



**UNIVERSITÀ POLITECNICA DELLE MARCHE  
FACOLTÀ DI ECONOMIA “GIORGIO FUÀ”**

---

Corso di Laurea Magistrale o Specialistica in INTERNATIONAL ECONOMICS

**HOW THE COVID-19 AFFECTED THE GENDER GAP  
IN THE WORKPLACE, WITH A FOCUS ON  
MANAGERIAL POSITIONS GAPS.**

**COME IL COVID-19 HA INFLUENZATO IL DIVARIO  
DI GENERE SUL POSTO DI LAVORO, CON  
PARTICOLARE ATTENZIONE AL DIVARIO NELLE  
POSIZIONI MANAGERIALI.**

Relatore: Chiar.mo  
Prof. STEFANO STAFFOLANI

Tesi di Laurea di:  
SERENA FERRETTI

Anno Accademico 2020– 2021

# **INDEX**

## **INTRODUCTION**

### **1. CHAPTER 1: OVERVIEW ON THE GENDER GAP**

#### **1.1 GENDER GAP IN THE LAST DECADES**

- The Italian National and International Economy before and after the beginning of the COVID-19 pandemic.

#### **1.2 GENDER GAP DURING THE COVID-19: THE CRISIS**

##### **THAT HAS INCREASED THE DIFFERENCES BETWEEN MEN AND WOMEN ON THE JOB.**

- She-cession
  - 1.2.1 Teleworking
    - Smart working and teleworking are not synonymous
  - 1.2.2 Women's balance between home and work
    - Disparity gender employment rate
  - 1.2.3 Unpaid care work
    - The Italian scenario vs the European scenario

### **2. CHAPTER 2: ANALYSIS OF THE TWO MOST COMMON GAP, FROM A GENDER PERSPECTIVE: GENDER PAY GAP AND GENDER MANAGEMENT POSITION GAP.**

#### **2.1 GENDER PAY GAP**

- Gender equity index
- Gender equity Insight

#### **2.2 GENDER MANAGEMENT POSITIONS GAP**

### **3. CHAPTER 3: THE EMPIRICAL ANALYSIS OF GENDER**

#### **DIFFERENTIATION IN ITALY USING THE CICO MICRODATA.**

#### **3.1 INTRODUCTION TO THE CICO DATASET**

### **3.2 ANALYSIS OF THE TURNOVER RATE IN 2019 AND 2020**

- Hires and terminations divided by months
- Hires and terminations divided by Covid periods

### **3.3 ANALYSIS OF HIGH PROFESSIONALITY POSITIONS: HIRING AND FIRING DURING THE LOCKDOWN AND POST LOCKDOWN PERIODS OF 2020 WITH RESPECT THE HIRING AND FIRING OF THE SAME PERIODS OF 2019.**

### **3.4 THE CORE OF THE ANALYSIS: HOW THE COVID-19 HAS AFFECTED HIGH PROFESSIONALITY ROLES BETWEEN 2019 AND 2020, DIVIDED BY COVID PERIODS.**

## **INTRODUCTION**

The thesis is focused on the analysis of the changes due to the COVID-19 at the workplace from a gender perspective. However, the aspects analyzed are numerous.

At the beginning, the study is centered into an overview of the gender gap in the last decades, including a brief mention of the origins of the patriarchy in our Country; compared to the gender gap in the COVID-19 pandemic periods, more detailed, during the lockdown and post lockdown period of 2020.

In 2020, the lockdown period considered is from March, 9<sup>th</sup> to May 18<sup>th</sup>, and the post lockdown period is from May, 19<sup>th</sup> to the end of September.

The chosen periods are divided by May, 18<sup>th</sup>, day of the reopening of all economic activities in Italy, and not by May, 4<sup>th</sup> which is the day of the end of the lockdown. This choice is due to the fact that the analysis is focused on the working sphere, and consequently it is connected to the economic area. Moreover, many aspects analyzed are connected to the working field. One of the most important factors is the balance between home and work of the women, especially during the lockdown period. In this regard, the tool of teleworking has been really effective and useful.

Furthermore, women's balance between home and work situation is strictly related to the unpaid care work area. On this subject, in the following study there is a comparison between the European and Italian scenarios.

This last aspect is even more common among women, and it is reflected in the wages of female employees.

In this regard, the second part of the study is focused on the gender pay gap and gender management positions gap.

Concerning the first aspect, it is examined from a European perspective, through two different indicators: the Gender Equity Index and the Gender Equity Insight, deeply analyzed and explained in the second chapter.

In addition, the rest of the study is focused on the analysis of the management positions, from a gender perspective: in a first place there is the unequal representation between the women and men in high level positions, especially in our country. In fact, while the women employed in Europe in leading roles are 34.7%, in Italy the percentage is lower, only 25%.

In the last chapter of the study, microdata of the CICO have been analyzed and processed through RStudio software, in order to extrapolated some indicators of the positive or negative changes due to the COVID-19 periods, analyzing them with respect to the same period of 2019.

To conclude, the results obtained are very interesting.

## **INTRODUZIONE**

La tesi è incentrata sull'analisi dei cambiamenti dovuti alla COVID-19 sul posto di lavoro da una prospettiva di genere. Tuttavia, gli aspetti analizzati sono numerosi.

In primo luogo, lo studio si focalizza sul concetto divario di genere negli ultimi decenni, rispetto al divario di genere nei periodi pandemici COVID-19, più in dettaglio, durante i periodi di lockdown e di post lockdown nel 2020.

Nel 2020, il lockdown comprende il periodo dal 9 marzo al 18 maggio, mentre il periodo di post lockdown va dal 19 maggio alla fine di settembre.

I periodi scelti hanno come discriminante il giorno 18 maggio, giorno della riapertura di tutte le attività economiche in Italia, e non il 4 maggio, giorno della fine effettiva del lockdown. Tale scelta è dovuta al fatto che l'analisi è focalizzata all'ambito lavorativo e di conseguenza è collegata all'area economica.

Inoltre, molti aspetti analizzati sono congiunti al mondo lavorativo. Uno dei fattori più importanti è l'equilibrio tra casa e lavoro per quanto riguarda le donne, soprattutto durante il periodo del lockdown.

A tal proposito, lo strumento del telelavoro è stato davvero efficace e utile.

Inoltre, l'equilibrio delle donne tra la casa e la situazione lavorativa è strettamente correlato al concetto dell'unpaid care work, lavoro di cura non retribuito. A questo riguardo, nello studio che segue vi è un confronto tra gli scenari europei e italiani.

Quest'ultimo aspetto è sempre più comune tra le donne e si riflette nei salari di quest'ultime.

A tal proposito, la seconda parte dello studio è incentrata sul divario retributivo di genere e sul divario di posizioni di gestione di genere.

Per quanto riguarda il primo aspetto, esso viene esaminato da una prospettiva europea, attraverso due diversi indicatori: il Gender Equity Index e il Gender Equity Insight, analizzati accuratamente nel secondo capitolo.

Inoltre, il resto dello studio è focalizzato sull'analisi delle posizioni dirigenziali, da una prospettiva di genere, esiste una disparità di rappresentanza tra le donne e gli uomini in posizioni di alto livello,

soprattutto nel nostro paese. Infatti, mentre le donne impiegate in Europa nei ruoli dirigenziali e manageriali sono il 34,7%, in Italia la percentuale è decisamente più bassa, solo il 25%.

Per concludere, nell'ultimo capitolo dello studio, i microdati del CICO sono stati analizzati ed elaborati attraverso il software RStudio, al fine di estrapolare alcuni indicatori dei cambiamenti positivi o negativi dovuti ai periodi caratterizzati dal COVID-19, analizzandoli rispetto agli stessi periodi del 2019. I risultati ottenuti sono molto interessanti.

## **CHAPTER 1: OVERVIEW ON THE GENDER GAP**

### **1.1 GENDER GAP IN THE LAST DECADES**

The inequality in the labor market is a serious phenomenon because, primarily, it is a violation of fundamental human rights, and secondly, it can also have a great negative impact on the social and economic field with an increasing of tensions and disparities.

When discussing gap gender in the workplace, it is intended on all dimensions owned by this aspect: from the unemployment rate, through salary, promotions and the firing rate between women and men. Closing the gender pay gap is an aspiration found in many international policy documents. The principle of equal remuneration for men and women for work of equal value, as set out in the Equal Remuneration Convention, 1951 (No. 100), needs to be implemented if gender equality and decent work for all is to be achieved. ([J. Rubery, A. Koukiadaki, 2016](#))

Currently, gender has been becoming a sort of parameter into the workplace world, women are often not hired only because of being, simply, women. And that is the point.

It is being becoming a silent discrimination.

These days, significant disparities exist, one of those can be explained through the non-recognition of the personal and professional merits of women into their job position. This fact points up a way of feeling, common between women: being less worthy than men with the result of a direct bad influence to their careers.

In that regard, the Executive Manager of the GEM<sup>1</sup> states that “as economic development and educational level increases, entrepreneurial participation among women declines and the gender gap increases”, this can seem a paradox, but there are some evidences to demonstrate.

In fact, the Women’s report reveals that compared to men, women don’t think that there are lots of opportunities for entrepreneurship, or the having capabilities needed, fewer women than men want

---

<sup>1</sup> Global Entrepreneurship Monitor



straiting business, and more are scared about failure. (D.J Kelley, C. G. Brush, P. G. Greene, Y. Litovsky, 2010).

This kind of discrimination is the emblem of a deeper-seated and conservative conceptualization of the woman’s role inside the community. Since the beginning was seen as a mother and a wife but the image of a woman as a worker is still far from being widely acceptable.

In fact, already in the 80’s (Eighties), a gender gap existed in the workplace from the point of view of salary and promotion.

Table 1 reveals that men’s average salary was higher than women’s average salary (B. A. Gerhart, G. T. Milkovich, 1987).

Job Level	1986 Cross-sectional Sample					1986 Longitudinal Sample					
	Women		Men		W/M	Women		Men		W/M	
	N	Mean Salary	N	Mean Salary		N	Mean Salary	N	Mean Salary		
ALL	2412	35,503	9647	42,049	.84	ALL	840	40,004	5550	45,620	.88
1	859	29,451	1777	31,875	.92	1	114	31,092	386	32,519	.96
2	412	32,870	896	35,222	.93	2	156	34,675	325	35,869	.97
3	521	36,209	2151	37,795	.96	3	174	37,697	1032	38,789	.97
4	162	40,745	641	42,935	.95	4	98	41,589	468	43,584	.95
5	286	43,925	2184	46,307	.95	5	182	44,274	1617	46,819	.95
6	158	50,568	1859	53,410	.95	6	109	51,067	1607	53,557	.95
7	14	55,415	138	59,002	.94	7	17	55,805	114	58,968	.95

Table 1: Salary of men and women in the 1986  
Source: Barry A. Gerhart, George T. Milkovich; 1987

While concerning promotions, Olson and Becker in 1983 didn’t found gender gap in the estimation of the promotions for women and men, although nevertheless the study underlines that women received fewer promotions with respect to men.

The difference between the two previous studies consists in the different sample used to make the comparison: in the first, the one made by Gerhart and Milkovich, the sample used is a private firm, while in the second one, made by Olson and Becker, the data used were the result of a national

survey<sup>2</sup>.

During the years, despite the progresses, this gender discrimination persists in the labor market:

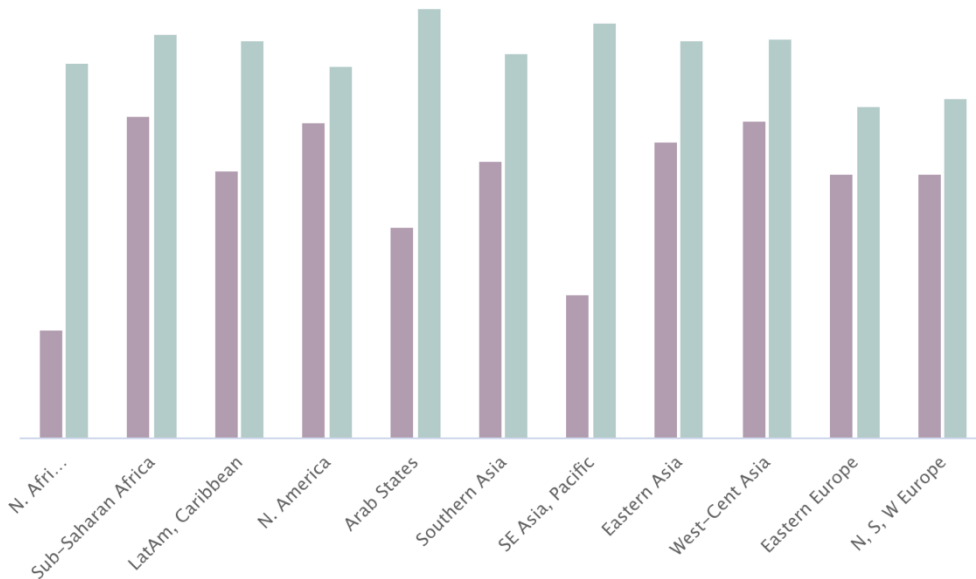


Figure 1: Jobs gender gap in the world, 2015  
Source: Women at work, ILO

evidence is represented by the graph below, result of research conducted by the ILO<sup>3</sup>, which shows that the women are less likely to be employed than men in the majority of the world.

For instance, North Africa and South East Asia are characterized by the highest employment gap by gender, while on the contrary Europe and North America are the continents with the smallest gap.

Although there are positive signals from Europe and North America, there's a lot of work to be done to close gender gaps and improve the environment for current and future generations. ([Rafael Diez de Medina<sup>4</sup>](#), January 2020)

<sup>2</sup> The Quality of Employment Survey

<sup>3</sup> International Labor Organization is an U. N. agency founded in 1919 whose main job is the setting of labor standards, the developing of policies and the promotion of decent work conditions for men and women. The ILO is composed by governments of the 187 different member States.

<sup>4</sup> ILO Chief Statistician

The Italian National and International Economy before and after the beginning of the COVID-19 pandemic.

The Italian national economy presented already in the last quarter of 2019 some weaknesses. The PIL index, measured in real terms, revealed a decrease in activity of the 0.3% with respect to the trimester before. In any case, the whole result of 2019 is lightly positive with some positive signals as, for instance, the total increase in PIL of the 0.3%.

While the International economy has been increased by 2.9% in 2019, with a result of 3.6% greater with respect to 2018. In fact, at the beginning of 2020, Italy, and consequently the trust of that country, caught up the indicators also in the EU context.

Unfortunately, with the arrival of COVID-19 and the virus containment measures caused a notable impact on the Italian economy, with a decrease of the PIL of 5.3% and declining of the value added in all the principal productive sectors: agriculture decreased by 1.9%, industry by 8.1% and a reduction in services was of 4.4%.

At the end of the 2020, the PIL declined, less than expected, but in every case the reduction is very high at 8.9%.

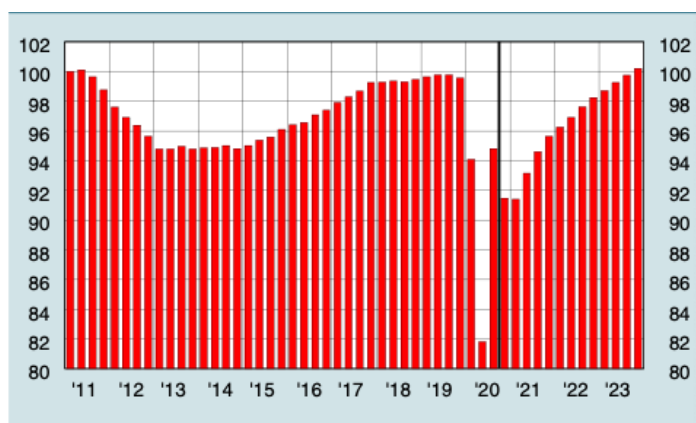


Figure 2: PIL Projections  
Source: Analysis on data from Banca D'Italia and Istat.

According to the ISTAT and Banca D'Italia projections for the future, the Italian economy will return to the pre-pandemic levels during 2023.

This projection is based on historical data until the third quarter of 2020.

As Figure 2 illustrates, in 2021 the increase of the PIL should be 3.5%, following 2020 with an increase 3.8% and in 2023 the growth of the PIL will probably be 2.3%.

## 1.2 GENDER GAP DURING THE COVID-19

Coronavirus, which hit in early 2020, changed the way people live and work, and affected industries and organizations all over the world. ([Irawanto, Novianti, Roz, 2021](#)).

COVID-19's impact on workers and workplaces across the globe have been dramatic. ([K. M. Kniffin, 2020](#)), the virus has hit the services sectors, which tend to have high female employment shares, particularly hard ([Alon et al. 2020](#)).

“The COVID-19 pandemic presented countries with unprecedented challenges this year, requiring them to respond quickly to major disruptions in health care, economic activity, and livelihoods.” These are the words of the president of the WBG<sup>5</sup>, David Malpass, that continues: “Our goal in all these efforts is to improve conditions, both immediate and long-term, for the poorest and most vulnerable populations”. The President of the World Bank points out the attention on the rapid development of the poverty, proportionally, among all countries in the world.

The most adverse consequences from an economic point of view are transcribed by the IMF<sup>6</sup>, with the comparison of the effects caused by the Great Lockdown (because of COVID-19) and the ones caused by the Great Depression in 2009.

Globally (...), the COVID-19 crisis has disrupted economic activity and adversely impacted well-being. In June 2021 the G20 Labor Employment Ministerial Declaration<sup>7</sup> recognized that pandemic had disproportionate consequences for women, hampering their economic empowerment and increasing gender inequality in G20 countries. ([G20, 2021](#))

---

<sup>5</sup> David Malpass is an American economist and politics, and starting from April 2019 he became the President of the World Bank Group and Chairman of the Board of Executive Directors.

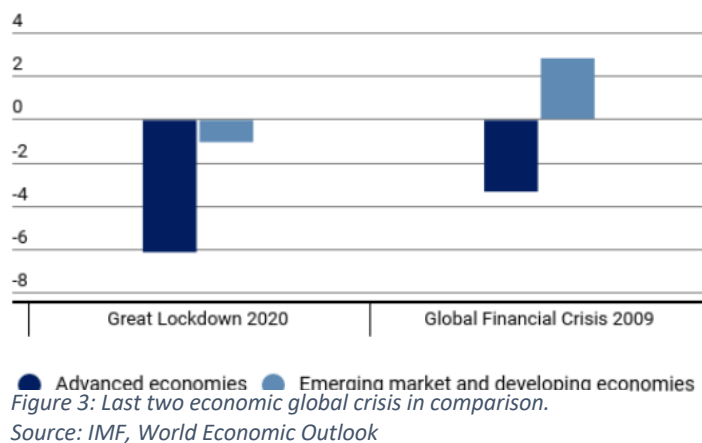
<sup>6</sup> International Monetary Fund

<sup>7</sup> “Fostering an inclusive, sustainable, and resilient recovery of labor markets and societies”

Figure 3 below illustrates that both parameters studied, advanced economies and emerging market and developing economies, are in negative.

As shown in Figure 3 below, during the Great Depression in 2009, only the advanced economies had a substantial decline.

This is clearly a symptom of the deep recession caused by COVID-19 to seriously a lot of aspects of the economy.



COVID-19 was declared a pandemic on March 11, 2020. Already in those days it was clear that this pandemic will become a health, economic and social crisis. Not by chance, the COVID-19 crisis has been defined as the most important crisis of the last century, from the Second World War.

In these times, each country of the world had to face the emergency with all the attached consequences.

The most significant crisis caused by the COVID-19 pandemic are referred to health and economic fields. In fact, from an economic point of view, these crises emphasize some concepts in a deeper way with respect to the previous years. The recession with the consequently rampant job losses and the increased level of the inequality on the workplace.

Concerning the inequality, in this work it is intended as a gender inequality. This concept is strictly linked to the COVID-19, in fact, COVID-19 likely affects gender in a variety of ways. (K. M. Kniffin et al, 2020).

First of all, women tend to work in positions that are more directly affected by COVID-19 and more easily replaceable ([Alon et al. 2020](#)).

Secondly, Women are serving on the frontlines against COVID-19, and the impact of the crisis on women is stark ([OECD, 2020](#)).

The trade-off most often discussed is the one that concerns the balance of the State's economic recovery and population's safety. But unfortunately, social optimal wellness is not that simple to find. For instance, the COVID-19 emergency in Italy is expanding at a fast pace and severe social and economic measures have been adopted to preserve public health and keep most workers safe ([Baldwin and Weder Di Mauro, 2020](#)).

The greater impact caused by COVID-19 is referred to in the context of the labor market, specifically, into the reduction of the hours worked by employees, or depending on the differentiation on job and worker's characteristics. However, the impact has been unequal across countries and this fact is also due to the presence of a different institutional context.

But the question that arises is the way in which the health crisis has been transformed into an economic crisis and the answer is not so hard to comprehend. The spread of the virus encouraged social distancing which led to the shutdown of financial markets, corporate offices, business and event. ([Peterson K Ozili, Thankom Arun, 2020](#)). Here, the crucial role is been joined by the social distancing concept.

This aspect is important to underline the consequential social crisis exploded all over in the world. In fact, one of the causes of the social crisis is the social distancing measures adopted by the State with the aim of reducing the transmission of the virus, as for instance the national lockdown that consists in blocking of activities and public services and in prohibition of all movements by the whole population, including the closure of the schools. The only accepted movements were the ones linked to work, health necessities and some few others, but in every case each movement has to been justified.

Obviously, the lockdown measures adopted concern global economists. This is due to the fact that whether you are in a developed country, locking down an economy creates insolvency. The longer the lockdown lasts, the more probability of insolvency. (Stephanie Von Friedeburg<sup>8</sup>, June 24, 2020). Nevertheless, these emergency measures are vital (Anton Jäger, Steven Klein, 2020), necessary and essential in order to preserve the safety of the individuals. That is the point. The safety of the individuals.

Undoubtedly, this critical situation has repercussions into the internal organizations of the firms, especially in the early stage of the crisis. Companies have to adapt their working structure to the currently situation faced, in order to find some procedures to limit human contact for the pandemic. Currently, new technologies developed have been an important support in the working context. The introduction of teleworking is been very useful. The new work practices have the main aim of the reduction of the mobility between the population and consequently the possibility of contracting the COVID-19 virus.

During the COVID-19 period a lot of changes have occurred in working from home, but the main question that arises concerns the possibility that these changes will remain also in a normal future situation or if they have been adopted in the HRM organization only for the emergency period. Probably, changes will remain for a long period. This is due to the fact that the exogenous temporary shock caused by COVID-19, will have permanent consequences in the workplace dimension.

This can be considered as an opportunity to reorganizing the structure of working, improving work from home also in the future.

### *She-cession*

Evidence shows how much the pandemic affected the decrease in women's employment. In this regard, many recent studies have argued that the crisis is causing a "she-session", where women's

---

<sup>8</sup> Vice President of the International Finance Corporation.

labor market outcomes and prospects have deteriorated disproportionately (Albanesi and Kim 2021, Alon and others 2020, Caselli and others 2020, Fabrizio and others 2021, and Shibita 2020).

What is the definition of she-cession? This term has been coined by C. Nicole Mason and describes a recession, that affects more women than men. The recession includes all the most significant factors for a person in the workplace, including, for instance, the employment rate, income losses, working hours etc. As the sociologist, executive advisor and founder of Sound Advice Women, Dr. Ali Hill stated “Call it the ‘fem-cession’. Call it the ‘she-cession’. Call it a mass exodus of women from the paid workforce. Whatever you label it, our current reality is that women professionals have been disproportionately impacted by COVID-19 job losses”. This concept finds support by the Figure 4, which reports how much heavier women are hit than men in some sectors. Figure 4 shows the changes

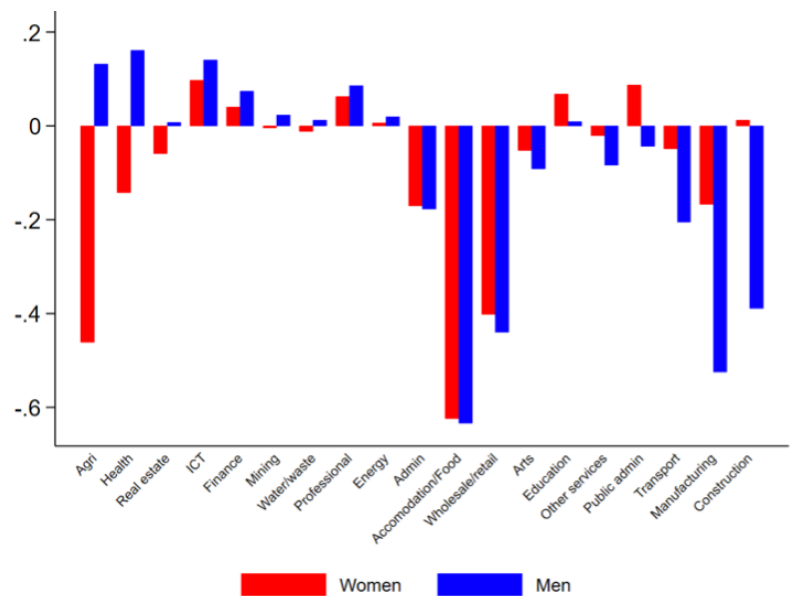


Figure 4: Sectoral employment changes by gender (2020:Q2 versus 2019)  
 Source: IMF Working Paper, 2021 – Bluedorn, Caselli, Hansen, Shibata, Tavares

happened in the employment rate between the second quarter of 2020 with respect the pre-crisis, in 2019.

The most appropriate example is the one that concerns the health sector: here women’s employment has decreased by 0.14%, while the men’s employment has instead increased of the same percentual amount, the same for the agricultural sector and others first 9 sectors listed in the graph from left.



To conclude, it can be said that the debate concerns the drivers of the COVID-19 crisis by asymmetric impacts due to gender can be divided into three different main factors: in the first place, the higher employment share was in the contact-intensive sectors, the most hit by the pandemic, secondly childcare and the linked unpaid care work, and lastly the fact that women's contracts were characterized by being part time and/or temporary.

All these causes contributed to make the she-cession happen in the early months of the COVID-19 crisis.

It is necessary to examine in greater detail the above-mentioned main causes of gender disparity.

### **1.2.1 TELEWORKING**

Teleworking has been a very useful tool during the early stages of the pandemic crisis. It has been extremely functional: parents stay at home and take care of their children that couldn't go to school because of the schools' closure.

The concept of working from home was first put forward in the 1970s as telework or telecommuting, a new alternative in performing work from different locations (office home or another place) using technological assistance ([Van Meel, 2011](#)).

The term to express telework are varied and include work-at-distance, off-site work or even remote work. The idea behind all these terms is the same; it is the work to be done somewhere and not a place to go. ([Baruch, 2000](#)).

In addition, this term is defined also in the article 2 of the European Framework Agreement on Telework<sup>9</sup> as follow: "telework is a form of organizing and/or performing work, using information technology, in the context of an employment contract/relationship, where work, which could also be performed at the employer's premises, is carried out away from those premises on a regular basis".

From this definition, it is simply to understand that the main feature of the teleworking is the

---

<sup>9</sup> The European Framework Agreement on Teleworking was signed in 2002, this agreement concerns working conditions, included rights of workers. Health, safety and training are at the basis of the document.

flexibility. Essential concept in those times because this COVID crisis is so deep that it will not only radically affect labor markets in the short and medium run, but it can also change substantially the way the work is organized. (M. Fana, S. Torrejón Pérez, E. Fernández-Macías, 2020).

Therefore, it can be defined as a new way of working, characterized by the adaptability, in addition to flexibility. Moreover, this adaptation has contributed to increase the level of job satisfaction, which directly depends on, surely, working from home modality, but also, work life balance and work stress. In this regard, it is known that the teleworking increases job performance, lessens work-family imbalance, reduces stress levels, and lessens turnover intentions (Contreras et al. 2020, Kossek et al. 2006, Fomner and Roloff 2010; Coenen and Kok 2014; Anderson et al. 2015).

In addition, according to Belzunegui-Eraso, and Erro-Garcés, teleworking can be divided into three different types of it: the first is the “occasional telework” that is characterized by a less frequency of working hours or by a fewer location, the second is the so called “high mobile telework” used by employees that teleworked several times per week in several places with regularity. The last is the “regular home-based telework”, from the name it is easy to understand that those employees are the ones most common into the COVID-19 crisis. In fact, this modality of telework is the most used from the beginning of the pandemic to today.

The survey of Gartner<sup>10</sup> (2020) demonstrated that about one-half of the companies and more than 80% of the employees of those companies working from home. This happened at the beginning of the pandemic crisis but, now, it can be defined as a long-term change in working from home area. Anyway, to have a comprehensive description of telework, it is essential highlighting that, as shown

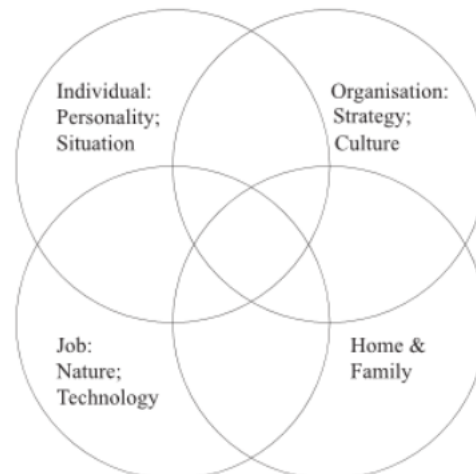


Figure 5: The Four Factors of Telework  
Source: Baruch and Nicholson.

in Figure 5, there are four main factors that have an impact on telework. Those factors are the individual factors, job factors, organizational factors and home and family factors.

In addition to those factors, there are other supplementary components as the technological part that has played a crucial role in the development of the teleworking.

It is not a case that many firms are reasoning now on how organized the office working and the remote working from home when the emergency period will be finish. This is because the majority of workers have appreciated teleworking and working from home. For this reason, also Trade Unions are trying to figure out how the new workforce will operate after the emergency.

However, the current COVID-19 crisis is not just an economic crisis, but a health and social one too. The labor market is just one dimension of human work. COVID-19 is also expected to have major consequences on family work, due to increased housework and childcare resulting from the closing of schools and nurseries. (D. Del Boca, N. Oggero, P. Profeta, M.C. Rossi, June 2020)

---

<sup>10</sup> Gartner Inc is a multinational spa that is specialized in strategic consulting, researching and analysis in the information technology context. The foundation dates back to 1979 with its founder Gideon Gartner.

### Smart working and teleworking are not synonyms

The term smart working is usually used as a synonym of telework but this is a common error. The 2 types of “way of working” differs each other relatively to two principal dimensions of the working activity: the workplace and the worktime.

In fact, the main difference is that in the case of smart working there is an absence of encumbrances from time and space level. This activity is main characterized by a flexible organization: the working hours and the location can vary day by day, at the discretion of the worker.

On the contrary in the telework practice, space and time are rigid as if the workers are in the usual workplace: there is a fixed location in a place different from the firm, and the working hours are settled by the company.

But these two types of working have also some common points as the usage of technology with the consequently possibility of working remote, and the necessity of the internet connection. Undoubtedly, those practices have been fundamental in the COVID-19 emergency combining the necessity of continuing the working activity and the preserving of the workers’ safety with the limitation of the movements.

Smart working and teleworking play a crucial role not only in the pandemic context, but also from the point of view of the environment preservation for the future. The usage of the working from remote practices helps to decrease considerably the traffic and consequently also the pollution.

### **1.2.2 WOMEN’S BALANCE BETWEEN HOME AND WORK**

The differentiation due to gender not only concerns the workplace but also the house and family sphere. The gap between women and men is evident in this sphere especially in three main dimensions: childcare, direct care and housework as it is possible to observe it in Figure 6. The highest gap of men and women participation concerns housework with a difference of 0.7% hours per day.

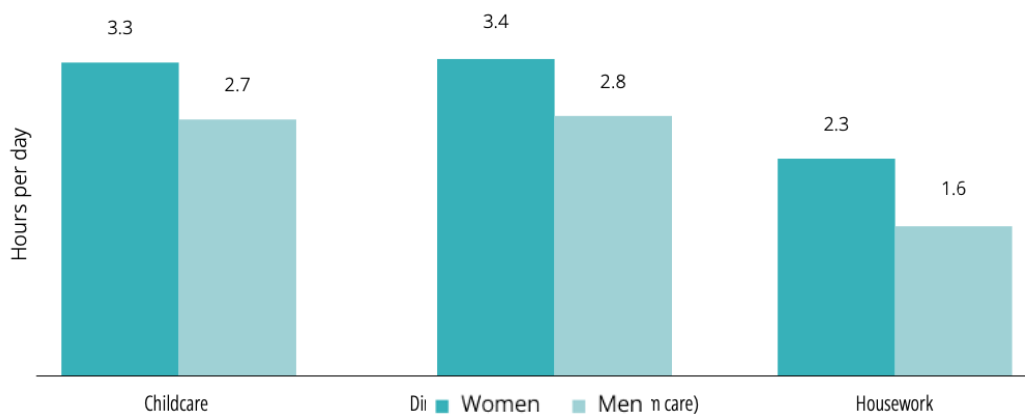


Figure 6: Mean time spent on daily unpaid care activities by employed women and men, 2015.  
Source: EIGE, calculation based on EWCS 2015 data.

In addition, in Figure 7 is highlighted that the hours spent by women at least in one of the three principal dimensions are 1.5 times higher than the time spent by men. In fact, employed women spend about 3.9 hours per day, while employed men only 2.6 hours per day.

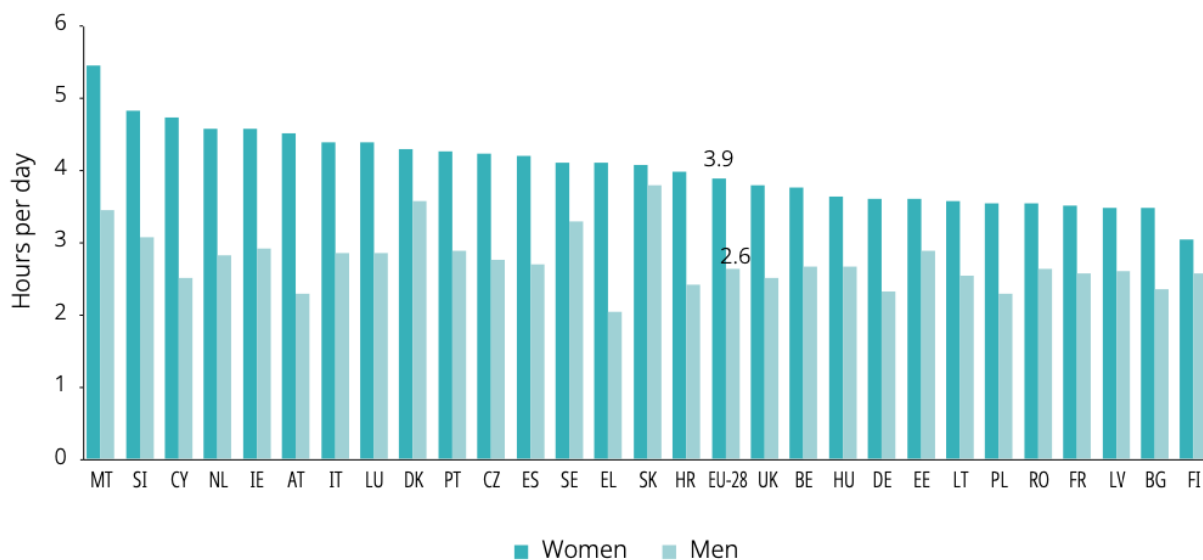


Figure 7: Mean time spent on daily unpaid care work by employed women and men, by country in the EU-28, 2015.  
Source: EIGE, calculation based on EWCS 2015 data.

Although the gap differs among the EU-28 countries and for instance there is a balance in Member States like Finland, Slovakia and Denmark, on the other side the average of the European Union is alarming.

In addition, with the arrival and development of the COVID-19 virus the situation has worsened.

In fact, the COVID pandemic has exposed the extent to which childcare falls on women, who are on average now spending more than 30 hours a week looking after children. ([L. Ford, The Guardian, 2021](#))

COVID-19 has turned back the clock on working women's lives ([Gaby Hinsliff, The Guardian, 10 December 2020](#)).

Furthermore, in order to decrease the level of this kind of differentiation, the OECD in the Recommendation of the Council on Gender Equality in Education, Employment and Entrepreneurship has presented some proposes to decrease the gender gap, how it can be easily intuited by the title of the article, in some principal fields: education, employment, family policies, and the entrepreneurship, this last one is focused on the wage gender gap and on the power roles gap between genders.

There are some interesting purposes, as for instance, promotion of the family-friendly policy and sharing working conditions. To be most effective, the family-friendly policy should target all workers – both men and women – and encourage men to take on an equal share of family care and unpaid work ([OECD, 2017](#)).

The sharing could allow to the women to have a greater participation in private and public sector employment. This means that parents will share family responsibilities and working hours, but this can be possible through several measures as for instance the provision of employment-protected paid maternity and paternity leave to working for mother and fathers, or providing some incentives for fathers in order to increase flexible work entitlement, or to promote a greater use of part-time work. All those proposes could be a great turning point for what concerns the employment rate between men and women, but for now, across OECD and G20 countries, women continue to spend far more time on unpaid work than men ([OECD, 2020](#)).

Those proposals can also help a bit from the point of view of the gender gap and the gender inequality in management positions, but those last two areas needed a more detailed and complete analysis, in the next chapter.

### Gender disparity in employment rate

According to the research “La vita delle donne e degli uomini in Europa, un ritratto statistico”, conducted in 2016 and published in 2017 by ISTAT and Eurostat, that emphasized the difference between men and women into the European Context.

From the data analyzed, it can be noticed that the level of education, specifically, the achieving of a degree, is higher in women with respect to men: respectively the 32.5% related to the 28.9%. This data leads one to expect that there would be more women employed, more women in a management position, but this is not the case.

In fact, in 2016 the employment rate was 72% for men and 61% for women and a very alarming indicator concerns that this gap comes up with the increase of the number of children.

Figure 8 illustrates the total population in working age divided by gender. It is easy to notice that there are several states under the European difference mean set to 10.7% (women 63%; men

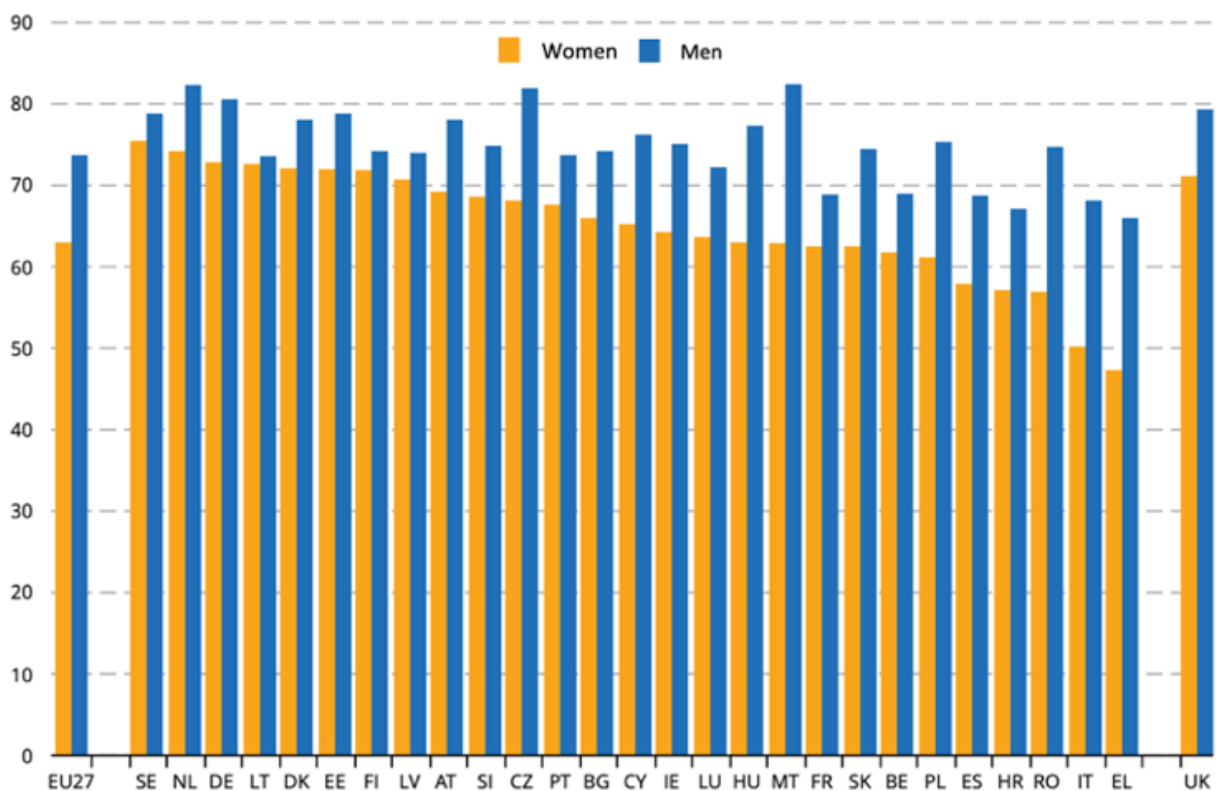


Figure 8: Employment rate between women and men in the working age (15-64 years) in Europe.

Source: Istat, Eurostat.

73.7%). The greater gap owns to Malta with a difference of 19.6%, followed by Greece with a gap of 18.6%, then there are Italy and Romania with a respectively difference of 17.9% and 17.8%.

On the contrary, the lower gender gaps in the employment rate belong to Northern European states, in fact, there is Latvia with 3.2%, followed by Finland with 2.3% and the lowest one is owned by Lithuania with only 1% of difference.

The result of Italy is not so surprising, because Italy is characterized by both traditionally high gender gaps in the labor market and conservative gender roles (D. Del Boca, N. Oggero, P. Profeta, M.C. Rossi, June 2020).

Furthermore, a significant conclusion can be obtained with the comparison of Figures 8 and 9 below: more children are the equivalent of fewer opportunities to finding job.

Figure 9 reports the employment rate with one child, while on the right with three or more children.

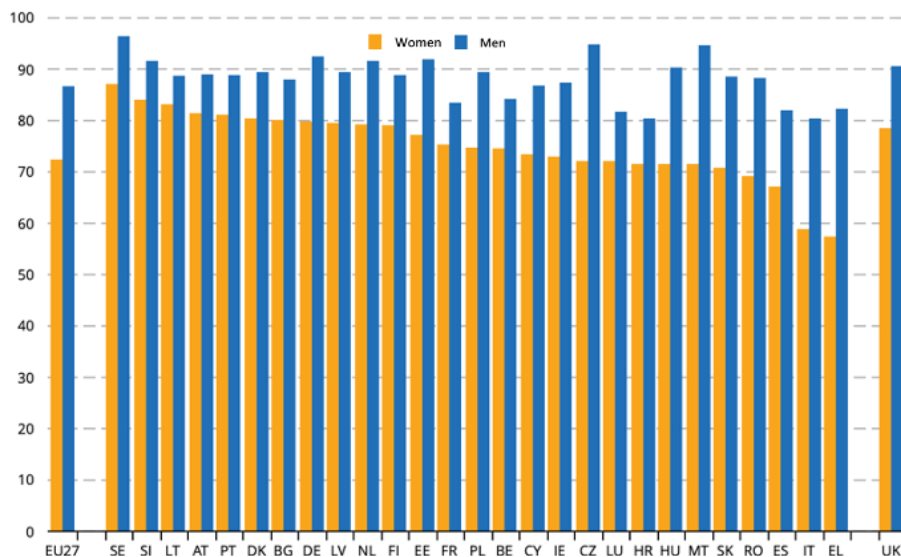


Figure 9: employment rate between women and men in the working age (15-64 years) in Europe, with one child. Source: Istat, Eurostat.



Comparing the figures and just looking at the European rate in both graphs, the fact emerged is that there is almost a twofold increase between the first (one child characterized) that has a gap

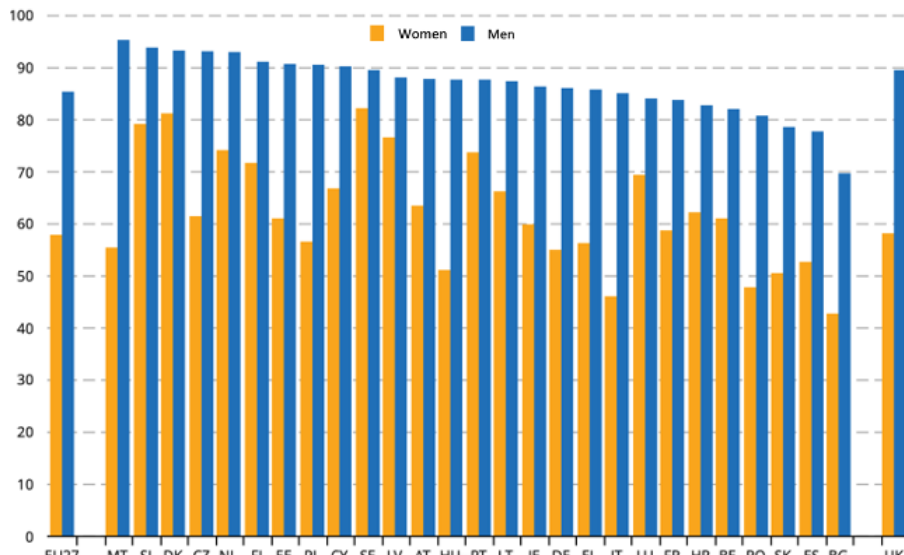


Figure 10: Employment rate between women and men in the working age (15-64 years) in Europe, with three or more children. Source: Istat, Eurostat.

of 14.3% (women 72,3%; men 86.6%) and the second (three children or more) with a gap of 27.5%.

Regarding the employment rates of women, there is the possibility to make a comparison between the employment rate both for women and men in 2011 and 2020. Reviewing Figure 11 below, at first

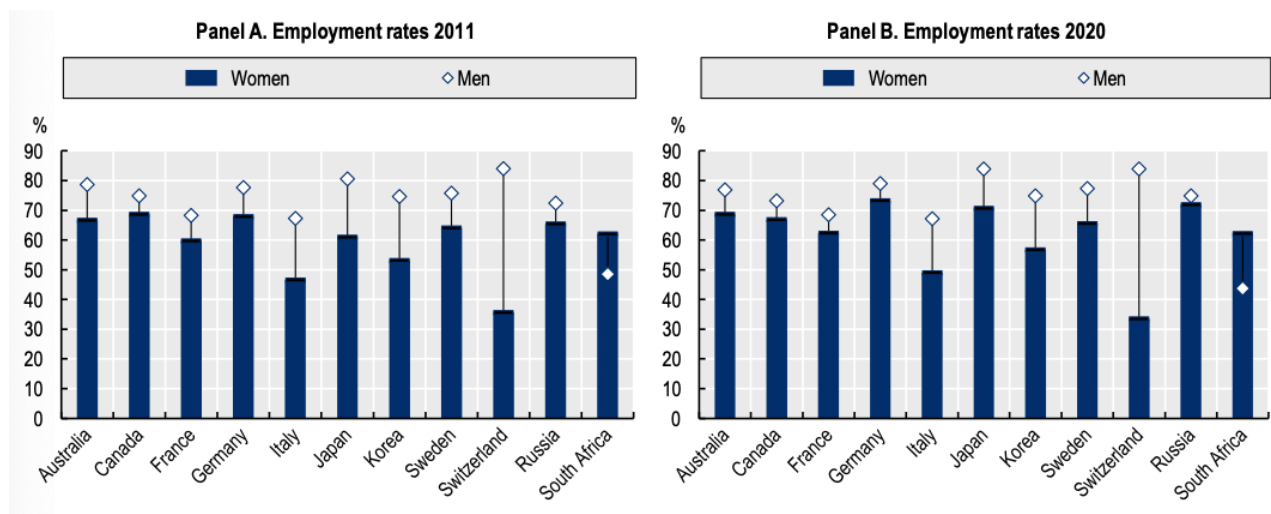


Figure 11: Global comparison employment rates 2011 and 2020. Source: OECD, 2020

sight it can be observed that almost in all the analyzed countries there has been an improvement, but this improvement is still too slight and inadequate for the currently time. Obviously, at the national level, the gender gap in employment rate reflects the economic development of its country. In fact, it is effortless to note that the South Africa is the only country with a worsening in women employment rate.

On the other hand, the most significant improvement was made by Japan which increased its women's participation in the workplace from 63% in 2012 to 73% in 2020, increasing by 10%.

However, between 2019 and 2020, the economic consequences of the COVID-19 crisis have resulted in a decline of women's labor force participation rates in the majority of G20 countries, except Germany and the United Kingdom (OECD, 2021).

To conclude, evidence of many studies suggest that COVID-19 affected differently the work of men and women and the main cause is childcare and school closure, and as a consequence the increase in need of care for children, during the usual school time.

The childcare crisis is at a tipping point. Childcare must be addressed within our COVID-19 recovery plans both to advance gender equality and because it makes fiscal sense (L. Ford, *The Guardian*, 2021).

### **1.3.2.THE UNPAID CARE WORK**

During the years, there has been a substantial increase of the care work, this increase is due to several transformations as the demographics, economic and environmental ones. This increase, in the care work, has caused an unequal access to the labor market for what concerns the gender differentiation.

Women typical spend disproportionately more time on unpaid care work than men (Ferrant, Pesando, Nowacka, 2014). This is due to the fact that this kind of care activities is still seen as a female prerogative.

In fact, three-quarters of this kind of work is performed by women, this means that only the 25% of the entire unpaid care work is carried out by men, but the tragic aspect is that there is no country where women and men perform an equal share of unpaid care work ([J. Charmes](#)).

However, to have a clear idea about what we are talking about: what is unpaid care work? It can be defined also with the name of non-SNA work activities, and can be classified, thanks to International Classification of Activities Time-Use statistics (ICATUS) into three different categories: the first is codified with the code 06 and concerns the unpaid domestic services for own final use within households, the second is about the unpaid caregiving services to household members (code 07) and the last one is codified as 08 and can be defined as the community services and help to other households.

To be more comprehensive, the concept can be split: the meaning of ‘unpaid’ is effortless, it is about a performing activity provided by an individual, who doesn’t receive a remuneration, while with word ‘care’ calls to mind some activities characterized by the health, the maintenance, the protection and the well-being of someone or something. While the last word ‘work’ is in contrast with the first one ‘unpaid’, using the work is always rewarded, because it is a costly activity in terms of resource, effort, and time of a person.

On the other hand, existing also the paid care work or SNA work activities which are comprehensive of work for corporation, quasi-corporation, non-profit institutions and government, work for household in primary (and non-primary) production activities, household in construction activities and household providing services for income.

However, we will focus on the unpaid care work concept, which has undoubtedly an essential contribution to the countries’ economies, but it is valueless than the paid work. Sufficient is know that the total value of unpaid care and domestic work is estimated to be between 10% and 39% of gross domestic product ([Leah Rodriguez](#)).

It is very important to underline the main result of the research developed by the International Labor Organization: if the care work was valuable, it would represent a tenth of the worldwide economic output.

Thanks to some data collected by different international organizations<sup>11</sup>, it is possibly making a comparison between the gender differentiation from the point of view of the unpaid care work and the inequalities in wages, those two elements are strictly interconnected: as it is shown in Figure 12, there is a positive relationship between the female-to-male ratio of time dedicated to unpaid care activities and the gender gap estimated selected by hours.

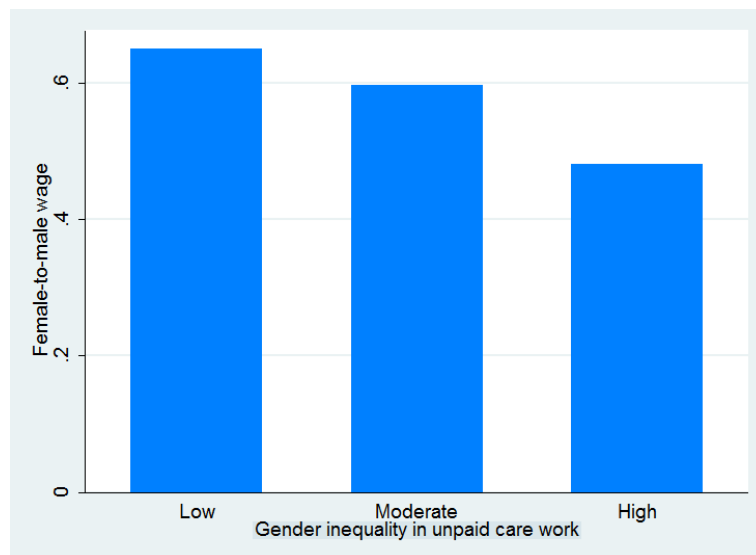


Figure 12: Inequalities in unpaid care work and in wages  
Source: World Economic forum, World Bank (2014), World Development Indicators and OECD (2014), Gender Institutions and Development Database.

Therefore, the higher the inequalities in unpaid care work are, higher the inequalities in wages will be.

However, in this regard, the fact that a part of this differentiation can be spelled out through some socio-demographic and economic factors as for instance the wealth and the level of education. But,

---

<sup>11</sup> World Economic forum, World Bank (2014), World Development Indicators and OECD (2014), Gender Institutions and Development Database

two-thirds of the difference remains unexplained and is considered as discrimination (Berniell and Sàchez-Pàramo, 2011).

And it could be, also because some social institutions influence gender roles, in most societies, working for pay is considered a masculine task, while unpaid care work is seen as women's domain. (Ferrant, Pesando, Nowocka, 2014).

### *The Italian scenario vs European scenario*

On December 7<sup>th</sup> 2020 the news focused on one of the co-administrators and founders of Zalando, Rubin Ritter, arose a lot of rumors: he decided to leave work to spend more time with the family in order to encourage the professional ambitions of his wife. The question is: why this kind of news generates interest at international level? And, on the contrary, when a woman gives up her career to favorite the profession of her partner, this news not generate the same huge stir?

The answer is rather simple and obvious. The problem is the way in which women figure in our society. For instance, when a wife stays at home with the children and doesn't work, it is the normality, while if it is a man that decides to not work and take care of the children, this is a strange and unnatural lifestyle choice.

For years, women have always fought against this discrimination, and in 1977 the first result was achieved. The approval of a law regarding the defense gender, more in detail, the Law 903. It was the result of several female movements and demonstrations that protested with the aim of having gender equality on the working position. In fact, the main goal of the Law 903 is the realization of a gender equity in terms of rights and the prohibition of whichever discrimination on the employment and training.

From that first achievement, undoubtedly, some improvements have been made through the latest decades, but the EU is at least 60 years away from reaching complete gender equality, if we continue at the current pace. ([EIGE<sup>12</sup>, 2020](#))

But what it is intended when we talk about the research of gender equality? It signifies promoting equal economic independence for women and men, closing the gap gender pay gap, advancing gender balance in decision making, ending gender-based violence and promoting gender equality beyond the EU. This is the definition of the European Commission.

The gender gap is a widespread and discussed thematic in the European context.

One example is the formulation of Agenda 2030 and the Sustainable Development Goals (SDGs) (that) have involved greater consultation with civil society than their predecessors, the Millennium Development Goals. ([Daniela Roche, February 24, 2016](#)).

More specifically, Agenda 2030 concerns several significant aspects of the common goals to develop by all the member states as the fight against poverty or the climate change. All the objectives have a common factor: bringing the world to sustainability vision. Gender equity is covered in the Goal number 5 and the final result estimated is the gender equity in every aspect of the life: ending of whatever form of discrimination, first of all the violence in the private and public sphere, removing any abusive practices as arranged marriage, child bride's phenomenon etc.

---

<sup>12</sup> It is the acronym for European Institute Gender Equity. This is an autonomous body of the European Union, founded in 2010 in order to strengthen and support the gender equity.

One of the main points of the reform concerns the ensuring full and effective female participation and equal opportunities of leadership at all levels of decision-making in the political economic and public area. Unfortunately, effective female participation is not so effective in Europe.

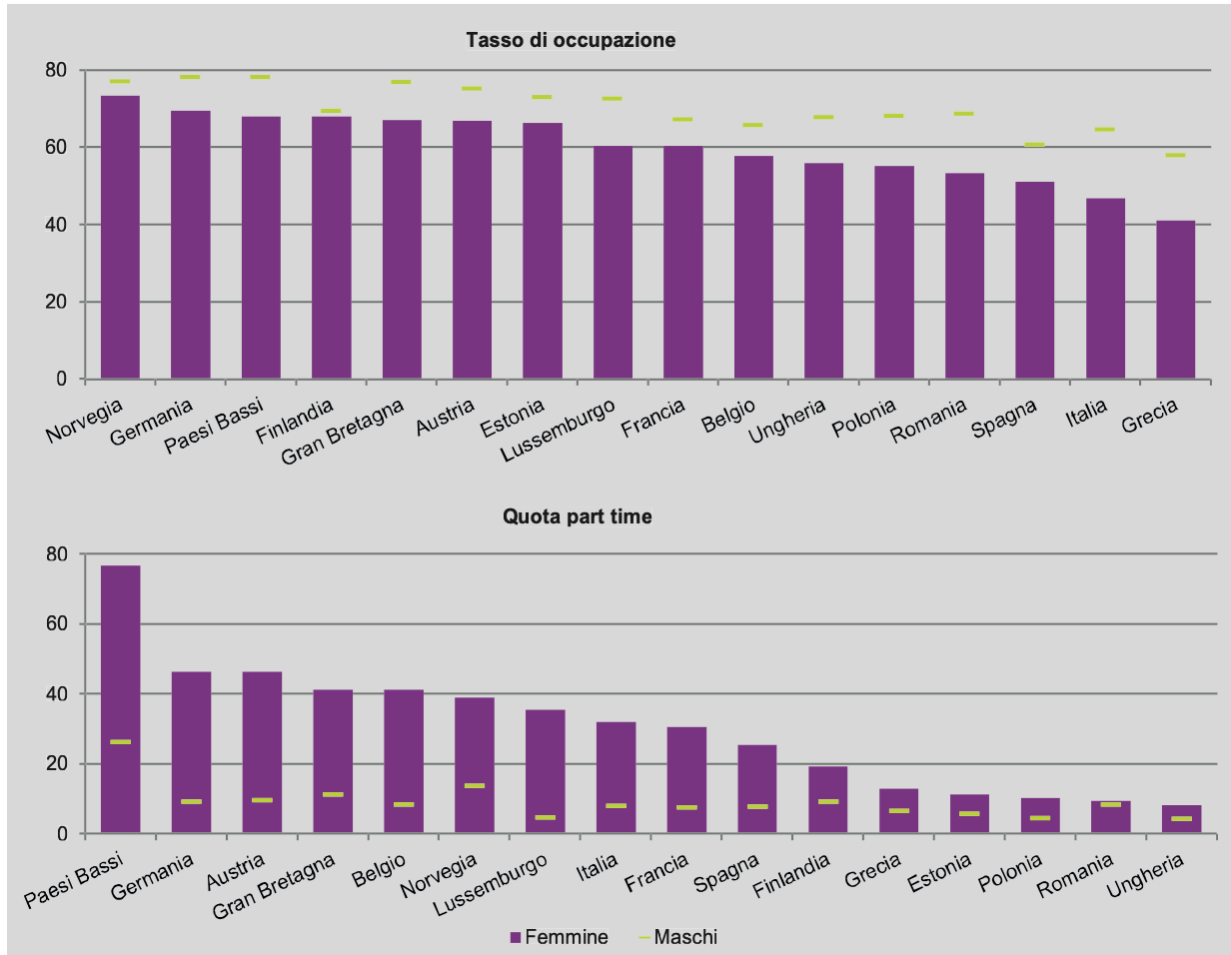


Figure 13: Employment rate and part time quotas of the population 15-64 years old divided by gender - 2014 (% values)  
 Source: Eurostat, European Labour Force Survey

In fact, Figure 13 above illustrates that the occupancy rate in Europe is really higher for men than women; while the situation is reversed only if part time quotas are taken into consideration.

The crucial point is that there is still a balance in the conservation of the gender differentiation, the male breadwinner and female part time earner model still exists, even in the countries where the gender differentiation of employment rate is very slight.

This last slight differentiation is due to the fact that women are employed, but in part-time jobs in order to retain the role of principal person who performs the unpaid care work in the familiar sphere. In all the countries listed in Figure 14 above, it is confirmed that women work less time than men in

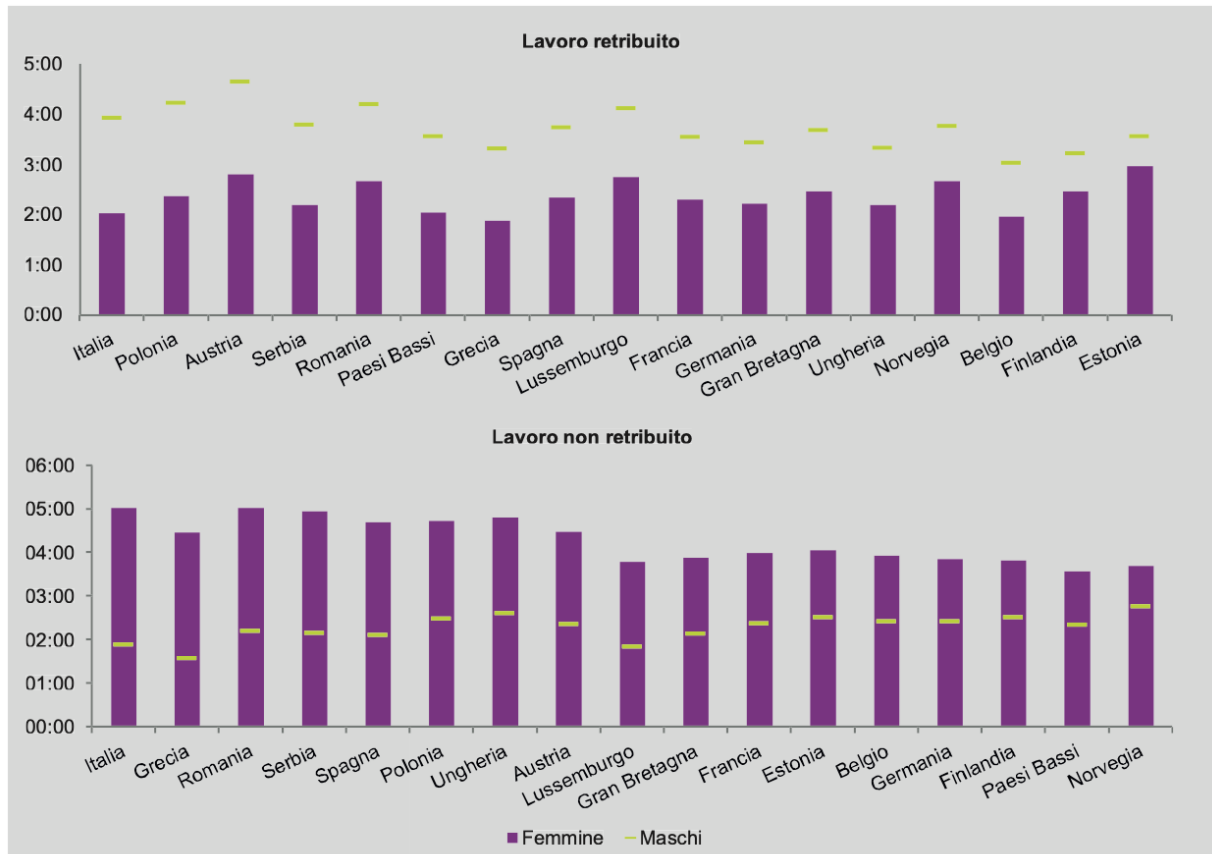


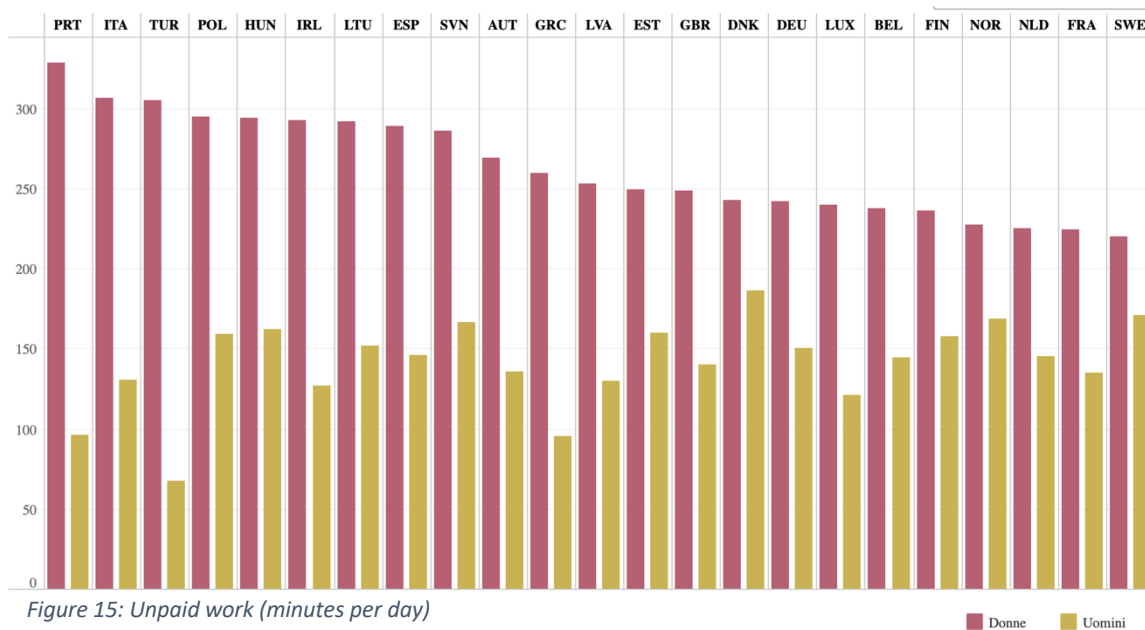
Figure 14: Time spent working by type of work paid out on an average weekly of the population 20-74 years old in European countries by gender  
 Source: Eurostat, Indagine armonizzata europea Uso del tempo – Edizione 2018

the paid work, while on the contrary, women devote more time to the unpaid work.

To confirm this thesis, it is possible analyze some other data from European Commission: the data reflects the division by gender of the paid and unpaid work, focused by the minutes per day.

It is obvious to notice that in the first Figure 14 above, the highest number of minutes spent per day to the unpaid work is undoubtedly held by women, in all the countries took into consideration.



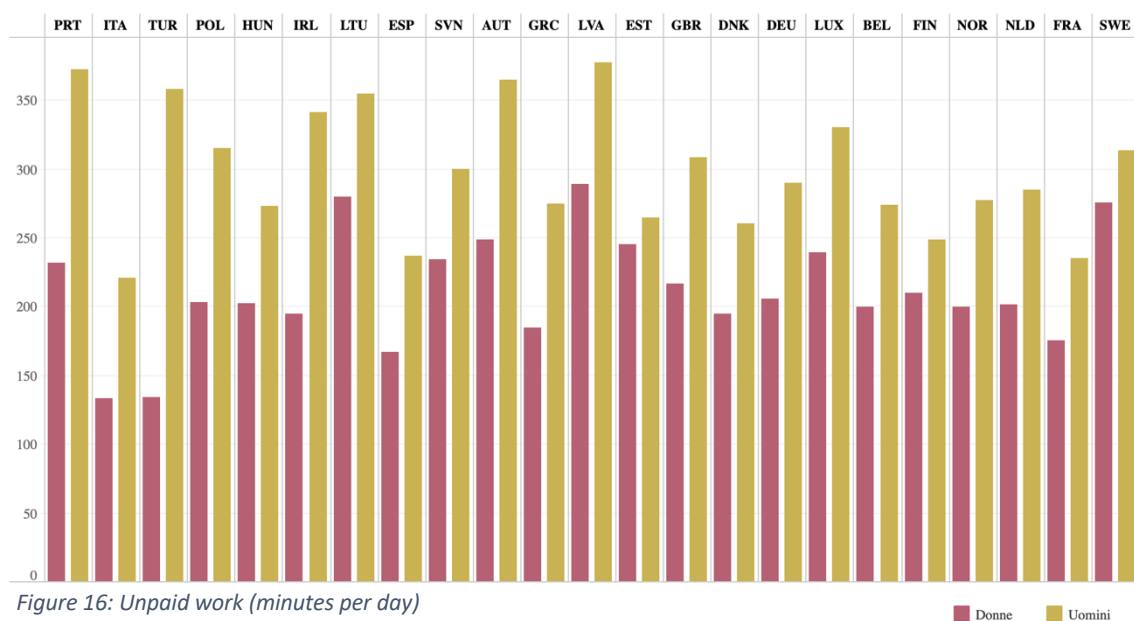


The trend that is underlined in Figure 15 above, is that the smallest differentiations are detected by the Northern Countries of the Europe.

In fact, the best relations are held by Denmark and Sweden, while the worst by Turkey and Portugal.

On the other side, the same thing happens for what concerns the men and the paid care work.

In each country the percentage is held by men. The smallest gap in this case is held by Estonia, while the worst one was confirmed to be the Portugal, once again, as it is shown in Figure 16 below.



Another time disparity from the point of view of gender is evident, another time there are stereotypes too deeply rooted in the common culture of the human being, another time the women are categorized as the weakest and not able gender.

It is important to recognize that genders must be considered equally valid and capable, not only because this action of gender differentiation can cause several problems to a very great quantity of women, but also because there are numerous legal issues linked to this kind of discrimination, as for instance, the one of the United Nations specific for the unpaid care work. The unequal distribution of unpaid care work between women and male represents an infringement of woman's rights ([OECD, 2014](#)).

## **2. CHAPTER 2: ANALYSIS OF THE TWO MOST COMMON GAP, FROM A GENDER PERSPECTIVE: GENDER PAY GAP AND GENDER MANAGEMENT POSITION GAP.**

Women have been even more affected by disparity with respect to men, from the point of view of two main indicators: wage inequality and lower employment rate in managerial and upper management positions.

In this regard, the President of the Council Mario Draghi expresses in the early stages of his mandate with the following words: “L’Italia presenta oggi uno dei peggiori gap salariali tra generi in Europa, oltre una cronaca scarista di donne in posizioni manageriali di rilievo. Una vera parità di genere non significa un farisaico rispetto di quote rosa richieste dalla legge: richiede che siano garantite parità di condizioni competitive tra generi. Intendiamo lavorare in questo senso, puntando a un riequilibrio del gap salariale e un sistema di welfare che permetta alle donne di dedicare alla loro carriera le stesse energie dei loro colleghi uomini, superando la scelta tra famiglia e lavoro.”

Mario Draghi decided to define the female quotas as “farisaiche”, term which includes hypocrisy and a short-term solution. The real core of the situation is a mind change across the population. But for Italy the gender equality in wages and management positions is still really far. But which are the reasons?

The first reason is undoubtedly, as mentioned and examined in the previous chapter, domestic work is almost entirely carried out by women, in fact, from some data provided by ISTAT in 2020, the percentage of women in domestic work in Italy is 75%, one of the highest in Europe. For instance, the France and German share is 62%, followed by the Spain with 62.5%.

Another reason can be the higher dissemination of precarious contracts among women, or also the almost total absence of careers’ perspective for women, except for the mandatory part of share regulated by national law.

In addition, depending on national contexts, women are constrained by a variety of social, legal and institutional barriers: the double burden of work and domestic responsibilities; gender stereotypes around women in the workplace and which sectors they choose; lack of female role models; and lack

of opportunities to network. Moreover, recruiting and promotion systems can be based on lateral career paths that do not consider potential career breaks, notably for women who take maternity leave. In board selection in particular, women may face barriers due to the slow turnover of board seats, non-transparent board selection criteria, lack of female role models, and informal board appointments based on male-dominated networks (OECD for the G20, Empower Alliance, 2020).

## 2.1 GENDER PAY GAP

The gender pay gap is an aspiration found in many international policy documents. The principle of equal remuneration for men and women for work of equal value, as set out in the Equal Remuneration Convention, 1951 (No. 100), needs to be implemented if gender equality and decent work for all is to be achieved. (J. Rubery, A. Koukiadaki, 2016)

An interesting comparison can be the different impact on the women and the men: while the employment rate of the women decreases hugely (14.4%), the men one decreases only of 1.2%.

In addition to this, there is another alarming evidence that proves the deep discrimination present, in a radically way, in our society of the 21<sup>th</sup> century and it is the wage variance and the difference of leadership positions dependently by the gender.

The gender wage gap has now been intensively investigated for a number of decades, but also remain an area of active and innovative research (Blau and Kahn, 2017). This fact is in contrast with the higher level of education owned by the women with respect to the men. So, why the women, according to the Eurostat (online data code SDGT\_05\_20) earn about 14% less than men? Why in Europe only the 33% of the total managers are women?

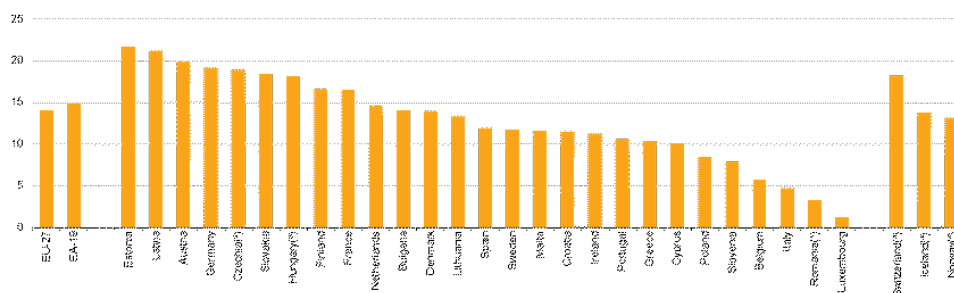
Concerning gender pay gap, from Figure 17 below, it is illustrated that women's gross hourly earnings are on average 14.1% less than the men in the EU-27<sup>13</sup> area, and 14.9% less in the EA-19<sup>14</sup> area.

---

<sup>13</sup> The European Union area.

<sup>14</sup> The Euro Area.

**The unadjusted gender pay gap, 2019**  
(difference between average gross hourly earnings of male and female employees as % of male gross earnings)



Note: For all the countries except Czechia and Iceland data for enterprises employing 10 or more employees, NACE Rev. 2 B to S (-O); Czechia: data for enterprises employing 1 or more employees, NACE Rev. 2 B to S; Iceland, NACE Rev. 2 sections E to H, J, K, P, Q. Gender pay gap data for 2019 are provisional until benchmark figures, taken from the Structure of Earnings survey, become available in December 2024.  
<sup>(\*)</sup> Estimated data.  
<sup>(\*)</sup> Definition differs (see metadata).  
<sup>(\*)</sup> Break in series.  
<sup>(\*)</sup> 2018 data.

Figure 17 Gender Gap Pay, measured in percentage  
Source: Eurostat (onlide data code: SDG\_05\_20)

The greatest gap is owned by Estonia with 21.7%, while the lower gap pertains to Luxemburg with 1.3%. Therefore, the total variation of the gap in Europe is 20.4%.

Furthermore, additional evidence is that gender pay gap increases with increasing age. Table 3 below illustrates that the gap is lower with new entrants in the labor market, that generally are also younger, and widens with increasing age.

	< 25 years	25 - 34	35 - 44	45 - 54	55 - 64	65 years +
Belgium <sup>(*)</sup>	0.9	3.8	5.4	5.2	9.2	:
Bulgaria	8.2	16.0	18.9	16.4	6.7	-12.1
Czechia <sup>(*)</sup>	9.5	13.0	23.3	21.6	12.8	13.1
Denmark	4.4	10.9	14.9	17.6	16.3	9.4
Spain	1.7	4.6	9.7	13.8	18.2	34.3
France	3.3	10.5	13.3	19.5	22.5	27.6
Croatia	4.3	8.9	12.8	18.6	8.6	5.2
Italy <sup>(*)</sup>	3.6	4.6	4.6	6.4	8.8	:
Cyprus	13.9	4.3	7.3	14.8	10.2	25.6
Latvia <sup>(*)</sup>	10.6	19.8	23.1	17.8	15.5	14.0
Lithuania	11.3	12.9	16.9	9.8	9.5	9.8
Hungary	8.1	16.1	22.8	19.1	14.8	18.7
Malta	4.2	7.2	14.3	14.6	11.7	12.0
Netherlands	2.3	1.9	8.6	19.1	20.4	13.8
Poland	9.8	11.0	13.6	8.2	0.1	2.3
Portugal	5.8	8.1	11.0	14.1	12.7	28.8
Romania <sup>(*)</sup>	5.4	8.1	4.5	-1.2	-5.4	-17.8
Slovenia	9.1	9.7	10.6	10.6	6.1	5.1
Slovakia	10.4	14.1	22.3	20.6	16.3	11.7
Finland	5.9	10.0	17.2	20.3	20.5	24.0
Sweden	5.1	7.4	12.4	15.8	14.7	11.7

(:) not available

Note: For all the countries except Czechia: data for enterprises employing 10 or more employees, NACE Rev. 2 B to S (-O); for Czechia: enterprises employing 1 or more employees, NACE Rev. 2 B to S;

Data breakdown by age not available for DE, EE, IE, EL, LU, AT, IS, NO and CH.

Gender pay gap data for 2019 are provisional until benchmark figures, taken from the Structure of Earnings survey, become available in December 2024

<sup>(\*)</sup> Estimated data.

<sup>(\*)</sup> Definition differs (see metadata)

<sup>(\*)</sup> Confidential data: BE and IT: 65 years+.



Table 3: Gender Gap Pay, measured in percentage, increases with the increasing of the women age.  
Source: Eurostat (onlide data code: earn\_gr\_gpgr2ag)

In fact, in the first column on the left of Table 3 (< 25 years old) there is a lower gap in every country, except for the Netherlands that has the lowest gap in women aged between 25 and 34.

This differentiation is probably due to the career interruptions suffered by women in their experience of working life as for instance pregnancy and consequently childcare for months or years. Those interruptions generally occur during their working career and not at the beginning.

However, the situation described until now is from a European point of view. Concerning the rest

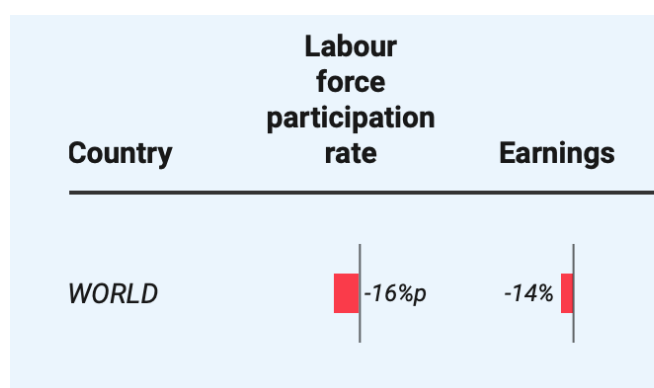


Figure 18: Gender Gap.  
Source: ILOSTAT

of the world, the circumstances don't go better: in fact, according to the ILOSTAT data, Figure 17 above shows that the labor force participation rate in the world is characterized by a gap of 16%, worse than the European rate. But the earning gap is almost the same (about 14%). It is necessary to understand that there's a lot of work to be done to close gender gaps and improve the environment for current and future generations. ([Rafael Diez de Medina<sup>15</sup>, January 2020](#)).

Furthermore, in this regard, strengthening the legal framework and its enforcement for combating all forms of discrimination in pay, recruitment, training and promotion; promoting pay transparency; ensuring that the principle of equal pay for equal work or for work of equal value is respected in collective bargaining and/or labor law and practice; tackling stereotypes, segregation and indirect discrimination in the labor market, notably against part-time workers; promoting the reconciliation of work and family life (OECD, 2013); those are some of the proposals to eliminate the discrimination

<sup>15</sup> ILO Chief Statistician

in wages due to gender, offered by OECD in the Recommendation of the Council on Gender Equality in Education, Employment and Entrepreneurship.

### Gender equity index

The Gender Equity Index is a tool to measure the progress of gender equality in the EU, developed by the EIGE. It gives more visibility to areas that need improvement and ultimately supports policy makers to design more effective gender equality measures (EIGE's definition).

Therefore, in other words, this index represents the result of years of studying by several authors from different countries, they are Davide Barbieri, Jakub Caisl, Dr Marre Karu, Giulia Lanfredi, Blandine Mollard, Vytautas Paciukonis, Maria Belen Pilares La Hoz, Dr Jolanta Reingardė, and Dr Lina Salanauskaite of the EIGE.

This index covers several aspects of work, money, knowledge, time, power, health, violence and the intersect inequalities. This last one concerns the different facts that men and women have to face, in the EU context.

Table 3 below illustrates the list of indicators on which EIGE bases studies to generate the Gender Equity Index.

Domain	Subdomain	N	Indicator and reference population
Work	Participation	1	Full-time equivalent employment rate (%; 15+ population)
		2	Duration of working life (years; 15+ population)
	Segregation and quality of work	3	Employed people in education, human health and social work activities (%; 15+ employed)
		4	Ability to take an hour or two off during working hours to take care of personal or family matters (%; 15+ workers)
		5	Career Prospects Index (points; 0-100)
Money	Financial resources	6	Mean monthly earnings (PPS; working population)
		7	Mean equivalised net income (PPS; 16+ population)
	Economic situation	8	Not-at-risk-of-poverty, ≥60 % of median income (%; 16+ population)
		9	S20/S80 income quintile share (16+ population)
Knowledge	Attainment and participation	10	Graduates of tertiary education (%; 15+ population)
		11	People participating in formal or non-formal education and training (%; 15+ population)
	Segregation	12	Tertiary students in the fields of education, health and welfare, humanities and arts (tertiary students) (%; 15+ population)
Time	Care activities	13	People caring for and educating their children or grandchildren, elderly or people with disabilities, every day (%; 18+ population)
		14	People cooking and/or doing housework, every day (%; 18+ population)
	Social activities	15	Workers doing sporting, cultural or leisure activities outside of their home, at least daily or several times a week (%; 15+ workers)
		16	Workers involved in voluntary or charitable activities, at least once a month (%; 15+ workers)
Power	Political	17	Share of ministers (% W, M)
		18	Share of members of parliament (% W, M)
		19	Share of members of regional assemblies (% W, M)
	Economic	20	Share of members of boards in largest quoted companies, supervisory board or board of directors (% W, M)
		21	Share of board members of central bank (% W, M)
	Social	22	Share of board members of research funding organisations (% W, M)
		23	Share of board members in publicly owned broadcasting organisations (% W, M)
24	Share of members of highest decision-making body of the national Olympic sport organisations (% W, M)		
Health	Status	25	Self-perceived health, good or very good (%; 16+ population)
		26	Life expectancy in absolute value at birth (years)
		27	Healthy life years in absolute value at birth (years)
	Behaviour	28	People who do not smoke and are not involved in harmful drinking (%; 16+ population)
		29	People doing physical activities and/or consuming fruits and vegetables (%; 16+ population)
	Access	30	Population without unmet needs for medical examination (%; 16+ population)
		31	People without unmet needs for dental examination (%; 16+ population)

Table 3: List of indicators of gender gap index. Source: EIGE

The work sphere is divided into participation, segregation and quality of work, while the money indicator is divided into financial resources and economic situation. The attainment, participation and segregation are part of the knowledge area while the care and social activities belong to the time



sphere. Then, the power indicator is guided by political, economic and social factors; instead, the last indicator, that is the health, is composed by the status, the behavior and the access.

The complementary study of the whole indicators, cited previously, allows to formulate the Gender Equity Index.

The areas taken into consideration are the most significant in order to have a complete view of the discrimination that persists in Europe and in the world due to gender identity.

Country	Gender Equality Index	WORK	MONEY	KNOWLEDGE	TIME	POWER	HEALTH
EU28	63,8	70,5	78,4	61,8	66,3	41,9	87,2
BE	69,3	72,7	85,5	70,6	70,3	47,9	86,5
BG	55,0	67,9	60,8	50,4	43,9	45,8	75,3
CZ	55,6	64,9	73,8	55,4	53,8	31,0	85,7
DK	75,2	79,8	83,6	73,2	80,4	58,0	90,3
DE	62,6	70,0	83,2	56,3	69,8	38,3	89,3
EE	53,4	71,2	65,5	51,6	73,7	21,9	82,7
IE	65,4	73,5	85,5	65,3	70,8	37,2	90,7
EL	48,6	63,6	75,3	53,4	35,6	22,3	84,3
ES	66,4	71,8	77,1	63,5	60,8	52,6	88,6
FR	67,5	71,5	83,5	62,0	66,6	52,4	86,7
HR	52,3	67,2	68,6	49,9	49,8	28,4	81,5
IT	53,3	61,3	78,9	53,8	55,1	25,2	86,3
CY	49,0	70,5	80,7	55,5	45,9	15,4	86,4
LV	55,2	72,6	58,9	49,2	62,0	34,8	77,3
LT	54,9	72,6	60,8	54,3	52,2	32,9	80,4
LU	61,2	70,9	91,8	66,3	70,2	25,6	89,8
HU	52,4	66,0	70,8	54,5	54,1	23,5	85,4
MT	54,4	65,1	79,2	65,4	54,3	20,9	90,6
NL	74,0	76,3	86,6	66,9	85,9	56,9	90,3
AT	58,7	75,3	82,8	58,9	56,0	28,4	91,1
PL	55,5	66,3	69,5	57,8	54,2	30,6	81,6
PT	53,7	71,4	71,8	50,1	38,7	34,9	84,3
RO	50,8	67,9	59,8	47,2	50,6	30,8	69,9
SI	62,7	71,9	80,3	55,0	68,3	41,1	86,8
SK	53,0	64,8	70,2	59,5	39,9	29,5	84,8
FI	73,1	74,5	84,1	58,6	80,1	69,1	89,5
SE	80,1	80,4	85,3	70,7	84,5	77,8	93,2
IE	68,3	75,1	79,8	72,2	72,4	45,8	84,1

Table 4: Gender Equity Index Result, 2010; Source: EIGE data, 2010

The first Gender Equity Index (GEI) was generated in 2010 in Table 4 above, and the following Table 5 highlights the improvements that have been made in some Member States from 2010 to 2018.

Already in the GEI of the EU28 can be observed the increase of 4.1%. This index growth is due

Country	Gender Equality Index	WORK	MONEY	KNOWLEDGE	TIME	POWER	HEALTH
EU28	67,9	72,2	80,6	63,6	65,7	53,5	88,0
BE	71,4	74,7	88,7	71,4	65,3	55,7	86,5
BG	59,6	69,0	62,3	54,9	42,7	61,5	77,2
CZ	56,2	67,0	76,8	58,4	57,3	27,7	86,3
DK	77,4	79,7	86,8	71,3	83,1	66,2	89,7
DE	67,5	72,1	84,9	54,0	65,0	59,5	90,6
EE	60,7	72,1	70,0	56,3	74,7	36,1	81,6
IE	72,2	75,9	86,5	67,3	74,2	55,8	91,3
EL	52,2	64,4	72,5	54,8	44,7	27,0	84,0
ES	72,0	73,2	77,8	67,6	64,0	69,4	90,1
FR	75,1	72,8	87,0	66,3	67,3	79,8	87,4
HR	57,9	69,9	72,6	51,6	51,0	41,4	83,7
IT	63,5	63,3	79,0	61,9	59,3	48,8	88,4
CY	56,9	70,8	81,7	56,2	51,3	29,8	88,0
LV	60,8	74,0	65,2	49,3	65,8	49,4	78,4
LT	56,3	74,1	66,1	56,2	50,6	34,1	80,0
LU	70,3	75,2	90,0	70,0	69,1	48,4	89,5
HU	53,0	68,0	72,0	57,4	54,3	27,2	87,0
MT	63,4	75,4	82,6	67,1	64,2	32,8	92,0
NL	74,1	77,8	86,2	67,3	83,9	57,2	90,0
AT	66,5	76,4	86,7	63,8	61,2	44,2	91,9
PL	55,8	67,3	75,5	57,2	52,5	30,0	83,1
PT	61,3	72,9	72,8	55,7	47,5	51,1	84,6
RO	54,4	67,6	63,0	52,4	50,3	37,5	71,2
SI	67,7	73,1	83,0	55,9	72,9	55,0	86,9
SK	55,5	66,6	75,1	61,2	46,3	29,6	85,5
FI	74,7	75,4	87,1	61,6	77,4	71,9	89,3
SE	83,8	82,9	86,8	74,2	90,1	84,2	94,5
UK	72,7	76,9	80,4	70,1	69,9	60,0	92,8

Table 5: Gender Equity Index Result, 2018; Source: EIGE data, 2018

especially to the power indicator that rises to 11.4%.

Even if the worst country of both 2010 and 2018 being the Greek State (EL), with respectively a GEI of 48.6% and 52.2% and the best gender equity country is Sweden (SE) with a GEI of 80.1% in 2010 and 83.8% in 2018; those two countries are not the ones that have the lowest and the greater GEI gap. In fact, the lowest improvements, from the point of view of GEI gap, are owned by the Netherlands (0.1% of difference 2010-2018), followed by Poland (0.3%) and Czech Republic and Hungary (both of 0.6%). On the contrary the greater improvements are made by Italy (10,2%), Luxemburg (9.1%) and Malta (9%).

In conclusion, as the EIGE mission explains “making equality between women and men a reality for all the Europeans and beyond”.

To promote inclusive and transparent labor markets to close the gender pay gap employment standards need strengthening and extending, through higher minimum wages, more protection for non-standard forms of employment and more inclusive collective bargaining combined with effective gender specific measures to reduce the undervaluation of women’s work and to extend duties on employers actively to promote gender equality. (J. Rubery, A. Koukiadaki, 2016)

### *Gender equity insight*

There is another agency which studied the differentiation in wages from the point of view of the gender and this is the Workplace Gender Equality. This agency has been created by the Workplace Gender Equality Act in 2012.

All the data collected from this Australian organization are reported and used for a benchmarking dataset, by several authors, and each year, starting from 2016, they publish the so called “Gender Equity Insights Series”.

This agency conducted an interesting analysis based on the gender wage differentiation among occupation from 2014 to 2020 including the year characterized by the early stages of the COVID-19 pandemic.

Table 6 illustrates the gender pay gap has been slowly declining over the years, as for instance among the manager roles, the key management personnel and the other managers have been a decrease of about 5%, while the executives or general manager and the senior ones the decrease is about 7%. This data gives good hope for the future, for what concerns the high-level management positions.

Concerning the non-manager roles, not all non-managers roles have been a decrease in gender pay gap, in fact the technicians and trade show an increase of 0.2% from 2014 to 2020, a higher increase of 5.1% is about community and persona services roles.

Occupation Level	Full-time Gender Pay Gap							Change between 2020 & 2014 (ppt)	Gender pay gap eliminated by:
	2014	2015	2016	2017	2018	2019	2020		
Total remuneration	24.7%	24.0%	23.1%	22.4%	21.3%	20.8%	20.1%	-4.6	2046
Base salary	19.9%	19.1%	17.7%	17.3%	16.2%	15.5%	15.0%	-4.9	2038
<b>Managers (total remuneration)</b>									
Key management personnel	28.9%	29.0%	26.6%	24.9%	24.3%	24.4%	23.4%	-5.4	2045
Other executives/general managers	27.5%	25.0%	24.6%	24.0%	22.0%	22.3%	20.5%	-7.0	2031
Senior managers	23.5%	22.8%	21.7%	21.1%	18.8%	18.2%	16.7%	-6.8	2034
Other managers	24.6%	24.2%	23.8%	22.9%	21.6%	21.3%	19.7%	-5.0	2043
<b>Non-managers (total remuneration)</b>									
Clerical and administrative	9.1%	8.3%	8.8%	8.4%	8.3%	8.2%	7.7%	-1.4	2053
Community and personal service	4.5%	9.4%	10.9%	9.1%	9.5%	11.6%	9.6%	+5.1	Indefinite
Machinery operators and drivers	13.7%	12.9%	16.1%	14.9%	14.3%	14.2%	11.9%	-1.8	2060
Sales	23.3%	22.2%	23.5%	23.9%	23.7%	25.1%	22.4%	-0.9	Indefinite
Professionals	22.0%	21.2%	19.7%	19.4%	19.0%	18.4%	18.3%	-3.7	2051
Technicians and trade	25.2%	24.6%	27.1%	26.7%	26.4%	26.0%	25.4%	+0.2	Indefinite
Labourers	22.8%	21.2%	17.2%	21.1%	18.3%	19.1%	20.0%	-2.7	2064

Table 6: Gender pay gap among occupations and over time, 2014 to 2020

Source: Bankwest Curtin Economics Centre | WGEA Gender Equality data 2014 to 2020

It is interesting to notice that, from 2014 to 2020, the best gender pay gap reduction has been done for more high-level positions, but to better understand this trend, it is necessary to have a look of the beginning data. In fact, in 2014 we can observe that the pay differentiation was lower for the non-managers positions, and as a result the gap to be filled is very smaller with respect what concerns the high-level roles. Here, the differentiation was really large, and it is obvious that the gap to fill is wider, and as a consequence, the percentage of improvement is necessarily larger.

In conclusion, it is necessarily to underline the fact that women being able to access higher-level and higher-paid positions is also one of the key drivers of the gender pay gap, where the widest earning differentials tend to occur at the top of the distribution (WGEA, Gender Equity Insight 2019).

Therefore, in order to clearly understood what it is talking about, it is necessary to deeply analyzed the management positions gap between women and men too.

## **2.2 GENDER MANAGEMENT POSITION GAP**

Although the reduction of gender gap is a focal theme in several political discussions across the world and the fact that women made gains in representations in the last year, women are still underrepresented in managerial and leadership positions in several fields as for instance the corporate sector, academia and politics.

Nevertheless, the importance of women in senior leadership roles has been well established, with

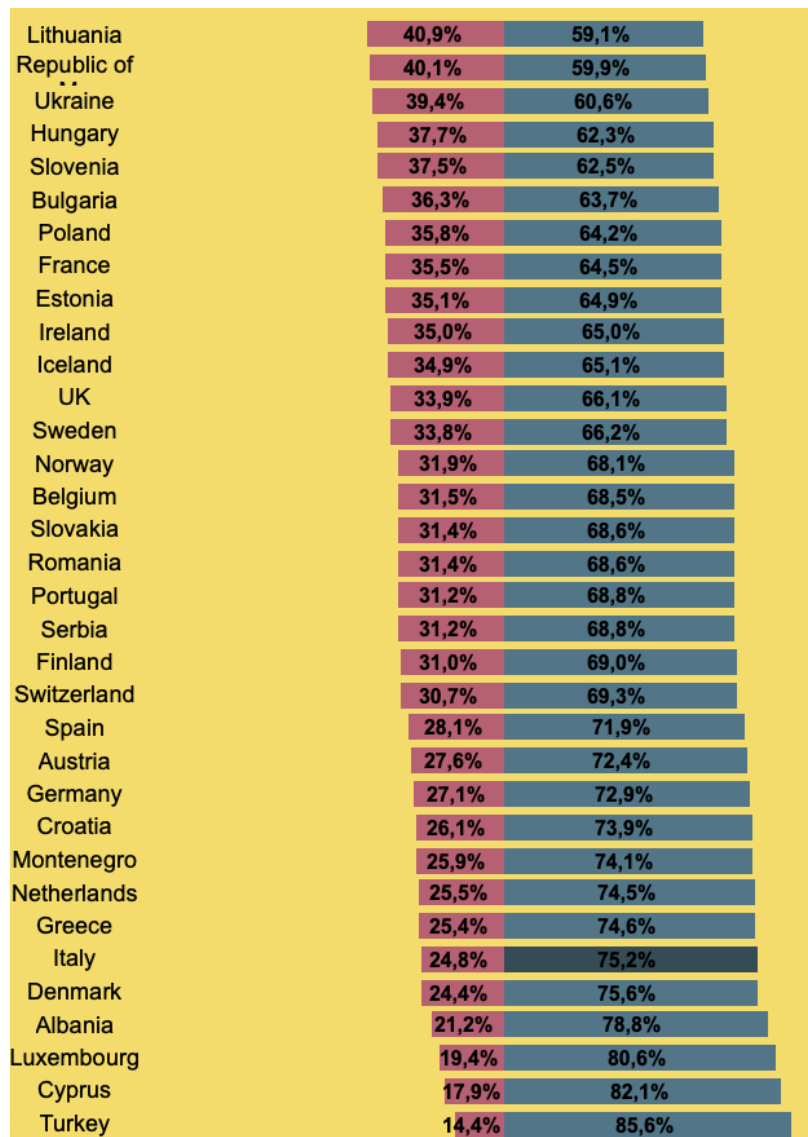


Table 7 Gender gap in Europe in management positions 2000-2020  
 Source: Sustainable Development Goals Indicators, United Nations

greater gender diversity shown to have a positive impact on organizations, leading better decision-making and business outcomes; according to Table 7 above, and the Sustainable Development Goals Indicators by the United Nations, in Europe women that hold a leading role are 34.7%, while in Italy only 2.5 women on 10 are managers or executives.

However, to deeply understand the loss in power roles of women it is necessary to review some theories of the past concerning the social entrepreneurship.

The gender gap is strictly linked to gender role perception, our societies, communities and families have been profoundly marked by a patriarchal vision of the world.

Nowadays, even in develop countries, there is still a male leadership preference, especially for what concerns the upper position.

Corporate and political positions are generally held by men, and women must be content with subordinate positions. The point is not to recognize that the power and prestige of men's good work is due in part to the labor of women in lower positions.

The world in general favors male norms, most societies are patriarchal. The men have the opportunities, the access. ([Herrema, 2017](#))

In fact, a large study concerns the state of women in corporate America, called "Women in the workplace", emphasizes the fact that at the end of 2020 has taken place a slight improvement rate. Undoubtedly, this index is a very encouraging sign but there are also persistent gaps.

It is sufficient to think that even though women do better than men in their undergraduate performance, the number of women decreases at every subsequent leadership level ([Elissa Sangster, 2019](#)).

Wring et al. in the 1995 argued that exist an underrepresentation of women in authority positions and that this fact is not only an example of gender inequality but also a notable cause of gender inequality. This silent behavior can be defined as a static preservation of a circumstance persevered since centuries; this action is crucial in perpetuating a norm of gender inequality, in sustaining a gender differentiation in workplace outcome, in emphasizing male privileges and advantages.

According to "Women in the workplace", a study conducted in 2019, gender gap starts in the early stage of a woman's career. This is an unfortunate situation which all young women have to deal with. Comparing the entry-level hires rate of women (48%) with the first-level managers rate (just 38%), there is a loss of 10%.

Certainly, explanations for the low share of women in high-ranking positions include discrimination, the existence of biased beliefs regarding ability, and career-family trade-offs (Ryan Brown, Hany Mansour, Stephen, O'Connel, 2018)

Today, the most important goal should be overcoming barriers to the leadership of a woman, including the female figure in politics, corporations, male organizations.

Existing different barriers as for example the lack of mentoring and the exclusion from informal networks which are factors that only partially impact the career advancement of women in workplace.<sup>16</sup>

One of the most known barriers is the case of the so called “glass ceiling”: a term used to describe the invisible barriers which don't allow scaling to the upper management positions. A definition of this was established by the Workplace Gender Equality Agency: women are often able to reach a certain point in their vocations, but fall short of progressing any further with an invisible barrier preventing their movement into more senior position, and to higher pay.

In this regard, a project has been carried out<sup>17</sup> and emphasizes the greatest obstacles to gender equality, based on the perception of male and female inhabitants of different countries worldwide, across the countries took into consideration there are countries with a multitude of differences from the social point of views, with different cultures and religions. Those countries are Australia, Canada, China, Columbia France, German, Great Britain, Mexico, New Zealand, United States of America, South Africa and Tunis.

It is interesting to note that despite all religious, cultural and social differences across countries, the result of the analysis is quite similar. For all the countries considered, the main gender discrimination index is the difference in opportunities in the workplace between men and women. About this first point men and women agree.

---

<sup>16</sup> Results obtained by a recent study published on August 31, 2021 edited by Jyoti Chauhan and Greta Mishra on the International Journal of Economics and Business Research, Vol. 22 No. 4.

<sup>17</sup> by Focus 2030 and Women Deliver Roadmap for Action

Other obstacles concern the fact that in some cultures and religions women are treated in a different way with respect to men, or non-representation of women in politics.

Therefore, also the perception of the fellow world citizens cries out loud about gender inequality in the workplace and places it at the top of the gender discrimination. But this insight is not enough to shake the world's consciences of those in power.

In this regard, evidence of the lack of gender differentiation in the workplace can be understood through the analysis carried out by the WGEA.

This last agency demonstrates that there is a progression concerns the lower-level management roles rate of women which is really faster with respect to the men, as it is shown in Figure 21 below. If this

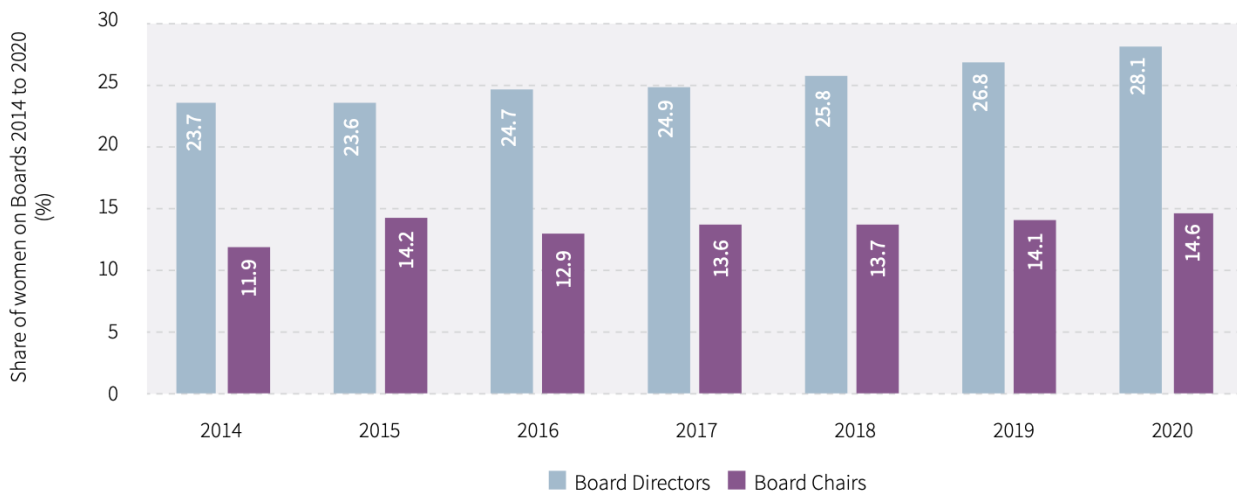


Figure 19: Share of women on Boards and as a Board Chair

Source: Bankwest Curtin Economics Centre | WGEA Gender Equality data 2014 to 2020. Board directors includes both board members and chairs.

trend continues, an increase in the quantity in representation in management positions can be obtained in 20 years, and in addition the one in lower-tier managers could be obtainable shortly, in just one decade. Therefore, parity in these types of roles can be achieved by 2039.



However, this is not true for all management categories level. On the other hand, WGEA has also demonstrated that as the management level of career increases, the presence of women decreases disproportionately. This trend is displayed in Table 8 below.

Management level	Proportion of Women					Change between 2018 & 2014
	2014	2015	2016	2017	2018	
Chief Executive Officer	15.7%	15.4%	16.3%	16.5%	16.8%	1.1ppts
Key Management Personnel	24.6%	25.9%	27.1%	28.1%	29.0%	4.4ppts
Executives	25.8%	26.8%	27.6%	28.0%	29.0%	3.2ppts
Senior Managers	29.0%	30.2%	31.2%	32.1%	32.4%	3.3ppts
Other Managers	36.3%	36.7%	37.6%	38.6%	39.3%	3.0ppts
All Managers	33.1%	33.7%	34.7%	35.7%	36.3%	3.2ppts
All Workers	35.8%	36.1%	36.8%	37.3%	37.5%	1.6ppts

Table 8: Share of women on CEO and management positions, full-time workers, 2014 to 2018  
Source: Bankwest Curtin Economics Centre | WGEA Gender Equality data 2014 to 2020.

Reviewing the data reveals that all management level positions has increased their proportion of women during the four years took into consideration.

In fact, the Key Management Personnel has had an increase of 4.4%, the Executives positions have improved their share from 25.8% to 29.0%, while the Senior Managers and Other Managers has increased respectively of 3.3% and 3.0%.

On the other hand, it is noteworthy that the CEO position is the one with the lower change between 2014 and 2018, only 1.1% in four years.

Therefore, although there is a rapid increase in gender equality for the lower-level management positions, and the equality can be reached in “just” 20 years, the situation changes when higher management position, as for instance the one of CEO, are considered.

At this rate we will not see an equal share of woman in CEO roles until the turn of the next century (WGEA, 2019).

Therefore, is it realistic that gender equality will be reached not before the next century?

The WGEA gives us some projections, in other words, the number of years needed in order to



Figure 20: Projected time to achieve equality for the higher management roles  
Source: WGEA, 2019.

achieve the parity in high level management roles between men and women, as it is indicated in the Figure 20 above.

Therefore, to answer the above question: based on analyzed data, it will need many decades in order to achieve gender equality in the highest management position, especially for the one of CEO.

Therefore, which can be one of the main reasons? It is known that numerous studies have shown that, holding performance constant, women in a position of power are judged more negatively than men (Chakraborty, Serra, 2021).

Unfortunately, those negative judgments happen more often, and they are one of the principal indicators of gender differentiation concerning the upper management positions.

Negative judgments from subordinates induces women, more than men, to select out of leadership positions, and to perform differently when in a leadership role. (Chakraborty, Serra, 2021)

In this regard, thanks to the survey conducted by the Sustainable Development Goal Indicators, it is possible to compare the difference between women and men in the upper managerial positions across the last decade.

Figures 21 and 22 below illustrate gender differentiation in high-level positions in 2010, as it can be

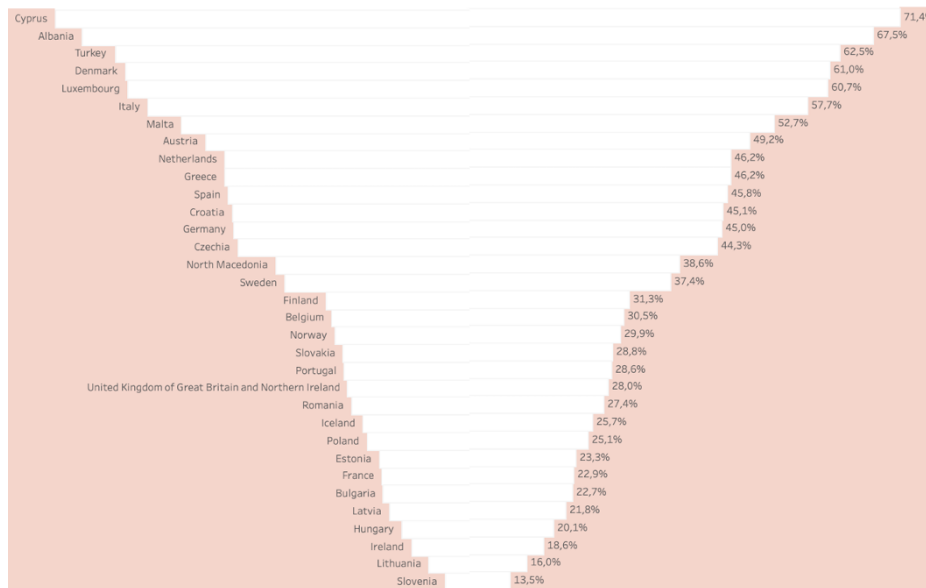


Figure 21: Difference between women and men in upper managerial positions, in 2010  
Source: Sustainable Development Goal Indicators.

observed by Figure 21, the greatest gaps are held by Cyprus (71.4%), Albania (67.5%), Turkey (62.5%), Denmark (61%), Luxembourg (60.7%) and in sixth place there is Italy with 57.7%, representing one of the higher gaps in the European Union.

On the contrary, in 2010, Slovenia, Lithuania and Ireland possess the smallest gaps under 20%.

Furthermore, in review of Figures 21 and 22, Figure 21 represents data of 2010, and Figure 22

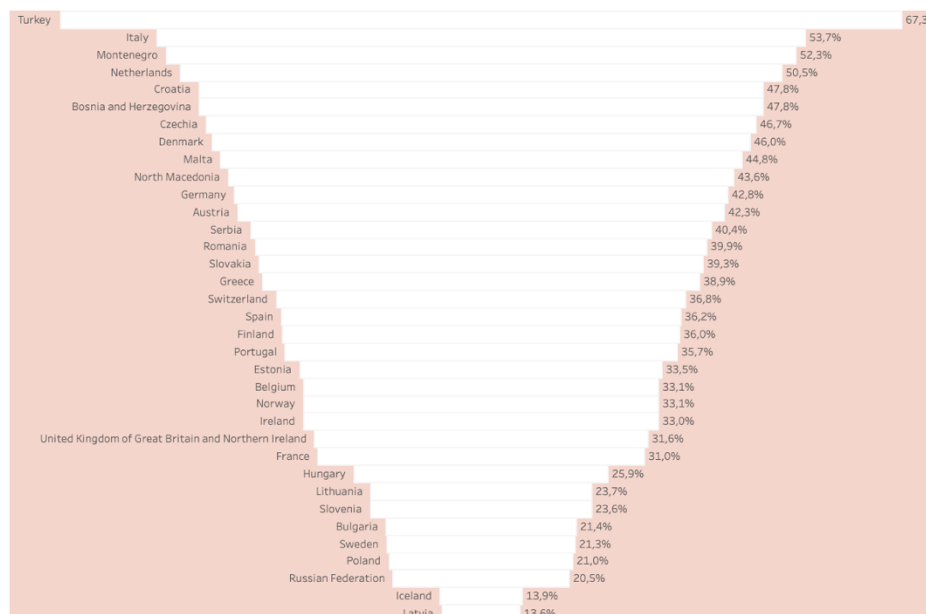


Figure 22: Difference between women and men in upper managerial positions, in 2018  
Source: Sustainable Development Goal Indicators.

represents data of 2018.

As Figures 21 and 22 illustrate, consider the following.

Firstly, the majority of European countries are characterized by a widespread worsening of the gap: although Turkey has the highest gap in 2018 (67.3%) it is not the country with worst decline in the period 2010-2018, in fact Turkey has increased the gap by 4.8 %, while the highest increase in this specific period of time is held by Romania with an increase of gender gap equal to 12.5%, followed by Slovakia with 10.5%, Slovenia with 10.1% and Estonia with an increase of 10%.

Specifically, the case of Italy is characterized by a gender gap in management positions that is very high, but on the bright side, in the period of time taken into consideration, there has been a decrease of 4%. Certainly, there is still a long way to go, but Italy is moving in the right direction.

The same positive trend identifies many countries with a more than notable reduction of the gender gap. The highest decrease is held by Sweden with a decrease of 16.1%, followed by the Denmark which brings the gender gap from 61% to 46% with a reduction of 15%.

Those two top positions are followed by several countries, as for instance Iceland, with an improvement of the gender gap of 11.8%, Spain with 9.6%, Latvia with 8.2 %and Malta with 7.9%.

It is easy understand that the biggest effort in order to reduce the gender gap in management roles comes from the Northern European countries, in fact, as mentioned before, the podium, with the greatest improvements in this regard, is held by Sweden, Denmark and Iceland.

Therefore, in conclusion, it can be affirmed that Europe is working to reduce gender inequalities at the workplace, especially for what concerns the highest-level positions.

Another factor to take into consideration is that women are often allotted top leadership position in challenging situations ([Haslam, 2004](#)). This factor can be emblematic for some main reasons, the first one is that being a manager in a period of crisis include takes difficulty decisions and this fact can spring more negative judgement from the subordinators than in a growth or even static period. Another consideration can be that women are considered to own qualities (like empathy, collaboration

and efficient communication etc.) suitable to handle crisis situations. (Bashir, H. & Jan, M.A. 2021)

more how men could perform.

In this regard there is the studio of BCEC<sup>18</sup> linked to the WGEA, in which “find a strong and convincing causal relationship between increasing the share of women in leadership and subsequent improvements in company performance” (WGEA, 2020). It is necessary underline that in this case the leadership positions considered, which influences the casual relationship, are the board representation, and the most senior leadership tier, especially the figure of a female CEO.

Across the world the situation doesn’t change in a considerable way, as can be observed in Figure 23 below, but it is surely improved.

This is mainly due to the fact that the majority of the developed countries in the last years have

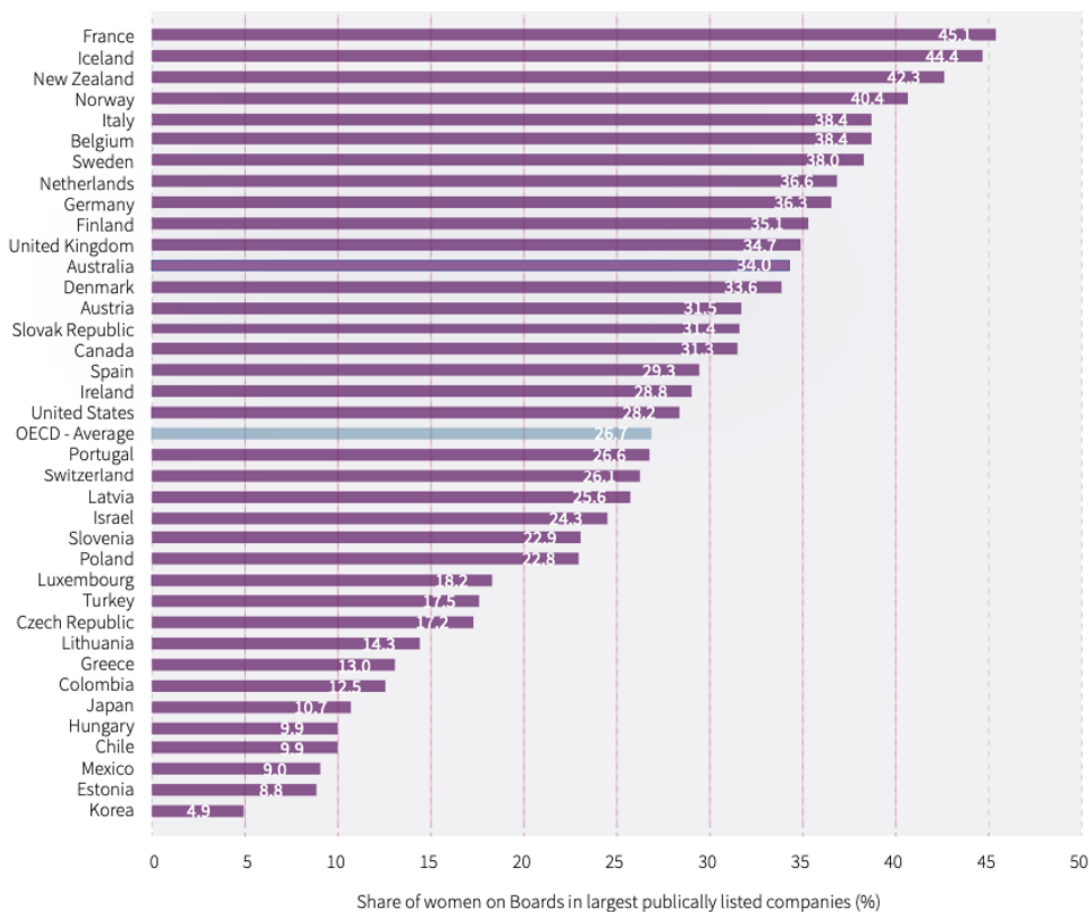


Figure 23: Share of women on Board, largest publicly listed companies, OECD, 2020  
 Source: Bankwest Curtin Economics Centre | OECD Employment Dataset

<sup>18</sup> Bankwest Curtin Economics Centre

introduced some specific regulations about the percentage of female workers needed within an industry, corporation etc.

Concerning Italy, the so called “Quote Rosa” legislation is effective since 2011. The main purpose of this law is to reduce the gender gap in the workforce through the introduction of a minimum number of women that must be included in the staff of an organization.

The need and the request of this legislation category came because of the very low percentage of women in the politic sector and, more generally, in power roles.

Figure 23 above illustrates that France possesses the highest level of female representation in management positions, in fact 45% of Board positions of the largest public companies are led by women, it is followed by Iceland with 44.4%, New Zealand with 42.3%, Norway with 40.4%; and in fifth place there are Italy and Belgium with 38.4%.

Therefore, in Italy the introduction of several legislations with respect to increasing the female portion in high-level management roles has been effective, the country is among the top positions, and surely it is greater than the OECD average, which is 26.7%.

This low average points between the OECD countries illustrates that gender equality is long way off. Some ways to try achieving equality can be: encouraging measures such as voluntary targets, disclosure requirements and private initiatives that enhance gender diversity on boards and in senior management of listed companies; complementing such efforts with other measures to support effective board participation by women and expand the pool of qualified candidates; continuing to monitor and analyze the costs and benefits of different approaches – including voluntary targets,

disclosure requirements or boardroom quotas – to promote gender diversity in leadership positions in private company ([OECD, 2013](#)).

The same proposal should be applied in public and politics sectors, at all levels, from the local authorities to the highest governmental and parliamentary positions.

Over the years, there has been an enormous increase in the number of ways for gender discrimination, a lot of procedures, techniques are unfortunately utilized in order to hinder women' career's advancements.

It can be interesting better appraise them and the impact caused by them in our society.

First of all, one compelling concept can be the so-called “broken rung”, term defined by LeanIn.org.

This concept gives a name to an even more usual practice, in fact it defines the fact that even more women remain blocked at the entry-level positions and fewer women become managers.

Furthermore, it can be used to describe, more in detail, barriers hindering women from reaching the first level of managerial positions, hence resulting in women remaining at the entry level position far longer than men. ([Mc Kinsley, 2019](#)).

Despite this fact, allowing to access to the upper-level positions is not an equal right for women and men, it is preferred having a man CEO, or Senior Manager, but this is a great loss.

In fact, according to Mc Kinsley, compared with men at the same level, women are doing more support their teams and advance diversity, equity and inclusion effort. ([Mc Kinsley, 2021](#))

### **3. CHAPTER 3: THE EMPIRICAL ANALYSIS OF GENDER DIFFERENTIATION IN ITALY USING THE CICO MICRODATA.**

#### **3.1 INTRODUCTION TO THE CICO DATASET**

Before understanding the CICO dataset, it is necessary fully know what a dataset is in practice. The set or the collection of a data is called dataset. In this regard, the definition of the OECD in the “Glossary of Statistical Terms” indicates an organized collection of data.

However, there are different types of datasets, used for different purposes, the one considered in the following analysis is the statistical dataset.

This last one can be defined as a data set is any permanently stored collection of information usually containing either case level data, aggregation of case level data, or statistical manipulations of either the case level or aggregated survey data, for multiple survey instances<sup>19</sup>.

As regard the analysis carried out, the data analysis of this study consists in examination of CICO microdata. The acronym of CICO is “Campione Integrato delle Comunicazioni Obbligatorie”, it is one of the two tools made available by two public organs: the Ministry of Labor and Social Policy and INPS.

Starting from April 2013, those two government bodies furnished two elementary data files for analysis and evaluation of the evolution of the labor market, for research purpose.

The data files provided are LoSai file and CICO file. The first one is the acronym for “Longitudinal Samples INPS” and concerns a sample of employees and self-employed from the INPS database, which traces individual work histories up to 2019, with an update to 2020 for the integrated contribution statement, while the CICO file is about a sample of employees and parasubordinated extracted from the Statistical Information System of Mandatory Communications, supplemented by events of self-employment taken from the INPS achieves.

This latter dataset is the one used for the analysis in this chapter.

---

<sup>19</sup> This definition has been made by the United States Bureau of the Census, Software and Standards Management Branch, Systems Support Division in the labor “Survey design and statistical methodology metadata” published in August 1998.



Clearly, the access to files is not available to anyone, in fact it may only be required for the implementation of a specific research project by research belonging to organizations recognized as Comstat Research Body based on predeterminate criteria or listed of research organizations recognized by Eurostat, in the Regulation (EU) n° 557/2013. Organizations which can be taken into consideration and to be considerate a research institution are the universities and their internal research structure, research entities, and their internal research structures and the private or public institutions, as for example scientific societies, with their internal research structures.

Furthermore, each organization that is eligible for access needs to fill out several requests and forms, sent them to the Bureau of Statistics of the Ministry of Labor and Social Policy and once office has examined the request and all the needed criteria, it will submit the outcome of the assessment to the Comstat for the approval. Then, if the procedure has success, the positive outcome will communicate to the applicant organization, if not the reasons for the negative outcome will communicate as well. Therefore, it is difficult to have access to this kind of data, that is very valuable.

This is because the Ministry of Labor and Social policy carries out statistical analysis on the labor market, social security and social protection, all sensitive data, the result of studies by different organizations.

In fact, the statistical production of the Ministry is coordinated by the Office of Statistics, incardinated in Division III of the General Secretariat, in conjunction with the National Statistical System (SISTAN), as regulated by Legislative Decree No. 322/1989, which provides the country and international bodies with official statistical information. The statistical activity is carried out not only by the General Secretariat, but also directly by the Directorates General of the Ministry. In particular, that deriving from the Statistical Information System of Mandatory Communications (SISCO) is managed by the Directorate General for Information Systems, Technological Innovation, Data Monitoring and Communication ([Ministero del Lavoro e delle Politiche Sociali \(\(sito del Ministero, non è presente l'anno\)\)](#))).

As mentioned before, the following study has been possible thanks to the CICO microdata. They show several observations putting them in relation to a large number of variables.

The variables take into consideration are related to different fields of the labor market, in the specific they are 56, as for instance, the following:

- the number of the year of birth of the employees,
- the gender identification of the employees (1 is for men and 2 for women),
- 3 different variables to identify the region of birth, the residence region, and the work region of the employees,
- a code for the recognition of the nationality of the employees,
- a number which identifies the qualification of the employees,
- the code of the sector of the employees and the one of the professional qualification,
- the start date of the work relationship and the end date of the work relationship if ended,
- the reason of the ended relationship of the employees,
- the code of facilitation of the employees when it is present,
- the classification of the employees on the basis of the INPS categorization,
- the expected monthly remuneration.

The analysis starts from the initial dataset of the CICO which includes 4,844,184 observations and the 56 variables mentioned above.

In this specific study, the year 2019 is considered as a bargaining year, and the reason is that the focus of the study is on the 2020, year of the COVID-19 crisis.

The main objective of this analysis is understanding in which way the pandemic has affected the already existing gender gap, if there are evidence of the increasing or decreasing of the gap between males and females at the workplace. Obviously, not all the variables have been considered, in fact the study is focalized on the following ones:

- the start date of the work relationship of the employees,
- the end date of the work relationship if ended,

- the code used for the gender identification of the employees (1 is for men and 2 for women),
- the code for the professional qualification

More in detail, this chapter will analyze, in the first part, the turnovers rate between male and women, and in the second one it will concentrate on the gender gap in management positions, before and immediately after the worldwide pandemic.

The adverb “immediately” is used because the CICO dataset of the year 2020 includes the first three trimesters, and not the whole year. So, during the following study the comparison between the two years will take place for 9 months on 12: from January to September, unless otherwise clearly specified. In this way the comparability will be more effective.

Furthermore, the analysis has been carried out through the RStudio software. It is a statistical package, and it is used to manipulate a significant quantity of data, as in this case.

In the 1970s this software of data analysis has been created at the Bell Laboratories, with the name of “S” (the S stands for the statistical use for which it was created), changed in a second moment to “RStudio”.

The language of RStudio is a GNU project and it is characterized by an open-source license.

### **3.2 ANALYSIS OF THE TURNOVER RATE IN 2019 AND 2020**

#### *Hires and terminations divided by months*

The study starts with the comprehension of the movements of hiring and firing.

To analyze the female firing rate and the male one, data collected by the CICO have been divided into 2 principal subsets: the total firings happened in 2019 and the total firings of the 2020.

When it is talking of total firing, or hiring, during this thesis the months included into the analysis are from January to September, in order to have a more reasoned and effective comparison. This is due to the fact that the CICO microdata of the year 2020 have been available till the third trimester, as specified at the beginning of the current chapter.

SUMMARY FIRING TABLE	
TOTAL FIRING 2019	1,120,453
FEMALE FIRING 2019	489,570
MALE FIRING 2019	630,883
TOTAL FIRING 2020	915,574
FEMALE FIRING 2020	396,313
MALE FIRING 2020	519,261

*Table 9: Comparison total firings divided by gender in the years 2019 and 2020*

As it is shown in Table 9, total firings of 2019, in absolute terms, are major than the ones happened in 2020. Female terminations of 2019 are 489,570 and the rate corresponds to the 43,69% of the whole firings in the same year, while the terminations of employment of the women in 2020 is 43,29%, which they are 396,313. So, the percentage of 2020 is lower of 0.40% than the one of 2019. One of the reasons of this result can be explained through the maneuver of the “Blocco dei Licenziamenti” introduced by the Italian Government in the first stage of the beginning of the COVID-19 pandemic, on 2020, March, 17<sup>th</sup>. This political and emergently action was introduced with the Article 41 of the Legislative Decree number 18/2020, for extraordinary and exceptional reasons regarding the measures taken to deal with the COVID emergency. The aim of this decree is to preserve the level of employment by prohibiting dismissal on objective grounds. Apart from that, the topic of this Legislative Decree is undoubtedly more complex and articulate, and this analysis will not enter into the merits of the question.

Concerning the years taken into consideration, if they are divided and studied by months, it is effortless to note that the trend of the women’s firing is similar.

This concept is underlined in Figures 24 and 25 below: the male and female trends of both years seem to be analogous: the female terminations start under the value 50,000 of the y-axis and they reach the highest peak in June, in order to decrease in July and to increase again in August and, especially, in September. The only difference is about the lower point of the line, which is in February for 2019 and in April for 2020.

On the other hand, the firing trend of men, even if it is similar for what regards the starting position

### TERMINATION OF EMPLOYMENT DIVIDED BY GENDER YEAR 2019

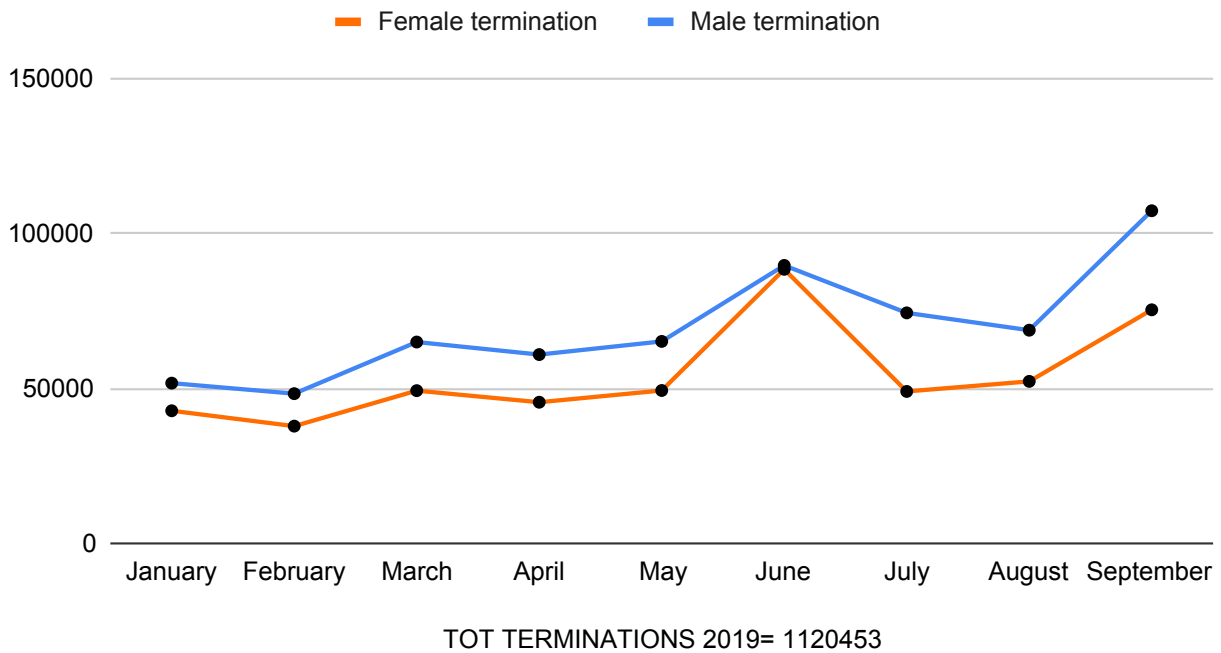


Figure 24: Monthly trend of terminations of employment divided by gender, year 2019

slightly greater than the value 50,000 on the y-axis and the highest peak in September, it presents some differences in the two years considered.

### TERMINATION OF EMPLOYMENT DIVIDED BY GENDER YEAR 2020

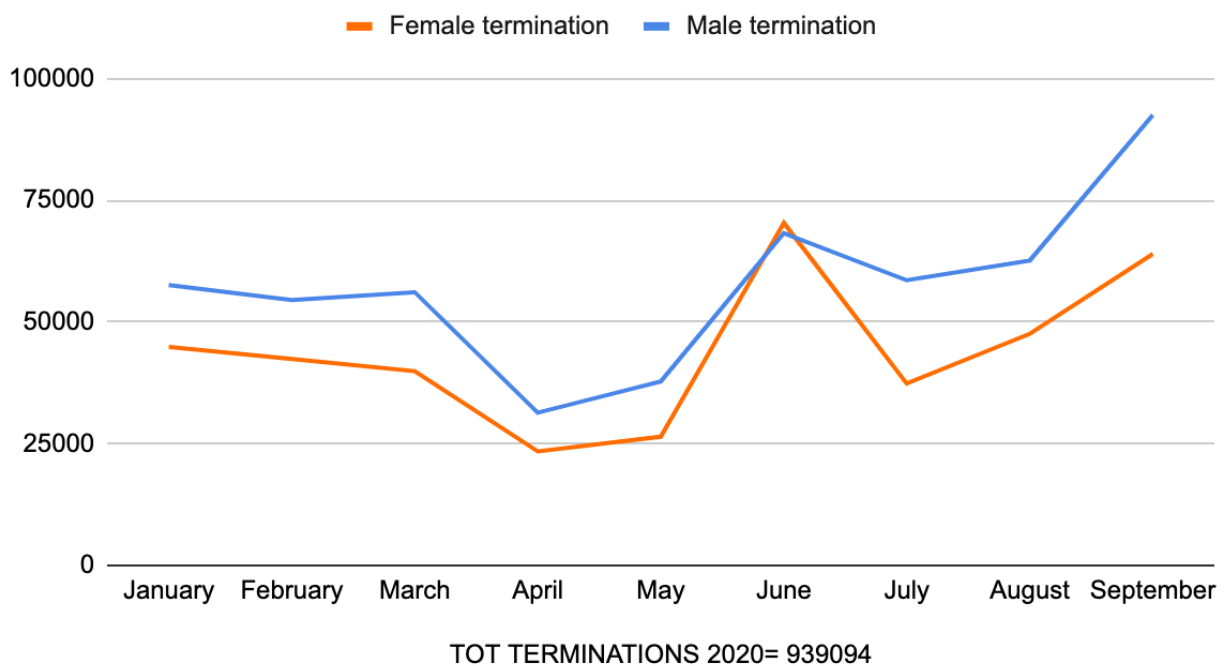


Figure 25: Monthly trend of terminations of employment divided by gender, year 2020

In fact, in the year 2019 the lowest point is in April, while in 2020 it is in February.

Figure 24 shows that the greater increase of the male termination is from August to September with an extension of 38,530 more men fired, while concerning Figure 25 above the major increase is from May to June with an extension of 33,443.

Concerning the hiring, Table 10 shows the recap of the total hiring of 2019 and 2020, divided per gender too. As it is observable the hires of 2020 are more than double than the hires in 2019.

This behavior is confirmed also for what concerns the gender division, so it can be affirm that the trend for the hires is homogenous between the two years analyzed.

SUMMARY HIRINGS TABLE	
TOTAL HIRING 2019	220,207
FEMALE HIRING 2019	94,943
MALE HIRING 2019	125,264
TOTAL HIRING 2020	497,715
FEMALE HIRING 2020	211,537
MALE HIRING 2020	286,178

*Table 10: Comparison total firings divided by gender in the years 2019 and 2020*

Nonetheless, the trend shown in Figures 26 and 27 highlights homogeneity between the two genders of the same year.

In fact, the female hiring line and the male hiring line in Figures 26 are characterized by a really

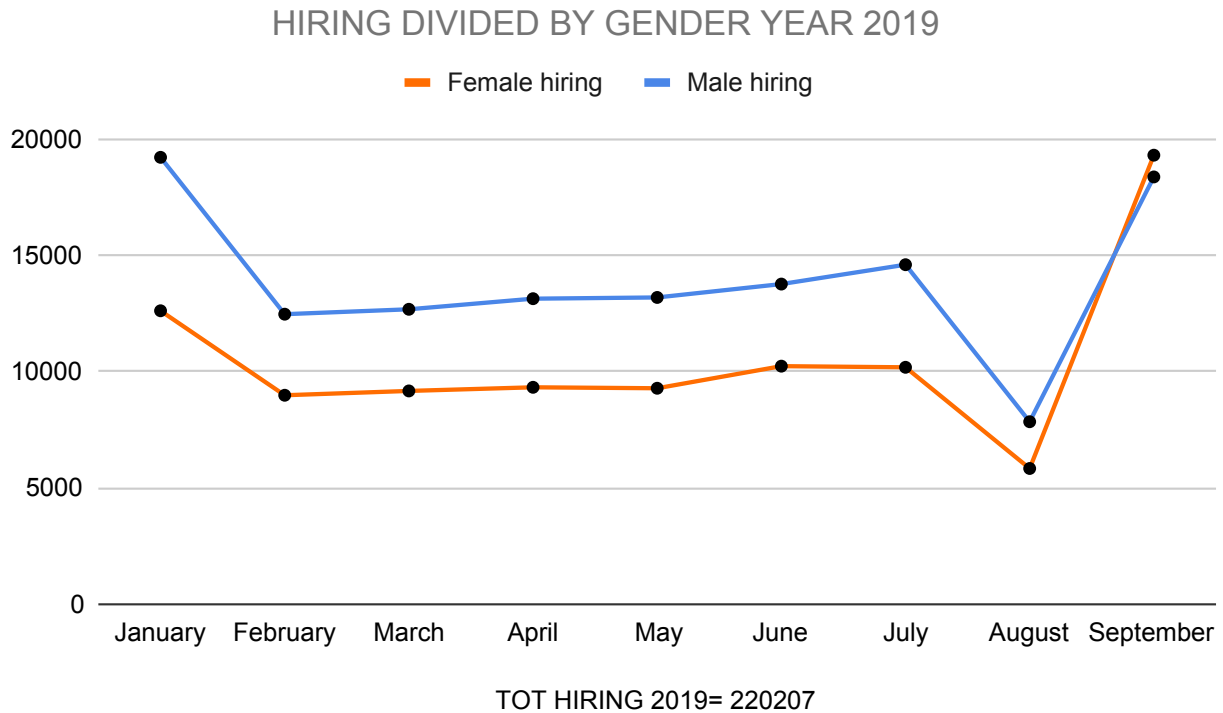


Figure 26: Monthly trend of hiring of employment divided by gender, year 2019

similar movements: the month with the lower hires value is August for both genders, the first decreasing is set to February for both, and from February to July there is a slightly constant grow, till August. One difference can be the starting points of the two lines: the male starting line is almost at value 20,000 in the y-axis (19,213), while the female one is at value 12,616 in the y-axis.

Moreover, another interesting dissimilarity is set at the end of the line, in fact in September the female hires line has its greatest peak, while for what concerns the male hiring line, it shows that between August and September it has been a significant increase, but the greatest peak is in January.

Therefore, it can be affirmed that for the reasons above mentioned, in absolute terms, the female hires are grew more than the male ones.

Then there is the situation of hires in 2020, observable in Figure 27. Here it is shown the trend of both genders.

Already at first sight, it is possible to capture the similarity between the two trends:

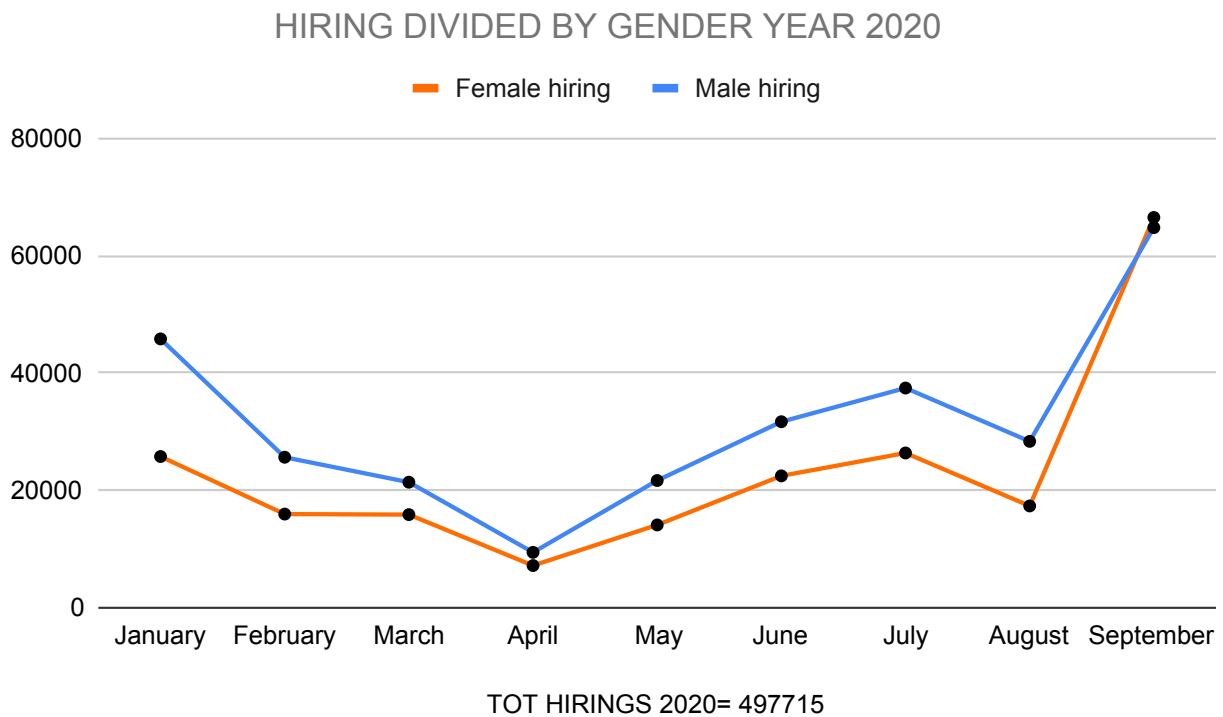


Figure 27: Monthly trend of hiring of employment divided by gender, year 2020

the highest peaks are in September, while the lowest points are characterized by April, May and March, respectively.

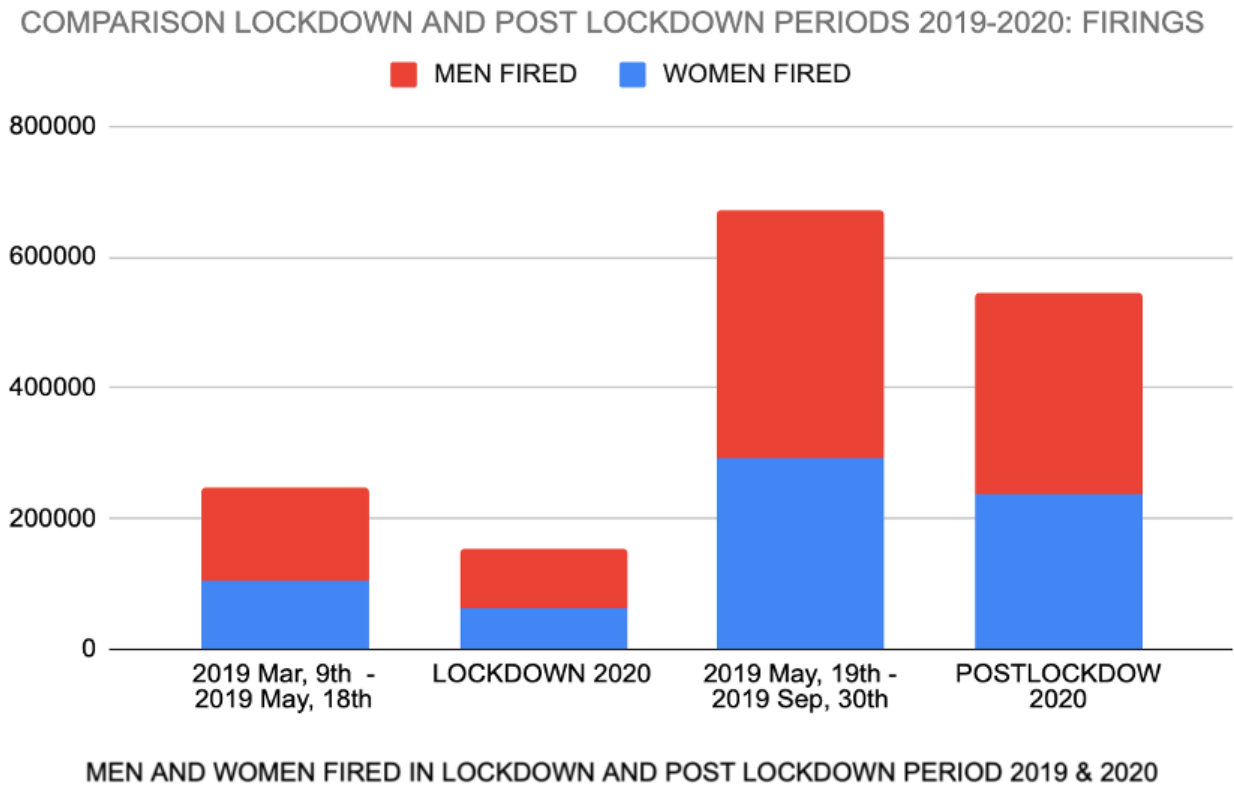
This situation reflects what really happened in our Country between March, April and May 2020: the lockdown period due to the COVID-19 pandemic.

#### Hires and terminations divided by COVID periods

In this regard, the analysis has been carried out dividing the study into lockdown periods too. The division is composed by: the lockdown period is from March, 9<sup>th</sup> to May, 18<sup>th</sup>; while the post lockdown period is from May, 19<sup>th</sup> to the end of September. This is done for both years.



Figure 28 illustrates that in general, the whole firing in 2019 in the lockdown period have been higher than the one in the same period of 2020 (first two columns of the Figure 28); this decrease is true for the post lockdown period too.



*Figure 28: Comparison firings during lockdown and post lockdown period 2019 and 2020*

Another interesting aspect is that this diminution also applies to the gender subset: the men fired in 2019 are more than 2020 in lockdown and post lockdown period; the same is for the women. On the contrary, analyzing the hires in 2019 and 2020 during the lockdown and post lockdown periods, the situation is reversed.

The total men and women hired in the period March, 9<sup>th</sup> and May 18<sup>th</sup>, in the 2019, are less than the ones hired in the same period 2020, and the same is for the post lockdown period.

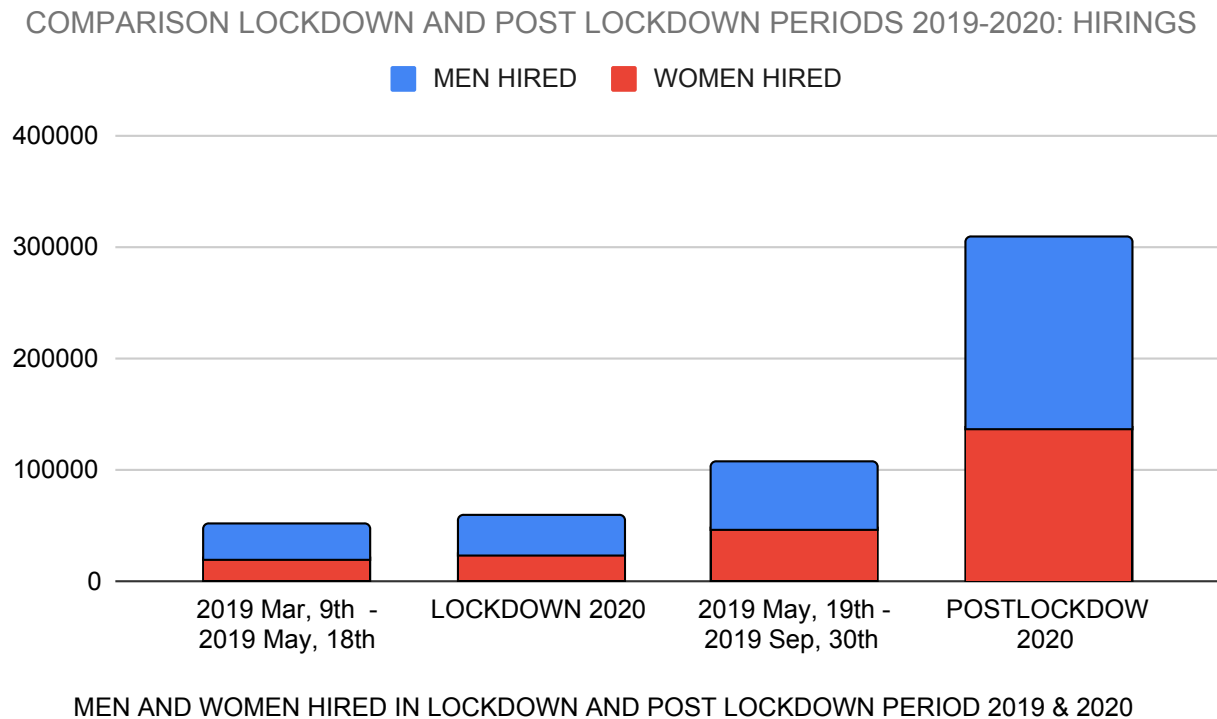


Figure 29: Comparison hires during lockdown and post lockdown period 2019 and 2020

This is respected also if the analysis focuses on the gender differentiation, as it is shown in Figure 29.

The interesting aspect is that the growth in the post lockdown period 2020 is very significant, the total hires reach more than 300,000.

### 3.3 ANALYSIS OF HIGH PROFESSIONALITY POSITIONS: HIRING AND FIRING DURING THE LOCKDOWN AND POST LOCKDOWN PERIODS OF 2020. COMPARED WITH THE HIRING AND FIRING OF THE SAME PERIODS OF 2019.

The principal aim of this analysis is understanding the changes due to the COVID-19 pandemic in the labor market, from the point of view of management positions, between men and women.

In other words, if the share of women hired or fired in high professionalism position is increased or decreased with the development of the COVID crisis from one year to the following one.

The definitions of the highest positions are described in the CICO legend of its microdata. For the current study the high positions considered are the ones which have a specific code of professional qualification: the codes which start with numbers “1” and “2” are considered in their totality, while the ones which started with “3” are considered in part.

To be more specific, the high professionalism positions with the code “1” include the highest positions in the whole Italian country, as for instance:

- Members of governing bodies and assemblies with legislative and regulatory powers at national, regional, provincial, sub-provincial and municipal level;
- Ambassadors, Ministers and diplomatic career leaders;
- Directors of the ordinary judiciary (Courts, Courts of Appeal, Court of Cassation);
- Directors of local school offices, superintendents of national cultural heritage and equivalent;
- Entrepreneurs and managers of large companies;
- Managers and general managers of companies;
- Managers and directors of the most important departments;
- Entrepreneurs and managers of small businesses;

While, the high professionalism positions which start with the code “2” include other important roles in the Country, as for example the following:

- Physicists and astronomers;
- Chemists and related professions;
- Mathematicians, statisticians and related professions;
- Software analysts and designers;
- System designers and administrators;
- Geologists, meteorologists, geophysicists and related professions;
- Engineers;
- Architects and planners;
- Solicitors and lawyers;

- Legal experts in companies or public bodies;
- Notaries;
- Magistrates;
- Specialists and researchers;
- Academics and Professors;

Moreover, as above mentioned, the high professionalism positions characterized by the starting code with “3” not all of them are considered for the purposes of the analysis, the ones taken into consideration are the following:

- Physical and geological technicians;
- Chemical technicians;
- Statistical technicians;
- Statistical technicians;
- Programmer technicians;
- Technical experts in applications;
- Web technicians;
- Technical operators of databases;
- Technical operators of networks and telematic systems;
- Radio and television broadcasting and telecommunications technicians;
- Other engineers in engineering and related sciences;
- Mechanical engineers;
- Metallurgical-mining and ceramics technicians;
- Electrotechnical;
- Electronic technicians;
- Civil engineering and related professions;
- Energy saving and renewable energy technicians;
- Industrial designers and related professions;

- Technicians operating continuous production plants;
- Technicians operating water and energy networks;
- Medical and diagnostic equipment technicians;
- Production technicians in mines and quarries;
- Construction site management technicians;
- Technicians in manufacturing production;
- Production and food preparation technicians;
- Technicians for the production of services;
- Masters and officers on board;
- Commanders and pilots of aircraft;
- Civil aviation technicians;
- Railway traffic organization technicians;
- Technicians of the organization of the harbour traffic;
- Medical and diagnostic equipment technicians;
- Safety technicians for installations;
- Safety at work technicians;
- Environmental control and remediation technicians;
- Technicians of folk medicine;
- Technicians of popular medicine;
- Agronomists and forestry technicians;
- Zootechnics;
- Biochemical technicians and related professions;
- Technicians for the transfer and processing of information;
- Correspondents in foreign languages and related professions;
- Technicians of the organization and the management of the productive factors;
- Technicians in financial management;

- Technicians in banking work;
- Other commercial distribution technicians and related trades;
- Accommodation technicians and related professions;
- Technicians for the organization of fairs, conferences and cultural events;
- Technicians of the organization of broadcasting, film and theatre production;
- Technicians in museums, libraries and similar professions;
- Restorers Technicians;
- Technicians of the organization of broadcasting, film and theatre production;
- Technicians in the judicial services;
- Officers of the state police;
- Commanders of fire brigades and fire brigades;
- Finance officers;
- Tax inspector technicians;
- Public service technicians in licensing and similar professions.

At this regard, from the CICO dataset it has been extrapolated the three groups above mentioned needed for the study and sum them to have a unique group which it is the case of the three professional qualifications codes. For simplicity, starting from this point of the thesis, these codes will be named “CODE 1”, “CODE 2” AND “CODE 3”.

For what concern the terminations happened in 2019 and 2020, divided by COVID periods, the two years have been studied from the point of view of gender division, as it is shown from Figures

30 and 31. The graphs show the fired and hired people in high professionalism positions in 2019 and

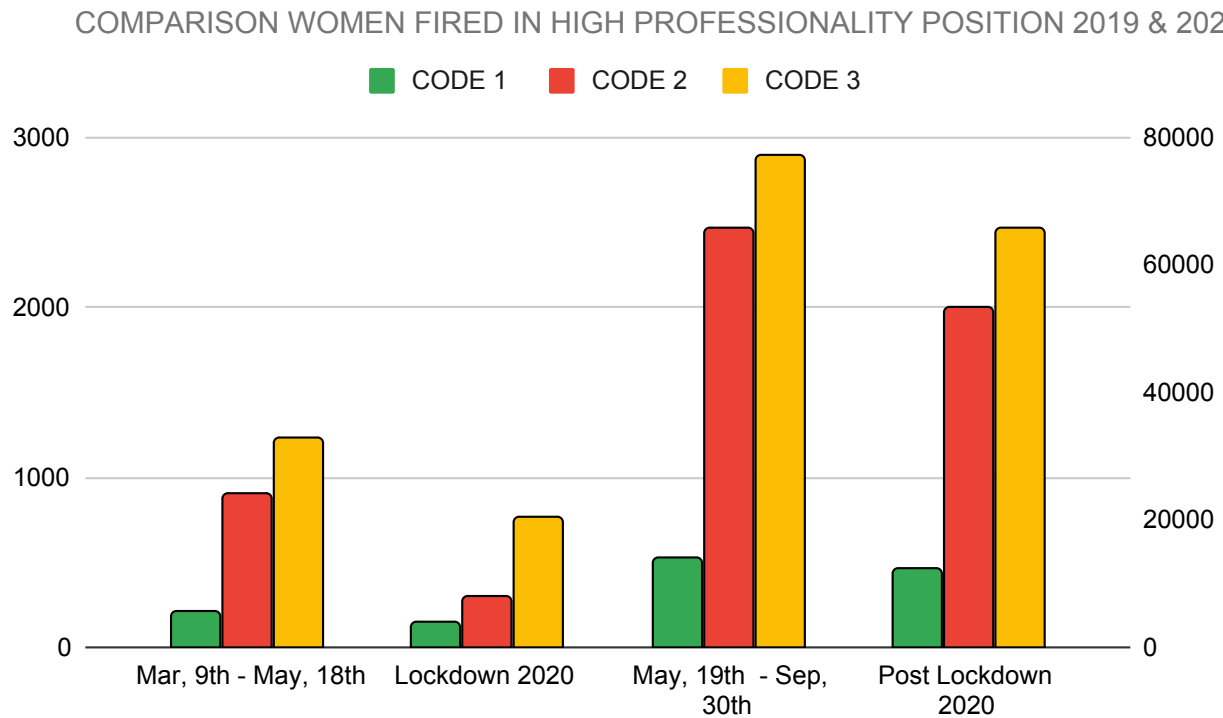


Figure 30: Comparison fired women in high professionalism position, years 2019 and 2020

2020, compared by gender.

An important aspect to underline is that the graphs present three axis, and the vertical one on the right is referred only to the CODE 2.

From the figures it is observable that the CODE 2 professional qualifications are the most common both for women and men.

Another interesting point is that and for women and for men, from the first period highlighted, starting from the left of the graph (which is from March, 9<sup>th</sup> 2019 to May, 18<sup>th</sup> 2019), to the lockdown period of 2020, the result of the data collected and analyzed shows a decrease for all the professional qualification codes.

## COMPARISON MEN FIRED IN HIGH PROFESSIONALITY POSITION 2019 & 2020

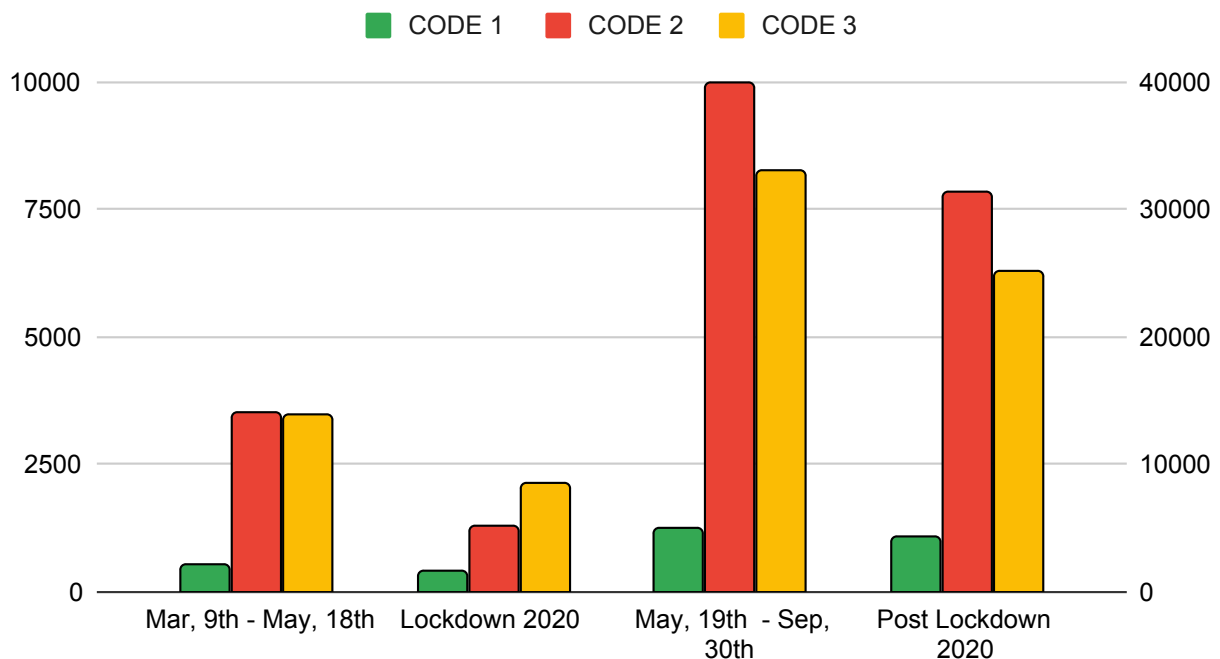


Figure 31: Comparison fired men in high professionalism position, years 2019 and 2020

The same thing happens for what concerns the relation of the post lockdown period of 2020, with respect to the same period of 2019, which it is from May, 19<sup>th</sup> to September, 30<sup>th</sup> it is simple to note that also in this case there is a diminution of high professionalism positions both for women and men.

On the contrary, for what concerns the hires, in Figures 32 and 33 it can be observed that from the period considered of 2019 (May, 19<sup>th</sup> – September, 30<sup>th</sup>) to the post lockdown period of 2020 there is a significative growth both for women and men in all high professionalism roles taken into consideration, but the most consistent increase regards the CODE 2 positions; which is the only one code referred to the third axis in the graphs.

The behavior of the two genders is similar also by comparing the lockdown period of 2020 with the same period of 2019. Both genders present a slight increase in CODE 2 positions: women’s hires grow from 1,254 of 2019 to 1,387 of lockdown 2020 period, while men’s ones have increased from 1,688 in 2019, to 1,872 in the same period of 2020. In additions, for what regards the CODE 1 and CODE 3 roles, they have suffered a slightly decrease for both genders.



COMPARISON WOMEN HIRED IN HIGH PROFESSIONALITY POSITION 2019 AND 2020

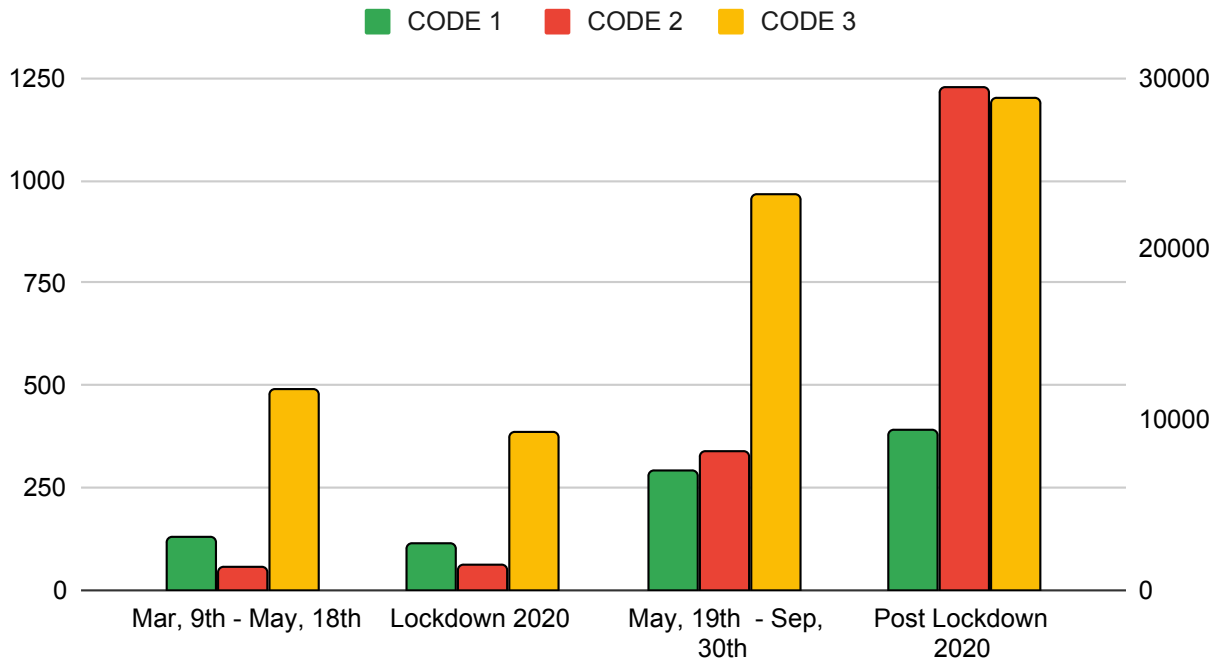


Figure 32: Comparison hired women in high professionalism position, years 2019 and 2020

COMPARISON MEN HIRED IN HIGH PROFESSIONALITY POSITION 2019 AND 2020

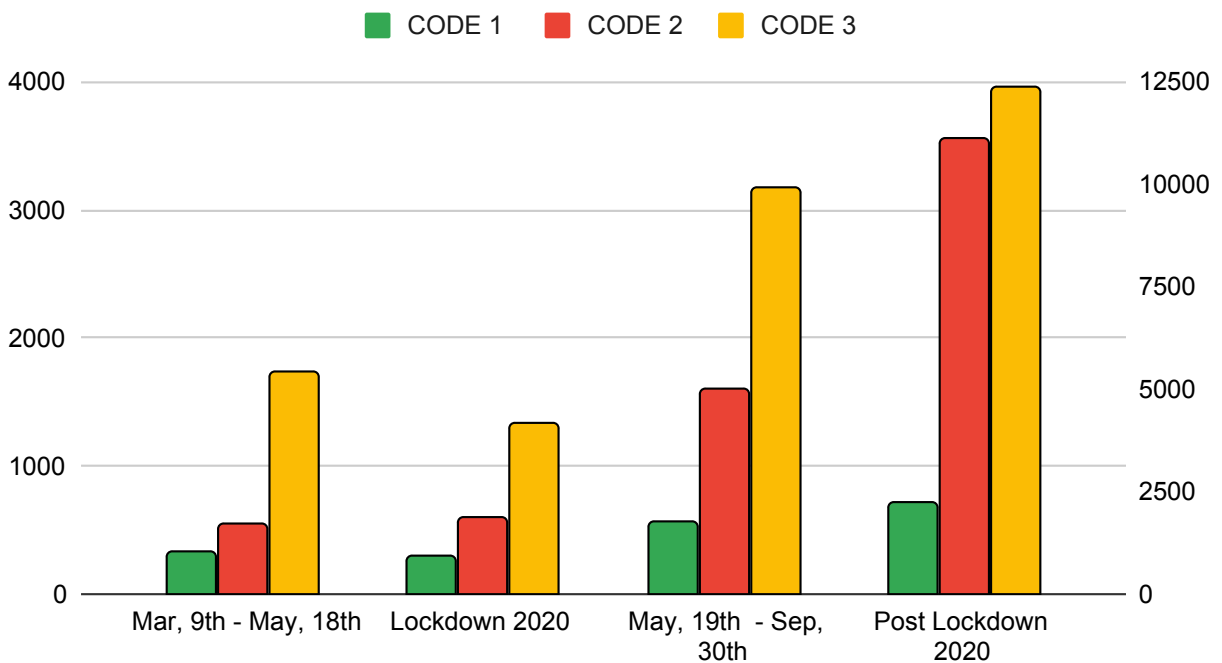


Figure 33: Comparison hired men in high professionalism position, years 2019 and 2020

Therefore, in order to conclude the comparison between men and women in firings and hiring of 2019 and 2020, it can be affirmed that the positive trend is detained by the hires with respect to the firings, at least, regarding the periods considered.

Moreover, the turnovers comparison between men and women in the two years studied can be carried out in percentage and not in absolute terms, to be more effective.

Figures 34 and 35 below represent the comparison in percentage terms of women and men fired in

COMPARISON IN PERCENTAGE WOMEN AND MEN FIRED IN HIGH PROFESSIONALITY POSITIONS IN 2019

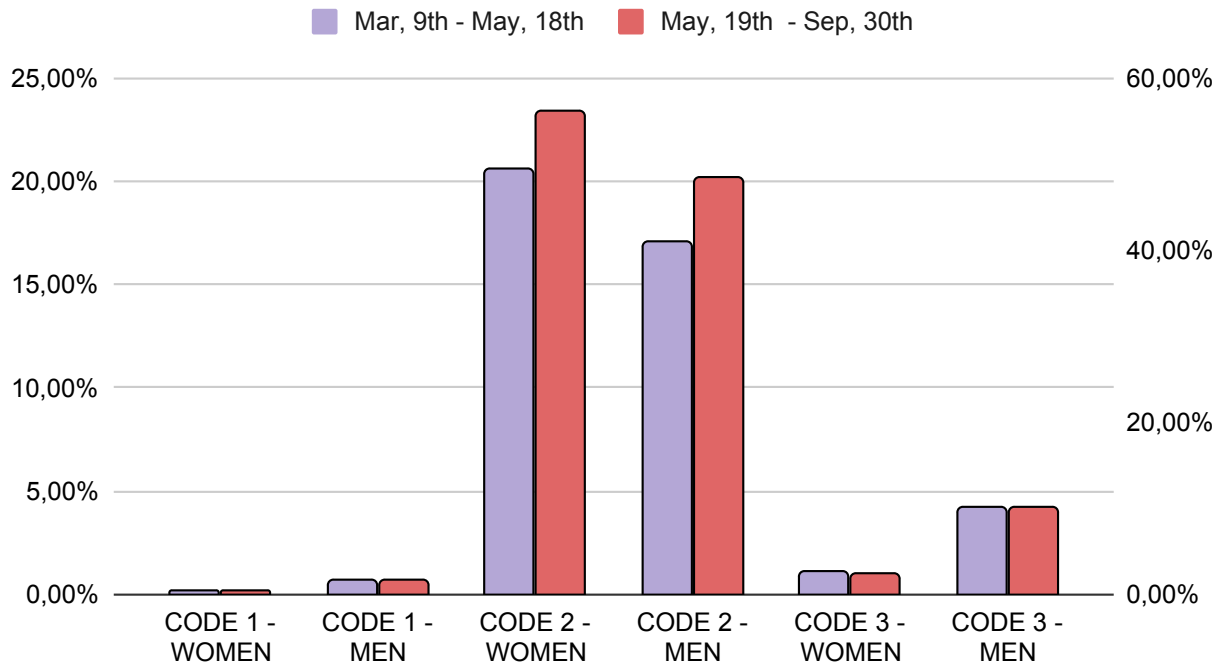


Figure 34: Percentage comparison of women and men fired in high professionalism position, years 2019

COMPARISON IN PERCENTAGE WOMEN AND MEN FIRED IN HIGH PROFESSIONALITY POSITIONS IN 2020



Figure 35: Percentage comparison of women and men fired in high professionalism position, years 2020

high professional positions considered in 2019 and 2020.

Also in this case, the CODE 2 roles are referred to the vertical axis on the right of the graph.

In Figures 34 and 35 it is possible to evince that the CODE 2 positions are the greatest not only in absolute terms, as shown in the above paragraphs, but also in percentage terms.

Here, the aim is understood what are the gender differences in terms of high professionalism positions from one year to the other.

Concerning the CODE 1, the study has demonstrated that the gender difference for firings in the year 2019 in the period March, 9<sup>th</sup> to May, 18<sup>th</sup> is -0.44%, while for the same period in 2020 is -0.49% the calculation has been obtained subtracting the male percentage to the female one.

To be more comprehensive, in Tables 11 and 12 there are the differential divided per year, and per period.

2019 - Firing	DIFFERENTIAL Mar, 9th - May, 18th	DIFFERENTIAL May, 19th - Sep, 30th
CODE 1 W-M	-0.44%	-1.07%
CODE 2 W-M	3.49%	7.64%
CODE 3 W-M	-3.18%	-7.55%

Table 11: Differential percentage in firings, 2019

2020 - Firing	DIFFERENTIAL Lockdown	DIFFERENTIAL Post Lockdown
CODE 1 W-M	-0.49%	-1.16%
CODE 2 W-M	0.63%	10.69%
CODE 3 W-M	-2.50%	-7.21%

Table 12: Differential percentage in firings, 2020

Therefore, concerning the period of 2019 March, 9<sup>th</sup> – May, 18<sup>th</sup> with respect to the period of Lockdown 2020, the CODE 1 the differential percentage is increase of 0.04%, while for the CODE 2 is decreased of 2.86% and for the CODE 3 is decrease of 0.68%.

Instead, concerning the period of 2019 May, 19<sup>th</sup> - September 30<sup>th</sup> with respect to the Post Lockdown period of 2020, the differential percentage of CODE 1 is increase of 0.9%; the CODE 2 is increase of 3.05% and the CODE 3 is decrease of 0.34%.

The same analysis has been carried out for the hires, and as it is shown in Tables 13 and 14, the

2019 - Hiring	DIFFERENTIAL Mar, 9th - May, 18th	DIFFERENTIAL May, 19th - Sep, 30th
CODE 1 W-M	-0.89%	-1.03%
CODE 2 W-M	0.34%	30.99%
CODE 3 W-M	-6.15%	-10.78%

Table 13: Differential percentage in hiring, 2019

2020 - Hiring	DIFFERENTIAL Lockdown	DIFFERENTIAL Post Lockdown
CODE 1 W-M	-0.80%	-1.58%
CODE 2 W-M	-3.26%	38.10%
CODE 3 W-M	-3.95%	-11.57%

Table 14: Differential percentage in hiring, 2020

behavior is quite the contrary, at least for what concerns the period March, 9<sup>th</sup> – May, 18<sup>th</sup> of 2019 with respect to Lockdown period of 2020: in fact, the CODE 1 is decreased of 0.09%, the CODE 2 is increased of 2.92% and the CODE 3 is 2.2%.

Instead, concerning hiring in the period of 2019 May, 19<sup>th</sup> - September 30<sup>th</sup>, all the codes are increased with respect to the Post Lockdown period of 2020, more specifically, the CODE 1 is increased of 0.55%, CODE 2 of 7.11% and CODE 3 of 0.79%.

### 3.4 THE CORE OF THE ANALYSIS

In this last section of the thesis is held the core of the whole study, but before starting it, it is necessary to make some specifications.

The periods take into consideration are the same of the last paragraph.

About 2019:

- March, 9<sup>th</sup> to May, 18<sup>th</sup> 2019
- May, 19<sup>th</sup> to September, 30<sup>th</sup>, 2019

About 2020:

- Lockdown period of 2020 (from March, 9<sup>th</sup> to May, 18<sup>th</sup>, 2020)
- Post lockdown period (from May, 19<sup>th</sup> to September, 30<sup>th</sup>, 2020)

This division has been defined in order to respond to the following questions:

- 1) Has the share of women employed in high professionalism positions changed on the total number of managerial roles employed during the lockdown period and post lockdown periods?
- 2) Has the share of women hired in high professionalism positions changed on the total number of female managerial roles employed during the lockdown and post lockdown periods?
- 3) Has the share of women's terminations in high professionalism positions changed on the total number of managerial roles fired during the lockdown period and post lockdown periods?
- 4) Has the share of women's terminations in high professionalism positions changed on the total number of female managerial roles fired during the lockdown and post lockdown periods?

At the end of this study, all the answer will be found and explained.

The variables used to analyze the data are defined as follow.

$$Y_t X_n Z$$

where:

- Y=F, M represents female or male gender;
- t=19, 20 indicates the years analysed which can be 2019 or 2020;
- X=M signifies the management position;
- n specifies the period: #1 is for March, 9<sup>th</sup> – May, 18<sup>th</sup> period and #2 is for May, 19<sup>th</sup> – September, 30<sup>th</sup> period;
- Z= H, F is binary and H describes hiring while F describes firing;

In the first place, it is going to analyze the hiring field. In this regard it is useful to make some assumptions.

At this point, the analysis can start, in the first moment with the hires and then with the terminations. Regarding the hires, this thesis is trying to answer to the question #1 and #2, asked at the beginning of this paragrapher.

*#1 Has the share of women employed in high professionalism positions changed on the total number of managerial roles employed during the lockdown period and post lockdown periods?*

In this case, the data which are taken into consideration, in order to understand the changes during the lockdown periods are described in Table 15 below.

	<b>WOMEN</b>	<b>MEN.</b>
<b>2019</b>	1868	3742
<b>2020</b>	1883	3498

*Table 15: Women and men employed in management positions in the lockdown period.*

Now it can be possible carried out the changes during the lockdown period:

$$[W_{20}M1H / (W_{20}M1H + M_{20}M1H)] - [W_{19}M1H / (W_{19}M1H + M_{19}M1H)] =$$

$$= [1883 / (1883 + 3498)] - [1868 / (1868 + 3742)] = +1.70\%$$

The result is positive, and this signifies that during the lockdown period the probability that the person hired in high professionalism positions is a woman has increased of 1.70%.

The same procedure can be applied to the post lockdown period, with the following variables in Table 16 below.

	<b>WOMEN</b>	<b>MEN.</b>
<b>2019</b>	9354	8709
<b>2020</b>	31006	3498

Table 16: Women and men employed in management positions in post lockdown period.

Using the same process:

$$[W_{20}M2H / (W_{20}M2H + M_{20}M2H)] - [W_{19}M2H / (W_{19}M2H + M_{19}M2H)] =$$

$$= [31006 / (31006 + 15743)] - [9354 / (9354 + 8709)] = +14.54\%$$

Also in this case, the result is positive, and this marks that during the post lockdown period the probability that the person hired in high professionalism positions is a woman has increased of 14,54%.

Now, it is possible to answer to the question number 2.

*#2 Has the share of women hired in high professionalism positions changed on the total number of female managerial roles employed during the lockdown and post lockdown periods?*

	<b>TOTAL</b>	<b>MAN. POS.</b>
<b>2019</b>	20702	1886
<b>2020</b>	23569	1883

Table 17: Total women hires and women's hiring in management positions in lockdown period.

Here, for what concerns the changes during the lockdown period the considered variables are set in Table 17 above.

The procedure in this case is:

$$[W_{20}M1H / W_{20}1H] - [W_{19}M1H / W_{19}1H] = [1883 / 23569] - [1868 / 20702] = -1.03\%$$

This negative result suggests that during the lockdown period the probability to be hired in high professionalism positions, among women, is decreased of 1.03%.

As before, the same procedure has to be applicated for the post lockdown period with the following variables listed in Table 18 below.

	TOTAL	MAN. POS.
2019	47902	9354
2020	137834	31006

Table 18: Total women hires and women's hiring in management positions in post lockdown period.

$$[W_{20}M2H / W_{20}2H] - [W_{19}M2H / W_{19}2H] = [31006 / 137834] - [9354 / 47902] = 2.97\%$$

In this case, contrary to the previous lockdown period result, this one is positive and signify that during the post lockdown period, the probability to be hired in high professionalism positions, among women, is increased of 2.97%%.

The same process has been carried out for what concerns the terminations.

The question to be answered is number 3.

*#3 Has the share of women's terminations in high professionalism positions changed on the total number of managerial roles fired during the lockdown period and post lockdown periods?*

About the lockdown period the variables examined are defined in the Table 19 below.



	<b>WOMEN</b>	<b>MEN</b>
<b>2019</b>	25442	18027
<b>2020</b>	8616	7644

Table 19: Women and men fired in management positions in lockdown period.

Now, the calculation is the same for the hires, (question #1):

$$\begin{aligned}
 & [W_{20}M1F / (W_{20}M1F + M_{20}M1F)] - [W_{19}M1F / (W_{19}M1F + M_{19}M1F)] = \\
 & = [8616 / (8616 + 7644)] - [25442 / (25442 + 18027)] = - 5.54\%
 \end{aligned}$$

This negative result demonstrates that during the lockdown period, the probability that the person fired is a woman is decreased 5.4%.

While, concerning the post lockdown period, the variables considered are listed in Table 20 below.

	<b>WOMEN</b>	<b>MEN</b>
<b>2019</b>	68959	49385
<b>2020</b>	56061	38598

Table 20: Women and men fired in management positions in post lockdown period.

$$\begin{aligned}
 & [W_{20}M2F / (W_{20}M2F + M_{20}M2F)] - [W_{19}M2F / (W_{19}M2F + M_{19}M2F)] = \\
 & = [56061 / (56061 + 38598)] - [68959 / (68959 + 49385)] = 0.95\%
 \end{aligned}$$

The result is positive, and this proves that during the post lockdown period, the probability that the person fired is a woman is increased 0.95%.

At this point, it is possible to answer to the question number four.

#4 Has the share of women's terminations in high professionalism positions changed on the total number of female managerial roles fired during the lockdown and post lockdown periods?

	TOTAL	MAN. POS.
<b>2019</b>	106181	25442
<b>2020</b>	64103	8616

Table 21: Total women fired and women's firing in management positions in lockdown period.

About the lockdown period, the variables used into the analysis are set in Table 21 above.

The process:  $[W_{20M1F} / W_{201F}] - [W_{19M1F} / W_{191F}] = [8616 / 64103] - [25442 / 106181] = -10.52\%$

This solution signifies that during the lockdown period the probability to be fired in high professionalism positions, among women, is decreased 10.52%.

On the other hand, about the post lockdown period, the variables taken into consideration are listed in Table 22 below.

	TOTAL	MAN. POS.
<b>2019</b>	106181	68959
<b>2020</b>	237286	56061

Table 22: Total women fired and women's firing in management positions in post lockdown period.

The same process carried out for what concerns the lockdown period can be applied to the post lockdown one:

$$[W_{20}M2F / W_{20}2F] - [W_{19}M2F / W_{19}2F] = [56061/237286] - [68959/106181] = 0.16 \%$$

This positive result demonstrates that during the post lockdown period, the probability to be fired in high professionalism positions, among women, is increased by 0.16 %.

## CONCLUSION

Undoubtedly, the COVID-19 crisis has had a very large impact globally, both from an economic and healthcare perspectives. These impacts have distributed unequally between women and men.

This study emphasized the differences in the workplace suffered by women, in terms of unpaid care work, balance between home and work, gender wage gap and the unequal distribution of management roles.

In fact, the entire analysis carried out represents an index of the changes made by the arrival of COVID-19, with a focus on gender perspective.

In greater detail, this analysis tried to argue gender distinctions in high level positions in the workplace, one of the most unequal aspects between female and male employees. It also makes a comparison between 2019, here considered as a year of benchmarking, with respect to the lockdown and post lockdown periods of 2020.

The principal aim has been the understanding of the changes from a female perspective on how the COVID-19 pandemic has affected women in management positions.

The data needed for the study are from the CICO dataset, and it have been processed through the RStudio software platform in order to have a clear understanding of the trend in our country for what concerns the impact of COVID-19 in female high-level roles.

The analysis suggested that the hiring in management positions is mostly positive for the female workforce, in fact during lockdown and post lockdown period the probability that a woman was hired in high professionalism positions, among the total hiring, is increased respectively of 1.7% and 14.54%, with respect to the same periods of 2019.

Instead, if it is considered only the female hires, the lockdown period presents a decrease of probability of 1.03% with respect 2019; while, for what concerns the post lockdown period, for a woman the probability increases of 2.97% to be hired in high-level roles.

On the other hand, analyzing total firings, the probability that the person fired was a woman, is decreased of 5.54% for the lockdown period, and it is increased of 0.95% in the post lockdown period, with respect the period considered of 2019.

Differently from the hiring, the firing analysis among women, carried out also two indicators. The first one is negative and it represents that the share of women fired in managerial positions, on the total number of female high-level roles terminations, is decreased of 10.52% in the lockdown period of 2020 with respect 2019, while the second one is positive and it signifies that comparing the same period of 2019 with the post lockdown period of 2020, among women, the probability to be fired in high professional positions, is increased by 0.16%. However, although the share of being firing, among women presents an increment, it is very slight. Therefore, it is whatever a great result.

The result of the analysis suggests that there is a general improvement of the female workforce in managerial positions, especially for what concerns the post lockdown period of 2020, which is from May, 18<sup>th</sup> to the end of September. This is valid both for hiring and firing.

To conclude, it is possible to state that at the present time women in the labor market have been more considered than in the past decades, including in high-level positions.

The results reflect the improvements occurred in within the global community. It is sufficient considering the last presidential election of the United States of America, for the first time in the history, a woman Kamala Harris, holds the figure of Vice President, one of the most powerful and important roles in the world. In European context, there are many examples of the gender equality improvements too, as for instance the President of the European Commission, Ursula Gertrud Von Der Leyen, serving in that capacity from December 2019; the Chancellor Angela Merkel has been in office for 17 years; the President of BCE, the French Christine Lagarde who succeed the President Mario Draghi since the 2019, November, 1<sup>st</sup> and the most recent example in Europe, Roberta Metsola, who has been in office since last January, 11<sup>th</sup>, of the current year as the President of the European Parliament.

All the above-mentioned women represent a hope for gender equality in high-level positions, and they should be considered as examples that something is changing globally, in the mindset of the worldwide population. Nevertheless, gender equality is still far off, but women are slowly taking power and are fighting to for their fare share.

The road will still be long, but we are on the right path.

## References:

- Baldwin and Weder Di Mauro, 2020;
- Peterson K Ozili, Thankom Arun; *Spillover of COVID-19: Impact on the global economy*, March 30, 2020;
- Anton Jäger, Steven Klein, *Coronavirus against the market*, Tribune, March 28, 2020;
- D. Del Boca, N. Oggero, P. Profeta, M.C. Rossi; *Women's Work, Housework and Childcare, before and during COVID-19*, June 2020;
- Caselli et al. 2020;
- Baruch 2000;
- Labour and Employment Ministerial declaration, G20, 2021;
- K. M. Kniffin et al., *COVID-19 and the workplace: implications, issues, and insights for future research and action*, June 5<sup>th</sup>, 2020;
- Bloise & Johnson, 2007;
- Kessler & McLeod, 1984;
- B. A. Gerhart, G. T. Milkovich, *Salary, salary growth, and promotions of men and women in a large, private firm*; New York State School of Industrial and Labour Relations, 1987;
- J. Rubery, A. Koukiadaki; *Closing the gender pay gap: a review of the issues, policy mechanisms and international evidence*; ILO, Gender, equality and Diversity Branch, 2016
- *Letter from David Malpass, President of WBG*, 2020;  
([https://www.ifc.org/wps/wcm/connect/corp\\_ext\\_content/ifc\\_external\\_corporate\\_site/annual\\_report/leadership-perspectives/dm-letter/ar20-wbg-president-letter](https://www.ifc.org/wps/wcm/connect/corp_ext_content/ifc_external_corporate_site/annual_report/leadership-perspectives/dm-letter/ar20-wbg-president-letter))
- Stephanie Von Friedeburg, Podcast, June 24, 2020;  
(<https://www.worldbank.org/en/news/video/2020/06/24/development-podcast-the-coronavirus-lockdown-impact-on-companies-and-jobs>)
- Daniela Roche, *Agenda 2030 and the Sustainable Development Goals: gender equity at last? An Oxfam perspective*; February 24, 2016;

- D. Del Boca, N. Oggero, P. Profeta, M.C. Rossi, *WOMen's work, housework and childcare, before and during COVID-19*, Cesifo, June 2020;
- L. ford *COVIDchildcare crisis reversing decades of women's economic progression*, Report, The Guardian, March 8, 2021;
- Interview of Rafael Diez de Medina<sup>20</sup>, January 2020;
- Gaby Hinsliff, The Guardian, December 10, 2020;
- Contreras et al. 2020, Kossek et al. 2006, Fonner and Roloff 2010; Coenen and Kok 2014; Anderson et al. 2015;
- International Classification of Activities Time-Use statistics (ICATUS), 2016;
- Leah Rodriguez, *Unpaid care work: everything you need to know*, Global Citizen, 2021; (<https://www.globalcitizen.org/en/content/womens-unpaid-care-work-everything-to-know/>)
- Ryan Brown, Hany Mansour, Stephen O'Connell, *Closing the Gender Gap in Leadership Positions: Can Expanding the Pipeline increase Parity?*, IZA Institute of Labor Economics, 2018;
- Elissa Sangster, *The leadership gender gap is beyond repair, it's time to reinvent*, Forbes, 2019;
- Chakraborty, Serra, *Gender and leadership in organizations: promotions, demotions and angry workers*, 2021;
- K. J. Herrema, *Entrepreneurship for social change: a study on how women social entrepreneurs navigate embedded cultural social and economics norms*, UST Research Online, 2017;
- Bashir, H. & Jan, M.A. (2021). Political apprenticeship and women leadership in a patriarchal society Nasim Wali Khan's political strive through acquired skills. Liberal Arts and Social Sciences International Journal (LASSIJ), 5(1), 320-337, 2021;

---

<sup>20</sup> ILO Chief Statistician



- Irawanto, Novianti, Roz, *Work from home: measuring satisfaction between work-life balance and work stress during the COVID-19 pandemic*, MDPI, 2021;
- Ferrant, Pesando, Nowocka, *Unpaid care work, the missing link in the analysis of gender gaps in labour outcomes*, OECD Development Centre, December 2014;
- Mc Kinsley, *Women in the Workplace*, 2019;
- ECD for the G20 Empower Alliance, *Policies and Practices to Promote Women in Leadership Roles in the Private Sector*, 2020;
- Blau and Kahn, *The gender wage gap: extend, trends, and explanations*, Journal of Economic Literature, 2017;
- United States Bureau of the Census, Software and Standards Management Branch, Systems Support Division, Survey Design and Statistical Methodology Metadata, Washington D.C., August 1998, Section 3.3.7, page 14;
- Ministero del Lavoro e delle Politiche Sociali, Governo Italiano:  
<https://www.lavoro.gov.it/documenti-e-norme/studi-e-statistiche/Pagine/default.aspx>
- G. Ferrant, L. M. Pesando, K. Nowacka, *Unpaid care work: the missing link in the analysis of gender gaps in labour outcomes*, OECD Development Centre, 2014;
- Gender Equity Insights 2019, WGEA, Gender Equity Series, 2019
- OECD, *The Pursuit of Gender Equality*, 2017

## Bibliography:

- Adams-Prassl “*Inequality in the Impact of the Coronavirus shock: evidence from real time surveys*”, 2020;
- Istat, *Esame del disegno di legge S.S. 1766*, conversione in legge del decreto-legge 17 marzo 2020, n.1;
- Banca D’Italia, *Bollettino economico* 1/2021;
- M. Fana, S. Torrejón Pérez, E. Fernández-Macías, *Employment impact of COVID-19 crisis: from short term effects to long terms prospects*, Journal of Industrial and Business Economics, 2020;
- Y. Baruch, N. Nicholson; *Sweet Work: requirements for effective home working*, 1997
- A. I. Tavares, *Telework and health effects review, and a research framework proposal*, CEISUC, 2015;
- A. Belzunegui-Eraso, A. Erro-Garcés; *Teleworking in the context of the COVID-19 crisis*, MDPI, May 1<sup>st</sup>, 2020;
- J. B. Carnevale, I. Hatak; *Employee adjustment and well-being in the era of COVID-19: implications for human resource management*, Journal of Business Research, 2020;
- D.J Kelley, C. G. Brush, P. G. Greene, Y. Litovsky, 2010, *Women’s Report*, GEM, 2010
- EUROSTAT Digital publication, *La vita delle donne e degli uomini in Europa, un ritratto statistico*, Edition 2017, ISTAT 2017;
- Bluedorn, Caselli, Hansen, Shibata, Tavares, *Gender and employment in the COVID-19 Recession*, IMF Working Paper Research Department, March 2021;
- Ferrant, Pesando, Nowocka, *Unpaid care work, the missing link in the analysis of gender gaps in labour outcomes*, OECD Development Centre, December 2014;
- Mc Kinsley, *Women in the Workplace 2021*, September 27,2021;
- J. Charmes, *The Unpaid Care Work and the Labour Market. An analysis if time use data based on the latest World Compilation of Time-use Surveys*, ILO 2019;

- Chakraborty, Serra, *Gender and leadership in organizations: promotions, demotions and angry workers*, 2021;
- Chauhan, Mishra, *Barriers to career advancement of women: role of mentoring and networks*, International Journal of Economics and Business Research, Vol. 22, No 4, 2021;
- S. T. A. Phippis, L. C. Prieto, *Leaning in: A historical perspective on influencing women's leadership*, July, 2020;
- R. Cassells R. and Duncan A. (2021), *Gender Equity Insight 2021: Making it a priority*, BCEC|WGEA Equity Series, Issued #6, March 2021;
- Focus 2030, *Gli ostacoli all'uguaglianza di genere*, 2021;
- OECD (2017), *2013 OECD Recommendation of the Council on Gender Equality in Education, Employment and Entrepreneurship*, OECD, Publishing, Paris;
- Sustainable Development Goals Indicators, United Nations;
- Van Meel, Juriaan, *The origins of new ways of working: Office concepts in the 1970s*, 2011

## Figures References:

- Figure 1: Jobs gender gap in the world, 2015;  
Source: Women at work, ILO.
- Figure 2: PIL Projections;  
Source: analysis on data from Banca D'Italia and ISTAT.
- Figure 3: Last two economic global crisis in comparison;  
Source: IMF, World Economic Outlook.
- Figure 4: Sectoral employment changes by gender (2020:Q2 versus 2019);  
Source: IMF Working Paper, 2021 – Bluedorn, Caselli, Hansen, Shibata, Tavares
- Figure 5: The Four Factors of Telework;  
Source: Baruch and Nicholson.
- Figure 6: Mean time spent on daily unpaid care activities by employed women and men, 2015;  
Source: EIGE, calculation based on EWCS 2015 data.
- Figure 7: Mean time spent on daily unpaid care activities by employed women and men, by country in the EU – 28, 2015;  
Source: EIGE, calculation based on EWCS 2015 data.
- Figure 8: Employment rate between women and men in the working age (15 – 64 years) in Europe;  
Source: ISTAT, Eurostat.
- Figure 9: Employment rate between women and men in the working age (15 – 64 years) in Europe with one child;  
Source: ISTAT, Eurostat.
- Figure 10: Employment rate between women and men in the working age (15 – 64 years) in Europe with three or more children;  
Source: ISTAT, Eurostat.
- Figure 11: Global comparison employment rate 2011 and 2020

Source: OECD, 2020

- Figure 12: Inequalities in unpaid care work and in wages;

Source: World Economic forum, World Bank (2014), World Development Indicators and OECD (2014), Gender Institutions and Development Database.

- Figure 13: Employment rate and part time quotas of the population 15-64 years old divided by gender – 2014 (% values);

Source: Eurostat, European Labor Force Survey.

- Figure 14: Time spent working by type of work paid out on an average weekly of the population 20-74 years old in European countries by gender;

Source: Eurostat, Indagine armonizzata europea, Uso del tempo – Edizione 2018.

- Figure 15: Unpaid work (minutes per day);

Source: European Commission, DG Justice.

- Figure 16: Unpaid work (minutes per day);

Source: European Commission, DG Justice.

- Figure 17: Gender Gap Pay, measured in percentage;

Source: Eurostat (online data code: SDG\_05\_20)

- Figure 18: Gender Gap;

Source: ILOSTAT.

- Figure 19: Share of women on Boards and as a Board Chair;

Source: Bankwest Curtin Economics Centre – WGEA Gender Equality data 2014 to 2020.

Board directors includes both board members and chairs.

- Figure 20: Projected time to achieve equality for the higher management roles;

Source: WGEA, 2019.

- Figure 21: Difference between women and men in upper managerial positions, in 2010;

Source: Sustainable Development Goal Indicators

- Figure 22: Difference between women and men in upper managerial positions, in 2018

Source: Sustainable Development Goal Indicators

- Figure 23: Share of women on Board, largest publicly listed companies, OECD, 2020

Source: Bankwest Curtin Economics Centre – OECD Employment Database.

- Figure 24: Monthly trend of terminations of employment divided by gender, year 2019;
- Figure 25: Monthly trend of terminations of employment divided by gender, year 2020;
- Figure 26: Monthly trend of hiring of employment divided by gender, year 2019;
- Figure 27: Monthly trend of hiring of employment divided by gender, year 2020;
- Figure 28: Comparison firing during lockdown and post lockdown period 2019 and 2020;
- Figure 29: Comparison hires during lockdown and post lockdown period 2019 and 2020;
- Figure 30: Comparison fired women in high professional positions, year 2019 and 2020;
- Figure 31: Comparison fired men in high professional positions, year 2019 and 2020;
- Figure 32: Comparison hired women in high professional positions, year 2019 and 2020;
- Figure 33: Comparison hired men in high professional positions, year 2019 and 2020;
- Figure 34: Percentage comparison of women and men fired in high professional positions, years 2019;
- Figure 35: Percentage comparison of women and men fired in high professional positions, years 2020;

## Tables References:

- Table 1: Salary of men and women in the 1986;  
Source: Barry A. Gerhart, George T. Milkovich, 1987.
- Table 2: Gender Gap Pay, measured in percentage, increases with the increasing of the women age;  
Source: Eurostat (online data code: earn\_gr\_gpgr2ag)
- Table 3: List of indicators of gender gap index;  
Source: EIGE.
- Table 4: Gender Equity Index result, 2010;  
Source: EIGE data, 2010.
- Table 5: Gender Equity Index Result, 2018;  
Source: EIGE data, 2018.
- Table 6: Gender pay gap among occupations and over time, 2014 to 2020;  
Source: Bankwest Curtin Economics Centre – WGEA Gender Equality data 2014 to 2020.
- Table 7: Gender gap in Europe in management positions 2000 – 2020;  
Source: Sustainable Development Goals Indicators, United Nations.
- Table 8: Share of women on CEO and management positions, full-time workers, 2014 to 2018;  
Source: Bankwest Curtin Economics Centre – WGEA Gender Equality data 2014 to 2020.
- Table 9: Comparison total firing divided by gender in the years 2019 and 2020;
- Table 10: Comparison total hiring divided by gender in the years 2019 and 2020;
- Table 11: Differential percentage in firing, 2019;
- Table 12: Differential percentage in firing, 2020;
- Table 13: Differential percentage in hiring, 2019;
- Table 14: Differential percentage in hiring, 2020;
- Table 15: Women and men employed in management positions in lockdown period;

- Table 16: Women and men employed in management positions in post lockdown period;
- Table 17: Total women hires and women's hiring in management positions in lockdown period;
- Table 18: Total women hires and women's hiring in management positions in post lockdown period;
- Table 19: Women and men fired in management positions in lockdown period;
- Table 20: Women and men fired in management positions in post lockdown period;
- Table 21: Total women fired and women's firing in management positions in lockdown period;
- Table 22: Total women fired and women's firing in management positions in post lockdown period;