. La questione etiopica. *Rivista di Studi Politici Internazionali*, Vol. 39, No. 3, 409

government could not openly support Italian imperialism because the public opinion was definitely against a blatant war of aggression<sup>60</sup>. On 17<sup>th</sup> May, Simon wrote a message to Mussolini marking the “deep feeling that is entertained in the United Kingdom in support of promoting the peaceful solution of international disputes by or under the League”<sup>61</sup>. On 25<sup>th</sup> May, the League came to the decision that the dispute would have been resolved by the Council if by 25<sup>th</sup> August a settlement had not been reached or if by 25<sup>th</sup> June no fifth arbitrator had been selected. The prime minister of the United Kingdom, Stanley Baldwin, said, in the early summer 1935, that the League of Nations was “the lifeline of British policy”<sup>62</sup>. This approach was legitimated by the Peace Ballot, a nationwide questionnaire in Britain of five questions meant to discover the British public's attitude to the League of Nations, completed in June 1935, which showed that 94% of the electors were in favour of economic sanctions in case of a violation of the Covenant of the League of Nations. At the end of June 1935, British Minister of Foreign Affairs Anthony Eden went to Rome and met Mussolini, offering concessions on the Ethiopian question. These latter were rejected by the Duce, who believed that a diplomatic agreement that gave Abyssinia an outlet to the sea would have been viewed as an Ethiopian victory and, hence, as an Italian defeat. By 25<sup>th</sup> July, no fifth member of the arbitration procedure had been selected, hence, on 4<sup>th</sup> August the Council met and established that the dispute concerns only the responsibility of the incident of Walwal. On 16<sup>th</sup> August a conference between France, Britain and Italy was held, where the French and the British offered Italy an exclusive economic dominance over Ethiopia, although without any political control, but once again the Italian government rejected the proposal. Meanwhile, on 3<sup>rd</sup> September, the League of Nations exonerated both sides in the Walwal incident. At this point, the Italian military build-up, which had been escalating throughout 1935, was almost over. Since it was clear, by then, that the Italian decision to invade Ethiopia was irreversible, Britain, whose policy was to enforce the Covenant of the League of Nations, had to consider the possible responses to an Italian aggression to another member state. Article 16 of the Covenant prescribed either economic or military sanctions, included the use of force against the aggressor country. A direct military involvement in a conflict against Italy was excluded, because of the feeling that France would have not come to the aid of Britain<sup>63</sup>. In late August, Mussolini informed De Bono to be ready to start an offensive at any moment after 10<sup>th</sup> September. On the same day, in Geneva, French Prime Minister Pierre

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<sup>60</sup> Ibidem, 414

<sup>61</sup> *Conclusions of Meetings of the Cabinet. Jan. 9 – June 7, 1935.* 23/81, 28(35)9. The National Archives

<sup>62</sup> TOYNBEE, A., J., 1936. *Survey of International Affairs, 1935.* London: Oxford University Press and Humphrey Milford. Vol. II, 53

<sup>63</sup> ROBERTSON, J., C., 1975. The Hoare-Laval Plan. *Journal of Contemporary History*, Vol. 10, No. 3, 436

Laval and British Foreign Secretary Samuel Hoare firstly conveyed that they “both therefore excluded the idea of war with Italy as too dangerous and double-edged for the future of Europe” and secondly that “any economic pressure upon which the League collectively decided should be applied cautiously and in stages, and with full account of the unescapable fact that the United States, Japan and Germany were not Member States of the League”<sup>64</sup>. Reassured by Laval about the British intentions to sanction Italy but without military measures like the closure of the Suez Canal and direct military intervention<sup>65</sup>, Mussolini thought that the moment for the invasion had come. On 3<sup>rd</sup> October 1935, De Bono and Graziani launched a two-pronged full-scale invasion of Ethiopia.

## 2.6 The League of Nations

In the wake of the Napoleonic era in 1815, the Concert of Europe emerged as an early effort to establish international cooperation for the sake of peace. However, its conservative stance, led by figures like Metternich, limited membership to great powers and resisted changes within member states. The Concert's demise came when members disagreed on supporting Greek independence, exposing its limitations. The breakdown of the Concert of Europe serves as a poignant precursor to the events that would unfold in the 20th century. The cataclysmic casualties inflicted by World War I prompted leaders like Jan Smuts and Woodrow Wilson to contemplate the feasibility of creating an international organization that could safeguard global peace. This visionary pursuit yielded the League of Nations, an entity with a dual mission: to preserve peace by coordinating collective action among its member states in the face of potential aggressors and to prevent major conflicts through peaceful diplomacy. However, the architects of the League of Nations failed to fully grasp that the success of such an organization hinges on the unwavering commitment and capability of all members, particularly the major powers, to enforce the rule of law and, if necessary, impose sanctions against nations displaying aggressive tendencies. It is essential to recognize that the mere threat of collective action could often suffice to deter smaller states from pursuing aggressive policies. The League of Nations, therefore, can be viewed as a response to the pressing need for a remedy against the looming specter of international anarchy. As we delve into the annals of history, it becomes evident that the quest for lasting global peace is a journey marked

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<sup>64</sup> VISCOUNT TEMPLEWOOD, 1954. *Nine Troubled Years*. London: Collins. 168-169

<sup>65</sup> MARZARI, F., 1972. La questione etiopica. *Rivista di Studi Politici Internazionali*, Vol. 39, No. 3, 431

by challenges, learning from past mistakes, and an unwavering commitment to the principles of cooperation, diplomacy, and collective security.

The League of Nations was formally established on 10<sup>th</sup> January 1920. Its inaugural Assembly session commenced on 15<sup>th</sup> November 1920, in Geneva, Switzerland, with the participation of 41 member states. This assembly encompassed a significant number of existing states, accounting for over 70% of the world's population. The League's fundamental objectives were outlined in its Covenant, which included preventing conflicts through collective security, promoting disarmament, and resolving international disputes through negotiation and arbitration. The League also addressed various global issues, such as labor conditions, the fair treatment of indigenous populations, combatting human and drug trafficking, regulating the arms trade, promoting global health, ensuring the rights of prisoners of war, and safeguarding minority rights in Europe. The Covenant of the League of Nations was formally endorsed on 28<sup>th</sup> June 1919, as Part I of the Treaty of Versailles. It became effective alongside the rest of the Treaty on 10<sup>th</sup> January 1920. The inaugural meeting of the League's Council occurred on 16<sup>th</sup> January 1920, while the first Assembly meeting convened on 15<sup>th</sup> November 1920. In recognition of his pivotal role as the chief architect of the League, U.S. President Woodrow Wilson was awarded the Nobel Peace Prize in 1919. Out of the League's original 42 founding members, 23 (or 24 if we include Free France) remained steadfast members until the League's dissolution in 1946. In its inaugural year, six additional states joined, yet only two of them remained members throughout the League's existence. Germany, under the Weimar Republic, gained admission to the League of Nations through a resolution passed on 8<sup>th</sup> September 1926.

Subsequently, an additional 15 countries joined at various points in time. The highest number of member states reached 58 between 28<sup>th</sup> September 1934 (with Ecuador's accession) and 23<sup>rd</sup> February 1935 (when Paraguay withdrew). On 26<sup>th</sup> May 1937, Egypt became the final state to join the League. The first member to permanently withdraw from the League was Costa Rica, departing on 22<sup>nd</sup> January 1925, just over a month after joining on 16<sup>th</sup> December 1920, making it the quickest withdrawal. Brazil was the first founding member to withdraw (on 14<sup>th</sup> June 1926), while Haiti was the last (in April 1942). Iraq, which had joined in 1932, was the first member that had previously been a League of Nations mandate. Notably, the Soviet Union became a member on 18<sup>th</sup> September 1934, only to be expelled on 14<sup>th</sup> December 1939, due to its invasion of Finland. The League's decision to expel the Soviet Union, however, violated its own rules, as only 7 of the 15 Council members voted for expulsion. These seven included the United Kingdom, France, Belgium,

Bolivia, Egypt, South Africa, and the Dominican Republic. Importantly, three of these members had been appointed to the Council just a day before the expulsion vote (South Africa, Bolivia, and Egypt). This expulsion marked one of the League's final actions before it essentially ceased functioning due to the outbreak of the Second World War.

The League of Nations comprised several key constitutional organs:

- The **Assembly** was composed of representatives from all member states, with each nation being permitted to have up to three representatives and one vote. The Assembly held its meetings in Geneva, Switzerland, and, following its initial sessions in 1920, it convened once a year, typically in September. The Assembly had specific responsibilities that included admitting new members to the League, periodically electing non-permanent members to the Council, jointly selecting judges for the Permanent Court of International Justice along with the Council, and overseeing the League's budget. In practice, the Assembly played a pivotal role as the central guiding force behind the activities and initiatives of the League of Nations;
- The **Council**, whose composition underwent several changes during its existence. Initially, the number of non-permanent members was increased to six on 22<sup>nd</sup> September 1922, and further expanded to nine on 8<sup>th</sup> September 1926. Germany, under the advocacy of Werner Dankwort, joined the League in 1926 and became the fifth permanent member of the Council. Subsequently, following the departures of Germany and Japan from the League, the number of non-permanent seats was once again modified, this time raised from nine to eleven. Additionally, the Soviet Union was granted permanent membership, bringing the total number of Council members to fifteen. The Council convened, on average, five times a year, and it held extraordinary sessions as needed to address pressing international matters. These changes in Council composition reflected the League's efforts to adapt to evolving geopolitical circumstances and its commitment to maintaining an inclusive and balanced representation of member states;
- The **Permanent Secretariat**, headquartered in Geneva, was comprised of a group of experts in various fields, operating under the guidance of the Secretary-General. It was organized into several principal sections, each focused on specific areas of expertise. These sections included Political, Financial and Economic, Transit, Minorities and Administration (which oversaw the Saar and Danzig), Mandates, Disarmament, Health,

Social (dealing with issues such as opium and trafficking in women and children), Intellectual Cooperation and International Bureaux, Legal, and Information. The Secretariat staff played a crucial role in the functioning of the League. They were responsible for tasks such as preparing the agendas for the Council and the Assembly, publishing reports of meetings, and handling routine administrative matters. Essentially, the Secretariat functioned as the League's civil service, ensuring the smooth operation of the organization;

- The **Permanent Court of International Justice**, whose judges were elected through a collaborative process involving both the Council and the Assembly, and its financial resources were provided by the Assembly. The primary function of the Permanent Court of International Justice was to hear and make judgments on any international disputes that the involved parties voluntarily submitted to it. Additionally, the Court had the authority to provide advisory opinions on disputes or questions referred to it by either the Council or the Assembly. Access to the Court was open to all nations worldwide, subject to certain broad conditions, demonstrating the League's commitment to promoting international justice and peaceful dispute resolution on a global scale.
- The **International Labour Organization**;
- Various auxiliary agencies and bodies, contributing to the League's multifaceted mission.

Crucially, the budget for each of these organs was determined and allocated by the Assembly, with financial support for the League being provided by its member states. This financial backing enabled the League to carry out its diverse range of activities and initiatives aimed at promoting peace, cooperation, and international justice. The relationship between the Assembly and the Council within the League of Nations was characterized by a certain degree of flexibility, as their competencies were not rigidly defined. Both bodies had the authority to address any issue falling within the League's sphere of competence or any matter affecting global peace. Specific questions or tasks could be referred to either the Assembly or the Council, allowing for adaptability and responsiveness to the various challenges and crises that arose during the League's existence. This flexibility allowed the League to tackle a wide range of international issues and conflicts in pursuit of its mission to maintain peace and promote cooperation among nations. In both the Assembly and the Council of the League of Nations, unanimity was the standard requirement for making decisions, except in certain cases like matters of procedure and the admission of new members. This emphasis on unanimity reflected the League's core principle of respecting the sovereignty of

its member nations. The League's approach was based on seeking solutions through consent rather than dictation. Importantly, in cases of disputes, unanimous consent from the parties involved was not needed. This allowed the League to take action even when the parties in conflict did not agree, enabling it to play a role in mediating and resolving international disputes for the sake of global peace and stability.

The League of Nations worked according to the aforementioned Covenant. In the following pages a short summary of the main articles is provided.

Article 1 of the Covenant of the League of Nations outlined the conditions under which new member states could join the organization. Initially, the Covenant listed the forty original member states in an Annex. Other states could become members if a two-thirds majority of the General Assembly, composed of all existing members, voted to admit them. Importantly, there was no provision for larger states to exercise a veto over new admissions. However, regulations could be established to govern the military forces and armaments of the applicant state. In theory, this meant that the League of Nations had the potential to become a universal organization, open to all nations, provided they met the specified criteria.

Article 3 of the Covenant of the League of Nations granted significant authority to the League's Assembly. It empowered the Assembly to address "any matter within the sphere of action of the League of Nations affecting the peace of the world." In theory, any member of the League had the right to request that a particular matter be included on the Assembly's agenda, as long as the Secretary-General deemed it relevant to the terms of Article 3.

Under Article 4 of the Covenant of the League of Nations, the Council had a structure that, in many ways, resembled the modern United Nations Security Council. It included both permanent and non-permanent members. The Council's mandate was essentially the same as that of the Assembly, allowing it to address matters within the League's sphere of action that affected global peace. Importantly, the Council had the authority to take action even when the Assembly was not in session. Additionally, it could convene special extraordinary sessions of the Assembly when necessary.

Article 5 of the Covenant of the League of Nations stipulated that decisions made at Council or Assembly meetings would typically require unanimous agreement from all members of the League represented at the meeting, except for matters of procedure, where a simple majority of members

present would suffice. While this unanimity rule was a fundamental aspect of the League's decision-making process, it was also regarded as one of its significant weaknesses. The unanimity requirement often led to extensive behind-the-scenes lobbying and negotiations among member states. Consequently, it could result in resolutions that were intentionally watered down or made innocuous to secure unanimous support. Members who did not support a particular resolution might choose to abstain from voting rather than openly opposing it. This practice could mask the true level of approval or disapproval among member states, and it was seen as a limitation on the League's ability to take decisive and swift action in certain situations.

Article 10 of the Covenant of the League of Nations represented a significant commitment by member states. Under this article, League members pledged to uphold and safeguard the territorial integrity and existing political independence of all other members of the League. This commitment was specifically directed at countering external aggression, emphasizing the collective security aspect of the League's mission. In essence, Article 10 sought to create a framework where member states stood together to protect one another from external threats, thereby promoting global stability and peace by deterring acts of aggression.

Article 11 of the Covenant of the League of Nations asserted that "war or a threat of war is a matter of concern to the whole League, and that the League shall take any action that shall be deemed wise and effectual to safeguard the peace of Nations." Initially, when larger states were inclined to adhere to the principles of the Covenant, the League experienced some modest successes in resolving international disputes. These successes included settling the Albanian frontier dispute in 1920, addressing the Anglo-Turkish dispute over Mosul in 1924, and resolving the Bulgarian-Greek frontier dispute in 1925. However, as time went on and countries like Japan, Italy, and Germany pursued policies based on aggression and territorial expansion, the limitations of the League of Nations became increasingly evident. The League's inability to prevent or effectively respond to acts of aggression by these nations exposed its weaknesses and contributed to its declining influence in international affairs.

Article 12 of the Covenant of the League of Nations outlined a key commitment of member states. According to this article, member states agreed to submit disputes to arbitration or to an inquiry by the League's Council. Importantly, they further committed not to resort to war as a means of settling disputes until at least three months after the arbitrators had made their award or the Council had issued its report on the matter. This provision reflected the League's core principle of using peaceful

means to resolve international conflicts and prevent armed conflicts. By requiring member states to adhere to a waiting period after arbitration or inquiry, it aimed to allow time for diplomatic efforts and mediation to work before resorting to military action, thereby promoting the peaceful settlement of disputes.

Article 13 of the Covenant of the League of Nations envisioned that disputes arising from the interpretation of treaties or questions related to international law should be resolved through arbitration. However, in practice, this article was often applied to relatively minor disputes and issues.

Articles 15 and 16 of the Covenant of the League of Nations outlined a comprehensive procedure for settling disputes. They also considered the possibility of implementing economic and, ultimately, military sanctions against nations that violated the Covenant's principles. However, the effectiveness of these articles depended on the genuine determination of member states to prevent aggression by actively enforcing these sanctions. In practice, the League's ability to mobilize member states and apply sanctions effectively faced significant challenges, particularly when major powers pursued aggressive policies.

## **2.7 Economic sanctions**

On 7<sup>th</sup> October 1935 the League formally declared Italy the aggressor, having violated Article 12 of the Covenant. On 11<sup>th</sup> October the Committee of Sixteen proposed to remove the embargo on the export of arms (which had been declared by Britain in July) to Ethiopia and to maintain it for Italy. On 14<sup>th</sup> October the same Committee (which had now become the Committee of Eighteen) proposed the implementation of financial sanctions. On 19<sup>th</sup> October it was the turn of the prohibition of importing goods from Italy and the adoption of an embargo on exports to Italy<sup>66</sup>. It was also proposed to put an embargo upon the export of oil and related products, coal, pig iron and steel to Italy on 2<sup>nd</sup> November, but the decision was deferred to a later discussion. In particular, financial sanctions were meant to make it impossible: buying Italian government bonds, all bank loans to the Italian government, all loans destined to institutions or physical people based in Italy, all equity purchases of companies and organizations based in Italy.

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<sup>66</sup> *League of Nations Official Journal*, Spl. Supp., No. 145, pp. 14-27

Talking about economic sanctions in a strict sense, banned commodities were: all goods (other than gold or silver bullion and coin) consigned from or grown, produced or manufactured in Italy or Italian possessions, from whatever place arriving and goods grown or produced in Italy or Italian possessions which have been subjected to some process in another country, and goods manufactured partly in Italy or Italian possessions and partly in another country unless 25% or more of the value of the goods at the time when they left the place from which they were last consigned is attributable to processes undergone since the goods last left Italy or Italian possessions. More important were the ban on exports to Italy, since the lack of certain commodities was the decisive factor that would hinder the Italian capability to continue the war. Not all exports to Italy were proposed to be banned. The ban included: horses, mules, donkeys, camels and all other transport animals, rubber, aluminium, bauxite, iron, chromium, manganese, nickel, titanium, tungsten and vanadium in their crude forms.

On 6<sup>th</sup> November the Committee of Eighteen decided in favour of an embargo on the export of petroleum and related products to Italy, but the adoption of that was postponed because the delegations of France and Great Britain claimed that they were negotiating with Rome for a settlement that could be acceptable “to all three parties of the controversy [...] the League, Ethiopia and Italy”<sup>67</sup>. On 18<sup>th</sup> November the sanctions became effective. The Committee was summoned again on 29<sup>th</sup> November to examine the embargo upon petroleum, coal, iron, steel and other raw materials, but such meeting was postponed until 12<sup>th</sup> December, officially because Laval could not attend it, having urgent matters to take care of in Paris. In reality, France and Britain were secretly trying to arrange a solution for the conflict, hearing also the opinion of the Italian ambassador in London, Dino Grandi<sup>68</sup>. Finally, an agreement between France and Britain was reached, and the so-called Hoare-Laval pact took shape. The pact was essentially offering a partition of Ethiopia, that conceded Italy Adwa, Adigrat, the strip of Tigray leading to and including Makale, a small territory on the Danakil-Eritrean frontier and a significant portion of Ogaden, including Walwal. The area of Italian economic monopoly in South-Western Ethiopia was extended to take in the whole of Southern Ethiopia<sup>69</sup>. However, the agreement, which was made secretly, was leaked and, on 9<sup>th</sup> December, French newspapers *L'Oeuvre* and *L'Echo de Paris* published the plan, followed by some London evening papers<sup>70</sup>. This created a wave of indignation in Britain, both from the

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<sup>67</sup> *League of Nations Official Journal*, Spl. Supp., No. 146, p. 9

<sup>68</sup> ROBERTSON, J., C., 1975. The Hoare-Laval Plan. *Journal of Contemporary History*, Vol. 10, No. 3, 439

<sup>69</sup> *Ibidem*, 440

<sup>70</sup> *Ibidem*, 445

Labour Party and from the ruling Conservative Party. On 17<sup>th</sup> December, at a Conservative Foreign Affairs Committee meeting, Sir Austen Chamberlain delivered a speech against the Hoare-Laval pact<sup>71</sup>. Every other speaker supported this view. As a result, Hoare was forced to resign. In France, the plan met the strong opposition of the Popular Front when it was discussed in the Chamber of Deputies on 27<sup>th</sup> and 28<sup>th</sup> December. In the following weeks, a government crisis occurred and the defection of the Minister of State Édouard Herriot and other radical ministers obliged Laval to resign on 22<sup>nd</sup> January 1936. Despite the abortion of the Hoare-Laval plan, in December 1935 no progress about the sanctions on coal and oil was achieved. The decision on whether to sanction oil and coal exports to Italy was postponed on 12<sup>th</sup> December, with the excuse of needing more time to reach an agreement with Italy and Ethiopia to resolve the dispute, and again on 19<sup>th</sup> December, with the motivation that more time is needed by the Committee of Experts to examine the impact of the sanctions in force<sup>72</sup>. On 23<sup>rd</sup> January the Committee of Thirteen presented to the Council a report that contained its examination of the situation on the basis of the mandate given by the resolution of the Council of 19<sup>th</sup> December 1935. In that report the Committee of Thirteen did not reply directly to the request of the Ethiopian Government for the application of an embargo on oil and other sanctions. It only noted that such measures were being considered by the Coordination Committee and by the Committee of Eighteen<sup>73</sup>. The day before this meeting, on 22<sup>nd</sup> January, the Committee of Eighteen decided to form a subcommittee with the task of studying the technical aspects of an embargo on oil to Italy. This latter subcommittee delivered on 12<sup>th</sup> February a report estimating that a period of three to three and one-half months would be needed before an embargo on the export of petroleum and related products to Italy could be effective, but only if the United States, which were not part of the League, limited their oil export to Italy to the level prior to 1935<sup>74</sup>. The Committee of Eighteen met afterwards once again on 2<sup>nd</sup> March to decide upon the embargo on petroleum. However, the French delegation, led by Flandin, suggested that before putting an oil embargo another attempt of reconciliation between Italy and Ethiopia should be made<sup>75</sup>. The following day, the Committee of Thirteen met, sending an appeal to Italy and Ethiopia to open negotiations in the framework of the League of Nations. The two sides declared that they were open to negotiations, but did not cease to fight. On 10<sup>th</sup> March the Committee of Thirteen should have gathered to examine the answers of Italy and Ethiopia to the aforementioned appeal,

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<sup>71</sup> *Ibidem*, 453

<sup>72</sup> *League of Nations Official Journal*, Spl. Supp., No. 147, 11

<sup>73</sup> *League of Nations Official Journal*, 1936, 106

<sup>74</sup> *League of Nations Official Journal*, Spl. Supp., No. 148, 67

<sup>75</sup> *League of Nations Official Journal*, Spl. Supp., No. 149, 13

however, the meeting never took place because in the meantime, on 7<sup>th</sup> March, Germany denounced the Treaty of Locarno, remilitarizing Rhineland and provoking a major diplomatic crisis in Europe. On 21<sup>st</sup> April, De Vasconcellos, Chairman of the Co-ordination Committee, claimed that sanctions were working, and reduced Italian exports by 50%<sup>76</sup>. Actually, in November 1935 Italian exports amounted to 17,03 millions of gold dollars, by February 1936 the exports had dropped to 5,86 millions of gold dollars.<sup>77</sup>

Table 2.4

| SANCTION TYPE  | ENFORCING COUNTRIES (as of 30 <sup>th</sup> January 1936)   |
|--|---|
| PROPOSAL I: arms embargo   | 52 governments accepted it. Guatemala accepted in principle. Salvador accepted but considered unnecessary to apply. Albania, Austria, Hungary and Paraguay did not accept it.   |
| PROPOSAL II: financial measures  | 52 governments accepted it. Guatemala accepted in principle. Salvador accepted but considered unnecessary to apply. Uruguay submitted the proposal before the Parliament. Panama will take necessary measures. Albania, Austria, Hungary and Paraguay did not accept it.  |
| PROPOSAL III: prohibition of importation of Italian goods                | 50 governments accepted it. Guatemala accepted in principle. Argentine drafted the bill for the Parliament. Panama will take necessary measures. Nicaragua and Uruguay submitted the proposal before the Parliament. Venezuela was still considering it. Albania, Austria, Hungary, Paraguay and Switzerland did not accept it. |
| PROPOSAL IV: embargo on certain exports to Italy                         | 51 governments accepted it. Guatemala accepted in principle. Nicaragua submitted the proposal before the Parliament. Salvador accepted but considered unnecessary to apply. Panama will take necessary measures. Venezuela was still considering it. Albania, Austria, Hungary and Paraguay did not accept it.                  |
| PROPOSAL V: organization of mutual support between sanctioning countries | 46 governments accepted it. Argentine, Nicaragua and Switzerland did not reply explicitly. Cuba, Ecuador and Peru   |

<sup>76</sup> *League of Nations Official Journal*, Spl. Supp., No. 149, 41

<sup>77</sup> *League of Nations Official Journal*, Spl. Supp., No. 149, 48

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|  | were still considering it. Albania, Austria, Hungary and Paraguay did not accept it. |
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The previous day, the Council had adopted a resolution where it declared that the efforts of the Committee of Thirteen to bring Italy and Ethiopia to a reconciliation had not succeeded. In addition, another final appeal was addressed to Italy so that a pacific settlement of the dispute with Ethiopia was reached. Furthermore, it was decided to procrastinate, once again, the decision upon the oil embargo, in order to wait for the outcome of the French elections that would be held in the first week of May 1936<sup>78</sup>. In the meantime, the attitude of the fiercest upholder of the sanction policies, Great Britain, was changing. If on 2<sup>nd</sup> March, at the meeting of the Committee of Thirteen, Anthony Eden said Britain was “prepared to accept any decision to which the Committee of Eighteen might come”, and made it clear that “His Majesty’s Government was in favour of the imposition of an oil embargo by the Members of the League, and was prepared to join in the early application of such a sanction if the other principal supplying and transporting States who were Members of the League of Nations were prepared to do likewise”<sup>79</sup>, by the middle of May Prime Minister Baldwin declared that “such sanctions are unlikely to succeed unless the countries concerned are prepared to run the risk of war”<sup>80</sup>. Thus, clearly the British government was becoming more and more pessimistic about the effectiveness and political opportunities of keeping the economic sanctions. On 20<sup>th</sup> July the French government announced its intention to remove the sanctions imposed on Italy<sup>81</sup>. The sanctionist front was gradually collapsing, since the two major powers of the League of Nations were now reluctant to continue sanctioning Italy. In fact, by that time, the Italian campaign in Ethiopia was over and the Ethiopian empire de facto had already collapsed. On 2<sup>nd</sup> May the Negus Haile Selassie left the country. On 5<sup>th</sup> May the Italian army entered Addis Ababa and raised the Italian flag over Villa Italia, the Italian embassy. On 7<sup>th</sup> May Italy officially annexed Ethiopia and two days later Victor Emmanuel III was proclaimed Emperor of Abyssinia. The Italian victory over the army of the Negus was completed, even though the Abyssinian resistance of the Arbegnoch had not been repressed yet. The Assembly of the League of Nations met again on 30<sup>th</sup> June, upon request by Argentina, to discuss the non-recognition of the

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<sup>78</sup> SPENCER, H., J., 1937. The Italian-Ethiopian Dispute and the League of Nations. *The American Journal of International Law*, Vol. 31, No. 4, 636

<sup>79</sup> *League of Nations Official Journal*, Spl. Supp., No. 149, 13

<sup>80</sup> *London Times*, May 15, 1936

<sup>81</sup> *Le Temps*, June 20, 1936

Italian annexation of Ethiopia and the removal of the economic sanctions. The opinion of the United Kingdom was that "this Assembly should not in any way recognise Italy's conquest over Ethiopia"<sup>82</sup>. However, this attitude was not shared by many Member States, so that, in the end, no definitive resolution about the non-recognition of the Italian annexation of Ethiopia was adopted by the League. On the removal of the sanctions, most countries were in favour of putting an end to the sanctionist policy, agreeing that the mechanism of collective security promoted by the League had failed. Finally, on 6<sup>th</sup> July 1936, the Co-ordination Committee adopted a resolution which stated that the Member States of the League should remove the sanctions against Italy. The following 15<sup>th</sup> July the removal of the sanctions became effective.

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<sup>82</sup> *League of Nations Official Journal*, Spl. Supp., No. 151, 34

### 3 Theoretical constructs and hypotheses

In this section we try to provide a theoretical forecast of the impact of the economic sanctions that were inflicted to Italy by the League of Nations. In order to do so, 9 determinant factors, already mentioned in paragraph 2.2, are taken into consideration: trade linkage, sanction duration, prior relations, size of sender and target countries, types of sanctions, economic health and political stability of target country, cost of sanctions to target, cost of sanctions to sender, international cooperation against the target or international assistance to the target. Hufbauer, Schott, Elliott, and Oegg (2008) identified these determinant factors. Before we begin, a caveat is necessary: estimating certain factors can be challenging due to the difficulty of objective measurements or a lack of data; therefore, in some cases, in this chapter, it will be necessary to make approximate assumptions, as realistic as possible.

#### 3.1 Trade linkage

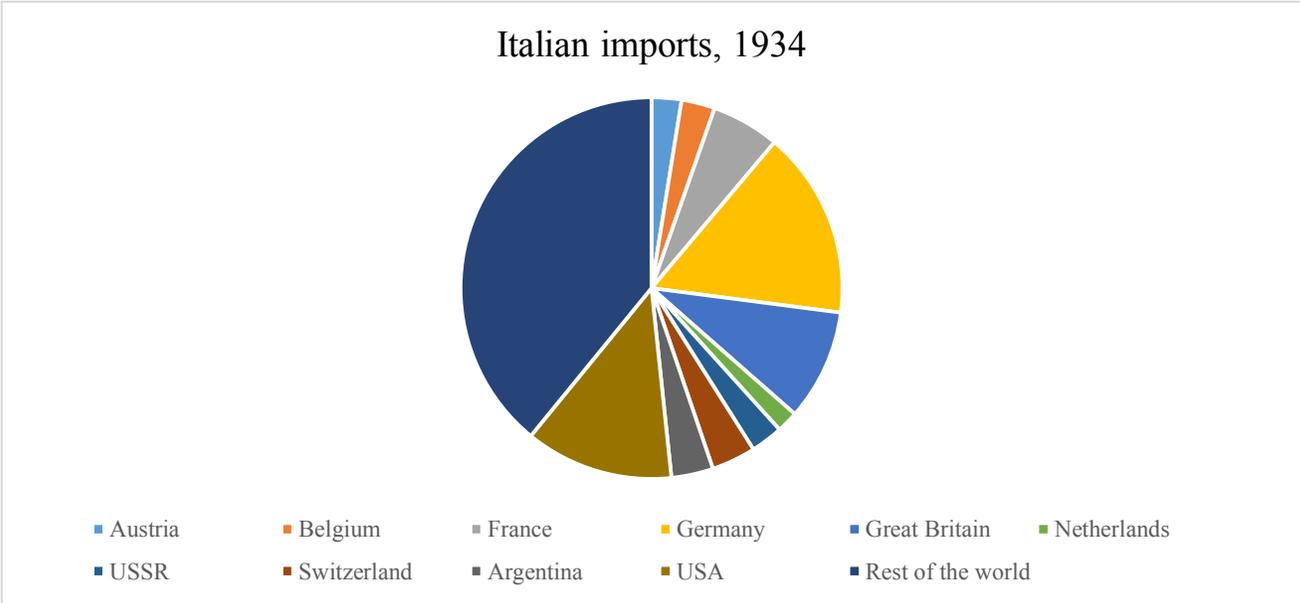
Trade linkage in absolute term is the value of the goods that are exchanged between two countries, namely the sum of the value of imports from and exports to a given country. In relative terms it is the percentage of the trade that a country has with another relatively to the total amount of trade with the rest of the world, hence, its formula is the absolute value of traded goods with one country divided by the absolute value of all traded goods with any country. According to Hufbauer, Schott, Elliott, Oegg (2008), in most successful cases of economic sanctions, the relative trade linkage between sender and target country was 33%. In the case study of this work, where there are several sender countries, we focus on Italy's main trade partners in the 30s. In 1934, Italy imported 2,5% of its imports from Austria, 2,8% from Belgium, 5,7% from France, 15,7% from Germany, 9,3% from Great Britain, 1,8% from the Netherlands, 2,7% from the USSR, 3,7% from Switzerland, 3,5% from Argentina, 12,4% from the USA, the remaining 38,6% from the rest of the world<sup>83</sup>. Among those countries, France, Britain, the Netherlands, the USSR, Argentina and Switzerland complied with proposal IV that prohibited the exports of certain goods to Italy. Summing the share of trade of each country enlisted above, without considering the rest of the world, we find that, in 1934, sanctioning countries share more than 29,5% of Italy's imports. Considering that the share of imports from the rest of the world is quite high, surely the threshold of 33% of trade linkage

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<sup>83</sup> FEDERICO, G., NATOLI, S., TATTARA, G., VASTA, M., 2011. *Il commercio estero italiano. 1862-1950*. Bari: Editori Laterza, Tab. 4a, Appendice

between sender and target is overtaken. However, not every good was subjected to the embargo. Banned commodities were only: horses, mules, donkeys, camels and all other transport animals, rubber, aluminium, bauxite, iron, chromium, manganese, nickel, titanium, tungsten and vanadium in their crude forms. The share of imports of live animals from countries that would then apply sanctions with respect to the absolute value of imports of live animals was roughly 85% in 1934, and 4% of the total value of imports. On the other hand, we do not have separate data for rubber and minerals, however, we have data for imports belonging to SITC 2 (Standard International Trade Classification), “crude materials, inedible, except fuels”, which includes, among other items, rubber, aluminium, bauxite, iron, chromium, manganese, nickel, titanium, tungsten and vanadium. The share of imports of SITC 2 commodities from future sender countries with respect to the absolute value of imports of SITC 2 goods from any country was roughly 70% in 1934, and 9% of total imports. Therefore, less than 15% of Italian imports were hit by the sanctions, though sanctioned sectors were affected so dramatically that the embargo might have caused serious shortages of live animals and minerals. The successfulness of the embargo on the imports would depend, firstly, on the ability of the Italian government of finding new suppliers and, secondly, on the international cooperation against the target country, which will be examined later.

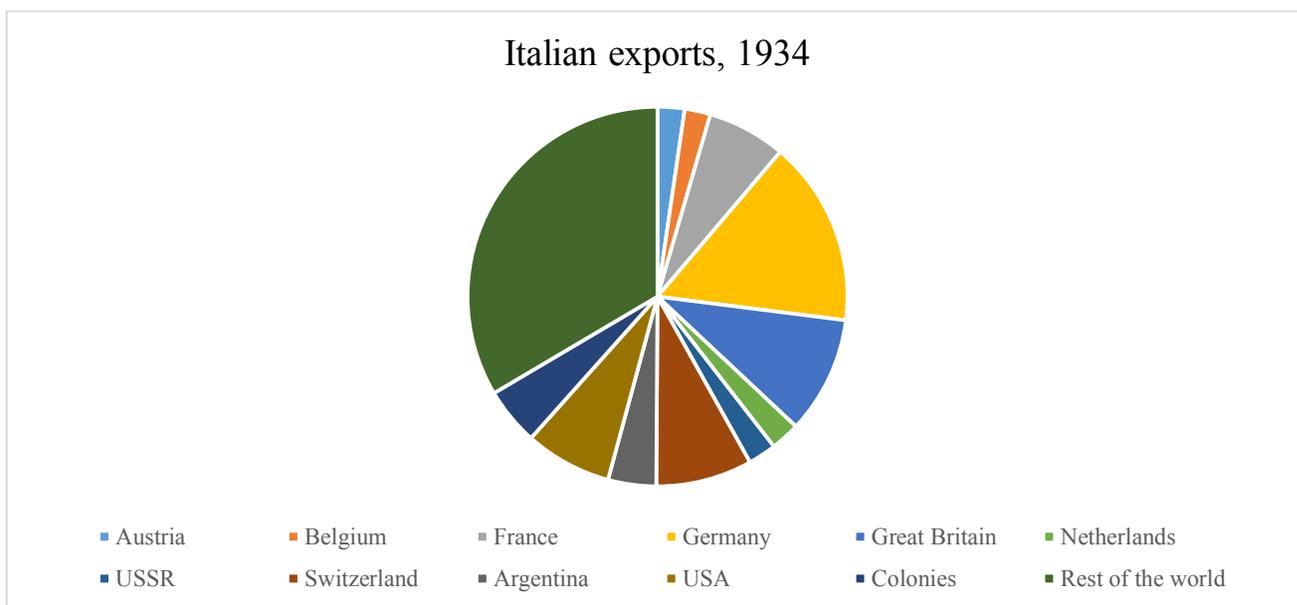
Figure 3.1



Speaking of exports, Italy exported, in 1934, 2,3% of its exports to Austria, 2,2% to Belgium, 6,7% to France, 15,8% to Germany, 10% to Great Britain, 2,5% to the Netherlands, 2,4% to the USSR, 8,2% to Switzerland, 4,1% to Argentina, 7,4% to the USA, 4,9% to the colonies, 33,5% to the rest

of the world<sup>84</sup>. Among the enlisted countries, Belgium, France, Britain, the Netherlands and the USSR complied with proposal III on the embargo on imports from Italy. Thus, virtually about 50% of Italian exports could be affected by the sanctions, which is actually the same amount the Co-ordination Committee estimated on 21<sup>st</sup> April 1936<sup>85</sup>.

Figure 3.2



From the aforementioned data on imports and exports with the sender countries, it appears that the embargo could hamper especially the heavy industry and the food and breeding sector, but it seemed clear, from the very beginning, that the sanctions would unlikely oblige Italy to withdraw from Ethiopia. On the other hand, one might think that the embargo on Italian exports could have had a huge negative impact on Italy's balance of trade, but that was not the case. Italy succeeded, mainly through the government's policy of drastic import limitation, in maintaining its trade balance almost unchanged. In fact, the drastic reduction in the volume of Italy's exports during the depression and the following unbalance in the country's international accounts, caused, in 1934, the adoption of the elaborate system of import licenses, which strongly limited importations<sup>86</sup>. That was the so-called autarky, firmly boosted by the regime.

<sup>84</sup> Ibidem, Tab. 4b, Appendice

<sup>85</sup> *League of Nations Official Journal*, Spl. Supp., No. 149, 41

<sup>86</sup> WELK, W., G., 1937. League Sanctions and Foreign Trade Restrictions in Italy. *The American Economic Review*, Vol. 27, No. 1 (Mar., 1937), 96- 107

## 3.2 Sanction duration

As it was narrated in the previous chapter about the historical review of the League of Nations economic sanctions, the embargo became effective on 18<sup>th</sup> November 1935 and were lifted on 15<sup>th</sup> July 1936. Thus, the sanctions had been formally effective for 8 months. This data, alone, does not tell much about the impact of the sanctions. Before in this essay it was claimed that sanctions tend to decrease their effectiveness with the passage of time, because the target country has the opportunity to adjust, find alternative suppliers, re-allocate its resources to modify its logistics and adapt its industrial apparatus to increase the supply of sanctioned items. It was also pointed out that sanctions imposed quickly and decisively are more likely to be effective than sanctions imposed gradually and slowly. As regards our case study, sanctions were not imposed so promptly. In fact, after the start of the invasion on 3<sup>rd</sup> October 1935, 6 weeks passed before sanctions were approved by the League of Nations, and the Italians were already expecting the incoming sanctions. On 31<sup>st</sup> August 1935, Mussolini, in response to the possibility of an embargo to Italy, declared that Italy “will go it alone”, anticipating the autarkic measures. Moreover, Italian production of bauxite (from which aluminium is produced) increased from 170 thousand tons to 262 thousand tons between 1935 and 1936<sup>87</sup>, manganese production increased from 9 thousand tons to 24 thousand tons in the same period, iron production from 550 thousand to 839 thousand. Thus, the Italian industry rapidly adjusted to the import limitations increasing rapidly its production of certain goods. However, since the Italian peninsula is a land poor of raw minerals, Italy was still depending on foreign trade to meet its industrial demand, especially for nickel, tungsten and chromium. Rubber was also another essential product, of which Italy was importer. In 1936 projects of production of plant-based rubber were developed, whose result could nonetheless not be seen in less than 6 years. Another possible solution to the lack of rubber was the development of an industry of artificial rubber<sup>88</sup>. In general, the chemical industry received a great impulse in production and research and development. Though the sanctions hit goods that Italy had necessarily to import, data of Italian imports of the sanctioned items before and after the sanctions suggest that the Italian economy never ran out of those commodities. In particular, the imports of raw minerals constantly increased throughout the 1930s. In 1932 the value of imported raw minerals was 2.980 million of lire, 3.146 million in 1933, 3.458 million in 1934, 3.442 million in 1935, 5.989 million in 1937. At the same time the exports

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<sup>87</sup> ISTAT, 1968. *Sommario di statistiche storiche dell'Italia. 1861-1965*. Roma

<sup>88</sup> TRECCANI, available at: [https://www.treccani.it/enciclopedia/l-italia-e-l-autarchia\\_%28II-Contributo-italiano-alla-storia-del-Pensiero:-Tecnica%29/](https://www.treccani.it/enciclopedia/l-italia-e-l-autarchia_%28II-Contributo-italiano-alla-storia-del-Pensiero:-Tecnica%29/)

of raw minerals increased from 474 million to 969 million in the same period<sup>89</sup>. To sum up, it is very likely that 8 months of economic sanctions were not enough to undermine the Italian industrial output significantly, but on the contrary it only stimulated the Italian economy to increase its domestic production without depleting its stocks (also due to the presence of alternative suppliers such as Germany). It was estimated that the effects of the sanctions would have become serious a year after their imposition, as Lord Davies pointed out at the Lords Sitting of 19<sup>th</sup> December 1935: "the Government must have known that financial and economic sanctions work slowly. They cannot be expected to produce immediate results and they can only become decisive in the long run". In addition, the incapability of the League of Nations to impose an embargo on oil and coal prevented any chance of paralyzing the Italian industrial apparatus and its war machine<sup>90</sup>.

### 3.3 Prior relations

While it was not hard to give a quantitative measure of trade linkage and sanction duration, when it comes to evaluate prior relations the matter becomes much more difficult. It is, obviously, not possible to provide objective and certain data about the relations between two powers. Prior relations matter because they affect a country's readiness in facing economic sanctions from a sender country. If relations were already bad, then it is more likely that the target country had anticipated the move of the sender, already taking counter-measures. Vice versa, if prior relations were good, then probably the target was not expecting economic sanctions and did not elaborate any plan to react. In addition, if prior relations were good, there is more at stake that could be jeopardized by economic sanctions. Previously in this paper we examined many aspects of the European diplomacy and how the four European major powers (Britain, France, Germany and Italy) interrelated at the beginning of the 1930s. Britain's focus was to preserve the status quo and avoid a new war in Europe at any cost. This was the ultimate goal of the appeasement approach: maintaining peace, enhancing global trade and restoring the pre-war Pax Britannica under which the British empire prospered and became the world hegemonic power. In order to achieve that, the priority for the United Kingdom was to prevent an alliance between Mussolini and Hitler, which could have altered the balance of power in Europe and induced Hitler to adopt a much more aggressive stance on his territorial demands. Hence, the British elites believed that good Anglo-

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<sup>89</sup> FOSSATI, A., 1939. Il commercio estero italiano dal 1928 al 1938. *Rivista Internazionale di Scienze Sociali*, Serie III, Vol. 10 (ANNO 47), Fasc. 4 (luglio 1939), 651

<sup>90</sup> RISTUCCIA, C. A., 2000. The 1935 Sanctions against Italy: Would coal and oil have made a difference? *European Review of Economic History*, 4(1), 85–110.

Italian relations were necessary to preserve peace<sup>91</sup>. The creation of the Stresa Front on 14<sup>th</sup> April 1935, less than 6 months before the Italian invasion of Ethiopia, proves that British diplomacy was still confident that an anti-German coalition could hold. The Anglo-Italian relations, however, deteriorated shortly thereafter, as already described in this work, when the Stresa Front collapsed because of the Anglo-German naval agreement, and later when Mussolini did not renounce his expansionist project in the Horn of Africa and when Britain did not openly endorse the Italian side in the Italo-Ethiopian crisis but, actually, contributed decisively to impose the sanctions on Italy.

The point of view of France was more focused on the containment of Germany. The French were almost sure that another war against Germany was inevitable, and spent much of their resources and efforts to get ready for the next war. In this perspective, the famous Maginot line was built, and still in this respect France tried a rapprochement with Italy in the early 1930s: the priority was still to avoid an Italo-German axis. France maintained a condescending attitude towards Italian aims in Ethiopia, as it is testified by the Franco-Italian agreement in January 1935. In general, we could say that the relations between Italy, France and Great Britain were rather good on the verge of the Ethiopian war, to such an extent that even in December 1935, when sanctions were already in effect, Hoare and Laval were still trying to accommodate Italian desiderata sacrificing Ethiopia in order to keep Italy at their side. Because of this, Mussolini did not expect to be sanctioned by its former allies in the Great War, given that he thought to have been given free hand to invade Ethiopia both by Laval in occasion of the abovementioned Franco-Italian agreement and by the British in the Conference of Stresa. Surely, Mussolini was convinced that France and Britain would not oppose his war of aggression also because, after the Anglo-German naval agreement of 18<sup>th</sup> June 1935, which allowed Germany to enhance its naval military potential, Britain and France were forced to move some of their navy vessels from the Mediterranean to the North Sea, giving Italy naval superiority in the Mediterranean region, so that any military operation carried out by Italy in Africa would not be hindered<sup>92</sup>. As a result, the Italian government could not anticipate the economic sanctions until few months before they were imposed. This is a factor that, theoretically, could have made economic sanctions more effective, as Italy did not have much time to be ready.

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<sup>91</sup> SOBOCINSKI, H., J., 1989. Dividing the dictators: The Italian dimension In Britain's policy of appeasement, 1933-1940". Dissertations (1962 - 2010) Access via Proquest Digital Dissertations. AAI8104816. <https://epublications.marquette.edu/dissertations/AAI8104816>

<sup>92</sup> SALERNO, R., M., 2002. *Vital Crossroads: Mediterranean Origins of the Second World War, 1935–1940*. Ithaca, New York: Cornell University Press

### 3.4 Size of sender and target country

As it was mentioned in paragraph 2.2, there is little evidence that the size of the sanctionist economist is a decisive factor of success when it comes to economic sanctions. Recalling what we already wrote before, in most cases the economy of the sender is by far larger than the target. The case study of this paper is not different: considering that there are multiple sanctionist countries, the sum of their economies is massive if compared to Italy. Table 3.1 illustrates the GDP (PPP) of Italy and some of the sanctionist countries in 1935. As we can see, the economies of UK and France alone are almost 3 times the size of the Italian economy. Taking into account all other sanctionist countries, we can claim that the size of the sender countries is much bigger – much more than 10 times – than the economy of the target. As already pointed out, this should not be a significant factor affecting the effectiveness of economic sanctions, but surely such an asymmetric confrontation helps sender countries to minimize the cost of imposing an embargo for their economies.

Table 3.1

| Country   | GDP in 1935 (PPP, in millions international \$) |
|---|---|
| Italy   | 250.699   |
| UK  | 419.639   |
| France  | 246.810   |
| China   | 487.482   |
| Spain   | 106.856   |
| India   | 342.824   |
| Netherlands                                     | 67.436  |
| Argentina                                       | 91.031  |
| Canada  | 70.608  |
| Belgium   | 69.339  |
| Poland  | 87.401  |
| Switzerland                                     | 57.430  |
| Australia                                       | 56.604  |
| Source: The Angus Maddison Project & World Bank |   |

### 3.5 Types of sanction

Before we said that there are mainly three types of sanctions: trade sanctions, financial sanctions and asset freezes. Trade and financial sanctions were implemented by the League of Nations against Italy in 1935-36 with the measures embedded in Proposal II, III and IV. Financial sanctions were meant to cut all bank-lending channels to Italy, in practice isolating the peninsula from the international banking system. Financial sanctions might be more effective than a trade embargo, since it is easier for governments to control financial players and banking institutions than all other economic agents. Firstly, because financial markets tend to be more regulated. Secondly, because governments are important providers or guarantors of credits. Thirdly, because financial players are much limited in number with respect to all economic agents. Hence, financial sanctions are generally harder to evade and easier to enforce<sup>93</sup>. Prohibiting the export of certain goods to Italy, on the other hand, was meant to create shortages of raw materials and reduce the output of the Italian industry. Italy, in fact, was dependent on imports for most essential raw materials. Finally, the prohibition of importing goods from Italy had the goal of depleting gold and foreign exchange reserves of the Bank of Italy. Out of all the three types of sanction, this latter was the one expected to be more effective, since most of Italian exports was directed to Members of the League. Not by chance, in 1935 the gold reserves of the Bank of Italy were 561 tons, whereas when Italy entered the Second War World its gold reserves had declined to 106 tons<sup>94</sup>. To sum up, export controls to Italy was not likely to exert a significant effect, since it included only a small set of goods of which alternative suppliers could be found. On the other hand, financial and imports from Italy sanctions were more likely to have a destructive effect, since the former affected especially the personal pockets of government officials and hierarchs<sup>95</sup>, while the latter put Italy's public finances in danger. In any case, all types of sanction required time to be efficacious.

### 3.6 Economic health and political stability of target

A radiography of the health of the Italian economy in the first half of the 1930s has already been provided previously in this essay. The status of the Italian economy at the eve of the Ethiopian

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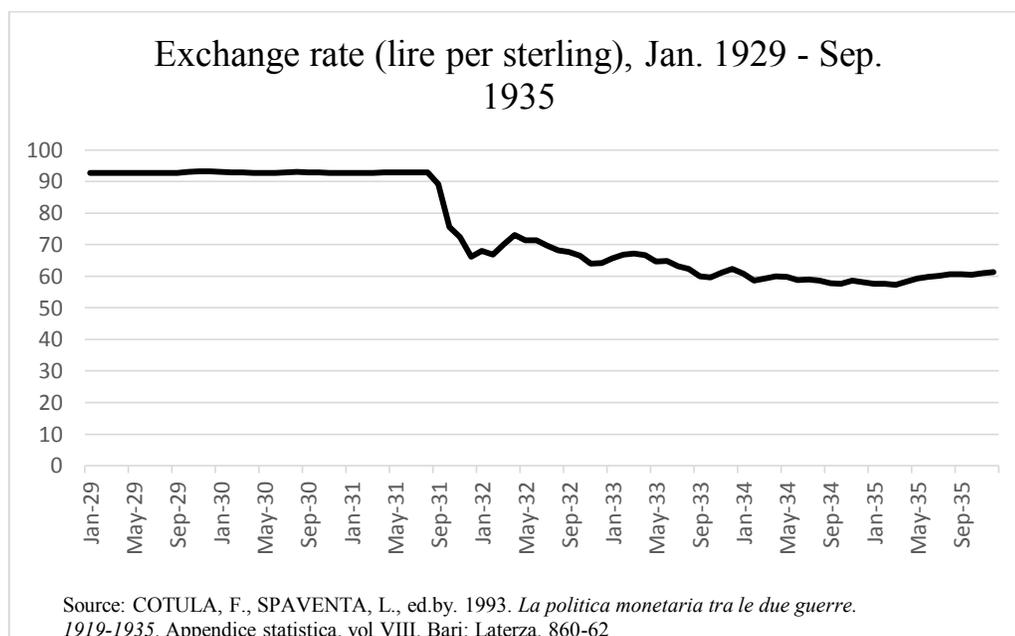
<sup>93</sup> HUFBAUER, G., C., SCHOTT, J., J., ELLIOTT, K., A., OEGG, B., 2008. *Economic Sanctions Reconsidered*. Columbia University Press, 15 nov 2008, 47

<sup>94</sup> <https://www.bancaditalia.it/compiti/riserve-portafoglio-rischi/evoluzione-riserve/index.html#:~:text=NeI%201933%20la%20riserva%20aurea,era%20sceso%20a%20106%20tonnellate>.

<sup>95</sup> HUFBAUER, G., C., SCHOTT, J., J., ELLIOTT, K., A., OEGG, B., 2008. *Economic Sanctions Reconsidered*. Columbia University Press, 15 nov 2008, 97

campaign was not ideal. After years of revaluation of the lira, the deflation was exacerbated by the arrival of the financial crisis in Italy, with the failure of the three major banks Banco di Roma, Credito Italiano and Banca Commerciale. After the devaluation of the British sterling in September 1931 and of the American dollar in April 1933, when Britain and the USA decided to abandon the Gold Standard, the Italian government faced a difficult dilemma: either to devalue the Italian lira as well, thwarting all the sacrifices the Battle of lira entailed, or to prosecute the way of preserving the Gold Standard, defending the lira and continuing the deflationary process. Italy opted for the second option.

Figure 3.3



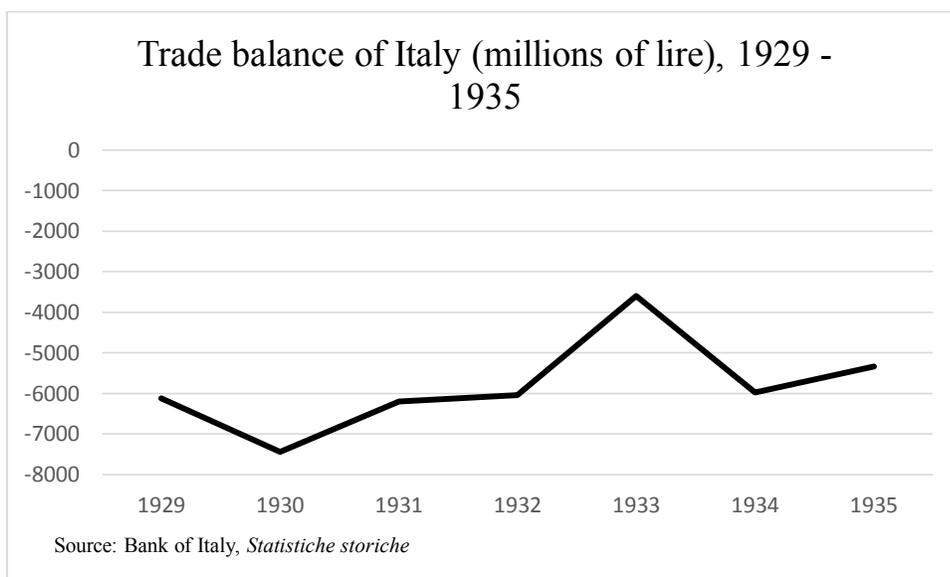
This choice caused prices and the industrial output to keep decreasing, as described earlier in paragraph 2.4. In 1933, the Bank of Italy repeatedly cut the interest rates, but the deflation was still ongoing. The reduction of the interest rates provoked capital outflows and, at the beginning of 1934, foreign reserves were diminishing rapidly, approaching the value of 6 billion lire<sup>96</sup>. In order to tackle the fast depletion of foreign reserves, the government established the prohibition of converting money in national currency to foreign ones and introduced limitations to importations<sup>97</sup>. Actually, from 1934 Italy abandoned liberal policies in the foreign exchange market to embrace capital controls, in accordance to the new autarkic ideas of the regime and the dirigiste economy.

<sup>96</sup> : Source: COTULA, F., SPAVENTA, L., ed.by. 1993. *La politica monetaria tra le due guerre. 1919-1935*. Appendice statistica. vol VIII. Bari: Laterza. 193-194

<sup>97</sup> Ibidem, 194

Finally, foreign reserves were successfully maintained at the level of 6 billion lire at least until the Ethiopian war. However, by May 1935, Mussolini realized that a devaluation of the lira would soon be necessary in order to adjust the persistent deficits of the trade balance<sup>98</sup>. Overall, the status of the Italian currency seemed weak, since it was becoming harder and harder to defend the gold standard and the result of the revaluation of the lira, which was now causing many unbalances in the public accounts and worsening the impact of the financial crisis. Not by chance, soon after the start of the Ethiopian war, the Italian government devaluated the lira by 41%, returning to exchange rate with the dollar and the sterling at the levels of the end of 1927<sup>99</sup>.

Figure 3.4



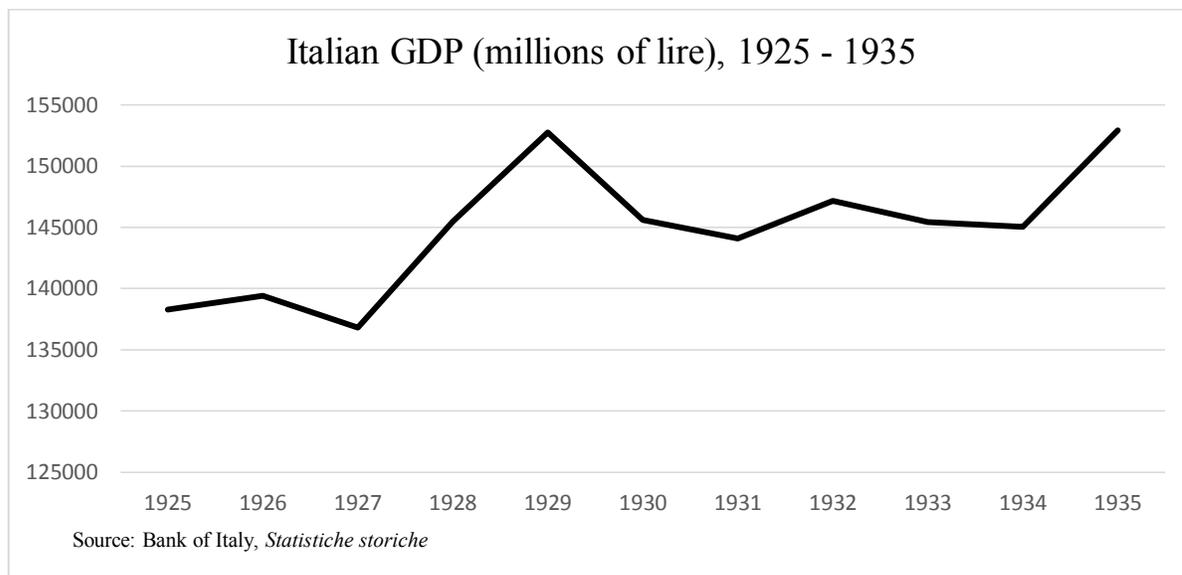
Meanwhile, the real economy, which had contracted in the first half of the 1930s, was now recovering the levels before the crisis. In 1935 the GDP had already reached the one of 1929, same for the industrial output.

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<sup>98</sup> Ibidem, 197

<sup>99</sup> Ibidem, 197

Figure 3.5



However, the private consumption was still stagnating, attesting itself permanently below the levels of 1929, whereas private investments had surpassed pre-crisis levels.

Figure 3.6

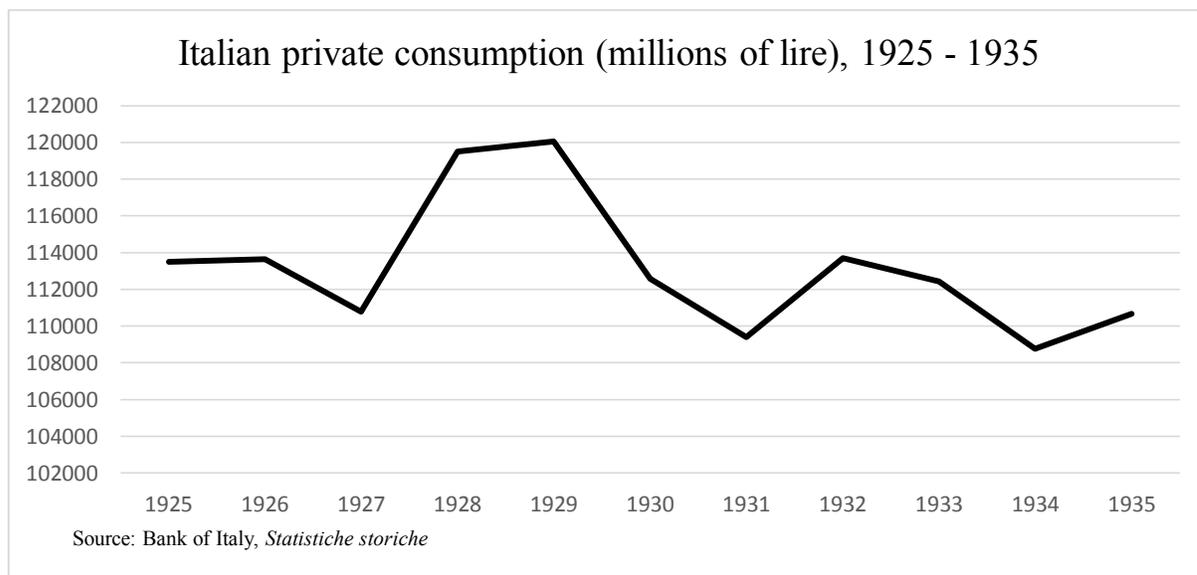
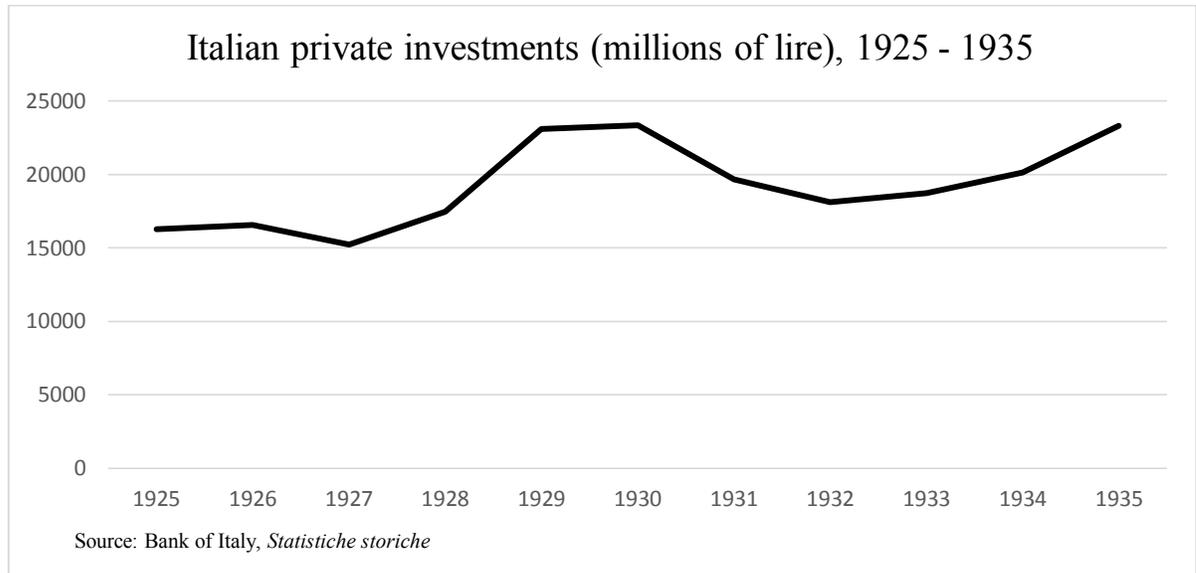


Figure 3.7



The recovery of the real economy right before the invasion of Ethiopia is confirmed by unemployment data. The highest number of unemployed workers was in 1933, when they were 1 million. The number of jobless workers dropped to 963 thousand in 1934, 755 thousand in 1935 and 706 thousand in 1936<sup>100</sup>.

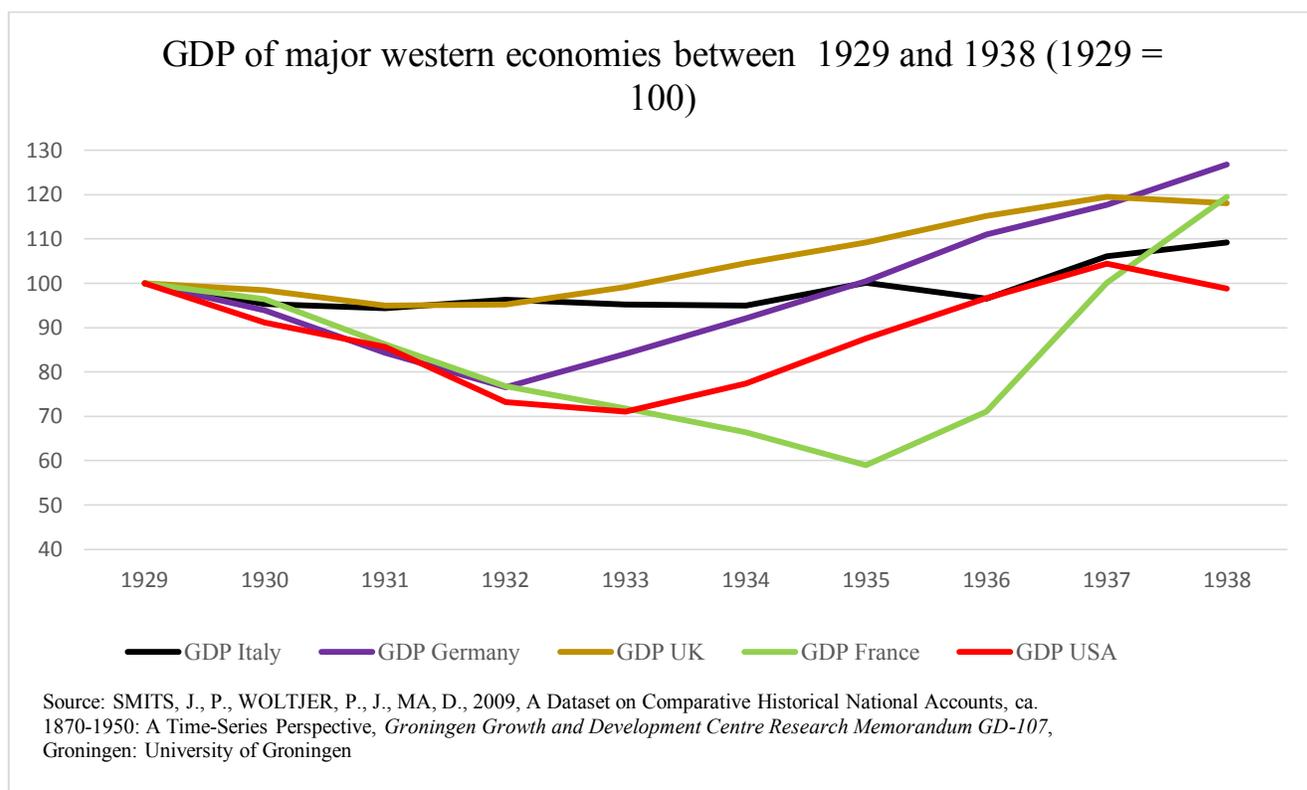
While the economic situation of Italy was quite troubled, the same cannot be said for the political situation. By the time of the invasion of Abyssinia, the fascist regime was in power for 13 years, all other parties were banned, nobody seemed to threaten Mussolini's dictatorship. Quantifying the consensus of a totalitarian regime is arduous, since, unlike a democracy, there are no multi-party elections nor reliable opinion polls. However, there are no doubts that at that time the regime had the support, active or passive, of a large part of the Italian population, as the historian Renzo De Felice showed. Between 1929 and 1936, the regime was at the peak of popularity. A big turning point of Mussolini's domestic policy that allowed the regime to consolidate its hold on the Italian people were the Lateran Treaty of 1929 wherewith the Italian state and the Holy See reconciled the dispute born with the taking of Rome in 1870. This made Italian Catholics (the vast majority of Italian people) appreciate the regime. In those years, a sincere enthusiasm, transversal to all social classes, for fascism was genuinely widespread over the Italian people. Such an enthusiastic wave was boosted by the colonial adventure in Abyssinia, the economic sanctions (which were

<sup>100</sup> Treccani, *Disoccupazione* (XIII, 22 and App. I, 520)

successfully depicted by the regime propaganda as a “siege perpetrated by the whole world against Italy”) and the final proclamation of the empire on 9<sup>th</sup> May 1936.

To draw conclusions, the quinquennium before the Ethiopian war was not characterized by a booming economy, but rather by a stagnation and a parallel paradigm shift: from liberal economy to protectionism and autarky. Italy was facing the same issues that the other western economies were experiencing, but the recovery for Italy was slower and the growth in that period was slightly inferior than other capitalist countries.

Figure 3.8



As it can be seen from Figure 3.8, among major western economies, by 1935 only France and the US had still not recovered their pre-crisis GDP level. Italian GDP was hit less hard than other capitalist countries, but also stagnated much more than them, whereas the US and France, which dreadfully suffered the 1929 crisis, by 1935 were in the way of recovery. Just looking at the Italian GDP trend in Figure 3.8, it is clear that it would not be wrong to call the 1930s, overall, stagnation years for Italy. What is not clear, however, is the impact sanctions may bring to a stagnating economy. Surely a stagnating country with high inflation would suffer much the effect of an embargo, since the shortage of foreign products may turn up prices even more. However, Italy was experiencing deflation, therefore, it might be that economic sanctions would give an input to local

industry to increase its production and stimulate economic growth, coming out of the deflationary spiral. This side effect might have been boosted by protectionist policies and the reduction of imports the Italian government was pursuing. In fact, the openness of an economy is another factor that must be taken into account. The less a country imports or exports from foreign economies, the less vulnerable to economic sanctions. Actually, we already mentioned in the paragraph “Sanction duration” how the production of certain sectors of the extractive industry increased after the economic sanctions. More generally, we could argue that economic sanctions, just like trade (which is basically the opposite), have a redistributive effect of wealth. Taking as a reference the theory of comparative advantage formulated by David Ricardo, sanctions on exports will affect negatively mainly industries with a high comparative advantage, whose products were oriented to be sold in foreign markets, whereas sanctions on imports will favour industries with a low comparative advantage, since they no longer have to withstand the competition with foreign goods. Hence, certain sectors with low comparative advantage, such as agricultural and industrial machines, cars, the chemical and extractive industry, might have profited from the economic sanctions, whereas sectors like the textile, wine and fertilizers sectors might have suffered the impact of a ban on Italian exports<sup>101</sup>. Actually, data tell that, as mentioned before, the extractive and chemical industry increased their production between 1935 and 1936<sup>102</sup>. Same for the steel industry: the production of motor vehicles increased from 50.493 units in 1935 to 53.144 in 1936<sup>103</sup>. On the other hand the production of yarn fabrics and of clothes fell respectively from 171 to 140 and from 119 to 106 thousand tons<sup>104</sup>. These data are consistent with the theory of comparative advantages. So, in short, overall not all industries were negatively affected by economic sanctions, some industries even benefited from them. However, the effect on general welfare is always negative, and definitely consumers did not benefit from the embargo. Indeed, private consumption fell from 110.656,90 million of lire in 1935 to 94.339,34 million of lire in 1936<sup>105</sup>. The fall of private consumption means lower real salaries and, hence, a lower purchasing power. This could generally generate unrest and restlessness towards the government (indeed this is one of the aims of economic sanctions), and possibly make a weak regime collapse. However, as we saw, this was not the case of Italy: the

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<sup>101</sup> To see the indices of comparative advantage: FEDERICO, G., NATOLI, S., TATTARA, G., VASTA, M., 2011. *Il commercio estero italiano 1862-1950*. Collana storica della banca d'Italia, serie “statistiche storiche”. Bari: Editori Laterza. 29-30

<sup>102</sup> ISTAT, 1968. *Sommario di statistiche storiche dell'Italia*. 1861-1965. Roma. 75, 81.

<sup>103</sup> Ibidem, 80

<sup>104</sup> Ibidem, 78

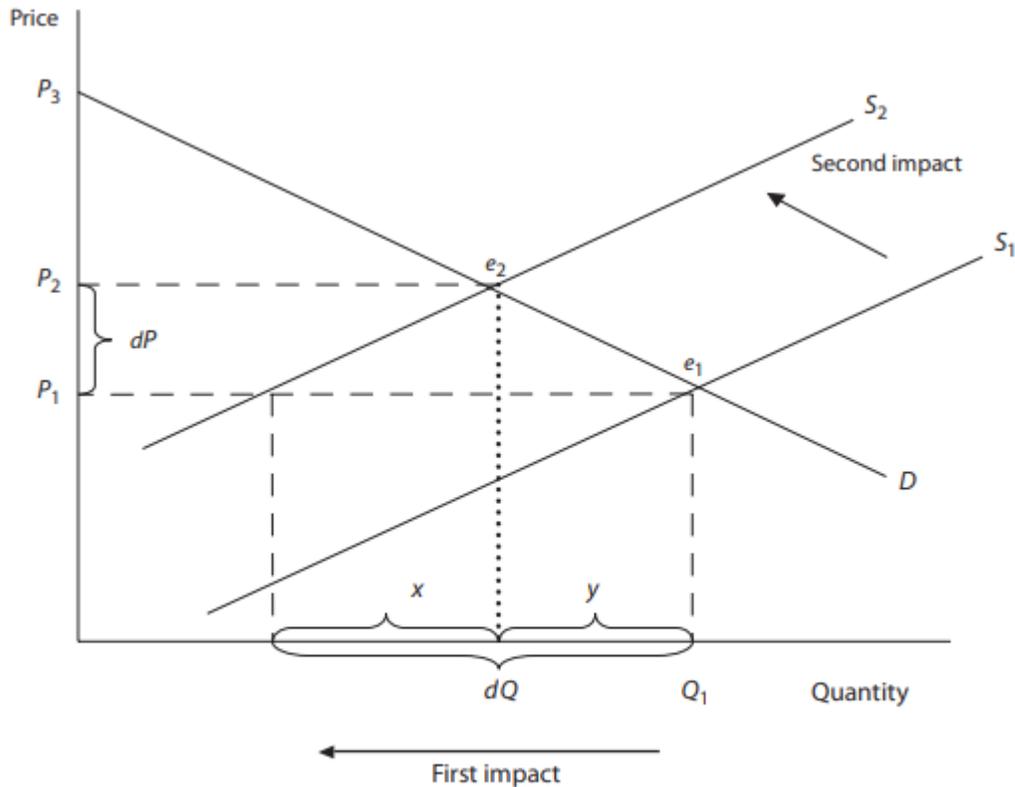
<sup>105</sup> Bank of Italy, *Statistiche storiche*

fascist regime was, in that moment, stronger than ever, reaching a high consensus among all social classes. Economic sanctions, as history proved later, could only have the effect of reinforcing the stability of the regime. As Mussolini stated in a famous speech: “to sanctions of an economic character we will reply with our discipline, with our sobriety, and with our spirit of sacrifice”.

### **3.7 Cost of sanctions**

Similarly to what was done by Hufbauer, Schott, Elliott, Oegg (2008), an analytical model can be used to estimate how costly economic sanctions are for the target and sender countries, starting from the classic supply and demand curves for a given good. Let us suppose that this good is exported from sender countries to the target country, in our case, Italy. In the period before the implementation of economic sanctions, the equilibrium between supply and demand is at price  $P_I$  and quantity  $Q_I$ , located at the intersection between supply and demand curves. When, primarily, sender countries set an embargo on the target, cutting exportations of the given good by an amount equal to  $dQ$ , the supply in Italy will decrease less than proportionally, since the sanctioned country has other alternative suppliers. As a result, other suppliers will react providing an additional supply of the sanctioned good, increasing their exports and profiting from the higher prices. Hence, the new equilibrium will lie in a point between  $dQ$  and  $Q_I$ . In the new equilibrium point, the supply of good is in any case lower than before, and the price, therefore, higher.

Figure 3.9



Source: HUFBAUER, G., C., SCHOTT, J., J., ELLIOTT, K., A., OEGG, B., 2008. *Economic Sanctions Reconsidered*. Columbia University Press, 15 nov 2008, 202

What is the economic impact on Italy resulting from this series of events? The answer lies in the reduction of consumer surplus, which refers to the decrease in the benefits that buyers gain from participating in market transactions. Consumer surplus is determined by the difference between the total amount paid for the quantity consumed (price multiplied by quantity) and the total amount that consumers would be willing to pay if each individual was charged the highest price they are willing to bear, assuming the market could be divided accordingly. In Figure 3.9, the level of consumer surplus is depicted before sanctions are implemented, represented by the triangular area bounded by  $P_1$ ,  $P_3$ , and  $E_1$ . Once sanctions are enforced and the supply curve shifts from  $S_1$  to  $S_2$ , the previous level of consumer surplus is diminished by the trapezoidal area bound by  $P_1$ ,  $P_2$ ,  $E_1$ , and  $E_2$ . This loss incurred by consumers signifies the cost imposed on the target country by export sanctions. Upon inspection, it becomes intuitively evident that the greater the steepness of the demand curve in the vicinity of the initial equilibrium price (indicating the item's essentiality to Italy and the limited availability of substitute products) and the steeper the slope of the supply curve

(highlighting the constraints on supply expansion in response to higher prices), the more significant the deprivation experienced by Italy will be. The decrease in consumer surplus is commonly known as welfare loss. The magnitude of this loss can be estimated by examining the area of the trapezoid that represents the lost consumer surplus. In Figure 3.9, the welfare loss resulting from the implementation of export sanctions is approximately equivalent to the rectangle marked as  $Q_1dP$ . Hence  $Q_1dP$  is equivalent to the welfare loss. By employing algebraic methods, we can represent the variation in price,  $dP$ , in relation to the elasticity of supply ( $E_s$ ) and the elasticity of demand ( $E_d$ ). The elasticity of supply is determined by the ratio of the percentage change in quantity supplied (roughly indicated as  $x/Q_1$ ) to the percentage change in price ( $dP/P_1$ ). Similarly, the elasticity of demand is defined as the ratio of the percentage change in quantity demanded (denoted as  $y/Q_1$ ) to the percentage change in price ( $dP/P_1$ ). Hence we have the equations for the elasticities:

$$\frac{\frac{x}{Q_1}}{\frac{dP}{P_1}} = E_s \quad (1)$$

$$\frac{\frac{y}{Q_1}}{\frac{dP}{P_1}} = E_d \quad (2)$$

As mentioned previously, when supply and demand curves exhibit steeper slopes around the initial equilibrium price, they are associated with lower elasticities of supply and demand. We can then also write:

$$x + y = dQ \quad (3)$$

We obtained three equations and three unknowns ( $x$ ,  $y$ ,  $dP$ ). It is possible, through the solution of the three equations, to algebraically show that:

$$dP = \frac{[P_1 dQ]}{[(E_d + E_s)(Q_1)]} \quad (4)$$

Substituting this expression for  $dP$  in the equation  $Q_1dP = \text{welfare loss}$ , we obtain:

$$Q_1dP = \frac{P_1 dQ}{E_d + E_s} = \text{welfare loss} \quad (5)$$

In this last equation  $P_1dQ$  signifies the nominal value of the decrease in supply from sender countries, occurring prior to the rise in price paid by Italy and the partial filling of the gap by other

suppliers. To sum up, within this basic framework, the welfare loss imposed on the target country is determined by two factors: the magnitude of the initial deprivation, represented by  $P_I dQ$ , and the combined effect of the elasticity of demand and the elasticity of supply. The expression  $1 / (E_d + E_s)$  can be interpreted as a “sanction multiplier”, namely a coefficient that either increase or reduce the initial deprivation of supplies experienced by Italy. Applying a comparable analysis, it can be demonstrated that equation (5) also characterizes the welfare loss inflicted when the sender country shuts its markets, resulting in an initial loss of sales for Italy, denoted as  $dQ$ . However, in this scenario, the welfare loss pertains to a decline in producer surplus rather than consumer surplus. In other words, the welfare loss can be represented also taking the point of view of producers in Italy. Not only, equations specified above can describe also the cost of sanctions for sender countries, since when a sender country imposes an embargo it is as if it was somehow sanctioning also its producers, who are no longer able to export his products to the target country. Similarly, the same equation describes also the loss of consumer surplus for sender countries caused by the cut on imports from the target country. In short, equation (5) can describe the consumer/producer loss both from the point of view of importers and of exporters, and both from the point of view of sender and of target country.

It is evident, therefore, that the cost of sanctions strictly depends not only on the volume of trade between sender and target that would be reduced after the embargo ( $P_I dQ$ ), but also on elasticities of demand and supply ( $E_d + E_s$ ), namely, respectively, the responsiveness of the quantity demanded of a product or service to changes in its price and the extent to which the quantity supplied of a product or service changes in response to alterations in its price. Hence, the lower elasticities are, the more effective sanctions will be. The intuition lies on the fact that if the elasticity of demand is low, then it means that a country has a high degree of dependence on that specific good, and, therefore, an embargo will be more painful because that country will be willing to purchase that good in a not so lower quantity than before at a higher price. Similarly, if the elasticity of supply is low, it means that the market for that good is not so competitive, and, therefore, prices might be higher in the aftermath of an embargo.

### **3.8 International cooperation**

International cooperation plays a crucial role in determining the effectiveness of economic sanctions. When countries come together and form a united front in imposing sanctions on a target

country, it significantly increases the chances of achieving the desired outcomes. Cooperation enhances the impact of sanctions by multiplying their economic and political pressure on the target nation. Without widespread collaboration and a united front, economic sanctions can be easily undermined. In the absence of strong international support, target countries can find alternative partners and markets, reducing the impact of the sanctions. Additionally, insufficient cooperation weakens the political pressure exerted on the target nation, allowing it to exploit divisions within the international community. Therefore, international cooperation is vital for maximizing the effectiveness of economic sanctions and increasing the likelihood of achieving the desired outcomes. However, there is an important drawback of having many countries that join forces in the attempt of creating a united front against the target. In general, the greater the number of countries needed to implement sanctions and the longer the sanctions run, the greater the difficulty of sustaining an effective coalition. With the passing of time, in fact, political divisions and different interests might rise among the sanctionist front. Some governments might put pressure to put an end to sanctions, or even withdraw their support to them, restoring commercial ties with the target, undermining the cohesion of the coalition. This inconvenient is precisely the determinant factor that made sanctions against Italy fail. Among the members of the League of Nations, in fact, there was disagreement, from the very beginning, on the types of sanctions that were necessary to implement in order to make the Italian war of aggression fail. The attempts of introducing an oil and coal embargo, which would have certainly hit the Italian economy in a devastating way<sup>106</sup>, were numerous. The embargo on oil and coal was first discussed on 2<sup>nd</sup> November 1935, but the decision was then postponed to January 1936. However, in January the Committee still could not find an agreement to implement it. Another final attempt was made on 2<sup>nd</sup> March 1936 by the British Foreign Secretary Anthony Eden, but it failed, especially because of the fierce opposition of the French, still bounded by the agreement between Mussolini and Laval made one year before, and even of some characters inside the British cabinet. What is more, in spite of the large, though unstable, coalition of senders, the non-participation of countries like Germany or the USA allowed Italy to easily circumvent sanctions, either finding alternative suppliers or using non-senders as intermediaries which buy sanctioned products and sell then to Italy. Not by chance, the Italian imports from Germany and the USA, as a percentage of total imports, rose respectively from 18,3% to 26,8% and from 11,2% to 14,8% between 1935 and 1936. Also the relative exports to Germany

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<sup>106</sup> RISTUCCIA, C. A. (2000). The 1935 Sanctions against Italy: Would coal and oil have made a difference? *European Review of Economic History*, 85-110

and the USA increased in the same period, respectively from 16,2% to 19,5% and from 8,1% to 9,9%<sup>107</sup>.

The aim of international cooperation and coalitions to engage an economic warfare against a target country is to deny this latter access to the supplies or markets of its main trading partners. They also serve to isolate diplomatically the target and, when there is an international organization that enforces economic sanctions, to delegitimize it, invoking moral principles that are embodied in the supra-national institution, making the target a global pariah. However, the delegitimizing attempt might not be successful when the credibility of the aforementioned international organization is undermined. This was the case of the League of Nations by the half of the 1930s. By that time, in fact, every realist politician understood that it was only an instrument at the disposal of the winners of the Great War to cloak their actions, directed at the fulfilment of their interests, with a lawful framework to not infringe international law. The fact that neither the US (from the very beginning), nor Germany (from 1933), two major powers, were not member of the League of Nations, proves that the credibility of the League of Nations was not remarkable. However, even when there is a high degree of cooperation economic sanctions seem to be hardly successful. In both world wars, in spite of the high degree of cooperation among the Allies, Germany was able to draw on supplies from Eastern Europe and adjacent neutral powers.

To sum up, despite the high number of sanctionist countries, this numerous coalition was weak and not firm enough to maintain economic sanctions for a long time. In any case, Italy would have probably kept circumventing the sanctions purchasing sanctioned items from countries that did not join the sanctions, above all the two great powers that were not members of the League of Nations: Germany and the US.

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<sup>107</sup> FEDERICO, G., NATOLI, S., TATTARA, G., VASTA, M., 2011. *Il commercio estero italiano. 1862-1950*. Bari: Editori Laterza, Tabb. 4a-4b, Appendice

## 4 Literature review

There are no studies on the impact of economic sanctions on the Italian economy, and, more in general, empirical research on the economic consequences of economic sanctions is scarce. Gutmann, Neuenkirch and Neumeier (2021) analyze the effect of sanctions on GDP growths and its components (consumption, investment and government expenditures). Firstly, the researchers adopt an event study design to capture trends up to three years before and after each episode of sanctions. The aim is to investigate whether there is a downward trajectory in macroeconomic conditions of sanctioned countries prior to the imposition of sanctions. Through this approach, the researchers can disentangle the treatment effect of sanctions from their selection effect. The event study design allows for the examination of the specific impacts of sanctions and their potential influence on the overall economic situation. Afterwards, the researchers conduct a comparison between the economic performance of countries subjected to sanctions and countries facing the threat of sanctions. The underlying assumption is that countries on the verge of receiving sanctions should have a social, political, and economic situation similar to countries that are actually targeted by sanctions. This approach ensures that the consequences of international sanctions can be evaluated by comparing sanctioned countries with the closest approximation of a counterfactual scenario. They build two models:

1. the first one includes a set of dummies which are equal to 1 if a sanction was in place in country  $i$  and year  $t$ , three pre-treatment and post-treatment dummies equal to one in the three years before and after a sanction episode to assess the economic condition in a sanctioned country before sanctions became effective and after they have been lifted;
2. the second one is a standard panel Difference-in-Differences estimation.

Their estimates are obtained with ordinary least squares and standard errors are clustered at country level. The researchers have documented a notable adverse impact of international sanctions on GDP growth and its various components, including consumption, investment, and government expenditures. Additionally, these sanctions have demonstrated a negative effect on trade and foreign direct investment.

Another interesting paper of Gutmann, Neuenkirch and Neumeier (2022) tries to test the assumption whereby imposing international sanctions on a target country entails the side effect of advantaging a third superpower, giving this latter the opportunity to “bust sanctions to

simultaneously shield the target, harm the sender, and make a profit”. In order to do this, they study the effect of US sanctions on trade flows between sanctioned and third countries during the period 1995–2019 using panel Difference-in-Differences estimations. Their models are analogous to those used in their paper described previously. They found no evidence of systematic sanction busting.

Neuenkirch (2014) empirically assesses how economic sanctions imposed by the UN and the US affect the target states’ GDP growth. He used a unique dataset comprised of all UN and US sanction episodes that occurred between 1976 and 2012. He augments a standard growth model by indicator variables for UN and US sanctions, taking into account that the reasons economic sanctions are imposed (engagement in interstate conflicts, autocratic tendencies, and political repression). He finds that sanctions imposed by the UN have a statistically and economically significant influence on economic growth. On average, the imposition of UN sanctions decreases the target state’s real per capita GDP growth rate by 2.3–3.5 percentage points (pp) and these adverse effects last for a period of ten years.

Shin, Choi and Luo (2016) examine the impact of economic sanctions on target economies using a dynamic panel data model. The authors employ a system generalized method of moments (GMM) estimation, a statistical technique that addresses endogeneity concerns and accounts for the dynamic nature of the data. The study utilizes a comprehensive dataset covering 130 countries from 1960 to 2010, allowing for a long-term analysis of the effects of economic sanctions on various economic indicators. The authors focus on indicators such as economic growth, trade flows, investment, and inflation. The findings of the research suggest that economic sanctions have a negative impact on target economies. Through the dynamic panel data model and GMM estimation, the authors establish a causal relationship between sanctions and economic outcomes, while controlling for potential confounding factors and addressing endogeneity issues. Moreover, the research examines the heterogeneous effects of sanctions based on factors such as income level and political regime type. Low-income countries and authoritarian regimes are found to experience more severe negative impacts from sanctions compared to high-income countries and democratic regimes. The study also explores the duration of sanctions and its influence on economic outcomes. Longer-lasting sanctions are shown to have a stronger negative effect on economic growth, trade, investment, and inflation in target countries. The authors propose several mechanisms through which economic sanctions exert their detrimental effects, including disruptions to trade networks, limited access to international markets, reduced foreign direct investment, and increased uncertainty.

Ahn and Ludema (2020) examine the impact of sanctions imposed by the United States, the European Union, and others on Russian targets in response to Russia's actions in Crimea and Ukraine. The research explores the possibility of the target government shielding certain sanctioned firms by transferring resources to them. The study presents a model that considers how sanctions affect firm performance and the interaction between the target firm and government. By analyzing firm and individual-level data, the researchers find that targeted companies experience significant harm from sanctions, with losses in operating revenue, asset value, and employees. The severity of losses varies by sector, with sectors relying more on imported services being hit hardest. There is also evidence of spillover effects on non-targeted firms. Additionally, the study reveals that strategically designated firms by the Russian government are largely protected from the effects of sanctions, indicating shielding. The authors suggest that smart sanctions do impose economic costs, but the burden may be shifted from firms to the target government through shielding, raising questions for further research on the unintended consequences and implications of such behavior. The researchers' estimation strategy consists on a standard Difference-in-Differences ordinary least-squares (OLS) approach.

Gaur, Settles, Väättänen (2023), on the other hand, examine the impact of sanctions on Russian firms and the strategies these firms adopt to counter the effects of targeted sanctions. Their econometric approach is similar to the one adopted by Ahn and Ludema (2020), using a standard Difference-in-Differences OLS. The primary variable of interest is a dummy variable indicating whether a company is sanctioned or not. Another dummy variable is created to analyze the effect of sanctions on non-sanctioned subsidiaries based on the sanction status of the ultimate owner. Government ownership is controlled for using a dummy variable. Size is controlled for by taking the natural logarithm of total assets. The country's overall economic development is captured using variables such as annual GDP growth and logged real GDP, with lagged values to avoid reverse causality. They conclude that while targeted sanctions create symbolic meaning in foreign relations and create financial friction for targeted firms, firms use a variety of adaptation strategies that negate the economic impact of these sanctions.

Askari et al. (2003) conducted a recent empirical study to assess the economic consequences of economic sanctions on the United States, specific major target countries, as well as third-party countries such as the European Union and Japan. To examine the impact of sanctions on trade, they utilized an augmented gravity model, incorporating dummy variables. The main focus of their investigation was to determine the factors influencing U.S. trade flows, including exports, imports,

and overall trade. To achieve this, the researchers employed different classifications or measures of the sanction variable to explore whether the results varied based on these different classifications. They analyzed annual data spanning 19 years (1980-1998) concerning U.S. exports, imports, and bilateral trade, using Ordinary Least Squares (OLS) estimation for each year. The study revealed that the impact of U.S. economic sanctions on U.S. trade, be it bilateral trade, exports alone, or imports alone, strongly depended on how the sanctioned country list was identified and selected. This was especially evident for countries specifically targeted by selective U.S. economic sanctions. Among the three classifications used, two did not show consistent statistical significance. However, when the sample included formerly planned economies, which had been longstanding targets of U.S. economic sanctions, the researchers found that sanctions significantly affected U.S. exports, imports, and total trade.

Van Bergeijk (1994, ch.7) also adopts a gravity-based approach to examine how political relations impact trade flows. However, instead of directly including sanctions in the gravity equation, the author creates an index to represent the level of cooperation and hostility between countries. This index is then incorporated into the standard gravity equation, with negative sanctions being a factor in its construction. The reason for not using binary variables is to allow for more nuanced distinctions compared to simple dummy variables used in previous studies on trade diplomacy. The author develops individual indicators to gauge the extent of conflict and cooperation between pairs of nations. By doing so, he creates a cross-section gravity model to analyze the bilateral trade flows of 40 countries in 1986. The study's findings highlight that the diplomatic climate significantly influences the patterns of international trade flows. Nevertheless, it is worth noting that the impact of strictly economic variables on trade contributions outweighs the influence of indicators related to the bilateral diplomatic climate. In other words, economic factors play a more substantial role in shaping trade outcomes than the specific indicators of political cooperation and hostility between countries.

Gharehgozli (2017), using the synthetic control method, attempted to estimate the effect of the intensification of sanctions on Iran's GDP during the period 2011 to 2014. The estimates showed that the country's GDP suffered a hit of more than 17% over the specified period. Notably, the most severe effects were observed in 2012—the same year when the European Union enforced an oil embargo and added financial boycotts against Iran. These findings indicate that the implemented measures had a significant adverse impact on Iran's economic output during that particular year.

Kelishomi and Nisticò (2022) aimed to assess the impact of economic sanctions on employment in the short term, by using the stacked First-Differences estimator. They focused on the unexpected and unprecedented international sanctions imposed on Iran in 2012 and expanded on Acemoglu et al.'s (2016) work to estimate the effect of changes in import competition on employment in Iran's manufacturing sector. The study found significant asymmetric effects of import competition on industries with varying ex-ante import shares, indicating substantial employment reallocation effects across industries with differing degrees of exposure to international trade. The researchers reported an overall negative effect of the sanctions on employment. Their estimates showed that, as a result of the sanctions, the employment growth rate in Iran's manufacturing sector experienced a decline of 16.4 percentage points over the period 2012–2014.

Bove, Di Salvatore and Nisticò (2023) conducted an investigation into the impact of economic sanctions on trade flows in countries neighboring sanctioned states. According to trade models, sanctions are generally expected to reduce trade flows by disrupting established trading routes and economic relationships with suppliers and customers. However, the study also considered the possibility of countries bypassing trade restrictions by engaging in clandestine exchanges of goods with sanctioned nations across the border, effectively trading on their behalf and potentially leading to an increase in imports and/or exports. To gain insights into this complex issue, the researchers adopted a two-pronged approach. Firstly, they utilized large-N panel data analysis, and secondly, they conducted comparative case studies employing the synthetic control method. The results indicated that, on the whole, neighboring countries do experience economic costs as sanctions disrupt trade. Nevertheless, the case studies revealed heterogeneity in countries' responses, with some cases demonstrating an increase in trade flows despite the sanctions.

A paper that interestingly evaluates the impact of economic sanctions sorted by their type is the one by Gustafsson and Magnebrink (2022). The authors conducted both a case study and an empirical evaluation to examine the influence of sanctions on a target nation's GDP growth. Additionally, they sought to determine whether the impact of sanctions varied depending on the type of sanction imposed. The regression analysis was conducted using a sample of 35 countries, with 16 of them having experienced sanctions during the period from 2010 to 2019. The findings indicated that the implementation of sanctions had statistically and economically significant consequences on the target nation's GDP growth, leading to a decrease of approximately 1.55 percentage points. Regarding the different types of sanctions, financial and travel sanctions displayed significant effects, resulting in GDP growth reductions of around 1.35 and 2.30

percentage points, respectively. This finding aligns with theoretical expectations, as financial and travel sanctions are typically effective and challenging to evade. On the other hand, arms, travel, and trade restrictions yielded non-significant results. This lack of significance might be attributed to collinearity issues and variations in a nation's ability to circumvent these specific types of sanctions.

# 5 Data

## 5.1 Data collection

Collecting data of macroeconomic indicators of the 1920s and 1930s seemed an arduous task. At that time, in fact, not all countries had an efficient statistical office that collected economic data in a precise way. What is more, most of the common indicators that are generally used by economists nowadays were not commonly used or had not been invented yet back then. The concept of GDP as a comprehensive measure of a country's economic output was not fully developed until the mid-20th century. In the 1930s, there were some attempts to estimate national income, but the modern concept of GDP as the total value of goods and services produced within a country's borders was not widely used. Unemployment rates were not measured systematically and its incorporation as a standard macroeconomic indicator was not widespread until the post-World War II era. The Consumer Price Index (CPI), which measures the average change in prices of a basket of consumer goods and services, was not yet a widely used indicator in the 1930s. The measurement and reporting of a country's government debt relative to its GDP as a percentage were not common during the 1930s. Comprehensive and systematic records of a country's international trade and financial transactions were not as developed as they are today. Another difficulty an economist must face when it comes to analyzing data from the pre-war period is that such data are not standardized, and hence not comparable. Nevertheless, there exist some databases which managed to standardize data and reconstruct some reliable estimates of economic variables that are commonly used today.

For our research, we primarily relied on the comprehensive "Jordà-Schularick-Taylor Macrohistory Database", a valuable resource in the field of economic history. This database encompasses a wide range of economic indicators and historical data, making it a suitable choice for our study. To ensure our analysis had sufficient pre-treatment observations for our econometric models, we limited our dataset to the years between 1920 and 1938. This timeframe allowed us to establish a solid foundation for our research. Within this dataset, we carefully selected a group of countries that were pertinent to our study. The chosen nations included Australia, Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Netherlands, Norway, Portugal, Romania, Yugoslavia, Sweden, Switzerland, the UK, Argentina, Canada, the USA, and Japan.

It is worth noting that for certain countries like Austria, Bulgaria, Czechoslovakia, Greece, Hungary, Romania, and Yugoslavia, the database provided data solely for the variables of imports and exports. In the case of debt-to-GDP ratios, we sourced this information from the Historical Public Debt Database of the International Monetary Fund (IMF). However, it is important to acknowledge that we encountered some missing observations for this debt-to-GDP variable:

- Austria: data was unavailable for the years 1920 to 1923 and in 1938;
- Bulgaria data was unavailable for the year 1924 and from 1928 to 1938;
- Czechoslovakia: there were no observations available;
- Germany: data was unavailable for the years 1920 to 1924;
- Greece: observations were only available from 1928 to 1938;
- Hungary: data was only present from 1928 to 1938;
- Romania: no observations were available;
- Yugoslavia: no observations were available.

Additionally, for the variable *Industry*, we incorporated data from the Angus Maddison database, named after the economic historian Angus Maddison (1926-2010), which is an ongoing academic initiative that aims to provide historical data on economic growth, population, and other key macroeconomic indicators for various countries over long periods of time. The project's goal is to enhance our understanding of global economic history by creating a comprehensive and reliable database of historical economic statistics. Angus Maddison was a prominent economist and historian known for his extensive work on measuring economic performance and trends across countries and centuries. His research focused on long-term economic growth and development, and he compiled historical data from a wide range of sources to construct consistent and comparable datasets for different countries. The Maddison Project was initiated in the early 2000s to continue Angus Maddison's work and expand the historical economic database further. The project is a collaboration among economists and historians from various institutions worldwide who contribute to the collection, validation, and analysis of historical economic data.

The enlisted databases were then aggregated, modified and refined. The following lines will explain every adjustment made in order to obtain the final dataset used to perform the analysis. First, we selected the following variables for analysis: *Imports*, *Exports*, *Consumer Price Index*

(CPI), Unemployment rate, Real Consumption per capita, Investment Rate, Real GDP, Short Term Interest Rate, Long Term Interest Rate, Exchange Rate, Debt-to-GDP, Industry. The dataset's time span was set between 1920 and 1938 to provide sufficient pre-treatment and post-treatment observations for our analysis. By utilizing this time frame, we aimed at capturing the economic conditions and changes over a significant period before and after the 1930s. A sufficient number of observations in the years before the implementation of sanctions was necessary in order to test the common trend assumptions, which is at the basis of the Difference-in-Differences estimator and the Synthetic Control Method, as it will be explained later. Regarding the selection of countries for comparative analysis, we carefully chose countries based on several criteria. Our selection of countries for this study was guided by specific criteria to ensure relevance and comparability. Initially, we included all European countries for which data were available. This European focus allowed us to examine a geographically coherent group of nations with historical ties that could provide valuable insights into Italy's economic conditions. Beyond Europe, we concentrated on countries that exhibited developed economic characteristics. The rationale behind this selection was to ensure comparability with Italy's economic context. Finally, we deliberately excluded Spain in the dataset, due to the peculiar contingencies the country was facing in the years after 1936 (a civil war), which would have certainly biased the estimations of our study.

To make the data comparable across different years and countries, we performed an indexation process, where we set the value of 100 to the year 1920 for the following variables: *Imports*, *Exports*, *Consumer Price Index (CPI)*, *Real Consumption*, *Real GDP*, *Exchange Rate*, *Industry*. This indexation technique allows us to examine the relative changes in these variables over time, using the year 1920 as a common reference point. The indexation process involved applying the following formula to each variable for each country:

$$Index = \frac{(value\ in\ the\ year\ of\ interest)}{(value\ in\ the\ year\ 1920)} \times 100$$

By calculating the index for each year and variable, we expressed the values as percentages of their respective 1920 levels. An index value greater than 100 indicates growth or an increase in the variable compared to its 1920 level, while a value less than 100 signifies a decline or decrease. The indexation technique enables us to compare the relative performance and changes in different countries' economies and sectors during the selected period (1920 to 1938). By setting the year 1920 as the base year with an index of 100, we create a common reference point that facilitates

meaningful comparisons and highlights the variations in economic indicators across countries and over time.

In the final dataset we elaborated, each variable represents a key aspect of the economy, and it has been expressed as an index with a base year of 1920 (indexed at 100). Here is an explanation of the meaning of each variable:

- Imports: the value of the goods, services, or commodities that a country acquires from foreign nations and brings into its own territory for consumption, use, resale, or further processing. The index for imports illustrates how importations increased or decreased over time, relative to the base year (1920). An index value higher than 100 indicates more imports, while a value lower than 100 denotes lower imports;
- Exports: the value of goods, services, or commodities produced within a country's borders and sold to foreign nations or markets. The index for exports illustrates how exportations increased or decreased over time, relative to the base year (1920). An index value higher than 100 indicates more exports, while a value lower than 100 denotes lower exports;
- Consumer Price Index (CPI): a statistical measure that evaluates changes in the average prices paid by urban consumers for a basket of commonly purchased goods and services over time. It is one of the most widely used indicators for measuring inflation and is crucial for assessing changes in the cost of living for the general population. The index for CPI illustrates how inflation has evolved over time, relative to the base year (1920). An index value higher than 100 indicates higher prices, while a value lower than 100 denotes a contraction in prices;
- Unemployment Rate: measures the percentage of the labor force within a country or region that is currently unemployed and actively seeking employment;
- Real Consumption per capita: refers to the value of goods and services that individuals and households consume after adjusting for inflation. It represents the actual quantity of goods and services that can be purchased with a given amount of money, accounting for changes in price levels over time. The index for real consumption per capita illustrates how consumption changes among the population over time relative to the base year (1920). An index value higher than 100 indicates a higher consumption, while a value lower than 100 denotes a contraction in the consumers' demand;

- Investment Rate: measures the proportion of a country's Gross Domestic Product (GDP) that is devoted to investment in physical capital, such as machinery, equipment, infrastructure, and structures.
- Real GDP (Gross Domestic Product): the variable *Real GDP* is a comprehensive measure of the country's economic output and represents the total value of all goods and services produced within the country's borders. The GDP index reflects the overall economic growth or contraction relative to the base year (1920). An index value exceeding 100 indicates economic expansion, while a value below 100 suggests economic decline;
- Short Term Interest Rate: fixed by each country's central bank;
- Long Term Interest Rate: fixed by each country's central bank;
- Exchange Rate: using the USD as a reference (local currency/USD). The index shows the trend of exchange rates over time, relative to the base year (1920). An index value higher than 100 indicates a devaluation, while a value lower than 100 denotes a revaluation;
- Debt-to-GDP: compares a country's total government debt to its Gross Domestic Product (GDP).
- Industry: represents the performance of the industrial sector within the country. This sector includes manufacturing, mining, construction, and other industrial activities. The index for industry illustrates how the industrial output and economic activity have evolved over time, relative to the base year (1920). An index value higher than 100 indicates industrial growth, while a value lower than 100 denotes a contraction.

After expressing all the data as indices with a base year of 1920, we further reorganized the dataset to create a panel data structure. Panel data, also known as longitudinal or cross-sectional time series data, is a type of dataset where observations are collected from multiple entities (such as countries in this case) over multiple time periods. By restructuring the data into a panel format, we can effectively study the economic dynamics of each country over the period from 1920 to 1938. The panel data structure allows us to observe and analyze how each country's economic variable of interest changed over time, providing a comprehensive view of their economic performance during the specified period. This format is particularly useful for conducting rigorous econometric analyses, such as Fixed-Effects, Random-Effects or, as it is in our case, Difference-in-Differences regressions, to study the relationships between variables, account for country-specific effects, and explore the impact of time-based changes. Moreover, panel data enables us to make within-country and cross-country comparisons more effectively. By having data on multiple countries over the

same time span, we can identify common trends and differences across nations, helping us gain a deeper understanding of the economic conditions and interdependencies during the challenging years of the 1930s. The panel data structure enhances the robustness of our analysis, facilitating a more nuanced examination of economic patterns and interactions, ultimately contributing to a comprehensive and rigorous investigation of the selected countries' economic performance during the pre-treatment and post-treatment periods.

## 5.2 Descriptive statistics

In this section, we present a comprehensive overview of the dataset through descriptive statistics. Descriptive statistics play a crucial role in summarizing and interpreting the key characteristics of the data, offering valuable insights into its central tendency, variability, and distribution. By employing various statistical measures, we aim to provide readers with a clear understanding of the dataset's structure, enabling them to gain meaningful insights into the variables under examination. Additionally, we address any missing data to ensure transparency in our analysis. Through this exploration of descriptive statistics, we lay the foundation for a robust and insightful examination of the dataset, facilitating a deeper comprehension of the research findings and enhancing the overall rigor of our study. Table 5.1 reports a summary of descriptive statistics of our variables of interest.

Table 5.1

| VARIABLE | (1)<br>N | (2)<br>mean | (3)<br>sd | (4)<br>min | (5)<br>max | (6)<br>Var | (7)<br>p25 | (8)<br>p50 | (9)<br>p75 |
|----------|----------|-------------|-----------|------------|------------|------------|------------|------------|------------|
| imports  | 454      | 145.3       | 56.73     | 20.22      | 345.2      | 3,219      | 102.7      | 138.4      | 176.4      |
| exports  | 454      | 163.9       | 104.3     | 44.75      | 829.6      | 10,885     | 99.11      | 128.8      | 196.1      |
| CPI      | 304      | 6.704e+11   | 2.938e+12 | 49.10      | 1.553e+13  | 8.630e+24  | 67.54      | 85.50      | 122.3      |
| unemp    | 275      | 7.029       | 5.000     | 0.600      | 24.90      | 25.00      | 3.193      | 5.700      | 9.600      |
| rcons    | 304      | 118.6       | 18.10     | 81.71      | 174.3      | 327.7      | 105.6      | 116.1      | 128.6      |
| iy       | 266      | 0.155       | 0.0503    | 0.0173     | 0.319      | 0.00253    | 0.125      | 0.153      | 0.183      |
| realGDP  | 304      | 132.2       | 23.43     | 89.21      | 228.2      | 548.8      | 114.6      | 131.4      | 147.3      |
| stir     | 285      | 4.426       | 2.211     | 0.150      | 11.11      | 4.887      | 3.020      | 4.053      | 5.690      |
| ltrate   | 302      | 5.150       | 1.602     | 2.338      | 13.95      | 2.567      | 4.070      | 4.851      | 5.970      |
| extrate  | 285      | 2.972e+11   | 1.287e+12 | 50.83      | 6.719e+12  | 1.656e+24  | 77.88      | 95.46      | 149.5      |
| debtoGDP | 366      | 1.539       | 5.247     | 0.0417     | 37.32      | 27.53      | 0.239      | 0.560      | 0.908      |

The data for both imports and exports demonstrate considerable variability. While the range of

import values spans from approximately 20.22 to 345.2, exports show an even wider range, ranging from 44.75 to 829.6. Notably, the standard deviation for exports is higher than for imports, indicating greater variability in export values. The interquartile range suggests significant variability within the middle 50% of the data. The Consumer Price Index exhibits a wide range of values, from approximately 49.10 to an astonishing  $1.553e+13$ . The mean and standard deviation are substantially large due to the scale of the data. The interquartile range also highlights significant variation within the middle 50% of the data. For sure the hyperinflation in Germany at the beginning of the 1920s acted as a significant outlier. Unemployment data displays a substantial range, from 0.600 to 24.90, with moderate variation around the mean. The interquartile range indicates a significant spread of values within the middle 50% of the data. Real consumption values range from 81.71 to 174.3, showing variation in consumption levels. The mean and standard deviation suggest moderate variation around the mean. The interquartile range implies variation within the middle 50% of the data. The investment rate data varies moderately between approximately 0.017 and 0.319. Both the mean and standard deviation indicate moderate variation around the mean. The interquartile range suggests a moderate spread of values within the middle 50% of the data. Real GDP values range from approximately 89.21 to 228.2, indicating variation in economic output. The mean and standard deviation suggest moderate variation around the mean. The interquartile range indicates variation within the middle 50% of the data. Both short-term and long-term interest rates show variation, with the short-term rate having a smaller range. The standard deviation for both rates suggests moderate variation. The interquartile range for both rates spans a moderate range. Exchange rate data exhibits an exceptionally wide range, with values ranging from approximately 50.83 to  $6.719e+12$ . The mean and standard deviation are notably large due to the scale of the data. The interquartile range is wide, indicating substantial variability within the middle 50% of the data. Again, the observations related to Germany at the beginning of the Weimar Republic might have acted as a significant outlier. Debt to GDP values range from 0.0417 to 37.32, showcasing substantial variation. The mean and standard deviation suggest moderate variation around the mean. The interquartile range indicates variability within the middle 50% of the data.

# 6 Methodology

## 6.1 Difference-in-Differences features

After having provided a comprehensive description of the dataset we are working with, in order to investigate and assess the impact of economic sanctions on the Italian economy, we employ the widely-used and powerful statistical technique known as Difference-in-Differences (DiD) estimation. However, before delving into the application of DiD, we must assume two conditions that are akin to those of the Fixed Effects estimator, encompassing the notions of linearity and additivity. Linearity implies that the relationships between variables are linear in nature, signifying that the impact of each variable is constant and does not interact in a nonlinear manner with other variables. The additivity assumption, on the other hand, extends this idea by asserting that the cumulative effect of multiple variables is simply the sum of their individual effects, allowing us to isolate and analyze each variable's contribution separately.

Afterwards, we will prove the central and fundamental assumption of DiD: the parallel trends assumption. This assumption posits that in the absence of the treatment or intervention under study, both the treatment group and the control group would follow parallel paths over time. In essence, it presupposes that the trends in the outcome variable for the treated and control groups would have been similar in the absence of the treatment, thus serving as a valid counterfactual for assessing the treatment's impact.

The DiD method proves to be particularly well-suited for the purpose of our analysis, as it is recommended when it comes to a treatment that varies at an aggregate level, and it allows us to compare the before-and-after scenarios of the treatment or event while simultaneously utilizing a control group as a counterfactual. This facilitates the isolation of the treatment's effect by contrasting the trajectories of the treated group with those of the control group. The setting is a treatment that varies only by country  $s$  and time  $t$  ( $D_{st}$ ).  $Y_{0ist}$  is the potential outcome for individual  $i$  in country  $s$  at time  $t$  if the country was under sanctions and  $Y_{1ist}$  is the potential outcome if the country was under sanctions (namely if  $i = \text{Italy}$ ). Linearity and additivity ( $E(Y_{0ist}|s, t) = \gamma_s + \lambda_t$ ) and constant effects ( $E(Y_{1ist} - Y_{0ist}|s, t) = \delta$ ) implies that time effects  $\lambda_t$  are common across all countries and country effects  $\gamma_s$  are constant over time. In other words, in the absence of

treatment, all countries display the same trend in  $Y$  (the parallel trends assumption). Hence, the average observed outcome can be written as follows:

$$E(Y_{ist}|s, t, D_{st}) = \gamma_s + \lambda_t + \delta D_{st}$$

We are undertaking various iterations of the Difference-in-Differences model to comprehensively explore the impact of the treatment. These include the classic DiD model, a DiD model with country-specific and year dummies to enhance specificity, and a variant incorporating additional controls for a more nuanced analysis. This multi-pronged approach aims to provide a robust and detailed understanding of the treatment's effects by accounting for various factors and potential nuances in the data. In our regression analysis, we will partition the dataset into three subsets: one comprising all countries in our dataset, another including only European countries and a third composed exclusively of countries that are members of the League of Nations. This approach is designed to address potential variations in the average treatment effect based on the choice of the control group. By examining these subsets, we aim to investigate whether selection bias diminishes when considering specific countries that may share more similar characteristics with Italy, thus aligning more closely with the parallel trends assumption.

As an additional safeguard and robustness test, we employ the synthetic control method, which we will elucidate in more detail later in the thesis. This method offers an alternative approach to estimating the counterfactual and helps validate our DiD results by comparing them with those obtained using a synthetic control unit. In doing so, we aim to provide a comprehensive and thoroughly substantiated analysis of the impact of the treatment or event under study.

## **6.2 Parallel trends assumption: visual test**

The Difference-in-Differences estimator is a powerful method widely used in empirical research to identify causal relationships between interventions and outcomes over time. Central to the validity of the DiD approach is the assumption of a common trend. In this section, we delve into the critical importance of the common trend hypothesis for the effectiveness of the DiD estimator, particularly in the context of our study, where we examine the impact of economic sanctions on Italy compared to a selected group of control countries. The common trends assumption is crucial for the validity and reliability of causal inference in various econometric methods, particularly in the context of the DiD estimator. This assumption is essential for drawing accurate conclusions

about the causal impact of an intervention (treatment) on an outcome of interest. The common trend assumption is important because:

- It helps create a meaningful counterfactual scenario. In a DiD analysis, the control group serves as the counterfactual, representing how the treated group would have evolved in the absence of the intervention. By assuming a common trend between the treated and control groups before the intervention, we establish a baseline of expected outcomes for the treated group, making it possible to measure the causal effect of the intervention accurately;
- It addresses confounding factors. In observational studies, various confounding factors may influence both the treatment assignment and the outcome. If the treated and control groups have different pre-existing trends, it becomes challenging to isolate the true causal effect of the treatment. The common trend assumption helps address this issue by ensuring that any observed differences in post-treatment outcomes are more likely to be attributed to the intervention rather than other confounding factors;
- It allows identifying the causal effect. With the common trend assumption in place, the DiD estimator can effectively isolate the causal impact of the treatment from the general trends affecting both groups. By comparing the changes in outcomes between the treated and control groups after the intervention, we can more confidently attribute any differences to the intervention's effect;
- It strengthens internal validity. Internal validity is the extent to which we can confidently claim a causal relationship between the treatment and the outcome. The common trend assumption helps strengthen internal validity by reducing the likelihood of alternative explanations for the observed changes in outcomes;
- It reduces the bias. If the common trend assumption holds, it can mitigate potential selection bias, time-varying confounding, and other threats to causal inference. This enhances the accuracy of the estimates and allows for more robust policy implications.

The underlying rationale for the common trend hypothesis is that, in an ideal setting, the control and treatment groups (in our case, the non-sanctioned countries as the control and Italy as the treated) should be nearly identical in terms of their pre-treatment trends. This assumption ensures that any observed differences in outcomes after the intervention (sanctions) can be attributed solely to the treatment effect, rather than other confounding factors. However, in practice, achieving perfect comparability between the control and treatment groups is often an unrealistic assumption.

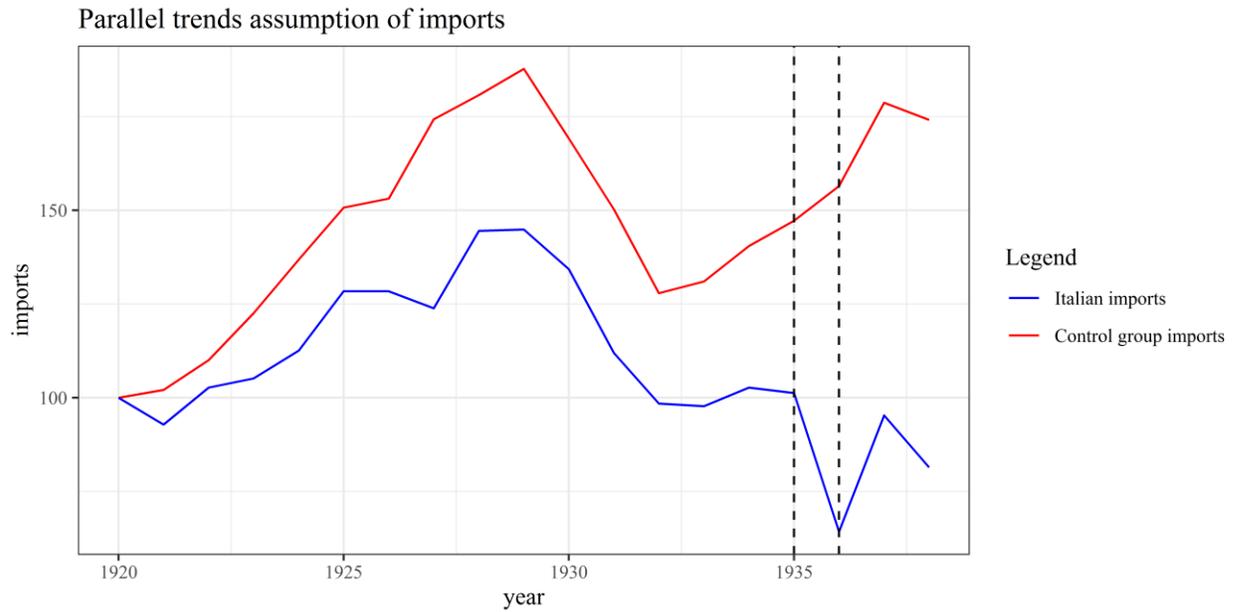
Multiple unobservable and time-varying factors may lead to divergent trends between the groups, potentially biasing the DiD estimator's results. Therefore, it becomes crucial to rigorously test the common trend assumption. In our analysis, we will perform a comprehensive test of the common trend hypothesis by interacting the treatment variable (Italy under sanctions) with time dummies. This formal test will enable us to assess whether the pre-treatment trends for Italy differ significantly from the control group. By scrutinizing these trends, we aim to ensure the validity and reliability of our DiD estimation, offering a more robust evaluation of the causal impact of economic sanctions on Italy's economic performance relative to other countries in our study.

We begin to test the common trend hypothesis through a simple visual inspection. Basically, we plot the outcome variable both for the treated country (Italy) and for the control group (the rest of the countries taken into consideration). In order to verify the common trend assumption, it is simply necessary to observe the trends of the outcome variable for the two groups. This visualization provides an intuitive means of evaluating the plausibility of the common trend assumption. If the trends appear roughly parallel before the introduction of the treatment, it supports the hypothesis and reinforces the validity of the counterfactual scenario provided by the control group. Hence, in the initial phase of testing the common trend hypothesis, we will undertake a detailed examination by plotting the trends for each outcome variable considered in the preceding paragraph where we presented and described our dataset. Through these individualized plots, we aim to visually scrutinize the trajectories of the treated and control groups over the pre-treatment period for every specific variable under consideration. This approach provides a nuanced perspective on how each outcome variable behaves over time, allowing us to assess whether the observed trends align with the expectations set by the common trends hypothesis.

### **6.2.1 Imports**

Figure 6.1 shows the trends of imports for Italy alongside the average trends observed across all other countries within the control group. The dashed lines serve as temporal markers, demarcating the timeframe during which sanctions occurred.

Figure 6.1

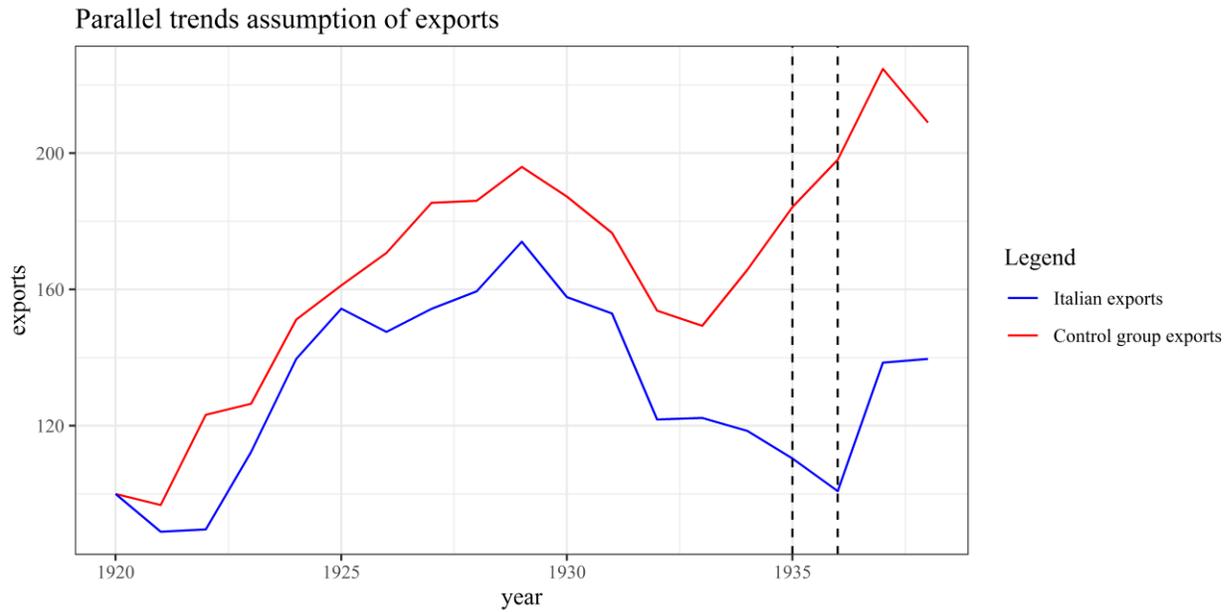


The examination of import trends reveals a generally synchronous pattern between Italy and the control group in the pre-treatment period. Importantly, fluctuations in imports for both entities appear to correlate: decreases in the control group coincide with corresponding declines in Italy, and conversely, increases align as well. This alignment lends support to the common trend hypothesis, suggesting a parallel evolution in import dynamics. Post-1925, subtle divergences emerge. While Italy experiences a brief dip in imports as the rest of the world sees an increase, the period from 1927 to 1929 witnesses a concurrent surge in both Italy and the control group. The subsequent 1929 crisis prompts a synchronized contraction in imports for both, but Italy's post-crisis trajectory remains distinct due to autarky policies. Country-specific dummies will be introduced in the model, particularly to account for autarky policies. However, a pronounced shift occurs after 1935, marked by a sharp decline in Italian imports, contrasting with a continued rise in the control group. This anomaly, ostensibly beyond the purview of autarky policies, points to external factors, notably sanctions. The imposition of sanctions appears to significantly impact Italy's imports, prompting a sustained and notable downturn. In conclusion: it is possible to claim that the parallel trends assumptions for imports holds overall.

## 6.2.2 Exports

Figure 6.2 illustrates the export trends of Italy juxtaposed with the average trends observed across all other countries in the control group.

Figure 6.2

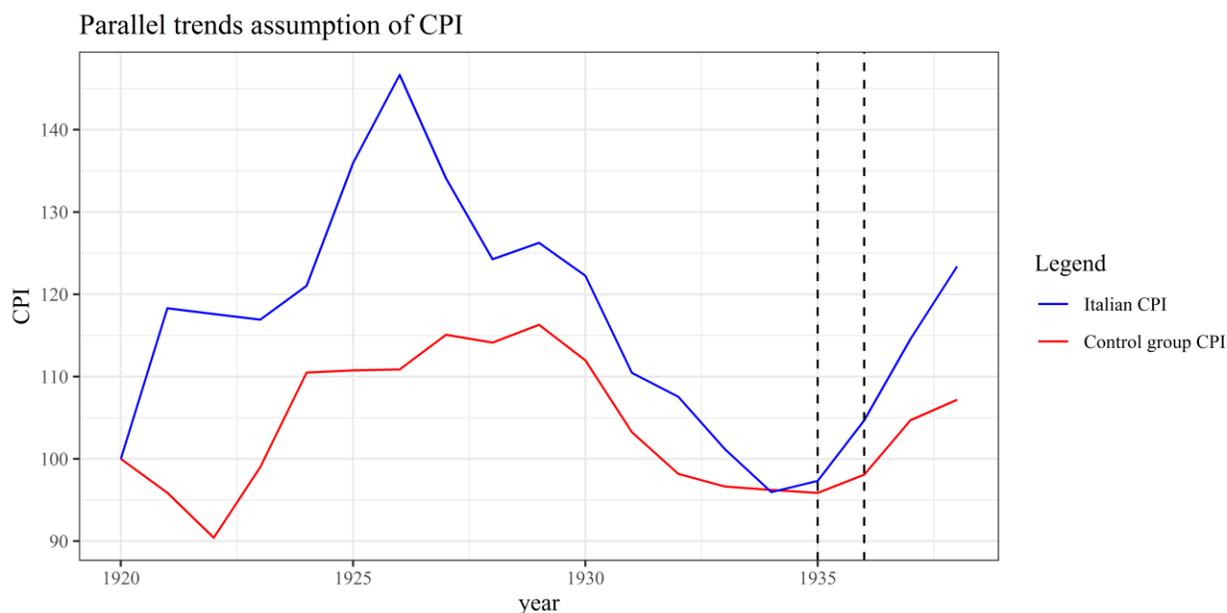


The export trends appear to align closely until 1933, where Italian exports deviate due to the efforts of the Italian central bank to sustain the value of an over-appreciated lira: a move distinct from countries like Britain or the US, which departed from the Gold Exchange Standard during this period. Post-1935, Italian export trends continue their decline, resembling the trajectory of the preceding years, whereas the trend of the control group keeps growing. From the graph alone, discerning a direct negative impact of sanctions on exports is inconclusive. However, introducing country-specific dummies in our analysis may enable the isolation of the treatment effect from that induced by the restrictive monetary policies implemented by the Italian government. After all, from a graphical representation it is possible to say that there might be parallel trends, but only the more formal test that entails the interaction between time dummies and the group indicator will be able to confirm the hypothesis.

### 6.2.3 Consumer Price Index

Figure 6.3 depicts the Consumer Price Index (CPI) trends of Italy in comparison to the average trends observed across all other countries within the control group. Data on Germany's CPI has been excluded from our analysis due to the extreme hyperinflation experienced in the early 1920s. The inclusion of such volatile data would have introduced significant distortions and complicated the comparison of trends across our selected variables.

Figure 6.3

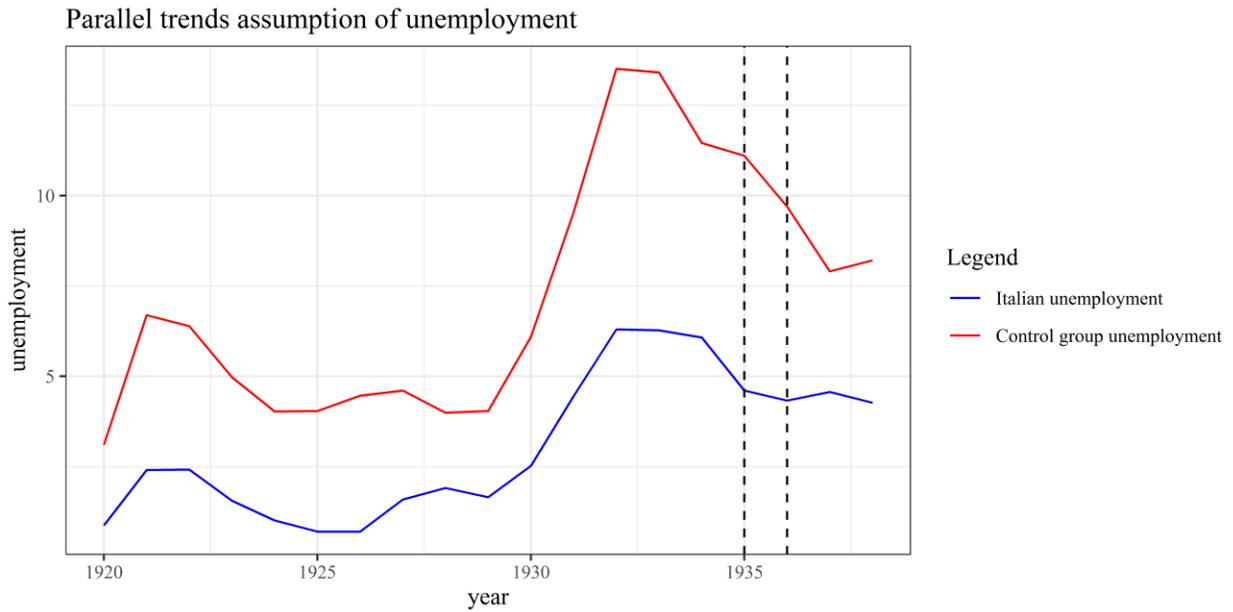


Despite the presence of an underlying common trend, it's important to note that the two trends do not perfectly align. In the early 1920s, Italy experienced significant inflation, contrasting with deflation observed in the control group. Subsequently, the control group exhibited sudden high inflation in the after 1922, while Italian prices remained quite stable from 1922 to 1924. Between 1924 and 1926, Italy faced high inflation, while the control group's prices remained relatively stable. Post-1929, both trends converged and followed similar trajectories. However, the period after 1935 reveals a small divergence. Both the control and treated groups experienced an increase in inflation, but Italian inflation surpassed that of the control group. Despite these discrepancies, the overall observation is that the common trend assumption holds after 1929. This alignment provides a sufficient number of pre-treatment observations, establishing a solid foundation for the execution of a DiD estimation in our analysis.

#### 6.2.4 Unemployment

Figure 6.4 illustrates the trends of the unemployment rate for Italy, contrasting them with the average trends observed among all other countries in the control group.

Figure 6.4

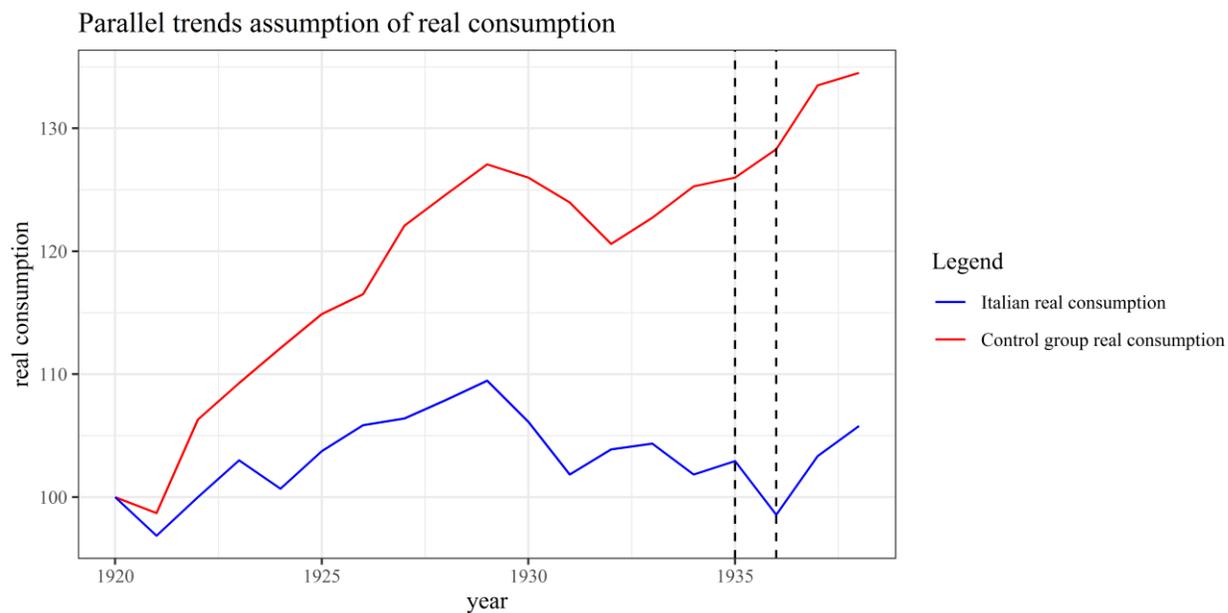


It is evident upon observation that Italian unemployment and the control group's unemployment closely mirror each other throughout the entire pre-treatment period. However, following the imposition of sanctions, a notable divergence occurs. The control group's unemployment continues to steadily decrease, while Italian unemployment remains relatively stable. Therefore, it is straightforward to claim that the common trend condition is fully met in this case.

### 6.2.5 Real consumption

Figure 6.5 presents the real consumption trends for Italy, comparing them with the average trends observed across all other countries in the control group. Until 1933, there is a noticeable, if not identical, trend in real consumption between the treated and control groups. However, post-1933, a divergence emerges as the control group's real consumption grows, while in Italy, it experiences a slight decrease and drops even further after the imposition of economic sanctions. Notably, the reductions in real consumption in the early 1930s align with the deflationary policies implemented by the government to safeguard the lira. As previously discussed, these policies led to wage compression and a subsequent decline in purchasing power. To disentangle the effects of economic sanctions from those of wage compression, we aim to incorporate year and country-specific dummies into our analysis, accounting for the particularities of this deflationary policy. However, regardless of these adjustments, a distinct and abrupt decline in real consumption is evident in Italy between 1935 and 1936. This suggests the possibility of a significant impact of sanctions on real consumption during this period.

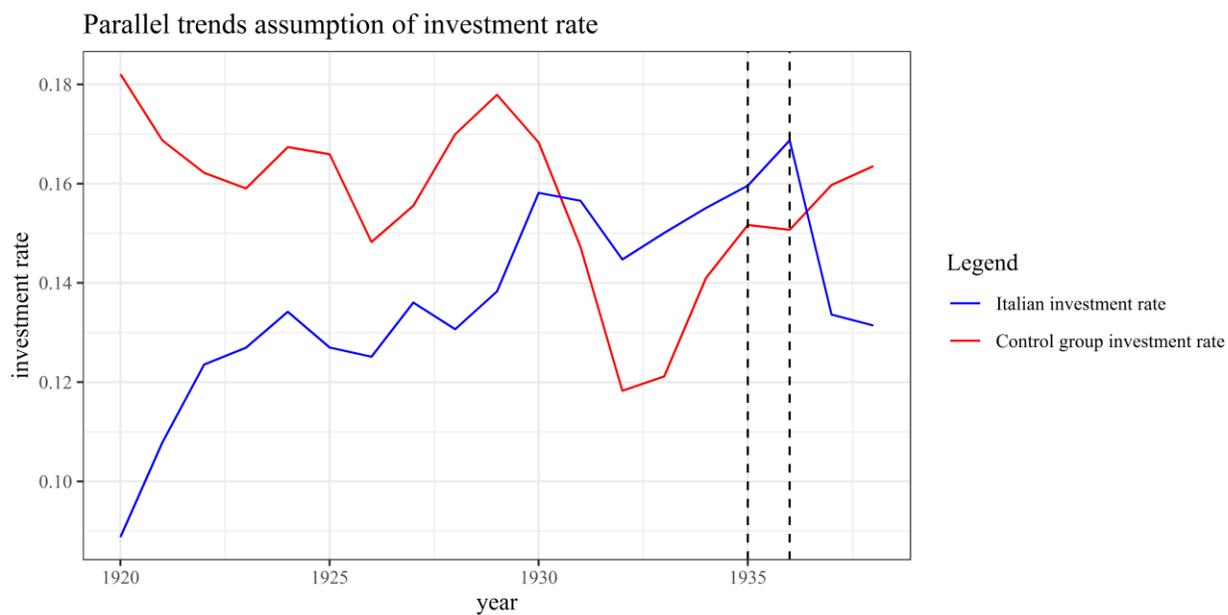
Figure 6.5



### 6.2.6 Investment rate

Figure 6.6 illustrates the trends in investment rates for Italy, juxtaposing them with the average trends observed across all other countries in the control group.

Figure 6.6

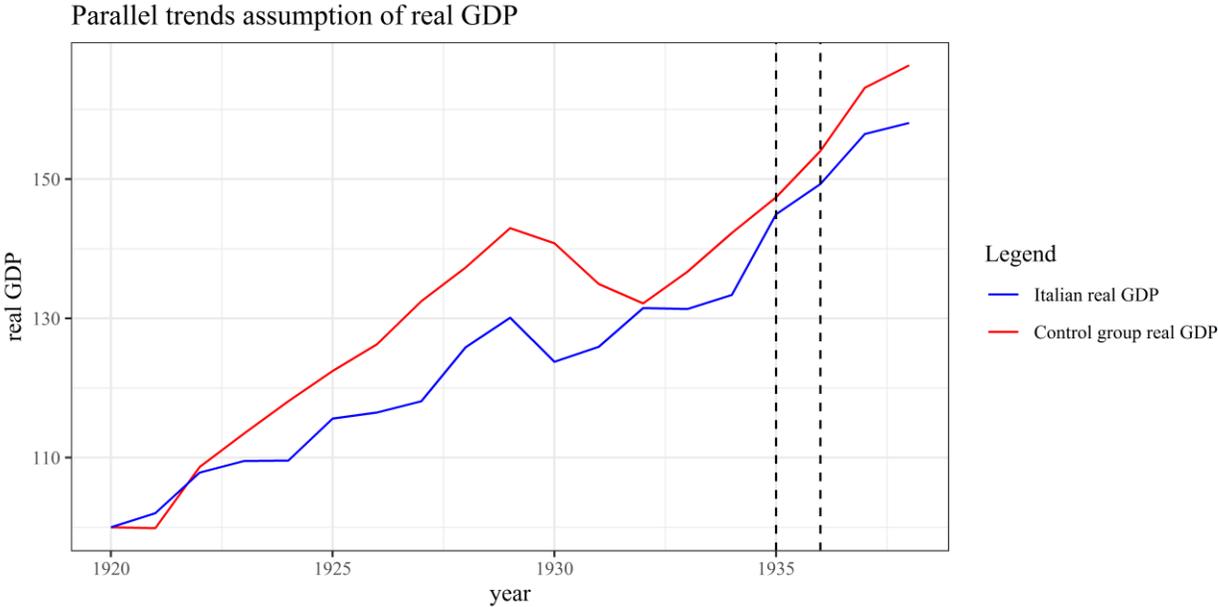


Evidently, in this case the parallel trends assumption does not hold. In fact, the trends of the Italian investment rate and of the one of the control group do not seem to show any relation. Therefore, it is not possible to estimate whether the economic sanctions had an impact on the Italian investment rate.

**6.2.7 Real GDP**

Figure 6.7 depicts the trends in real GDP for Italy, contrasting them with the average trends observed across all other countries in the control group.

Figure 6.7



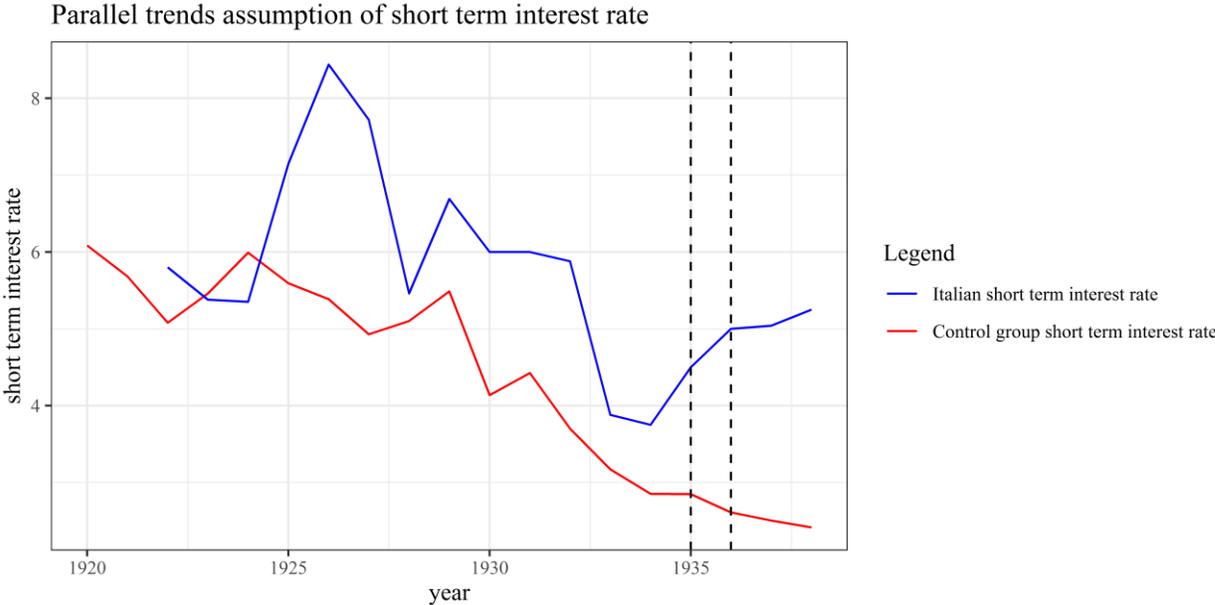
We discern a distinct and consistent common trend, with occasional minor deviations, in the trends observed. Notably, in the pre-sanctions period, Italian real GDP exhibited a faster growth rate compared to the control group. However, post-sanctions, while Italian real GDP continued to grow, the pace appeared slightly reduced. In any case, from the graph, any discernible impact of economic sanctions on real GDP seems minimal, if present at all. The common trend hypothesis seems, overall, satisfied in this case.

**6.2.8 Short-term interest rate**

Figure 6.8 illustrates the trends in the short-term interest rate for Italy, comparing them with the average trends observed across all other countries in the control group. In this instance, despite both the control and treated groups experiencing a general trend of reducing their short-term

interest rates from 1920 to 1935, the trajectories exhibit insufficient similarity to assert the satisfaction of the common trend hypothesis. Consequently, considering the short-term interest rate as an outcome variable may not be warranted. Instead, we might contemplate treating the short-term interest rate as an independent variable that could function as a control in our analysis. Given that interest rates reflect a country's monetary policy, incorporating short-term interest rates into our model could serve to control for the restrictive monetary policies implemented by the fascist regime to defend the lira from downward pressures.

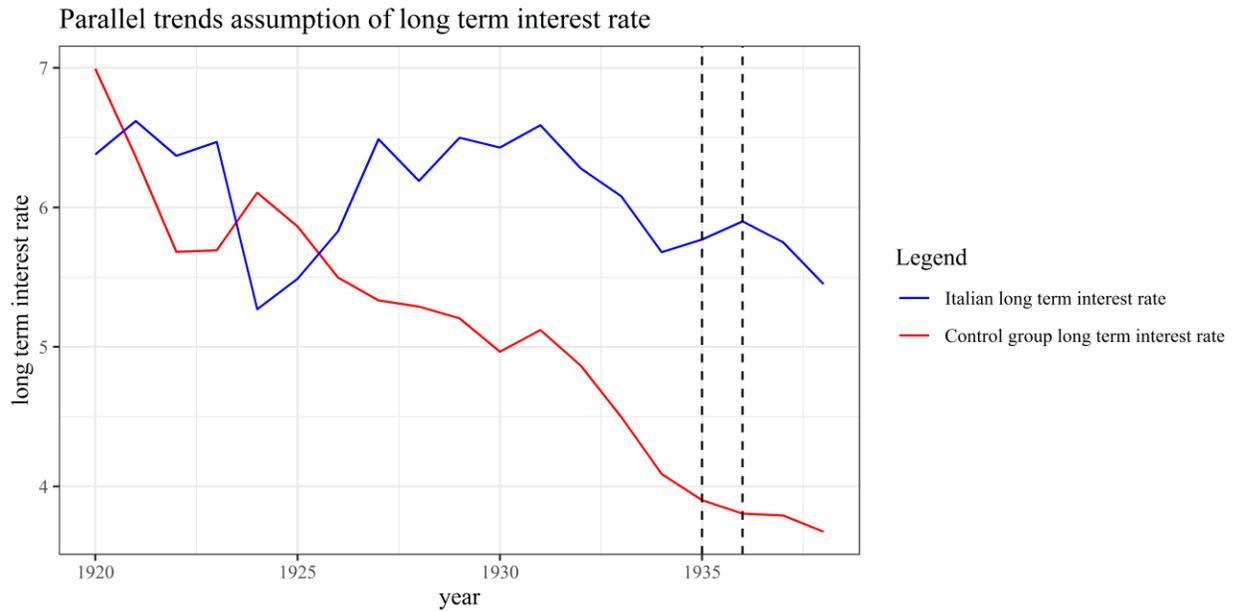
Figure 6.8



**6.2.9 Long-term interest rate**

Figure 6.9 depicts the trends in the long-term interest rate for Italy, contrasting them with the average trends observed across all other countries in the control group.

Figure 6.9

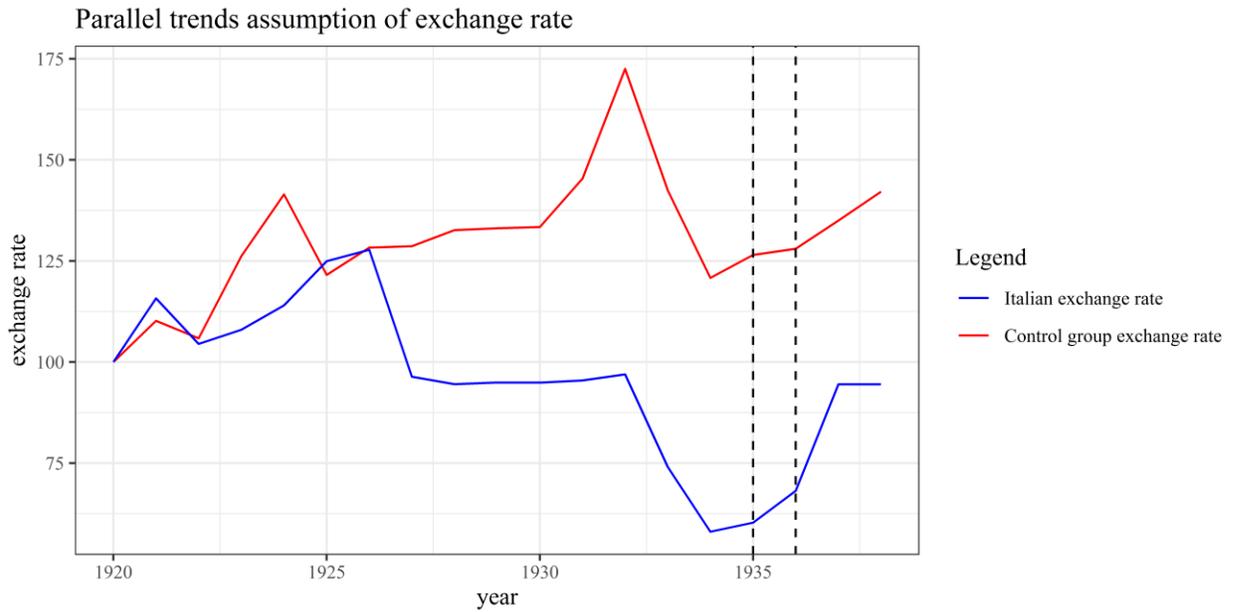


A similar analysis can be conducted for the long-term interest rate, analogous to the examination of the short-term interest rate. It could also be considered as a potential control variable in our model, given its relevance in reflecting and controlling for the monetary policy dynamics, particularly those associated with the efforts to defend the lira during the observed period.

### 6.2.10 Exchange rate

Figure 6.10 illustrates the trends in the exchange rate for Italy, comparing them with the average trends observed across all other countries in the control group. Similar to the CPI, data on Germany's exchange rate has been omitted from our analysis due to the extreme hyperinflation experienced in the early 1920s, leading to a significant decline in the values of the German mark. Including such volatile data would have introduced substantial distortions and complicated the comparison of trends across our selected variables. In any case, from the plot it is evident that the common trend hypothesis is not satisfied.

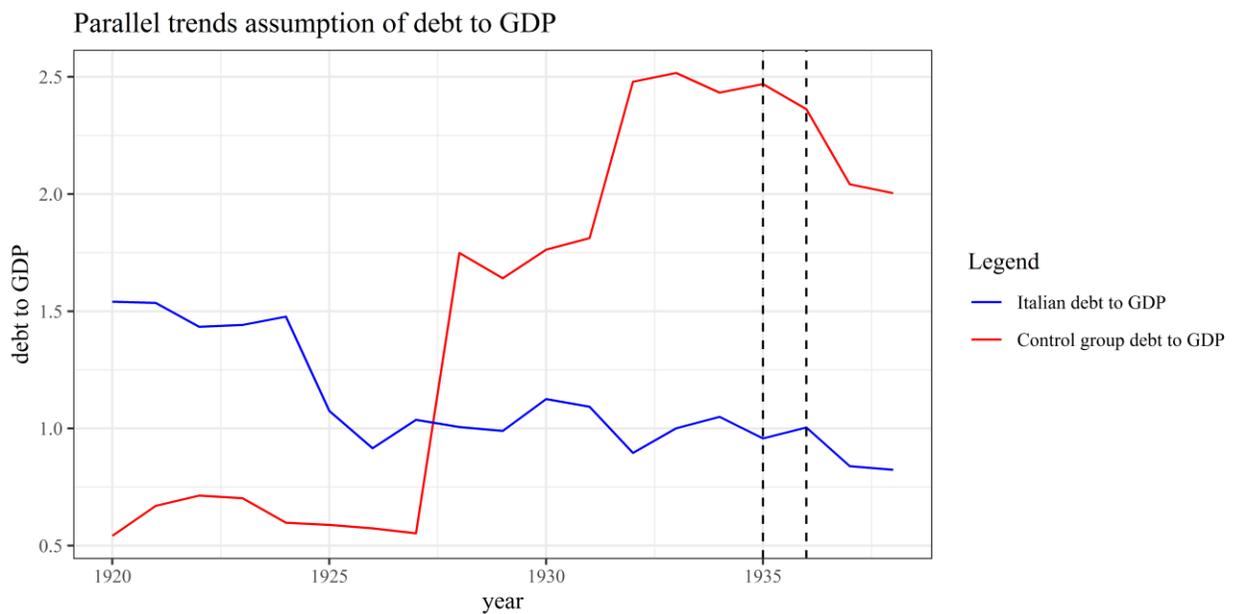
Figure 6.10



### 6.2.11 Debt-to-GDP

Figure 6.11 depicts the trends in the debt-to-GDP ratio for Italy, contrasting them with the average trends observed across all other countries in the control group. Once again, the common trend hypothesis is not satisfied in this case either, but we might consider to add the debt-to-GDP in our vector of controls.

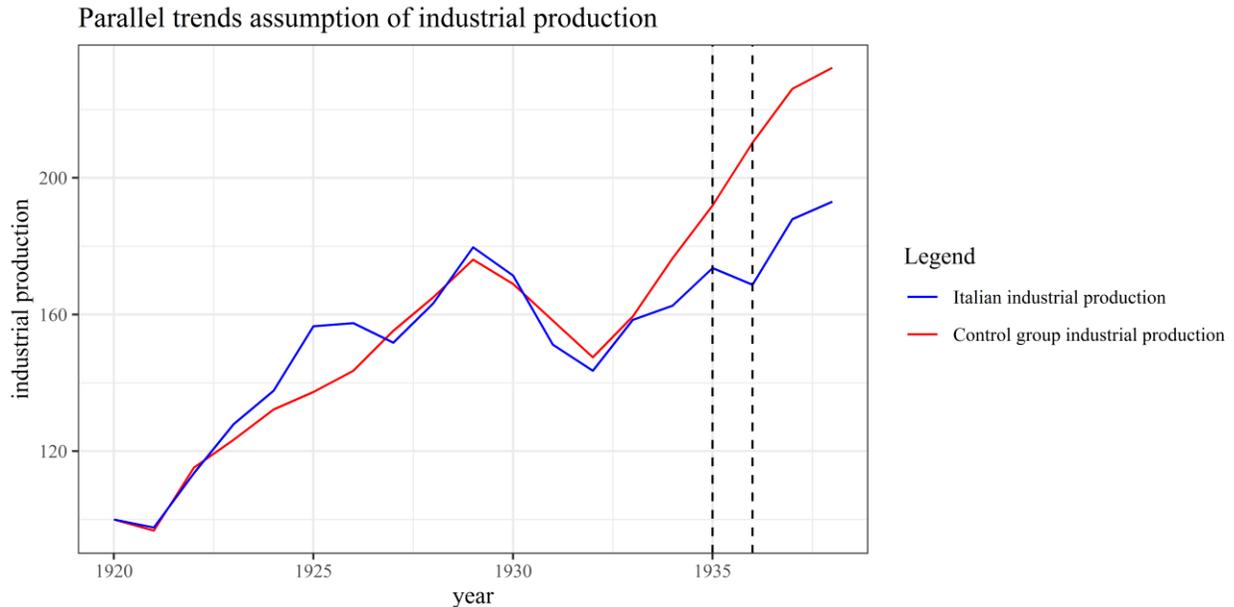
Figure 6.11



## 6.2.12 Industrial production

Figure 6.12 illustrates the trends in the debt-to-GDP ratio for Italy, comparing them with the average trends observed across all other countries in the control group.

Figure 6.12



Clearly, the two trends exhibit a similar trajectory, nearly identical except for some minor deviations between 1925 and 1927. It is also evident that during the period of economic sanctions, the industrial output in Italy experienced a decline, indicating a potential adverse impact of the sanctions on the Italian industrial sector. Overall, we can claim that the parallel trends assumption is met in this case.

## 6.3 Parallel trends assumption: formal test

Table 6.1 provides a summary of the more formal test for the parallel trends assumption. Only variables that seemed to show parallel trends from the graphical inspection are included. We chose to display only interaction variables starting from the year 1929 as we consider it a crucial turning point for the global economy. This choice allows us to evaluate the parallel trends assumption effectively, and it is sufficiently far back in time to ensure an adequate number of pre-treatment observations. Using 1929 as the starting point provides a comprehensive perspective on the trajectories of the treated and control groups, allowing for a robust examination of the parallel trends assumption. Furthermore, it is important to note that, even though we displayed only

interaction variables from the year 1929 onwards, the interaction term coefficients for all years before 1929 were found to be non-significant.

Table 6.1

| <b>Parallel trends assumption tests</b> |                            |                     |                    |                   |                      |                     |                     |
|---|----------------------------|---------------------|--------------------|-------------------|----------------------|---------------------|---------------------|
|   | <i>Dependent variable:</i> |                     |                    |                   |                      |                     |                     |
|   | imports                    | exports             | CPI                | unemp             | rcons                | realGDP             | Industry            |
|   | (1)                        | (2)                 | (3)                | (4)               | (5)                  | (6)                 | (7)                 |
| treated                                 | 25.827<br>(32.063)         | 66.833<br>(54.393)  | 16.775<br>(29.802) | -4.052<br>(3.344) | 1.122<br>(9.240)     | 4.809<br>(11.578)   | -9.876<br>(31.542)  |
| treated:year1929                        | -42.874<br>(44.289)        | -21.923<br>(75.131) | 9.960<br>(41.217)  | -0.156<br>(4.626) | -17.603<br>(12.776)  | -12.883<br>(16.009) | 3.602<br>(43.697)   |
| treated:year1930                        | -34.850<br>(44.289)        | -29.502<br>(75.131) | 10.288<br>(41.217) | -1.740<br>(4.621) | -19.867<br>(12.776)  | -17.000<br>(16.009) | 2.477<br>(43.697)   |
| treated:year1931                        | -38.322<br>(44.289)        | -23.671<br>(75.131) | 7.204<br>(41.217)  | -3.254<br>(4.621) | -22.130*<br>(12.776) | -9.027<br>(16.009)  | -7.047<br>(43.697)  |
| treated:year1932                        | -29.449<br>(44.289)        | -31.933<br>(75.131) | 9.373<br>(41.217)  | -5.379<br>(4.621) | -16.711<br>(12.776)  | -0.655<br>(16.009)  | -3.903<br>(43.697)  |
| treated:year1933                        | -33.268<br>(44.289)        | -27.034<br>(75.131) | 4.555<br>(41.217)  | -5.305<br>(4.621) | -18.374<br>(12.776)  | -5.367<br>(16.009)  | -1.031<br>(43.697)  |
| treated:year1934                        | -37.748<br>(44.289)        | -47.269<br>(75.131) | -0.255<br>(41.217) | -3.547<br>(4.621) | -23.446*<br>(12.776) | -8.895<br>(16.009)  | -13.915<br>(43.697) |
| treated:year1935                        | -45.959<br>(44.289)        | -73.808<br>(75.131) | 1.472<br>(41.217)  | -4.664<br>(4.621) | -23.069*<br>(12.776) | -2.453<br>(16.009)  | -18.333<br>(43.697) |
| Observations                            | 454                        | 454                 | 285                | 275               | 304                  | 304                 | 190                 |
| R <sup>2</sup>                          | 0.746                      | 0.784               | 0.870              | 0.675             | 0.806                | 0.818               | 0.758               |
| Adjusted R <sup>2</sup>                 | 0.708                      | 0.752               | 0.842              | 0.603             | 0.767                | 0.781               | 0.682               |
| <i>Note:</i>                            |                            |                     |                    |                   | *p<0.1               | **p<0.05            | ***p<0.01           |

As previously mentioned, the formal assessment of the parallel trends assumption involves running a regression where the year-dummies are interacted with the group dummy (assigned a value of 1 for the treated group and 0 for the control group). The significance of the coefficients for the pre-treatment years determines the validity of the parallel trends assumption. In our analysis, the significance level is set at 0.05. Upon examination of the regression results, we observe a significance level of 0.05 only for two coefficients associated with real consumption: specifically,

the coefficients of the interaction terms for the years 1931, 1934 and 1935. No further interaction term coefficients demonstrate statistical significance. Consequently, we find confirmation that the parallel trends assumption is satisfied for all variables, with the caveat that caution is warranted when considering real consumption. To bolster the robustness of our fundamental assumption, we plan to conduct additional tests that incorporate variables that did not graphically satisfy the parallel trend hypothesis as controls.

Table 6.2 reveals that none of the interaction term coefficients are statistically significant. Therefore, it can be asserted that controlling for interest rates, exchange rate, investment rate, and debt-to-GDP effectively satisfies the parallel trends assumption. Consequently, we intend to incorporate these controls in our DiD regression.

Table 6.2

| <b>Parallel trends assumption tests</b> |                            |                       |                       |                       |                       |                       |                       |
|---|----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | <i>Dependent variable:</i> |                       |                       |                       |                       |                       |                       |
|   | imports<br>(1)             | exports<br>(2)        | CPI<br>(3)            | unemp<br>(4)          | rcons<br>(5)          | realGDP<br>(6)        | Industry<br>(7)       |
| treated                                 | -26.141<br>(27.009)        | 62.604*<br>(37.521)   | 42.470***<br>(9.008)  | -7.300**<br>(2.821)   | -22.500***<br>(8.009) | 9.086<br>(10.460)     | -15.465<br>(29.674)   |
| iy                                      | 274.560***<br>(56.219)     | -79.034<br>(78.101)   | -7.781<br>(20.144)    | -23.197***<br>(6.117) | 90.615***<br>(16.671) | 91.981***<br>(21.773) | 40.990<br>(65.666)    |
| stir                                    | -3.686*<br>(2.220)         | -5.837*<br>(3.084)    | 0.124<br>(0.767)      | 0.066<br>(0.246)      | 0.218<br>(0.658)      | -1.210<br>(0.860)     | -4.896*<br>(2.919)    |
| ltrate                                  | -7.989**<br>(3.649)        | -13.711***<br>(5.069) | -0.036<br>(1.301)     | 0.284<br>(0.402)      | -0.842<br>(1.082)     | -6.097***<br>(1.413)  | -12.535***<br>(4.396) |
| debtoGDP                                | -15.263<br>(11.176)        | 13.696<br>(15.526)    | -51.478***<br>(4.136) | 1.946<br>(1.214)      | -4.907<br>(3.314)     | 7.379*<br>(4.328)     | 51.751***<br>(12.621) |
| treated:year1929                        | 57.722<br>(36.085)         | 19.584<br>(50.130)    | 4.477<br>(12.027)     | 0.384<br>(3.778)      | 14.121<br>(10.700)    | -4.014<br>(13.975)    | 33.266<br>(39.055)    |
| treated:year1930                        | 54.784<br>(36.179)         | 20.655<br>(50.261)    | 10.382<br>(12.087)    | -0.347<br>(3.777)     | 8.247<br>(10.728)     | -10.310<br>(14.012)   | 31.390<br>(39.051)    |
| treated:year1931                        | 39.329<br>(36.168)         | 23.502<br>(50.245)    | 1.967<br>(12.045)     | -1.042<br>(3.775)     | 5.063<br>(10.725)     | -5.018<br>(14.007)    | 20.225<br>(39.052)    |
| treated:year1932                        | 43.868<br>(36.098)         | 15.084<br>(50.148)    | -0.676<br>(12.019)    | -1.803<br>(3.768)     | 7.484<br>(10.704)     | 3.206<br>(13.980)     | 34.395<br>(38.922)    |
| treated:year1933                        | 22.609                     | 7.922                 | -1.949                | -1.757                | 6.384                 | -4.266                | 24.216                |

|                         |          |          |          |         |          |          |           |
|-------------------------|----------|----------|----------|---------|----------|----------|-----------|
|                         | (36.311) | (50.444) | (12.100) | (3.792) | (10.767) | (14.063) | (39.204)  |
| treated:year1934        | 26.550   | -13.682  | -4.850   | -0.720  | 3.573    | -5.979   | 9.581     |
|                         | (36.186) | (50.271) | (12.057) | (3.779) | (10.730) | (14.014) | (39.114)  |
| treated:year1935        | 30.585   | -17.516  | -7.678   | -1.712  | 3.707    | 3.379    | 19.105    |
|                         | (36.061) | (50.096) | (12.016) | (3.765) | (10.693) | (13.966) | (38.979)  |
| Observations            | 224      | 224      | 210      | 214     | 224      | 224      | 162       |
| R <sup>2</sup>          | 0.843    | 0.799    | 0.955    | 0.747   | 0.859    | 0.878    | 0.828     |
| Adjusted R <sup>2</sup> | 0.797    | 0.739    | 0.941    | 0.668   | 0.817    | 0.842    | 0.757     |
| <i>Note:</i>            |          |          |          |         | *p<0.1   | **p<0.05 | ***p<0.01 |

## 6.4 Estimation approach

In our approach, we formulate three versions of the DiD model. The first formulation is a standard DiD without covariates that simply measures the impact of the sanctions on the dependent variables comparing the treated and control groups. The second formulation includes also year and country-specific dummies, which enhance the robustness and credibility of our model, since they capture macroeconomic events, which are not taken into consideration by other elements in the regression, which are specific for that year or that country. Inserting country-specific dummies is justified by the presence of numerous pre-treatment observations that allow us to capture and account for the dynamics that occurred prior to the treatment or event. Importantly, this step ensures that our model is not contaminated by post-treatment effects, thereby strengthening the validity of our findings. The third formulation incorporates also some controls, namely those variables, which are embedded in our dataset, that do not satisfy the parallel trend condition but might influence the outcome as well.

The first model, the standard DiD, has the following specification:

$$y_{i,s} = \beta_0 + \beta_1 Treat_s + \beta_2 Time_t + \beta_3 (Treat_s Time_t) + \varepsilon_{s,t}$$

Where  $y_{s,t}$  is the outcome variable.  $Treat_s$  is the group dummy that takes value 0 for a country  $i$  in the control group (namely any country but Italy), and 1 for Italy.  $Time_t$  is a dummy that takes value 0 before the treatment, and 1 after the treatment.  $Treat_s Time_t$  is the dummy interaction term that takes 1 in Italy in 1936 (the year of sanctions), and 0 otherwise.  $Treat_s Time_t$  captures the average treatment effect.  $\varepsilon_{s,t}$  is the error term.

The second model is a standard DiD with year and country-specific dummies, which takes the specification:

$$y_{s,t} = \beta_0 + \sum_t^T \beta_t Year_t + \sum_s^S \beta_s Country_s + \beta_3(Treat_s Time_t) + \varepsilon_{s,t}$$

Where  $y_{s,t}$  is the outcome variable.  $Year_t$  is the year dummy that takes value 1 in the year  $t$ .  $Country_s$  is the country-specific dummy that takes value 1 for country  $s$ .  $Treat_s Time_t$  is the dummy interaction term that takes 1 in Italy in 1936 (the year of sanctions), and 0 otherwise.  $Treat_s Time_t$  captures the average treatment effect.  $\varepsilon_{i,t}$  is the error term.

The third model is just like the second one, but with a set of controls included. The specification is the following:

$$y_{s,t} = \beta_0 + \sum_t^T \beta_t Year_t + \sum_s^S \beta_s Country_s + \beta_3(Treat_s Time_t) + X'_{s,t} \beta_{s,t} + \varepsilon_{s,t}$$

Where  $y_{s,t}$  is the outcome variable.  $Year_t$  is the year dummy that takes value 1 in the year  $t$ .  $Country_s$  is the country-specific dummy that takes value 1 for country  $s$ .  $Treat_s Time_t$  is the dummy interaction term that takes 1 in Italy in 1936 (the year of sanctions), and 0 otherwise.  $Treat_s Time_t$  captures the average treatment effect.  $X'_{s,t}$  is a vector of controls: investment rates, short-term interest rates, long-term interest rates, debt-to-GDP ratio.  $\varepsilon_{i,t}$  is the error term.

# 7 Results

## 7.1 All countries dataset

Table 7.1 shows the results for the standard DiD model. Each column in the table corresponds to a distinct dependent variable, and the reported results encapsulate the estimated coefficients and statistical significance associated with the specified DiD model for each variable under consideration.

Table 7.1

| Standard Difference-in-Differences |                            |                       |                       |                    |                      |                       |                      |
|------------------------------------|----------------------------|-----------------------|-----------------------|--------------------|----------------------|-----------------------|----------------------|
|                                    | <i>Dependent variable:</i> |                       |                       |                    |                      |                       |                      |
|                                    | realGDP                    | imports               | exports               | CPI                | unemp                | rcons                 | industry             |
|                                    | (1)                        | (2)                   | (3)                   | (4)                | (5)                  | (6)                   | (7)                  |
| did                                | 0.319<br>(12.933)          | -60.911*<br>(35.712)  | -58.722<br>(66.041)   | -2.285<br>(46.388) | 0.044<br>(3.176)     | -15.710<br>(11.015)   | -39.586<br>(29.785)  |
| time                               | 33.938***<br>(3.233)       | 26.880***<br>(7.377)  | 53.535***<br>(13.642) | -0.734<br>(11.977) | 1.529*<br>(0.823)    | 14.845***<br>(2.754)  | 76.159***<br>(9.419) |
| treated                            | -6.870<br>(5.139)          | -28.396**<br>(14.183) | -25.628<br>(26.228)   | 13.175<br>(18.433) | -4.258***<br>(1.264) | -13.827***<br>(4.377) | -0.056<br>(11.836)   |
| Observations                       | 304                        | 454                   | 454                   | 285                | 275                  | 304                   | 190                  |
| R <sup>2</sup>                     | 0.285                      | 0.048                 | 0.037                 | 0.002              | 0.060                | 0.132                 | 0.266                |
| Adjusted R <sup>2</sup>            | 0.278                      | 0.042                 | 0.031                 | -0.009             | 0.049                | 0.123                 | 0.254                |
| Note:                              | *p<0.1 **p<0.05 ***p<0.01  |                       |                       |                    |                      |                       |                      |

As for the regression whose dependent variable is *real GDP*, the coefficient for the interaction term (did) is 0.319, indicating a positive effect on real GDP due to the treatment, however, due to a high standard error, the impact of sanctions on real GDP is not significant. An analogous consideration can be made for all other outcome variables, except for *imports*, whose interaction term is equal to -60.911, implying a significant negative impact on imports due to the treatment at the 90% significance level ( $p < 0.10$ ).

Table 7.2 represents the results for the DiD model with year and country-specific dummies, from 1929.

Table 7.2

## Difference-in-Differences with year and country-specific dummies

|                       | <i>Dependent variable:</i> |                        |                        |                      |                      |                       |                        |
|-----------------------|----------------------------|------------------------|------------------------|----------------------|----------------------|-----------------------|------------------------|
|                       | realGDP<br>(1)             | imports<br>(2)         | exports<br>(3)         | CPI<br>(4)           | unemp<br>(5)         | rcons<br>(6)          | industry<br>(7)        |
| did                   | 0.319<br>(6.944)           | -61.144***<br>(19.382) | -58.477*<br>(32.819)   | -2.285<br>(17.780)   | -0.306<br>(2.002)    | -15.710***<br>(5.609) | -39.586**<br>(5.609)   |
| year1929              | -11.591***<br>(3.803)      | 30.775***<br>(8.738)   | -1.403<br>(14.796)     | 18.277*<br>(10.039)  | -5.831***<br>(1.152) | -1.455<br>(3.072)     | -33.668***<br>(12.590) |
| year1930              | -14.035***<br>(3.803)      | 12.524<br>(8.738)      | -10.407<br>(14.796)    | 13.968<br>(10.039)   | -3.501***<br>(1.130) | -2.671<br>(3.072)     | -40.918***<br>(12.590) |
| year1931              | -19.375***<br>(3.803)      | -6.519<br>(8.738)      | -20.825<br>(14.796)    | 5.038<br>(10.039)    | -0.157<br>(1.130)    | -4.841<br>(3.072)     | -52.581***<br>(12.590) |
| year1932              | -21.644***<br>(3.803)      | -28.494***<br>(8.738)  | -44.001***<br>(14.796) | 0.119<br>(10.039)    | 3.672***<br>(1.130)  | -7.878**<br>(3.072)   | -63.034***<br>(12.590) |
| year1933              | -17.378***<br>(3.803)      | -25.540***<br>(8.738)  | -48.237***<br>(14.796) | -1.743<br>(10.039)   | 3.576***<br>(1.130)  | -5.842*<br>(3.072)    | -50.736***<br>(12.590) |
| year1934              | -12.039***<br>(3.803)      | -16.288*<br>(8.738)    | -32.660**<br>(14.796)  | -2.476<br>(10.039)   | 1.740<br>(1.130)     | -3.607<br>(3.072)     | -34.996***<br>(12.590) |
| year1935              | -6.496*<br>(3.803)         | -9.878<br>(8.738)      | -15.322<br>(14.796)    | -2.726<br>(10.039)   | 1.314<br>(1.130)     | -2.871<br>(3.072)     | -20.006<br>(12.590)    |
| year1937              | 8.930**<br>(3.778)         | 22.612***<br>(8.701)   | 27.144*<br>(14.733)    | 6.840<br>(9.969)     | -1.653<br>(1.122)    | 5.163*<br>(3.052)     | 16.103<br>(12.454)     |
| year1938              | 12.063***<br>(3.778)       | 17.921**<br>(8.907)    | 11.533<br>(15.082)     | 9.737<br>(9.969)     | -1.393<br>(1.122)    | 6.274**<br>(3.052)    | 22.163*<br>(12.454)    |
| countryAustralia      |                            | -2.080<br>(9.779)      | -12.553<br>(16.558)    |                      |                      |                       |                        |
| countryAustria        |                            | -22.361**<br>(9.920)   | 18.999<br>(16.797)     |                      |                      |                       |                        |
| countryBelgium        | 6.247*<br>(3.467)          | 16.180*<br>(9.779)     | 137.438***<br>(16.558) | 55.938***<br>(8.858) | -4.016***<br>(0.997) | 5.641**<br>(2.801)    |                        |
| countryBulgaria       |                            | 67.995***<br>(9.779)   | 139.952***<br>(16.558) |                      |                      |                       |                        |
| countryCanada         | -1.643<br>(3.467)          | -29.250***<br>(9.779)  | 10.386<br>(16.558)     | -11.398<br>(8.858)   | -0.696<br>(0.997)    | -6.293**<br>(2.801)   |                        |
| countryCzechoslovakia |                            | 80.777***              | 100.998***             |                      |                      |                       |                        |

|                    |                       |                       |                        |                       |                      |                       |                       |
|--------------------|-----------------------|-----------------------|------------------------|-----------------------|----------------------|-----------------------|-----------------------|
|                    |                       | (9.920)               | (16.797)               |                       |                      |                       |                       |
| countryDenmark     | 7.119**<br>(3.467)    | 63.646***<br>(9.779)  | 109.658***<br>(16.558) | -19.150**<br>(8.858)  | -5.034***<br>(0.997) | -15.821***<br>(2.801) |                       |
| countryFinland     | 28.529***<br>(3.467)  | 67.690***<br>(9.779)  | 95.618***<br>(16.558)  | 30.285***<br>(8.858)  | -5.416***<br>(0.997) | 12.739***<br>(2.801)  | 41.196***<br>(9.035)  |
| countryFrance      | 8.222**<br>(3.467)    | -1.540<br>(9.779)     | 23.062<br>(16.558)     | 47.252***<br>(8.858)  | -2.342**<br>(0.997)  | -4.061<br>(2.801)     | -14.647<br>(9.035)    |
| countryGermany     | -7.736**<br>(3.467)   | 76.629***<br>(9.779)  | 73.395***<br>(16.558)  |                       | -3.047***<br>(0.997) | 26.023***<br>(2.801)  | -16.235*<br>(9.035)   |
| countryGreece      |                       | 32.047***<br>(9.779)  | 22.125<br>(16.558)     |                       |                      |                       |                       |
| countryHungary     |                       | 49.581***<br>(9.779)  | 92.856***<br>(16.558)  |                       |                      |                       |                       |
| countryItaly       | -2.061<br>(3.636)     | -2.570<br>(10.246)    | 41.209**<br>(17.350)   | 29.951***<br>(9.292)  | -6.121***<br>(1.046) | -12.706***<br>(2.937) | -9.932<br>(9.494)     |
| countryJapan       | 6.492*<br>(3.467)     | 32.749***<br>(9.779)  | 89.769***<br>(16.558)  | -6.836<br>(8.858)     | -7.295***<br>(1.259) | -9.841***<br>(2.801)  | 22.645**<br>(9.035)   |
| countryNetherlands | 24.149***<br>(3.467)  | 22.225**<br>(9.779)   | 54.043***<br>(16.558)  | -18.129**<br>(8.858)  | 0.892<br>(0.997)     | 9.125***<br>(2.801)   | 0.894<br>(9.035)      |
| countryNorway      | 0.198<br>(3.467)      | -79.705***<br>(9.779) | -34.893**<br>(16.558)  | -23.285***<br>(8.858) | -1.568<br>(0.997)    | -14.428***<br>(2.801) |                       |
| countryPortugal    | 13.996***<br>(3.467)  | 53.736***<br>(9.779)  | 25.020<br>(16.558)     | 243.670***<br>(8.858) |                      | 28.496***<br>(2.801)  |                       |
| countryRomania     |                       | 105.889***<br>(9.779) | 350.769***<br>(16.558) |                       |                      |                       |                       |
| countrySweden      | 1.814<br>(3.467)      | 40.785***<br>(9.779)  | 20.794<br>(16.558)     | -23.161***<br>(8.858) | -3.500***<br>(0.997) | -4.583<br>(2.801)     | -26.656***<br>(9.035) |
| countrySwitzerland | 2.019<br>(3.467)      | -0.469<br>(9.779)     | 0.307<br>(16.558)      | -17.366*<br>(8.858)   | -1.216<br>(0.997)    | 0.514<br>(2.801)      |                       |
| countryUK          | -13.362***<br>(3.467) | 3.638<br>(9.779)      | -1.466<br>(16.558)     | -15.737*<br>(8.858)   | 0.353<br>(0.997)     | -4.020<br>(2.801)     | -46.320***<br>(9.035) |
| countryUSA         | -3.907<br>(3.467)     | -14.192<br>(9.779)    | -15.572<br>(16.558)    | -7.226<br>(8.858)     | 1.916*<br>(0.997)    | -6.665**<br>(2.801)   | -49.760***<br>(9.035) |
| countryYugoslavia  |                       | 30.025***<br>(9.779)  | 236.534***<br>(16.558) |                       |                      |                       |                       |
| Observations       | 304                   | 454                   | 454                    | 285                   | 275                  | 304                   | 190                   |

|                         |       |       |       |       |       |                           |       |
|-------------------------|-------|-------|-------|-------|-------|---------------------------|-------|
| R <sup>2</sup>          | 0.815 | 0.744 | 0.783 | 0.869 | 0.668 | 0.798                     | 0.756 |
| Adjusted R <sup>2</sup> | 0.792 | 0.718 | 0.761 | 0.852 | 0.623 | 0.773                     | 0.713 |
| <i>Note:</i>            |       |       |       |       |       | *p<0.1 **p<0.05 ***p<0.01 |       |

The inclusion of country-specific and year-specific dummy variables has had a notable impact on the significance of the interaction terms in the model. Specifically, the coefficient of the interaction term for imports has become statistically significant at a 99% confidence level. This suggests that, after accounting for country and year-specific effects, the observed impact of the treatment on imports is highly unlikely to be due to random chance. As for the exports regression, although the coefficient of the interaction term is slightly lower than in the previous model, it has become statistically significant at a 90% confidence level. The coefficients of the interaction terms associated with the regression for *real consumption* and *industry* have not changed in magnitude. However, their statistical significance has improved, reaching 99% and 95% confidence levels, respectively. This improvement suggests that the introduction of country and year-specific dummies has enhanced the precision of the model, resulting in more reliable estimates of the treatment effects.

Table 7.3 represents the results for the DiD model with year and country-specific dummies and the variables that did not satisfy the condition of parallel trends: investment rate (*iy*), short-term interest rate (*stir*), long-term interest rate (*ltrate*), debt-to-GDP ratio (*debtoGDP*). Country-specific and year dummies have been omitted from the table. The updated results indicate some changes in the significance levels of coefficients after the inclusion of additional control variables. The coefficient of the interaction term for imports remained significant at the 99% confidence level, suggesting a robust impact of the treatment on imports. However, the magnitude of the effect has decreased. The coefficient for exports has become not significant again, indicating that the treatment might not have a statistically significant impact on exports. The coefficient for the interaction term in the CPI regression has become significant at the 90% confidence level, suggesting a potential impact of the treatment on consumer prices. The coefficient for the interaction term in the real consumption model remains highly significant, indicating a substantial impact of the treatment on real consumption, although the magnitude has slightly decreased. On the other hand, the coefficient for the interaction term in the model of industrial output has turned not significant once again.

Table 7.3

| <b>Difference-in-Differences with controls</b> |                           |                        |                       |                        |                       |                       |                       |
|--|---------------------------|------------------------|-----------------------|------------------------|-----------------------|-----------------------|-----------------------|
| <i>Dependent variable:</i>                     |                           |                        |                       |                        |                       |                       |                       |
|  | realGDP                   | imports                | exports               | CPI                    | unemp                 | rcons                 | industry              |
|  | (1)                       | (2)                    | (3)                   | (4)                    | (5)                   | (6)                   | (7)                   |
| did  | 5.503<br>(6.147)          | -47.779***<br>(16.314) | -19.498<br>(22.851)   | -13.333*<br>(7.312)    | 0.737<br>(1.816)      | -13.482***<br>(4.595) | -19.159<br>(17.709)   |
| iy   | 115.785***<br>(19.276)    | 236.301***<br>(51.157) | -44.772<br>(71.654)   | -93.353***<br>(23.055) | -36.244***<br>(5.832) | 88.517***<br>(14.409) | 120.992**<br>(58.368) |
| stir   | -0.169<br>(0.686)         | -0.961<br>(1.821)      | 0.492<br>(2.551)      | 0.138<br>(0.849)       | -0.245<br>(0.211)     | 0.555<br>(0.513)      | 0.357<br>(2.312)      |
| ltrate   | -6.301***<br>(1.238)      | -10.622***<br>(3.286)  | -17.058***<br>(4.602) | -3.686**<br>(1.553)    | 0.470<br>(0.384)      | -1.697*<br>(0.926)    | -15.449***<br>(3.890) |
| debtoGDP                                       | 5.373<br>(3.984)          | -13.585<br>(10.572)    | 8.344<br>(14.808)     | -66.930***<br>(4.742)  | 2.846**<br>(1.213)    | -3.581<br>(2.978)     | 41.005***<br>(11.953) |
| Observations                                   | 243                       | 243                    | 243                   | 229                    | 233                   | 243                   | 181                   |
| R <sup>2</sup>                                 | 0.871                     | 0.823                  | 0.777                 | 0.904                  | 0.749                 | 0.855                 | 0.800                 |
| Adjusted R <sup>2</sup>                        | 0.849                     | 0.792                  | 0.738                 | 0.887                  | 0.703                 | 0.829                 | 0.757                 |
| <i>Note:</i>                                   | *p<0.1 **p<0.05 ***p<0.01 |                        |                       |                        |                       |                       |                       |

## 7.2 Europe dataset

In the following pages we expose the results of the same models just described in the previous paragraph, but with data related only to European countries. Table 7.4 illustrates the results obtained from the standard DiD model. The sole variable demonstrating statistical significance is *imports*, confirmed at the 90% significance level. This aligns with the findings of the standard DiD analysis using the dataset encompassing all countries. Notably, the coefficient associated with "imports" exhibits a heightened absolute value.

Table 7.4

| <b>Standard Difference-in-Differences - Europe</b> |                              |                       |                       |                    |                      |                       |                      |
|--|------------------------------|-----------------------|-----------------------|--------------------|----------------------|-----------------------|----------------------|
| <i>Dependent variable:</i>                         |                              |                       |                       |                    |                      |                       |                      |
|  | realGDP                      | imports               | exports               | CPI                | unemp                | rcons                 | industry             |
|  | (1)                          | (2)                   | (3)                   | (4)                | (5)                  | (6)                   | (7)                  |
| did  | -0.040<br>(13.835)           | -67.392*<br>(37.130)  | -64.103<br>(70.025)   | -4.894<br>(53.769) | 0.175<br>(2.812)     | -18.495<br>(11.757)   | -35.637<br>(28.053)  |
| time   | 34.297***<br>(3.994)         | 33.360***<br>(8.648)  | 58.916***<br>(16.309) | 1.875<br>(16.212)  | 1.398<br>(0.849)     | 17.630***<br>(3.394)  | 72.210***<br>(9.918) |
| treated  | -8.476<br>(5.497)            | -35.324**<br>(14.741) | -39.465<br>(27.802)   | 4.331<br>(21.366)  | -3.713***<br>(1.118) | -15.868***<br>(4.672) | -1.732<br>(11.147)   |
| Observations                                       | 228                          | 359                   | 359                   | 209                | 207                  | 228                   | 152                  |
| R <sup>2</sup>                                     | 0.271                        | 0.071                 | 0.045                 | 0.0002             | 0.073                | 0.171                 | 0.273                |
| Adjusted R <sup>2</sup>                            | 0.261                        | 0.063                 | 0.037                 | -0.014             | 0.059                | 0.160                 | 0.258                |
| <i>Note:</i>                                       | * p<0.1 ** p<0.05 *** p<0.01 |                       |                       |                    |                      |                       |                      |

Table 7.5 the results for the regression that includes year and country-specific dummies for every European country in the dataset are shown. The data are still limited to European countries. Similarly to the preceding paragraph, the inclusion of country and year-specific dummy variables in the model did not alter the coefficients associated with the interaction term very much. Consistently, as observed earlier, the execution of the DiD analysis on exports, real consumption, and industry replicated the phenomenon of rendering the coefficients of the interaction term statistically significant, maintaining the same confidence levels observed in the previous analysis.

Table 7.5

| <b>Difference-in-Differences with year and country-specific dummies - Europe</b> |                       |                        |                      |                    |                      |                       |                       |
|--|-----------------------|------------------------|----------------------|--------------------|----------------------|-----------------------|-----------------------|
| <i>Dependent variable:</i>   |                       |                        |                      |                    |                      |                       |                       |
|  | realGDP               | imports                | exports              | CPI                | unemp                | rcons                 | industry              |
|  | (1)                   | (2)                    | (3)                  | (4)                | (5)                  | (6)                   | (7)                   |
| did  | -0.040<br>(6.900)     | -67.514***<br>(19.898) | -63.293*<br>(34.910) | -4.894<br>(20.764) | 0.109<br>(1.877)     | -18.495***<br>(5.209) | -35.637**<br>(17.043) |
| year1929   | -13.063***<br>(4.325) | 28.583***<br>(10.033)  | 1.595<br>(17.601)    | 19.944<br>(13.550) | -4.822***<br>(1.225) | -4.927<br>(3.265)     | -28.700**<br>(12.847) |

|                       |                       |                        |                        |                        |                      |                       |                        |
|-----------------------|-----------------------|------------------------|------------------------|------------------------|----------------------|-----------------------|------------------------|
| year1930              | -12.961***<br>(4.325) | 11.778<br>(10.033)     | -3.368<br>(17.601)     | 15.732<br>(13.550)     | -3.619***<br>(1.225) | -5.593*<br>(3.265)    | -35.447***<br>(12.847) |
| year1931              | -16.879***<br>(4.325) | -4.878<br>(10.033)     | -15.627<br>(17.601)    | 6.021<br>(13.550)      | -0.625<br>(1.225)    | -5.074<br>(3.265)     | -48.184***<br>(12.847) |
| year1932              | -19.247***<br>(4.325) | -29.734***<br>(10.033) | -46.678***<br>(17.601) | 0.838<br>(13.550)      | 2.959**<br>(1.225)   | -7.002**<br>(3.265)   | -57.787***<br>(12.847) |
| year1933              | -14.575***<br>(4.325) | -26.475***<br>(10.033) | -51.977***<br>(17.601) | -1.282<br>(13.550)     | 2.730**<br>(1.225)   | -4.287<br>(3.265)     | -47.022***<br>(12.847) |
| year1934              | -9.950**<br>(4.325)   | -15.469<br>(10.033)    | -35.397**<br>(17.601)  | -2.627<br>(13.550)     | 1.294<br>(1.225)     | -2.677<br>(3.265)     | -31.280**<br>(12.847)  |
| year1935              | -5.235<br>(4.325)     | -10.589<br>(10.033)    | -16.208<br>(17.601)    | -3.372<br>(13.550)     | 1.105<br>(1.225)     | -1.925<br>(3.265)     | -18.336<br>(12.847)    |
| year1937              | 8.923**<br>(4.287)    | 25.677**<br>(9.978)    | 31.007*<br>(17.505)    | 8.258<br>(13.418)      | -1.410<br>(1.213)    | 5.480*<br>(3.236)     | 17.943<br>(12.670)     |
| year1938              | 11.792***<br>(4.287)  | 23.762**<br>(10.284)   | 15.625<br>(18.041)     | 11.457<br>(13.418)     | -1.520<br>(1.213)    | 7.517**<br>(3.236)    | 22.691*<br>(12.670)    |
| countryBelgium        |                       | 38.083***<br>(10.124)  | 118.134***<br>(17.761) |                        |                      |                       |                        |
| countryBulgaria       |                       | 89.899***<br>(10.124)  | 120.648***<br>(17.761) |                        |                      |                       |                        |
| countryCzechoslovakia |                       | 103.139***<br>(10.251) | 82.000***<br>(17.985)  |                        |                      |                       |                        |
| countryDenmark        | 0.873<br>(3.407)      | 85.549***<br>(10.124)  | 90.354***<br>(17.761)  | -75.088***<br>(10.209) | -0.666<br>(0.937)    | -21.461***<br>(2.572) |                        |
| countryFinland        | 22.282***<br>(3.407)  | 89.593***<br>(10.124)  | 76.314***<br>(17.761)  | -25.653**<br>(10.209)  | -1.048<br>(0.937)    | 7.098***<br>(2.572)   | 41.196***<br>(8.221)   |
| countryFrance         | 1.976<br>(3.407)      | 20.364**<br>(10.124)   | 3.758<br>(17.761)      | -8.685<br>(10.209)     | 1.878**<br>(0.948)   | -9.702***<br>(2.572)  | -14.647*<br>(8.221)    |
| countryGermany        | -13.983***<br>(3.407) | 98.533***<br>(10.124)  | 54.091***<br>(17.761)  |                        | 1.320<br>(0.937)     | 20.383***<br>(2.572)  | -16.235*<br>(8.221)    |
| countryGreece         |                       | 53.951**<br>(10.124)   | 2.821<br>(17.761)      |                        |                      |                       |                        |
| countryHungary        |                       | 71.485***<br>(10.124)  | 73.552***<br>(17.761)  |                        |                      |                       |                        |
| countryItaly          | -8.251**<br>(3.577)   | 20.339*<br>(10.584)    | 22.665<br>(18.568)     | -25.575**<br>(10.723)  | -1.819*<br>(0.983)   | -17.907***<br>(2.700) | -10.556<br>(8.650)     |

|                         |                       |                        |                        |                        |                     |                       |                       |
|-------------------------|-----------------------|------------------------|------------------------|------------------------|---------------------|-----------------------|-----------------------|
| countryNetherlands      | 17.903***<br>(3.407)  | 44.128***<br>(10.124)  | 34.738*<br>(17.761)    | -74.067***<br>(10.209) | 5.260***<br>(0.937) | 3.484<br>(2.572)      | 0.894<br>(8.221)      |
| countryNorway           | -6.048*<br>(3.407)    | -57.802***<br>(10.124) | -54.197***<br>(17.761) | -79.223***<br>(10.209) | 2.799***<br>(0.937) | -20.069***<br>(2.572) |                       |
| countryPortugal         | 7.749**<br>(3.407)    | 75.640***<br>(10.124)  | 5.716<br>(17.761)      | 187.732***<br>(10.209) |                     | 22.856***<br>(2.572)  |                       |
| countryRomania          |                       | 127.792***<br>(10.124) | 331.465***<br>(17.761) |                        |                     |                       |                       |
| countrySweden           | -4.433<br>(3.407)     | 62.688***<br>(10.124)  | 1.490<br>(17.761)      | -79.099***<br>(10.209) | 0.868<br>(0.937)    | -10.224***<br>(2.572) | -26.656***<br>(8.221) |
| countrySwitzerland      | -4.228<br>(3.407)     | 21.435**<br>(10.124)   | -18.997<br>(17.761)    | -73.304***<br>(10.209) | 3.151***<br>(0.937) | -5.127**<br>(2.572)   |                       |
| countryUK               | -19.609***<br>(3.407) | 25.542**<br>(10.124)   | -20.770<br>(17.761)    | -71.675***<br>(10.209) | 4.720***<br>(0.937) | -9.660***<br>(2.572)  | -46.320***<br>(8.221) |
| countryYugoslavia       |                       | 51.928***<br>(10.124)  | 217.230***<br>(17.761) |                        |                     |                       |                       |
| Observations            | 228                   | 359                    | 359                    | 209                    | 207                 | 228                   | 152                   |
| R <sup>2</sup>          | 0.841                 | 0.759                  | 0.785                  | 0.870                  | 0.640               | 0.857                 | 0.773                 |
| Adjusted R <sup>2</sup> | 0.816                 | 0.731                  | 0.761                  | 0.849                  | 0.581               | 0.835                 | 0.726                 |

Note:

\*p<0.1 \*\*p<0.05 \*\*\*p<0.01

Table 7.6 depicts the results for the DiD model with year and country-specific dummies and the variables that did not satisfy the condition of parallel trends, as previously executed. Also in this case country-specific and year dummies have been omitted from the table, though the estimations accounted for them. The outcomes of this table, where only data related to European countries were considered, are quite similar to those that had been found in the analogous table with controls that took in consideration the data of all countries in the dataset. The estimation of the effect of the economic sanctions are quite similar, even if the coefficients, with the exception of the one that affected industrial production, which in any case is not significant, are slightly higher. The only relevant difference is that in this case the impact of sanctions on CPI has turned into non-significant, whereas it was significant when we included all countries. Just like observed previously, the impact on imports and real consumption remained significant, whereas the effect on exports and industry turned again non-significant.

Table 7.6

| <b>Difference-in-Differences with controls - Europe</b> |                           |                        |                       |                         |                       |                       |                      |
|---|---------------------------|------------------------|-----------------------|-------------------------|-----------------------|-----------------------|----------------------|
| <i>Dependent variable:</i>                              |                           |                        |                       |                         |                       |                       |                      |
|   | realGDP                   | imports                | exports               | CPI                     | unemp                 | rcons                 | industry             |
|   | (1)                       | (2)                    | (3)                   | (4)                     | (5)                   | (6)                   | (7)                  |
| did   | 5.029<br>(6.648)          | -49.062***<br>(16.676) | -18.064<br>(21.140)   | -12.281<br>(8.223)      | 0.434<br>(1.754)      | -14.343***<br>(4.152) | -20.095<br>(16.850)  |
| iy  | 85.221***<br>(24.824)     | 251.014***<br>(62.267) | -80.030<br>(78.933)   | -111.757***<br>(31.364) | -24.236***<br>(6.685) | 68.963***<br>(15.501) | 88.015<br>(65.510)   |
| stir  | -0.532<br>(0.945)         | 1.537<br>(2.369)       | 3.089<br>(3.003)      | -0.496<br>(1.258)       | 0.071<br>(0.249)      | 0.426<br>(0.590)      | -2.146<br>(2.730)    |
| ltrate  | -5.405***<br>(1.561)      | -11.668***<br>(3.915)  | -15.231***<br>(4.963) | -3.990*<br>(2.059)      | 0.554<br>(0.418)      | -2.171**<br>(0.975)   | -10.364**<br>(4.170) |
| debtoGDP  | 7.764<br>(4.733)          | -9.219<br>(11.873)     | -7.376<br>(15.050)    | -72.308***<br>(5.890)   | 0.234<br>(1.256)      | 4.882<br>(2.956)      | 31.654**<br>(12.328) |
| Observations  | 178                       | 178                    | 178                   | 164                     | 177                   | 178                   | 142                  |
| R <sup>2</sup>  | 0.870                     | 0.852                  | 0.816                 | 0.914                   | 0.706                 | 0.906                 | 0.802                |
| Adjusted R <sup>2</sup>                                 | 0.841                     | 0.819                  | 0.776                 | 0.894                   | 0.641                 | 0.885                 | 0.748                |
| <i>Note:</i>  | *p<0.1 **p<0.05 ***p<0.01 |                        |                       |                         |                       |                       |                      |

### 7.3 League of Nations members dataset

In this section we repeat once again the analysis performed in the last two paragraphs, but only with the data related to the countries that were members of the League of Nations at the time. Just like it was observed previously, from Table 7.7 it appears that the only variable that shows statistical significance is *imports*, once again at the 90% significance level. This is consistent with the findings of the standard DiD analysis using the dataset including both all countries and European countries.

Table 7.7

| <b>Standard Difference-in-Differences - League of Nations</b> |                              |                      |                       |                    |                      |                       |                       |
|---|------------------------------|----------------------|-----------------------|--------------------|----------------------|-----------------------|-----------------------|
| <i>Dependent variable:</i>                                    |                              |                      |                       |                    |                      |                       |                       |
|   | realGDP                      | imports              | exports               | CPI                | unemp                | rcons                 | industry              |
|   | (1)                          | (2)                  | (3)                   | (4)                | (5)                  | (6)                   | (7)                   |
| did   | 2.282<br>(13.455)            | -62.147*<br>(36.190) | -60.116<br>(68.752)   | -3.391<br>(49.647) | -0.369<br>(2.950)    | -16.757<br>(10.473)   | -35.092<br>(29.615)   |
| time  | 31.975***<br>(3.732)         | 28.116***<br>(8.006) | 54.930***<br>(15.209) | 0.371<br>(13.769)  | 1.942**<br>(0.852)   | 15.892***<br>(2.905)  | 71.665***<br>(11.193) |
| treated   | -8.811<br>(5.346)            | -27.311*<br>(14.371) | -28.079<br>(27.301)   | 9.382<br>(19.728)  | -4.070***<br>(1.172) | -13.149***<br>(4.162) | -3.053<br>(11.768)    |
| Observations  | 247                          | 397                  | 397                   | 247                | 226                  | 247                   | 133                   |
| R <sup>2</sup>  | 0.256                        | 0.051                | 0.037                 | 0.001              | 0.084                | 0.162                 | 0.252                 |
| Adjusted R <sup>2</sup>                                       | 0.246                        | 0.044                | 0.030                 | -0.011             | 0.071                | 0.152                 | 0.234                 |
| <i>Note:</i>  | * p<0.1 ** p<0.05 *** p<0.01 |                      |                       |                    |                      |                       |                       |

Tab 7.8 shows the results for the regression that includes year and country-specific dummies for the members of the League of Nations whose data were available in our original dataset. Similarly to what was observed in the previous two samples, the inclusion of dummy variables did not significantly alter the coefficients associated with the interaction term. Just like for the sample of European countries, adding the dummy variables resulted in the effects of sanctions on exports, real consumption, and industrial production becoming significant, displaying the same confidence levels observed in the previous correspondent regressions run using the other two samples.

Table 7.8

| <b>Difference-in-Differences with year and country-specific dummies - League of Nations</b> |                      |                        |                      |                     |                      |                       |                       |
|---|----------------------|------------------------|----------------------|---------------------|----------------------|-----------------------|-----------------------|
| <i>Dependent variable:</i>  |                      |                        |                      |                     |                      |                       |                       |
|   | realGDP              | imports                | exports              | CPI                 | unemp                | rcons                 | industry              |
|   | (1)                  | (2)                    | (3)                  | (4)                 | (5)                  | (6)                   | (7)                   |
| did   | 2.282<br>(6.777)     | -62.516***<br>(19.839) | -59.780*<br>(33.552) | -3.391<br>(19.061)  | -0.436<br>(1.820)    | -16.757***<br>(5.341) | -36.355**<br>(18.095) |
| year1929  | -10.458**<br>(4.093) | 31.206***<br>(9.536)   | -2.946<br>(16.128)   | 19.032*<br>(11.511) | -5.783***<br>(1.141) | -3.166<br>(3.225)     | -33.049**<br>(14.464) |

|                       |                       |                       |                        |                      |                      |                       |                        |
|-----------------------|-----------------------|-----------------------|------------------------|----------------------|----------------------|-----------------------|------------------------|
| year1930              | -11.074***<br>(4.093) | 13.629<br>(9.536)     | -10.507<br>(16.128)    | 14.844<br>(11.511)   | -4.178***<br>(1.141) | -3.372<br>(3.225)     | -38.359***<br>(14.464) |
| year1931              | -15.890***<br>(4.093) | -6.105<br>(9.536)     | -20.646<br>(16.128)    | 5.761<br>(11.511)    | -1.032<br>(1.141)    | -5.051<br>(3.225)     | -48.943***<br>(14.464) |
| year1932              | -17.612***<br>(4.093) | -29.120***<br>(9.536) | -44.014***<br>(16.128) | 0.607<br>(11.511)    | 2.779**<br>(1.141)   | -7.509**<br>(3.225)   | -55.496***<br>(14.464) |
| year1933              | -13.881***<br>(4.093) | -26.188***<br>(9.536) | -48.755***<br>(16.128) | -1.425<br>(11.511)   | 2.851**<br>(1.141)   | -5.055<br>(3.225)     | -46.826***<br>(14.464) |
| year1934              | -9.027**<br>(4.093)   | -16.892*<br>(9.536)   | -32.546**<br>(16.128)  | -2.497<br>(11.511)   | 1.415<br>(1.141)     | -3.490<br>(3.225)     | -33.270**<br>(14.464)  |
| year1935              | -4.532<br>(4.093)     | -10.053<br>(9.536)    | -15.169<br>(16.128)    | -3.030<br>(11.511)   | 1.199<br>(1.141)     | -2.616<br>(3.225)     | -20.469<br>(14.464)    |
| year1937              | 8.555**<br>(4.060)    | 23.747**<br>(9.489)   | 28.658*<br>(16.049)    | 7.273<br>(11.417)    | -1.625<br>(1.131)    | 5.174<br>(3.199)      | 16.939<br>(14.231)     |
| year1938              | 10.752***<br>(4.060)  | 21.308**<br>(9.750)   | 13.751<br>(16.489)     | 10.166<br>(11.417)   | -1.516<br>(1.131)    | 6.582**<br>(3.199)    | 17.494<br>(14.231)     |
| countryAustralia      |                       | -2.080<br>(9.976)     | -12.553<br>(16.872)    |                      |                      |                       |                        |
| countryAustria        |                       | -22.193**<br>(10.121) | 19.114<br>(17.117)     |                      |                      |                       |                        |
| countryBelgium        | 6.247*<br>(3.358)     | 16.180<br>(9.976)     | 137.438***<br>(16.872) | 55.938***<br>(9.444) | -4.380***<br>(0.912) | 5.641**<br>(2.646)    |                        |
| countryBulgaria       |                       | 67.995***<br>(9.976)  | 139.952***<br>(16.872) |                      |                      |                       |                        |
| countryCanada         | -1.643<br>(3.358)     | -29.250***<br>(9.976) | 10.386<br>(16.872)     | -11.398<br>(9.444)   | -0.696<br>(0.899)    | -6.293**<br>(2.646)   |                        |
| countryCzechoslovakia |                       | 80.946***<br>(10.121) | 101.114***<br>(17.117) |                      |                      |                       |                        |
| countryDenmark        | 7.119**<br>(3.358)    | 63.646***<br>(9.976)  | 109.658***<br>(16.872) | -19.150**<br>(9.444) | -5.034***<br>(0.899) | -15.821***<br>(2.646) |                        |
| countryFinland        | 28.529***<br>(3.358)  | 67.690***<br>(9.976)  | 95.618***<br>(16.872)  | 30.285***<br>(9.444) | -5.416***<br>(0.899) | 12.739***<br>(2.646)  | 41.196***<br>(8.638)   |
| countryFrance         | 8.222**<br>(3.358)    | -1.540<br>(9.976)     | 23.062<br>(16.872)     | 47.252***<br>(9.444) | -2.502***<br>(0.912) | -4.061<br>(2.646)     | -14.647*<br>(8.638)    |
| countryGreece         |                       | 32.047***<br>(9.976)  | 22.125<br>(16.872)     |                      |                      |                       |                        |

|                    |                        |                        |                        |                        |                       |                        |                        |
|--------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|------------------------|------------------------|
| countryHungary     |                        | 49.581 <sup>***</sup>  | 92.856 <sup>***</sup>  |                        |                       |                        |                        |
|                    |                        | (9.976)                | (16.872)               |                        |                       |                        |                        |
| countryItaly       | -2.371                 | -2.353                 | 41.414 <sup>**</sup>   | 30.125 <sup>***</sup>  | -6.100 <sup>***</sup> | -12.540 <sup>***</sup> | -10.442                |
|                    | (3.524)                | (10.456)               | (17.684)               | (9.912)                | (0.943)               | (2.777)                | (9.098)                |
| countryNetherlands | 24.149 <sup>***</sup>  | 22.225 <sup>**</sup>   | 54.043 <sup>***</sup>  | -18.129 <sup>*</sup>   | 0.892                 | 9.125 <sup>***</sup>   | -5.486                 |
|                    | (3.358)                | (9.976)                | (16.872)               | (9.444)                | (0.899)               | (2.646)                | (8.777)                |
| countryNorway      | 0.198                  | -79.705 <sup>***</sup> | -34.893 <sup>**</sup>  | -23.285 <sup>**</sup>  | -1.568 <sup>*</sup>   | -14.428 <sup>***</sup> | 115.747 <sup>***</sup> |
|                    | (3.358)                | (9.976)                | (16.872)               | (9.444)                | (0.899)               | (2.646)                | (29.297)               |
| countryPortugal    | 13.996 <sup>***</sup>  | 53.736 <sup>***</sup>  | 25.020                 | 243.670 <sup>***</sup> |                       | 28.496 <sup>***</sup>  |                        |
|                    | (3.358)                | (9.976)                | (16.872)               | (9.444)                |                       | (2.646)                |                        |
| countryRomania     |                        | 105.889 <sup>***</sup> | 350.769 <sup>***</sup> |                        |                       |                        |                        |
|                    |                        | (9.976)                | (16.872)               |                        |                       |                        |                        |
| countrySweden      | 1.814                  | 40.785 <sup>***</sup>  | 20.794                 | -23.161 <sup>**</sup>  | -3.500 <sup>***</sup> | -4.583 <sup>*</sup>    | -26.656 <sup>***</sup> |
|                    | (3.358)                | (9.976)                | (16.872)               | (9.444)                | (0.899)               | (2.646)                | (8.638)                |
| countrySwitzerland | 2.019                  | -0.469                 | 0.307                  | -17.366 <sup>*</sup>   | -1.216                | 0.514                  |                        |
|                    | (3.358)                | (9.976)                | (16.872)               | (9.444)                | (0.899)               | (2.646)                |                        |
| countryUK          | -13.362 <sup>***</sup> | 3.638                  | -1.466                 | -15.737 <sup>*</sup>   | 0.353                 | -4.020                 | -46.320 <sup>***</sup> |
|                    | (3.358)                | (9.976)                | (16.872)               | (9.444)                | (0.899)               | (2.646)                | (8.638)                |
| countryYugoslavia  |                        | 30.025 <sup>***</sup>  | 236.534 <sup>***</sup> |                        |                       |                        |                        |
|                    |                        | (9.976)                | (16.872)               |                        |                       |                        |                        |

|                         |       |       |       |       |       |       |       |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| Observations            | 247   | 397   | 397   | 247   | 226   | 247   | 133   |
| R <sup>2</sup>          | 0.833 | 0.741 | 0.792 | 0.870 | 0.694 | 0.807 | 0.771 |
| Adjusted R <sup>2</sup> | 0.809 | 0.713 | 0.769 | 0.851 | 0.646 | 0.779 | 0.714 |

Note: \*\* p<0.1   \*\* p<0.05   \*\*\* p<0.01

Finally, Table 7.9 shows the results for the DiD model with year and country-specific dummies and the variables that did not satisfy the condition of parallel trends, as it was previously done. Once again we must clarify that country-specific and year dummies have been omitted from the table, though the estimations accounted for them. The results shown in Table 7.9 lead us to the same conclusions observed earlier when analyzing regressions of the same model that includes dummies and controls with the European sample: once again, the significance at the 99% level of the coefficients associated with the impact of economic sanctions on imports and real consumption is confirmed

Table 7.9

**Difference-in-Differences with controls - League of Nations**

|                         | <i>Dependent variable:</i> |                        |                      |                         |                       |                       |                       |
|-------------------------|----------------------------|------------------------|----------------------|-------------------------|-----------------------|-----------------------|-----------------------|
|                         | realGDP<br>(1)             | imports<br>(2)         | exports<br>(3)       | CPI<br>(4)              | unemp<br>(5)          | rcons<br>(6)          | industry<br>(7)       |
| did                     | 6.064<br>(6.329)           | -50.595***<br>(15.842) | -20.806<br>(20.014)  | -11.663<br>(7.745)      | 0.304<br>(1.641)      | -13.893***<br>(4.541) | -19.636<br>(17.343)   |
| iy                      | 89.138***<br>(23.058)      | 267.583***<br>(57.713) | -68.258<br>(72.911)  | -125.758***<br>(28.216) | -26.356***<br>(6.138) | 83.018***<br>(16.544) | 50.917<br>(68.782)    |
| stir                    | -1.585*<br>(0.904)         | -4.575**<br>(2.262)    | -3.684<br>(2.857)    | 0.200<br>(1.106)        | 0.112<br>(0.234)      | -0.471<br>(0.648)     | -3.722<br>(3.058)     |
| lrate                   | -4.061***<br>(1.490)       | -8.651**<br>(3.729)    | -10.474**<br>(4.711) | -4.217**<br>(1.823)     | 0.406<br>(0.392)      | -1.710<br>(1.069)     | -10.941**<br>(4.629)  |
| debtoGDP                | 4.083<br>(4.328)           | -18.506*<br>(10.833)   | -13.010<br>(13.686)  | -68.339***<br>(5.296)   | 1.289<br>(1.131)      | 0.242<br>(3.105)      | 35.952***<br>(12.786) |
| Observations            | 188                        | 188                    | 188                  | 188                     | 187                   | 188                   | 129                   |
| R <sup>2</sup>          | 0.872                      | 0.836                  | 0.830                | 0.912                   | 0.763                 | 0.823                 | 0.809                 |
| Adjusted R <sup>2</sup> | 0.845                      | 0.801                  | 0.793                | 0.893                   | 0.712                 | 0.785                 | 0.750                 |
| <i>Note:</i>            | *p<0.1 **p<0.05 ***p<0.01  |                        |                      |                         |                       |                       |                       |

## 8 Robustness

In this chapter, we employ the synthetic control method developed by Abadie and Gardeazabal (2003)<sup>108</sup>. The synthetic control method is a statistical technique designed to estimate the causal effect of a treatment or intervention in comparative case studies. The method constructs a synthetic control unit that is a weighted combination of control units (countries or regions) with similar characteristics to the treated unit (the one subjected to the intervention). The weights assigned to each control unit are determined in a way that minimizes the pre-treatment differences between the treated unit and the synthetic control. The intuition of this method is to create an “artificial” counterfactual that exhibits analogous characteristics of the treated unit, so that it is possible to measure the average treatment effect. Practically, in this study we are going to build a “synthetic” Italy using other countries that are present in our sample (donor pool). The requirements for the Synthetic Control Method (from now on called just SCM) involve:  $J$  observations within the donor pool, one single aggregate treated unit (in our case, Italy), some  $T_0$  pre-treatment and some  $T_1$  post-treatment periods. For each unit  $j$  there must also be a set of  $k$  predictors observed for periods prior to the treatment ( $X_{1j}, \dots, X_{kj}$ ). These predictors should remain unaffected by the treatment itself to prevent potential anticipation effects. Taking the notation of Abadie (2021)<sup>109</sup>,  $Y_{jt}^N$  is the outcome without intervention, whereas  $Y_{1t}^I$  is the outcome under intervention, so that the difference between  $Y_{1t}^I$  and  $Y_{jt}^N$  is the effect of the treatment. Hence, quoting Abadie, “The great policy evaluation challenge is to estimate  $Y_{jt}^N$  for  $t > T_0$ : how the outcome of interest would have evolved for the affected unit in the absence of the intervention. This is a counterfactual outcome, as the affected unit was, by definition, exposed to the intervention of interest after  $t > T_0$ . [...] given that  $Y_{1t}^I$  is observed, the problem of estimating the effect of a policy intervention is equivalent to the problem of estimating  $Y_{jt}^N$ ”<sup>110</sup>. Additionally, we need to make two key assumptions for the method to work: firstly, we must assume that the sanctions had no impact on the economies of third-party countries. This is a critical and strong assumption, as sanctions often generate spillover effects that can indirectly influence other economies. Secondly, similar to the DiD approach, we must assume that the countries included in the donor pool are very similar to Italy in terms of socio-economic

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<sup>108</sup> ABADIE, A., GARDEAZABAL, J., 2003. “The Economic Costs of Conflict: A Case Study of the Basque Country.” *The American Economic Review*, 93, no. 1 (2003): 113–32.

<sup>109</sup> ABADIE, A., 2021. Using Synthetic Controls: Feasibility, Data Requirements, and Methodological Aspects. *Journal of Economic Literature*, Vol. LIX (June 2021), pp. 391–425

<sup>110</sup> Ibidem, p. 394

characteristics. This assumption is crucial to ensure that the synthetic model accurately reflects the specific dynamics of the treated country and that the results are reliably generalizable. As previously stated, the synthetic control method operates on the principle that a combination of units from the donor pool can more accurately approximate the characteristics of the affected unit than any single unaffected unit alone. A synthetic control is characterized as a weighted average of the units within the donor pool. The estimation  $J \times 1$  vector of weights  $W = (\omega_2, \dots, \omega_{j+1})'$  is, therefore, crucial to build the SCM estimator  $Y_{jt}^N$ , which is equivalent to:

$$Y_{jt}^N = \sum_{j=2}^{J+1} \omega_j Y_{jt}$$

All weights should be in  $[0, 1]$ . Weights are selected to minimize the difference between pre-intervention values of the predictors for the treated unit and the synthetic units. Abadie and Gardeazabal (2003) and Abadie, Diamond, and Hainmueller (2010) propose to choose the synthetic control,  $W = (\omega_2, \dots, \omega_{j+1})'$ , that minimizes  $\| \mathbf{X}_1 - \mathbf{X}_0 \mathbf{W} \| = (\sum_{h=1}^k v_h (X_{h1} - \omega_2 X_{h2} - \dots - \omega_{j+1} X_{hj+1})^2)^{1/2}$ .

Speaking of predictors, it is common to include pre-treatment lagged values of the outcome. However, as demonstrated by Kaul, Klobner, Pfeifer, and Schieler (2015)<sup>111</sup>, this is not the first-best solution, and the ideal approach would be to combine some lagged values of the outcome with certain covariates, which is what we will do in this study. As mentioned earlier, ideal predictors are those that have predictive power for the dependent variable but are not influenced by the treatment. It is important that predictor values before treatment are similar between the treated unit and the control group.

In the following paragraphs, we will apply the SCM to estimate the effect of sanctions on all variables considered in the estimations made with the DiD estimator. As predictors, we will use the one and tw-year lead values for all variables and population, in addition to the short and long-term interest rates already used as controls in the DiD method.

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<sup>111</sup> KAUL, A., KLÖBNER, S., PFEIFER, G., SCHIELER, M., 2015. *Synthetic Control Methods: Never Use All Pre-Intervention Outcomes Together With Covariates*. MPRA Paper 83790, University Library of Munich, Germany

## 8.1 Imports

Table 8.1 shows how the donor pool was constructed in order to build the “synthetic” imports of Italy to be compared with the actual values of the imports.

Table 8.1

| <b>Weights of donor pool units</b> |       |
|------------------------------------|-------|
| <b>Imports</b>                     |       |
| Australia                          | 0.004 |
| Belgium                            | 0.002 |
| Denmark                            | 0.001 |
| Finland                            | 0.002 |
| France                             | 0.003 |
| Germany                            | 0.262 |
| Netherlands                        | 0.002 |
| Norway                             | 0.436 |
| Portugal                           | 0.003 |
| Sweden                             | 0.002 |
| Switzerland                        | 0.002 |
| UK                                 | 0.002 |
| Canada                             | 0.002 |
| USA                                | 0.080 |
| Japan                              | 0.197 |

If we multiply every coefficient by 100 we obtain the percentage of the relative importance of each unit in the donor pool in the synthetic counterfactual. As the table shows, most of the contribution came from Norway, Germany, Japan and, to a lesser extent, the US. All other countries contributed to an almost negligible extent. The reason why many countries did not relevantly contributed to the constitution of the synthetic counterfactual is the typical sparsity of the weights of the synthetic control estimation, which is a consequence of the geometric characteristics of the solution to the optimization problem that generates synthetic controls<sup>112</sup>. Sparsity is an important feature of the SCM, and its presence should be reassuring, since it prevents overfitted estimates.

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<sup>112</sup> For a detailed explanation, see: Abadie, A., 2021. Using Synthetic Controls: Feasibility, Data Requirements, and Methodological Aspects. *Journal of Economic Literature*, Vol. LIX (June 2021), 407–408

Table 8.2 shows the average pre-treatment values of the predictors. The first two columns compare the actual values for Italy (Treated) with the synthetic counterfactual. The third column, instead, simply displays the average values of the predictors, considering the entire sample without weights. As for the labels of predictors, “pop” stands for population, “stir” for short-term interest rate, “ltrate” for long-term interest rate, “lead1\_imports” for the first lead of imports, “lead2\_imports” for the second one.

Table 8.2

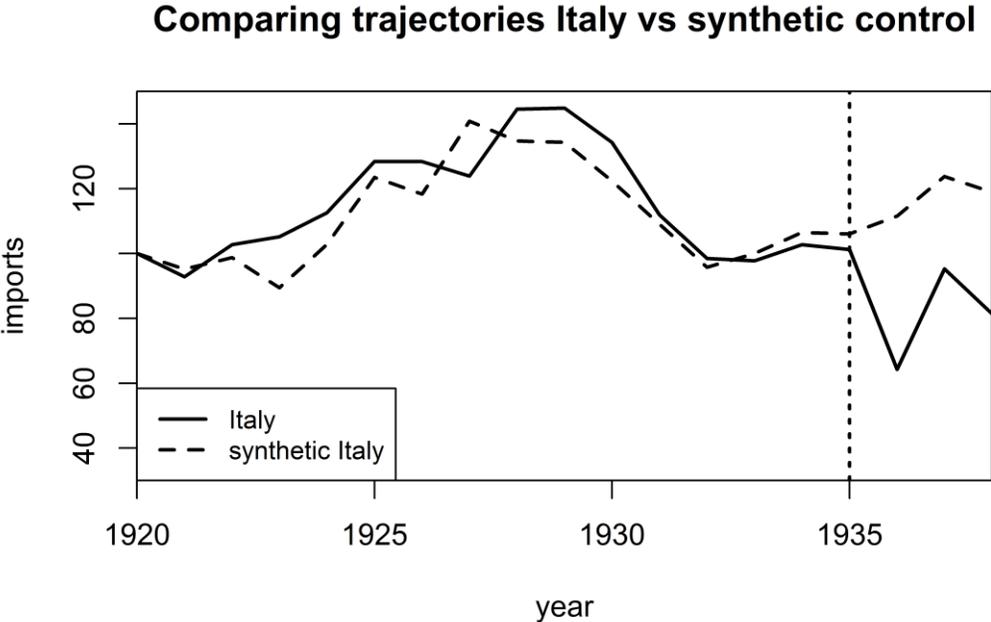
**Observed versus synthetic Italy - Imports**

|               | Treated    | Synthetic  | Sample Mean |
|---------------|------------|------------|-------------|
| pop           | 39,952.750 | 39,905.720 | 25,945.720  |
| stir          | 5.857      | 5.851      | 4.551       |
| ltrate        | 6.152      | 5.567      | 5.347       |
| lead1_imports | 112.119    | 111.823    | 136.977     |
| lead2_imports | 112.273    | 113.606    | 141.443     |

As we can see, the synthetic Italy manages to reconstruct a counterfactual closer to the actual values of the predictors for Italy better than simple sample averages. Hence, we could state that while the simple average of the countries in the sample fails to reproduce the imports predictors for Italy prior to the sanctions, a synthetic control provides a rather accurate approximation to the value of the predictors for Italy.

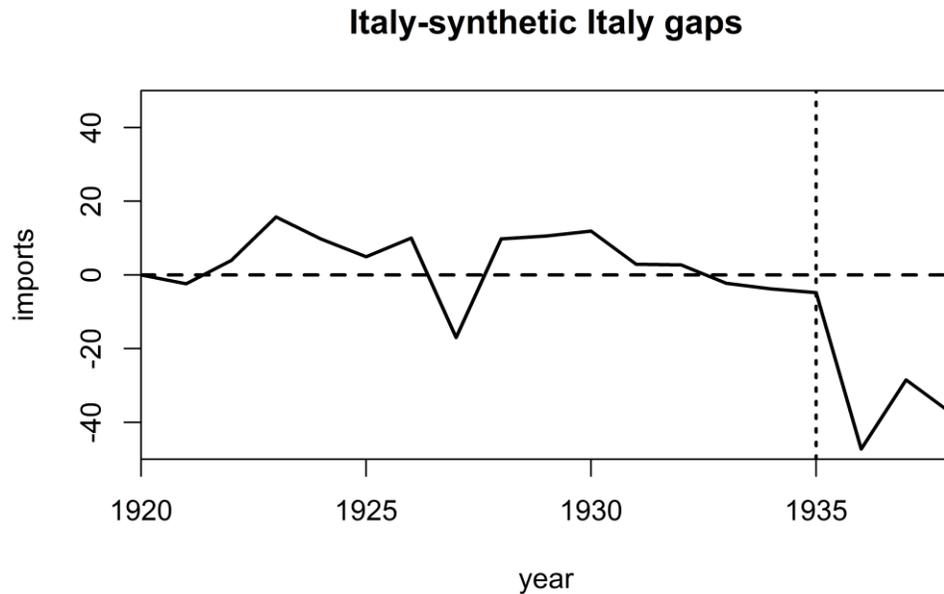
Figure 8.1 plots the trajectory of imports for Italy and for a synthetic control calculated in the manner explained in this section. This figure shows that a weighted average of the countries in the donor pool is able to closely approximate the trajectory of imports for Italy, especially for the years between 1930 and 1935. The dashed line denotes the year of the sanctions. Hence, from Figure 8.1, a significant negative impact of the sanctions on importations seems evident. The gaps between synthetic control and Italy are plotted in Figure 8.2.

Figure 8.1



While it is evident that the approximation is not perfect, the adverse impact of sanctions on imports remains apparent. We rely on the expectation that the SCM and DiD method, when applied together, will provide a valuable estimate, even if the synthetic control approximation is not flawless.

Figure 8.2



## 8.2 Exports

Table 8.3 represents the weights assigned to different countries in the donor pool of the synthetic control for exports. As explained previously, the weights assigned to units in the donor pool reflect the significance of each country's contribution to the synthetic control. Notably, Germany and Norway carry the highest weights at 36.6% and 20.7%, respectively, underscoring their substantial influence in shaping the synthetic control. Portugal and the USA also contribute significantly with weights of 17.7% and 7.8%, respectively. Similar to the situation with imports, there appears to be sparsity in the export weights as well. Countries such as Belgium, Denmark, Finland, and the Netherlands are assigned weights that are nearly zero, indicating a minimal contribution to the synthetic control for exports. Perhaps, a higher contribution from France, the economy that among those in the sample is most similar to the Italian one, could potentially enhance the credibility of the synthetic control for exports.

Table 8.3

| <b>Weights of donor pool units</b> |       |
|------------------------------------|-------|
| <b>Exports</b>                     |       |
| Australia                          | 0.014 |
| Belgium                            | 0.007 |
| Denmark                            | 0.008 |
| Finland                            | 0.009 |
| France                             | 0.014 |
| Germany                            | 0.366 |
| Netherlands                        | 0.009 |
| Norway                             | 0.207 |
| Portugal                           | 0.177 |
| Sweden                             | 0.012 |
| Switzerland                        | 0.012 |
| UK                                 | 0.013 |
| Canada                             | 0.010 |
| USA                                | 0.078 |
| Japan                              | 0.065 |

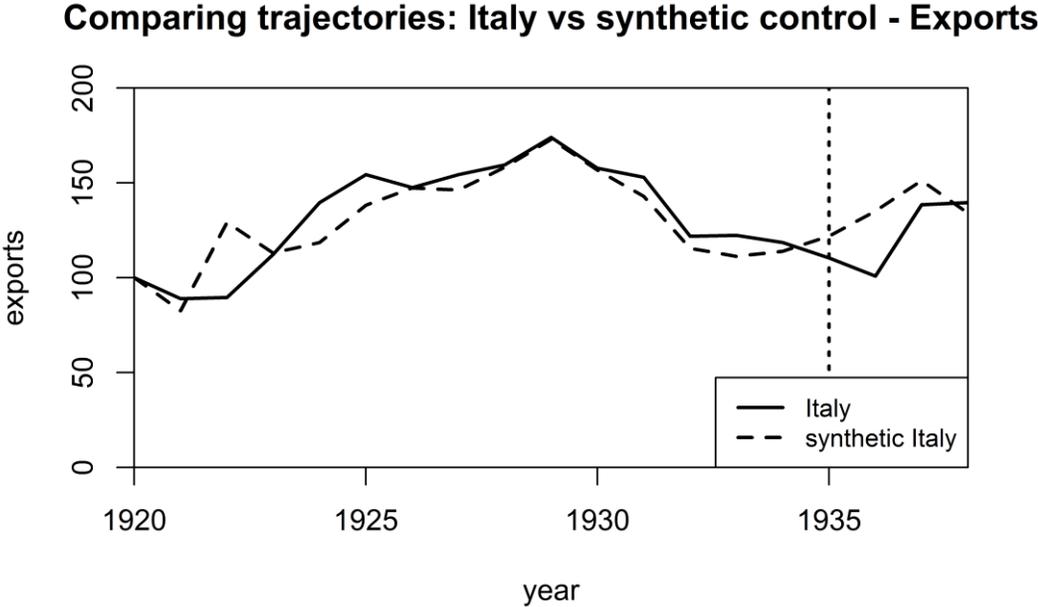
Similarly to the synthetic control paragraph for imports, here we compare the averages of predictor values for Italy, the synthetic control, and the sample in the period before the sanctions, as shown in Table 8.4. As before, “lead1\_exports” for the first lead of exports, “lead2\_exports” for the second one. Also in this case, the synthetic control is better than the simple average of donor sample at matching Italy’s covariate predictors’ values: the averages of population, short and long-term interest rates and the first lead of exports are almost identical between Italy and synthetic Italy.

Table 8.4

| <b>Observed versus synthetic Italy - Exports</b> |            |            |             |
|--|------------|------------|-------------|
|  | Treated    | Synthetic  | Sample Mean |
| pop  | 39,952.750 | 39,951.700 | 25,945.720  |
| stir   | 5.857      | 5.857      | 4.551       |
| ltrate   | 6.152      | 6.153      | 5.347       |
| lead1_exports                                    | 131.544    | 131.480    | 136.072     |
| lead2_exports                                    | 134.644    | 135.772    | 141.134     |

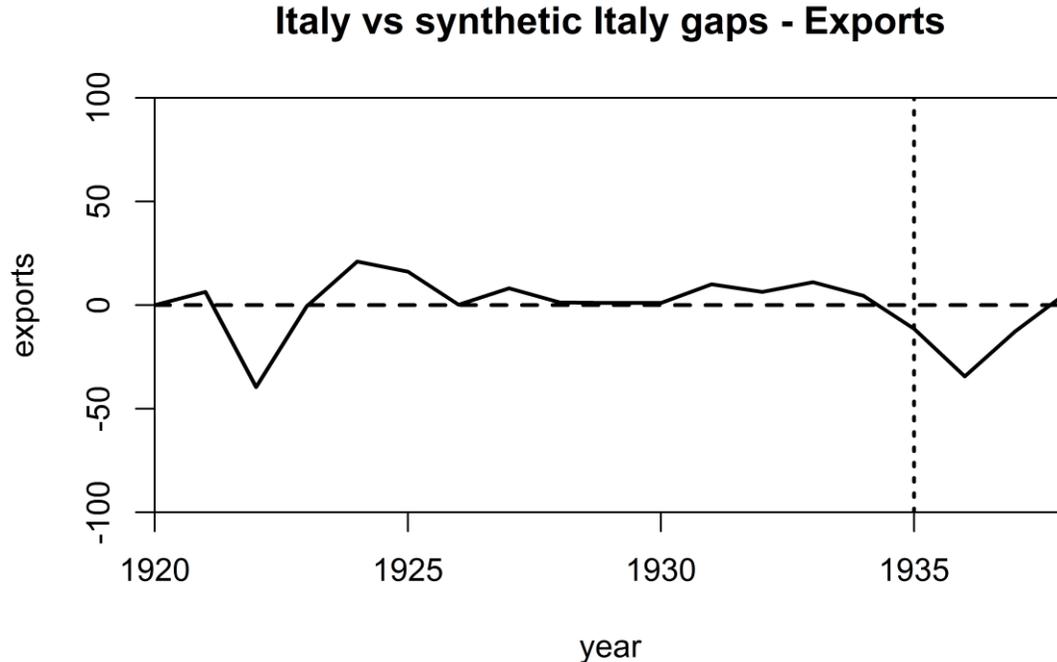
In Figure 8.3 the trajectories of the exports for Italy and synthetic control are plotted. It is noticeable that as we approach to 1930 the approximation of the synthetic control improves, since the two trends almost coincide. Moreover, we notice a little divergence of the two trends after the implementation of sanctions: in fact, while the trend of imports for synthetic Italy rises after 1935, the actual imports of Italy keeps declining, even if not by much.

Figure 8.3



The divergence of the two trajectories after 1935 appears even more evident if we plot the gaps (Figure 8.4): the gap between Italy and the synthetic control after 1935 is higher than all other gaps observed previously, except for the one observed in 1922, which is surely an outlier derived from an imperfect construction of the synthetic control due to our limited data.

Figure 8.4



Therefore, while with DiD estimator the effect of sanctions on exports seemed ambiguous, since its significance relied on the specification being used, with the SCM an effect on exports seems to have taken place, even to a lesser extent than imports. It is very likely that sanctions had a minor negative impact on the Italian export revenues, but such an effect was not very high and in any case much lower than the negative impact on imports<sup>113</sup>. Not by chance, the trade balance deficit diminished while economic sanctions were in effect<sup>114</sup>.

### 8.3 Consumer Price Index

Table 8.5 shows the weights assigned to different countries in the donor pool of the synthetic control for the CPI. The weights assigned to donor pool units reveal a concentrated distribution with significant emphasis on Finland (65%), followed by France (18.5%) and the United States (16.5%). Sparsity here is even more emphasized: other countries other than the three already

<sup>113</sup> CATALANO, F., 1969. *L'economia italiana di guerra. La politica economico-finanziaria del fascismo dalla guerra d'Etiopia alla caduta del regime 1935-1943. Istituto Nazionale per la Storia del Movimento di Liberazione in Italia*, Milano. 19

<sup>114</sup> Bank of Italy, Abridged translation of the report of the governor at the annual general meeting of the shareholders held in Rome on the 31st march, 1937, p. 12

mentioned have absolutely no weight in determining the values of predictors for the synthetic control.

Table 8.5

| <b>Weights of donor pool units</b> |       |
|------------------------------------|-------|
| <b>Consumer Price Index</b>        |       |
| Australia                          | 0.000 |
| Belgium                            | 0.000 |
| Denmark                            | 0.000 |
| Finland                            | 0.650 |
| France                             | 0.185 |
| Netherlands                        | 0.000 |
| Norway                             | 0.000 |
| Sweden                             | 0.000 |
| UK                                 | 0.000 |
| Canada                             | 0.000 |
| USA                                | 0.165 |
| Japan                              | 0.000 |

Table 8.6 shows that, contrary to what happened before, the optimization operated by the SCM did not manage to reproduce almost identical values of the averages of predictors for Italy and the synthetic control for pre-treatment periods. In fact, even if the averages of the interest rates and the two leads of the CPI are quite close, the average population of the synthetic control is more than 10 million lower. However, this might not be a serious issue, since the optimization function will build a synthetic control by assigning a low weight to population predictor.

Table 8.6

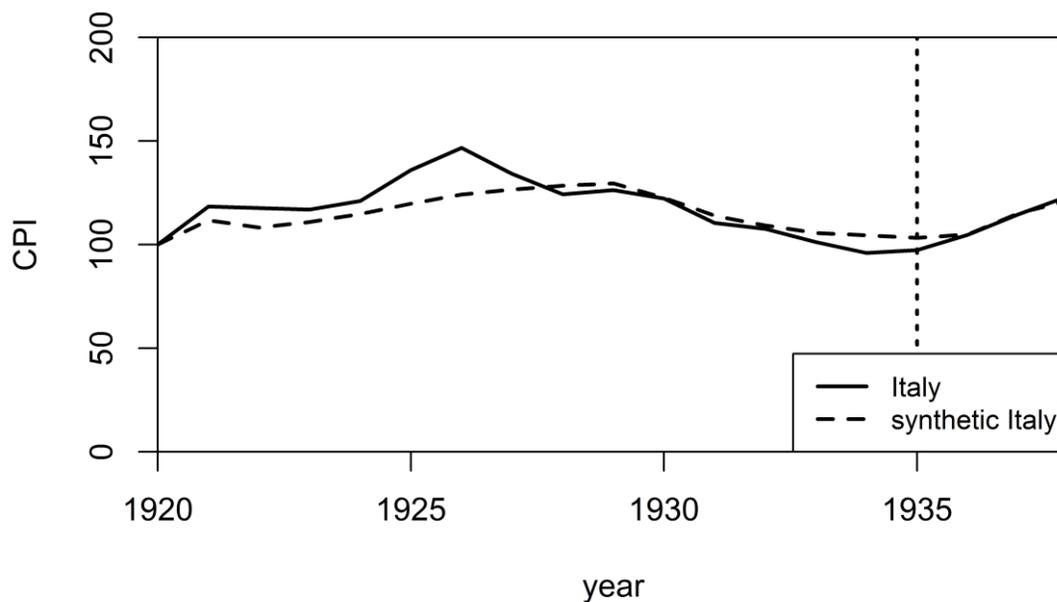
**Observed versus synthetic Italy – Consumer Price Index**

|        | Treated    | Synthetic  | Sample Mean |
|--------|------------|------------|-------------|
| pop    | 39,952.750 | 29,357.430 | 26,254.530  |
| stir   | 5.857      | 5.846      | 4.299       |
| ltrate | 6.152      | 6.144      | 5.038       |
| CPI1   | 117.533    | 114.856    | 87.018      |
| CPI2   | 117.301    | 115.067    | 86.737      |

Looking at the trends plotted in Figure 8.5, we notice that despite the dissimilarity of the population predictor, the approximation of the synthetic control from the late 1920s onward is quite good. Furthermore, from the graph, it is evident that there is no change in the price trend after the sanctions.

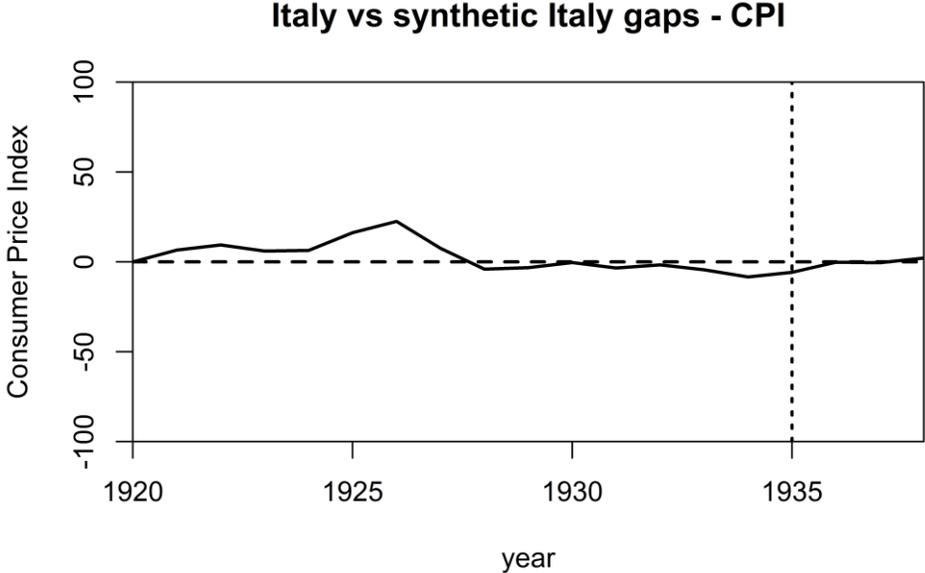
Figure 8.5

**Comparing trajectories: Italy vs synthetic control - CPI**



This analysis appears even more evident if we plot the gaps once again (Figure 8.6). As a matter of fact, the gaps for CPI between Italy and synthetic Italy, which were already small in the pre-treatment period, after treatment become even closer.

Figure 8.6



Therefore, it is straightforward to conclude that the sanctions had no effect on the trend of prices in Italy. The analysis run with the DiD estimator has been confirmed.

### 8.4 Unemployment

Table 8.7 labels the weights assigned to different countries in the donor pool of the synthetic control for unemployment. The weights assigned to the donor pool units highlight the notable contributions from Denmark (32%), Finland (47.9%), and Belgium (16.5%). Also here sparsity is clear, since, beside the minor contribution of Germany (3,6%), the weights of the other countries is zero.

Table 8.7

| <b>Weights of donor pool units</b> |       |
|------------------------------------|-------|
| <b>Unemployment</b>                |       |
| Australia                          | 0.000 |
| Belgium                            | 0.165 |
| Denmark                            | 0.320 |
| Finland                            | 0.479 |
| France                             | 0.000 |
| Germany                            | 0.036 |
| Netherlands                        | 0.000 |
| Norway                             | 0.000 |
| Sweden                             | 0.000 |
| Switzerland                        | 0.000 |
| UK                                 | 0.000 |
| Canada                             | 0.000 |
| USA                                | 0.000 |

As a result of the high importance assigned to small countries like Denmark, Finland and Belgium, the average population of the synthetic control in this case is small. In fact, as Table 8.8 shows, the synthetic control could not approximate the actual population of Italy better than the simple sample mean. However, as we witnessed when we performed the analysis with the SCM for the CPI, this did not seem to be an obstacle for the overall precision of the approximation of the synthetic control.

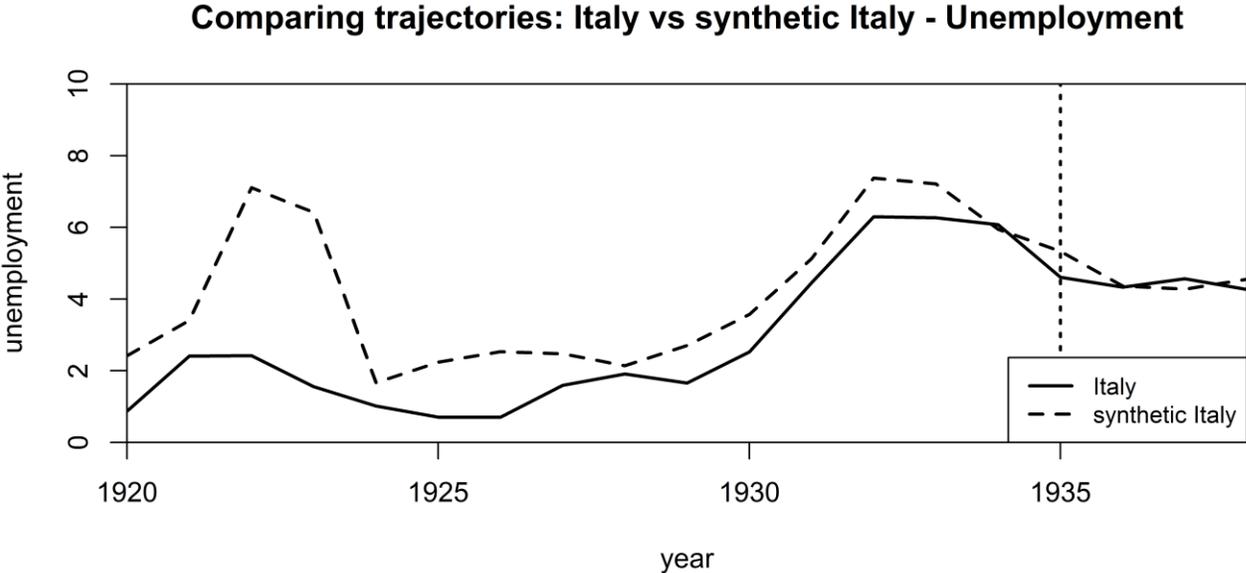
Table 8.8

| <b>Observed versus synthetic Italy – Unemployment</b> |            |           |             |
|---|------------|-----------|-------------|
|   | Treated    | Synthetic | Sample Mean |
| pop   | 39,952.750 | 6,326.400 | 26,376.890  |
| stir  | 5.857      | 5.421     | 4.165       |
| lrate   | 6.152      | 6.161     | 5.080       |
| unemp1  | 3.030      | 4.350     | 7.536       |
| unemp2  | 3.165      | 4.405     | 7.636       |

In this case however, looking at Figure 8.7 though the synthetic control managed to approximate quite well the trend of unemployment, especially from the late 1920s, the two trajectories never coincide, since there is a persistent gap in the pre-treatment period. However, it is still noticeable

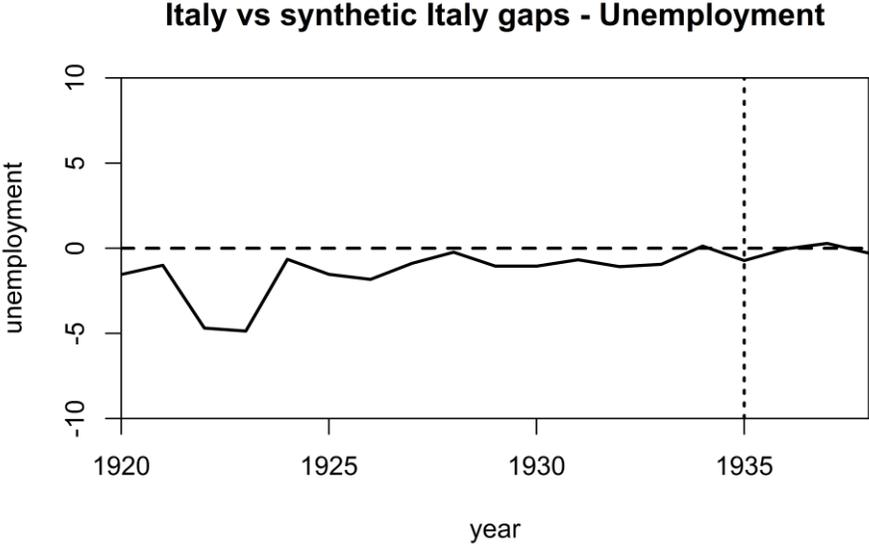
that the sanctions did not affect the trend of unemployment significantly, since the two trajectories do not diverge after 1935.

Figure 8.7



This analysis is even clearer when we look at the gaps in Figure 8.8. The gaps between the two trajectories become even lower in the period after the economic sanctions. Once again, with the SCM we find the same results that the DiD estimator yielded.

Figure 8.8



## 8.5 Real consumption

Table 8.9 points out that sparsity, when we try to build a synthetic control of real consumption, is even more extreme. The only countries from the donor pool that contribute to the construction of the synthetic control are Denmark (40,2%) and the US (59,8%).

Table 8.9

| <b>Weights of donor pool units</b> |       |
|------------------------------------|-------|
| <b>Real consumption</b>            |       |
| Australia                          | 0.000 |
| Belgium                            | 0.000 |
| Denmark                            | 0.402 |
| Finland                            | 0.000 |
| France                             | 0.000 |
| Germany                            | 0.000 |
| Netherlands                        | 0.000 |
| Norway                             | 0.000 |
| Sweden                             | 0.000 |
| Switzerland                        | 0.000 |
| UK                                 | 0.000 |
| Canada                             | 0.000 |
| USA                                | 0.598 |
| Japan                              | 0.000 |

Table 8.10 shows that, while in this case the optimization creates a synthetic control with a quite similar population, the approximations of the other predictors is not quite close to the actual values of the predictors of Italy, even though still better than sample means.

Table 8.10

| <b>Observed versus synthetic Italy – Real Consumption</b> |            |            |             |
|---|------------|------------|-------------|
|   | Treated    | Synthetic  | Sample Mean |
| pop   | 39,952.750 | 38,519.020 | 29,123.350  |
| stir  | 5.857      | 6.065      | 4.448       |
| ltrate  | 6.152      | 5.643      | 5.140       |
| rcons1  | 103.342    | 106.148    | 116.889     |
| rcons2  | 103.747    | 107.053    | 118.933     |

As a result of the weak approximation, the synthetic control fails to reproduce the same trends of real consumption of Italy: even though the two trajectories follow, more or less, a similar pattern, there are persistent gaps (see also Figure 8.10 that plots the gaps) and the real consumption of the synthetic Italy is constantly above the actual real consumption after the crisis of 1929. This might be due to the peculiar deflationary policies the fascist regime was undertaking in those years, which might not have taken place elsewhere. Hence, the reproducibility of a synthetic control for the Italian real consumption might not be feasible with a good matching. In any case, we notice, from Figure 8.9, that the common pattern the two trends follow gets disrupted in 1935. In fact, while real consumption of synthetic Italy increases, the actual real consumption has a significant downturn.

Figure 8.9

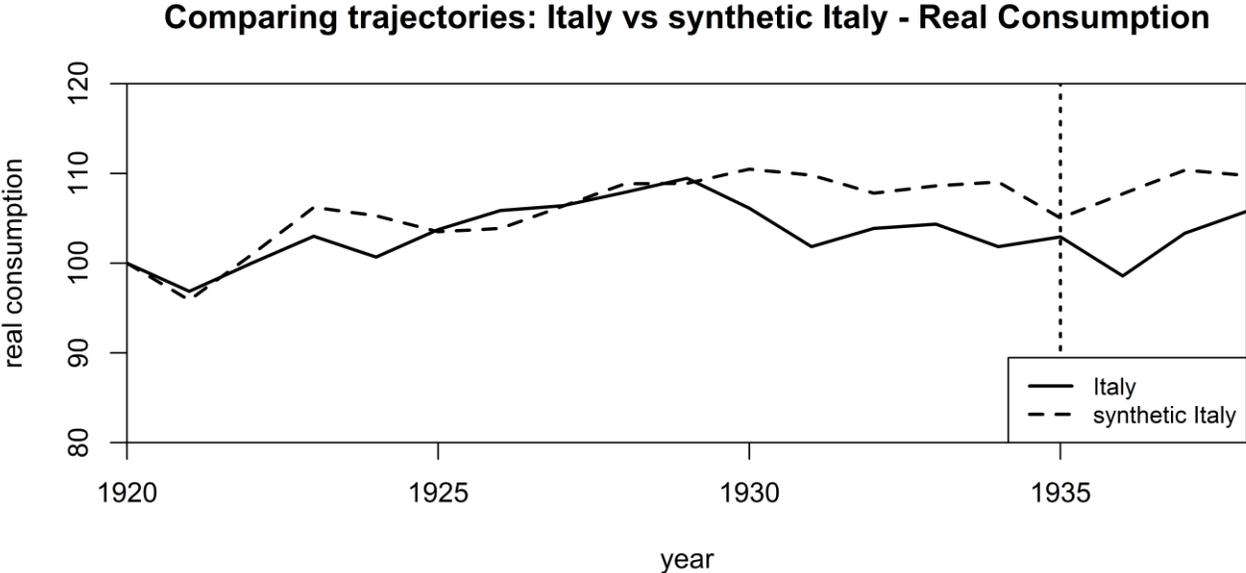
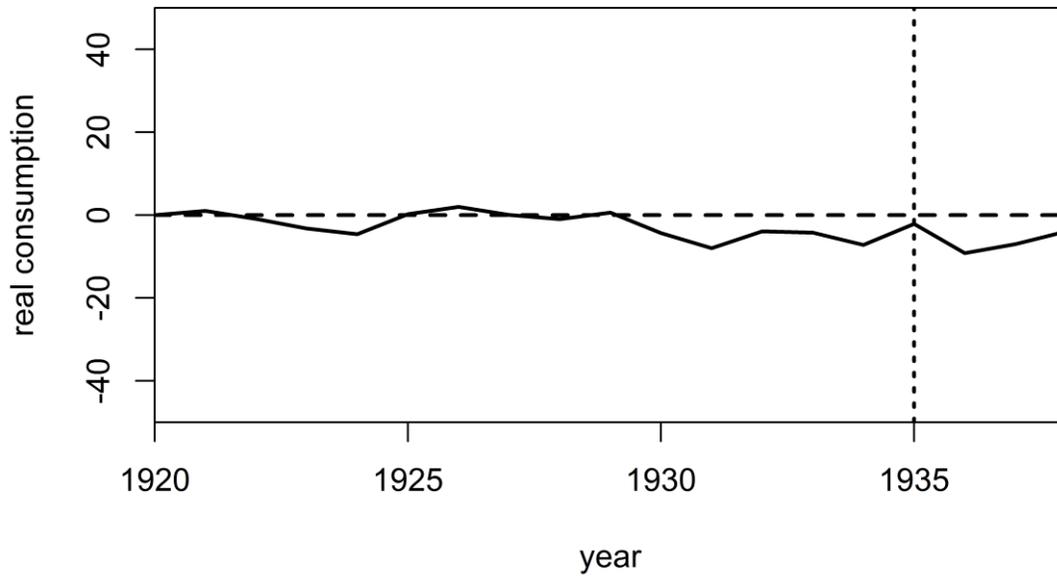


Figure 8.10

### Italy vs synthetic Italy gaps - Real Consumption



## 8.6 Real GDP

When running the SCM for the real GDP, sparsity is much less strong, as Table 8.11 shows.

Table 8.11

### Weights of donor pool units

| Real GDP    |       |
|-------------|-------|
| Australia   | 0.024 |
| Belgium     | 0.029 |
| Denmark     | 0.021 |
| Finland     | 0.029 |
| France      | 0.021 |
| Germany     | 0.492 |
| Netherlands | 0.005 |
| Norway      | 0.105 |
| Portugal    | 0.132 |
| Sweden      | 0.036 |
| Switzerland | 0.022 |
| UK          | 0.030 |
| Canada      | 0.018 |
| USA         | 0.036 |

Germany has the highest weight at 49.2%. Norway, Portugal, Sweden, the UK, and the USA also have notable weights. Countries like the Netherlands and Canada have relatively lower weights, indicating a lesser impact on the synthetic control.

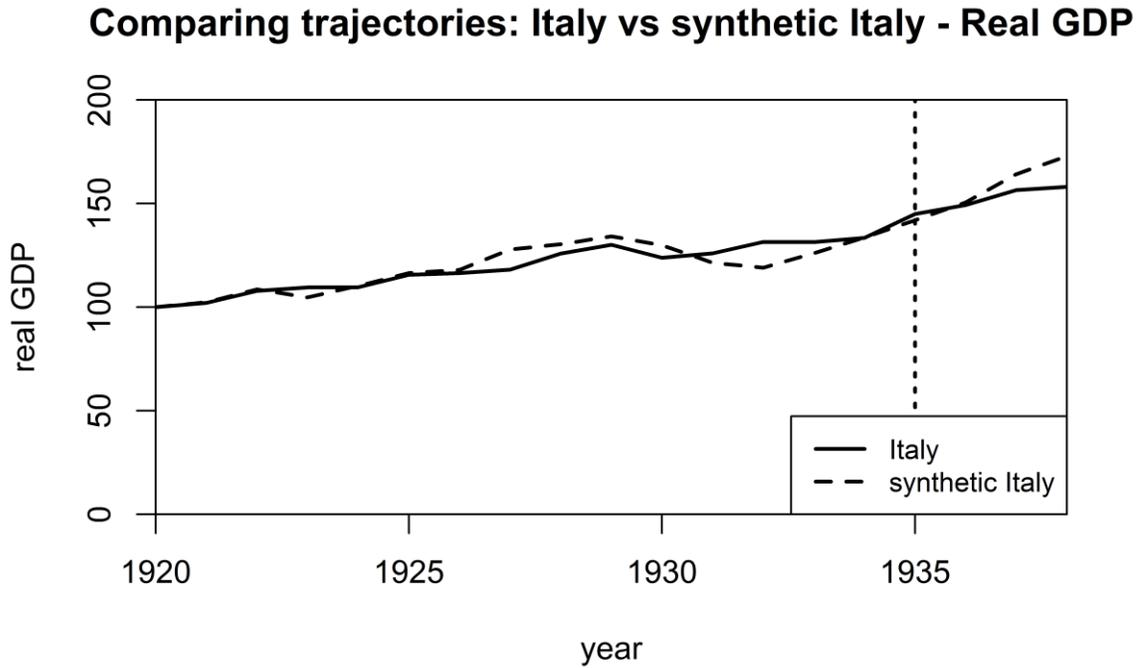
Table 8.12 reports the usual average values of predictors in pre-treatment periods. We notice overall a good approximation of all predictors performed by the synthetic control.

*Table 8.12*

| <b>Observed versus synthetic Italy – Real GDP</b> |            |            |             |
|---|------------|------------|-------------|
|   | Treated    | Synthetic  | Sample Mean |
| pop   | 39,952.750 | 39,977.440 | 25,945.720  |
| stir  | 5.857      | 5.855      | 4.551       |
| ltrate  | 6.152      | 6.153      | 5.347       |
| realGDP1  | 123.443    | 123.421    | 130.609     |
| realGDP2  | 126.847    | 127.282    | 134.562     |

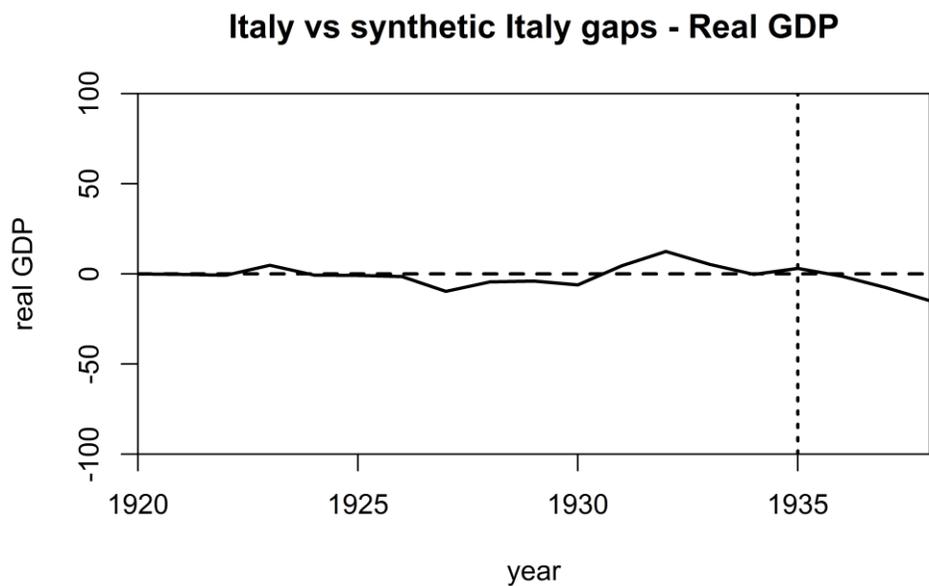
The good estimates of predictors of the synthetic control result in a good approximation of the trend of synthetic Italy, which is very close to the actual trend of the Italian real GDP (Figure 8.11)

Figure 8.11



From Figure 8.11 and from Figure 8.12 that plots the gaps, the same result that had been found with the DiD method is confirmed: the economic sanctions did not have any significant negative impact on the Italian real GDP growth.

Figure 8.12



## 8.7 Industrial production

In this case, as Table 8.13 clearly shows, there is lack of sparsity, though most of the weight is carried by Germany (65,2%). Finland, with a weight of 14.2%, and Sweden, with a weight of 5.5%, are also notable contributors, albeit to a lesser extent than Germany.

Table 8.13

| <b>Weights of donor pool units</b> |       |
|------------------------------------|-------|
| <b>Industry</b>                    |       |
| Belgium                            | 0.025 |
| Finland                            | 0.142 |
| France                             | 0.024 |
| Germany                            | 0.652 |
| Netherlands                        | 0.018 |
| Sweden                             | 0.055 |
| Switzerland                        | 0.041 |
| UK                                 | 0.043 |
| USA                                | 0.025 |

Other countries such as Belgium, France, Switzerland, the UK, and the USA receive smaller weights, ranging from 2.4% to 4.3%. These weights, while relatively smaller, collectively contribute to the overall composition of the synthetic control, capturing additional nuances in the industrial patterns. However, as Table 8.14 labels, the approximation of the average values of predictors are quite weak. Only when it comes to the interest rates and the first lead of the dependent variable the synthetic control approximates the actual industrial production of Italy better than the simple sample mean.

Table 8.14

| <b>Observed versus synthetic Italy – Industry</b> |            |            |             |
|---|------------|------------|-------------|
|   | Treated    | Synthetic  | Sample Mean |
| pop   | 39,952.750 | 50,533.360 | 36,762.760  |
| stir  | 5.857      | 5.855      | 4.429       |
| lrate   | 6.152      | 6.068      | 5.013       |
| industry1   | 150.941    | 150.950    | 150.372     |
| industry2   | 156.580    | 159.223    | 157.945     |

However, the trajectory of synthetic Italy approximates the one of Italy quite well (Figure 8.13). Furthermore, there seems to be a negative impact of sanctions on the industrial production. In fact, after 1935 the industrial production of Italy stagnates, whereas the one of the synthetic control keeps growing. This negative impact is even more evident from Figure 8.14.

Figure 8.13

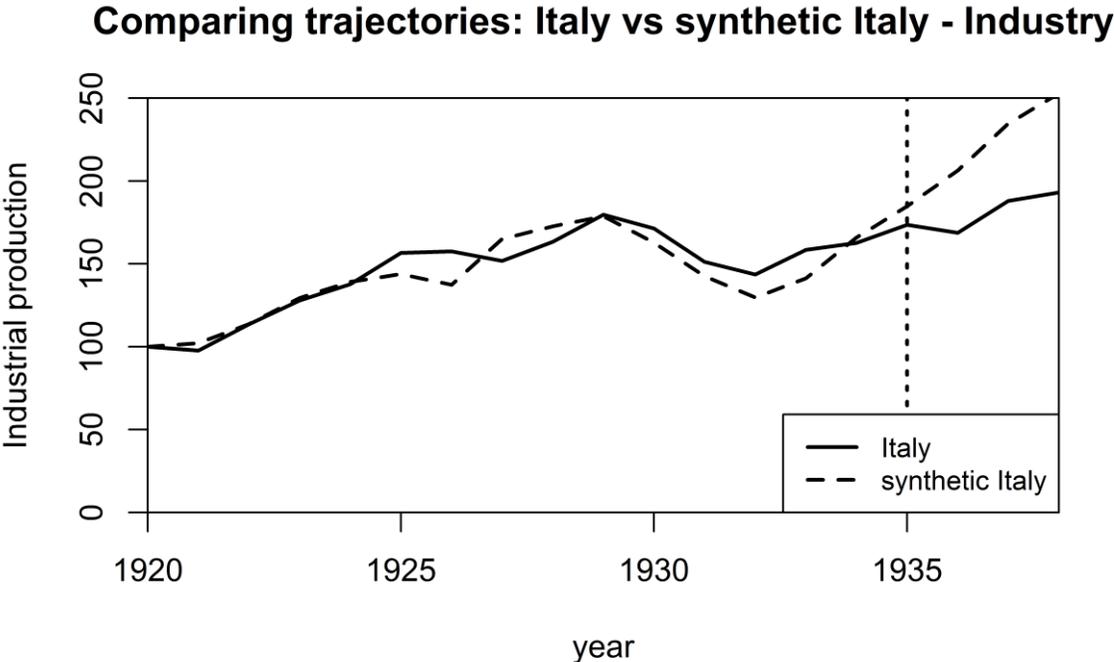
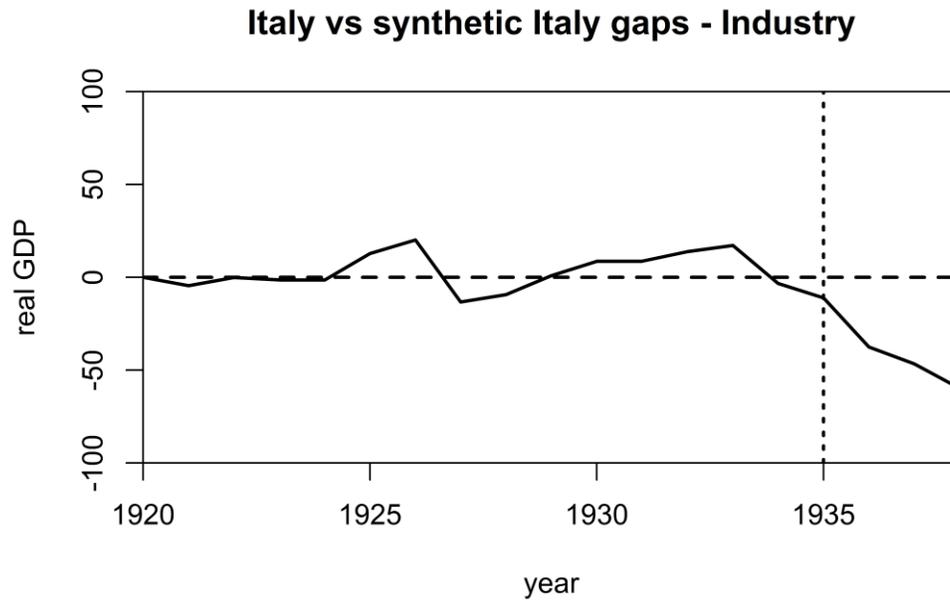


Figure 8.14



Actually, when we run the regressions with the DiD estimator, the coefficient of the interaction term associated to the regression whose dependent variable was the industrial production was always significant at the 95% level when year and country-specific dummies were added. Therefore, the SCM seems to show that there was actually a negative impact of sanctions on the Italian industrial production, which it appeared ambiguous before.

## 9 Conclusions

Over the course of this thesis, we have explored the economic policies of the fascist regime in Italy during the years leading up to the implementation of economic sanctions. These policies were characterized by a determination to achieve self-sufficiency and reduce reliance on foreign goods. Protectionist measures, import reduction, wage compression, and deflationary policies were all tools in the regime's quest to bolster the Italian economy. In the years preceding the Ethiopian war, capital controls and heavy limitations to importations were introduced in an effort to improve the balance of payments, stabilize foreign exchange reserves and defend the exchange rate. However, soon after the beginning of the invasion of Abyssinia, Italy's balance of payments incurred significant deficits, and foreign exchange reserves faced depletion. In reaction to this, the regime had to devalue the lira to correct the deficits in the balance of payments and halt the drain of monetary reserves, also realigning the currency with those of other currencies that had been devalued in the preceding years, such as the British pound or the U.S. dollar.

After conducting an empirical analysis of the effects of economic sanctions on various macroeconomic indicators of the Italian economy, we can compare our initial hypotheses, derived based on the nine factors (trade linkage, sanction duration, prior relations, size of sender and target countries, types of sanctions, economic health and political stability of the target country, cost of sanctions to the target, cost of sanctions to the sender, international cooperation against the target, or international assistance to the target), to which we dedicated numerous pages, that impact the success of economic sanctions, with the results provided by the empirical data analysis.

Regarding trade linkage, it had been suggested that sanctions could potentially affect slightly less than 15% of Italian imports and 50% of exports. However, empirical analysis tells us that sanctions primarily impacted imports, while the effect on exports was limited. In fact, economic sanctions directly led to a decrease in the value of imports ranging from 47.8% to 67.5% compared to the average value of the control group. The effect on exports, on the other hand, was smaller and not always statistically significant depending on the regression model used.

The factor concerning the duration of sanctions was expected to be inconsequential, as it was anticipated that sanctions would only yield their effects after at least a year from their imposition. However, the sanctions lasted only 8 months. We had hypothesized that sanctions might even have a positive effect on industrial production due to a reduction in the supply of foreign products.

However, our analysis did not reveal a positive impact of sanctions on industrial production. On the contrary, the effect appears to be negative. DiD estimates, in regressions where the coefficient related to this effect is significant, quantify a reduction ranging from 35.6% to 39.6% in industrial production compared to what would have been the case in the absence of sanctions. These estimates, however, should be taken with caution as the coefficients and their significance vary significantly depending on the controls and specifications used. Nevertheless, a negative impact on the industry is confirmed by the SCM.

Regarding the factor of diplomacy and relations between target and sanctionist countries before the sanctions, it had been suggested that the sanctions could have a significant effect on the Italian economy because Mussolini did not expect the sanctions until just a few months before their implementation. As a result, Italy could not prepare in advance to cope with them. Our analysis appears to partially confirm this. While the sanctions did not particularly impact GDP growth, they did generate a shock that had short-term negative effects on some of the macroeconomic variables we examined.

In relation to the size of sender and target country factor, we had observed that when summing the economies of all sanctioning countries, their combined economy was ten times larger than that of Italy. However, it had also been mentioned that this factor may not always be influential for the success of sanctions. In this case, it does not seem to have been decisive, as Italy was able to replace a significant portion of the lost imports due to sanctions by importing from other countries that did not participate in the sanctions. Additionally, some of the exports that were previously destined for sanctioning countries were redirected toward non-sanctioning countries. However, the analysis we conducted is unable to disprove or confirm the effectiveness of this factor.

Examining the factor related to the type of sanctions, we had hypothesized that the prohibition of exporting certain products to Italy would not have significant effects, as it concerned a limited group of products. More devastating, we thought, would be the restrictions on Italian exports and financial sanctions that could disrupt public finances. However, contrary to our expectations, our analysis revealed a greater impact on imports than on exports, although it is a historical fact that the government had to devalue the currency to safeguard public finances and avoid a currency crisis.

Our analysis did not reveal anything new about the factor related to the political stability and economic health of the target country. It was not the purpose of this study to evaluate how the

regime's popularity may have changed. However, we can confirm what was previously mentioned: that the sanctions caused further compression of domestic demand, reducing private consumption and consequently impoverishing the population.

The costs of sanctions for both the target and the sender countries do not appear to have been high. As mentioned earlier, it is undeniable that sanctions had a negative effect on the Italian economy, but not sufficient to erode the regime's popularity or to cause the Ethiopian invasion to fail. It is certain that the cost of sanctions for sender countries influenced the duration of the sanctions. Many countries, in fact, exerted pressure for the removal of sanctions as they considered them detrimental to their economies and, in any case, ineffective for their intended purpose. However, our analysis cannot quantify the cost of sanctions for sender countries.

Lastly, concerning the factor of international cooperation, it is reasonable to assume that without German support and American indifference, sanctions could have had much more severe effects. Indeed, our study confirms that the impact of sanctions on the Italian economy was relatively mild, and it is likely that this was also due to the limited international cooperation that failed to sufficiently isolate fascist Italy.

In conclusion, the major finding of our study is that sanctions had a particularly negative impact, especially on imports and the real private consumption of the country. This can be interpreted as a detrimental effect of sanctions on domestic demand, which had been further compressed previously by the deflationary policies of the regime, due to a drastic reduction in imports that led to a decline in consumption. Indeed, economic sanctions led to a decrease in real consumption ranging from 13.5% to 13.9% compared to what would have been the case in the absence of sanctions. However, this impoverishment of Italian society was not followed by rising prices or an increase in unemployment caused by the economic sanctions.

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