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Social Italy: Germany as an example of the economic consequences of the introduction of a minimum wage for Italy

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I want to dedicate this page to thank Professor Marco Spallone, Ph.D., for his supervision of my thesis and his valuable insights and recommendations during the process of writing.

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1. Abstract

This thesis will analyze the necessity of a minimum wage implementation in Italy. The focus of this paper is the examination of macroeconomic parameters and their variability after the introduction of a minimum wage. Additionally, I will analyze the legal framework, the different stakeholders, and alternatives to the minimum wage. Germany will be the reference throughout the thesis because of the recent successful introduction of a minimum wage in Germany and the similarities between Italy and Germany.

2. Introduction

Minimum wages are government policies to fight poverty and income inequality. While it might benefit low-income workers in an economy, government intervention is never without risks and trade-offs.

For years now, Italy has debated whether the government should install a minimum wage policy to fight income inequalities. But not only in Italy but almost everywhere, economists are debating if it makes sense economically to set a national minimum wage. This thesis aims at answering that question for Italy, by taking Germany as a reference country.

Germany introduced a national minimum wage recently in 2015. It is an excellent fit as a reference country since Italy and Germany share many similarities. They are both developed European countries, and both rely on exports. Italy and Germany are known for their automotive industry, and both countries are members of the European Union, the G7 summit, the G20 summit, and the OECD. Of course, there are also significant economic differences that this thesis does not ignore.

I am using a holistic approach to the topic by relying on macroeconomic theory and analyzing the legal background, and taking the perspective of several biased stakeholders, for example, students and blue-collar workers.

I will start with a description of what a minimum wage is and how it works before analyzing the minimum wage in Germany. I will continue with the analysis of the Italian economy before introducing a minimum wage and take a closer look at the legal framework and explain why the Italian constitution and Italian courts are in favor of a minimum wage policy. After that, I examine different variables of the Italian economy that may change after introducing a minimum wage policy. The examination will contain but is not limited to effects on GDP, the unemployment rate, and average wages.

After this scrutiny, I am presenting different measurements and principles for determining where to set the minimum wage and apply them, keeping in mind the drastic effects of setting the minimum wage at the wrong level. Finally, we inspect the unconditional basic income as an alternative to the minimum wage and a different newer, more revolutionary method to fight income inequality and poverty.

If applied correctly, I am convinced that minimum wages are a well-working tool for governments to tackle income inequality and poverty. Still, macroeconomic sophistication is not enough considering all stakeholders, like employers, employees, the government, and foreign countries. No, the proof of economic functionality is only the first step towards a successful minimum wage implementation. Only if all stakeholders are convinced, agree with each other, and do not change their behavior out of fear of not being able to cope with the minimum wage hurdles, the minimum wage will be beneficial to the country as a whole and the stakeholders individually. That is why this thesis focuses on different interests in that matter.

The thesis relies on experience from other countries that introduced a minimum wage policy, mainly Germany, on the economic theory of different schools, on statistics from Italy and beyond, and on different publications of economists on that topic.

3. Minimum wages

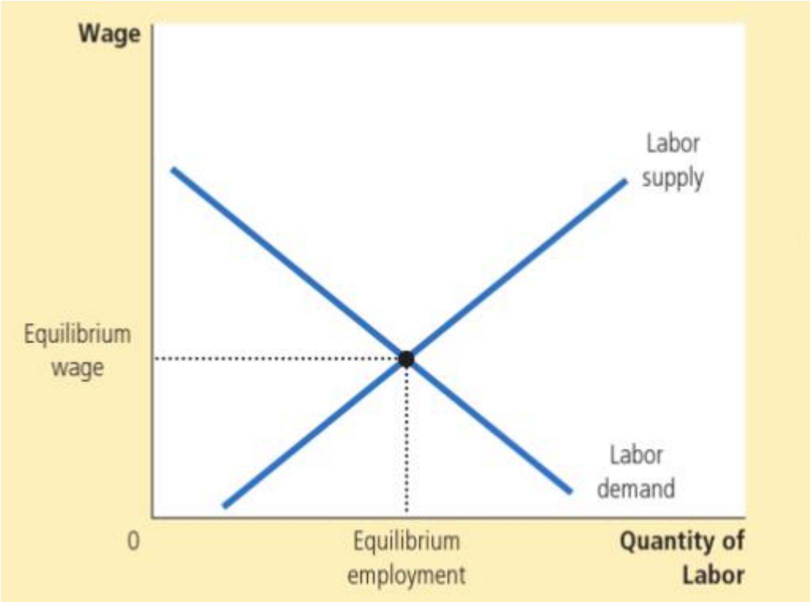
3.1 The economic principles of determining wages:

If we want to understand how wages are determined, we need to look at work or employment as a market because, essentially, it is nothing else. On the one side, we have the employers: Employers require workers to perform the work they offer. This can be the production of a product, the provision of a service like driving a customer from A to B in a taxi, or a professional service like legal advice, consulting- or accounting services. On the other side, we have workers. They may be employees in a production facility, taxi drivers, lawyers, consultants, accountants, etc. They demand employment to earn a wage and finance themself and maybe their family.

The wage that employers pay, the demand side, and employees receive, the supply side, depends on how much work is demanded and supplied and their ratio accordingly. If firms require a lot of workers and there are only a few qualified potential employees in the market, the wage will be high. The employees have a lot of bargaining power. The employers do not. This phenomenon is called a shortage of labor. “Shortage of labor of a particular type in a particular labor market which may be said to exist when the number of vacancies has been (or is expected to be) above a level considered to represent 'normal' turnover at the prevailing wages and working conditions for an extended period” (European Commission). In this scenario, wages are high, and unemployment rates are relatively low.

If there are a lot of qualified potential employees available, but firms do not demand many workers, the wage will be lower. The employers have a lot of bargaining power, and the employees do not. This phenomenon is called a shortage of jobs. In this scenario, wages are low, and unemployment rates are relatively high.

In any case, labor supply and labor demand will set an equilibrium where supply equals demand. At this equilibrium point, wages and the number of jobs are determined.



Graphic 2.1: A free labor market (Principles of economics, Greenlaw et al., 2017)

Graphic 2.1 shows the demand and supply for labor. In equilibrium, the wage and quantity of labor are determined. In economic theory, there is no involuntary unemployment since this model makes certain assumptions to explain what would be above the scope of this chapter. Involuntary unemployment cannot be eliminated in a free labor market.

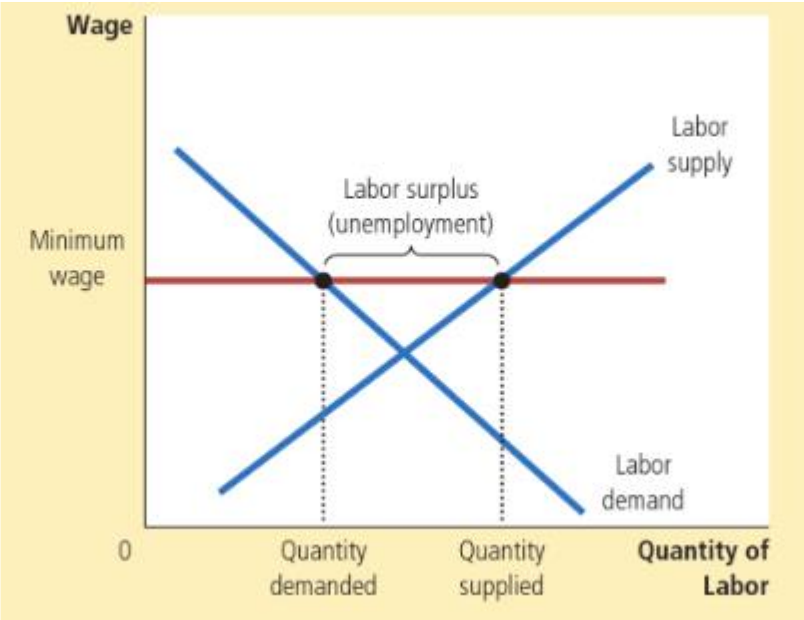
3.2 What is a minimum wage

A minimum wage is a governmental intervention in the labor market. If exercised successfully for the least paid workers, supply and demand no longer affect their wages because the government sets a higher wage. Paying any wage below the minimum wage would be illegal.

A minimum wage only affects a small amount of labor market participants. The employees with the lowest wage in the market and the employers who pay the lowest wages in the market. Most employees earn way above the national minimum wage, and therefore a minimum wage does not affect them. Their wage is still determined by supply and demand. This counts for highly skilled and/or experienced workers. (Greenlaw et.al., 2017)

“To fully understand the minimum wage, keep in mind that the economy does not contain a single labor market but many different labor markets for different workers.” (Greenlaw et.al., 2017)

In economics, a minimum wage is referred to as a price ceiling. As shown in graphic 2.2, it keeps the wage above the equilibrium wage.



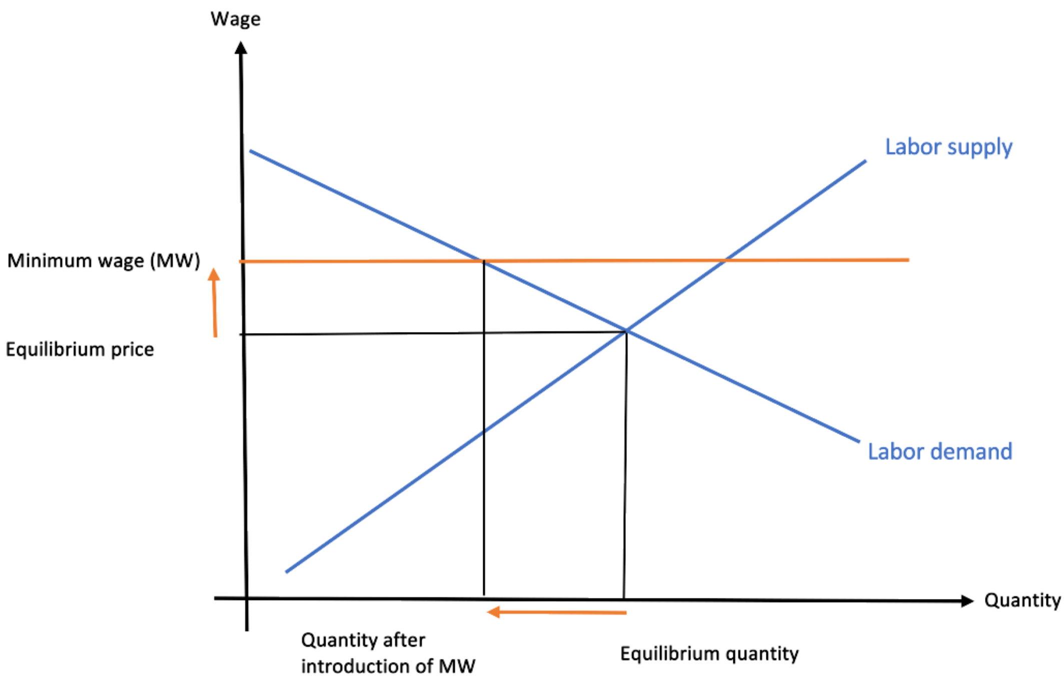
Graphic 2.2: A free labor market (Principles of economics, Greenlaw et al., 2017)

The minimum wage only affects the wage if the red line is above the equilibrium. The effects are the following:

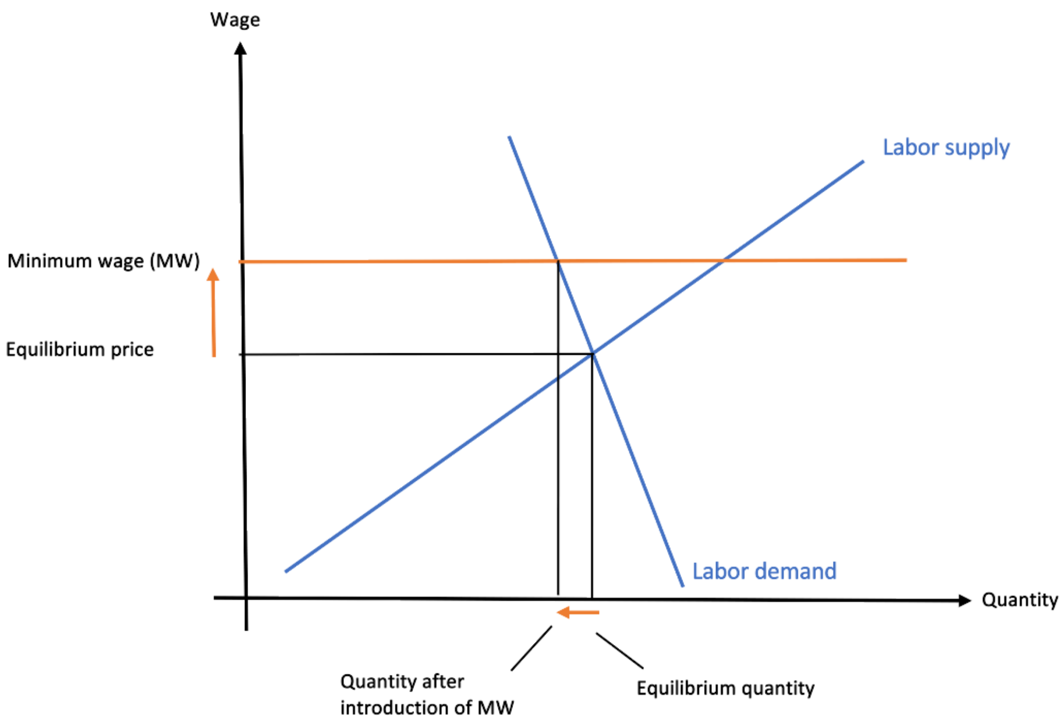
3. Low-income workers who manage to keep or find a job are better off. Their wage is higher with the minimum wage than without it.
4. Low-income workers who lose their jobs are worse off. They do not earn money anymore and are involuntarily unemployed.

Involuntary unemployment is being created because government intervention disbalances the labor market. The price is not in equilibrium anymore. There is a higher supply of workers than a demand for workers.

The number of jobs destroyed by government intervention depends on the elasticity of labor demand. If labor demand is inelastic, a minimum wage does destroy relatively few jobs, whereas an elastic labor demand leads to rather an extensive destruction of employment.



Graphic 2.3: Elastic labor demand has a relatively significant effect on quantity (own creation)



Graphic 2.4: Inelastic labor demand has a relatively small effect on quantity (own creation)

The graphs show that the more elastic labor demand is, the more jobs are lost with the introduction of a minimum wage. Labor demand is inelastic when the job requires a skilled, specialized, and experienced worker. The worker is hard to replace and valuable to the employer. Therefore replacing them is hard. It is relatively likely that the employer is willing to pay a higher wage. If labor demand is elastic, the worker is easy to replace. It is rather unlikely that the employer will pay a higher wage. These workers could work in a field where automatization makes it possible for machines to take over the job. When wages are low, it is more efficient to let workers do the tasks, but machines may pay off when wages are high since machines are not paid in wages.

3.3 Facts about minimum wages around the world

In 2022 almost all developed countries have introduced a minimum wage, and even developing countries will follow. Until today, Italy did not introduce a minimum wage.

Country	Minimum Wage expressed in US$
United Kindom	10.5
United States of America	7.3
Germany	11.8
France	12.1
Japan	8.0
Greece	5.7
Mexico	1.2

Graphic 2.5: Minimum wage of selected countries in US$ in 2019 (OECD,2019)

As we see, the height of the minimum wage varies significantly between countries. The highest minimum wages can be found in Europe, followed by developed countries in America and Asia. Less developed countries have lower minimum wages. There is a strong correlation that can be found between the minimum wage of a nation and its purchasing power.

3.4 The minimum wage in Germany

This thesis discusses an introduction of a minimum wage in Italy, where Germany will be used as the primary example for comparison. This is due to the following reasons. Italy and Germany are geographically close, both countries belong to the developed countries, and even though Germany's Gross Domestic Product is more vital, there are parallels in their respective economies. For instance that both countries are famous for their cars. Nevertheless, the biggest reason is that Germany only introduced its minimum wage relatively shortly. The resulting consequences can be transferred to Italy way easier because economic conditions did not change too much in this period. Comparing a country that introduced its minimum wage more than 80 years ago is not suitable since economic conditions were a lot different 80 years ago. Therefore, the effects triggered 80 years ago maybe a lot other today.

In Germany, the minimum wage was introduced in 2015 under the chancellorship of Angela Merkel (CDU), following the initiative of the junior partner in this coalition during this time, the Social-democratic Party of Germany (SPD). The lawmakers set a minimum wage at 8.50€ for the beginning. A commission will evaluate the minimum wage every year and adjust it to the economic factors in Germany. “According to the Minimum Wage Act, the Minimum Wage Commission, in which trade unions and employers are represented, decides on the development of the minimum wage, which becomes binding by statutory order.” (Federal Statistical Office of Germany, Statistisches Bundesamt, 2022)

In 2017 the minimum wage was 8.84€, in 2019 9.19€, in 2020 9.35, in 2021 9.50€, and in 2022 9.82€. In July 2022, the minimum wage is going to be 10.45€. Through political intervention, the lawmakers decided to adjust the minimum wage politically since there is a common belief in the government that the minimum wage is too low. By the end of 2022, the minimum wage will be 12€.

The German minimum wage laws also provide exceptional minimum wages for specific industries next to the general minimum wage. “It is negotiated in collective bargaining between unions and employers and then declared generally binding. The industry minimum wage applies to all employees in the relevant industry – regardless of whether their employer has concluded a collective agreement and is bound by a collective agreement. Examples are the minimum wages in the main construction trades, building cleaning, and the care sector.” (Federal Statistical Office of Germany, Statistisches Bundesamt, 2022). These exceptional minimum wages are always higher than the general minimum wage.

4. Analysis of the Italian economy, its wage inequality, and their consequences

4.1 Who receives low wages, and how does that affect the Italian economy?

Depending on the region, between 9,6% and 16.4% of the population earn a low income. (Statista). Low pay means that a person or household earns 40% below the average income in the country. Low wages have significant consequences for workers. Several adverse effects go well beyond the obvious point that a person with a low income needs to spend money more carefully. It comes to light that people are most likely to receive a down payment when their overall living situation is already more complicated than that of an average Italian. Low wages function like an anchor making it extra hard for people to get over their struggles and improve their living conditions. I want to look at specific groups of predestined people to receive a low wage.

Low educated people

People who did not finish any kind of education on average earn 19,886€. This is 41% less than a person finishing high school, on average 33,604€, and 59% less than a university graduate, on average 48,891€ (Statista). With a salary below 20,000€, making a living is hard. But a lot of people with low education earn significantly less. About 14% of Italy's population is poor economically (Statista). That's why many people have one full-time job and a part-time job on the side. The result is a reduction in individual happiness. "Working hours have the expected negative effect on happiness" (Pouwels et.al., 2008). But also, for the economy, the effect of overworking is negative. In the ideal case, low-educated people would seek education. There is a shortage of workers in higher specialized jobs in almost every part of Italy. If workers could continue their education, these job shortages could be solved. The previously low-income worker would receive more money, the firm could support higher qualified staff, and the government would profit with higher tax revenues. Everyone would be better off. But the high amount of working hours stop this development from happening.

Other groups of people

Similar phenomena can be seen with women, single parents, and first-time job-seekers in the job market. They have in common that they earn significantly less than average. If these people would make more money, the chance that they would give the money back to the economic cycle is way higher than if higher-paid people would receive a salary increase. These people often cannot live on the retirement plan once they retire and need governmental aid. Higher minimum wages would make sure that everyone would be able to live on their retirement plan without the support of government aid. This is important since governmental pension expenditures are high (Statista)

4.2 How collective agreements lead to higher wage inequality

National collective agreements are the Italian way of ensuring fair wages for employees in the Italian job market. In the following subchapter, I will show why these agreements do not lead to fair wages for everyone and even have inequality-strengthening effects.

A collective agreement is an agreement for a minimum wage in a specific industry. The employers and the corresponding trade union negotiate and agree upon it. It is a two-stage process that works the following: “At the first stage, wages for each sector are fixed at the national level, to preserve the real value of wages using a revision mechanism for wage levels based on the target rate of inflation set by the government. This first level of bargaining, being completely centralized, fixes regional invariant minimum wages for each sector” (Dell’Arigna et.al., 2005). When only the first step takes place, firms may adjust the wages individually to a higher level to ensure wages better reflect the workers’ productivity. “The second level of bargaining is firm-specific. The July 1993 National Agreement permits the granting of wage increases agreed with the company unions and linked with company performance.” (Dell’Arigna et.al., 2005)

But not every employer is registered with a trade union, and collective agreements are only valid for registered employers. “[…] According to the Italian legal system, the collective negotiations are binding only for the employers registered with the relative concluding trade unions.” Other employees may pay a lower wage. But not arbitrarily low. “[…] All employers, even those not involved with the trade unions, must be sure that their employees receive a wage proportionate and adequate to the quality and quantity of the activities performed, as provided for in article 36 of the Constitution” (Ministero del lavoro e delle politiche sociali).

But what does adequate mean? 10% lower than average? Maybe even 20% to 30%? This decision is taken in court upon individual request. An employee, to get paid fairly, must sue their employer. A risky undertaking that not many employees are brave enough to do. Especially blue-collar workers, foreign workers, and young employees are often not aware of their rights, which makes them accept a wage that may be way lower than fair.

When reading the publication of the Ministero del Lavoro e delle politiche sociali, it sounds like Italy would have to choose between practicing collective bargaining and installing a national minimum wage. But the opposite is the case. Under no circumstances are collective agreements and a mutually exclusive federal minimum salary mutually exclusive. Germany for instance practices three different methods of determining minimum wages.

A national minimum wage counts for everyone working in Germany who is more than 18 years old. Apprenticeships and compulsory internships are excluded from the minimum wage.

For 44% of Germany's working population, wages are negotiated via collective bargaining, either on the industry level or at the firm level. The wage they agreed upon must be higher than the national minimum wage. (Statistisches Bundesamt, Federal Statistical Office of Germany)

There is an excess demand for workers in the care industry. Wages were relatively low, and working conditions were too hard to attract new workers. Also, the idea of attracting care workers from outside the EU is only partially successful and takes too long. After several negotiations between unions and employers, collective bargaining could not achieve a wage high enough to transform the care industry into an attractive workplace. The government installed an industry-specific minimum wage for the care industry. Employers had no opportunity of negotiating the height of this minimum wage. The government felt that without intervention, the industry would get in danger and set a minimum wage for care workers in 2021 to 15€ per hour. This minimum wage increased to 15.40€ in April 2022.

Germany proves that collective agreement and a national minimum wage are not mutually exclusive but may enforce each other. When looking at wage inequality inter- and intra-industry, we see that minimum wages, by increasing the salary for the lowest-paid workers in the industry, cures wage inequality. Also, the disparity between jobs begged by collective agreements and employment that is not appealed by collective contracts but in the same sector might be weakened if one of the salaries were below minimum wage.

While collective agreements are making a lot of employees better off, they do not support every employee. This leads to wage inequality, whose effects might be reduced by introducing a national minimum wage.

4.3 Why do graduates leave Italy to work in another country?

Italy is an immigration country. That means that more foreigners are coming into the country than leaving Italian Italy. In 2018 157,000 Italians left their home country to live abroad. Three-hundred thirty-two thousand people immigrated to Italy. But the trend is reversing. In recent years the number of immigrants declined by 3.2% compared to 2017, and the number of emigrants increased by 1.2% compared to 2017. (Istat)

MIGRATION FLOW TO ABROAD OF THE RESIDENT POPULATION, BY ITALIAN/FOREIGN CITIZENSHIP. Years 2009-2018

YEARS	TOTAL			ITALIANS			FOREIGNERS		
	Immigration	Emigration	Net migration	Immigration	Emigration	Net migration	Immigration	Emigration	Net migration
2009	421.859	64.921	356.938	29.330	39.024	- 9.694	392.529	25.897	366.632
2010	447.744	67.501	380.243	28.192	39.545	- 11.353	419.552	27.956	391.596
2011	385.793	82.461	303.332	31.466	50.057	- 18.591	354.327	32.404	321.923
2012	350.772	106.216	244.556	29.467	67.998	- 38.531	321.305	38.218	283.087
2013	307.454	125.735	181.719	28.433	82.095	- 53.662	279.021	43.640	235.381
2014	277.631	136.328	141.303	29.271	88.859	- 59.588	248.360	47.469	200.891
2015	280.078	146.955	133.123	30.052	102.259	- 72.207	250.026	44.696	205.330
2016	300.823	157.065	143.758	37.894	114.512	- 76.618	262.929	42.553	220.376
2017	343.440	155.110	188.330	42.369	114.559	- 72.190	301.071	40.551	260.520
2018	**332.324**	**156.960**	**175.364**	**46.824**	**116.732**	**- 69.908**	**285.500**	**40.228**	**245.272**

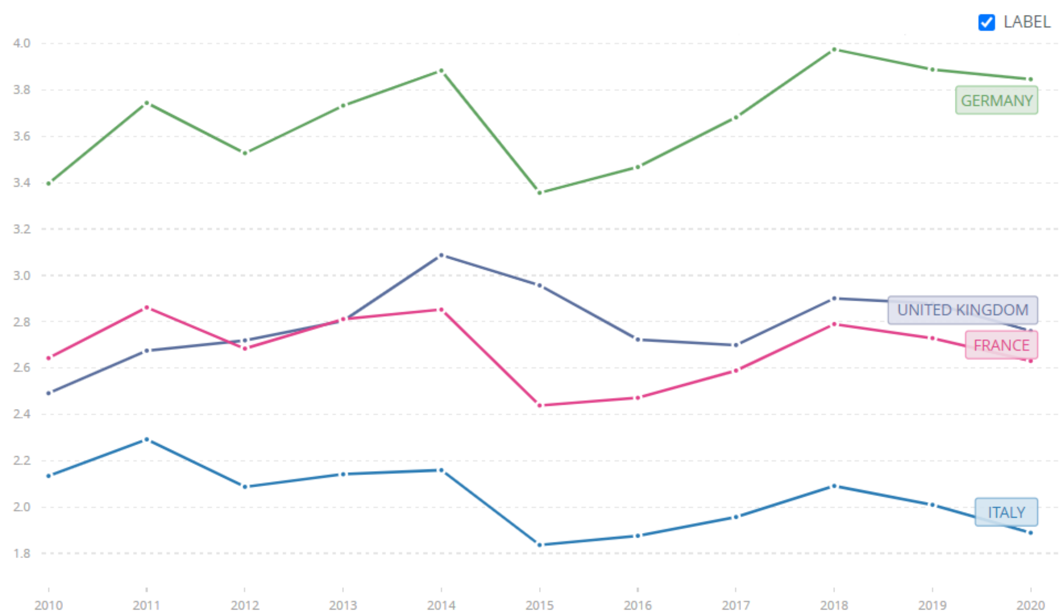
Graphic 2.6: Italian migration flow over the years (istat, 2019)

When highly educated people leave a country, this phenomenon is called brain-drain. These people are needed in the domestic economy to keep the country on track and take over positions with a lot of responsibility. They are also expected to have the highest wages and pay the most taxes. Tax revenue is vital to the country to secure pensions, pay for infrastructure and keep the nation intact. 182,000 Italian university graduates have left Italy to work and live in another country in the last ten years. Two out of three migrants were between 20 and 49 years old. These are the years when people are most valuable to their country. The government does not have to invest in their education anymore, and there are still some years before retirement. The social contributions paid during this time bracket are used to finance the pensions of the older generations. If these people go abroad, the money is missing from the Italian budget.

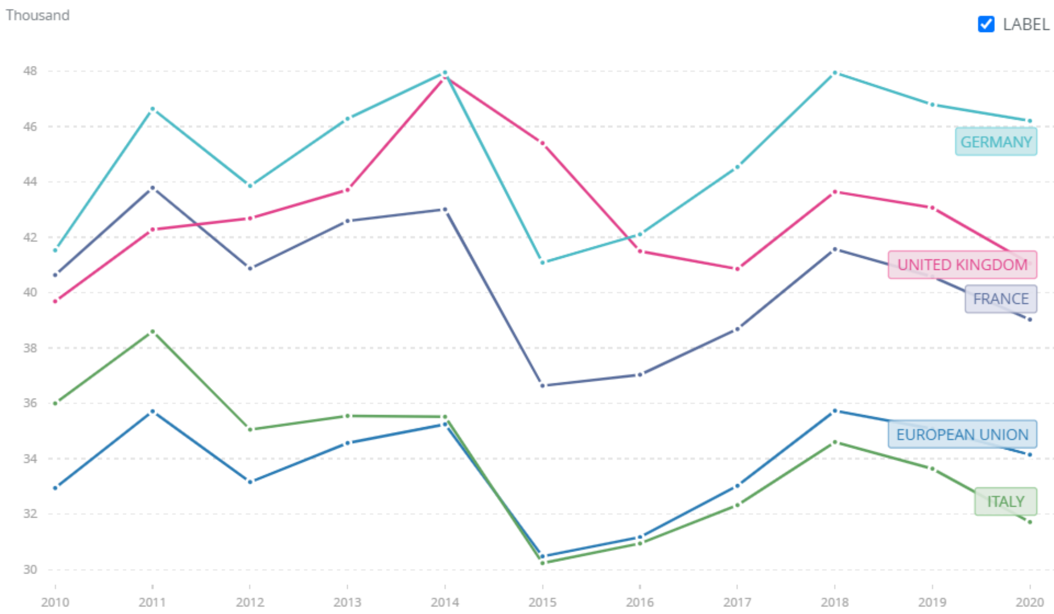
“Considering the education level at the departure, in 2018, more than half of the Italian citizens who moved abroad (53%) had a medium-high educational qualification: about 33 thousand upper secondary school graduates and 29 thousand university graduates. Compared to the previous year, the number of graduates who emigrated increased (+1% and +6% respectively). The increase was more relevant with the widening time spectrum: emigrants with medium-high educational qualification increased by 45% to the previous five years.” (Istat)

So why do highly educated Italians feel the need to leave their country, and what does the minimum wage have to do with it?

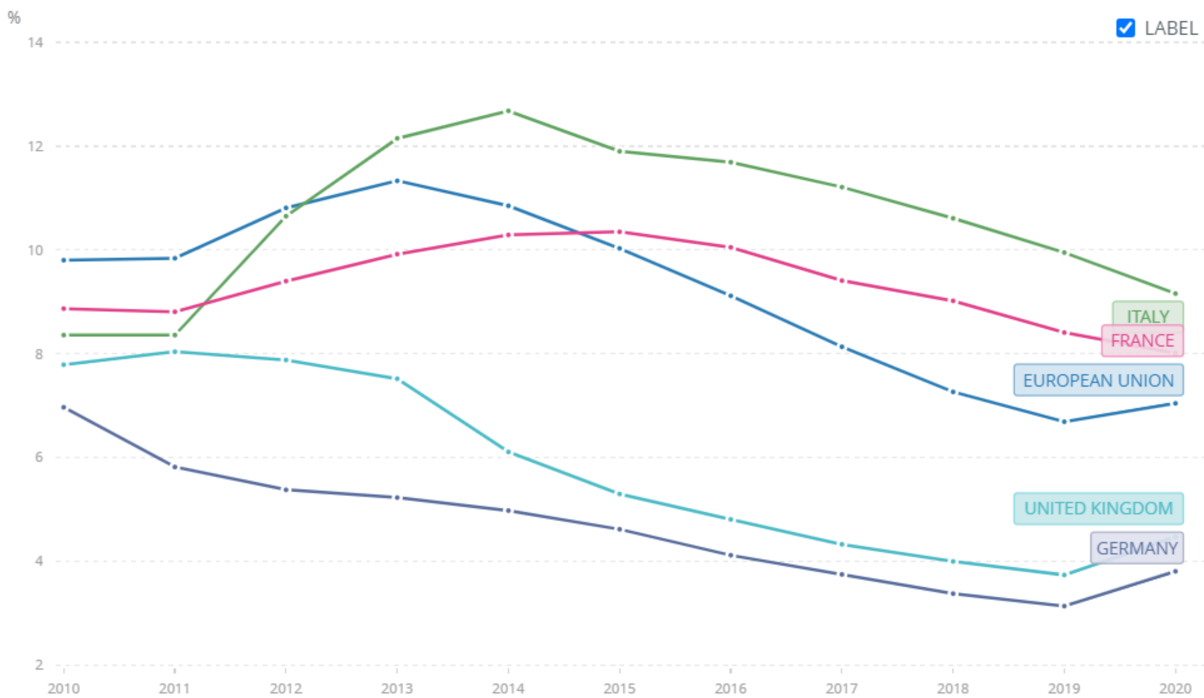
Compared to other developed European countries, the Italian economy is struggling. The Italian Gross Domestic Product and the Gross Domestic Product per Capita are lower than other European developed countries, while Italy’s unemployment rate is way higher.



Graphic 2.7: GDP of Italy compared to selected European countries over ten years (world bank, 2022)



Graphic 2.8: GDP per capita of Italy compared to selected European countries and the European Union over ten years (world bank, 2022)



Graphic 2.9: Unemployment rate of Italy compared to selected European countries and the European Union over ten years (world bank, 2022)

Overall, it is harder to find a job in Italy, and the risk of being unemployed is higher. Additionally, the average salary in Italy is lower than in other developed European countries.

Country	Average salary (in US$)
Italy	37,769
Germany	53,745
United Kingdom	47,147
France	45,581

Graphic 2.10: Average annual wages for selected European countries in 2020 in US$ (Statista,2022)

What could the minimum wage change?

Economists are still unsure if minimum wages lead to an increase or a decrease in the unemployment rate, but there is a correlation and causality between wage and productivity. (Akerloff, 1984) According to Keynes, higher wages lead to higher demand for goods. This, in return, strengthens the economy, boosts the GDP, and lowers the unemployment rate.

But what does that have to do with graduates who in Italy would not work for the minimum wage?

While minimum wages directly improve the most nominal wages, there are effects on higher salaries. “Minimum wage primarily affects the bottom part of the earnings distribution, but there are spillover effects until the 90th percentile. Due to equilibrium responses of firms and workers, indirect effects account for most of the increase in wage dispersion.” (Busotti, 2021)

We see it is indeed possible to use the introduction of a minimum wage as an excellent instrument to make the domestic economy more interesting for Italian graduates. Additionally, the Italian economy has become more interesting for foreign graduates and ex-pats as well.

5. The Italian constitution and politics on minimum wages

This chapter will analyze whether the Italian constitution and the Italian courts would allow government intervention to install a national minimum wage.

There were several political initiatives to introduce a minimum wage in Italy. Most of them favored a pay of 9€ per hour gross. One of them was the bill presented by the five-star movement, a left-wing party in the Italian parliament. (12 July 2018 n° 658, entitled Provisions for the establishment of the minimum hourly wage) Istat statistics shall be the foundation for adjusting the minimum wage annually. Since then, the government has changed, but there has been moved again to put forward a bill recently. “Di Maio told ministers from his anti-establishment Five Star Movement (M5S) […] that the government would “introduce a minimum wage as a priority measure” along with a flat tax and a law on conflicts of interest.” (The Local, 2019)

It can be argued that the Italian constitution favors a national minimum wage.

“Workers have the right to a remuneration commensurate to the quantity and quality of their work and in any case such as to ensure them and their families a free and dignified existence.” (Art. 36, Italian Constitution)

This article is essential today as the average wages of low-skilled workers are getting lower. In 2016, the average salary for a low-skilled worker was 1360€ gross. By the end of 2018, it fell to 1130. (Tradingeconomics.com) These statistics even exclude farmworkers who often receive a salary way below average. With rising inflation, Consumer Price Index is at 6,2% annually in March 2022 (Istat). A salary of 1130€ is too low to have a life of dignity.

“The highest Italian courts, i.e., the Constitutional Court and the Corte di Cassazione, seem to support an intervention by the legislator on the matter, naturally limiting themselves only to tracing the paths that can be followed” (Delfino, 2021). The courts argue that even though collective bargaining sets the rules of minimum wages in industries, the government still has a legal opportunity to intervene. (Constitutional Court no. 50 of 2015)

6. Expected economic developments after the introduction of the minimum wage in Italy, considering the German example

We now look at possible economic developments that follow an introduction of a national minimum wage. I base my analysis on theory and practical examples focusing on the German minimum wage introduction.

6.1 Effects on Gross Domestic Product

When looking at Germany's GDP, we see that after introducing the minimum wage in 2015, the GDP increased by 18% from 2015 until 2018.

Graphic 4.1: The World Bank, https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?end=2020&locations=DE&start=2012

Of course, looking at one example does not prove that minimum wages positively affect the GDP, but we see that at least Germany's economy did not get harmed by the introduction. Using a broader scope, we see that the German economy was in crisis in 2015 when the amount of refugee immigration was at its peak. But still, comparing 2014 with 2018, the GDP increased by 2.3%.

In the United Kingdom, after the minimum wage introduction in 1999, the GDP increased by 0.21% in 2000 and fell by 0.78% in 2001 (macrotrends.net), minor effects on the GDP.

Economists are still not sure how a minimum wage affects the GDP. There seem to be two prevailing theories that Joseph J. Sabia summarized in his study "Minimum wages and Gross Domestic Product" in 2015.

Theory 1: The introduction or increase of the minimum wage affects the GDP negatively:

Increases in the minimum wage may increase labor costs and output prices. (Aaronson and French 2007; Aaronson, French, and MacDonald 2008) Significantly the low wage sector would be affected since higher wage costs will lower profits. But also, other industries may suffer from higher prices since there are spill-over effects until the 90^{th} percentile of income, as we learned in chapter 2.d. Additionally, the terms of trade of the country may be negatively affected. As wages rise, domestic products are getting more expensive. Companies will charge a surplus on their products according to their increased labor costs. As domestic products get more expensive, importing might be a lucrative option for consumers. Especially in low-income countries, products are so cheap they may offset transportation costs and duties. Intervention from the government to protect local producers is impossible in many cases. Free Treaty Agreements of the European Union with partner countries prohibit member states from increasing import duties or installing import quotas. Imports count towards foreign GDP and therefore reduces the domestic GDP.

Theory 2: The introduction or increase of the minimum wage affects the GDP positively:

"If minimum wage increases raise the earnings of lower-skilled workers who keep their jobs, these workers have higher marginal propensities to consume than capital owners or low-skilled workers who lose their jobs" (Sabia, 2015). The increased amount of domestically spent money increases the GDP. There are also productivity effects, as an increase in the minimum wage triggers additional job training for employees. The demand for low-skilled workers decreases since they are more expensive to the employer than before. Workers are nudged into continuing education. These former low-skilled workers can take jobs with higher productivity and contribute more towards GDP (Sabia, 2015). More productive firms are competitive over less effective firms and can sell their products for a lower price. Hence, domestically produced goods are more affordable than overseas products from countries with low productivity. Imports may fall, and GDP may increase.

Which theory is correct? According to Sabia's study, there is a null effect when researching the correlation between an increase in the minimum wage and the level of GDP (Sabia, 2015).

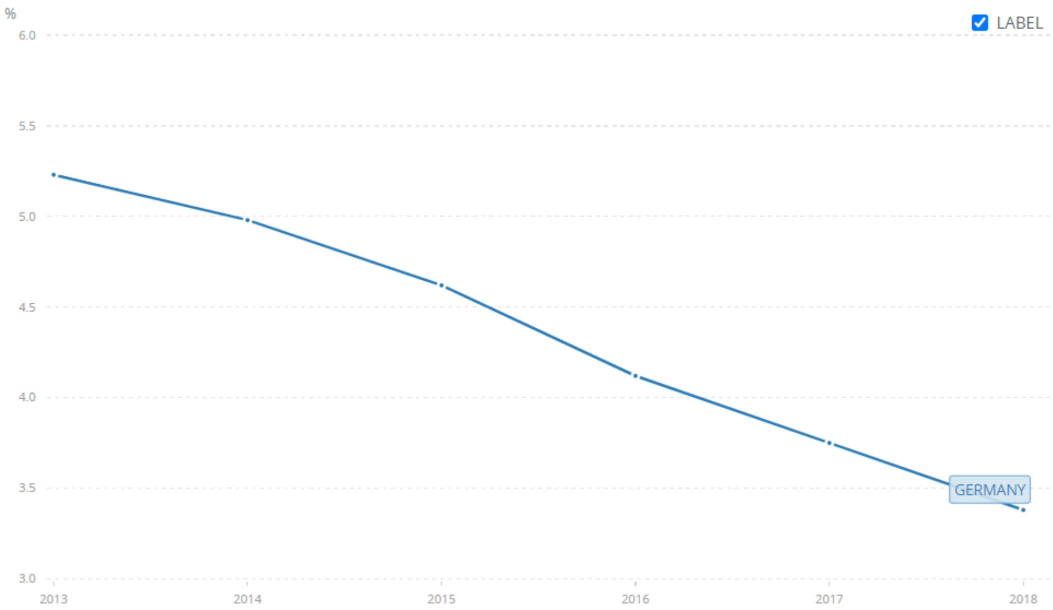
There are a few findings worth mentioning when looking at specific industries instead of country-specific ones. One can generally argue that introducing a minimum wage lowers profits in the low-skilled sector. The extra spending of the people who increased their spending capacity due to a higher salary cannot offset this effect. Therefore, the industry-specific GDP for the low-skilled industry will most likely decline. But the high-skilled industries benefit since they will not have to increase their labor costs drastically but still have increased revenue, while the low-skilled workers have a higher spending budget due to their salary increase.

Lastly, we see whether the effect of a minimum wage increase on GDP depends on the country. Suppose the government has the most low-skilled industries. In that case, a minimum wage most likely decreases the GDP, whereas, in high-skilled economies like Italy, introducing a minimum wage may positively affect GDP.

6.2 Effects on the unemployment rate

In a previous chapter, we discussed the economic effects of government intervention in introducing a minimum wage. When there is a price ceiling, the labor market cannot reach equilibrium. Therefore, there will be involuntary unemployment. What we do not know so far is how strong these effects are.

When we look at the German unemployment rate before and after introducing a minimum wage, it seems that introducing a minimum wage did not increase unemployment. There is no significant effect since the trend from previous years continues until 2018.



Graphic 4.2: Germany's unemployment rate from 2013 until 2018 (world bank, 2013)

Economic research presents an answer to why unemployment effects are minimal. While the neoclassical school predicts a sharp increase in unemployment after introducing an increase in the minimum wage, newer models come to different conclusions. The first outcome is that while having spill-over effects, the minimum wage mainly affects low-skilled workers regarding unemployment. In the neoclassical model, these low-skilled workers either receive a wage increase or lose their job. Newer models understand the skill level of workers as non-static. The threat of job loss forces workers to acquire knowledge beyond their previous position. They are now equipped with skills that qualify them for more demanding and productive employment. That achieves higher wages for these former low-skilled workers and benefits the economy by increasing total welfare. "Indeed, a minimum wage may incentivize workers to accumulate human capital to avoid unemployment. This implies a high growth rate and, in certain circumstances, an improvement in the welfare of all individuals." (Minimum wage unemployment and growth, Cahuc et al., 1996)

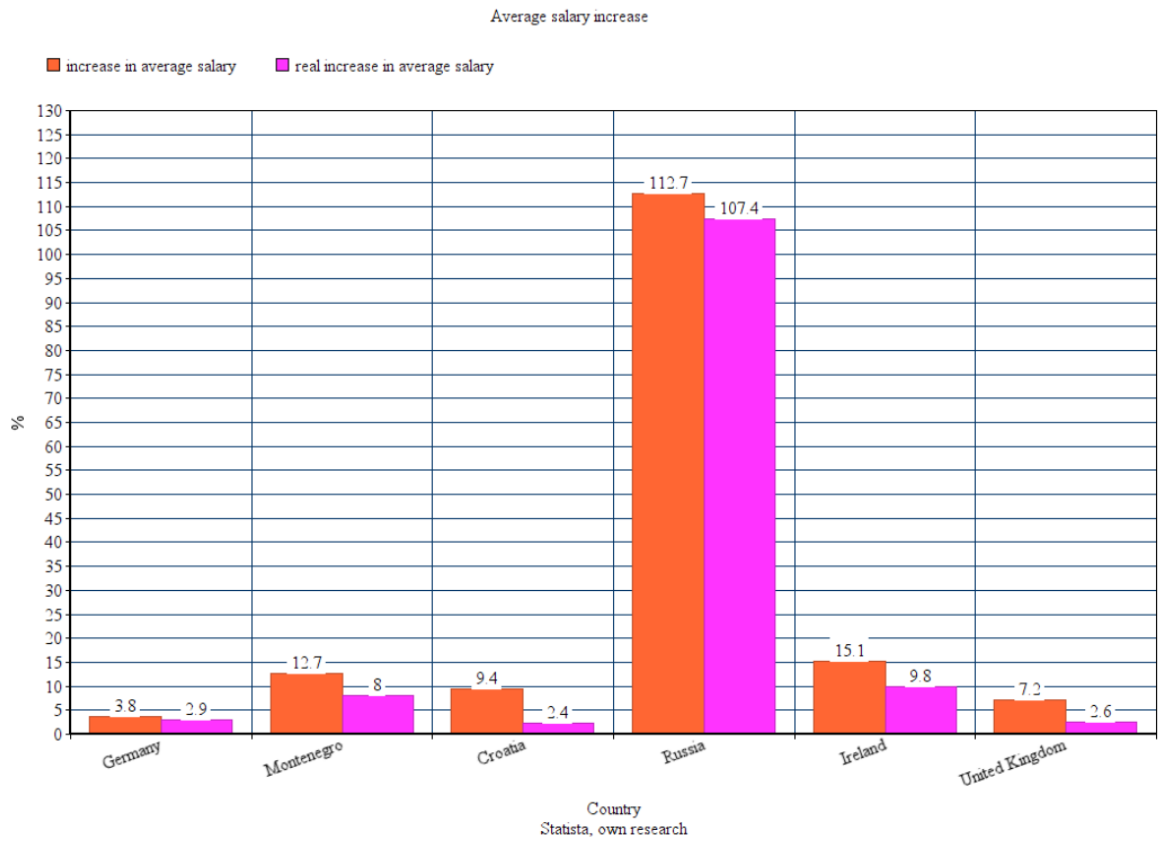
6.3 Effects on average wages

To explore the effects of introducing minimum wages on average wages, I conducted a study comparing average wages one year before and one year after introducing a minimum wage in 13 countries in the last 69 years.

Country (year of introduction)	**Avg. wage per year one year before MW**	**Avg. wage per year one year after MW**	**Difference in %**	**Difference adjusted to inflation***
Germany (2015)	39,626€	41,132€	+3.8	+2.9
Montenegro (2013)	10,692 USD	12,048 USD	+12.7	+8,0
Croatia (2008)	84,564 kunas	92,532 kunas	+9.4	+2.4
Russia (2000)	18,276 rubles	38,880 rubles	+112.7	+107.4
Ireland (2000)	21,283€	24,490€	+15.1	+9.8
United Kingdom (1999)	17,415 pounds	18,668 pounds	+7.2	+2.6

*based on the European inflation rate

We see that in every country, the average salary increased after the introduction of a national minimum wage. The growth rate remains positive even after adjusting to inflation. Russia has a significantly higher growth rate than the other countries. In my further analysis, I will keep that in mind and exclude Russia from assumptions, if necessary.



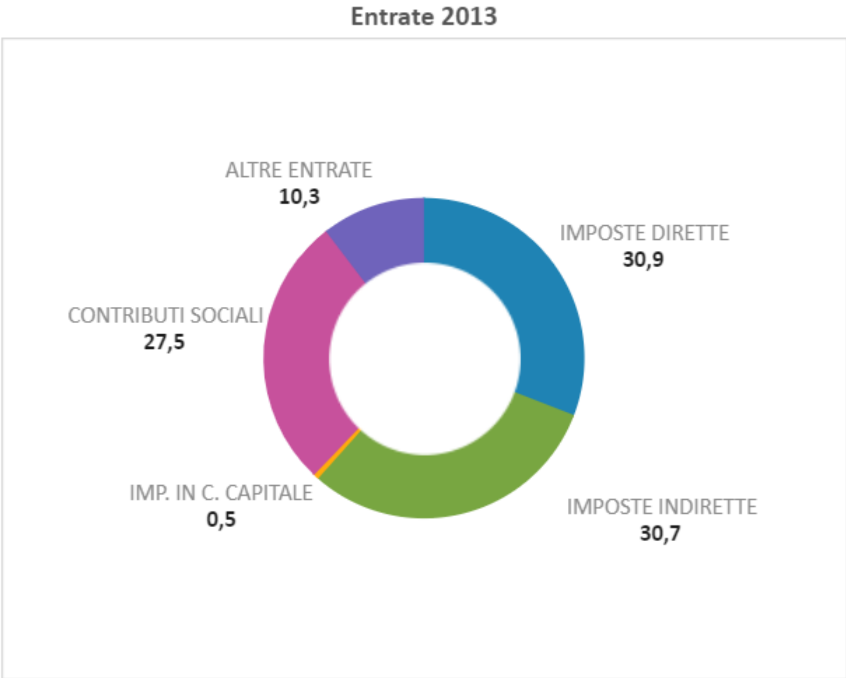
Average salaries increased by 26.8%; the average increase is 22.2%, adjusted for inflation. Russia's data seems unique. When excluding Russia from the analysis, the average increase in salary is 9.64%, while the average growth adjusted to inflation is 5.1%.

While the data suggests that introducing a minimum wage increases average salaries, this simple model is insufficient to prove the statement. A significant number of exogenous variables have been ignored in this model for simplification. For example, if the country was on an economic up- or downswing at the time. Still, seeing that not a single salary decreased supports my argument.

In economic theory, wages increase after introducing a minimum wage, but the effects are minor. Mainly low-income workers benefit. Their increase on a country scale nevertheless has only little impact. (Ahlfeld et al., 2018)

6.4 Effects on governmental social spending

A large part of Italy's spending is spent on social contributions. This includes unemployment benefits and monetary support for single parents who earn enough money to finance themselves and their families independently. Italy also subsidizes school lunches, soup kitchens for the economic poor, and drivers-licenses. In 2013, Italy spent 27.5% of its annual budget on social contributions (Contributi Sociali), equating to 215.2 billion Euros.



Graphic 4.3: Italy government spending 2013, (ufficio parlamentare di bilancio https://en.upbilancio.it/cofog-it1/)

A minimum wage would lead to fewer people being poor. It follows that fewer people will be dependent on government contributions to finance themselves. Italy's social contributions can decrease when the minimum wage is introduced.

Ben Zipperer, David Cooper, and Josh Bivens, all from the Economic Policy Institute in the United States of America, did a study that came to the same result. They projected a model with a 15$ minimum wage per hour for the United States and modeled government spending changes.

"If 2021 Raise the Wage Act were passed and the federal hourly minimum wage increased to $15 by 2025, we estimate that annual government expenditures on major public assistance programs would fall by $13.4 billion to $31.0 billion." (Zipperer et al., 2021)

The study focuses on three variables within the government spending of the United States which are Major government transfer and tax credits, Supplemental Nutrition Assistance Program (SNAP) and other significant transfers, and Earned Income Tax credit and child tax credit. They modeled their change with three different methodologies and reached similar results. Every analyzed part of government spending decreases after introducing a minimum wage. (Zipperer et al., 2021)

Reductions in government transfers and tax credits due to a national $15 minimum wage in 2025, billions (2021$)

Methodology	Major government transfers and tax credits	SNAP and other major transfers	EITC and CTC
Dube 2019b and EPI 2021	-$31.0	-$10.3	-$20.7
Dube 2019b and CBO 2019	-$15.5	-$5.2	-$10.3
Cooper 2016 and EPI 2021	-$13.4	-$7.0	-$6.5

Note: SNAP stands for Supplemental Nutrition Assistance Program; EITC stands for earned income tax credit; CTC stands for child tax credit.

Graphic 4.4: Government transfers model Zipperer et al., 2021 https://www.epi.org/publication/a-15-minimum-wage-would-have-significant-and-direct-effects-on-the-federal-budget/

Taking the average of the three variables, government spending decreases by 40 billion US-Dollars. That is a decrease in total government spending in the US by 0.54%.

We can assume a similar effect after introducing a minimum wage in Italy from this data.

6.5 Effects on productivity and employee satisfaction

In this part, I will analyze how a minimum wage can influence workers’ productivity and employee satisfaction.

An introduction or an increase in the minimum wage is often linked to increased happiness, employee satisfaction, and productivity. Minimum wage advocates like labor unions claim that a minimum wage makes people less worried, which means they can focus more on their job. In the end, employees and employers benefit as the increased labor costs are offset by productivity.

A study done by Mario Bossler and Sandra Broszeit comes to a different result. They measured employee satisfaction before and after introducing the minimum wage in Germany. The result: While there is an increase in pay satisfaction, the increase in overall job satisfaction is slight.

“We identify treatment effects on the treated employees through a difference-in-differences comparison. The results show a positive effect on pay satisfaction for both measures of affectedness and an imprecise negative effect when employees feel adversely affected. Moreover, we observe the same effect directions but effects that are smaller in size on the affected employees' job satisfaction. However, these effects are largely explained by simultaneous changes in pay satisfaction implying only a small effect on job satisfaction irrespective of the pay dimension.” (Bossler et.al, 2016)

The study has limitations since it only measures short-run effects. Whether or not job satisfaction in Germany increased in the long run after introducing the minimum wage is unclear.

Unlike the effects on job satisfaction, there are effects on productivity. Especially in low-income industries, an increase in minimum wage increases productivity. Nevertheless, results are only measurable for the first two years after introducing or increasing the minimum wage.

“The results revealed that increasing the federal minimum wage immediately enhances restaurant productivity for up to two years. The results further indicated that both full-service and low-wage restaurants benefit from the positive effect. At the same time, there is no significant effect on limited-service restaurants and high-wage restaurants.” (Aaronson et al., 2008)

6.6 Effects on tax revenue

This part analyzes the effect of an introduction or increase in the minimum wage on tax revenue.

The minimum wage increases the wage for people with a small income. When these people earn more money, we can expect them also to pay more taxes. I assume an increase in government tax revenue because of an increase in income tax revenue.

A study from the University of California Berkley confirms my assumptions. They based their model on a federal minimum wage of 15 US Dollars per hour in the United States in 2025, a scenario we already know from the “Effects on governmental social spending” part of this paper. They concluded that there would be increases in Payroll tax revenue and income tax revenue. “The total increase in federal tax payroll and income tax revenues is, therefore, $21.2 billion per year” (Reich, 2021)

We can assume similar effects for Italy, assuming governmental employees’ wages are above the minimum wage before the introduction. Otherwise, the result will be smaller since government expenditure increases the salaries of government employees.

6.7 Who pays for the minimum wage?

All evidence presented in this paper helps us understand who benefits from a minimum wage and pays for it. To answer that, one needs to ask for the reason for the minimum wage in the first place.

Minimum wages are a tool to cure income inequality. People who earn the most will make less. People who earn the least make more, or a combination of the two.

We already analyzed that the assumptions of the neo-liberal model appear to be too generalistic. According to neo-liberal economists, people who lose their jobs due to the minimum wage are the most affected and carry the most significant burden. But as we see, the labor market is not significantly affected by minimum wage policies.

We also see that people who previously earned below minimum wage benefit the most. But due to spill-over effects, which I discussed earlier, the large majority is also better off with a minimum wage.

The people who pay the most are the employers in the low-income industries. As we saw, job satisfaction and productivity do not increase permanently and thus do not lead to an offset of the higher labor costs. Employers in the high-income industries are only marginally affected by spillover effects, and so are employees in high-income industries.

Students who felt the need to leave the country due to unsatisfying job opportunities might benefit as their starting salary may increase because of spill-over and redistribution effects.

A widely forgotten benefactor is the government. While tax revenue increases, social contributions of the government decline.

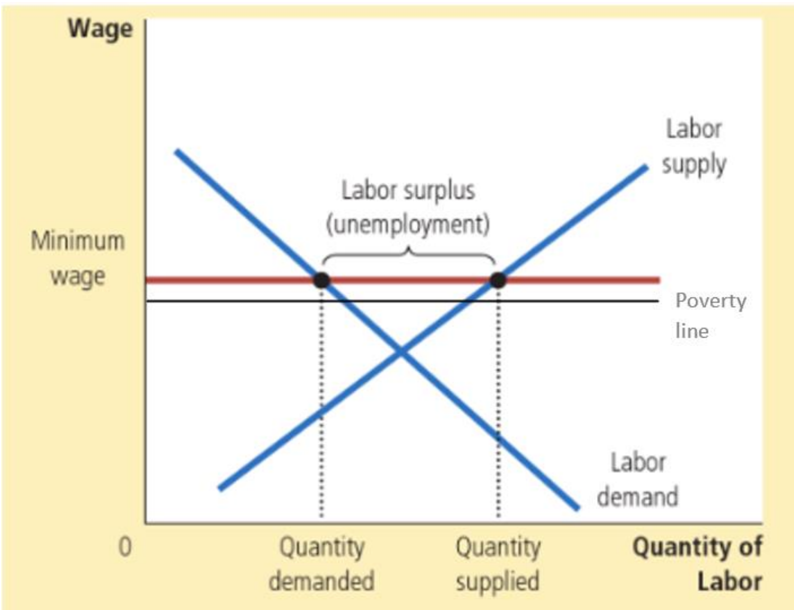
We see that overall, people benefit. Since low-income workers benefit more than high-income workers, it is fair to say that the minimum wage is an adequate tool to cure income inequality. This is not only my finding but the outcome of economic research done by economists:

“Overall, then, the evidence indicates that the higher minimum wage does redistribute income towards lower-income families.” (Drucker et al., 2021)

7. How high the minimum wage in Italy should be

Setting the minimum wage at the right level is very delicate and challenging since many stakeholders are involved. Setting the minimum wage at the wrong level is ineffective or has devastating effects on the economy. When selecting the minimum wage, one must consider the government, the employees, the employers, especially themployersrs in the low wage industry, and the wage level in other countries and their productivity. Otherwise, the Italian economy is a threat of becoming less competitive compared to other economies. Italy's net exports would drastically decline, and employment would go down.

The minimum wage must be above the national poverty level to cure income inequalities. Due to the significant living cost differences between the big cities and the countryside and the north and the south of Italy, finding the right poverty level to overcome is difficult. If the minimum wage is above the poverty level of Milan, for instance, there is a chance that this wage is too high to cope with for employers in the countryside of Italy's south. Rising unemployment would be the result. That's why there should be a minimum wage based on the regions of Italy where the income is low. Still, the lawmakers must allow areas where living costs are higher to have a regional minimum wage that is higher than the national base minimum wage.



Graphic 5.1: Minimum wage and poverty line (Principles of economics, Greenlaw et al., 2017, personal edit)

The poverty line in Italy is 601.12€ per month for a one member household, 1001.86€ per month for a two member household, 1332.47€ per month for a three person household and 1633.03 for a four person household. Using the poverty line one can apply the minimum living wage formula developed by Richard Anker:

$$Minimum\ living\ wage = \frac{(poverty\ line*household\ size)}{number\ of\ workers\ in\ the\ household}$$ (Anker, 2006)

When applying the formula to Italy and taking the average household size in Italy and the average number of workers in a household we get:

$$Minimum\ living\ wage = \frac{(601.12*2.58)}{0.86} = 1803{,}36€/month$$ (OECD, Statista, 2020)

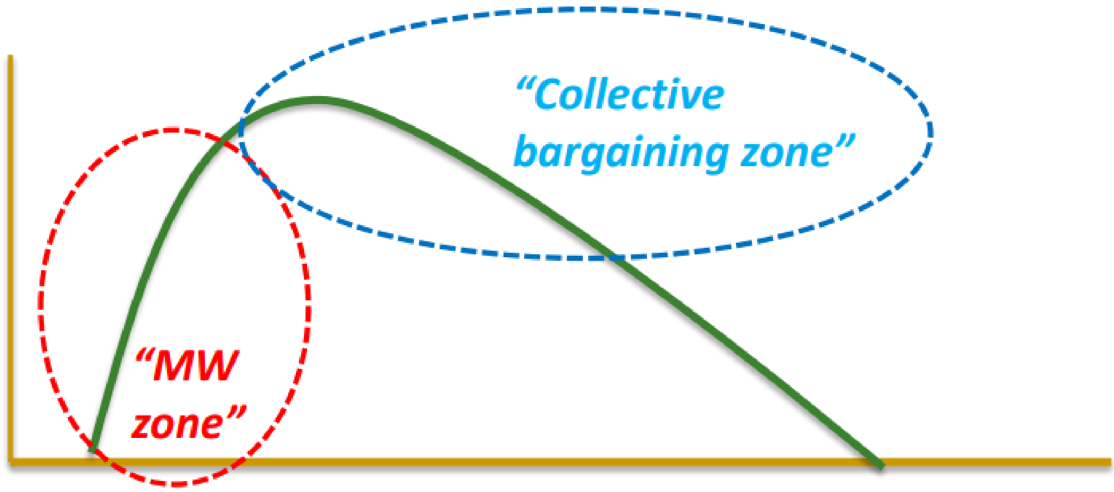
That would equal a minimum wage per hour of 10,92€, assuming a 165 hours work week. Now, since we took averages of the entire nation, the formula is only giving a broad direction and should not be the only tool to set a minimum wage.

A different methodology for determining the minimum wage is taking a percentage of the median wage. (ILO,2012) In 2010 minimum wages in Europe were between 40% and 60% of the median wage in the country. When applying the ratio to Italy and choosing 50% of the median wage, we get:

$$Minimum\ wage = 3720 * 0.5 = 1860€/month$$ (ilo, 2012)

This would equal an hourly minimum wage of 11.27€ per hour. Compared to Germany (12€ from December 2022), 11.27€ may seem a little high. It would be wise to introduce the minimum wage at a lower level, which can be increased every year. Otherwise, the government might provoke an economic shock. (Belser et al., 2012)

Minimum wages should directly affect only low-income workers. It is not a tool to determine higher-income wages. Collective bargaining is a more flexible and tailored approach.



Graphic 5.2: Minimum wage zone, Collective bargaining zone (ILO,2012)

It is challenging for the government to dictate a minimum wage based on economic models. The right way is to use the models as a baseline, take every stakeholder's opinions into account, and make a joint decision for all parties involved. Only then will the introduction of a minimum wage be successful.

8. Alternative policies for the minimum wage policy

I want to explore alternative approaches the Italian government can follow to cure income inequalities in this chapter. At the same time, I will focus on one policy, namely unconditional basic income (UBI). I was never introduced nationwide in a developed country, but there have been trials with sample groups.

The UBI is a fixed amount of money every citizen of the country receives per month from birth to death. Unlike unemployment benefits, people receive UBI no matter how wealthy they are, how high their monthly salary is, or if they work or not. It is truly unconditional. So far in Europe, there is no major political party in favor of the UBI, but associations, foundations, and clubs promote the UBI.

“Unconditionality as a decisive difference to the status quo” (Raddatz, 2014). For the first time in recent history, a government would not use market mechanisms to motivate people to work and pay taxes. Usually, the government gives incentives to work by making not working uncomfortable. Supporters of the UBI claim that previous government actions were counter-productive. More people will work and pay taxes than before the introduction by giving the individual more freedom and independence. (Raddatz, 2014)

There are several arguments for the UBI. The biggest might be the fight against poverty if the UBI monthly payments are above the poverty level. Also, a UBI would reduce bureaucracy costs for the government since all kinds of financial support payments to citizens would be summarized in the UBI and universally distributed. Traditionally, every eligible citizen needs to register for support, and their wealth needs to be checked before money can be paid out a very costly and time-intensive endeavor.

“The proponents of a basic income postulate that a more generous and less bureaucratized social security system would increase people's opportunities and willingness to take economic risks and make it easier for them to become self-employed or start a business.” (Raddatz, 2014)

Of course, all arguments and effects of the UBI are positive, and frankly, the social security system of European governments is far from perfect. But still, the financing of the UBI put me in doubt.

Let us assume a 1000€ payment to every citizen in Italy. Over the year, this would cost the state:

1000€/month*12months*59.55 million citizens = 714,6 billion

Italy`s budget for social contributions is only around 215 billion, so the money needs to come from somewhere else. Even if the UBI can create efficiencies, it will not generate enough value to offset its costs of the UBI. The only action Italy can take to finance the UBI is increasing taxes. In my opinion, the tax increase would be at a level that would severely harm the economy, which would hurt everyone. It is hard to say whether the costs or benefits of the UBI prevail since it has never been done before, but for me, the risks of such a revolutionary policy are too significant. Even if the government sets the UPI to 500€ per month, the financing of this project is not secured.

9. Conclusion

This thesis aims to answer whether Italy should implement a national minimum wage policy. It analyses if a minimum wage policy is an adequate tool to fight income inequality and poverty. After this holistic examination, I am confident to recommend the implementation of a minimum wage.

From my analysis of the Italian economy today, the need for a tool for income equality becomes clear. The subsequent investigation of the effects of a minimum wage policy on the Italian economy showed that - if implemented suitable – the Italian economy will benefit from this policy.

I analyzed various parameters to understand what a minimum wage would do to the Italian people, the economy, and the government. We see that the effects on the Gross Domestic Product, the unemployment rate, the average wages in Italy, the governmental social spending, the tax revenue, and the employee satisfaction and productivity are at least neutral but, in most cases, positive. These results also show us that some neo-liberal theories about government intervention, while logically correct, oversimplify effects and consider too many factors static. In contrast, factors are, for example, workers' level of education, quite variable over time.

Another realization is that collective bargaining agreements may increase inequality since they do not include every worker. Collective bargaining agreements and a minimum wage policy are not mutually exclusive, quite the contrary, they complement each other well.

Taking Germany as an example helped to understand the effects of the minimum wage and to fact prove economic theories. Germany's minimum wage was an economic success. Italy and Germany are similar enough to allow Italy to learn from Germany's minimum wage policy.

Nevertheless, this thesis's most significant finding is that implementing a minimum wage policy is complex and risky. It needs to be at the absolute right level. If too low, there will not be any effect at all, and if too high - this is the dangerous part - the minimum wage may harm the economy, but most of all, the very same people a minimum wage policy is supposed to help. Having understood that, I come to my most important recommendation: The government must not dictate the minimum wage level. A commission consisting of employers, employee representation, economists, foundations, associations, and the government is necessary to set the level. The commission may also, over time, reevaluate the level of the minimum wage and set it to the optimal level. Optimally, the minimum wage increases every year by a couple of percents. The government alone does not have the capacity or expertise to decide about that on its own. Again, the comparison to Germany proves that point since, in Germany, the very commission I described deals with the level of minimum wage in Germany.

Lastly, the unconditional basic income examination showed a very optimistic and revolutionary approach to tackling income inequality and poverty. While the effects seem to be positive, the unconditional basic income is a relatively new idea, and studies that have been done so far only include small samples. Also, financing is not clarified yet, and my brief analysis showed that financing the unconditional basic income with tax money is only possible with a drastic increase in taxes that will lead to the loss of the competitive advantage over other countries, a negative effect on net exports, and an economic downswing. At least for now, I would not recommend a national unconditional income for Italy.

Recently, discussions about the introduction of a minimum wage in Italy sparked again after a provisional agreement of the European member states was reached that promotes minimum wages to strengthen collective bargaining. While the Italian government is divided on this matter, some government representatives push for the introduction of a minimum wage of 9 Euros per hour. A final decision is likely to happen before the end of the term.

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