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Free Labour and Precariat.
Work at the Time of the Fourth Industrial
Revolution.

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Abstract

Volatile, incerto, complesso ed ambiguo è il mondo che ci circonda oggi, soprattutto a livello socioeconomico; l'innovazione tecnologica che a grandi passi sta introducendo il supporto della robotica in sempre più settori dell'operato umano non fa altro che corroborare la teoria che il *technological unemployment*, ossia la disoccupazione causata dal progresso tecnologico, sia il peggior nemico del lavoratore o neo-lavoratore di oggi. Inoltre, ciò che fino a venti anni fa si poteva considerare parte dei sistemi di protezione sociale, oggi non è più garantito; lavoratori e neo-lavoratori sono obbligati a reinventarsi per far fronte a barriere sempre più alte alle possibilità di guadagno e di standard di vita decenti. Innovazione tecnologica e progresso scientifico sembrano più inclini a promuovere la crescita delle grandi compagnie incrementando i profitti e abbassando i costi, piuttosto che assistere i lavoratori fornendo loro una maggiore libertà di movimento e alleggerendo il carico lavorativo medio. I dati a disposizione appoggiano questo sentimento comune? Come è potuto accadere ciò? Come si è sviluppata la storia perché si potesse giungere a questa situazione?

Poiché la questione non potrebbe apparire più grave, questo testo tenta di rispondere ai quesiti posti adottando insegnamenti e scoperte di alcuni tra i più importanti economisti, storici, sociologi, antropologi e filosofi di questo e del passato secolo. Tra gli autori i cui scritti hanno contribuito maggiormente alla stesura di questo testo figurano i nomi di Thomas Piketty, Joseph Stiglitz, Erik Brjuniolfsson, Martin Ford, Guy Standing, David Harvey, Naomi Klein, per non menzionare tutte le istituzioni nazionali e internazionali i cui report statistici hanno aiutato a suddividere in percentuali le società di oggi, i loro bisogni e la loro natura. Dati e tabelle giungono direttamente da ricerche sui diversi settori analizzati nei capitoli che seguono e sono utili per una maggiore comprensione dello status quo oltre a illustrare potenziali soluzioni per il problema. Questa tesi si impegna a sfatare il mito della

disoccupazione causata dal progresso. Evidenziando come a modellare l'universo lavorativo e di seguito anche le società di oggi siano presenti forze concomitanti al progresso tecnologico e altrettanto potenti, come la globalizzazione e la finanza rapace inserite nei sistemi economici mondiali, il testo suggerisce in chiusura una serie di iniziative utili e radicali per risolvere il problema della disoccupazione che opprime il mondo di oggi. Fa da intermezzo il caso specifico del nascente settore della *Gig Economy*, attività di lucro basata sul mondo delle App, che sempre più segue le logiche nocive delle economie moderne.

Da una panoramica delle passate rivoluzioni industriali che rimodellarono il mondo per come lo conosciamo oggi, l'attenzione va più nel particolare descrivendo come le società basate su economie internazionali siano cambiate, quali problemi cittadini, lavoratori e non, debbano affrontare e quali manovre chiave possono effettivamente raggiungere il benessere sperato. Quella che si è voluta sviluppare è un'analisi ampia e generale dello stato delle cose, che in nessun caso pretende di avere le uniche risposte valide per i problemi descritti ma che, in compenso, raccoglie opinioni e contributi e sviluppa pensieri su come funziona e come viene sfruttata l'innovazione tecnologica, come circola e dove fluisce il denaro, come si divide la società per classi salariali e cosa l'ambiente economico moderno permette e non permette; tutto ciò per elaborare un'idea di cosa danneggi i lavoratori di oggi e quelli futuri, quali possibilità essi abbiano e da quali benefici vengano tagliati fuori.

Il primo capitolo tratta delle rivoluzioni industriali. In questa sezione vengono descritte le innovazioni tecnologiche e gli effetti che hanno avuto sulle popolazioni, come le grandi migrazioni dalle campagne alle città o la necessità di creare sistemi logistici e di gestione societari per i grandi carichi di capitale, soldi e lavoro che le economie richiedevano, con contributi da autori come David S. Landes e William G. Constable. Si passa poi ad una descrizione più dettagliata della società della terza rivoluzione industriale, la

rivoluzione digitale, che ha cambiato il mondo del lavoro e in generale la vita delle persone in modo radicale; con contributi da autori come Joseph Stiglitz e Thomas Piketty, l'analisi chiarisce quali siano le nuove forze economiche globali dagli anni '80 a oggi, quale sia la percezione comune del mondo e come il reddito venga distribuito sia nelle economie europee che in quella statunitense. L'innovazione tecnologica, uno degli assi del cambiamento, viene analizzata nell'ultima sezione, descrivendo come sia possibile la disoccupazione causata dalla tecnologia, dove ciò accada e dove ancora l'operato umano è necessario e le macchine non riescano ad arrivare; i ritmi del progresso dei nostri tempi e la corsa che vede affrontarsi uomini e macchine sono descritti grazie all'aiuto delle opere di autori come Martin Ford, Andrew McAfee e Erik Brynjolfsson. Chiude il primo capitolo, una digressione sul mondo delle app, su come è nato, su come si stia sviluppando e su quali possibilità possa creare o stia già creando.

Il secondo capitolo passa ad esaminare la prima delle due grandi famiglie del lavoro di oggi: il lavoro indipendente. Report provenienti da enti come il *McKinsey Global Institute* aiutano ad evidenziare le minacce che questa famiglia di lavoratori, che ha visto aumentare sensibilmente i suoi numeri negli ultimi decenni, deve affrontare come ogni altro settore lavorativo; la flessibilizzazione del lavoro, l'assottigliarsi delle remunerazioni così come delle garanzie, per quanto quelle per i lavoratori indipendenti potessero essere già poche e la doppia natura di questo ambiente diviso tra coloro che vi si introducono per scelta e quelli che sono costretti per necessità ad entrarci, sono solo alcune delle tematiche trattate. Essendo quello della *Gig Economy* un settore caratterizzato ambigualmente da lavoro indipendente e non, fa da seguito una disamina approfondita sulla questione; l'Organizzazione Internazionale del Lavoro, *MBO Partnes*, la *Federal Reserve* e altri istituti hanno fornito i dati utili a comprendere quale sia la situazione all'interno di questo nascente settore e cosa ci si debba aspettare. L'area di studio comprende nuovamente gli Stati Uniti e l'Unione Europea dove il fenomeno sta

avendo maggior seguito, dove la natura dei contratti per i lavoratori di questo settore si sta dimostrando vaga e ingiusta e dove sempre i lavoratori non hanno a disposizione garanzie sufficienti e subiscono maltrattamenti sia dai datori che dai clienti utenti delle *app*, come si può notare nell'ultima sezione sui processi legali riguardanti la *Gig Economy*.

Il terzo capitolo è incentrato sul lavoro dipendente, la famiglia di lavoro più a rischio al giorno d'oggi, dove le certezze e la possibilità di crearsi un futuro mancano sempre più. Il lavoro dipendente ha subito forti scosse sin dagli anni '80; per questa ragione, la prima sezione è dedicata al resoconto di quegli anni e di come le politiche neoliberali abbiano modificato le nazioni. L'aiuto di personalità come Milton Friedman, David Harvey e Naomi Klein è stato fondamentale per poter catturare l'essenza del cambiamento che la svolta neoliberale ha comportato nel modo in cui si considera e si vive il lavoro dipendente oggi. L'attenzione si sposta poi più nel particolare, esaminando le dinamiche psicologiche del precariato dei giorni nostri; tutto il sistema di promesse di visibilità creato dalle compagnie, di garanzie di un futuro stabile raggiungibile con grandi sacrifici e di sforzi fatti per realizzarlo viene descritto grazie a contributi provenienti da economisti e sociologi esteri come Guy Standing e Karl Polanyi, insieme a personalità italiane come il giornalista Marco Bascetta e il professore dell'Università di Pavia Andrea Fumagalli. Comprendere le caratteristiche della classe dei lavoratori dipendenti precari è la base da cui partire per pianificare una soluzione al problema e la soluzione comprende una maggiore coscienza di gruppo, libertà occupazionale, maggiori diritti del lavoro e un sistema educativo più ampio.

Fino al terzo capitolo si chiarisce quali sono e come agiscono le forze (diverse e concomitanti con il progresso tecnologico) che modellano le economie degli stati; correre contro il progresso tecnologico perde di senso quando si realizza che i motori del cambiamento sono ben altri e per smettere di considerare il progresso

una minaccia basterebbe applicare una politica di riqualifica dei cittadini efficace. Le soluzioni devono essere radicali e caratterizzate da manovre onnicomprensive di lunga durata, non temporanee come quelle che dominano la politica odierna. Una politica basata sulla redistribuzione del benessere nella società attraverso la modifica dei sistemi di tassazione e dei sistemi finanziari e sul rilancio della classe media, inseguendo la piena occupazione e il sogno di un sistema educativo che introduca efficacemente gli studenti al mondo del lavoro, può creare maggiori possibilità per tutti.

Introduction

Societies are living through a volatile, uncertain, ambiguous and complex era characterised by quick-paced innovative trends, ever-growing economies and unpredictable shifts in global and popular balances. What could have been part of social protection systems twenty years ago, nowadays is not granted anymore and workers are forced to reinvent themselves against higher barriers to earning and to fair living standards. Innovation in technology and scientific progress seem to foster enterprises and businesses, raising their profits while at the same time decreasing their costs, instead of helping those individuals in need. Is this general feeling supported by data? How could this happen? How did history unfold to come to the present situation? Since the above-mentioned topic appears as severe as it could get, especially when the hands typing these words belong to someone who is at the moment entering the working world, this dissertation tries to answer these questions by following lessons and findings of some of the most important economists, historians, sociologists, anthropologists and philosophers of the last decades. Data and charts come directly from recent studies on the different sectors analysed in the chapters and are useful to reflect the state of play as well as possible solutions to the issues. From an overview of the past industrial revolutions that shaped the world as we now know it, this piece passes to a more detailed scope of analysis describing how societies based on international economies behave today, which problems working and non-working citizens are forced to face when trying to earn a living and how these issues could be solved with a few key-moves useful to achieve the wished-for general wealth. It is a broad and generic analysis the one you are reading and in no way expects to deliver a whole-comprehensive view of the status-quo or even pretends to know the unique right ways of managing the matters of our time; this workpiece gathers opinions and contributions dealing with how innovation was and how it is now, how and where money

flows, who earns how much and what today's economic environment allows to do or not; all this to develop an overall idea of what nowadays harms workers and future workers, what possibilities they have and from what they are cut out.

The first chapter introduces the concept of industrial evolution stemming from modern capitalist economies; starting from the first one, the one that moulded western societies as they are now and formed the first business management systems as well as the first studies on infrastructures and social systems of protection; a quick portrait of the second industrial revolutions follows, introducing the concept of logistics and transportation of capitals and commodities via longer trains and greater ships for better performing businesses. The invention of transistors and of the world wide web paved the way for the third industrial revolution or the digital revolution that unfolded from the 1950's on and helped creating a vast web of interconnected parts, from businesses to populations all around the world boosting once more the pace of production, dedication and productivity of the economies. These sections develop the contributions coming from historians like David S. Landes, William G. Constable and Steven E. Schoenerr, professor from the University of San Diego. Before moving to describing what the fourth industrial revolution entails bot for companies and for workers, it appeared useful having an insight in the recent history and which prerogatives modern economies display; taking on the recent studies from major economists such as Joseph Stiglitz and Thomas Piketty, the second main section of the first chapter describes the new dynamics of capitalist economies from the 1980's to today: the major global forces that shape economic structures as well as our common knowledge and perception of the world, how wealth is and has been distributed both in Europe and the USA taken as case studies, how market powers have evolved together with the role of competition, the new dynamics of intellectual property rights' profits, the exponential growth of the financial system from the neoliberal years of the 1980's together with the new taxation systems and compensation standards from the *trickle-down economics*. The

last part of this chapter deals with the innovation brought by the fourth industrial revolution and the technological unemployment it may have caused; contributions from scientists like Martin Ford, Erik Brynjolfsson and Andrew McAfee are adopted here to challenge the position of those who say that technological unemployment exists and is due to innovation; the afore-mentioned authors recommend instead certain measures to face the upcoming of the machines; the theories of today's rhythm of progress are explained with a few anecdotes together with a dissertation on which fields of the human operativity are being unexpectedly taken by robotic activity creating more unemployment in new areas of work. Automation and how industries exploit this area of studies are the topics dealt with in the following section; agricultural industries are seeing as well the rise of robots but there are still some untouched areas that need human performance and for which the robots are still too far behind to be effective and they will be described at the end of this part. A description of the new thriving world of the Apps is developed closing the chapter; how they were born, how many users they have, how much money App developers might make and which applications in circulation are the most widespread, these are only a handful of the features touched in this last segment.

The second chapter deals with one of the two main types of job contracts that characterize modern economy: independent work; a focus on the uprising phenomenon of the Gig Economy follows. Jobs loss is felt across all kinds of work and independent contractors are surely not cut out from this trend; everyday more individuals prefer turning to independent work rather than trying themselves in a dependent contract-like work whose 9 to 5 working week is always more and more unstable. McKinsey Global Institute's reports on freelancing and independent work provided me with the sheer numbers of those who are part of this trend both in North America and in Europe, how this trend will grow and in what percentages it is divided by age and gender; the following section splits independent workers into two categories, those who do it by choice and those who

do it by necessity, describing pros and cons of this field, as well as highlighting the dark side of being forcedly tied to this sector with no hope of getting out of it. The International Labour Organization and many other institutions (e.g. The National Bureau of Economic Research, MBO Partners, the National Employment Law Project and the Federal Reserve) have helped gathering data on how things are inside the new Gig Economy and what should be expected from it; the study is again based both in US and EU where Gig Apps are having the most success; the blurred nature of the contracts of those who work inside it and how they are treated both by employers and customers is clarified in this segment along with the struggles they live through every time; some solutions are given in the end to fully grasp the needs of this workforce and to back up the already mentioned problems that this economy has, a few present legal proceedings both in EU and US are described; a short review on how things are in Italy on this side closes this chapter.

The second main type of work contract is dependent work and the third chapter takes on the topic starting from what Jeremy Rifkin wished less than twenty years ago which is that humanity might do without work thanks to technological progress; this statement is then followed by another warning by Rifkin himself on how this progress could be used for everyone's benefit or could degenerate into deep wealth gaps and social unrest; directly linked to this is the neoliberal turn of economies, the turning point that introduced trickle-down economics inside the formula and shaped most of all the dependent working world as we know it; reshaping economic activities is not the only pillar of the neoliberal trend but the already mentioned redistribution of wealth is another issue directly originating from the first one. In this part, it proved useful swiftly describing the neoliberal trend, its aims and its results, adopting thoughts from scholars like its founding fathers (e.g. Milton Friedman and Friedrich von Hayek) and some of its critics, namely Naomi Klein and David Harvey. From the 1980's, the focus returns on the present and the so-called "*Dimension of the Pledge*" is taken into consideration; all that system of promises

and pledges, both given and received, by and to businesses and free or semi-free workers is efficiently depicted thanks to the aid of economists keen on the topic of work in the time of debt like Karl Polanyi, Guy Standing but also thanks to socially active Italian journalists like Marco Bascetta and Italian professors like Andrea Fumagalli from the University of Pavia. The last segment, after having described the struggles this class in-the-making of unstable and unprotected workers has to live through, suggests a short set of progressive politics that could relieve the situation, based on changings in education, occupational freedom and work rights.

The last chapter goes back to Stiglitz and Piketty's lessons on how to manage the problems our economies have in order to create more opportunity for everyone; a set of game-changing moves is laid down divided into measures for rebalancing wealth that include reforming the tax system and the progressive income taxation, fixing the financial system and taxing profits and capital gains for executive echelons and measures for the growth of the middle class that include pursuing full employment, giving power back to the workers and reforming the educational system for an efficient introduction to waged work.

1 Economies in the Era of the Fourth Industrial Revolution

1.1 Foreword

Is the technological innovation making us free from working or only lowering our wages? What kind of changings have our societies seen since the first industrial revolution? What should we expect from our future? These are some of the questions that this piece will try to answer by diving later on into the particular focus of the Gig Economy and the phenomenon of Free Labour but first, I feel the urge of describing how we came to this situation and in which ways history unfolded to be able to fully move on examining the rest. The main topics to be handled in this first chapter are, then, the Industrial Revolutions that have shaped the world since the 1700's until the fourth one which is, according to many intellectuals (e.g. McAfee, Brynjolfsson, Ford, Woïrol), the one we are entering now.

Being history made up of commonly planned blocks and chunks of years gathered together under various labels, it is no exception that the Industrial Revolutions follow this standard. The term industrial revolution exists as a convenient division of periods from other generically different periods; the periods gathered under the bans of industrial revolutions are characterized by world-changing technological innovations, transformations in the methods of production and on the society level.

Until the first years of the 1900's any industrial revolution involved western societies because improvable technology was present only in these regions; it is of no surprise, then, that the first record of this term comes from the second half of 1700 when France was living a period of great innovation; the term has then passed from authors like Blake and Wordsworth to Engels up until nowadays, always reflecting a sense of leap through innovation in each feature of

a society but why did it happen? And why did it happen where it happened?

Technological innovation is one of the founding pillars of the market economy or Capitalist economy that has characterized the western countries since 1400; in short, the development of capitalist societies with varying degrees of direct government intervention entails the generalization of money-based social relations, a system of working classes who work for wages and the continual innovation of industrial technologies and processes to ensure a constant flow of profits to fuel this economic machine.

The capitalist system is a group of economic activities that dates back to 1400 when, in Europe, the practices of buying and selling of commodities were institutionalized by persons or groups of persons defined as “legal persons”, who operated in a “free market”, which is free on different gradients, depending on the different capitalistic trends, from the State intervention¹. Among the most important classic theorists of capitalism were Adam Smith, David Ricardo, Thomas Malthus, Karl Marx and Joseph Schumpeter. A gradual shift of focus can be spotted that varies for each theorist that gives particular attention, even though not exclusive to different elements of the capitalist economy. Despite dedicating a big part of his study to the analysis of the various ways in which the capital stock, the number of commodities that contributes to the production process, was employed to create jobs, Smith also pointed his attention towards the quick expansion of the gap between work and market exchange in the commercial society of 1700. Back when Marx was writing down his theories, halfway through 1800, the enterprise-factory system had already stepped in gaining a certain stability, but at the same time the conflict between capital and working force had increased to serious peaks and so did the expansion and contraction cycles which became even more frequent. By the end of the century, the focus shifted towards the continual enlargement of the banking system and the ever-

¹ Ingham J., *Capitalismo*, Piccola Biblioteca Einaudi, Bologna, 2010, p. 52.

growing role of the capitals markets. Hilferding gave his contribution adding to Marxist studies the emergence of the “financial capital²” but it was Schumpeter who understood that money, the banking system and the finance had always been the true, essential and most important features of capitalism since its first implementation and, moreover, those three constituted the keys to comprehend capitalism operativity. With John Maynard Keynes came the revaluation of the weight of the role played by money in the quantitative theory.

Bearing in mind these contributions, it can be stated that the capitalist system is characterized by three different constitutive elements: a monetary system that grants money for credit to the banks, the market exchange, the presence of private enterprises for the production of goods. I would like to deepen the analysis of this introduction on the production of goods, on work and on the enterprises. The production of commodities and services for the sale on market takes place inside the enterprises which are institutionally distinct from the households and the State where, instead, takes place the consumption of the above-mentioned goods. Money capital and salaried work meet in the enterprise which calculates the net cost of the production of marketable goods with a value exchange in order to create monetary profit. Production is entrusted to legally free labourers, employed on a wage by the enterprise itself. All the means of production belong to the enterprise as a private property and make up its physical capital. The physical means e money used in the process of production represent the “capital” meaning that they are not direct property of or directly controlled by those who work the enterprise, workers and managers States too are in possession of means of production but if workers do not exercise any kind of control on their deployment, application or removal, then it is better fitting to talk about “State capitalism” than socialism³.

Finally, the enterprise, and the market too, can be examined on two different levels, that are, first, as the mean functionally efficient for

² Hilferding R., *Il capitale finanziario*, Mimesis, Milano, 2011, pp. 337-351.

³ Ingham J., op. cit., p. 56

the coordination of any economic activity or as the source of any kind of exploitation and the common place for the harshest conflicts between economic agents and social classes.

1.2 A History of Revolutions

When capitalized, a term represents the first time in history that it presented itself. The Industrial Revolution denotes the first instance of the passage from an agricultural and artisan economy to one ruled by industry and mechanical production as we know now. It should be underlined that the first Industrial Revolution even though massive and quick, had been well prepared in a mounting tempo of industrial, commercial and technological activity from 1000 BC; the pace kept accelerating from then on to modern standard processes of discovery and implementation of new advancements. Nevertheless, the term Industrial Revolution describes an extraordinary quickening in growth, in the rate of change and in general the developments that took place from the 19th century on.

1.2.1 The First and the Second Industrial Revolutions

The first Industrial Revolution occurred in Britain starting from 1760 where most of the technological innovations were discovered; innovation was fostered in Great Britain by the entrepreneurial spirit of those times, when people started accumulating money as households and became able to investing in innovation and inventions; this was also part of the results that the consumer revolution had brought with the industrialisation of the UK, later mirrored in many countries all around the world (e.g. continental Europe and North America first and only later and gradually Asia, Africa and Latin America). It is a major turning point not only for the industrial side of this society but also

because many aspects of life have been influenced by these events: population and incomes started growing at a fast pace, the standards of living increased substantially although this trend took decades between the 18th and the 19th century to manifest and, as shown later below, even agriculture faced huge improvements that provided ulterior benefits for living standards and labour surpluses for the upcoming industry.

The advancements in power technology are the most outstanding of this first industrial revolutions; if, before this time, the only sources of power were animal or generical animate energy, together with wind and water, before the end of 1800 the steam engines started spreading well beyond the rare use in coal mines for extractive purposes only, taking control of many industrial production processes and not only those, because the scientific study that brought to the steam engine started being applied to enhance old sources like waterwheels and windmills and led to the development of the water turbine, an extremely useful device to convert energy. The steam engine would have never become ubiquitous without the contribution of James Watt; the mechanical engineer in 1769 had developed and patented a “separate condenser”, separate because it could divide the two actions of heating the cylinder with hot steam to pump the strokes of the engine and of cooling it to condense that same steam; this division helped saving a high amount of energy. Backed by the financial support of industrialist Matthew Boulton, the idea became an economic success and in 25 years a staggering number of 500 engines have been sold to industrialists looking for more economic and reliable devices for the production. Being patented, Watt and Boulton had complete hegemony on the steam engine and on its modifications; together they developed a system that could allow rotatory movement for the engine so it became useful in the textile industry. With the patent coverage expiring, upgrades and customizations to the steam engine emerged both in Europe and the USA and high-pressure steam machines started appearing and being applied to vehicles for locomotion; moreover, circular rotors started being implemented inside the steam engines to

convert mechanical thrust into electricity by filtering steam through its blade and this method in its basics is still employed to deliver electric power to many places that do not have different sources like hydroelectric ones.

Electricity, as many know, channelled as a source of power, has been implemented by the pioneering work of scientists like Benjamin Franklin, Michael Faraday and Alessandro Volta. Faraday demonstrated the relationship between electricity and magnetism providing the starting point for the mechanical generation of electric current (previously generated only by chemical reactions within batteries) and its exploitation inside motors. This kind of engine depends on the rotation of a continuous coil of wire pressed between two magnetic poles; this rotation develops current in the wire and later developments of this system brought to the creation of the dynamo, which was in the first half of the 19th century the largest generator of electric power commercially feasible. This innovation found more market in continental Europe and North America than in UK, with Thomas Edison's carbon-filament lamp that could rival gas as home illuminant and later, during the second Industrial Revolution with the adoption of electric traction for urban tramways and subway systems.

Another industry that fully enjoyed the miracles of innovation was the metallurgy and metal trades one; again, in Britain, innovative ways of working with iron and steel were developed by switching the fuel of the blast furnaces from charcoal to coal, thus steeply increasing their production; it was a virtuous circle composed by the introduction of coal that helped developing metals that in turn helped crafting the steam engines which were fuelled by that same coal. From 1709 metallurgic industries passed from the coke-smelting process to the development of crucible steel, to the puddling and rolling process to have wrought iron in 1784; the results were purer metals, easier to work and more effectively convertible from cast iron to wrought iron. The British industry of iron and steel was from then on free from the dependence on charcoal and cheap iron became abundant allowing the

restructuring of the urban fabric (e.g. fireproof factories, bridges and cast-iron aqueducts). Together with this trend of transitioning to cheap steel came the need of a straightforward way of discarding of the phosphorous portions of low-grade iron ores; it needed to be eliminated because it ruined the following development of steel from that same iron. The process introduced by scientists S.G. Thomas and Percy Gilchrist helped separating phosphorus from iron ore thanks to an alkaline material that would take it out. The phosphorous slag became then one of the first industrial fertilizer that gave a huge boost to the agriculture; the extensive phosphoric ores of Lorraine and Ruhr became available for exploitation and this brought to the rise of the Ruhr region in northern Germany.

Mechanical engineering made huge steps forward during these years; with the demand for steam engines and similar from Watt and Boulton Workshop in Birmingham, came the need for their structures to be equipped with manufacturing scientific instruments and small arms for the construction of large industrial machineries. These engineering workshops played a key role in the diffusion of the mechanization inside industrial infrastructures and transportation systems. The production of looms, locomotives and mechanized lathes, which were exponentially more accurate than man-driven lathes, increased fast and steadily and many new machines were introduced like drilling, slotting, milling and levelling machines and improved steam hammers.

⁴This trend was not just a matter of material advancements but an inner transformation on an economic, social, political and cultural level that, in turn, influenced the depth of technological innovation itself. The “industrialization” is only the first trait of this multifaceted evolution and as the first industrial revolution it stands out because it moved labour and resources from agriculture to industry; this is due to the fact that the demand for food did not grow as much as before with the increase of incomes but the demand for manufactures grew instead

4 Landes D. S., *The Unbound Prometheus: Technological change and industrial development in Western Europe from 1750 to the present*, Press Syndicate of the University of Cambridge, Cambridge, 1969, p. 6.

because European people were already living above the poverty level and wanted new properties to own; on the supply side, the gains in industrial production were higher than the agricultural gains and this led to the decrease in the prices of manufactures making them more affordable. This gradual shift varies from country to country along the technological innovation depending on what was most advantageous and how resilient were the institutions to change: in Britain this trend had deeper and more radical developments because free trade forced the farmers without any protection against foreign production to move to something else while in France with many small landowners the government applied a high tariff on imported foods to soften the blow to the primary sector and at the same time gradually introduced the new industrial technologies; if in Britain after two centuries from 1750 only 5% of the workforce remained inside the agricultural sector, in France more than a third was still in agriculture in 1950.

Modernization came along with the industrialization. This process stems out from the mix of changes in the processes of production and types of government on a social and institutional level, in the expertise and ray of values and principles that guided societies through 19th and 20th century; the standards had to be reset in order to compete in the production of wealth, in having a high level of resilience and to be at the same time independent. Modernization involved developments like urbanization (e.g. the population that shifts its concentration from country to city that becomes the centre of industrial, intellectual and artistic activity and of administration, and the already mentioned new aqueducts), a noticeable decrease in death rates as well as birth rates from before, the creation of a bureaucratic cornerstone for the government and the establishment of new educational systems based on meritocracy capable of forming the new children to fit inside the spaces of the newly reshaped societies and to use the new given technologies

Jointly with these changes in equipment, in the industrial processes, in the societies as a whole, new industrial organizations of the

productive processes appeared; each productive unit grew in size because the now high concentration of machines demanded and made feasible the shifting of manufacture from home workrooms to mills and factories. Factories did not just grow in size but changed in shape too; the whole system is reshaped to stand on two different roles for the participants: on one side was the employer who hired workers, put finished products for sale on the market, met suppliers for the production and controlled the use of the capital while on the other was the worker in the role of the manufacturing hand. The growth of the proletariat and of the industrial bourgeoisie that mixed with old fashioned nobles and elites together with the new attraction coming from the industrialized cities and the new introductions made in the agriculture led many to think that a never-before-seen polarization of the society was being outlined, where large masses of wage earners and small groups of owners of the means of production coexisted. It was an all-pervasive and inevitable trend which with its size and concentration threatened the small independent operators who were facing the upcoming wave of alienating competitive market places. To deliver important levels of production the industries did not need only huge numbers of workers but also structures for wide distribution to the public, large credits granted by specialized structures, a proper educational system and the assumption of new functions and responsibilities by the governments. New needs of managing and controlling matched factory workers with a set of new professional services like white-collar workers, functionaries, overseers, engineers, operators and many more; this sector that came to be known by many by the name of tertiary grew alongside with productivity and living standards, thriving even more quickly than industry itself.

To sum up, the first Industrial Revolution created the first true wave of great richness and wealth, providing a more complex structure of society. More than a true clash of classes this set of innovations provided the seeds of the future variable incomes of social layers, the quest for greatness driven by ambition and a heterogenous number of thriving communities.

To many the years between 1873 and 1896 appeared as a dark period preceding the conflicts, characterized by sharp decreases in prices (one third on all commodities on average), deep crisis that plunged the rate of interests as well, low profits due to depressions that extended inexorably. The whole economic system appeared to be going down but during the last years a rise was felt, with prices going upwards again and profits following them along; a new feeling of improvement and progress rose, much more stable than the ones before which were temporary and brief as the booms they were following and businesses started growing again despite the Marxist admonishments of the “last stage” of capitalism; Western Europe was entering the Edwardian era, the “*belle époque*”, and this historical memory is brightened even more when in comparison with the years of war that followed. This was an era of systemic innovation and technological advancements that came to be known by many (and questioned by others) as the “Second Industrial Revolution”. Iron, steel and railroads played a major part in this process and created a virtuous circle of railroads that allowed transportation at low prices to create more cheap railroads; cheap coal had flooded the market too so locomotives never ran low on fuel.

As already mentioned, the introduction of wrought iron in 1830 coincided with the birth of the first railway; at the same time steel started being produced from pig iron at low costs thanks to the Bessemer process and became the most present building material for larger bridges, railroads, skyscrapers and ships. Being more durable, steel replaced iron in almost every field and from then on longer sections of rails could be put down thanks to its strength; the first steel rails were made in Gloucestershire in 1857 and were sent to Derby and proved to last more than ten times longer than iron rails which had to be changed each three to six months. Everyday lower costs of steel led to the use of heavier weight rails to let more powerful locomotives ride on them which in turn pulled longer sets of carriages to improve the productivity in the end. Trains became the main mean of in-land transportation for people and materials.

Mechanization took a step ahead during this period and some producers concentrated on vehicle production while others dedicated their services to the needs of the industries specializing in the creation of mechanical engines for coal mining, papermaking and sugar refining to mention a few. This latter movement of service for the industries took place most of all in Germany and in the USA where electrical engineering, standardization and mass-production techniques mixed together to create highly functional products like agricultural machinery, mechanic arms, typewriters and sewing machines. Bicycles, the first automobiles and airplanes started appearing running with engines of engineering precision while the corresponding increase in the productivity of this industry fostered always more mechanical innovation.

Harnessing electricity had never been so widespread before; from the researches of Michael Faraday on the magnetic field surrounding conductor with current to Joseph Swan's first light bulb that enlightened the Savoy Theatre in London, electrification had been labelled as the most important engineering achievement of the 20th century⁵. The first power stations and the use of high voltage alternating current helped illuminating the cities' streets and allowed the most important industrial innovation, the creation of the assembly line and of mass production while working conditions improved inside the factories thanks to the new electric grid to enlighten the spaces and getting rid of polluting gas lights. Electric railways were put down in the cities and household illumination took off from the 1880's on.

Petroleum extraction, production and refining began in the 1850's in Scotland but it is in the USA that this trend mixed with the cable tool drilling technique from China started booming from 1859 on; kerosene for lamps and heaters entered the markets and it was more efficient and cheaper than vegetable and whale oils; gasoline has been treated as waste product until 1914 and the mass production of automobiles and the subsequent shortage of gasoline during WWI.

⁵ Constable G. and B. Somerville, *A Century of Innovation: Twenty Engineering Achievements That Transformed Our Lives*, Joseph Henry Press, Washington, DC, 2003.

Cheaper and more resistant materials, new means of transportation like trains and ships that could carry higher amounts of goods, all this led to an improvement in the economic trades around the world; there has been a shift from varied monopolies to competition from every producer in the industrialized world and this change became the most crucial factor in setting the mood for modern European industrial and commercial enterprise. Growth became synonymous with struggle, a straightforward way to skim the environment from those who could not bear the competition, those not tough enough to stay over ground; from this point, everything new was welcomed, fostered by hungry and ambitious nations to the detriment of old ones. This competition, once felt, was what substituted the general optimism about continual progress with doubt, pain and uncertainty that in turn was worsened by bitter political oppositions fuelled by land hunger and the perpetual conquering of the spheres of influence. The sector that felt this urge of resisting to external competition was that of European agriculture; there, technological innovation had a boost with some countries turning to specialization, where nature and skill allowed it, to defy competition (e.g. Denmark with pork and dairy products, Switzerland and France with cheeses and market gardens) while others tried to increase their production thanks to the extensive use of fertilizers, especially the new mineral, artificial and sometimes even organic imports from outside. The first to understand the importance of fertilizer with ammonia has been Justus von Liebig; he tried to promote the use of minerals for plant nutrition as well in England and at the same time the use of manures produced by treating phosphates with sulfuric acid was being experimented and this were the initial steps of artificial manure industry. High quantities of coprolites for commercial use were discovered in the 1870's and led to the development, commercialization and export of superphosphates. The result was a level of food production never seen before that gave much more independence to each individual of managing his or her own production freely.

Railroad businesses created modern enterprises. As already mentioned before, previous firms were managed by individual, dual or few owners who had little to do to ensure the bureaucratic survival of the company; with new mechanic devices which required engineering expertise and in particular for the railroads sector, potential collisions that could be avoided with more cautious management, enterprises started hiring professional managers. Thanks to the telegraph, telegraph lines were put along the rails to keep track of trains' activity and avoid accidents but railroads companies were greater than the normal ones and there were still problems with keeping record of costs and cars that could go missing for extended periods at a time so companies were driven to establish a system of "railroad accounting" which would later develop into modern accounting activity. Scientific management took a step into the scene hand in hand with Taylorism and if the former initially concentrated on reducing the steps of the chain analysing by comparison time and motion, it later evolved into industrial engineering, manufacturing engineering and business management.

1.2.2 The Third Industrial Revolution or the Digital Revolution

Passing from mechanical and analogue electronic technology to digital electronics was not an easy, straight-forward or even brief movement; it began near the 1950's with the diffusion of digital computers and new methods of digitally keeping records but the expression digital revolution does not only entail that, in fact digital communication is involved too making this the starting point of the so-called "Information Age"⁶; pillars of this change are the digital circuits and its derivatives like computers, cellular phones and Internet.

⁶ Schoenherr S. E., *The Digital Revolution*, University of San Diego, 2004.
<https://web.archive.org/web/20081007132355/http://history.sandiego.edu/gen/recording/digital.html> (Accessed 10/02/2017)

It all started with the first transistor, developed by Bell Labs in 1947 but kept secret to perfect it until 1948; it paved the way for digital computers and caught the attention of the military and the US government which will later use this kind of technology; William Shockley, the inventor of the transistor, will later move near Palo Alto and will become one of the founders of the “Silicon Valley” in California, the renowned centre of digital research and innovation. Shockley’s team will later split and from that, companies like Advanced Micro Devices Inc., LSI Logic Corp, Teledyne and Intel will come to light. It is Intel to announce in 1971 to have developed the first microprocessor that would have worked with digits for calculators but not with alphabets yet while it was already two years that the public knew that the Internet was a concept in development; this was due to the fact that the ARPANET (Advanced Research Projects Agency Network) started switching packets inside its network and the news echoed around the US. The ARPANET even though being for military and management use only (many claim it was implemented as a strategy against potential nuclear threats⁷) in a few years connected different countries across continents like the UK and Norway. From then on it is a slippery slope of innovations like 1972’s Philips optical videodiscs, 1976’s first 16-bit digital recordings and Steve Jobs and Steve Wozniak’s first personal computer called Apple I, 1977’s Nintendo first cartridge-games. In the 1980’s Sony comes out with its compact discs while computers are invading everyday life, entering schools, businesses and industries; Apple, Commodore and Tandy are just a few of the brands that flourished during this decade while CGI, namely computer animation, industrial robots and electronic music were becoming a must across industrialized societies. By 1989, 15% of US households owned a computer. In 1983 Motorola starts selling the first mobile phone which was still based on analogue technology (for the digital ones there were still eight years to wait) and for the first time CD sales surpass LP sales leaving CDs and cassettes as ruling players on the market of music reproduction; well-known CD-ROMs

⁷ Lukasik S. J., *Why the Arpanet Was Built*, IEEE Annals of the History of Computing, 2011.

(Compact Disc Read Only Memory) as we know them today came out in 1985 by Sony and Philips. In 1989, the World Wide Web becomes operative thanks to its inventor, Tim Berners-Lee and by 1992 it is already public while before it was prerogative of only militaries and universities; by 1996 the World Wide Web is part of our daily life, even though “getting online” was not a painless process and it entailed complicated configuration and dial-up was the only connection type affordable by individual users. The 2000’s marked the point of worldwide diffusion of digital technologies; mobile phones are commonly seen in the streets as cell phone users amount to 3 billion and internet users make up more than 25% of the world’s population while the television too is switching from analogue to digital signals.

Societies are now much more interconnected, have easier and faster means of communication and enjoy freer flows of information that before would have been easily suppressed by controlling regimes; globalization and outsourcing became feasible thanks only to the World Wide Web and their economic impact has been substantial. Even the smallest regional companies had then a chance to access larger markets and it is in this perspective that on-demand services, manufacturing and decreasing costs made innovation possible. To sum up, digital technologies increased productivity and businesses performance but the downside of this trend is represented by the media saturation, the sensible-info predators, the various forms of social isolation; information can now be reshaped and deformed in a way that the old-fashioned journalism could not do (not having amateur or unskilled journalists by its ranks) and at the same time numerous forms of privacy invasion can be perpetrated digging up private digital archives and records.

1.3 What Has Changed During the Third and the Fourth Industrial Revolutions

As we have seen, forces exist that drive us towards inequality; this entails scarce demand, low growth, less investments on the long run for R&D and education and an overall low innovation. This is happening in the U.S. but, since the dollar and its economic system's features have reached all the western world, similar events can be spot in Europe too. What Roosevelt has tried to limit during the Great Depression, separating deposit banks from investment banks, protecting average investors from market manipulations, helping workers to negotiate their contracts (all this, still, to the detriment of women and black people), came back with great strength and with new life during the 80's with the "trickle-down economics" (coming from the previous decade) that deregulated the economy as a whole. All this came together with the reduction of shares and taxes on capital incomes (which were further reduced during the 90's). This was followed by the subtle deregulation during the first years of the 2000's of the financial system, fostering the short-period profits for the enterprises which brought to an unstable growth, characterised by technological and real estate economic bubbles. In the meantime, globalisation and technology were creating markets inter-dependency and reducing the jobs and the wages, helping enterprises save the costs of work. As Stiglitz put it, all this resulted in the economic structures as we know them: high incomes, deep exploitation, low wages and low employment⁸. Stiglitz described our own view as an iceberg; its dynamics and root causes for changing are mostly invisible.

⁸ Stiglitz J. E., *Le nuove regole dell'economia: sconfiggere la disuguaglianza per tornare a crescere*, il Saggiatore, Milano, 2016, p. 32.



Stiglitz, J. E., *Le nuove regole dell'economia: sconfiggere la disuguaglianza per tornare a crescere*, il Saggiatore, Milano, 2016, p. 35.

Its tip is our common perception of the economic issues dealing with inequality. Below the surface lie those factors that create this common vision, those rules that regulate the structure itself: States treasuries with low revenues that does not support long-term investments, low regulations boosting speculation and quick profits. The iceberg-structure finds its foundations in the huge global trends that shape our States, globalization, technology or even demographic trends.

1.3.1 Capital – Work Relation Dynamics

As Thomas Piketty put it, capital has been growing more quickly than the overall economy; alongside with this, Piketty denoted that the distribution of the income from capital is much more uneven than the distribution of income from labour. These factors are the main contributors to the ever-increasing inequality.

Talking about wealth, Piketty clarifies that:

“the concentration of wealth remains high, although it is noticeably less extreme than it was a century ago. The poorest half of the population still owns nothing, but there is now a patrimonial middle class that owns between a quarter and a third of total wealth, and the wealthiest 10 percent now own only two-thirds of what there is to own rather than nine-tenths⁹”.

Despite that, today U.S. and French societies, which were the case studies for his book, are showing the worst levels of inequality since the Great Depression. To say this, the economist bases his study on how the accumulation of wealth and the already accumulated wealth, via inheritance and savings, is overgrowing the present output from present work. By quoting him,

“no matter what years we choose, the structural rate of growth of the largest fortunes seems always to be greater than the average growth of the average fortune (roughly at least twice as great). If we look at the evolution of the shares of the various millionths of large fortunes in global wealth, we find increases by more than a factor of 3 in less than thirty years. To be sure, the amounts remain relatively small when expressed as a proportion of global wealth, but the rate of divergence is nevertheless spectacular. If such an evolution were to continue indefinitely, the share of these extremely tiny groups could reach quite substantial levels by the end of the twenty-first century¹⁰”.

Piketty’s world is a slowly growing one, characterised by declining tax rates, skyrocketing wages for the top managers of the biggest enterprises and an everyday unrulier financial sector. Today, 64% of European wealth belongs to 10% of Europeans while a staggering percentage of 72% of the American wealth belongs to 10% of Americans. Piketty’s main worry is that things will probably go on this way and the future will tend to look like the beginnings of the 1900’s. In the following sections I will further focus on those low

9 Piketty T., *Capital in the Twenty-First Century*, Harvard University Press, Cambridge, 2014, p. 267.

10 Piketty T., *op. cit.*, p. 309.

taxes, high wages and that growing finance that seem to foster inequality.

1.3.2 More Market Power, Less Competition

Competition is the driving force of a healthy economic system; it is what pushes the enterprises to achieve higher efficiency and lower prices for the customers, thus preventing market actors from unbalancing economic and political results towards their own personal interests. Market competition and market power are assured by many features: how open, transparent and competitive a sector is, how many competitive operators domain each particular sector, how much open or closed a sector is to the entrance of newcomers, how information and knowledge are shared among participants. The array of contests that can emerge, independently from the customers' free will, vary from the natural State-managed monopolies (e.g. the enterprise for the electricity supply) to those in which one company can impose its domain without any form of regulation, raising the prices well over the costs of production knowing that it would lose a tolerable amount of customers but achieve higher gains (this could not happen in a context of perfect competition in which an enterprise raising too much its prices would lose the clientele to more convenient competitors). What has happened too often in many western countries is that the anti-trust and the competition laws that safeguarded the growing economic environment of the 50's were moved to the background in favour of a more natural (and many would add predatory¹¹) competition during the 70's that included the deregulation of sectors such as airline and railway companies, telecommunications, road transport and gas companies¹². Together with this, many States like the US have been inclined to award with wide power the enterprises through the protection of the intellectual property; this trend led to

11 Stiglitz J. E., *op. cit.*, p.42.

12 Organisation for Economic Cooperation and Development, *Income Distribution and Poverty: By Country*. <http://stats.oecd.org/index.aspx?queryid46189> (Accessed 15/02/2017)

many corporations imposing their personal laws and gaining profit via virtual monopolies¹³. Intellectual property rights may not have a direct effect on the innovation trend but they mainly reroute the wealth distribution, by raising prices from the consumers to the owners of the above-mentioned rights (who most of the times do not coincide with the creators of the innovations). Raising the prices inevitably cuts out a part of the population, in particular all those who cannot afford the good once the price has been raised and this worries many when dealing with pharmaceuticals and drugs¹⁴.

In the same way as, in a perfect economy, the intellectual property rights should only safeguard innovators interests together with the necessity of a wide-ranging innovation, commercial agreements should be able to limit the needs of an always more interconnected economy with the protection of the community, of its workers and its environment. No harmonisation has stepped in with the rules that we gave ourselves and the globalisation has not offered any new opportunity but instead has given the chance to the biggest enterprises in the economy to control entire international sectors or even outsourcing their activities seeking areas with softer jobs, environmental and fiscal regulations. Being threatened by the possible shift of production abroad, workers are forced to accept heavier working conditions or even lower wages.

By giving in to these threats, societies lose more than just decent working conditions; globalisation's threat has been another important thrust towards the deregulation of the financial sector which would have been the only reason for the enterprises to not go abroad. What Stiglitz underlines¹⁵ is that, when the market power rises for an enterprises, a transfer of money is involved from the costumers to those who own the enterprise but, since the drop in the customers' wealth is not recorded as accountable in the economic capital stock as

13 Okun A., *Eguaglianza ed efficienza. Il grande tradeoff*, Liguori, Napoli, 1990.

14 World Health Organisation, *Intellectual Property and Access to Medicines*, <http://apps.who.int/medicinedocs/documents/s19580en/s19580en.pdf> (Accessed 15/02/2017)

15 Stiglitz J. E., *op. cit.*, p.47 et seq.

a whole, our systems do not show how much has been lost but how many people have gained higher positions, like the Forbes' ones, thanks to financial monopolies, to the mining industry, to the real estate business and to private telecommunication companies¹⁶. As economic growth is assured by these inaccurate measurements, production ends up being reduced in comparison to the levels appropriate to a wealthy and differently organized economy characterized by the absence of capital income¹⁷. Moreover, these trends push private owners to invest more and more assets towards fruitless rent, committing to some forms of promotion, marketing and lobby activity. Lobbying activity and political pressures imposed by enterprises seeking profit affect our political system, thus damaging the economy and the society as a whole.

1.3.3 Growth of Finance

By growing everyday more deregulated, finance has gained a humongous position inside our economy and its ascension bended the incentives structure of the financial sector as well as of the real economy. Huge chunks of national product have been diverted to finance, from the working class to the managerial class and corporative executives. Profits and retributions grew in the financial sector to the detriment of savings and incomes of all those outside that same sector. Inequality stemmed from occulted subsidies, gigantic public bailouts, hidden rules of the fiscal system.

An efficient financial system is useful in that it manages savings and directs them from those who save to those who invest, it spreads information and creates opportunities for backed-up innovation and progress; by expanding, it started diversifying investments, managing risks and providing assets for healthy growth. What the 2008 crisis has

16 Kroll L. and K.A. Dolan, “*The World’s Billionaires*” in *Forbes Magazine*, New York, 2015.
<http://www.forbes.com/billionaires> (Accessed 20/02/2017)

17 Stiglitz J.E., *Il prezzo della disuguaglianza. Come la società divisa di oggi minaccia il nostro futuro*, Einaudi, Torino, 2013.

made everyone understand is that the financial markets need rules to be imposed because they are unable to self-regulate; being the financial sector able to create massive externalities, its instability, when it must deal with disinvestments or crisis-fuelled mass hysteria, may cause severe damages to the entire economy. From the 80's on, with the rise of the deregulation, financial crises appeared virtually and most of the times physically all over the planet and it all climaxed in 2008 with the real estate market crisis¹⁸. Normative changings included the elimination of the split between commercial banks and investment banks, roofs to the interest rates on deposits and the ban on exercising usuring interests and, since those in charge of the authority of fiscal vigilance were the main believers of deregulatory theory, it was even harder to respect the few rules that remained.

Before the 2008 crisis, the financial services stationed at 7,6% of the GDP while in the 50's (with higher levels of growth than today's ones) they constituted 2,8%; if from the 50's to the 80's the financial sector created 10% to 20% of corporate profits, at the end of the 80's it produced 26%, remaining on this level during the 90's and having a peak of 46% in 2001¹⁹. This reflected in the higher wages of finance which contributed to the enrichment of the top wealthiest 1% of the population. From 1979 to 2005 professionals of finance among the top 1% grew from 7,7% to 13,9% and an even sharper rise can be spotted in the wealthiest 0,1% were financial managers passed from 11% to 18% in 2005; in the USA, these top managerial divisions have been able to make up 70% of the national income²⁰; 30 to 50% of such high incomes stems from capital profits.

Financial regulation is put in place to avoid discrimination and exploitation but inside a deregulated system, instances of predatory credit practices aimed at abusing of low income citizens inevitably

18 Luttrell D., T. Atkinson and H. Rosenblum, "Assessing the Costs and Consequences of the 2007-2009 Financial Crisis and Its Aftermath" in *Dallas Fed Economic Letter*, 2013, pp. 1-4.

<http://www.dallasfed.org/assets/documents/research/eclett/20137e11307.pdf>

19 Johnson, S. and J. Kwak, *13 Bankers: The Wall Street Takeover and the Next Financial Meltdown*, Vintage, New York, 2011.

20 Johnson S. and J. Kwak, *op. cit.*

show up. Those who take up mortgages and loans with low financial knowledge or skills end up agreeing upon heavier loans that develop, under unrul ed circumstances, into frauds and overall manipulations. Most renowned example of this trend has been the 2008 financial crisis: by selling from 1977 high risk loans to help poorer people find a mortgage for a house, high default rates of people not able to pay back the interests when overdue took place; this came together with crash of the “housing market bubble” due to the over-evaluation of mortgages to encourage house owning. Numerous financial institutions defaulted from 2007 on and money evaporated from most funds²¹. Currency markets have been manipulated too, raising profits for the banks and costs for average citizens on credit and debit cards system²². The effects of this collapse were felt all around the world with negative economic growth rates in the Eurozone, UK and even numerous developing countries.

Pension funds and shared investment funds, among the various activities of managed saving contribute to the financial profit, as well as alternative ways of investment like private equity and hedge funds that lead up to the employment of “shadow banking systems”; these banking systems show common features with the traditional banking institutions, given that they link those who save with those who take up loans, but, nevertheless, long credit lines deliver low transparency and levels of complexity accruing high risks of vulnerability for those who save. Shadow banking has been a victim of the disinvestment frenzy of 2008 when doubts rose about the quality of the guarantees, since it came to be understood that the shadow banking systems work out of the normal banking institutions’ rules for vigilance and transparency.

21 Elliott L., “Three myths that sustain the economic crisis” in *The Guardian*, August 5, 2012.

22 Bray C., J. Anderson and B. Protes, “Big Banks are fined \$4.25 Billion in Inquiry into Currency-Rigging” in *The Guardian*, November 12, 2014.

1.3.4 Super Wages and Low Taxes for the Wealthiest

“Short-termism” is what the biggest companies look for. There has been a revolution inside the economy and it is the one dealing with the shareholders who pushed corporations to maximise the current value of the stock. From this perspective, all other decades-old purposes seeking the longevity of enterprises are moved to the background. The “revolution of the actionists” brought to the above-mentioned “short-termism” in Wall Street as well as inside the boards of directors of the firms, influencing companies’ productivity. Firms became funds and for the shareholders they became the source for financial liquidity; rules have been moulded in order to favour this kind of behaviour and during the 1980’s leveraged buyouts operations dealing with the buying of indebted companies by the investors and the quick re-selling of those same ones once they have been restructured in order to give off enterprises’ full potential, have spread out across the US²³. Mergers and acquisitions had their momentum during this decade and companies’ makeovers generated huge benefits for acquisitions’ specialists to the detriment of all the others; moreover, Reagan’s administration lowered the barriers of anti-trust laws allowing the acquisition of rival companies thus reducing market competition as a whole. New “activist” investors aimed at a place in the different boards of directors and pushed the managers to employ actionists-friendly policies to raise profits and dividends on the short-run²⁴.

These changes did not lead to an improvement in the overall economy but annihilated those who hoped for a revolution. From mid-1930’s to mid-1970’s, managing directors’ average wages have been constant on one million US dollars (inflation-nett), while in 2012 the average wage of the 500 highest paid managing directors revolved around 30,3 million US dollars of which only 6.3% came from

23 Cecchetti S. G. and E. Kharroubi, *Why Does Financial Sector Growth Crowd Out Real Economic Growth?*, BIS Working Papers, February 2015.

24 Holstrom B. and S. N. Kaplan, “Corporate Governance and Merger Activity in the United States: Making Sense of the 1980s and 1990s”, in *Journal of Economic Perspectives*, 2003, vol. XV, n.2, pp. 121-144.

salaries and bonus²⁵. The rest was given by capital gains on actions and stock options remitted to CEOs replacing real salaries. CEOs remunerations have risen to a level enormously higher than that of the employees: in 1965, the ratio between the annual average income of managing directors and the one of the employees was of 20:1, in 2013 it skyrocketed to an astonishing 295:1²⁶.

Value maximization for the shareholders turned out to be the maximization of CEOs' incomes; this entails that the interests of the managing directors prevailed on actionists and other stakeholders' interests and the remunerative packages have catalysed the alteration of the stock exchange flows by executive officers, employing companies' liquidity to reacquire actions in order to raise their price. CEOs diverted the attention from the actual enterprises' performance with negative effects on the economic efficiency; analysing CEOs incomes, it can be noticed that they are not particularly tied to the businesses' profits and they continue rising despite possible improvements or deteriorations of companies' results. The effects are obviously more marked inside those enterprises with a weak governance. Increasing the value for the actionists on the short-term is different from following the interests of the actionists on the long-run and, since it has been examined that stock bonds prices struggle absorbing data from a period of more than five years, managers are rewarded on current stock markets and are not prone to work on the long-term²⁷. Apart from the rise in the wages it can be denoted that there are also rising prejudices against productive investments: quoted firms invest less and are less sensitive to new investment opportunities than non-quoted firms; this highlights how subsidized incomes deter investment while fostering underinvestment.

25 Lazonick W., *Taking Stock: Why Executive Pay Results in an Unstable and Inequitable Economy*, The Roosevelt Institute, New York, 2014, http://rooseveltinstitute.org/wp-content/uploads/2014/06/Lazonick_Executive_Pay_White_Paper_Roosevelt_Institute.pdf.

26 Frydman C. and R. E. Saks, "Executive Compensation: A New View from a Long-Term Perspective, 1936-2005", in *The Review of Financial Studies*, 2010, vol. XXIII, n.5, pp. 2099-2138.

27 DellaVigna S. and J. M. Pollet, "Demographics and Industry Returns", in *American Economic Review*, 2007, vol. XCVII, n.5, pp.1667-1702. <http://eml.berkeley.edu> (Accessed 24/02/2017)

There has been a deep change in the link between loans and investments and if before the 1980's a company that borrowed one dollar would have invested 40 cents more on average, today this relation has faded and a strong bond between loans and shareholders' retributions has been spotted which, from the 80's on, has almost doubled. Today's finance does not deliver money to the firms but draws it from the production process²⁸.

Through the last four decades the rules of taxation have undergone deep modifications that led to a decrease in the highest marginal rates that in turn softened the tax progressivity. This means that the wealthiest pay less while all the others have endured an increase on the tax imposition or have had to settle for fewer public services. What Stiglitz lists as main reasons for the reduction on the real rate tax on capital gains are two. First, while every country treats capital gains in its own way, either taxing them or not, and Italy is among those who tax them at fixed rates, in the US, those gains coming from capital accounts are not taxed until when they have been realized, so, for example, a twenty-year investment such as the purchase of shares does not create revenues before stocks' sale²⁹. Second, once again in the US, it has been noticed that \$ 644 billion would have been lost due to an adjustment on the value of the estate that eliminated the capital gains. The new rule allows those who inherit an asset to pay the taxes only on the gains accumulated after having inherited that same asset and in this way, passing from a generation to another, the capital gains gathered during the life of the deceased one are never taxed³⁰. This arrangement goes almost exclusively in favour of the richest part of the population and, in 2013, 65% of the lacking tax revenues came from profits generated from assets inherited by the wealthiest 20% of the US society. Even though many criticize this issue, the exemption

28 Bassanini A., "The Impact of Labour Market Policies on Productivity in OECD countries", in *International Productivity Monitor*, 2008, pp. 3-15.

29 Stiglitz J. E., *op. cit.*, p. 63.

30 For a broader and easier explanation of this issue see: <http://www.investopedia.com/terms/s/stepupinbasis.asp>

threshold keeps the number of people included under this kind of tax extremely low (which on average is 0.1% of the heirs)³¹.

The fiscal revolution did not end here and, leaving aside capital gains, the various tax breaks and financial transfers developed to help low-income families, ended up serving the aims of wealthy people; tax breaks on retirement plans and the tax-deductible interests on mortgages decreased the quota on the higher segments of the societies. The decrease in taxes on higher incomes has had two different effects on inequality: it limited the useful side of taxes and transfers of diminishing the economic gap between classes and caused an unexpected rise of the wealthiest gross incomes which have more than outgrown the rise in work. The effects of the *trickle-down economics* have been outrageously biased and, as Stiglitz underlines giving a US example, the capital gains amount at 40% of the annual gross income for those Americans who earn more than \$1 million per year while it consists of only 4% for those who earn \$200.000. Following what the Congressional Budget Office has stated, 68% of \$161 billion per year of tax breaks on capital gains goes in favour of the top 1%, instead barely 7% is delivered to the four-fifths of low income Americans. The higher we go, the more polarized this trend becomes and in 2009 it was found that the 400 major taxpayers, embodying the wealthiest 0,003%, have received 12% benefits from tax breaks³².

1.4 Technological Innovation

As taken from any common usage vocabulary, the meaning of technological innovation entails a process of growth in the instruments both theoretical and physical through which the economy acts on its economic objects. The innovation can be pursued by public institutions as well as private businesses and for this issue to be

31 Congressional Budget Office, *The Distribution of Major Tax Expenditures in the Individual Income Tax System*, Washington, D.C., 2013.

32 Stiglitz J. E., *op. cit.*, pp. 64-65

realized, it is necessary that the free market accepts and receives it (when dealing with goods or commercial services) together with the users (when dealing with public services).

The *Treccani Encyclopaedia* adopts the following definition for the term “technological innovation”: *the deliberated activity of enterprises and institutions aimed at introducing new products and new services as well as new methods to produce, distribute and employ them*³³.

In other words, the innovation shapes the world and the societies within it and what civilisations have always done until the 1930's was to adapt themselves following the innovative trends; this behaviour took a step back during the Great Depression when, during this decade, both Europe and the US were deeply afflicted by mass unemployment. Rural workers found themselves jobless for a reason as simple as the invention of the tractor. It is during these years that Keynes' essay by the name *Economic Possibilities for Our Grandchildren* is published in the UK; it pinpoints an optimistic point of view on how societies will cope with the ever-growing technological issue and on how the innovation will let the posterity do without any need of work, thus being offered a lot of free time for other activities. Apart from this famous workpiece, the economists of that time were dealing with the rising popular concern on unemployment on both sides of the Atlantic Ocean and the same matter had to be faced by them again during the 1960's; both peaks of technological unemployment's pessimism toned down thanks to two wars that channelled new opportunities in the working system: The First World War for the '30's Depression and the Vietnam War for the '60's. From the 1970's on new criticisms on technological unemployment sparked as the economic boom of the Post-Wars period was slowly fading away and the side-effects of the Golden Age of Capitalism were making their way among the various nations. This led to several economists like Paul Samuelson, Jeremy Rifkin and

33 Treccani Online Encyclopaedia. <http://www.treccani.it/enciclopedia/innovazione-tecnologica> (Accessed 01/03/2017)

James S. Albus arguing that this was due to technological innovation³⁴.

From the 2000's until today, the opinion about this matter fluctuated among those who advocated for the reason that innovation does not cause long-term unemployment and those who challenged this position such as Martin Ford, Erik Brynjolfsson and Andrew McAfee, and accept that the threat exists and recommend certain solutions or possible measures. What haunted the democratic policies was the worldwide concern about the evidence of a freefall in employment in the manufacturing sector, in the wages for low and medium skilled jobs, even while productivity continues to rise and the huge increase in unreliable digital platforms-mediated jobs.

Progress is rarely remarkable as the one we are living in right now and to explain how fast it is going two concepts may come in handy³⁵. The first one is Moore's Law, taken from an observation that Intel co-founder Gordon Moore did in a 1965 article; Moore underlined the fact that the quantity of transistors in a basic integrated circuit has been doubling every 12 months, predicting that this pattern would continue in the future; this statement proved to be true so Moore's Law was born but with later adjustments so that today's most accepted time rate is of 18 months. Moore's Law has been applied to the innovation in disk drive capacity, displays resolution and network bandwidth in which fields doubling of standards takes place constantly and both hardware and software progress at the same pace. German mathematician Martin Grötschel has analysed the speed of problem-solving displayed by computers in a span of 15 years from 1988 to 2003 and concluding that there has been a 43 millionfold improvement due to both faster processors and better algorithms embedded in software; if processors improved their speed by 1000 times more, algorithms became 43000 times better over the same

34 Woirol G. R., *The Technological Unemployment and Structural Unemployment Debates*, Praeger, 1996.

35 Brynjolfsson E. and A. McAfee, *Race Against the Machine: How the Digital Revolution is Accelerating Innovation, Driving Productivity, and Irreversibly Transforming Employment and the Economy*. Lexington, Massachusetts: Digital Frontier Press, 2011, p. 15 et seq.

period. The second concept is closer to modern improvements in computing and deals with an ancient anecdote about math. The inventor of the game of chess decided to show the emperor of his country his creation; the emperor appreciates the game and lets the inventor choose his own reward so the clever man asks a specific kind of prize. He asked for a quantity of rice to be determined as follows: one grain of rice for the first square of his chessboard, two on the second and so on, doubling the amount for each square. The emperor agrees, thinking that this would have been an unremarkable reward but as they move on along the chessboard he notices that the amounts of rice become huge and colossally large. By the end of his chessboard, the inventor winds up with $2^{64}-1$ grains of rice which is an amount roughly as big as the Mount Everest. All this to say that exponential increases may take some time to be noticed but as time passes by, this growth defies our expectations and passes beyond the heights of Everest with us not even noticing it; this is how our technological innovation behaves today.

1.4.1 Progress and Jobs' Disappearance

As Brynjolfsson put it, we used to think that we had the upper-hand on computers and robots, being fitter than them at managing the world inputs, but lately and inadvertently computers have made their way in some untouched areas of our domains. In *Race Against the Machine* this is well illustrated by how the authors discredit the previous opinion about the division of work between computers and humans: a set of information-processing tasks was given, at the end of it were direct applications of pre-existing rules like arithmetic that can easily be automated while on the other side are pattern-recognition tasks where rules cannot be inferred; for this kind of tasks, driving was given as an example and it has been stated many times that it could not be automatized due to a continuous processing of information. It was seen as virtually impossible to articulate human knowledge and

embed it in a software. In 2010, Google had proven this belief wrong announcing that

“it had modified a fleet of Toyota Prius to the point that they were fully autonomous cars, ones that had driven more than 1,000 miles on American roads without any human involvement at all, and more than 140,000 miles with only minor inputs from the person behind the wheel. (To comply with driving laws, Google felt that it had to have a person sitting behind the steering wheel at all times). None of this is easy. But in a world of plentiful accurate data, powerful sensors, and massive storage capacity and processing power, it is possible. This is the world we live in now. It’s one where computers improve so quickly that their capabilities pass from the realm of science fiction into the everyday world not over the course of a human lifetime, or even within the span of a professional’s career, but instead in just a few years³⁶”.

When the Great Recession stepped back, in a few years from its outbreak, and the companies started making big profits back again, they did not start hiring as well like what happened after previous economic crises of the developed West; firms continued to make more money than before even without the same number of employees they had before. This trend was theorised by Jeremy Rifkin as the “*End of Work*” in his 1995 book and he claimed that we are entering an era in which fewer and fewer workers are required to produce goods and services for the economy and the population in general; this trend is caused by computers and this, according to Rifkin (and Brynjolfsson, McAfee and Ford), will be one of the most pressing social issues of our century, for software technologies and their acceleration is going to displace millions onto unemployment. Computers are now doing what, at first, had to be our prevalent domain and this has deep economic repercussions, in the way that many will be left worse off while the economy grows and computer will continue to grow and develop having deeper impacts on the societies. Brynjolfsson states that:

36 Brynjolfsson E. and A. McAfee, *op. cit.*, p. 13.

“the root of our problems is not that we’re in a Great Recession, or a Great Stagnation, but rather that we are in the early throes of a Great Restructuring. Our technologies are racing ahead but many of our skills and organizations are lagging behind. So it’s urgent that we understand these phenomena, discuss their implications, and come up with strategies that allow human workers to race ahead with machines instead of racing against them³⁷”.

This race against the machines has already been theorized thanks to a game. A computer has been developed to be able to play the US popular game show called *Jeopardy!* And its name is “Watson”; Watson is as able as the participants to the contest in knowing which kind of questions are being asked by calculating and weighing up the clues and puns enclosed in the hints to solve the problem. Watson can figure out the answer to the questions it is asked, independently from the wide variety of topics considered and engages in complex patterns of communication and structured wordplays. Structuring this system of communication requires high amounts of information to be matched and processed, so hundreds of millions of documents and meta-data has been uploaded onto Watson’s servers (e.g. encyclopaedias, newspapers, referenced works and the Bible too); when asked a question, Watson proceeds writing complex algorithms to process what is being asked first and then querying all the uploaded documents with matching patterns to find the right answer. This path takes less time than writing it down: it starts with a single clue to be analysed that develops into several series of parallel primary searches to produce a candidate generation of 50 search results on average; each result leads to several candidate answers (on the order of 400 to 500) for the clue and they need to be scrutinized independently and at the same time through analytics that help grading them as closer or further from the right answer; more evidence is gathered through additional searches that add up to 20 additional pieces of evidence to found the answer on. It does not end here though; the machine, thanks to a self-learning framework gives scores to the various answers and

37 Brynjolfsson E. and A. McAfee, *op. cit.*, p.15.

then weight these on the produced scores; the final ranking order of the answers gives boost to the software to decide which of them is the best one given the evidence it has and that is the moment when the most suited answer is given.

This machine completely recreates the dynamics behind the human intellect and, in the end, it is so fast and accurate that even the best human player of *Jeopardy!* could not top it or even keep the pace; in 2011 Watson landed on TV racing in a tournament against the two most accomplished players of the show and after two rounds made in three different days the computer ended up gaining three times more money than the human player that came in second; one of the two participants admitted that technology had indeed taken over the game and added sarcastically: *I for one welcome our new computer overlords*³⁸.

1.4.2 Automation and Industries' Interests

Manufacturing complexes today hire one fifteenth of what they would have hired in the 1980's; the US textile industry has undergone huge cuts to employment during the 1990's with production shifting to low-wage countries like China, India and Mexico; 1.2 million places were lost between 1990 and 2012 but today this trend is taking a different route. Production is "reshoring" back to those developed countries which lost in the first place; production of textiles has risen by 37% and the industry has gained an amount of \$23 billion. This is due to the massive automation that the whole industrial processes of Western countries are experiencing; this, combined with the perpetual rise of the wages of developing countries' workers, persuaded the various brands that off-shoring was not convenient anymore.

Robots are affecting western industries in diverse ways; they are cutting out jobs in the homeland and at the same time they are rising

38 Brynjolfsson E. and A. McAfee, *op. cit.*, p.14.

industrial profits making the western industries competitive again against eastern rivals like China where workers have seen their pay raised by an annual 20% from 2005 to 2010³⁹. Manufacturing executives often plan or consider bringing back factories to the US but, accounting the manufacturing jobs to less than 10% of total employment, this still has a marginal effect on the overall job market.

What may change is how the developing countries will react to this trend; in countries like China where manufacture holds up as an important industrial sector, technology led to the loss of about 15% of workplaces until 2002 and this issue will not stop but increase. Foxconn, a contract manufacturer of Apple and also the brand that has reached notoriety due to the worrying numbers of suicides occurred in its plants, has taken up plans to introduce robots in factories; so did companies like Delta Electronics Inc in Taiwan while Europeans firm are investing in China for the sole reason of directly producing robots for industrial use. Nike, though having shifted its shoe production from China to lower-wage countries like Vietnam and Indonesia, has still stated that the wage rise in Indonesia is harming its profits and it's planning its way out of the use of workforce in its factories for a more convenient exploitation of not-able-to-complain robots⁴⁰. The increase in automation is also justified as the new way of relieving workers of the hellish environment that the eastern factories impose on them.

Back in western countries, the service sector, one of the most vivid in the US, is living the same issue as the manufacturing one, and firms like ATM or multinational retailing companies are automating their processes with self-service checkout lanes and the explosion of the robotic exploitation, many say, has still to come. In the agricultural sector, major shifts towards technology date back to the 17th century to be fair and most of those innovations were mechanical instead of the information technology of today; from 1890 half of US workers were

39 Ford M., *Rise of the Robots: Technology and the Threat of a Jobless Future*, Basic Books, New York, 2015, p. 36 et seq.

40 Momentum Machines co-founder Alexandros Vardakostas, as quoted in *Wade Roush, Hamburgers, Coffee, Guitars, and Cars: A Report from Lemnos Labs*, Xconomy.com, June 12, 2012. <http://www.xconomy.com/san-francisco/2012/06/12/hamburgers-coffee-guitars-and-cars-a-report-from-lemnos-labs> (Accessed 10/03/2017)

part of the agricultural sector but in 2000 farm workers amounted to 2% of the US workforce:

“For crops like wheat, corn, and cotton that can be planted, maintained, and harvested mechanically, the human labour required per bushel of output is now nearly negligible in advanced countries. Many aspects of raising and managing livestock are also mechanized. For example, robotic milking systems are in common use on dairy farms, and in the United States, chickens are grown to standardized sizes so as to make them compatible with automated slaughtering and processing⁴¹”.

What remains of this sector are those farms devoted to picking from high value fruits to delicate flowers and they still hold on to the belief that this manual routine requires the already-mentioned visual perception and dexterity that machines will never have but those same industries which are dedicated to developing innovations in robotics are making their way into these remaining untouched sections and lands like Australia, Japan and Israel, with island-like economies and aging workforces are introducing new robotic systems for a quicker, easier and generally more convenient picking of those fruits and vegetables that have a very small time window available for harvest “so that a lack of available workers at just the right time can easily turn out to be a catastrophic problem⁴²”.

Assuming, as many economists do, that these trends will not affect overall economies lays on shaky grounds since the results of these shifts are already showing themselves in most countries and even though many dislike low-wage low-skilled jobs in developed countries and those who lose them are essentially “freed up” to pursue higher and better employments, this consideration requires that the economic system they live in is able to offer enough high-skilled formation and high-skilled workplaces to absorb the new above-mentioned unemployed individuals but ours is not the case.

41 Ford M., *op. cit.*, p. 72.

42 Ford M., *op. cit.* p.73.

But where do people still win (at least for now)? Even though computers are entering virtually every aspect of human activity, from advanced pattern recognition to complex communication, there are indeed unexplored areas that still belong to human skills and capabilities. Many of these may be inscribed inside the “intuition” field of human activities: experienced doctors write diagnoses by comparing patients’ statuses, lab results and description of symptoms with their immense body of medical knowledge accumulated through years of study while employing patterns that belong to the human realm of intuition; the same in their jobs do therapists, managers, salespeople by interacting and communicating with others or planning their strategies to gather information or influencing others’ behaviours. It is true, though, that societies are quickly moving towards the second half of the chessboard and if in the legal industry, the analysis of 10 years of documents made by humans took many legal teams many weeks to finish, today’s software can do it in much less time being 40% more precise on an average than the human teams. Humans still win in the physical domain: humanoid robots are still primitive and keep falling when in motion so gardeners, plumbers, nurses who engage in combined physical and mental activities when working can still breathe since there is a long way before their reign is invaded by robots. In the realm of pure knowledge work too, robots have still a long way ahead; robots have proved to be quite flat when dealing with creative activity like song writing, poetry or generating innovative ideas for businesses. Programs that instantaneously write down sport events summaries have been developed but only because sport articles are easy to predict in their register and display highly reproducible linguistic patterns. Nevertheless, the difference between software generated texts and genuine human production is still significant and is continually experimented by mathematicians and developers as the 40-year-old Turing test, created by the famous computer science Alan Turing, shows; the test has the purpose of testing if a computer entity can deceive humans into thinking that it is human itself as well: a group of

people has online chats with two entities, a human and a computer and if in general the members of the group cannot distinguish between human and computer, the machine passes the test. The Turing test prize of \$ 25000 has never been won yet by a machine that has been able to fool the judges.

1.4.3 The Gilded Age of Apps

Among those economic sectors that have seen a high rise in profits even without a parallel hiring trend that of the Apps is the one that stands out the most. It all started back in 1983 with the theorisation by Steve Jobs of a future software distribution system; from Psion Epos and Ibm, pads and early handheld computers start to be sold and paved the way towards today App Phones, then, in 1998 the Palm OS has been the first PDA (Personal Digital Assistance) that got it right and together with the 1997 gaming app Snake quickly becoming a smash hit, companies started developing more and more versatile mini-programs for portable devices; Apple Ipods and Iphones and RIM's Blackberrys, all start being produced around early 2000's and all led to the creation of music apps, gaming apps, instant messaging apps and many others applications of common everyday use⁴³.

The term "App" stands for mobile application and it is a software designed for mobile devices such as smartphones and tablet computers. Pre-installed softwares in today's devices are for example web browsers, calendars, email clients, remote control simulators, apps for the creation of networks between same-brand devices, graphic and design apps, mapping programs and music or other kinds of markets. Being the process of development of an app an open source one, people have been widening the scope of this kind of programs everyday more since their conception. Independently

⁴³ *La storia delle app* di Redazione in Key4biz, 7th July 2016. <https://www.key4biz.it/la-storia-delle-app/164290> (Accessed 20/03/2017)

developed apps serve a wide range of purposes and go from games to information apps, from apps reviewing other apps to apps to hire people or that help people find a job.

The most trending ones these last years are: the network based ones, the location-based services, those for mobile search for price comparison and those for mobile commerce, the ones used for object recognition and the ones for mobile payments. Today, 2.000.000.000 people own a phone able to use mobile apps and by 2020 this figure is predicted to double up; the bestselling companies are Android and Apple; app users spend from 30 to 37 hours monthly using them and there has been a rise in the hours of usage by 31% from 2012 to 2016; with online markets that offer an average of 1.5 apps displaying from 50 to 70 million downloads, it is predicted that in 2017 over 268 billion downloads will be made with a gross profit of \$77 billion; talking about profit, in 2014 \$11.4 billion were made while in 2016 it amounted to \$24.5 billion while in 2015 1 in 3 consumer brands featured integrated payment in their apps. US app developers' annual salary rose by 8% from \$133.000 to a peak of \$144.000 from 2013 to 2014 reaching the height of billions when dealing with mainstream apps like the various social networks⁴⁴.

⁴⁴ *The future of mobile application*, <http://businessdegrees.uab.edu/resources/infographics/the-future-of-mobile-application> (Accessed 20/03/2017)

2 Independent Work and the Gig Economy

2.1 Jobs Loss and Independent Work

It has been reckoned⁴⁵ that between 2015 and 2020 there will be an estimated impact on the net employment of more than 5.1 million jobs lost due to market changes, with a total loss amounting to 7.1 million places. Many of the above-mentioned losses will be felt in the Office Administration sector, the one dealing with financial planning, record keeping, billing, physical distribution and logistics. To make up for it, 2 million places in different smaller sectors are expected to be opened. Globally, threats are perceived on all those white-collar jobs that risk being decimated while a huge growth, as already mentioned, is displayed in robotic, computing, mathematical and engineering working fields so employment growth will come from small, high-skilled job sectors that, anyway, will not make up for the job losses from other market sectors and if they could, this would mean that a hardly-achievable reskilling would become necessary. World unemployment will rise also due to population growth and the overall slowly obtained open job places at least until 2019; this leads to consider the developing countries which are characterized by a deep connection of its workforce with the dependent work in the agriculture market that delivers high potentiality of employment together with the yet unexplored personal care and services job family whose job demands will grow along with the population's growth. A smaller note deserves mention: gender gaps are expected to worsen, becoming more evident in both high growth and decreasing job sectors; while women are still low in presence in science, technology, engineering and mathematics compartments but also in compartments such as manufacturing, production and construction where losses will be felt

⁴⁵ *The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution*, World Economic Forum, January 2016, p. 17 et seq.

prevalently by men, there is a high feminine concentration in decreasing job sectors like sales and business, finance and administration and this feminine side will feel too the increasing jobs loss, widening a gap that was once narrowing for these kinds of occupations.

The traditional concept of work, dealing with one employer on a 9 to 5 working week has subtly changed through the years and for many today doesn't sound correct or even remotely similar to what they deal with. Millions operate nowadays within what has been labelled as "independent work" as freelancers, self-employed or temporary workers or even renting out rooms, selling and trading goods or driving on call via digital platforms. Even though in the past years it has never been analysed thoroughly, being an ever-growing trend, the independent work needs to be examined giving clear definitions statistics to help understand how this can affect the different societies. The main goal involves understanding what the independent work entails, who does it, why and how much satisfaction or even protections and securities it delivers. It has been estimated that up to 30% of the workforce of US and EU-15 countries participate in this sector earning in some way an independent income today; more than half of this percentage does independent work as a supplement to an already stable income from other activities and report, working out of preference rather than necessity, being satisfied by this source of earning; nevertheless, a growing 30% of them engages in this sector out of necessity and would rather seek a more traditional, stable and profitable job. While only amounting to 15%, the independent workers dealing with digital platforms are rapidly increasing and this may affect how marketplaces match their offers with the employers of their services⁴⁶.

Growing together with the digital marketplaces, the independent work is a force to be reckoned with and a one with everyday increasing potential; it will affect the economic system giving benefits

⁴⁶ *Independent Work: Choice, Necessity, And the Gig Economy*, McKinsey Global Institute, October 2016, p. 1.

to all the parts involved in the process but only if managed in a responsible and careful way for threats of exploitation and lack of security or even basic rights is already delineated in the future.

2.1.1 Trends and State of Play

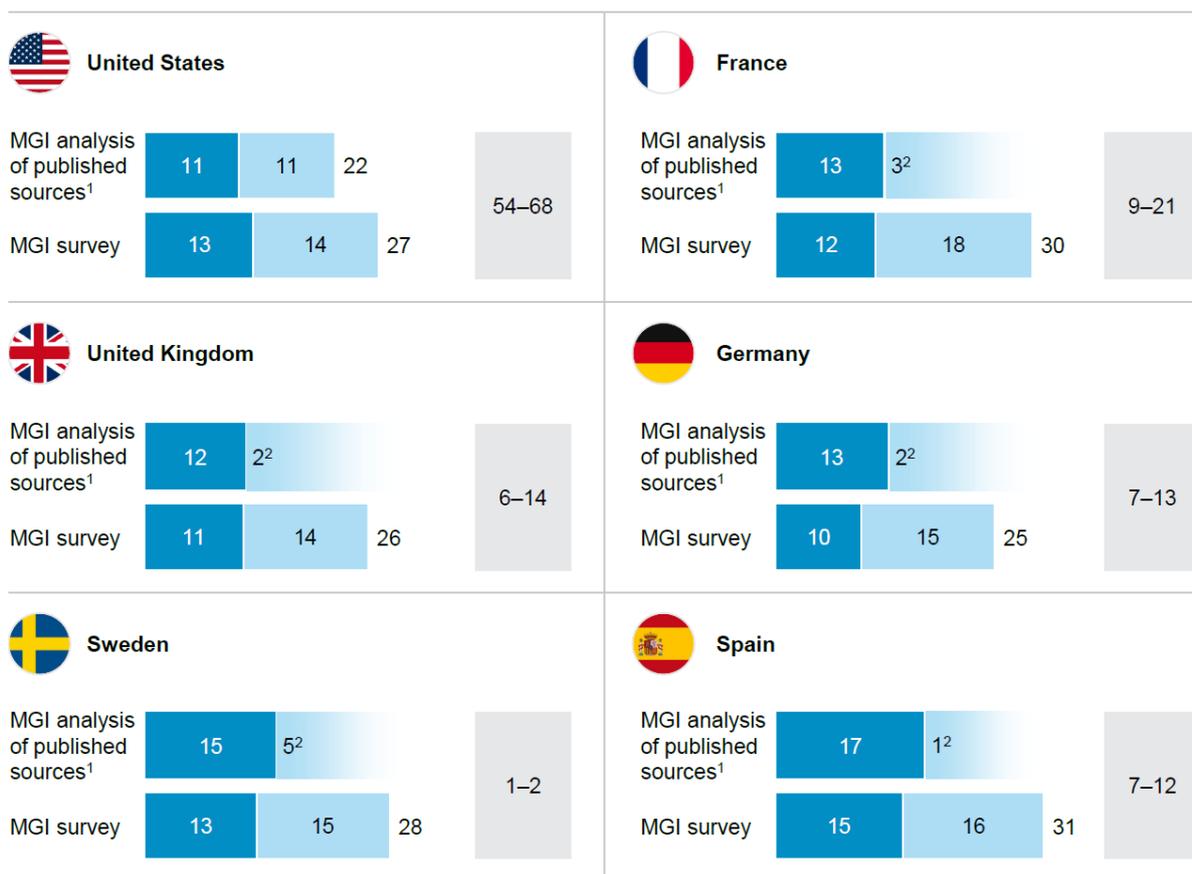
Labour has always accounted for an independent section and in history this took the main part of it until when different structures of employer-employee started being considered as more convenient for the newly industrialized manufacturing activity back in the Industrial Revolution and, despite this change, independent jobs remained stably present in many professions. The independent workforce has never received a deep and comprehensive analysis but governments have often examined how many people are engaged in independent work relying on those who were self-employed or were temporary workers and by doing this it has been found that 11% of the US working force and 12 to 17% of the EU one belong to this kind of work but, nonetheless, these data cut out all those who do this to supplement their salaries, those who do independent work despite holding a conventional job, the students and pensioners who scrape together by this activity small sums to amortise the cost of living. It should be clarified that the independent workforce consists of a greater part than what many think it does; some like the Freelancers Union state that up to 22% of the US working force are independent workers⁴⁷ accounting also for work independence in both their primary as well as secondary jobs.

⁴⁷ *Freelancing in America: A National Survey of the New Workforce*, Freelancers Union, Elance-ODesk, 2016.

MGI's survey indicates that the independent workforce is larger than previous estimates

Independent workers as % of total working-age population

■ Primary workers ■ Number of independent workers (million)
 ■ Supplemental workers



1 Based on an analysis of government sources as well as other published surveys.
 2 Published sources in Europe that capture supplemental work are limited. We have included gradients to represent the fact that the share of those engaged in independent work is much higher than published estimates in those countries suggest.

SOURCE: US Bureau of Labor Statistics; Freelancers Union; Katz and Krueger, *The rise and nature of alternative work arrangements in the United States, 1995-2015*; Kelly Services; Burson-Marsteller; MBO Partners; Eurostat; UK Labour Force Survey; McKinsey Global Institute analysis

Independent Work: Choice, Necessity, And the Gig Economy, McKinsey Global Institute, October 2016, p. 3.

Following McKinsey Global Institute's (MGI) report on independent work it can be stated that 54 to 68 million independent earners in US while there are 60 to 94 million in all EU-15 countries amounting to a general workforce of 162 million in the US and the EU combined. It is clear that the independent workforce is diversified by age, earned income, gender and education; the independentist desire

crosses horizontally through different classes, ages and most of all countries; independent workers can be found even in different kind of occupations and industrial sectors and it is not a share of work inhabited only by millennials and even though half of those under the age of 25 from all countries work within this sector, they still account for one-fourth of the overall independent population; it is not a sector for the low-income workers solely who need to make ends meet with a second occupation and even though 55% of low-income families are involved in this sector, it all adds up to less than 25% of all independent workers in all countries. Adding to this, it is important to underline that independent work does not only appeal to personal services, transportation or building firms but also to lawyers, doctors, therapists, accountants, designers and writers.

2.1.2 Independent Workers Categories: Out of Choice or Out of Necessity

Flexibility in the working hours and independence in managing the various tasks is what drives many of those workers who decide to take up this kind of activity on their own; those driven out of choice towards these activities are many but they are not the only ones as many find themselves heading towards this direction due to current economic and market conditions. The independent workforce has been divided into 4 different classes based on the split between choice and necessity⁴⁸: “free agents”, whose income rests only on independent work by their choice, “casual earners” who may have conventional jobs or could also be students, pensioners or carers who engage in this sector for pocket-money income and supplements, the “reluctant” ones who rely solely on independency but would rather shift to more conventional jobs and the “financially strapped” who are tied to this trend for supplemental income to make ends meet and wish for these side occupations to end. As for the dimensions of these categories, the

⁴⁸ *Independent Work: Choice, Necessity, And the Gig Economy*, McKinsey Global Institute, October 2016, p. 7 et seq.

casual earners make up for the most part of the independent workforce and together with the free agents the independent earners by choice add up to 75% of all group; this percentage has been confirmed by other reports like the one from the Freelancers Union. It has been found that those who engage in digital-platforms independent work do so by choice rather than necessity but even though reluctant and financially strapped ones are less than their counterparts, their problem is still an important one. Bringing these percentages to reality, they would translate into 50 million US and EU citizens combined who are independent out of necessity and would rather join the independent workforce than lingering in unemployment or seeking undesirable traditional jobs. Though many temporary workers are there by necessity and would rather pass to more stable occupations, it has been clarified that even one out of six workers with conventional positions wishes to pass on the other side of the independent work and this trend in dependent workers adds up to 42 million people for US and EU-15 combined, so to say that for each independent worker whose sole income comes from independent jobs family that wants to pass to traditional jobs there are 2.5 traditional workers who would take the opposite way.

The MGI report asked its survey subjects to rank how satisfied they were with their jobs and how they coped with their everyday lives through 14 different aspects⁴⁹. Those who ranked as the most satisfied are the free agents who are fine on 12 different levels of the 14 given, they are reportedly on higher levels than those who work with traditional jobs. Free agents are more involved in what they do and obviously report higher satisfaction at being emancipated and free to plan their working schedules, they are more creatively free than dependent workers and feel they have more opportunities at improving and earning recognition for merits; their overall income satisfies them and share with conventional workers the gratification

⁴⁹ *Independent Work: Choice, Necessity, And the Gig Economy*, McKinsey Global Institute, October 2016, p. 9.

Independent workers report higher levels of satisfaction on many aspects of their work life than traditional workers

Satisfaction scores from MGI survey (95% confidence)

In your work life, how satisfied are you with ¹	By choice		By necessity		
	Traditional by choice Mean rating ³ (n = 2,594) ⁴	Independent Compared to traditional ²		Traditional by necessity Mean rating ³ (n = 774) ⁴	Independent by necessity Compared to traditional (n = 637) ⁴
		Free agents (n = 668) ⁴	Casual earners (n = 772) ⁴		
The topics/activities you are working on	4.60	Work topic		4.32	Work topic
Overall work life	4.58	Overall work life		4.30	
The number of hours you work	4.52	Hours worked		4.34	
Independence in your work life	4.49	Independence	Independence	4.33	Independence
The atmosphere at your workplace	4.46	Atmosphere	Atmosphere	4.26	Atmosphere
Your boss	4.40	Boss	Boss	4.21	
Your level of empowerment	4.34	Empowerment		4.06	
The creativity you can express at work	4.33	Creativity		4.08	
Your income security	4.33			4.10	Income security
Your benefits (e.g., health care)	4.31			3.99	
Your ability to choose your working hours	4.31	Flexible hours	Flexible hours	4.16	Flexible hours
Your opportunities to learn, grow, and develop	4.24	Opportunities		4.06	
Flexibility regarding where you work	4.20	Flexible location	Flexible location	4.13	Flexible location
Recognition you receive	4.13	Recognition		3.91	
Your level of income	4.01	Income level		3.89	Income level

1 Question asked: "How satisfied are you with your current overall work life?" Select from a 6-point scale. "In your work life, how satisfied are you with [attribute listed]?" Select from a 6-point scale.

2 Free agents and casual earners are compared to traditional workers by choice, independent by necessity to traditional by necessity.

3 Weighted average of satisfaction scale: 6 = completely satisfied, 5 = mostly satisfied, ..., 1 = completely dissatisfied.

4 Total unweighted number of respondents. Not all respondents answered all of the subquestions.

SOURCE: McKinsey Global Institute analysis

Independent Work: Choice, Necessity, And the Gig Economy, McKinsey Global Institute, October 2016, p. 11.

given by income security, benefits and bonuses. All these records hold true across gender, age, formation and type of household sections.

Casual earners too ranked on higher grounds than the dependent ones on 5 out of 14 categories and are on the same level as them on the remaining 9 categories; this is due to the casual earners having probably transformed a possible hobby or passion or routing into a source of profit or to the fact that they enjoy taking some time off their

primary and probably conventional occupations. For obvious reasons, those who are not satisfied with their jobs, either dependent or independent rank lower on this chart than those who freely follow their tastes but once compared, of these two subclasses, those who work out of necessity are happier with the flexibility they are given but not as happy with the income they earn or even their wage security while those who follow their choices enjoy much more categories of the ones given. This clearly entails that a policy dealing with more income security should be followed in this sector.

Digital innovations have widened the independent trend by giving editors, accountants, painters, photographers and caterers to mention some, a way of dealing with their customers remotely and to advertise their hireable services; on the other side, employers from all branches are able, thanks to this kind of technology, to post advertisements to look for temporary workers or seasonal help or even offer fixed-term contracts. In this way, digital platforms have introduced a direct connection between a customer who needs a service and those workers willing to provide it; the “digitally enabled independent work” among many things, “improves search capabilities, lowers coordination costs, and provides richer signalling through mechanisms such as reviews or ratings⁵⁰”.

2.2 Work inside the Gig Economy

The Gig Economy is commonly considered as the union of “crowdwork” and “work on-demand via apps”⁵¹. The former deals with activities that have tasks carried out through online platforms and these platforms put together an indefinite number of firms and institutions with individuals through the web, thus linking providers and clients worldwide. The latter involves forms of work that include

50 *Digital matching firms: A new definition in the “sharing economy” space*, US Department of Commerce Economics and Statistics Administration, n. 01-16, June 2016.

51 De Stefano V., *The Rise of the “Just-In-Time Workforce”: On-Demand Work, Crowdwork and Labour Protection in the Gig Economy*, International Labour Organization, 2016, p. 9 et seq.

conventional activities like transportation and cleaning which in this case are contracted and managed by private apps, that in turn set minimum quality standards to be respected by those hired.

The amounts of workers counted inside the gig economy vary depending on the surveys adopted, even though all agree that this is a phenomenon that deserves growing consideration. In Europe, the most precise research has been conducted in Sweden and the UK⁵² where, for the latter it is shown that 21% (9 million) of the total workforce have looked for jobs inside this kind of market, 11% (4.9 million) have worked once or more, 4% do it every month (1.8 million) and 3% (1.3 million) every six months and, for the former, 24% (1.4 million) have taken a look for opportunities, 12% (700.000) have done it once, 4% (245.000) every month, 3% (170.000) every week. This all adds up in both countries to 3% of the total working population. In the US, it has been measured⁵³ that the workers of the gig economy amount to a minimum 600.000 which would be 0.3% of the total workforce up until a maximum of 14 million which is 9% of the total. If some say that 2.7 million of US citizens are employed in this sector⁵⁴, the already mentioned McKinsey Global Institute reports that 1.6 million workers are part of this system. It is estimated that this trend in the US will grow stably up to 7.6 million by 2020 but there already are some 25% of Americans who unknowingly employ paid services within digital platforms and if counted⁵⁵, this would raise today digits to 39.5 million citizens being part of this economy. Although many like Krueger or MBO may underestimate this trend, it should also be avoided overestimating it and it should be appropriate to pinpoint a fair amount of today's workers of the US gig economy at 6 million which stands for 4% of the total workforce.

52 Huws U. and S. Joyce, *Size of the UK's "Gig Economy" revealed for the first time and Size of Sweden's "Gig Economy" revealed for the first time*, University of Hertfordshire, March 2016.

53 Katz L. F. and A. B. Krueger, , *The Rise and Nature of Alternative Work Arrangements in the United States, 1995-2015*, The National Bureau of Economic Research, March 2016.

54 *State of Independence in America 2015: five years of insight on the Growth of the Independent Workforce*, MBO Partners, 2015.

55 Bracha A. and M. A. Burke, *Informal Work Activity in the United States: Evidence from Survey Responses*, Federal Reserve, December 2014.

Principal platforms and apps in the gig-economy			
Name	Field	Size of Workforce	Operating Areas
Uber	Transportation	160,000	International
Lyft	Transportation	50,000	U.S.
Sidecar	Transportation	6000	Major U.S. Cities
Handy	Home Services	5000	U.S.
Taskrabbit	Home Services	30,000	International
Care.com	Home Services	6,600,000	International
Postmates	Delivery	10,000	U.S.
Amazon Mechanical Turk	Crowdwork	500,000	International
Crowdfunder	Crowdwork	5,000,000	International
Crowdsourcing	Crowdwork	8,000,000	International
Clickworker	Crowdwork	700,000	International

Smith R. and S. Leberstein, 2015, p. 4⁵⁶.

What needs to be analysed, being this reality an ever-increasing one, is the nature and classification of those who work within it; it is of significant importance to do so because this kind of jobs will take up the majority of the already existing occupations in the near future and with a sensible lack of rights or insurances inside this system this trend potentially useful for all the parts that contribute will only worsen the conditions of the various workers. Theoretically, these tasks might not even be considered work on a legal basis being instead labelled as gigs, services, rides etc. The very word “work” is seldom heard and the expression “gig economy” itself embodies a world in which rules do not apply and work security and protection or any kind of conventional regulation on the working place are not abided by. All this goes to detriment of the workers since the nature of the working environment is seldom well established; gig-workers often come out of a blurred crowd to perform those tasks that clients asked them to do via one simple click and once that job is done they virtually disappear absorbed in the on-demand workforce and, in this way, they are seen

⁵⁶ Smith R. and S. Leberstein, *Rights on Demand: Ensuring Workplace Standards and Worker Security in the On-Demand Economy*, National Employment Law Project, September 2015, p. 4.

by customers as part of that same IT platform they employ, thus regarding them as linear, smooth and unable to complain as a software is. Since any error an on-demand worker commits can be backed up by negative feedbacks, it often passes unnoticed that these feedbacks have severe repercussions on that same worker who might then find it hard to keep on working with that platform or to achieve better paid ones, being these apps heavily dependent on customers' reviews. Physical activities are particularly characterised by this issue, moreover the physical section of the app work involves a high amount of "emotional labour", having always to show a friendly behaviour of politeness and cheerfulness in doing the tasks⁵⁷. All this structure of third party feedbacks ensures the companies flexibility and swiftness, while also helping to cut out the needs and the subsequent costs of internal intra-employee reviews of the personnel and stabilizing an overarching and always threatening control; inside these systems the workers often have to manage and deliver the customer-care that conventionally belongs to the company itself and many times again via feedbacks the workers take the blame of their companies' faults:

"It is sufficient to think of a client of a car-hailing app that had to wait a long time before being able to find a driver on the app: the possibility of them venting their frustration against the app by giving the individual driver a poor rate is far from remote⁵⁸".

The most important apps on the market classify their workers as "independent contractors"; this helps firms to get rid of liabilities or other insurance responsibilities towards customers and to by-pass the obligations requested by the laws on work for the employees dealing with minimum wages, social security, anti-discrimination norms, personal days-off and holidays.

⁵⁷ Dzieza J., *The Rating Game: How Uber and Its Peers Turned Us into Horrible Bosses*, The Verge, October 2015.

⁵⁸ De Stefano V., *op. cit.*, p. 5.

2.2.1 Employees or Independent Contractors?

As already said, many on-demand companies use to call their workers “independent contractors” or “1099 employees” which is a way of contracting that deals with the payment for services delivered by non-employees⁵⁹; for regular employees normally a firm has to contract them under a W-2 legal form which mandates it to salary withholdings following the fiscal norms; among the many 1099 forms the most used by on-demand businesses is the 1099-K which reports third-party payment transactions like card payments.

Workers who seek to offer services through online platforms are persuaded that are not entitled to any form of protection or benefits whatsoever but, instead, are required to pay an annual tax due to the nature of self-employment they practise that amounts at 15.3% of their income, plus the basic income taxes but without any kind of help to manage their deductions and credits. Commissions are obviously a must and businesses take from 20% up until 25% from the pays and, as already mentioned, being non-employees, the workers see no bar set by firms for a fair minimum wage, have no hours accounted as overtime when they do them, know that their injuries on duty will not receive any repayment, are often left alone without unemployment insurance when fired and are offered no protection against discrimination. No workers’ unions are allowed or even remotely protected under this kind of companies and more often than expected, any form of opposition from the workers’ side is met with threats of denial of future work accompanied by prolonged stand-by for those who challenge their status. The paradox here is embodied through how companies treat their workers as independent while at the same time asking them to fully deliver the work of those same companies which would be the main essence of an employer-employee relationship; there is no communication between these two sides and only one most of the times sets prices, rates, methods to deliver the

⁵⁹ Smith R. and S. Leberstein, *op. cit.*, p. 4 et seq.

services; the company itself tests, trains and evaluates its workers on its own standards as if they were employees.

Many app businesses of home help advertise their services by clarifying how they monitor their workers to make sure they arrive on time, they do not waste time in personal activities like checking mails, with calls or on social networks, they do not sit down or take rest when they are on duty; Lyft, a US based transportation app, ensures its drivers are first-hand tested, trained and evaluated, all this accompanied by a thorough inspection of all the vehicles they offer for service and the instructions on how to treat and greet their passengers; again, with Lyft, rates are determined by the company, as well as the number of drivers deployed in each area and the length of each driver's contract, so to say that Lyft reserves the right to cut its contracts whenever the company wishes so without any given or owed explanation or reason, from what the drivers reported⁶⁰.

The 1099 contract model has been used in the past decades in many sectors like agriculture, private transportation like taxi, health care, building industry, delivery and others who had "independent contractors" as workers. This goes together with the already old-fashioned issue of an unstable work in which providers make workers contend positions, accept outrageously low wages or short-term contracts. These business models have been moved in the on-demand economy and businesses today even claim they are not an app to deliver services but only a mean for workers with whom they share nothing but the temporary nature of their relationship.

The primary workers of this sector, those who solely rely on the income coming from the online platform services, must cope with the "gigs" they perform; these are all too often low paid and never offer a chance of stability and include activities like house care, taxi driving, translation, personal assistance and secretaryship that, if were once full-time duties, have been deconstructed to fit inside a task-by-task

60 Cotter v. Lyft, Inc., *Memorandum of Points and Authorities in Support of Plaintiffs' Motion for Summary Judgment as to Liability*, December 2014. <https://www.lyft.com/safety> (Accessed 10/04/2017)

system. Since this trend is openly taking huge steps in USA, a report by the UCLA has highlighted how \$35 million have been lost due to the cut of 221 workplaces in the taxi industry of Los Angeles that has suffered the blow of the increasing network-based transportation services⁶¹; some other networks serve as a mean to contract out services that normally are performed by employees and contractors, like what Amazon's Mechanical Turk does and the some does Crowdsource, outsourcing work for companies like Walmart and Staples. Clickworker, a German society that offers online marketing and researching management via app, displays customers like Honda and PayPal for which in this case they conduct economic services that normally would require inside employees. An independent contractor who vases his or her income only on this economy tends to collect diverse kinds of errands to gather as much money as it is possible; he or she can pass from editing photos for social networks for two hours to transport occasional clients and travellers for half a day, from writing or translating excerpts to perform gardening on call only to make ends meet, day by day, hour by hour. It has been estimated that more than 40% of the on-demand workers offer services with two or more companies each week and 1 out of 2 complains that it is hard to find enough work⁶².

Low wages are not an exception; small jobs deliver small pays and these pays are so low that have been considered as characteristic of a poverty-level environment because of the rates of return that each task delivers without taking into consideration the number of unpaid hours spent waiting for new services to be asked; these wages can face further reductions due to fees required by businesses that label them as independent contractors. It has been noticed that 90% of Amazon's Mechanical Turk tasks pay less than 10 cents: "a task worth \$1.00

61 *Ridesharing or Ridestealing? Changes in Taxi Ridership and Revenue in Los Angeles 2009-2014*, UCLA Labor Center Policy Brief, July 2015.

62 Dourado E. and C. Koopman, *Evaluating the Growth of the 1099 Workforce*, Mercatus Center, George Mason University, 2015.

with an average completion time of 12.5 minutes resulted in an effective hourly wage of \$4.80⁶³”.

The so often craved-for flexibility is but a mere illusion in this sector; what the firms are offering to their workers is not flexibility to look for other occupations but instead the freedom of not working during times of low demand; this entails that if a worker would like to take some time off a particular remunerative activity, his or her income may face huge cuts if this takes place during high-demand periods for that same activity; in addition to this, the companies tend to make the most out of those who reveal themselves as always available by rewarding them while penalizing those who do not. For instance, Uber has been found to occasionally cut contracts depending on how many rides a driver does but also on how many drivers are present in each area or how much demand there is in a given area⁶⁴; with this routine, businesses are able to exponentially maximize the gains from their workers service and availability. Accompanying this cruel side of this market, there is the continuous isolation that stems from the competition instilled among colleagues; apart from this, working through micro-activities that isolate them more and more does not allow them to express concerns or complains, something that would rather happen in physical economic activities like working for shops.

Firms’ archives brim with personal data from their workers; the same counts for on-demand businesses that are used to gather information about their independent contractors without clarifying how and how much is gathered, where it is stocked and for what purpose; workers display very low privacy inside this system that labels them as independent because not only their identities and performances undergo records but companies keep tabs on their workers also by detecting their physical position in each moment,

63 De Stefano V., *op. cit.*, p. 5.

64 O’Connor v. Uber Technologies, Inc., *Plaintiffs’ Opposition to Defendant Uber Technologies, Inc.’s Motion for Summary Judgment*, January 2015.

their tastes and their personal contacts. These sensible data are prone to be abused and too often sold for consumer-targeted advertisement.

Expansion is what many expect from this economy. Everyday more companies adopt the 1099 model contract.

“The delivery service Postmates grew from 500,000 to 1.5 million deliveries in a span of 30 weeks from 2014 to 2015. The home cleaning and repair company Handy grew from \$3 million per year in bookings to \$52 million per year over the course of two years, according to its chief operating officer. The number of new Uber drivers has more than doubled every six months for the last two years⁶⁵”.

The Sharing Economy globally was worth \$26 billion in 2013 and in the upcoming years it will reach \$110 billion; the McKinsey Global Institute expects that the online workers will add a profit of \$2.7 trillion to the GDP of the world while at the same time witnessing 72 million new full-time places created in the workforce. The future looks grim and being the businesses on their way to increase the imposition of this kind of contracts, the workers will to have face a curse of low-paid, dead-end jobs while CEOs and managers will welcome every time higher incomes.

Forward-looking policies are and will be needed to ensure that this trend changes in time and they must involve the recognition of firms' responsibilities towards workers, customers and the public as a whole; all the innovation in the technology would not be opposed, but instead, the millions of workers of the on demand economy and the gig-economy as well should be able to make a decent life out of it, without having to give up anything to join it or to operate alongside it with a stable security holding up to their job-role.

65 De Stefano V., *op. cit.*, p. 6.

2.2.2 How to fix it

Firstly, it is of the utmost importance that the workers of this sector are given protection and rights consistent with the standards of all the other economic sectors⁶⁶. Dealing with what the USA has to offer, the 1983 Fair Labor Standard Act (FLSA) displays the widest definition of employment, which helps guaranteeing a minimum wage and shift regulations to most groups of workers, together with the National Labor Relations Act on occupational safety, health regulation and against discrimination that may apply to the on-demand case. The gig-workers meet the standards set by the FLSA and could therefore be covered by it in front of their employers. What many countries as well as their tribunals do not understand is that too often, app-companies have only rearranged old work models that have been dismissed as too exploitative and not enough respectful towards the labourers. To ensure that this does not become the common ground for app-workers, the governments should widen the range of rights and benefits of labour to them, holding the various employers and managers accountable for their workers' safety across all sectors.

Since the gig-economy is filled with cases of workers who have to deal on their own with how they are employed and on what basis or contracts they perform their duties, it would supposedly improve this environment if policymakers started offering direct and law-covered protection to the on-demand workers; this hoped-for position would be in line with the model of the US Social Security Act and many state laws that overlook how employers label their workers and characterize a number of workers as “statutory employees” for specified purposes; this entails that those working under 1099 model contracts such as those dealing with transportation, delivery and home-care, might be relocated in the array of independent contractors treated as employees, with tax dues and wage withholdings but with an employee-like coverage. It must be said that not all companies display the use of

⁶⁶ Smith R. and S. Leberstein, *op. cit.*, p. 10 et seq.

1099 contracts, some like the food delivery and preparation app Munchery, the cleaning service MyClean and the valet parking service Luxe, adopt W-2 model contracts for conventional employees and find economic success with them.

Another hard-to-deal-with side of the on-demand economy is that there has rarely been an easy or even remotely protected way of organizing the union of its workers. Being this economy's wages based on assignments and one-time services' rates cut from various companies' withholdings, it is of the greatest relevance the necessity and freedom to join up together for these workers; the competition is obviously hard but it can be softened with cooperation instead of worsened by the firms' policies looking for quicker and higher profits through the worker-against-worker struggle; in the US these workers are not under the National Labor Relations Act which would help them achieving a stronger kind of bond among them instead of the alienating isolation they live in, thus helping them demanding better wages and conditions; even though they are not part of the Act, this did not prevent them from doing it and in many American and European cities, on-demand workers have started gathering and asking for improvements.

Forms of workers' organizations on a sectoral level have already spread among Europe and US. If in Europe there is the Association of European Transport safeguarding its workers, in Maryland an ordinance established the creation of a permanent commission of representatives of taxi drivers that offers dispute solving systems, a central dispatch and demands the creation of new job places each year maintaining a high level of employment and competition; in Europe the European Federation of Food, Agriculture and Tourism Trade Unions backs up the hotels and restaurants workers in Italy and Norway⁶⁷ asking for more safety and a healthier working

⁶⁷ *Hotel and restaurant workers in Europe stand up for better working conditions and decent wages*, European Federation of Food, Agriculture and Tourism Trade Unions, May 2016. <http://www.effat.org/en/node/14387> (Accessed 15/04/2017)

environment, while in the US, the New York State Wage Board have started requesting fixed wage rates for restaurant workers whose income partly comes from tips and in Los Angeles minimum wages for hotel workers have been mandatorily raised to the level of living wages across all sizes of hotels. It is clear that the on-demand workers might easily be included inside these groups depending on the category they work in, thus allowing them to create councils and guilds to face the industrial and economic pressures, to cooperate with governments to set standards for their duties and their same industry; by enlarging it, the consumer classes together with those not served yet by the app-service in question might be involved and this would help get more in contact the workers with the customers or the potential ones⁶⁸.

Whether new laws bring protection to gig-workers or the introduction of those same workers inside old law systems does it, what matters is that a number of crucial points are understood in the process for the purpose of respecting the workers' privacy. First and foremost, it should be compulsory for the businesses to make their data collecting activities open to their workers, in particular when dealing with drivers, and their customers, especially when gathering location data in order to always be transparent and this data should always be collected only once the purpose of the activity is clear. The workers' privacy, analysed by the employers should never be excessive and should not be sold to third parties for other unknown economic, political or social matters without previous notification to its original owners and even though being notified, it should always be restricted by law to a certain amount collected. Databases containing workers' data should always be kept safe and secured under the firms' vigilance.

Security on the workplace and the recognition of the workers' rights pass through the establishment of a system of social security;

68 Said C., *As Uber, Lyft and Sidecar Grow, So Do the Concerns of the Disabled*, San Francisco Chronicle, February 25, 2014. <http://www.sfgate.com/news/article/As-Uber-Lyft-Sidecargrow-so-do-concerns-of-5240889.php> (Accessed 15/04/2017)

the whole structure of disability, pregnancy and retirement coverage that applies to employees does not apply to independent contractors and since many inside the gig-economy do not know that their contracts are based on an independent contractor-like form, they do not realize that they are cut out from these benefits. Gig-workers should be granted by companies to have access to compensation and unemployment insurance funds, together with a solid retirement system and bonuses like paid leave and supplemental retirement plans; the European standard for paid leave for standard employees ranges from 20 to 28 days on an annual base but these rules do not always apply to independent contractors throughout all European countries while overseas in the USA there is no paid leave whatsoever for them and on both sides of the Atlantic a stable compromise still has to be reached for independent contractors and on-demand workers as well; companies with 1099 model contracts should be required to pay contributions to social funds and retirement plans deducted from contractors wages. Even though 30% of the Americans do not have any kind of retirement savings, small steps are being made towards an over-arching coverage through the experimentation of portable state-managed retirement plans in places like California, Illinois, Maryland and Connecticut and gig-workers should be included in these advancements.

Talking about Europe, the hoped-for regulations must consider the protection of workers without a sensible rise in the costs for the platforms providers. The “Fair and Dignified Support Structure”⁶⁹ for on-demand labourers that has been introduced in 2016 involves a minimum wage based on the average time of completion of a service, accompanied by a set volume of working hours daily and a ban from firing workers whose rates show drops, the already mentioned social protection and the craved health insurance, a safety net from discrimination and alienation on the workplace, from third-parties damages and any form of privacy or private data exploitation. Many

⁶⁹ *The situation of workers in the collaborative economy*, European Union, September 2016, p. 6 et seq. [http://www.europarl.europa.eu/RegData/etudes/IDAN/2016/587316/IPOL_IDA\(2016\)587316_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/IDAN/2016/587316/IPOL_IDA(2016)587316_EN.pdf)

wish for norms that may easily be included in the already existing normative system and a system of certification of the usefulness of the services offered by the different apps, while at the same time they wish for a prohibition on the anti-cartel law and on the exclusivity clauses so with the former to let gig workers create unions and with the latter to let them work for different companies at the same time (e.g. a driver could work for both Uber and Lyft). As we can see, the needs for this growing sector of the economy match on both sides of the Ocean.

For all workers, independently from the area or Country they work in, since the internet is becoming the place where companies develop their services for the public, these same firms should be classified as companies providing telecommunication services to the masses. Therefore, it should be them who have the duty to provide broadband access to the internet for all families and individuals, even the low-income ones, thus enlarging their potential customers' pool in a way that has positive consequences for the whole society while at the same time offering new job places to the new internet users. Social programs could be implemented by businesses to help people finding quality jobs which cover their contractors and respect their rights and all these job offers could be inserted inside platforms sponsored by the governments that may provide training and support to workers and customers alike. Some of this is already happening in Oregon with the Home Care Commission Pilot that "will enable private payers to buy home care services, and home care workers to find such employment, through the commission's online home care registry, initially set up solely to serve the state's Medicaid home care program⁷⁰" and in Washington D.C. where the Taxicab Commission has implemented a centralized electronic dispatch.

Some scholars push for the creation of a new class of workers that stands in the middle between the employee and the independent contractor but the risk here is that it may create even more confusion

70 Smith R. and S. Leberstein, op. cit., p. 12.

than the already existing one on which on-demand businesses make their profits.

2.3 Legal Status of the Gig-Economy

The gig-economy has developed between the lines of the already existing law, being the innovation of the technology faster than the law's one. This unruly development has helped its businesses to step inside rich and untapped sectors and to develop rising to high positions of dominion; this has led to the already mentioned control heavily exerted by the app-firms over their workers and to the freedom for the companies to roam freely in this virgin but resourceful land of profit dodging any form of legal compliance or punishment. Recent studies have not been able to find in Europe any kind of common legal framework in which to embed the gig-economy⁷¹ but it has been observed that each country deals on its own, some more than others, with this issue. In many countries like Germany and France the workers are classified as self-employed which is the European version of the independent contractor but more in general the features of the employment of a worker are based on the agreement between the customer and that same worker providing the service, thus leading to a planning of the conditions, wages and other matters done via terms and agreements accepted directly by clients interfacing with providers or terms given beforehand by businesses. Normally, terms and conditions lead workers to self-employment but as the ILO clarified, even though these platforms are not regulated by the states' intervention, it does not mean the lack any form of regulation or that they will not receive any governmental one in the future

⁷¹ *Eurofound yearbook 2015: Living and working in Europe*, Publications Office of the European Union, Luxembourg, 2016.

2.3.1 Proceedings in the USA

The classification as independent contractor of the US gig-workers directly pays respect to the idea of “self-employed”. Taking from examples like the Lyft litigation in California⁷² it has already been stated that self-employment involves a complete set of particular skills that the hirers or customers are not able to perform on their own while the gig-workers can do and so they should be called in to do the task; but, what about those apps that work within the daily common tasks that most consumers are already able to perform like Lyft with its drivers? Normally, courts proceed to determine which kind of status a worker has in his or her sector by examining the economic reality of that same job; doing this entails that the courts have to validate all the circumstances in which the working relationship has place and to sift through all the times the activity of this work unfolds. Some factors that might be taken into account to determine a worker’s status and if he or she are covered by the Fair Labor Standard Act (FLSA) law are the level and nature of the control exerted by the employer over the employees, the degree of free will and decision power of the employee over his or her profits or losses, how much a worker has to invest in his or her equipment and materials to perform the task, whether the work demands high level or particular skills, how long the working relationship is and how important the worker’s activity is important for the whole employer’s business. A complaint in Florida has been filed in July 2015 by a Lyft driver who stated that his company was violating the FLSA standards by exerting an excessive level of control over the ways and manners with which the driver performed his duties, over his rates and prices and over his working hours, restricting or enlarging them arbitrarily but the case has been dismissed in December with an amicably agreement.

California has seen at least two important claims on wages and both deal with violations on the worker protection applied by the

⁷² Aloisi A., *Commoditized workers: Case study research on labour law issues arising from a set of “on-demand/gig economy” platforms*, Comparative Labor Law&Policy Journal, Vol. 37, No. 3, 2016.

State; even though they have not been filed under the FLSA jurisdiction, to solve them is again required to clarify the nature of the workers, whether they are employees or independent contractors. An Uber driver has been declared by a Californian labor commissioner as an employee to compel the firm into respect of that same worker's rights protected by the State's law. The case *Berwick v. Uber technologies* was filed by a driver who was requesting the unpaid wages, a form of reimbursement for the use of her own car, payments for damages and supplemental penalties for the unpaid wages but the court, examining the status of the worker in the same way as FLSA does, has declared the defendants (i.e. Uber Technologies) a neutral platform that helps mediate between drivers and customers for the sake of transportation, thus they bear no responsibility at all and are free of guilt; as already stated, Uber is instead involved in each and every aspect of the transportation itself. The court awarded the driver with amounts fair to the kilometres travelled for work and to the interests on the unpaid expenses but the wages, the damages and the penalties have not been considered due to the lack of evidence in favour of the appellant.

Under the National Labor Relations Act (NLRA) of 1935, the employees have the right to organize and take part in organizations dedicated to the collective bargaining, to mutual aid and protection of those same workers; these organizations, once the employees become part of them, take on the role of their sole representatives for bargaining. Since independent contractors are not displayed among the NLRA protected categories, in the attempt to provide some sort of protection to part of the gig-workers, the city of Seattle has planned the creation of a drivers' union that represents and protects all the for-hire drivers like Uber and Lyft's ones; this informal guild would bargain with the coordinators the drivers' working hours, the equipment that each car should display and then working conditions in which the services are provided. The NLRA's exclusion of the independent contractors from its classes of workers has often been seen as an obstacle to the solution of these working debates.

Generally lacking fair conditions in their environment, the gig-workers must compromise and accept the fact they will not be rewarded with minimum wages, that normally are covered by the FLSA and amount to \$7.25 per hour, overtime compensation that for the FLSA starts from the 40th working hour, any form of compensation for unemployment that employers' taxes finance or any kind of leave, be it due to family issues or medical since it is part of the FLSA coverage⁷³.

On a platform level, the control exerted by the different firms grows every day to maintain the costs low for the sake of competition; the substantial dependence of the law on the distinction between independent contractors and employees offers leverage to the gig-businesses to manage their activities as well as their individuals, writing their history between the lines of an obsolete judiciary system that struggles to find quick and long-lasting solutions or even definitions. This contrast between firms and the state of the law on this matter has given place to different litigations in the USA. Some of them are the Crowdfunder case when workers demanded the minimum wage and a settlement was reached, the Lyft case where benefits and reimbursements for employees were claimed and a settlement was reached, the Uber cases with one of them that shows that a settlement on reimbursements and benefits has been reached but with two others that are ongoing.

Settlements have been reached and huge steps towards a final solution have been taken but the lines are still deeply blurred and the case in the US is open; the governmental regulators are free to act on this matter determining the nature of the gig-workers and there is hope for a change in their conditions also with a retroactive sentence that might pay them of all the previous oppression.

73 Sundararajan A., *The Sharing Economy: The End of Employment and the Rise of Crowd-Based Capitalism*, MIT Press, 2016, p. 4 et seq.

2.3.2 Proceedings in Europe

Issues with the gig-workers case have risen in Europe too, with companies like Uber most of all that has led a judge in Spain to submit a preliminary query to the European Court of Justice to decide whether Uber should be legally treated as a transport company or a digital service; if the latter, governments would struggle limiting the firm's freedom to provide digital services across all European Internal Market.

Member States deal with the distinction between peer providing services and professional providers of services for gig-businesses in diverse ways. There are different sets of obligations and commitments that apply only to one of these two categories like the authorization and licensing prerequisites and the due taxes on the businesses. The threshold is differently set by each country but above this the provider is charged with legal obligations. Some Member States make a distinction between gig-businesses out of the authorisation requirements:

“For example, in the transport sector, some countries specifically stipulate that profits beyond the sharing of the cost of a ride can only be made by licenced taxi or hire car drivers. This is the case for example in Ireland, France, and Spain⁷⁴.”

Others, like Finland, take out of the equation about requirements all those small-size rides dealing with the transporting of goods and passengers that display yearly revenues below 10000 euros. Passing to sleeping accommodation-service apps, the threshold for imposing authorisation requirements is based on the number of days for short-term rentals; the stay must not exceed a number of days if the company does not want to face authorisation requirements. This system is adopted in countries like the Netherlands, the UK and

⁷⁴ Codagnone C., F. Abadie, and F. Biagi, *The Future of Work in the “Sharing Economy”: Market Efficiency and Equitable Opportunities or Unfair Precarisation?*, Institute for Prospective Technological Studies, JRC Science for Policy Report EUR 27913 EN, 2016.

France and helps them, again, making a distinction between professional services and services provided by peers.

2.3.3 How things are in Italy

The gig-economy in Italy is having the same effects that have been shown around the world and this is due to the fact that the Italian work-system is an old and slow one, never too much inclined to progress or changings in general. Deliveroo and Foodora are two of the most famous businesses today in Italy also because lately they have hit the headlines of the newspapers with the strikes of their workers who were demanding higher pays and more respect for their rights on work, but these are just two of the many companies which are already making huge profits on our soil. Uber is already making taxi drivers shiver due to the elevated numbers of customers who shift to the new and more economic app-service and it is forcing them to request limitations to Uber drivers while the establishment of an association for those who rent houses like the Airbnb's users has been suggested.

Foodora drivers' strike has echoed through the Parliament halls and a law that could regulate the status of the gig-workers has been submitted by the Leftist party; the draft fully grasps the concept of their status describing it as a limbo, a grey area between laws that allows these companies to hire promising the freedom to manage everyone's own schedule while in the end tying the workers to the firms' standards and obligations. The bill states that these workers are employees and as such they must be treated; into these category, not only all the organized activities are inscribed but also all those services that are coordinated by the client who requests the service and that require devices and equipment (e.g. bike, smartphone or car). This entails that they cannot leave in a perpetual state of precariat, a disease that haunts Italy since decades; according to the draft, gig-operators can use the subordinate contract of discontinuous work with

no limits of age or duration and gives priority for hiring to those who have worked in each gig-business for more than three months; this goes together with the duty for the employer to grant an allowance for the equipment that each worker deploys to provide the service.

Taxi drivers in Rome and Milan are taking under siege the system of rides provided by Uber; the “Milleproroghe” decree has helped the Minister of Transportation taking time to write down the laws that may regulate the system of car rentals and rides-providers but in the meantime the upcoming regulation has already been labelled as a way of unbalancing the established dynamics of competition; it is indeed a path that, if taken, with the limitations requested may harm the businesses of driver rentals in favour of taxi drivers but this issue between taxi drivers and car rentals has never been so close to realisation before the appearance in Italy of the now famous Uber service.

The same kind of battle is being fought on the accommodation providing services’ side; Airbnb has found itself pressed between those who do not declare their activity and try to evade taxes and the hotel owners who demand higher limitations and stricter regulations on the whole holiday-houses segment. The problem is with the Airbnb kind of platforms that many professional providers are now basing their businesses on the apps, placing advertisements and renting houses across apps. For many professionals, these apps are channels for sales and a way of setting new bars for the competition but again, in Italy things move slowly and they inevitably find an enemy in those hotel owners who push for regulations on the already mentioned short-term rentals. It has been estimated that renting an apartment in Milan via Airbnb makes up for the whole apartment’s price in 175 months, against the 495 months for traditional rentals; this kind of rentals helps containing the metropolitan desertification but, still, many ride the wave of tax-evasion app-renting apartments with the authorities completely unaware of it and Airbnb has never done much against this trend.

2.4 Conclusion

Being an ever-changing one, the gig economy is a malleable reality that fits inside that various cracks that each national jurisdictional system inevitably has; it is elusive in its features and cannot be easily defined with today's law standards; it feeds on the need for money and jobs that our societies have due to the growth of world's population, to the everyday fewer job places and the higher levels of technology that allow us to do less. Gig businesses know this; they know that the individuals would do everything to go through today's hardships and the gig economy is the by-product of this knowledge. The gig economy is characterized by extremely low wages, so low that have often been considered typical of the poverty level like the deliveries here in Italy being rewarded even one and a half euro each, outrageous violations of the basic rights of the workers like the huge amounts of unpaid hours an average delivery rider has to wait to receive new orders or the contract cuts that we have seen an Uber driver may face if competing with other drivers in his or her area of work, no concern whatsoever for abiding to the existing law because this would cause major damages to the business as we see from the unchanged treatment many gig workers receive from their employers.

For those whose income is solely based on this kind of activities life is a struggle between the freelance-like routine risk of having no work thus no income at all and the employee-like obligations that the numerous gig firms in many ways demand them; in this case, another hard-to-deal-with side of the on-demand economy is that there has rarely been an easy or even remotely protected way of organizing the union of its workers; being this economy's wages based on assignments and one-time services' rates cut from various companies' withholdings, it is of the greatest relevance the necessity and freedom to join up together for these workers and something like these is starting to happen for the first time just during the last few years with organized strikes in the USA as well as in the EU (e.g. Foodora riders

in Italy) and companies are rearranging their contracts to come to terms with the workers who voice their complaints in a somewhat united way; even though we could be lightyears away from a fair jurisdictional structure, governments are planning drafts for a set of laws to rule this system.

This economic sector follows the same patterns and the same parabola of development of every normal economy and everyone is starting to realize that the moment to strike and to gain as much as possible in term of working rights and fair treatment is right now; only now, close to the peak of an expanding economy, gig workers may be able to make lever on their role and power, to harness their stance which still is one of main contributors to the functioning of the whole gig environment, to strike at the core of gig firms' interests in order to gain the well-deserved respect and wages they need. Governments on the other side should foster these movements by giving law-background and grasping the essence of a quick and ever-changing reality as the gig economy is.

Another reality stands out, especially in Italy, as a reality of low levels of respect for the workers, of huge violations and exploitation of those employed, of the same paradoxical delusion and disillusionment wave that those who face working inside the gig economy feel and it is the growing disease of "Free Labour"; in the next chapter I will deal with this phenomenon that is taking by siege all the new generations and even some of the older ones and making them feel as if there is nothing else but that in their working future. The points of contact between these two ill environments may be numerous but the one that stands as the most desperate is indeed the latter, for, while against the gig economy the governments are in fact doing something, those same governments would never act against an institution like the free labour being it the founding pillar of their functioning and the sole unpaid working-on-high-regime machine that fuels their political activities. All this and other features of this threatening reality will be further analysed in the next section.

3 Free Labour and Precariat

3.1 Introduction

Free or semi-free labour has become an indispensable factor of production, vital to the working process of productivity of numerous sectors of both public and private economy, from university to journalism, from the publishing industry to cultural heritage, from show business to the organization and planning of small and big events alike and not only these sectors. The shapes that this form of labour may take on are various; it may be forced on long-term unemployed people or made mandatory along numerous formative courses, it may be passed off as useful asset for a remote potential hiring or as a valuable curricular endowment but for businesses this will always be a resource to resort to without much discretion when looking for quick profit or in the mood of budget cuts or similar. Technological innovation may be among the major causes of this trend with its action of lowering the importance of human work, thus lowering wages too, forcing everyone to work more for jobs that are everyday worth less. Societies are centuries far from the optimistic point of view of Jeremy Rifkin who once wrote about the end of work as a future in which everyone could shorten the working hours thanks to the technological innovation; entering the Fourth Industrial Revolution, workers are facing a contraction of waged works, a huge increase in the working hours that sometimes even goes beyond standard rights, together with the construction of a whole set of promises, illusions and ideologies that help foster and spread these new working frameworks among new and old workers, to tame them and persuade them into hoping in their own small way for a humble success one day; this success may never come but as long as they believe in its coming the whole machine will stand and the vicious circle may go on.

Internet and renewable energies will change the world for better; this is what Jeremy Rifkin said not too many years ago⁷⁵. New frameworks could be established by the Third Industrial Revolution and powers would be redistributed following it: societies would produce renewable energy, each household its own and it would be shared as green electricity like the information that was created and shared before; thousands of new businesses would be created and millions of new jobs would be open to new-comers. If all the pillars of the Third Industrial revolution are well laid down it (the shift to renewable energies, transformation of building stocks of the nations into power plants harnessing green energy, the deploy of new technologies for storing energies, using internet to create a grid of shared energies and the transition to electric cell vehicles ready to be plugged in), then it would be to possible to interconnect them all creating synergies for new economic paradigms to transform the world. Being interactive, fully integrated and free-flowing, public and private financing systems would only follow. Great social transformations could lie ahead with technological transformations that may entail fewer working hours and higher benefits for everyone; large numbers of human beings could be liberated from hours of labour and could pursue leisure activities, passions and hobbies⁷⁶. At this point, Rifkin too warned his readers that those same technological forces that push towards better standards, may otherwise lead to elevated unemployment and great depressions; how things may go depends on how wealth and profits created by the innovation are distributed. He states that to be fair, trying to not leave anyone behind, working weeks should be shortened generically in the same way all around the world while governments should make an effort establishing new alternative employment in the tertiary sector which is the socio-economic one for those who come from sectors that do not need their labour anymore; if these gains coming from heightened productivity thanks to new technologies are

75 Rifkin J., *The Third Industrial Revolution; How Lateral Power is Transforming Energy, the Economy, and the World*, Palgrave MacMillan, 2011.

76 Rifkin J., *The End of Work: The Decline of the Global Labor Force and the Dawn of the Post-Market Era*, Putnam Publishing Group, 1995, p. 59 et seq.

not shared properly, but instead implemented into increasing corporates profits, for the stockholders to benefit from them as well as big companies' managers and high-tech elites, then social unrest will rise witnessing the growing gaps between the “haves” and the “have-nots”.

3.2 Utopia and Dystopia: Neoliberal Dreams

From those years, time has passed and societies have seen how things worked out but before estimating the numbers of this trend of free labour, it is necessary to describe the origins of this economic failure. Having seen how two main forces shape economies nowadays, one that most probably has caused today's free labour and precariat is the globalisation. This era started in the 1970's thanks to the neoliberal initiative of detachment of the economy from society to establish a global market economy that had competitiveness and individualism as its essential principles. Policies and institutional changes of these years, which will be examined in detail further in this chapter, fostered competitive pressures on industrialised countries from newly industrialising countries (e.g. China, India, Brazil etc.) that offer unlimited supply of low-cost labour. Global networks of enterprises and flexible labour standards spread among the markets and the word “commodification”, the act of treating everything as a commodity subject to market forces moulded every aspect of life like family, education, business, labour institutions, social protection, unemployment and politics.

3.2.1 Neoliberal Politics

The 80's are the turning point of western economies as a whole; the most important western powers like the USA were coming from years of great innovation and expansion, followed alongside by wide

public resentment towards the federal government's policies; this was due to the unexpected fall of credibility in the US economic, political and cultural hegemony displayed during the years of the Vietnam war and the Nixon era of the dollar depreciation and decoupling. The need for a strong leadership was felt throughout both Anglo-Saxon countries of US and UK and this led to the election of Ronald Reagan as 40th president of the United States of America, a charm looking ex-Hollywood actor who took on the political career and came to be elected first as Governor of California and later ran for the Presidency, and the election of Margaret Thatcher, a strong, charismatic woman who came from an ongoing leadership of the Conservative Party and who won over her rival, James Callaghan, whose previous administration ended up doomed by the battle against the Unions and the perpetual labourers' strikes against the high levels of unemployment and recession. These two leaders took on huge economic and financial reforms that shaped the world for the decades to come.

Reagan, who started his political career on the democratic side and only later skipped to the conservative one, has had for his first term as President a four pillars policy, commonly known as "Reaganomics"⁷⁷ that dealt with the plan to reduce the growth of government spending, reduce the federal income tax and capital gains tax, reduce government regulation, and tighten the money supply in order to reduce inflation. It is my intention to analyse one by one these reforms. Reducing the growth of government spending was part of the policy that rerouted the investments towards the military section, thus cutting the budgets of non-military programs like Medicaid, which was seen as an unwanted child with its rising annual costs⁷⁸, food stamps that led to a quick rise of hunger throughout the whole country during the decade, federal education programs and the Environmental Protection Agency while at the same time protecting entitlement

77 Niskanen W. A., *Reaganomics*, in Henderson, D.R., *Concise Encyclopedia of Economics*, Library of Economics and Liberty, 2008.

78 Wing K., *The Impact of Reagan-era Politics on the Federal Medicaid Program*, Catholic University Law Review, 1983.

programs like Social Security and Medicare. This led to the purge of hundreds of thousands of poor people and of people with disabilities who couldn't afford food regularly or any kind of health insurance on their own. On the other side, he raised significantly the investment on the Department of Defence from \$267.1 billion in 1980, which constituted 4.9% of the GDP and 22.7% of public expenditure, to \$393.1 billion in 1988, 5.8% of GDP and 27.3% of public expenditure; these were the highest numbers since the Vietnam War years and this caused the national debt to skyrocket from \$997 billion to \$2.85 trillion⁷⁹. The reduction of the income tax as well as the capital gains tax affected the highest income earners, lowering the top marginal tax rate from 70% to 50%, which was further reduced in 1986 to 28%. This part of the so-called "Supply-side economics" and "Trickle-down economics" was meant to deliver tax cuts to the upper brackets as that extra money for the wealthy could trickle along to low-income groups. This may have caused some ups and downs during both Reagan's terms in the poverty rates and unemployment rates, the latter growing from 13% in 1980 to 15.2% in 1983 and growing even more at the election of George H. W. Bush⁸⁰ and the former jumping from Carter's 6.4% to 7.5% and lowering to 5.4% at the end of the second term⁸¹ (but as we may see today, employment rates today haven't done quite well with Reagan's hopeful tax breaks for the wealthy). The cut on capital gains taxes and the reduction of government regulations drove the huge financial wave of that same decade and the following ones. What started here is the deregulation of the last 35 years, a kind of deregulation that favoured the reckless investment by many economic agents like banks and loaning agencies seeking wide and quick profit; during the 80's the financial sector lost its essential function of allocating capital in order to better producing goods but dedicated itself to predatory activities oriented towards

79 U.S. Treasury Department, *Historical Debt Outstanding*, 2010.

80 U.S. Census Bureau, *Poverty by Region*, 2012.

81 The Bureau of Labor Statistics, *The National Unemployment Rate*, <https://data.bls.gov/pdq/SurveyOutputServlet> (Accessed 10/05/2017)

income⁸². Apart from triggering the financial crisis of 2008, these activities slowed down growth, transferred income from lower classes to higher ones thus deepening inequality and developed huge, unjustified bonuses for the top wealthiest 1% of US society⁸³. To tighten the money supply and stop inflation, as economist Paul Krugman argues saying that it was the only reason for the economic expansion of that decade⁸⁴, Reagan called in Paul Volcker; Volcker had already been Chairman of the Federal Reserve from 1979 under Carter and with Reagan had another chance of continuing his economic policy started in the 70's. To give to the dollar new credibility and stop its inflation, Volcker dramatically increased interest rates in the United States as high as 21%, this evolved into a huge wave of domestic bankruptcies and large numbers of people from 1983 defaulting on their mortgages. But the deepest effects were felt abroad; what was known by the economists as “Volcker Shock” (or “debt shock” or “debt crisis”), involving soaring interest rates meant higher interest payments on and for foreign debts and this led often to take on more loans in an endless loop. Argentinian debt of \$45 billion rose to \$65 billion in 1989; Brazil's debt doubled from \$50 billion to \$100 billion in just six years; Bolivia experienced a price shock having the price of tin, its major export apart from the coca one, dropped by 10%, which caused devastation in the country's economy; Africa too was caught in this spiral with many African countries having heavily borrowed during the 70's so that Nigeria's debt grew from \$9 billion to \$29 billion⁸⁵. As Naomi Klein stated: “*The Volcker Shock would be followed by the Mexican Tequila Crisis in 1994, the Asian Contagion in 1997 and the Russian Collapse in 1998, which was followed shortly afterward by one in Brazil*”⁸⁶.

82 Stiglitz J. E., *Rewriting the Rules of American Economy*, il Saggiatore S.r.l., Milano, 2016, p. 48.

83 Stiglitz J. E., op. cit., p. 50.

84 Roubini N., *Supply Side Economics: Do Tax Rate Cuts Increase Growth and Revenues and Reduce Budget Deficits? Or Is It Voodoo Economics All Over Again?*, Stern School of Business, 1997.

85 Klein N., *Shock Economy*, Rizzoli editore, Milano, 2007, p. 159.

86 Klein N., op. cit., p. 168.

Margaret Thatcher's policy has always been deeply influenced, as was Reagan's, by Milton Friedman's neoliberalist teachings. Quoting Thatcher's statements during an interview in 1987:

"I think we've been through a period where too many people have been given to understand that if they have a problem, it's the government's job to cope with it. 'I have a problem, I'll get a grant.' 'I'm homeless, the government must house me.' They're casting their problem on society. And, you know, there is no such thing as society. There are individual men and women, - and there are families (later added due to criticisms on how cynical it could sound). And no government can do anything except through people, and people must look to themselves first. It's our duty to look after ourselves and then, also to look after our neighbour. People have got the entitlements too much in mind, without the obligations. There's no such thing as entitlement, unless someone has first met an obligation⁸⁷".

On taxation, Thatcher brought in the European area the American policies implemented by Reagan: lowered direct taxes on income and increased indirect taxes, increased interest rates to lower inflation, reduced public expenditure on social welfare (housing and education in particular) and all this matched with a huge policy of privatisation to foster competition and financial deregulation. Thatcherism's successes were obtained at the expense of social costs to the British population; unemployment rates followed the US ones, growing during the early 80's from 1.5 million unemployed to 3.3 million then falling to 1.6 million by the end of 1990 and looking back today, it's clear that British unions lost a huge amount of power during Thatcher's time in office. By beating the miners' strike in 1985, her government further demoralized millions of union members. Additionally, economic policies stripped unions of their major strength: numbers. According to the BBC, Union membership fell from a peak of 12 million in the late '70s to almost half that by the late '80s. They have never recovered. Moreover, when she resigned, 28% of Great Britain children were considered below the poverty line and

87 Prime minister Margaret Thatcher, talking to *Women's Own magazine*, 31 October 1987.

the percentage kept growing up to 30% in 1994⁸⁸ which granted to Great Britain the record for the highest childhood poverty rate in Europe in 1997. Thatcher's reforms still hold on today gaining acceptance throughout most political parties even though doubts about their rightfulness were raised in occasion of the 2008 Great Recession⁸⁹.

3.2.2 Neoliberal Trademarks

Marxist geographer David Harvey is one of the most influential anthropologists and sociologists today. With his work, *A Brief History of Neoliberalism*, he outlined his point of view on one of today's most powerful political and economic current. For Harvey, the neoliberal turn is not another transformation of the old liberalism but a different current standing on its own that starts from the deepening of capitalism into our everyday life. Neoliberalism is an ethic that considers the capital market with its signal and hints and movements a guide for all human action; in this way, social good will be maximised by maximising the reach and frequency of market transactions. Neoliberalism is not just an ethic on itself and when it comes to reality, Harvey clarifies that the neoliberal state is the one in which the notion of freedom collapses into freedom for economic elites. This notion of a revolution from above to restore class power is the basso ostinato of Harvey's analysis, the bass line continuously repeated throughout the book that grounds the argument. He sees the first historical instance of this revolution from above in Pinochet's Chile. It is Harvey's fear – along with Karl Polanyi – that neoliberal regimes will slowly erode institutions of political democracy since “the freedom of the masses would be restricted in favour of the freedoms of the few”⁹⁰. Insulating economic institutions such as central banks

88 Nelson E. and J. Whalen, “With U.S. Methods, Britain Posts Gains in Fighting Poverty” in *Wall Street Journal*, 22 December 2006. <https://www.wsj.com/articles/SB116674870703357351> (Accessed 10/05/2017)

89 Labour conference: Miliband threat to break up banks, *BBC News*. 30 September 2012.

90 Harvey D., *A Brief History of Neoliberalism*, Oxford University Press, 2005, p. 70.

from majority rule is central, especially since neoliberalism – particularly in developed economies – revolves around financial institutions. “A *strong preference*,” Harvey argues, “*exists for government by executive order and by judicial decision rather than democratic and parliamentary decision-making.*”⁹¹. The second concept enlightened by the writings of Harvey is the “*accumulation by dispossession*” one⁹². Harvey observes that “*neoliberalism was redistributive rather than generative*”. Neoliberalism “*channelled wealth and income either from the mass of the population towards the upper classes or from vulnerable to richer countries*”. Accumulation by dispossession is embodied through four key features.

Privatization: the commodification of all the public assets from natural resources (water, land, air), to infrastructure (public transport, telecommunications, energy supplies), from social systems of redistribution, social services, to healthcare, education, public institutions, public housing, warfare, and so on, has been the signal feature of the neoliberal project. Immaterial assets are often privatized too, such as intellectual property, knowledge, genetic material, and reproduction processes. The reversion of common property rights won through years of hard class struggle (the right to a state pension, to welfare, to national healthcare) into the private domain has been one of the most egregious of all policies of dispossession pursued in the name of neoliberal orthodoxy.

Financialization: there has been a huge financial wave from the 1980’s that was marked by a speculative and predatory style. Harvey underlines the fact that speculation, predation, fraud and thievery, all come from the deregulatory reforms of the financial system; stock promotions, Ponzi schemes, structured asset destruction through inflation, asset stripping with M&A and the promotion of debt incumbency that reduced the entire population to debt peonage are the products of this framework.

91 Harvey D., op. cit., p. 66.

92 Harvey D., *The New Imperialism*, Oxford University Press, 2003, p. 137.

Management and Manipulation of Crises: crisis creation, management, and manipulation on the world stage has evolved into the fine art of deliberative redistribution of wealth from poor countries to the rich. By suddenly raising interest rates in 1979, Paul Volcker, then Chairman of the US Federal Reserve, raised the interests of US foreign loans of 20%, a huge move that reduced States like Mexico and all those of South America to bankruptcy. Same did during the 1990's Volcker's successor, Alan Greenspan. Debt crises became frequent all around our globe and, according to Harvey, they were orchestrated, managed and controlled both to rationalize the system and redistribute assets during those decades.

State Redistributions: the neoliberal state is a subtle one and, when dealing with state redistributions, Harvey reminds us that it often starts as a convenient feature for the low-wage population that later becomes a burden that pushes crowds to the abyss. Harvey recalls the Thatcherian reforms for the privatization of social housing: it appeared, at first, as a gift to the lower classes, whose members could now convert from rental to ownership at a relatively low cost, gain control over a valuable asset, and augment their wealth. But once the transfer was accomplished housing speculation took over, particularly in prime central locations, eventually bribing or forcing low-income populations out to the periphery in cities like London and turning erstwhile working-class housing estates into centres of intense gentrification. Homelessness came from the lack of affordable houses in the central areas. The redistributive tactics of neoliberalism are wide-ranging, sophisticated and often masked as ideological gambits and can take various forms such as revisions in the tax code to benefit returns on investment rather than incomes and wages, promotion of regressive elements in the tax code, displacement of state expenditures and access to all by user fees (e.g. on higher education) and the provision of a vast array of subsidies and tax breaks to corporations.

3.3 The Dimension of the Pledge

By taking off, the neo-liberal trend took different mantras with it. First of all, liberalization stood out and it meant the opening of national economies to international competition and global economic forces; then again, individualization stepped in and it involved the shaping and moulding of societies with the aim of suppressing collective institutions (e.g. trade unions and job-guilds included); then, commodification took the stage and suddenly everything could be sold and bought on the market and was clearly subject to market forces, notably via privatization of what once was public service or else; the punchline of this plan dealt with fiscal retrenchment, tax cuts for high incomes and capital incomes. Liberalization led to the global labour market flooding the economies with two billion new extra workers, used to long working shifts with incomes one-fiftieth of the standard ones of richer countries; emerging economies blended with new mobile capitals and technologies and raised their productivity and those in financial or export-oriented positions benefitted the most from this new trend⁹³. This change in the flow of money could be handled in two ways: those lucky enough to gain from this development could be obliged to pay more to the public funds for societies' improvement, since their incomes did not derive from a personal discovery but from changes in the general game of economy or governments could embark on a mission:

“governments of rich countries launched a process that increased the bargaining position of capital, reinforced by a trebling of the global labour supply that made the functional distribution of income much more unequal. It also began a process of convergence. Wages in low-income countries would rise only slowly because of their huge labour surplus and vast scope for increases in productivity. This exerted strong pressure on wages and benefits in rich countries, pushing them

93 Standing G., *A Precariat Charter: From Denizens to Citizens*, Bloomsbury, London, 2014, p.75.

towards a global mean well below what workers in the UK had come to expect⁹⁴”.

This Faustian bargain involved a fatal embrace of governments, populations and financial capitals. Facing the end of working-benefits and the plunge of wages, hoping for future re-elections, governments pursued flexibility and, while real wages stagnated, institutions fostered the incomes of the upcoming precariat with cheap tactics like convenient credit, lax fiscal policy and labour subsidies.

Inequality could be avoided thanks to an agreement that could help share the gains across all layers of society but this did not happen; instead, a frenzy of consumption and dissaving stepped in. When the 2007-2008 crisis took the stage on media and newspapers, everyone’s attention was diverted from the structural features of a global technologic market system to the rapaciousness of bankers and financial markets. First feature was the fiscal crisis, due to the breakdown of banks and to the rushed governmental activity of bail-out to rescue them; second was the existential crisis that hit those who were precarious under the almost-Darwinian neoliberal drive of individualism, competitiveness; third was the ecological crisis that came with the absence of taxation on enterprises’ pollution; the fourth trait dealt with the crisis of the rights of people, a revolt caused by a democratic deficit set against those politicians who exploited their given roles as a ‘stepping-stone occupation’ enabling them to go on to money-making careers, but this democratic gap did not end here for it has been worsened by the growth of surveillance by the ‘panopticon state’ that limits the rights to privacy and freedom; the most important feature of this global crisis was the distributional crisis since inequality had never been so high since the 1920’s and all this stemmed from the already mentioned Faustian bargain to weaken workers’ negotiation activity and to reshape the public sector as well as social protection.

94 Standing G., *The Precariat: The New Dangerous Class*, Bloomsbury, 2011, p. 38.

Governments adopted the mantra of austerity which involved reducing the debt with huge cuts in public spending and living standards, following research that claimed that economic growth was being slowed down by debts that exceeded 90% per cent of GDP⁹⁵. Regardless of how imprecisely these researches may have been conducted⁹⁶, the policy of debt-reduction became embedded into wealthy societies and the paper that theorized this policy became accepted also because it was in accord with the general ideological paradigm. Studies that supported the idea that by reducing inequality growth could be raised again were met with indifference. Austerity claimed that high debt slows growth but through the years it has become clear that the formula may run the other way around, as slow growth delivers higher debt in a vicious circle, yet governments responded with further cuts in social benefits and services, including public education, public goods, spaces and commons, impoverishing more layers of society and leading more people to dependency on common benefits and health services⁹⁷.

Along these lines of cuts, in the working environment words like volunteering, apprenticeship, training, introduction to work, administrative trade and social participation to mention a few started gaining more meaning than what they previously had and covered more areas than before like the various shapes under which free labour lurked, exploiting the advantages that these labels may deliver. Those same subjects who carry out these duties struggle seeing themselves fall under the ban of free labour also due to the classification their activity receives; an underlying culture, both of unions and politics, that lays below this trend, and fosters the perpetual attempt of cultivating the classical utopia of full employment, makes it possible for institutions to label these moments of hardship as temporary or

95 Reinhart C. and K. Rogoff, *Growth in a time of debt*, Cambridge, MA: National Bureau of Economic Research, 2010.

96 Pollin R. and M. Ash, Austerity after Reinhart and Rogoff in *Financial Times*, 17 April 2013.
<https://www.ft.com/content/9e5107f8-a75c-11e2-9fbe-00144feabdc0> (Accessed 27/05/2017)

97 Standing G., *A Precariat Charter: From Denizens to Citizens*, Bloomsbury, London, 2014, p. 81.

preparatory when they are clearly permanent⁹⁸. Full employment has been achieved and all these forms of unpaid labour are its representation.

As many of the scholars that have been quoted in this dissertation argue (e.g. Standing, Harvey and Klein to name a few), free labour may be the most consistent reason for a basic income to be put up but, instead, it is the main argument used against it; by splitting labour and income and by giving the former a much higher priority over the latter, a moral resonance as well as a mean of identification for those who do it, basic income is included inside those social services that should not exist and if already existing they should be curbed or even shut down. If the basic income is implemented to go beyond social security cushions and subsidies, to enter an overall vision of an integrated technological society, a balanced society that lets people be productive in their own ways, free and semi-free labour work the opposite way; by simulating a fight against inactivity, it actually fosters the opposition to the freedom of choice of active agents who pursue their autonomy. The power of giving work is entitled to the employers who stand behind the pledge mentioned in the title.

3.3.1 Pledges and Illusions: A Class in the Making

Between politics and promises a correlation stands of close contiguity, if not mere overlapping and a political program stands on a long series of pledges and promises for its diffusion and for spreading the likeness of its implementation. When moving from politics to economics, it is another dimension that holds court and it is the one of the bet; earnings' expectancy, followed along by expansion and the prediction of growth is balanced by the amount of risk involved in each endeavour and higher the risk, higher the pay if things turn out for the best. Being this trend developed exponentially by financial

98 Bascetta M., *Al mercato delle illusioni: lo sfruttamento del lavoro gratuito*, Manifestolibri, Roma, 2016, p. 8.

capitalism and deregulation, it has often been labelled as ‘Casino Capitalism’. The economic bet often ends up on the political market when governmental figures foreshadow the exit from the crisis, the recovery of competitiveness, wealth and incomes and all this goes back to the tone of the pledge which hides the uncertainties of the gamble to leave the reassuring resilience of politics, impervious to any negativity. Both in politics and economics, the pledge operates as a mean of production, gathering consensus, investments or both at the same time; selling the future makes ready-to-use money⁹⁹.

Before analysing how the pledge or the bet disguised as a pledge are sold on the working market today, it is important to define the struggles any worker of this class lives through. Scholars like Standing have defined the precariat of free or semi-free labourers a class-in-the-making¹⁰⁰ in that it is a social condition that differs from other social conditions by having the ability to act; the precariat has different dynamics associated with production and, although being not crucial to understand this class, they are indeed the most discussed; as already explained, for this kind of workers labour is insecure and unstable. Labour models coming from old industrial capitalism were based on the norm of a nuclear family in which one individual was expected to earn the family wage to keep the other members of the family in subsistence and all risks were covered by State benefits that were unconditional and universal even though acquired for specific groups who struggled financially; stable proletariat had contingency risks that could be covered by social insurance but in a tertiary labour market, social protection is not feasible as there are no risks facing stable occupations but uncertainties facing more and more unknowns; precariat is not only more exposed to uncertainty risks than other labour classes but it is also less resilient than others, having fewer resources to deal with them. Precarious work often goes along with casualisation, informalisation, agency or part-time labour, disguised

99 Bascetta, M., *op. cit.*, p. 34.

100 Standing G., *The Precariat and Class Struggle* (Published as *O precariado e a luta de classes*), *Revista Crítica de Ciências Sociais* 103, May 2014.

self-employment and sometimes the new dimension of crowd-labour. All these forms of work are flexible and their diffusion is growing as well as the working hours of their workers; the rising ratio of work-for-labour stems from the fact that there is no distinction between inside and outside the workplace and the average worker of the precariat is exploited as much off the workplace and outside remunerated hours as in it. Life cannot be split into blocks as the industrial life allowed; this tertiary time working class is expected to be available for labour always as was underlined when dealing with gig-workers in the previous chapter. Pressure on workers starts at reproductive work, being put on producing and at the same time preparing for an unreliable tomorrow, goes through rounds of retraining and resume-upgrading, managing of personal finances and arrives at the activity of juggling between debts and ways to make ends meet. As Standing stated: *“To take ‘time out’ is to risk missing opportunities and falling behind, although it is never clear behind whom. For the precariat, a high ratio of work to labour is a norm¹⁰¹”*.

This class has a very low probability of social mobility and it means that the longer a person stays in it, the lower the probability of escape; it has already been shown that in Europe and North America growing income inequality involved a sharp decline in social mobility since the start of the globalization era. A large precariat is needed by the global capital and the State and this is the reason why it is a class-in-the-making; global capital’s desire is to habituate its workers to unstable labour and living, to reinvent themselves as much as they can (like what the Industrial Revolution did with the rising proletariat class by forcing it into the opposite system of stable labour and living). On a distributive level, the precariat is characterised as a class relying only on money wages, thus it often experiences fluctuations and unreliable income security; if the proletariat had a safety net assured by social insurance, today’s precariat has none of those guarantees and lives by chronic uncertainties and ‘unknowns’. Following this, free or semi-

101 Standing, G., *A Precariat Charter: From Denizens to Citizens*, Bloomsbury, London, 2014, p. 66.

free labourers have a distinctive relation with the government as they have fewer rights than most of other classes; ‘rights insecurity’ stems from a (never-before-seen¹⁰²) act perpetrated by the State of removing rights from its people. Rights are being limited and citizens pass to mere denizens by seeing their “right to have rights”, quoting Hannah Arendt, denied, the essence of proper citizenship; privatised agencies and the State cooperate giving conditional hand-outs which are the only kind of sustenance a precarious worker may have. This class has been ostracized by neo-liberal norms, State institutions, political rhetoric and the utilitarian society, all that give higher privileges to a perceived “middle class”; it has often been treated as necessary but at the same time criticized, pitied and sanctioned, diverting the attention from its need of social protection or general improvement of its living standards. Parties from different political sides have different targets and if the Right deals with the middle class made up of salaried and prolific individuals, the democratic Left looks after its particular middle class, characterised by salaried proletariat, along with liberal elites; being a minority, both sides have their own reasons to ignore or discredit it. The free and semi-free labour class is self-conscious and struggles with a status of frustration and deprivation coming from a lack of occupational identity or a given narrative of its workers’ lives. Many people during past centuries have faced this same kind of transition through myriad of unpredictable activities but today’s turmoil of the occupational communities is as pervasive as the globalization is and creates traumas so hard to go over that even those who obtained a professional place or career feel uncertain about their future, about what they are doing or if they are climbing an impossible-to-climb ladder; what represented an anchor during previous centuries were the guilds and unions, useful to guide workers with codes of ethics, status, communities and protections and these occupational communities have been again dismantled during the neoliberal years¹⁰³ and since then, in the UK guild life has virtually

102 Standing, G., *op. cit.*, p. 67.

103 Standing G., *Work after Globalization: Building Occupational Citizenship*, Edgar Elgar, MA, USA, 2009.

disappeared after the government has eroded the ethics of reciprocity and solidarity. Although being negative features, these are also transformative ones in that they entail the ability of the precariat of being alienated from work; work is not life-defining as long as there is no reason for a sense of loyalty or commitment, jobs are instruments and the fact that life is completely detached from it is taken for granted. Nonetheless, normally this class displays a higher educational level and higher qualifications than the ones requested by the various working places. During earlier industrial revolutions, most workers were expected to learn a trade that conformed to the skills practised in their labour but nowadays, not more than a fraction of new workers' skills is used and having higher qualifications is merely enough to enter the labour market system, leaving aside the more popular need of having a well-connected parent or qualifications greater than could possibly be used by the job in question. All this makes the process of alienation even easier and not only that, for it creates a sense of frustration and anger given by not having any sense of a future. Old political trends and philosophies like labourism and the already mentioned neo-liberalism end up being rejected by this new dangerous class.

3.3.2 At the Market of the Pledge: Direct and Indirect

The economy of the pledge is what rules most of the working markets and it does not come out as new that media, universities, publishing industry, communication and show-business would instantly shut up shop if the huge amounts of free or semi-free labour they normally exploit run out. Other branches like the cultural heritage one are developing acquisition mechanisms for workers hired with null wages, possibly with costs and insurance at their own expenses, receiving the honour of having taken part in the challenge in change. Resorting to voluntary work is today the norm to allow the operativeness and

liability of particular events and cultural institutions (e.g. museums, archaeological sites, libraries) in countries, like Italy, where the investments in culture are in inverse proportion to the abundance of its assets. In this environment work-supplying is paid with nothing more than promises but these must be split, maybe a bit schematically into direct promise and indirect promise¹⁰⁴.

When dealing with the direct promise, the working environment lets the long-time worker glimpse, as an award for his or her services, dedication and perseverance, the remote chance of some kind of “*contractualization*” (too often a fixed-term contract). Beyond the meritocracy that surrounds the working environment and in full opposition to the philosophy of cohesion and union that work should deliver, it is the one individual who resists one more minute while giving a free service than all the others that wins the first prize when and if the game comes to an end. A zealous submission to the will of the superior is part of the paternalist and patronage system, coming from the idea of working everyone’s way up the ladder that domains universities, journalism and the publishing sector and that still invariably determines their status as well as their proper functioning. Especially in Italy, there is no academic chair or newsroom that does not rely on a large mob of aspiring scholars or journalists and on their free services to counterbalance the sheer number of cuts to waged and protected staff. Nevertheless, facing the total freeze of generational turnovers and the constant draining of the assets, the direct pledge has progressively lost credibility and attractiveness. Gravely discredited, above all in the academic world but every day more inside liberal professions like the cultural ones, the direct pledge lives along those, moulded by it, who have become human cases in an eternal and desperate wait or among the younger ones who have not been warned enough yet by experiences and time. Public administrations usually resort to direct promises when trying or even sometimes pretending to

104 Bascetta M., *op. cit.*, p. 59 et seq.

be correcting soon-to-be unbearable social issues like the educational one and all this belongs to the reign of the political promise.

The indirect pledge instead lives along one magical recurring word and that is visibility. It leverages one of the most common fears of today's society of high individualism and competition which is the one of anonymity. In show-business, publishing industry and journalism, appearance as well as the signature are the priceless award, the generous concession and the usual *quid pro quo* of free and semi-free labour; to make oneself known, to exhibit, to publish and to forge good relationships are the core of this indirect pledge of future chances and a precious certificate of existence in social life. It would be wrong though to attribute this need for visibility only to the younger ones looking out on the market for the first time, as anyone, in any moment of life, with the general, widespread and permanent precarity of jobs, may fall within this situation and be forced to reinvent him or herself, turning up in a new and completely different setting from the one they were gaining recognition before, thus having to start again seeking new visibility with free or semi-free performances.

Those who exert control on the visibility in those environments that need it, especially in today's society of appearances, have at their disposal limitless fields of labour to exploit that comes at no cost; this is nothing new but the only difference from the past is that this is not a surplus anymore; this pool is not a useful investment for future improvements, a temporary passage or a secondary resource but the essential piece of this manufacturing machine and the only useful instrument to drastically cut the costs, together with threatening waged workers if not replacing them completely. Free labour lies at the heart of the system and has become an endless, self-sufficient and self-motivated substance that statically governs our present; it is indeed not an evolutive turnover but a contribution demanded by the enterprise and as a matter of fact, it represents a binding item of any

organization. Being able to resort to a large source of free and semi-free labour is a matter of strategy to invest on.

3.3.3 Pledges and Labour Flexibilization

To attract large numbers of free or semi-free labourers, it would be advisable in this system for a company to have a section dedicated to the enhancement of its image; in other words, an enterprise is better if it has a media side that improves how it appears. As a matter of fact, pledges cannot be made by anyone and since only few have the ability to promise, the pledge itself can be considered a form of capital similar to the one of the assets and the financial one. The ideology that lurks behind this political economy of the pledge, its dynamics of production and social relations, spreads insistently inside the company the feeling that what represents a profit for the company also represents in prospect a profit for the voluntary worker and what helps the business economical balance is also what increases the human capital. Philosophies like the human capital and the self-entrepreneur figure, together with the myth of meritocracy represent the founding pillars of this mechanism and the precariat nurtures these imperatives and is fed by them in a vicious circle.

Pledges and labour flexibilization together have generated unexpected phenomena along the years. These include unsalaried interns who work for free, zero hours contract (i.e. contracts that display no hours to be paid to the worker), temporary workers who live permanently and through years by this same label, the already mentioned independent contractors who as a matter of fact are dependent on an employer and alternately dependent contractors who are wage workers but without benefits, crowd-work and many more. Most of these contracts are made-up stratagems that work as devices to lower wages, avoid or straight off take away benefits and circumvent regulations and as these contracts grow in numbers and applications, growing part-time hirings deliver part-time pays for

many more hours than normally demanded part-time labour, in addition without standard benefits or security. The process of evolution does not end here for in many countries temporary contracts are developed into further temporary contracts when the previous is about to end and those who are hired as employees are treated as independent contractors¹⁰⁵. According to CGIL¹⁰⁶ (Confederazione Generale Italiana del Lavoro) there are 46 types of labour contracts in Italy (CGIL's article proposed reducing them to only 5) and 18% of new opened job places hired offering permanent contracts. From 2010 to 2012, 40% of under-45 employed has had temporary job-contracts and only a shrinking proportion was able to shift to open-ended contracts. If in Poland and Spain, 25% of all employees lives under temporary contracts, in Portugal this is valid for more than 20% of them; in Japan, previous temple of the salaryman, 38% of workers is officially classified as flexible or irregular workers.

3.4 Struggles for Paradise: Good Politics for Labour Improvement

Precariat lives by many struggles and the only way to solve them is by changing the rules of the game. Movements living in times of perpetual potential transformation like the precariat are obliged to deal with three struggles in particular. As Standing underlined, this does not entail that they will eventually happen or be realised or even remotely successful but one detail is vital: if they do not occur, great transformations will not take place.

Apart from this the need of new politics that help enhance free and semi-free labour status is needed and looked for as a utopia. Each starting point of a century delivers the most apt timings for progressive visions; if during the early 19th century, the radical

105 Standing G., *op. cit.*, p. 122.

106 Confederazione Generale Italiana del Lavoro, *Lavoro: CGIL, 46 forme contrattuali esistenti, portarle a 5*, 3 January 2012 <http://old.cgil.it/news/Default.aspx?ID=18076> (Accessed 16/06/2017)

romantics demanded new freedoms, during the 20th progressive thinking experienced a boost with new demands for industrial proletariat freedoms. Defaulting neoliberal principles that drove western countries for more than fifty years and the bankruptcies caused by rapacious bad globalization have paved the way for new hopes for emancipation and egalitarianism for the precariat. It would be advisable to remember that often what appeared impossible has had the always unexpected habit of becoming not only possible but feasible. Citing Milton Friedman, whom back in 1982 was fighting to give a bright future to monetarism and neoliberalism: “*Our basic function is to develop alternatives to existing policies, to keep them alive and available until the politically impossible becomes the politically inevitable*¹⁰⁷”.

3.4.1 Three Overlapping Struggles

The first struggle is for recognition and free labourers have marched towards this aim by gathering and implementing collective actions against any unfairness; protests like the gig-workers’ ones in Milan flood streets and spaces, workplaces and media and eventually political gatherings. Mutual recognition is the first step for establishing a common need, for overcoming systematic insecurities; a social group helps delivering an identity to its members who are part of it without shame but full of pride. During the first decades of the 19th century, being employed was still seen as a stigma but as more and more individuals joined the proletariat workforce being under full-time labour but not owning any land or property whatsoever, workers drew together identifying with each other and spreading dignity among their class. Their subjectivity stemmed from the gradual realization that they were in a structural position in the socio-economic system and could support others in similar circumstances. A distinctive social identity helps foster collective action and this

107 Friedman M., *Capitalism and Freedom*, The University of Chicago Press, Chicago, 1982, p. 8.

includes subversive speeches to underline the challenges ahead and the tensions running among and against the group. Here in Italy, precarious workers have seen this trend start even before the 2008 crisis with parades like the EuroMayDay in 2004 in Milan where the fictitious saint “San Precario” was created and shown to the world “for all the precarious workers to join under his name”¹⁰⁸. Awareness translated into recognition when narratives of challenges and human struggles were told to the population; from 2009, collective activities at the University of California where a small-scale manifesto¹⁰⁹ was issued to depict the present crippling disillusion of the emerging reality to the uprising of 2011 with the Spanish movement *Los Indignados* and parallel movements elsewhere that shout out the birth of a new consciousness and new symbols and a social force to identify with. Movements like the *Occupation* one fostered the pride of being part of these collective, gave a voice to their members in need and not only merely occupied places but forged an occupational identity to be reckoned with by social and political institutions; this trend fed commentators’ contributions and public debates and made many come to terms with the fact that old social labels are anachronistic and obsolete, so the university graduates find it hard today to consider themselves part of the proletariat or the old working class, also because contrary to them they display no stable wage labour nor properties or salaried employment. Labour guilds reacted dizzily to this new labour movement, faintly addressing their need for securities and calling for better wages and the response was obviously of low resonance, also since this movement does not bathe in self-pity but challenges old norms and established conventions.

The second struggle deals with representation; austerity and institutional changes diminished the independent and distinctive voice that the precarious workers where so much in need of; forms of

108 Tari M. and I. Vanni, *On the Life and Deeds of San Precario, Patron Saint of Precarious Workers and Lives*, The Fibreculture Journal 5, 2005. <http://five.fibreculturejournal.org/fcj-023-on-the-life-and-deeds-of-san-precario-patron-saint-of-precarious-workers-and-lives/> (Accessed 18/06/2017)

109 Communiqué from an Absent Future, 29 September 2009.

<https://wewanteverything.wordpress.com/2009/09/24/communique-from-an-absent-future/> (Accessed 18/06/2017)

representation and spokespersons able to relate to the precariat's interests, insecurities and aims are essential for the high resonance in every states' institution. Political parties may never be able to represent this class struggle since this kind of labourers do not get along with mainstream professional politicians and commodified politics; the popular idea of a strong correlation between politics and corruption is too deeply rooted in this movement's mindset and the neoliberal corrosive turn did not fix the prejudice. Competition among parts is what the current set of utilitarian and neoliberal philosophies have spread and perpetrated as core message and modern competitiveness derives from selling refurbished goods through a clever use of new words, sound-bites and images; if political factions have always acted accordingly to this matrix, the precariat being disjointed, has not represented a competitive majority so far but it is gradually overcoming the combating political majorities to the point where it matches their split components. Outside politics, representation forces decisionmakers to take into consideration this class and it is the only way to win over the status of supplicants that may mark the workers. Strengthening and reshaping democracy will help usher in the struggle for representation in all spheres of policymaking to legitimize and boost once again the forward march; the only caveat is to avoid the old utilitarian trap.

The last struggle precarious workers' class lives by is for redistribution. Redistribution has mattered since the first transformations in human history and deals with redistributing the core assets of a specific era in favour or to detriment of the different classes: in medieval societies, the clash was over land and water while during the industrial era it was over the means of production and profits, it was over who owned factories and mines between proletariat and elites. In the case of precariat, five core assets are vital for its liberation. First is security; what stably waged workers, elites and aristocracies had and have are a large number of securities, opposite to the crippling uncertainty the free and semi-free labourers live through every day. The second is control over time; having time

for themselves was not something the other classes would have been deprived of but the precariat has growing demands for its time, having to jump between activities and dedicating each crumb of spare time to fix an unstable future with little to no results. A third asset is the guaranteed access to quality shared resources; these shared resources are those ‘commons’ that the neoliberal propaganda made societies so afraid of; the neoliberal turn feasted on these commons on which precarious labourers rely the most, depleting them down to the bare minimum, being afraid of the already mentioned tragedy of the commons. Fourth is education and here the disadvantages for unstable workers are caused by rising costs and by the pervasive commodification of the educational system, that has drained the schools from morals, ethics and empathy. Fifth key asset is capital and as already explained, it is crucial to virtuous redistribution; accumulation of profits from capital and financial assets has favoured the elites and increased the inequality.

3.4.2 Pills of Progressive Politics: Education, Occupational Freedom and Work Rights

Rescuing education is what may matter the most. The perpetual commodification of education should be battled by those same individuals who are being processed to become the new precariat; no “*teacherless*” educational institutions should exist, instead a healthy, democratic and transparent regulation would help understand that education needs back-up by laws and professionals, in particular when dealing with tertiary learning and universities. As a matter of fact, the professionals, teachers and academics alike, together with students, treated as customers according to today standards, are the true key for changing, the former aiming once again to some lost form of content while the latter having back say in the matter of shaping the structure and objectives of their educational *curricula*. An education free to take its own routes on a continuing basis would free the precariat from

being subject to simple human capital preparation; a good governance might help balancing the weight of the commodification forces that are nowadays in full control with the force of free will that has no power at the moment. The downgrading syndrome caused by educational commodification has caused huge problems to the schooling system; apart from ironing out almost all subjects and matters, depriving students of any form of distinction from one another, many schools are experiencing serious issues with illiteracy and attention deficit disorders. For the universities to feed the entrepreneurial spirit of time and businesses and to enhance the market, economic intellectuals and scholars should look back at our past and pay heed to philosophers like Alfred North Whitehead who, back in 1967 said: “*The justification for a university is that it preserves the connection between knowledge and the zest of life, by uniting the young and the old in the imaginative consideration of learning*¹¹⁰”. Even John Stuart Mill, one of the most preeminent representatives of Liberalism and Utilitarianism, one century before Whitehead underlined the fact that “*universities are not intended to teach the knowledge required to fit men for some special mode of gaining their livelihood. Their object is not to make skilful lawyers, or physicians or engineers, but capable and cultivated human beings*¹¹¹”. Being over-educated for standard available jobs may cause frustration and disbelief and these feelings may be solved by not pushing on degrees to be achieved and not putting so much emphasis on swiftly passing from secondary school to university but by giving sabbatical-like breaks to people in their adulthood; life would, thus, be “*universitized*” and people would feel free to learn both selectively and broadly from it, followed along, for precarious workers and alike in particular, by a feeling of greater control over time¹¹².

Being the free and semi-free labourers in desperate need of a sense of occupation, trying to create a merger of work and occupations that

110 Whitehead A. N., *The Aims of Education and Other Essays*, The Free Press, New York, 1967, p. 93.

111 Mill J. S., *Inaugural Address Delivered to the University of St. Andrews*, 1st February 1867.

112 Standing G., *The Precariat: The New Dangerous Class*, Bloomsbury Publishing, New York, 2011, p. 159

fosters personal enhancement and satisfaction, it would help if societies stop considering jobs and labour as the defining feature of a human individual. Following this philosophy, those workers who fear losing a job would also have to fear losing any social worth, status and living standards, ending up then in a somewhat sub-human class that holds no place not holding any job. Instead of treating jobs as instrumental, they are considered as one of the most vital aspects of life and workers tend to forget that there are many kinds of works outside jobs that may satisfy and socially ennoble. If the *Wall Street Journal*¹¹³ in 2009 underlined the fact that Americans have only three things in mind and they are jobs, jobs and jobs, today this unhealthy seek for security by holding jobs has led to an unnecessary fetishism that considers jobs paramount. Forced artificial job creation and job-less growth, even though still ongoing nowadays, have proved to be socially and environmentally destructive, after all jobs and labour use and deplete resources while some other forms of work may help preserve the resources; to this end, it is advisable to strengthen the right to work, which means the right to take on those activities that are not purely labour. Unfortunately, those who have time to do this or may control their time in order to do it are the affluent and even though the need for such work is growing, this inequality is still deep and leaves no space to all those in need. In a few words, those with advantages may only gain more advantages. The peak in voluntary work felt after the 2008 recession both in USA and the rest of the world testifies this desire to work on socially worthwhile activities and to undertake works that are not mere labour. Writers like Hannah Arendt¹¹⁴ have understood how toxic being tied to a particular job may become for a jobholder or others like Karl Polanyi¹¹⁵ have lamented the commodification of education that pushes towards an indoctrination that implies that work equals job but at the same time being economically unstable does not help the precariat take up

113 Blinder A., The Case for Optimism on the Economy, *The Wall Street Journal*, 15 December 2009. <https://www.wsj.com/articles/SB10001424052748704869304574596121329841680> (Accessed 27/06/2017)

114 Arendt H., *The Human Condition*, The University of Chicago Press, Chicago, 1958.

115 Polanyi K., *The Great Transformation: The Political and Economic Origins of Our Time*, Beacon Press, Boston, MA, 2001.

activities of volunteering or similar social works. What is missing is a detailed concept to foster of how to achieve a society that can balance work and leisure without fearing to lose in productivity or profit or even cases of so much threatened free-riding. At the dawn of the crisis of globalization, the opportunity to move forward is not embodied solely in volunteering (as a new working paradigm) but many forms of neighbourhood and care work initiatives are rising too. Although many believe that in modern society too little time may be dedicated to care for others, from relatives to friends or even community and too little might be received in change when in need, these latest trends could boost the idea that the activity of care could be called work and reshaped in our common sense as a working occupation. In short, fair occupational freedom may only stem from equal opportunity for both precarious workers and non-precarious workers alike; it involves the opportunity to undertake a wide range of activities in both work and labour without an overarching policy that considers a particular kind of work morally and economically superior to others.

Precarious workers should demand that those same rights applied to labour start being applied to work too, to promote and defend it; as seen in previous chapters when talking about gig-workers, increasing amounts of working people are not being considered employees but it is hypocritical to complicate the definition of employees only to not entitle them to certain labour rights. Work rights should rule the good practice between workers and working communities as well as between representative of employees and employers, a point on which free and semi-free labourers are still weak, lacking a common voice for collective bargaining. In sum, all work that is not considered labour should be covered by work rights and if people are expected to manage their finances and establish their spending plans, it should also be advisable to offer them quality time to deal with these activities. The working field of care is not covered yet by legislation and social protection and especially for women in precarious work positions this would be essential; nevertheless, this need is growing ever more also for men who as a matter of fact are involving

themselves in care and other forms of non-labour like work. The already mentioned work as social activity, since volunteering and community work are experiencing a high rise since 2008, should also be made part of work rights, facing the risk that these activities may develop into elitist hobbies or privileges for wealthy minorities. Finally, ethics should be included in a model of work rights charter; ethical codes are vital for the good functioning of the different occupational communities. Unfortunately, work groups such as the accountants have never seen codes of ethics imposed on them and have been allowed to gather large incomes or bankers who put aside ethics thus contributing with rapacious behaviours to the financial crisis. These initiatives for political and in particular economic improvement will be further analysed in the next and last chapter that deals with useful game-changing moves for better management of money and societies.

4 Game-Changing Moves to Create Opportunity

As already cleared, all those rules and institutions that have lessened the investments, slowed growth and helped the wealthy becoming richer and richer are also those who have worsened the way for the remaining ones to become self-sufficient. Normally, as European governments are doing now, it is easier to pass measures of large public approval but they would only prove to be temporary and ultimately pointless facing the deeply-rooted issues our societies are facing. The upcoming ideas of improvement come from the need for reduction of inequality and enhancement of the economic activities via a redefinition of the basic rules of the economic system; a series of brave, wide-ranging and over-arching measures are needed in order to fix the distorted dynamics that have given to the lobbyists and their political referents a humongous amount of privileges discouraging those good investments that would have generated economic wealth for all. The aforementioned reforms would reshape the link of cooperation between enterprises, workers and the public sector to make sure that the generated productivity entails satisfying living standards.

Before plunging into the initiatives that could be taken, it is proper to return briefly to the technological issue; if many state that the arrival of technological devices like the computer has deeply influenced the working demand setting numerous layers of technological skills, thus creating a gap between both ends of the income scale and widening the inequality, as it has already been clarified these reasonings find themselves everyday harder to accept; the neoliberal turn during the 1980's has put the mark on that particular decade for the differentiation between incomes, long before the technological theory about inequality could step in during the following decades at full-throttle. Still, technology does not explain

the ethnic and gender gap on incomes or how the wealthiest 1% of the global population has gained even higher incomes much beyond the inflation adjustments; those individuals belonging to this category are mostly executives and financial professionals, whose incomes are hardly affected by skills discrepancies. Apart from this, the skills-gap theory has lost much of its validity due to the fact that the rewards coming from academic training have remained the same for the last decade and many highly qualified workers carry out jobs inferior to their titles¹¹⁶. Productivity growth lies below the historical average and this further confirms that the technological wave has not revolutionised business practices for most of the economy. Many even claim that this general market weakness may undermine any technological progress: when wages stagnate, fewer stimuli are given to invest in technology and instrumental goods that could save on any kind of manpower¹¹⁷. Again, as already seen before, technological progress may deliver to employers new, useful means to oversee their employees, to set in detail their turns and tasks, thus modifying the distribution of income among firms; in this way, technology may lead the way towards new unexplored markets as well as help businesses exploiting network externalities to improve. If in our near future substitutive technologies will prevail over complementary ones, it depends not only on the laws of technology itself but on the rules of the economy too that determine the distribution of those profits coming from technology, together with the coordinated action of governments, schools and firms on various initiatives of skilling and reskilling for their individuals aimed at racing along with technology instead of against it, as Brynjolfsson and McAfee stated¹¹⁸.

116 Mishel L., J. Bivens, E. Gould and H. Shierholz, *The State of Working America*, Cornell University Press, New York, 2012. <http://stateofworkingamerica.org/subjects/overview/?reader> (Accessed 20/07/2017)

117 Acemoglu D., *When Does Labour Scarcity Encourage Innovation?*, National Bureau of Economic Research, 2009.

118 Brynjolfsson E. and A. McAfee, *Race Against the Machine: How the Digital Revolution is Accelerating Innovation, Driving Productivity, and Irreversibly Transforming Employment and the Economy*. Lexington, Massachusetts: Digital Frontier Press, 2011.

4.1 Rebalancing Wealth to Create Opportunity

The growth of the wealthiest 1% has been favoured by specific choices of political and economic nature. It all spurred from the removal of those protections for consumers and taxpayers against financial degenerations and from the decision of giving up the activity of upgrading of good sense norms; moreover, this unbalanced growth has improved when businesses chose to focus on short-term earnings for the stakeholders rather than investing on long-term interests and started offering to chief executives rewards so high that had twisting effects; all those reforms of the tax system did not help stopping this trend but boosted it even more, incentivising the increase of debts and loans and of top managers' wages, instead of channelling investments in productive capital. Solving inequality entails a solution for the lack of jobs and for the hardship experienced when entering the working world but also helps laying the foundations for a stable economy during the upcoming decades. The reshaping of the tax system, the reform of the financial system and the balancing of executive wages and shares of profits are some but not all the most essential pillars of this radical change of course.

4.1.1 Reforming of the Tax System and of the Progressive Income Taxation

Taxes are not only an essential mean to gather those revenues that support public services and productive investments, but they also improve incentives, encourage socially and economically positive behaviours while dissuading from the negative ones like short-termism. Nevertheless, following the wave of modifications to taxation systems across nations thrust by the supply-side economics, governments have preferred those cuts to taxes and subsidies that would have favoured the wealthiest tax-payers, moving to those remaining a heavier share of fiscal burden while neglecting

vital public investments. A beneficial program would thus employ a tax-system that creates incentives to reward work rather than the seek for profit and speculation; eliminating those distortion in the economy that foster inequality, it is possible to collect enough contributions to improve the educational system, the infrastructures and the technology thus creating more and better opportunities for each individual.

Taxes are normally divided into three categories¹¹⁹: those on income, those on capital and those on consumption. The division between these categories has always been somehow blurred; for instance, the tax on income is applied on earned income as well as on income from capital so it could be considered a tax on capital too. Corporate income taxes are considered as capital taxes for the companies' profits come from capital, and so are those taxes applied on the value of capital stock like estate taxes, real estate taxes and wealth tax. Today's consumption taxes include value-added taxes on luxury goods and alike as well as on imported goods like alcohol, fuels, tobacco and services; this kind of taxes are often the most popularly hated and the heaviest on the lower classes; they could as well be considered indirect because they are not directly based upon income or capital of each individual but instead are part of the labelled price of that same good and paid indirectly by the purchaser. During the last century, a new kind of tax has stepped into the scene and that is the contribution to government-led social programs; this special kind of tax on income from labour ends up supporting social insurance funds aimed at financing replacement income, from pensions to unemployment benefits and the propaganda promoted by state institutions helps taxpayers gaining awareness of the purpose for which the tax exists. Apart from this classification, the second important feature of a tax is the already-seen degree to which type of tax is proportional or progressive: a tax is proportional or flat when it is the same for everyone while it is progressive when its amount is higher for some than others loosely based on who earns more or owns

119 Piketty T., *op. cit.*, p. 345 et seq.

more or consumes more; taxes may also be regressive if their rate decreases for the wealthiest either because they are partially exempt or because their status is protected by law¹²⁰ and this seems to be the case in many countries. Nowadays, in most countries total tax payments are often based on proportional to individual income and this is somehow logic, especially for those countries whose total is quite large for it is unthinkable to tax half of national income for social programs without asking everyone to make a substantial contribution, furthermore the logic that has developed the universal rights as well as our modern fiscal system goes more along with the idea of proportional or only slightly progressive taxes. Nonetheless, progressive taxation plays a key role in the shaping of societies and in the distribution of wealth. Proportional taxation has effects on social inequality too; evidence suggests that progressive taxes on high incomes and on high concentrations of wealth has not reached the astronomic *Belle Époque* peaks after 1918 and 1945 but on the contrary the considerable decrease in progressivity in US and UK tax systems during the last few decades probably justifies much of the increase in the highest earned incomes of both countries. The rise in tax competition has only worsened the situation forcing governments that were dealing with free-flowing capitals across countries to exempt capital income from progressive taxation; this is happening in Europe where its small states have not achieved yet any form of coordinated policy on taxing capitals and to come to terms with firms a race to the bottom has started developing cuts to corporate tax rates and exemptions of interests, dividends and other revenues from the taxes to which labour incomes are subject. Many countries are displaying paradoxical regressive taxes; for example, in France in 2010 the overall rate of taxation (47% of national income) was composed of 40-45% coming from the bottom 50% of the income distribution, 40-45% coming from the next 40% of population and the top 5% and even more the top 1% paying lower rates (top 0.1% pays only 35%). These high rates on poorer show how important are

120 Wikipedia, *Poll Tax Riots*. https://en.wikipedia.org/wiki/Poll_tax_riots (Accessed 22/07/2017)

consumption taxes and social contributions. If light progressivity stems from a recognised importance of the income tax, regressivity in the top centiles comes from the absence of many forms of taxation on capital income, being it exempt from progressive taxation. Many clues point to the fact that taxes elsewhere in Europe follow a similar paradigm, maybe even more marked than these estimates outline. By looking at the progressivity of the taxes on top incomes, issues of significant importance like the taxation on inherited wealth are left aside unfortunately; paradoxically, estates are much less taxed than incomes.

The utopia of a global tax on capital is a good model to change things for a better future; it is hard if not impossible to realize for it would request the nations of the world to agree on a tax schedule applicable everywhere around the globe on wealth and then they would have to choose how to distribute the revenues. Even though utopian, this model serves as a useful reference point, a benchmark to which other measures could be confronted; apart from the international effort that this kind of tax would require, countries that would want to move towards this direction may take a few useful steps on a regional level (e.g. in EU) by setting a progressive annual tax on global wealth; largest capitals are to be taxed more heavily and all kinds of assets should be included, from real estates to financial and business assets. All current capital taxes are levied on real estate, whether be it property taxes from Anglo-Saxon countries or land taxes from French fiscal law but one of the cons of this institution is that it is solely based on real property, thus financial assets are not considered and each property is taxed at its market value regardless of any deficit an owner might have like debts; an indebted person is taxed in the same way as an unindebted one. The US adopts a sophisticated process of assessment to define property taxes with automatic adjustments changing market variables also because in English speaking countries this kind of taxes add up a substantial 1-2% of national income. These procedures should be adopted worldwide to other asset classes as well

as those progressive taxes on total wealth that are already present in Europe (e.g. France, Spain, Switzerland, Germany and Sweden).

4.1.2 Fixing the Financial System

It has already been stated that the financial system does not work the right way. It does not manage risks, allocate capitals in a useful way, mediate between earners and investors, supply funds for investments and create new work places. Conversely, the financial sector has inadequately managed, has produced an inefficient allocation of capital and has created a mechanism of payments immensely heavy and expensive. Lacking those vital forms of supply of capital to worthy business initiatives, the financial system has generated great inequalities and has had a negative influence on the overall performance of the economy, slowing growth and creating instability. Strong reforms that could face those risks that involve financial bubbles and crises are needed together with measures that could increase the transparency, contrast short-termism, stimulate competition, reduce the chance of profit and make sure that the banks are compliant with the task they are given, that is, supplying businesses with loans to invest and innovate.

It is of the utmost importance that this sector is not able to harm the society it serves, both on an individual level (with predatory loans, market alterations and alike) and on a general economic level (discouraging those systemic effects emerging from inconsiderate actions of individuals)¹²¹. It comes at great relevance as well that this system could represent once again a useful tool of promotion and development of social services, financing from small businesses to the educational system and real estate investments. To create possibilities for everyone, high quality products and a financial sector able to promote them are needed. If, until now, any debate on this issue has

121 Stiglitz J. E., *op. cit.*, p. 104 et seq.

focused its efforts on the prevention of damages, the time has come to change route by redirecting efforts from antisocial activities for quick high profits to social-friendly campaigns.

First, “*too big to fail*” financial institutions should be reformed; some banks are so large that their potential collapse may harm the whole economic ecosystem with an elevated risk of market contraptions. Today these institutions enjoy governments’ support and are thus relieved from internalising any cost from eventual collapses but are also entitled to gamble on risky businesses hoping for handsome profits being backed-up by the fact that their losses will be off-loaded onto the rest of society. Moreover, being banks and financial institutions like insurance companies highly interconnected, one failure could trigger a domino effect of defaults and this is the reason why another needed feature is transparency. The institutions for financial stability should impose stricter patrimonial requirements to these companies beyond those already imposed by Basil 3 Accord; major patrimonial requisites would force banks to incorporate the costs of their failures protecting taxpayers and improving the overall economic efficiency. In addition, “*living wills*” of these companies should be written by these same companies to better understand the best ways to dismantle them in case of default; in case these companies are unable of defining such guidelines, they should be split in minor entities to better manage their activities and risks.

Second, among those too big to fail institutions shadow banking systems can be found; these are non-banking companies dedicated to lending loans via a system of buying and selling of bonds and stocks and this system is made up of monetary funds, insurance companies and even car companies. The shadow banking system has played a significant role in the 2008 financial crisis due to the lack of transparency that surrounded most of its activities; during previous years to the recession the sector has had the chance to grow exponentially and has borrowed and lent money in gambling activities of high risk that the official banking systems could not legally handle.

Many companies have been bailed out by their governments after the shocking defaults of the 2010's but the rules applied to them are still not strict enough and the sector is growing again in unruled waters, bypassing norms that would otherwise guarantee big financial companies' compliance.

Applying rules is as vital as writing down those same rules but during the last decade making institutions respect financial norms has been slowly fading away. Legal entities appointed of judging those guilty of financial crimes would rather negotiate a plea bargain so fees are charged on the shareholders and deductible, the culprits are not mandatorily punishable nor obliged to return any bonus received for the generation of extra-profits coming from their illegal activities. Authorities should instead prosecute the violations with strictness, not negotiating any plea with companies that have already received this treatment but analysing in detail and monitoring their activities.

Short-termism is a serious matter not only for businesses but for societies too. As already mentioned, the rules regulating firms' activities and taxes on capital gains and highest incomes have been rewritten to favour shareholders and chief executives committed to deliver short-term rises of stock prices; this discourages investments, increases inequality and decreases the potential long-term economic growth but also creates a lack of investments in the workforce and a weakening of the occupational dynamics.

4.1.3 Taxing Profits and Capital Gains for Executive Echelons

By looking at developed countries, it appears that the level of decrease in the top income tax rate and the level of increase in the top centile's share of national income between 1980 and the present are closely linked¹²². These two phenomena are correlated since those same

122 Piketty T., *op. cit.*, p. 355 et seq.

countries where the largest decreases in tax rates for top earners have been implemented is also where the highest earners' share of national income has increased the most and this is valid even more when dealing with chief executives' remunerations of large firms). On the other side, those countries that did not substantially lowered their tax rates on high incomes experienced more moderate rises in top earners' incomes and share of national income. By following a classic economic model, this dynamic could be explained by arguing that the tax decrease on high incomes has pushed executives' talents and productivity to increase their labour supply; being this happened in one country, it all spread later to the others so the norm of increased salaries was stabilised. Unfortunately, this was not the case. Marginal productivity is not explained thanks to top executives' wages and least of all higher executive wages could boost it or be determined by it.

A realistic description sees lower top income tax rates changing the way executive wages are treated, especially in US and UK where top income tax rates fall dramatically; it is not easy for an executive to convince other parties of the company (from direct subordinates to shareholders and members of the compensation unit) that a large rise in his or her compensation is justified by a potential improvement in the productivity. During the '50's and '60's, UK and US executives did not bother to ask for raises and other parties were uninterested in granting them because 80-90% of the increase would have gone directly to the government. After 1980, dynamics and rules changed and executives did much more than before to ensure wage raises and higher compensations. Since it is objectively challenging estimating individual contributions and the generating effects caused by someone's productivity in a firm, top executives went to great lengths and eventually found quite easy to persuade colleagues, boards and shareholders that they were worth conspicuous raises, especially being the members of compensation units often chosen on familiar terms and credentials¹²³. Opposite to what many believe in UK and US, in

123 Lawler III E. E., *Outrageous Executive Compensation: Corporate Boards, Not the Market, Are to Blame*, Forbes, 2012. (Accessed 24/07/2017)

these areas the general growth has not been quicker than the one of countries like Germany, France, Japan, Denmark or Sweden; decreasing top incomes taxes and rising top incomes has not generated any kind of improved productivity from before the supply-side economics and has not stimulated any working ability that could be spotted on a macro-level.

The easiest way of facing this issue is by reshaping once again the fiscal structure of taxes on incomes; if today this system favours retributions that share a high stockholding component and in particular stock options, it is only a matter of eliminating or restricting the easy way out of compensations tied to performance; this would then correct those incentives given to chief executives while at the same time discouraging them from speculative behaviours. On average, it has been cleared¹²⁴ that a tax rate starting from 80% on annual incomes over \$500.000 or \$1 million not only does not harm growth of economies but would instead be useful to redistribute those benefits generated by growth in a more equal and wiser way and at the same time setting limits to economically useful or otherwise harmful behaviours. It comes as no surprise that this kind of initiative is much more easily applicable in countries like US than in overarching structures composed of smaller countries like EU where fiscal coordination with neighbours is almost absent; the US is big enough to implement this tax policy and to see the results and fearing that all US executives may leave the country looking for better conditions and no one remains with competence or drive does not make sense on a historical level first since this has never happened before in the history of income taxes and goes against any prediction based on firm-level data at disposal. Apart from this, this kind of tax (80% on annual incomes above \$500.000 or \$1 million) would not cover the government in relation to revenues but would quickly reduce executive remunerations thus creating more possibilities for those below (their pay would rise) together with new possibilities for those

124 Piketty T., *op. cit.*, p. 359.

who wish to enter the taxed company; in parallel, this so much yearned for earnings would boost social programs on education, health and others. To completely enhance this fiscal system, taxes should be levied on incomes lower in the chart, by imposing 50-60% of deductions on incomes above \$200.000 for instance.

History teaches us that when dealing with the progressive tax degenerations may take place, especially during the 20th century; the risk of drifting towards oligarchy is concrete and there is already not much space anymore for optimism about where societies are headed. Knowing that it was war that started the workings on progressive income taxation and not a natural and balanced result of universal suffrage does not lighten up the context and so, examples like *Belle Époque*'s ostentations come to mind and it reminds everyone that “*no hypocrisy is too great when economic and financial elites are obliged to defend their interests and that includes economists, who currently occupy an enviable place in the US income hierarchy*¹²⁵”.

4.2 Growth of the Middle-Class

If until now proposals of initiatives have been introduced that only gravitated around the improvement of the working conditions and of the productive investments, reducing harmful investments and optimising those social benefits coming from economic assets, the process of rebalancing everyone's possibilities entails first and foremost a policy that fosters economic expansionism that could benefit all individuals. This is the reason why four different approaches will be presented in the upcoming pages; these important pillars of change wish for the pursuit of the objective of full employment while improving future investments, for the reform of the jobs market to let everyone enjoy an economy at operating speed and to reduce in general the obstacles that do not allow working class

125 Piketty T., *op. cit.*, p. 359.

families to achieve occupational opportunities and professional careers, starting from reshaping an alienated educational system. It is in fact an investing plan that governments have to take on the responsibility of; whether it is full employment or granting access to quality education, it is to governments to deal with these actions; these policies promote both equality and growth for they stimulate economic productivity and deliver more chances to those who have had not enough; in addition, they guarantee workers a wider access to economic profits and make sure that all citizens may lead a full and prosperous life.

4.2.1 Full Employment

It has been 8 years since the Great Recession and most of global progressed economies do not operate at full regime yet; unemployment has not improved but it has instead worsened, differently from what polls state clarifying, by considering legitimate work underpaid and unfair contract, that much more workers are hired every day; today's employment rates are lower than 2000's ones and even than 1978's ones. There is an immense gap in productivity of 15% between what was expected back in the 1980's up until 2008 if economy had followed its previous course; stagnancy rules the wages system also because of the systematic weakness of job markets and the low demand for manpower. Rapid economic growth along with more employment would decrease differences between individuals and unlock future expansionistic potential. Governments and central banks should consider full employment as the main objective of their monetary policies so to reduce job markets unbalances. Giving priority to prices stability is one of the causes for the last 40 years of markets' weariness as well as for the growth of incomes which was slower than the productivity growth which in turn cut out workers from a large share of economic benefits; a restrictive monetary policy

causes higher rates of unemployment among low income workers, often belonging to minorities than among higher income earners.

Until now, rules have been the focus of this essay about change; how strict they should be, how distributed they could be and how governments should manage them are some of the pillars of this dissertation. Likewise, highly relevant are, though, the proper ways of managing and spending the revenues at governments' disposal. Public investments may benefit on a fiscal level and on a monetary one to reach full employment; some types of investments lay already today the foundations for a stable growth of employment¹²⁶ and a better economic performance on the long run but it is not enough yet; the inherited inequality could have been faced with high quality pre-school programs that have proven effective in many progressive countries. It is not new that public investments in education, technology and infrastructures go hand in hand with private investments, since the formers increase the latter's' profits with a catalysing effect; in this moment of negative interest rates, it is advisable to implement a plan of strategic investments to stimulate present and future growth; for EU this entails the realisation of a common investment that could extend the role of the European Investment Bank with an *a priori* rethinking of the whole EU budget's revenue and expenditure; the European Union, having displayed in the past high competence in the field of minimum standards for working conditions should monitor the quality of jobs in a coordinate fashion with on-going indicators of people committed to atypical occupations, involuntary work and who are looking for permanent or full-time jobs; the reduction or working hours, a proposal of English resonance¹²⁷, is a matter not to take lightly for it could be coupled with a series of strategies to offer well paid jobs for all those demanding for labour to face social care challenges.

126 Green J., C. D'Ippoliti, M. Muona, P. Paulusma, T. Dragan, M. Weatherburn and B. Wilhelm, *Full Employment: A Progressive Vision for Europe*, Renner Institut, Brussels, Belgium, 2014, p. 11.

127 Thomas A., Why Working Fewer Hours Would Make Us More Productive in *The Guardian*, 2015. <https://www.theguardian.com/sustainable-business/2015/nov/09/fewer-working-hours-doctors-eu-negotiations> (Accessed 26/07/2017)

4.2.2 Power to the Workers

Creating employment is not the only issue that should be discussed but giving workers the voice they should have at the working place is another hot topic for this discussion. The juridical system and the collusion between state and businesses have decreased wages more than technology and globalization; it is governments' duty to help workers recover a durable power-position that evens businesses' power in the process of wages determination. It would be possible to restore balance in the working place, giving workers back their power to influence and granting them a more equal share of the product of their effort and better opportunities to contribute to company's success.

Rights of reunion and petition are still safeguarded in most progressed economies but too often these fundamental rights have been emptied by the general weakness of those politics that should control and limit employers' powers. In US¹²⁸, legal quibbles let employers get in the way of votes on unionisation, challenging each phase of the process; in this case it is necessary to tear down all hurdles against unions' activities while at the same time introducing strict penalties to deter those illegal threatening tactics adopted by companies against unions; always in US, companies that have fired employees and have been found guilty of violation of the National Labor Relations Act may get off by rehiring the colleague and paying him the overdue amount of monthly wages, not considering the biblical times for a sentence like this to come out (i.e. three years on average). In EU, things are quite different because the Old Continent is going through a sensible decrease in unions' density¹²⁹; people are not addressing unions anymore for their working issues.

128 Stiglitz J. E., *op. cit.*, p. 125 et seq.

129 Schnabel C., *Trade Unions in Europe: Dinosaurs on the Verge of Extinction?*, VOX, 2013. (Accessed 27/07/2017) <http://voxeu.org/article/trade-unions-europe>

Shown below is union density in 17 European countries:

country	union density (net membership/ employment, in %)				change (% points)
	1960	1980	2000	2011	1980-2011
Austria	67.9	56.7	36.6	27.8	-28.9
Belgium	41.5	54.1	49.5	50.4	-3.7
Denmark	56.9	78.6	74.2	68.5 1	-10.1
Germany	34.7	34.9	24.6	18.0	-16.9
Greece	---	39.0	26.5	25.4	-13.6
Finland	31.9	69.4	75.0	69.0	-0.4
France	19.6	18.3	8.0	7.9 1	-10.4
Ireland	46.4	58.4	37.2	36.1	-22.3
Italy	24.7	49.6	34.8	35.2	-14.4
Luxemburg	---	50.8	42.5	37.3 2	-13.5
Netherlands	40.0	34.8	22.6	19.0	-15.8
Norway	60.0	58.3	54.4	54.6	-3.7
Portugal	---	54.8	21.6	19.3 1	-35.5
Spain	---	18.7	16.7	15.6 1	-3.1
Sweden	72.1	78.0	80.1	68.9 1	-9.1
Switzerland	36.1	27.7	20.2	17.2 1	-10.5
UK	40.4	51.7	30.1	27.1 1	-24.6

Schnabel, C., *Trade Unions in Europe: Dinosaurs on the Verge of Extinction?*, VOX, 2013.

Major challenges for EU unions are, for example, keeping the pace with demographic changes like stronger and more organized collectives of older workers who are against retirement and the always more difficult recruitment of younger employees, opposing the trend of free-falling of the employment in the public sector, which has always been regarded as a union stronghold, due to privatisation, to outsourcing, to subcontracting and to the decrease of investments in public welfare, facing the hardship of organising the huge numbers of atypical workers like part-timers and interns, and in general regaining the presence that back in 1960's unions had in all firms independently from their sizes. Effective unionisation is the proper way to solve these issues if governments do not act and the focus on young and atypically employed workers is crucial for this process of change.

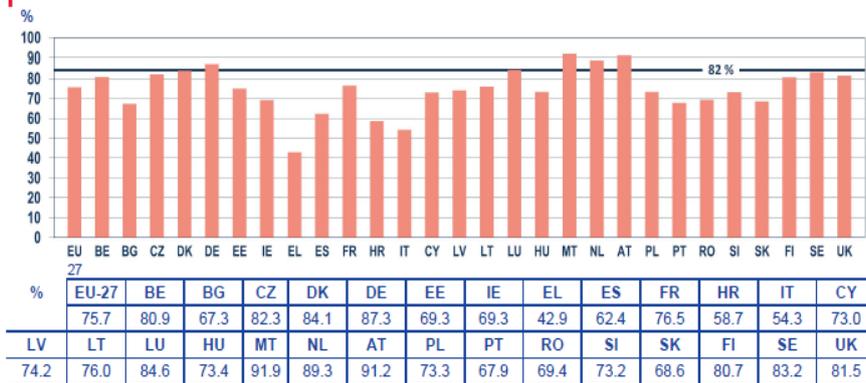
4.2.3 Reforming the Educational System for an Effective Introduction to Waged Work

Easing the access to fair jobs passes mostly through a valuable and efficient education; an education that keeps in touch with the working world is capable of introducing its students to skilled, qualified and well-paid jobs and helps individuals developing a strong sense of continuing learning, reskilling and improvement. Unfortunately, the educational environment strayed further from this idyllic model and today's youth is crushed between an ever-isolated job world and the pressing responsibilities of maturity with an education that does not foster in an effective way any kind of vocational training and even though vaguely monitoring the rate of employment of its graduates does nothing to operatively follow them in their careers.

In 2012¹³⁰, employment rate of young graduates from 20 to 34-year olds (coming from at least upper secondary education) had its peaks in Malta, the Netherlands and Austria stabilising at around 90%; Germany, Denmark and Luxemburg followed shortly after with almost equal rates. The lowest rates recorded belonged to Croatia, Italy and Greece with an average rate of 50% graduates between 20 and 34 employed for the two firsts while in Greece even less than its 20 to 34 years old graduates' population had a job. EU charts indicate that the overall EU-28 rate of integration of young people between 15 and 24 into the job market stood at an appalling 23% in 2012.

¹³⁰ European Commission/EACEA/Eurydice, *Education and Training in Europe 2020: Responses from the EU Member States*. Eurydice Report. Brussels: Eurydice, 2013, p. 45 et seq.

Figure 3.1: Employment rates of graduates from upper secondary education and above, aged 20-34 who graduated no more than three years prior to the reference year, ISCED 3-6, by country, 2012



Source: Eurostat – Labour Force Survey (data extracted 3 July 2013).

European Commission/EACEA/Eurydice, *Education and Training in Europe 2020: Responses from the EU Member States*. Eurydice Report. Brussels: Eurydice, 2013, p. 48.

Efficient integration of youth inside the job market requests to address the issue of skills mismatches and entails the excess or lack otherwise of qualifications, credentials and skills owned by individuals who are approaching job applications with given job requirements; the issue of being over or underqualified or of being over or under-skilled haunts younger generations as well as the entire labour force, the former meaning that a person holds either higher or lower credentials than those demanded by his or her current position while the latter meaning that an individual does not fully employ his or her potential for an occupation or lacks the skills to perform it adequately. In this case, projects involving reports and surveys to monitor skills demanded and skills learnt by the work supply should be implemented by governments; universities in particular should keep pace with companies continuously upgrading their trainings provided in order to fill the demands of job markets, delivering trainings on last generation business applications and software and teaching on the newest ways of responsibilities' management and business control to shape an easy-to-reskill young workforce; finally, these initiatives should be cross-vocational learnings and cover all branches of study to efficiently improve the outcome on a social level.

Conclusion

What this workpiece has tried to demonstrate is that the problems with our lack of jobs go far beyond (and are hardly resolvable by) racing against technological innovation. From the Luddites on, exponents of the theory of technological unemployment have pinned the lack of jobs to the new machines making their entrance in the economies but as we have seen in the popular shifts from agriculture to industry during previous industrial revolutions, there has always been the opportunity for reskilling and reshaping of the workforce, first, because countries needed this shift and, second, because businesses felt this need too. Forces exist that do not allow for the creation of new working places when old ones are either taken or overtaken by machines and they are the laws of today's economies, ruled by the need of perpetually increasing profits being them both from productivity and from financial gains while at the same time forcedly decreasing costs (wages among them).

The focus on the Gig Economy tried to clarify that this newly rising economic sector follows the exact same economic patterns laid down by the above-analysed neoliberal turn: continual pursuit of profits for financial stakeholders, executives and managers accompanied by high salaries, with workers having little say in the matter. The gig phenomenon is growing and, in a few years, might cover large pieces of our economies thanks to the development of everyday further reaching Apps and it is clearly now the right time to make things fair to ensure a decent working environment for everyone. Be it either independent or dependent work, what matters is that this sector might become as convenient for its workers as the commonly called "white-collar" one with benefits involved to grant a fair living; people should not be chained to this because of need but should be able to choose and to seize good opportunities from it as all the legal proceedings both in EU and in USA are trying to ensure.

How money is managed defines how work is sold and bought and dependent work strongly shows this issue; in a structure characterized by dependency, the more is given to those above, the less there will be for those below, thus a lack of space for newcomers is created and all that set of promises and pledges that make sure that the new employees accept underpaid and unstable positions step in. Labour flexibilization is needed by companies and goes along with direct promises of a remote rewarding dream of a contract and indirect promises of visibility in the working field; all too often, this happens in Italy for the most part where pensionable workers are not leaving their positions even with subsidies for their retirement. Only a few smart operations might change the *status quo*. One of these would be purging schools and universities from their detachment from the working world, not delivering the proper skills demanded by businesses, as well as freeing them from the continuing commodification of teaching and training; as a matter of fact, the professionals, teachers and academics alike, together with students, treated as customers according to today standards, are the true key for changing, the former aiming once again to some lost form of content while the latter having back say in the matter of shaping the structure and objectives of their educational *curricula*. Another focal lever of change is the introduction of occupational freedom; people are led to consider work nowadays as paramount through years of early indoctrination that states that work is equal to social worth and status but this might be changed if forms of labour like community work, care-work and family work are taken into consideration; occupational freedom may only stem from equal opportunity for both precarious workers and non-precarious workers alike; it involves the opportunity to undertake a wide range of activities in both work and labour without an overarching policy that considers a particular kind of work morally and economically superior to others. Last pillar of change for this working field involves work rights again; everyday, less and less work is being treated as labour to not provide workers with covering costly rights; it is instead of the utmost importance that all work that is

not considered labour be covered by work rights, especially when workers are expected to manage their own families, like women caring for children, or their own finances, or even for new young workers who need time to settle in.

If governments want to solve their issues with the distribution of wealth to create real possibilities for everyone, a few smart moves should be considered; without these there would be no change and no improvements whatsoever, moreover these shifts must be radical, not temporary and not limited to certain layers of society like some old forms of poverty relief and subsidies to the neediest. The last chapter, in a brief passage, offers a few key changes that might help recovering from this situation and they all revolve around rebalancing wealth and making the middle class grow in numbers.

As clarified before, specific choices have led to an unbalanced distribution of wealth and reshaping the tax system would lightly lessen the differences created in 30 years of unwise economics; this includes for the most part, reshaping taxes on capital and taxes on high incomes; regressivity, instead of progressivity, is what rules many taxing systems both in USA and in EU's countries and this trend should instead be overturned. Together with the fiscal system, the financial system should return to its original function, that of investing and giving opportunities for growth to companies; this might be accomplished only if governments make businesses respect stricter regulations to safeguard everyone's interests not only shareholders'. Among financial institutions that need stricter compliance are those "too big to fail" ones; stricter patrimonial requisites imposed on them might limit the harm they might cause in case of default, plus a *living will* of these companies would help if they ever need to be dismantled to not cause any disarray in the overall economic system; the shadow banking system is obviously included in this operation.

Helping the middle-class grow would raise individuals' chances of gaining a fair living. Conjoined public and private investments in the seek for full employment would give economies a boost, with money

flowing in the right directions to improve individuals' living and working environments; it is not new that public investments in education, technology and infrastructures go hand in hand with private investments, since the formers increase the latter's' profits with a catalysing effect. Workers need their power back: with unions losing power by the minute and with more and more countries considering atypical work like part-times and interns as fair work for statistics sake, it is of the utmost importance that a strong unionisation come back in place, one that is in touch with the changing working environment and that understands its members' needs. If a replenishment of the workforce is expected, what is needed is a change in the educational system too; having noticed that the real problem with education is that schools do not keep pace with business requirements, it is only a matter of implementation of a set of reports on working skills needed and upgraded trainings by schools and universities for the soon-to-be workers.

A change is possible and to make technological innovation useful instead of threatening, it only takes that governments and businesses together understand that, during periods of hardship, investing is much better and more profitable than cutting out.

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