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*The challenge of a Common Industrial Policy at
the dawn of a new Industrial Revolution*

Institutions running after economic growth

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Abstract

The fact that the precursor of the European Union came into existence just after the Second World War, in a time of reconstruction and major structural change, hasn't been a chance. The European integration developed in fact on an institutional agreements in order to fully implement the Second Industrial Revolution in the European system.

An efficient and cohesive European market has been the pragmatic reason to implement European common rules in order to capture the possible profits from a latent economic growth. Consequentially part of the EU's legitimacy relies on economic growth.

In my thesis I will analyse the interrelation between economic growth and institution-building so as to explain the current unstable situation that the European Union is undergoing. Once clarified the basis of my thinking I will focus on the industrial policy outlined by the Commission to understand if the Union is able to make relevant steps towards economic growth in its actual institutional framework.

Keywords

Industrialisation, Economic growth, Path dependence, Institutions, Structural changes and European integration.

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1 *Introduction*

Enhancing economic stability and growth is one important task of the European Union. This is in fact one of the reasons why this peculiar intergovernmental as well as supranational project came into existence over 60 years ago. Obviously the Union we know today is radically different from the first organisation that six member States implemented more than half a century ago.

During its life National States accorded more and more sovereignty to the European Union, and European Integration has considerably deepened. Anyway, even though this process has reached important milestones towards “a union”, the European Union isn’t a steady and sovereign organisation yet – if it will ever be.

If EU includes in fact some elements of a federal state, such as some independent Institutions with shared or exclusive legislative authority over the national level, it is also the result of Member States’ multilateral agreements and decision making.

Consequentially, lacking the necessary coercive power and taxation, fundamental to assure its auto-implementation¹, the future of this hybrid organisation isn’t preset, but rather unpredictable.

Being the terms of European Integration the result of a complex power-play of coexisting national, supranational and international interests and powers, European Institutions are very sensitive to those exogenous factors that might rewrite the internal political equilibrium.

I believe that nowadays economic turndown is a tangible sign of how the European “work-in-progress” project is directly affected by the mutating circumstances. As the rise of European scepticism in the latest European Election has probably shown, the concerns about the crisis have quickly turned in a certain political reconsideration of the institutional role of the Union. Which is the role of European Institutions in the stagnant economy and what the EU should do to ease the situation are both present questions whose implications may affect future European Integration.

Anyway, although the prospect of further European developments can only be subject of speculation, we can analyse the occurrence and evolution of destabilising factors in order to give a logic base to our assumptions.

It is in this mutable context that I want to place my essay.

¹ Tallberg J. (2013) *EU:s politiska system* (p.12) Lund, Studentlitteratur AB, 5th edition

1.1 Purpose

If an agreement exists on the fact that the way out of the crisis goes through economic growth, much has still to be said about the way to enhance this recovery and the role played by European Institutions.

While some coordinate programs have been undertaken in order to ease the critical financial situations of some National States and institutions, being industrial policies of almost completely national authority², the EU hasn't implemented a comprehensive strategy to strengthen productivity yet.

I believe that this crisis is constituting a hard stress-test for European cohesion, but it might also represent a possibility for deeper integration.

The Department of Enterprise and Industry of the European Commission (ENTR) believes in fact that the next step is a more integrated management of European manufacturing and its vision is drafted in a publication bearing a strong effect title: "A new industrial revolution".

An expression that should denote a radical change of the productive system and its consequential impact on economy, society and institutions...

My purpose is to explore a glimpse of the intimate interrelation of cause-and-effect in which European Institutions and Integration are developing.

This essay aims therefore to provide determinate conceptual tools by an economic-historical analysis in order to show the range of a structural economic transition. This will offer determinate structural logics useful to understand and frame some implications on which Commission's industrial policies might depend.

The main questions to be answered are:

- 1) Given a new Industrial Revolution, are institutional restructuring fundamental to take advantage of the upcoming productive system?
- 2) Are there the prerequisites to an effective implementation of the industrial policy outlined by the Commission?

1.2 Disposition

First of all I should start explaining what the European Commission is and which are its actual tasks and powers.

² Tallberg J. (2013) *EU:s politiska system* (p. 55) Lund, Studentlitteratur AB, 5th edition

Afterwards I will focus on specific concepts in order to frame the theoretical approach of my essay. These theories will constitute the base for the successive economic-historical analysis of the effects and range implied by successive industrial revolutions on institutions.

The later section consists in the description of the methodological approach followed in my essay. Here I will justify the choice of the previously explained theories and I will clarify the consistency and the extent of applicability of their implications in my analysis.

Thereafter I intend to go through a relatively long-term economic-historical overview in order to show some of the implications entailed by the second Industrial Revolution on the institutional framework of the western world.

This is fundamental to set the empirical base to delineate how the reciprocal implementation of political and economic policies is interrelated with the institution-building process and their “effectivization”, including the European Integration. To conclude the economic-historical overview, I want to expose few factors of the new economic transition that are challenging present European Institutions.

Considering the implications of the previous chapters, in my discussion I will point out the main goals for a new industrial policy as outlined by the Commission. Being aware of the actual institutional power of the Commission, I will therefore evaluate if this European industrial policy might fulfil the requirements that the historical context suggests to enhance productivity and growth.

The conclusion of my essay will therefore propose my considerations about the possible direction of the European Integration, speculating briefly about the role that European Institutions should play to capture the potential profits that this “new revolution” may generate. Symmetrically I will also delineate the risk of an ineffective or interrupted process of integration.

2

The European Commission

The embryo of the modern European Union came into existence as a traditional intergovernmental organisation and it evolved in a unique cooperation project in world’s history. This “*objet politique non-identifié*” is today a complex commixture of intergovernmental and state features, where different political actors try to achieve their interests through the pre-set political structure, giving the input to political institutions with different competences designated to collective decision-making. Decisions that have

an impact on the distribution of resources and status among the actors involved in the system³.

The core of the system are the European Institutions and they determine which actors are going to have a say in the European policymaking. The power-balance among them establish the level of influence that actors have and their possibility to canalise political and economic effort for their scopes⁴.

The European Commission is one of these institutions and has several responsibilities, functioning as something in between an executive and a bureaucracy. The Commission has the task to represents the general interests of the Union and it has the fundamental power to initiate any policies discussed on European level. Moreover it safeguards the compliance and correct application of treaties and European law and it has the leading role in international trade and over competition policy⁵.

2.1

How does it work?

In this chapter I will mainly explain the Commission's exclusive formal right to propose new common legislation since this power is the most relevant for my essay.

Due to its legislative primacy on both the Parliament and the Council, the Commission can be considered the engine institution of European Integration. However, this exclusive right doesn't neither mean that the Commission's actions are independent from other Institutions nor other political interests. Indeed the internal procedure to draft a proposal is long delicate power-balance that have to take into consideration many different interests⁶.

The Commission is designed to act independently of EU's national states, however the powerhouse of the Commission (the College of Commissioner) is divided in as many seats as member states, guaranteeing a Commissioner per country, and each one of them responsible for a political portfolio and nominated for five years.

³ Tallberg J. (2013) *EU:s politiska system* (p. 13) Lund, Studentlitteratur AB, 5th edition

⁴ *ibid*

⁵ Bomberg E., Peterson J. and Stubb A (2008) *The European Union: how does it work?* (p. 46) Oxford, Oxford University Press, 2nd Edition.

⁶ Tallberg J. (2013) *EU:s politiska system* (p. 42) Lund, Studentlitteratur AB, 5th edition

Even if Commissioners' potential nearness to its country might not be a problem, in a Union with 28 member states it is difficult to provide to relevant tasks to each Commissioner and the national/supranational allocation bargain can be problematic. Nevertheless the President of the Commission has gained more power and independency from national state and has the power to allocate or reshuffles Commissioners' assignments⁷. Still nominated by national governments, the President has recently gained more democratic legitimacy since, from the European Election 2014, his/her nomination is an expression of Parliament majority⁸.

The formal legislative input comes out from the College of Commissioner that meets once a week and, when a decision is taken (often by consensus), all Commissioners are expected to support it or to resign⁹.

However much of the legislative procedure take place long before the proposal arrives to the Council. Behind the executive Commission there is in fact the administrative and bureaucratic part of the Institution. That is mainly composed by the directorates-general (DG) services or departments, European equivalent to ministers, which report to the private cabinet of the responsible Commissioner¹⁰. Their work is fundamentally to monitor and analyse the actual situation of their sectors, for examples industry and entrepreneurship and to examine and draft possible legislative initiatives. With this organisation the division line between the administrative and the political role of the Commission can be unclear since, even if the authority to emanate any decision belongs to the Council, many policy ideas develop further down the administrative organisation¹¹. Additionally, many inputs and requests to legislate arrive informally from external actors. Indeed, if the Commission wants to see its initiatives proceeded and enforced by member states and the European Parliament, it has to make sure that the actors involved by the proposal are aware of the draft and that and somehow take part to it. This is why the creation of new proposals happens always in close contact with experts, governments' representatives, companies and civil society¹².

⁷ Bomberg E., Peterson J. and Stubb A (2008) *The European Union: how does it work?* (p. 46-47) Oxford, Oxford University Press, 2nd Edition

⁸ Wikipedia, about *Election to the European Parliament* (www). Date 22-08-2014

⁹ Bomberg E., Peterson J. and Stubb A (2008) *The European Union: how does it work?* (p. 46-47) Oxford, Oxford University Press, 2nd Edition

¹⁰ *ibid*

¹¹ *ibid*

¹² Tallberg J. (2013) *EU:s politiska system* (p. 82-83) Lund, Studentlitteratur AB, 5th edition

In other words we can say that the Commission is always involved in finding compromises that offers the broader consensus in order to see its legislative proposal implemented.

2.2 Limits

While the Commission has historically tried to maximise its influence, its power remains limited due to its complicate bureaucracy and the reluctance of member state to delegate the control of sensitive or highly politicized policies. The national states are in fact still detaining the main legislative role in a majority of fields, while the European Union is only involved as a general coordinator or for specific project.

Additionally, in those fields where the Treaties agreed the European Union to have exclusive or shared competences, the political room for the Commission is often checked by the scarcity of resources and, being the power over the Treaties detained by member states, they finally the control over the influence of the Commission¹³.

Since at the current date the European Union lacks any possibility of direct taxation, its budget is relatively very small. Furthermore, even though it is the Commission that administer the budget, its task is strictly limited: it is in fact the European Council that decide the European revenues and that, together with the Parliament, decrees the frames in which funds should be assigned¹⁴. In 2007-2013 for examples, states' membership fee represented around 73% of EU's entire financial plan and the affiliation cost –set by the European Council, was only 1.26% of each state's BNP¹⁵.

Considering the additional fact that EU's finances cannot run in deficit, we can understand why the EU cannot sustain a large number of expensive policies of the welfare state. On these bases, the power of the European Union relies mostly on law (legislation and court decisions) rather than economic power. Consequentially EU's policies are mainly regulations and standardisation of economic activity¹⁶.

¹³ Bomberg E., Peterson J. and Stubb A (2008) *The European Union: how does it work?* (p.50) Oxford, Oxford University Press, 2nd Edition

¹⁴ Tallberg J. (2013) *EU:s politiska system* (p. 84) Lund, Studentlitteratur AB, 5th edition

¹⁵ *ibid* (p. 69-70)

¹⁶ Bomberg E., Peterson J. and Stubb A (2008) *The European Union: how does it work?* (p. 118) Oxford, Oxford University Press, 2nd Edition

Another “ineffectiveness” of Commission policies is that the governance system implies that directives (adopted by the Council) need to be “transposed” into national legal code before to be implemented by national administrations. The Commission monitors this process, but a law can still take long time before to be executed and, sometimes, the national regulation isn’t adequately performed, requiring even longer time to standardisation¹⁷.

2.3 Scope and capacity

Admitted that from the middle 90ties the European Union has been involved in an almost constant reformation process, lacking a defined plan to an agreed objective, this process is somehow instable.

The Union has recently welcomed many new member states and taken on new tasks but eluding a concomitant increase in its resources to implement the new designed responsibilities.

The problem is that, excluded minor adaptations, many European Institutions, including the Commission, are almost organised as they were before with only six or fifteen member states. Consequentially, to be able to face those quantitative and qualitative new demands and needs that its expansion implied, European Institutions need to be deeply reformed.

However, if the efficacy of decision-making in a European Union with nearly 30 states is an issue that touches all Institutions, when interests are so different, to change is a difficult process¹⁸.

Of course the Commission isn’t the sole Institution facing the gap between scope and capacity. Now, once increased its political and geographical scope without an explicit support from its citizens, this gap is increasing as the need to change the European Union’s status.

But could a Commission with an administration of the equal size of Barcelona’s municipality manage an even more ambitious Union?

According to what President Barroso said in 2005, the aim of Commission’s policies is to solve problems and not to serve the political purpose of further political integration¹⁹.

¹⁷ Bomberg E., Peterson J. and Stubb A (2008) *The European Union: how does it work?* (p. 120) Oxford, Oxford University Press, 2nd Edition

¹⁸ Tallberg J. (2013) *EU:s politiska system* (p. 180-182) Lund, Studentlitteratur AB, 5th edition

¹⁹ Bomberg E., Peterson J. and Stubb A (2008) *The European Union: how does it work?* (p. 225-226) Oxford, Oxford University Press, 2nd Edition

Well, in 2014 this “Europe of Results” is surely taking into consideration the legitimacy, effectivity and democracy problems that affect the Union. Also considering the urgent need to get out of the economic crisis.

3

Economic growth, conceptual tools

According to Wikipedia economy is the system of production, distribution, trade and consumption of limited goods and services by different agents – might they be individuals, companies, organisation or government, in a determined geographical region²⁰.

Taking into account this definition, we can then assume that economy is the value of everything that our societies and its individuals produce, share and consume, but, considering that our species is 200-thousands years old²¹, what do we mean with economy and economic growth *nowadays* and which is its importance?

I am not going to dedicate much time discussing economic variables and production factors such as labour force, capital, prices index, inflation rate, etc... These variables mostly belongs to the elegant formal economic theory that, in its mathematical precision, I believe it is avoiding the confrontation with economic problems of society.

On the contrary my essay is going to have an institutionalist: according to a famous institutionalist as Douglass North, the neoclassical theory is a frictionless economic model in a world where, on the contrary, actions always generate resistances. Moreover he rejects the idea of a static theory, showing that our system is undergoing an unprecedented dynamic change. To conclude, neoclassical theories are also based on the rationality assumption, which implies that individuals know best what is in their self-interests and therefore act accordingly. This assumption is however limited by the fact that individuals’ decision-making involves each actor’s subjective representation of the implications framed by the circumstances. Being highly dependent by the circumstances, this “rational choice” proves its fragility in the typical conditions that characterise most of economic and political decision-making: uncertainty, where actors project their fears and hopes.

Moreover, being continuous economic development and change subsequent product of our own economic and political actions, uncertainty will additionally reduce the real impact of the rational assumption²².

²⁰ Wikipedia, about *Economy* (www). Date 12-05-2014

²¹ Wikipedia, about *World Population* (www). Date 10-10-2013

²² D.C. North (1995) *Economic Theory in a Dynamic World* (p. 7) *Business Economics*, Vol.30, No 1. Palgrave Macmillan Journal

To conclude I believe that to achieve a general comprehension of economic growth it is fundamental to put the economic context in prospective, setting the premises, implications and consequences of economic transitions. Here I will provide three different although complementary interpretations that I consider central to unveil the values of a modern economy of scaleⁱ and the pattern of cyclical development of economic growth.

3.1

Economic growth, an energy revolution

Until the Industrial Revolution, every civilisation developed in a Sun-based energy system – i.e. one production system based on plants' capability to generate energy-bearing carbohydrate molecules, usable for both human and animal muscular work; that meant their possibility of growth was limited by the usable land and its food production.

Due to the lack of fossil energy and mechanisation, in organic economies mechanic work was fundamentally achieved by muscular power. This circumstance entails that the implementation of a stable economic system was strictly limited by the energy guaranteed by the agriculture output; energy in form of food that had to be shared among both humans and domestic animals.

Despite the unlimited source of solar energy, the energy constrains were strict. Since photosynthesis is a rather ineffective process (only able to convert between 0.1 and 0.4 per cent of the total solar energy received) organic economies were bounded to low energy flow-rate. Its storage (food-stock) was an additional difficulty since it wasn't neither easy nor reliable in an organic system²³.

Another constrain was that agriculture is an energy intense activity and, at a constant level of knowledge and technologies, the only way to achieve more intensive cultivation is the intensification of energy input. Consequentially, in a society that lacked fossil fuels and mechanisation, this intensification could only be achieved by harder muscular work. And an increased muscular work resulted in increased of food consumption too, inevitably lowering the saving of the surplus per worked hour. This explains also why in organic economies it was so complex to arise productivity per unit of land²⁴.

²³ Wrigley E.A. (2010) *Energy and the English Industrial Revolution* (p. 10-16). Cambridge, Cambridge University Press.

²⁴ *ibid*

In all economies developed in the wake of Neolithic Revolution, the land directly or indirectly constituted the sole source of energy and material product for human use. So, since both agriculture and manufacturing were competing on the exploitation of the same limited available land, the growth of one would have implied the suffering of the second²⁵.

During the Middle Ages European farming followed the so called “open field system”. That consisted in a multitude of small farm plots spread out in the fields around the village and cultivated by local farmers in different proportions, according to their possession while the crop rotation supplied uncultivated areas and fallows considered of public usage. To understand this “ineffective” and complex system where each farmer had several small lots far from each other, we have to understand that subsistence agriculture had long been the norm in Europe and, due to the hard conditions, farmers’ interest was to minimise the risk in an unstable production system, rather than profit maximisation: households weren’t companies!

Moreover this organisation gave longer seeding and harvest periods, which was better considered each households ‘scarce labour force’²⁶.

However, even if growth wasn’t easy for an organic economy, somewhere during 16th and 17th century the western European rural landscape slowly began to mutate setting one important precondition for both market economy and the Agrarian Revolution.

Along with new instruments, technique and plantations, the wealthiest farmers managed to unite several plots in bigger unities as well as to change the propriety balance in the fallows. This process slowly led to the *enclosures*, institutional reform that formally ended of the open field system, privatising the common rights and creating a landless working class, but also a decisive production growth and specialisation. And a decisive impulse to the modern market economy²⁷.

However, for some classical economist market economy didn’t seem to a sufficient solution. In fact, whenever a community achieved a certain prosperity, the risk to be captured into a “demographic trap” was still relevant. According to Thomas Robert Malthus, to defeat poverty increasing productivity was simply impossible since demographic structural crisis were endogenous factors of growth in organic economy. He theorised how no society could have started a revolutionary developing process since any improvement of living standards would directly have led to an exponential

²⁵ Wrigley E.A. (2010) *Energy and the English Industrial Revolution* (p. 10-16). Cambridge, Cambridge University Press.

²⁶ Gadd, C.J. (2009) *Agrar revolution under två sekel* (p.10-18). Stockholm, SNS förlag.

²⁷ *ibid*

growth of the population. In a classic society that would have turned in to an unsustainable vicious circle, since the agricultural output could at its very best only follow a linear progression while the population would have pressed against the limits of its food supply. The result would consequentially be a crisis with dropping resources pro-capita, worsened living standards and increased mortality. This cycle would have worsened until the mortality would have rebalanced the pressure on resources and economy (and living standards) could have initiated a new, precarious growth²⁸.

When Malthus lived, in between 18th and 19th Century, Earth's population counted barely one billion people – and we had never been so numerous on the Globe before. Real wages and living standards in England were indeed decreasing and there were hundred thousands landless people moving away from their county²⁹. Malthus was a great observer, but, obviously, he couldn't predict the outcome of the arising Industrial Revolution. New institutions had opened the way and coal made “unlimited” growth possible. The late 18th century was quickly liberating Humanity from the constrains of organic economies, allowing societies to develop “independently” from the closed and fragile solar energy system and the Industrial Revolution opened new horizons of development for our species³⁰. Humanity was just entering the *Era of Growth*ⁱⁱ.

This “the rush to growth” could therefore only be a possible feature in modern times, when the transition to fossil energy sources broke the constraint of organic societies. The consumption fossil energy assured in fact a reliable and accessible energy source, storable and -in theory- without any limit of flow-rate or energy-input. Moreover, using the energy stocked in the sub-soil, we aren't energetically bounded to the land any longer and the soil surface can now be rationalised for mechanical agriculture purposes, while inorganic raw material as well as new infrastructure, technologies and institutions revolutionised our production, distribution and consumption system³¹. Today's perspectives of development were unthinkable for any organic economy and, in numbers, it meant that between 1820 and 2005 the total world production grew up to 65 times while from the 11th and 19th

²⁸ Scales Avery J. (2013), *Malthus* (110-122). *Cadmus Journal* Vol.6, No 1. Cadmus.

²⁹ Wrigley E.A. (2010) *Energy and the English Industrial Revolution* (p. 10-16). Cambridge, Cambridge University Press.

³⁰ *ibid*

³¹ *ibid*

century it had only doubled (+0.1% per year)³². And of course, we became seven billion people in just two centuries³³. And we won't stop, growth became our mantra.

3.2

Economic growth, a technological revolution

Indeed one undeniable factor directly related to our population growth and productivity-rise is the introduction of new technologies applied to all productivity sectors.

This technological take off opened more than two centuries of astonishing human records and it wouldn't probably have been possible without a single innovation: James Watt's steam machine, the technological turning point of the Industrial Revolution.

In late 18th century's England time was ripe to the operation of this invention that quickly reshaped completely our production and consumption's system. The total reach of the employment of this new machineⁱⁱⁱ became the engine for new industrialisation; something that could integrate different economic sectors and areas, cluster new technologies as well as change infrastructures and institutions in a revolutionised economic systems³⁴.

Undeniably, when Humanity could start to grow "independently" from the fragile balance of organic nature, the fears of classical economists rapidly vanished. However, even if Malthusian crisis aren't our direct dreads anymore, the latest 200 years of growth hasn't only developed in linear and harmonious way.

3.2.1

General Purpose Technologies

The steam machine was the technological milestone that, for the first time in humanity, provided easily available and easily locatable inorganic labour force. This change wasn't simply a deeper industrialisation: the transformation has been (and it still is) so radical that today it is known as the Industrial Revolution.

³² Schön L. (2010) *Vår världs ekonomiska historia – den industriella tiden* (p. 9). Kristiansand, SNS förlag.

³³ Wikipedia, about *World Population* (www). Date 10-10-2013

³⁴ Schön L. (2010) *Vår världs ekonomiska historia – den industriella tiden* (p.33-46). Kristiansand, SNS förlag.

Once this innovation overcame the initial structural and cultural hindrance of the pre-existing economic structure in fact it spread so pervasively to each sector of society that new industrial techniques and guidelines implemented an economic shifting to a successive productive system.

These innovations that have such penetrating power on society and that can catalyse a cumulative innovation pattern for further and ubiquitous technological development are known as *General Purpose Technologies*³⁵.

The difference between an invention and an innovation like a GPT is the great potential that some of these technologies can apply once integrated in the productive system. However, even the implementation GPTs takes time: at the presentation of a new technology in fact the productive system is developed on other criteria and standards while new inventions are typically primitive at their birth and their performance usually poor if compared to the existing technologies. When they evolve however their impact on the system becomes so vast that the entire productive system is rebuilt on on them. However this integration process implies high technological and organisational transition costs and this is the reason why it doesn't always happen automatically³⁶.

As we have seen industrialization is intimately related to the introduction, implementation and consolidation of new GPTs.

Since the first Industrial Revolution occurred, GPTs have moved our economies through three different productive systems. After the steam machine in fact the employment of the electric and the internal combustion engine marked the so called "second Industrial Revolution" and, lately, microprocessors and IT-technology made a third, new industrial revolution possible³⁷.

One astonishing characteristic of the industrialisation is, I believe, the progressive acceleration of the revolutionary transformations that each stage implied: In only two centuries we went (and are still going) through three different productive system as well as we experienced an unrecorded demographic growth. The transition can probably appear like a unidirectional way to progress and wealth, but we shouldn't forget that such revolution also implied radical social and institutional adjustments.

In the first half of the 20th century Joseph Schumpeter was one of the first economist to dedicate his work to the analysis of economic impact of GPTs.

³⁵ Schön L. (2010) *Vår världs ekonomiska historia – den industriella tiden* (p.33-46). Kristiansand, SNS förlag

³⁶ *ibid* (p. 44-46)

³⁷ *ibid*

3.2.2

Business Cycle and the creative destruction of the Industrial Revolution

If history can be seen as the cumulative progress where different processes interlock, creating new starting points and perspectives for the future, economic history can also reveal a recurring cyclical pattern in the process of industrialization.

Schumpeter theorised a cyclical economic development of an industrialised society based on the introduction of innovations.

He didn't believe in the "invisible hand" of the market and he was convinced that the reason of economic development had to be searched in technology and entrepreneurial activity.

In his model economic stability was in antithesis with economic development. He believed that economic systems tend to achieve a balanced self-realisation by the routine behaviours of traditional economic agents. However this equilibrium achieved by a stable self-implementation of its economic circular-flow^{iv} would have led to stagnation.

On the contrary economic development was made possible by those instability factors as technological inventions and innovative entrepreneurship that could break the balance³⁸.

Economic development was therefore explained as the successive introduction of innovations able to make the previous technologies obsolete and shock consequentially the economic system in a series of successive cyclical instabilities.

During the reorganizational time, the entrepreneurs had the possibility to make bigger profits investing in innovations: thanks to new technology superior investments' revenues, the entrepreneurs could increase his effectiveness over the competition. This economic development would have continue until the market would have re-defined its equilibrium on a new technological level. He defined this process as business cycle and he believed that it demonstrate the "creative destruction" of the capitalistic system³⁹.

Schumpeter analysed this phenomenon also from an economic historical point of view.

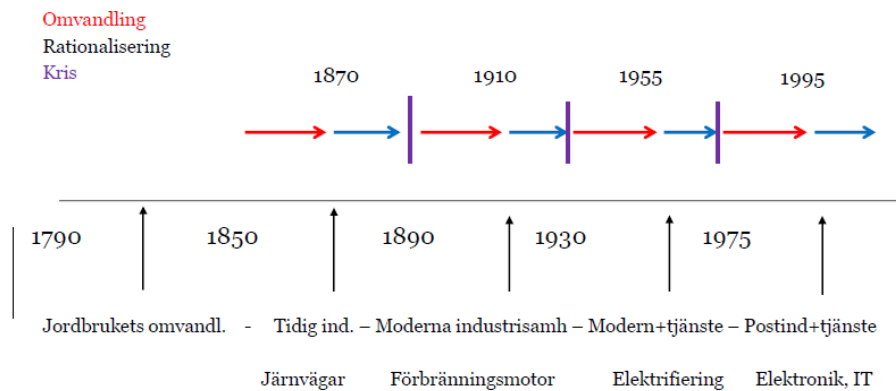
He studied what we can today see as the longer cyclical pattern of the productive system connected to the introduction, implementation, effectivization and crisis of successive GPTs.

³⁸ Scrempanti E., Zamagni S. (2004) *Profilo di storia del pensiero economico* (p.339-341) Rome; III edition, Carocci Editore

³⁹ *ibid*

This deep cyclical fluctuation of economy caused by the structural industrialisation conversion into successive phases implies of course the consequent destruction of previous systems, with the consequent institutional transformation and deep social unrest.

Roughly explained, in this recurrent cycle growth is assured during both the conversion and rationalisation phase thanks to investments for innovation and structural changes. However, the entrepreneurs generally haven't the meanings to finance these investments, so, the system depends on credit. Considering that innovations often produce profits only after time, this also mean that, once economy stabilise on its maximum efficiency and concurrence higher, the revenues aren't necessary high enough to cover the pay off the debt and when the situation is generalised, the consequent credit crunch could deteriorate the economic stagnation into depression⁴⁰.



OBS: Modellen applicerbar på den västerländska utvecklingen i stort

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Whether the economic growth that should occur after the stagnation and depression phase might be a certainty or just a possibility depending on different political conditions will be the subject of the next section.

⁴⁰ Scrempanti E., Zamagni S. (2004) *Profilo di storia del pensiero economico* (p.339-341) Rome; III edition, Carocci Editore

⁴¹ **Figure** Svensson P., 2013, *Structural phases in economic history*. Lecture 9. Lund University

3.3

Economic growth, History matters

To solve economic problems several recipes have been made. Among the most rigorous that have been developed there are neoclassical economic theories. They are based on extremely logical economic models that consider all kind of economic variables *scientifically* analysed with the best and most modern techniques.

However, if nowadays goods and technologies can easily be shipped everywhere in the world, to be able to explain why some economies succeed and others don't, probably we have to consider other factors too. According to Douglass North, in order to achieve economic development, institutions are as important as technological achievements. If economist tend to consider economic them as parameters, in the analysis of long term economic growth North studies them as variables, showing how they are subjected to radical changes throughout History⁴².

Roughly we could state that in Economy History matters and that the nature of any economic equilibrium achieved is partly subject to the process of getting there. Consequentially this implies that politicians' possibility to adjust the direction of one economy is constrained by the institutional matrix and belief system of the actors of that society⁴³. This interrelation between up-to-date policies and historical contingencies is known as "path-dependence" and it explains how the roots of today's economic growth and organisations are set in the opportunity and restrictions developed from yesterday's institutional framework and its incremental process of evolution⁴⁴. This also explains risk to develop counter-productive policies is high when policy makers ignore one society's institutions and their historical development and the ruinous effects caused by the application of economic models and policies "exported" from one well-functioning industrialised economy to a developing one⁴⁵.

An institutional approach implies that to develop relevant economic theories, we need to encompass traditional models, widening their scope and

⁴² North D.C., Thomas R.P. (1970) *An Economic Theory of the Growth of the Western World* (p. 5) *The Economic History Review*, Vol 23, No 1. Wiley-Blackwell

⁴³ North D.C. (1995) *Economic Theory in a Dynamic World* (p. 7) *Business Economics*, Vol.30, No 1. Palgrave Macmillan Journal

⁴⁴ North D.C. (1991) *Institutions* (p. 109) *Journal of Economic Perspectives*, Vol.5, No 1. American Economic Association

⁴⁵ North D.C. (1995) *Economic Theory in a Dynamic World* (p. 11-12) *Business Economics*, Vol.30, No 1. Palgrave Macmillan Journal

including the explanation of formation, evolution and decay of the organisational forms within which different actors interact.

Of course, to achieve an *infallible* economic model is a utopic task: the number of variables and their amplified effects throughout History are too many to be measured, not to consider the volatility of culturally based tendencies and the unpredictable outcome of political confrontation. Well, future isn't an exact science, nevertheless to have a good understanding of the role of institutions in economy and their historical progression is fundamental to develop an effective policy. Ultimately we can state that, with all its limits, the strategic variable in economic growth is just politics⁴⁶.

3.3.1

Institutions

Before to proceed further, it is essential to define what I mean with institutions.

In its most common usage "institution" is variously referred to different organisations such as a bank or states; it can also refer to legal rules that define economic relations among people such as the private propriety or to particular persons in a particular positions as a monarch or even to an official document as a constitution⁴⁷.

For our purpose we should delineate institutions as the humanly constraints that structure political, economic and social interaction. The *raison d'être* of these devices is to create an orderly framework that can fix stable rules and reduce uncertainty in exchange, which is an essential precondition to lower transaction's costs and organise an economy of scale.

Essentially institutions are arrangements between economic units that define the ways by which economic actors can compete and co-operate in one economic system/society. They can be formal rules such as laws or propriety rights, etc., or have informal character such as codes of conduct, traditions and customs, etc.⁴⁸

These agreements among economic players can be the result of voluntary association or be undertaken by governments and rulers using coercive force. Their existence and the efficiency of their enforcement (together with the technology employed) determine the costs of transacting: effective

⁴⁶ North D.C. (1995) *Economic Theory in a Dynamic World* (p. 11-12) *Business Economics*, Vol.30, No 1. Palgrave Macmillan Journal

⁴⁷ North D.C. (1991) *Institutions* (p. 97) *Journal of Economic Perspectives*, Vol.5, No 1. American Economic Association

⁴⁸ North D.C., Thomas R.P. (1970) *An Economic Theory of the Growth of the Western World* (p. 5) *The Economic History Review*, Vol 23, No 1. Wiley-Blackwell

institutions raise in fact the benefit of cooperative solutions and arise the costs for any agreement's defection. This means that effective institutions reduce transition and production costs per exchange, so that trade can guarantee reliable potential gains⁴⁹.

However, it is fundamental to remember that institutions aren't only enforced to ease trade and maximise profit or production and sometimes it is more profitable for economic actors to organise institutions on other basis than productivity maximisation. I have already mentioned the "open field system" which was one of those institutions that prioritised risk's spread and minimisation and a certain redistribution. That system had of course sense in an economy that was very different from our industrialised one: the volume of trade was still relatively small, farmers were less specialised, labour was quite scarce and innovation rate was low⁵⁰.

However times change and institutions change and the fundamental institutional steps that opened the way to the agrarian revolution first and the industrial one later, were set in England during the turbulent 17th century ended in the Glorious Revolution⁵¹.

To understand the dynamic of institutional change and how it might affect growth is therefore necessary to face the upcoming political and economic issues of our time.

We can divide institutions in fundamental and secondary ones. The first kind denote the "ground rules" that frame the "constitutional" basis for –for example, propriety rights or the extent and forms in which the executive power can be performed, but they can also exist only by custom.

Might they require a set procedure to be change or not, these fundamental institution are generally slower to change than the secondary one since the letter often don't need any political or legal change to be enforced. Secondary institutional arrangements are generally in fact they are created at without altering the basic institutions and they are usually consistent with them. However, existing at their side, some of their implications can overlap becoming problematic.

In North's words "Equilibrium among economic institutions exists when the costs of change (to the individual or group) exceed potential benefits. Therefore, to induce institutional innovation, some disequilibrium must

⁴⁹ North D.C. (1991) *Institutions* (p. 98) *Journal of Economic Perspectives*, Vol.5, No 1. American Economic Association

⁵⁰ North D.C., Thomas R.P. (1970) *An Economic Theory of the Growth of the Western World* (p. 9) *The Economic History Review*, Vol 23, No 1. Wiley-Blackwell

⁵¹ North D.C. (1991) *Institutions* (p. 101-102) *Journal of Economic Perspectives*, Vol.5, No 1. American Economic Association

occur in the system that adds weight to the profit side in the judgment of the decision-making individuals or groups”⁵².

Historically this disequilibrium occurs because the implications of secondary institutions enter in conflict with the status quo implied by the fundamental ones. Being secondary institutions less costly to change they are therefore more receptive to small changes to capture some of the potential profits of the evolving economic situation. So, little by little, their cumulative alterations lead to an institutional disequilibrium and the process might induce the reform of fundamental institutions⁵³.

However the possibility of change doesn't mean a change as well as an institutional reform doesn't imply that it will encourage individuals to make effort to arise productivity⁵⁴.

Ultimately, to predict the outcome of the disequilibrium is impossible since a reform is the outcome of the political confrontation of different groups representing different interest⁵⁵.

3.3.3

The transactions costs of modern times

Nowadays the integration of science and technologies is the revolutionary prerequisite that determines modern productivity. This is the source factor of a dynamic economic change which entails the consequential mutation our productive system and our institutions⁵⁶. However, to be able take advantage of the enormous potential of technology, we have to implement and enhance these innovations in a renovated and effectively integrated productive system. A productive system that depends on its institutional framework.

Due to the incremental expansion of science and research, the “upcoming rate” of innovations increased consequentially and that entailed an augmentation of the possible rate of change too. Yet this capitalistic “creative destruction” became extremely costly⁵⁷.

⁵² North D.C., Thomas R.P. (1970) *An Economic Theory of the Growth of the Western World* (p. 9) *The Economic History Review*, Vol 23, No 1. Wiley-Blackwell

⁵³ North D.C. (1971). *Institutional Change and Economic Growth* (p. 122-123) *The Journal of Economic History*

⁵⁴ North D.C., Thomas R.P. (1970) *An Economic Theory of the Growth of the Western World* (p. 10-11) *The Economic History Review*, Vol 23, No 1. Wiley-Blackwell

⁵⁵ North D.C. (1995) *Economic Theory in a Dynamic World* (p. 11) *Business Economics*, Vol.30, No 1. Palgrave Macmillan Journal

⁵⁶ *ibid* (p. 8)

⁵⁷ *ibid*

Today in fact the ongoing process of interdependent renovation of the economic system and its institutions can be revolutionised in the lap of one generation. The last century has already been an example of the radical range that three different generations of GPT had over the productive system and society. Anyhow the 20th century has also shown that the implementation of deep structural revolutions doesn't only affect economies and institutions, but also societies, causing potentially explosive results^v.

As we have seen, the first two phases of industrialisation opened the way to technological production. Consequentially, being the technological factor at the base of manufacturing's growth, the expenses in factories' infrastructure and equipment became more and more relevant and mass production required an uninterrupted production as well as a disciplined labour force and a developed transport network.

To be economically sustainable the new system needed effective factor and products market, a market that could be achieved by juridical organisations and polities that permitted low contracting costs and the creation of wide organisational structures able to play on international/multinational levels, as well as the creation of complex international governance structures able to cope with the problems of managing so vast, specialised and hierarchical organisations⁵⁸. The development of this production and trade network among economies of scale (which also implied large-scale organisation in agriculture) relies on market effectiveness and the control of organisational costs by new accounting methods. And new international trade organisations and new accounting methods were at the developed the third Industrial Revolution.

This third phase of industrialisation was in fact made possible by the development of information technology and microprocessors enforced in the framework of new global institutions.

This evolution has once again increased profit possibilities for a highly specialised and effective market on global level, moving constantly resources from the first and secondary sectors to the service sector (at least in our continent). Technology today is calling for further occupational and regional specialisation, also giving us the possibility for real-time connection. Obviously this is further increasing the number of exchanges and boosted time and resources in transacting⁵⁹.

To function in fact, a highly specialised world must rely on a complex and global exchange net of impersonal transactions. This implies that accounting,

⁵⁸ North D.C. (1991) *Institutions* (p. 101) *Journal of Economic Perspectives*, Vol.5, No 1. American Economic Association

⁵⁹ North D.C. (1995) *Economic Theory in a Dynamic World* (p. 7) *Business Economics*, Vol.30, No 1. Palgrave Macmillan Journal

coordination and transactions' costs became a large percentage of "industrialised" economies' GNP⁶⁰.

And from the swollen financial sector broke out the current crisis.

So, even if the transformation of our economies is constant, pushed forwards by long-run changes in relative product and factor prices (notably the impact of the global market and new technologies), ultimately it is the institutional framework that can sustain economic growth, changing the transaction terms and allowing the formation of production enhancing organisation.

However, since formal institutions' legitimacy often relies on the norms and customs, these institutional changes have to be supported by society somehow and individual must "sense" some kind of personal profit to willingly adopt them. The actual institutional rate of change required to efficiently take advantage of new organisational and productive methods could therefore be problematic since, while formal rules can be changed overnight, the informal norms only change gradually⁶¹.

Moreover, since stable organisations are fundamental to enhance investments, trade and therefore economic growth, to keep cohesion in a society is fundamental. Consequentially, to protect the welfare of the diverse groups that compose society is a necessity. Institutional change in fact shouldn't divide society obvious winners and losers, but tend to an evolving and adapting cohesive matrix where the participation to economy and possible benefits is guaranteed to all its members⁶².

4

Methods

In its paper "A new industrial revolution" the European Commission expresses its concern about the economic situation and suggests a recipe to get out of the economic turndown.

As we have seen, this economic dilemma implies a political solution. To choose between different economic priorities means in fact to prioritise between different systems of values. Consequentially, to decide over the execution of one rather than another project based on different –and often contrasting– value scale is politics in its essence⁶³. Moreover, the fact that it

⁶⁰ North D.C. (1991) *Institutions* (p. 101) *Journal of Economic Perspectives*, Vol.5, No 1. American Economic Association

⁶¹ North D.C. (1995) *Economic Theory in a Dynamic World* (p. 11) *Business Economics*, Vol.30, No 1. Palgrave Macmillan Journal

⁶² *ibid* (p. 11-12)

⁶³ Badersten B. (2003) *Att studera det önskvärda — om värdeanalys och normativ metod* (p. 209-210) *Statsvetenskaplig Tidskrifts*, Lund, Vol 106, No 3

is just the European Union that wants to have a say in a “national” matter such as an industrial policy implies additional political considerations.

4.1

A combined approach: from empirical to normative to empirical again

One way to analyse policies is to analyse the system of values that constitute them. This is the aim of normative analysis, to try to unveil and codify these values in order to frame a rational argumentation for a justifiable standpoint. While the empirical analysis examines how something *is* and how it can be explained and understood, the normative approach treats instead the problem about how something *should* be and how it can be *justified*. Any normative assertion is therefore based on values or, in other words, on that something that is desirable and that constitute the justifiable extent of a suitable action⁶⁴.

Given the value (what is desirable) and its circumstances (empirics), my work will also try to fill the gap between how something *should* be and how it *should be implemented*. Although I am not sure to be able to prove it scientifically, I believe that such speculation is relevant in order to contribute to the debate about the topic and, I believe, to its knowledge. My discussion will therefore consist in a normative evaluation of Commission’s industrial policy as well as a speculation about *how* economic growth *should be* better implemented, responding constructive-theoretical criterions – which consist in explaining how something *can* be and *how* it can be achieved⁶⁵.

Clearly my analysis refuses the “is-ought” problem as prospected by the philosopher David Hume: he stated in fact the incomparable difference between empirical and prescriptive or normative statements, asserting that claims about what *ought* to be on the basis of statements about what it *is* (and vice versa) are logically meaningless⁶⁶.

Since I do not consider reality existing completely independently from our observation and since I refuse the idea of the possibility to reach an objective knowledge of that pretended world, my analysis will be definitely more flexible. My work aims to a fusion of empirical and normative codes where some value-judgements forms the normative plan that lies as a ground first for an empirical analysis of recent history, then for a specific economic policy.

⁶⁴ Badersten B. (2003) *Att studera det önskvärda — om värdeanalys och normativ metod* (p. 209-210) *Statsvetenskaplig Tidskrifts*, Lund, Vol 106, No 3

⁶⁵ *ibid* (p.211)

⁶⁶ *ibid*

It is also important to remind that my approach is conditioned by value-relativism. The value-judgments assumed on empirical economic-historical bases must be considered valid only in the context of their relative economic system. Moreover economic history itself is a matter of interpretations... Nevertheless I believe in the validity of my analysis since these values may have a “real” impact on society and its development: in the end, the “*ought-to-be dilemma*” is just politics.

Indeed the line between political analysis and *to do* politics is thin and the distinction between normative analysis and personal beliefs isn't always unproblematic⁶⁷. Said so, the legitimacy of my work relies on the importance to be as values-agnostic as possible, which means to be as transparent as possible regarding values' trade-offs and to proceed with a reasoned proposal selection⁶⁸.

However I admit that a certain interplay between the analyst and the analysis must exist, reflecting the orientation and the perception of the analyst, so that we can't have a completely value-free policy analysis⁶⁹.

Values in fact permeate everything, starting from the analyst's selection of data to the language and –I should also add– the relative understanding given by the abstractions we use to represent our reality. In these terms policy analysis is fundamentally about argumentation.

4.2

Premises

My analysis needs to be very clear on the premises on which it is structured. To start it is fundamental to say that the reality studied by economists is far from the immutable one given by hard sciences. Economic factors and problems mutate in time and place with the development of our social structures so that fundamental problems and solutions analysed in a determinate society can appear completely irrelevant to another one. In social science in fact a theory should be considered as a form of self-understanding and self-representation of a social subject and, if it is true that economic theories shape societies, it is also essential to remember that societies influence deeply the cultural climate in which economists operate⁷⁰.

⁶⁷ Badersten B. (2003) *Att studera det önskvärda — om värdeanalys och normativ metod* (p. 208) *Statsvetenskaplig Tidskrifts*, Lund, Vol 106, No 3

⁶⁸ *Ibid*

⁶⁹ Robert C., Zeckhauser R.(2011) *The Methodology of Normative Policy Analysis* (p.3-4) published on the *Journal of Policy Analysis and Management*

⁷⁰ Scrempanti E., Zamagni S. (2004) *Profilo di storia del pensiero economico* (p.30) Rome; III edition, Carocci Editore

The criteria used by a society to determine its ruling economic theory are therefore to search in the complex socio-historical context. Context analysed by economic-history, science which is also subject to the same constructivist logics.

Extrinsic values.

Given that I do not believe in the validity of these values *per se*, therefore I will refer to an authority such as the European Commission to set the “final good” treated by my essay. This is explicitly stated as “Economic growth”⁷¹, also easily interpretable as the value entailed by the development of modern economy of scale.

Considered that to be the *intrinsic* value of our social organisation, my analysis consist in a normative map that aims to empower such desirable objective. The *should*-notions taken into consideration are therefore those values that are desirable in order to realise *that* something else that is wanted. *Extrinsic value* are therefore desirable due to the consequences they implies⁷².

Based on the theoretical considerations illustrated in the third chapter, we can deduce some extrinsic values fundamental to enhance economic growth in a market economy of an industrialised system.

In order to take advantage of the new economic terms, I will argue that a European Institutions and policies have to implement the three following prerogatives:

1. **Efficiency** of the European organisation
2. **Autonomy** of European Institutions
3. **Cohesion** among the different actors composing the Union as well as among its fundamental and secondary institutional arrangements.

Once the bases of my constructive-theoretical methodology are set, before to apply these consideration to the European industrial policy, it is necessary to prove the empirical consistence of the normative premises that I have outlined⁷³. To do so I will test the legitimacy of my assumptions in an historical report of the recent developments of the occidental and European’s economies and institutions.

⁷¹ European Commission DG for Communication (2013) *The European Union explained: Enterprise* (p.3) Luxembourg, Publication Office of the European Union

⁷² Badersten B. (2003) *Att studera det önskvärda — om värdeanalys och normativ metod* (p. 209) *Statsvetenskaplig Tidskrifts*, Lund, Vol 106, No 3

⁷³ *ibid* (p. 214)

5 *Shaping the present*

Europe has been the cradle of the Industrial Revolution and, consequentially of modern economic growth. However, throughout recent History, the economic and political role of our continent has been redesigned several times. Europe's institutional and economic evolution has recently undergone in fact a dramatic series of creation and destruction. Nevertheless, the effective interplay of different political and economic actors has been able to lay the grounds for the latest 60 years of peace, wealth and integration. 60 years that are the evidence of an extraordinary political institutional arrangement in order to fetch economic growth and stability. Curious enough, this process has its origins far away from our continent.

5.1 To rebuild Europe, an American affair

With the end of the First World War, the effects of the second industrial revolution started to be significant. However Europe stopped to be the core of industrialisation.

From the beginning of the century new mechanisation met in fact more favourable conditions in America, where it was faster integrated in the productive system. The United States had flexible economy with a big and united market with, at least initially, a good capital availability and a lack of labour force. These factors, along with vast and still relatively unexploited resources helped America to take advantage of the growth possibility assured by the assembly line and new engine technologies, effectively entering in the Second Industrial Revolution ahead of Europe.

So, once the war that ruined Europe was over, the American economic primacy became a factum. Meanwhile the small, shocked and fragmented economies of the old world didn't manage to re-establish the economic institutions and trade network that they developed and led just until 1913. Uncertainty made transactions risky, fixed exchange rates were abandoned and London lost the greatest global financial market and Germany its production supremacy. European economies turned inward into an unstable combination of protectionism and nationalism, unable to reconvert their indebted and inefficient productive system and facing increasing social tension. Consequentially, without any effective solution the tumultuous situation degenerated once again and once again a destructive war broke out in the old world⁷⁴.

⁷⁴ Schön L. (2010) *Vår världs ekonomiska historia – den industriella tiden* (p. 361-371). Kristiansand, SNS förlag.

While Europe was once again completely ruined by the Second World War, it restarted instead the industrial motor of the United States. Driven by the war effort, American industry forgot the depression of the 30ies. The chronic unemployment of the country was eliminated and production was renewed implementing more than ten years of unapplied technologies, while the financial expansion was guaranteed by the surplus of war export first and by actual military power then.

Moreover, once the war ended, the economy of the United States could also count on the new infrastructural base developed during the New Deal. Post-war America was now able to sustain its well-functioning industry and effectively convert the technologies developed for war-time production into new products and production process.

The internal market wasn't enough to be sustain this growth this time America didn't choose the isolationism that distinguished it during the interwar period: United States decided to ensure its expanding economy taking the leading role in the organisation and defence of "the free world"⁷⁵.

After the war nearly all Central Europe was set under soviet control and some Western European market economies were facing such critical post-war conditions and extreme unemployment augmenting the risk for a communist political change. Moreover the possibility that a new conflict could again develop on the post-war arrangements and difficulties was perceived as real.

For these reasons, to re-establish a stable, working and integrated European economy (which also included the reconstitution of the German productive system) became a priority for the American market too.

Within the international institutional framework set by the United States, Western European economies' began to cooperate also united by the fear of instability and communism. Their economic differences became therefore less important than before and, once understood the impossibility to return to 1913 Gold Standard^{vi}, the economic cooperation to enforce the reconstruction occurred thanks to the active role of the states⁷⁶.

In order to guarantee convertibility and monetary stability among industrialised states and to re-establish clarity for international transaction, in 1944, in Bretton Woods USA, a new currency system was initiated, bounding all the member currencies to American Dollars, the sole that maintained its convertibility into gold relying on its trade surplus and war loan. To secure the balance of this system, two new international organisations were instituted: the World Bank in order to enforce structural

⁷⁵ Schön L. (2010) *Vår världs ekonomiska historia – den industriella tiden* (p. 399-400). Kristiansand, SNS förlag.

⁷⁶ *ibid* (p. 438-440).

investments and the International Monetary Fund that financed economies deficit or negotiate the devaluation of their currency, in order to avoid trade restrictions or deflationist^{vii} economic policies⁷⁷

In parallel to the Bretton-Woods system, in 1947 the United States offered financial help for European reconstruction under the name of Marshall Plan. The plan, which consisted of 13 billions of dollars⁷⁸, was soon accepted by Western governments and administrated by a United States' agency and the Organisation for European Economic Co-operation (OEEC).

The reach of these American policies haven't only been fundamental to get a fast recovery of the western European productive system – which by 1950 was restored to pre-war levels, but it also to actuate a process of internalisation and integrations of the European economies⁷⁹.

In conclusion we can state this astonishing economic growth has also been the infrastructural and institutional reconversion of Western Europe within the terms established by the American industrialisation. To rebuild Europe under United States' supervision implied therefor the adoption of the American scale economy efficiency standards.

5.2

New Europe: from the ECSC to the EEC

As we have seen ideology was not the main reason for European integration. If there was a vague aspiration to a united Europe and even if these feelings were shared by some relevant national and supranational leaders, the steps towards a more federalist Europe coincided with reality only when they matched with national political and economic preferences.

In order to solve economic problems that would have undermine their legitimacy, national states were forced to outsource part of their sovereignty to an intergovernmental system. Paradoxically European states rescued themselves through limited supranationalism⁸⁰.

After the war, once European relations normalised and their economies became less dependent of the decreasing inflow of American Dollars, time

⁷⁷ Schön L. (2010) *Vår världs ekonomiska historia – den industriella tiden* (p. 440-441). Kristiansand, SNS förlag.

⁷⁸ Bomberg E., Peterson J. and Stubb A (2008) *The European Union: how does it work?* (p. 25) Oxford, Oxford University Press, 2nd Edition

⁷⁹ Schön L. (2010) *Vår världs ekonomiska historia – den industriella tiden* (p. 402-404). Kristiansand, SNS förlag.

⁸⁰ Bomberg E., Peterson J. and Stubb A (2008) *The European Union: how does it work?* (p. 23-24) Oxford, Oxford University Press, 2nd Edition

was ripe to try to overcome the industrialisation gap that affected Europe after 40 years of uncertainty and wars. However, in order to profit the opportunities entailed by the new mass production technology, European economies had to overcome the handicap given by small and divided markets. So, being the profit opportunities clearly superior to the institutional transition costs, new institutional arrangements were implemented.

In 1951 realpolitik had finally led to the European Coal and Steel Community, creating a specific common market fundamental for the reindustrialisation process of the six founding members.

In 1957 European cooperation deepened in the EEC, the European Economic Community, implemented to create a single common market for industrial and farming products as well as a custom union⁸¹.

Another national prerogative that successfully passed under European management has been agricultural policy: the continental rationalisation of the farming sector, considerably inefficient and underdeveloped became essential to complete the transition to scale economy: since late 19th century in fact, tariffs protection, national policies of self-sufficiency and wars had inhibited the labour force transition from farming to manufacturing. Rural areas were still overcrowded and divided in too many smaller proprietries unable to implement costly mechanisation and the industrialised management of agricultural resources. In this case the ECC achieved an agreement on the Common Agricultural Policy that during the 60ties accounted for 90% of EEC's total budget. Between 1950 and 1975 the agricultural industry halved its labour force while it abundantly increased yields and liberating labour resources for the second and third sectors⁸².

European economic integration was now on its way, however it wasn't alone: new technologies needed larger economies, and bigger economies needed bigger markets. In a world where transportation of goods cost less and less and industrial mass production expanded, further specialisation and a new globalisation became an economic need⁸³. A requirement that quickly evolved in the institutional framework.

⁸¹ Schön L. (2010) *Vår världs ekonomiska historia – den industriella tiden* (p. 444-445). Kristiansand, SNS förlag.

⁸² *ibid* (p. 446)

⁸³ *ibid* (p. 416)

5.3

The fall of the old system

The first wave of globalisation stopped with the outbreak of the First World War. From then on, the growth generated until the fifties was mostly sustained by internal markets so that, in 1950 the capital contribution of foreign trade to the global GDP was definitely smaller than 1913 levels.

After the Second World War though its importance grew again and 1913 record was reached and passed in 1960 with a general trade-growth of about 7.5% per year until 1973.

However, if the volume of growth was generally increasing, its effects were involving largely only the industrialised countries: until the 80ies in fact Western World's trade policies were relatively strict and economies' integration mostly involved the industrial powers⁸⁴.

Anyway something was about to happen.

In the 70ties, the economic boom started after the war was over and the twenty successive years have been characterised by slower economic growth and recurring crisis.

The world economy had its main driving force in the reconstruction of the European and Japanese system. Until the 60ties in fact growth was assured by infrastructural investments with modern industrialisation and urbanisation. However, when the European catch-up was completed, the system became less profitable. Once the great modernisation push was over in fact, due to low transport costs the concurrence among high-income countries became harder, pulling down profit margins. Energy costs arose and heavy industry, the core of European reconstruction and growth, was becoming less competitive, loosing relevance behind the expanding service sector. A reorganizational phase was needed⁸⁵.

However, the transition to a more knowledge intensive industry and service sector was expensive and the investments less profitable than the previous phase. Moreover, while material productivity could be efficiently increased diminishing price per unit, the nature of service products was different. So far in fact services remain relatively costly and "less productive" than industrial products. Additionally, in Europe, service markets were still highly fragmented. Finally, the outcome of these changings was an inverted the trade balance, deficit⁸⁶.

⁸⁴ Schön L. (2010) *Vår världs ekonomiska historia – den industriella tiden* (p. 416). Kristiansand, SNS förlag.

⁸⁵ *ibid* (p. 478-486).

⁸⁶ *ibid*

Since oil was the source that made the previous economic growth possible, when the in 1973-74 Oil Crisis broke out, its financial consequences shown the fragility of an already suffering system.

Avoiding the details, we can say that in the 70ties the United States' economy went in a condition of structural deficit sustained however by the continuous inflow of foreign capital: facing harder global concurrence, sustaining great war-costs (Vietnam) and facing increasing energy costs in fact their trade balance went down. Since inflation was high they abandoned unilaterally the Bretton Woods system of gold convertibility in 1971⁸⁷.

Nevertheless the Dollar remained the international market's hard currency, largely used in business far from the American control and, once the Oil Crisis hit, the extraordinary amount of petrol-dollars made in the OPEC^{viii} countries where moved into Western banks. The great credit availability reduced its cost even more and, due to the increasing trade prices and market uncertainty caused by the Oil Crisis, investments were additionally pulled down reducing consequentially the value of the currency⁸⁸.

Heavy industry was closing, the demand went back, unemployment became structural and investments lacked. Western economies risked to be involved in the deleterious effects of stagflation, or strong inflation of a stagnant economy⁸⁹.

Once Bretton Woods' convertibility faded, currencies started to fluctuate according to market price. This also meant power to these international organisation such as the World Bank and the IMF meant to secure trade the balance. And these organisations were the instruments of the *school of Chicago*.

5.4

New times, new orthodoxies

The Oil Crisis was the turning point for a new industrialisation and its new orthodoxy. With economic instabilities the ruling general theory that characterised the post-war system lost its prestige.

Renovated orthodoxies gained credibility and an American neoclassical school played successfully a highly mediatic counter-revolution. Econometrics quickly obtained the leadership of different international organisation: the old economic system had to be deregulated and the state

⁸⁷ Schön L. (2010) *Vår världsk ekonomiska historia – den industriella tiden* (p. 441). Kristiansand, SNS förlag.

⁸⁸ *ibid* (p. 496)

⁸⁹ *ibid* (p. 491-493)

should have left the market to its *natural* evolution and self-implementation. The 80ies and new kind of globalised world were about to start.

The active role of the state in economy in order to sustain investments and demand via expansive financial policies was blamed for the crisis and the reaction was to re-establish a state balanced finances. The economic *laissez faire* prescribed privatisations and currency adjustments to fight the deficit and inflation. The new policy restricted credit and augmented the interest's rate, causing a global crisis of indebted activities and economies while capital flows were gradually liberated, consequentially reducing state control over economy⁹⁰.

Thanks to the great availability of instant information entailed by technological innovations, the assumption of rationality and the neoliberal doctrine gained indeed new followers and extended its influence. However, in order to become feasible, new possibilities required global institutional reforms: to sustain a new production organisation and to achieve higher profits, it was necessary to make the global market flexible.

The consequential liberalisation of the world capital market on the wake of the IT-revolution led to a drastic increase in real-time global trading in bank papers and currencies. This policy let the market decide the floating rate of currencies, favouring once again larger economies with a well-functioning internal market and relative small export like the American one, which continued to be the safest bond market for world's savings.

Ultimately, thanks to the IT-revolution it became easier and cheaper to transfer and manage information, reducing transaction's costs. Consequentially it allowed smaller enterprise to reach a global market, but also "to be reached" by the extremely aggressive competition made by multinational groups. Computerised and real-time office automation and management raised in fact the competition on a global scale and international groups had now the material possibility of de-structuring production and work organisation in order to take advantage of different production costs on the global market⁹¹.

On a global level these reforms spread quickly also among developing economies thanks to the coordinate action of the World Bank and IMF.

Since the early 80ies' debt crisis had shocked many indebt economies heavily, several governments of unindustrialized countries needed financial aid but weren't in the conditions to negotiate the terms of the loan. In this political context the financial support offered by international organisations

⁹⁰ Schön L. (2010) *Vår världs ekonomiska historia – den industriella tiden* (p. 497-500). Kristiansand, SNS förlag.

⁹¹ *ibid* (p. 486-490)

became strictly bound to the neoliberal reforms established in the so called “Washington Consensus”^{ix}. This agreement set the terms of financial support through reforms of liberalisation and deregulation of both the internal and foreign market of the recipient as well as the cut of its state sectors and the acceptance of securing its currency to the American Dollar. If the application of this model probably hasn’t help developing counties, it has surely established the global market⁹².

5.5.

New Europe: Globalisation and EU

Several European economies were too small or too dependent to their export to take advantage of a market-set floating exchange rate. Many countries were considering the floating exchange rate as a part of their economic policy instead, something to readjust by political decision in order to boost competitiveness. However the upcoming global system of liberalised market and capital flow challenged their policies^x.

Once again the European Community faced the changing conditions pragmatically and when the structural crisis distressed several countries’ economies, it started a plan of exchange rate coordination to guarantee internal trade stability. In 1979 the European Monetary System was born, opening the way for further economic integration⁹³.

Further challenged by the growing globalised concurrence, national economies focused on the need of a fully integrated and standardised the European market. Early 80ies saw a cooperation between big business, the Commission and national leaders in order to achieve a program that should have included free capitals and services movement too. In 1986 the European reaction to globalisation was the agreement on the Single Market Act, fully implemented within the target date of 1992, also with the gradual extension of the Schengen Agreement to European level⁹⁴.

In 1990 exchange controls were abolished, capital movements were completely liberalised and national currencies exchange rate was bound in the EMS. This reform exposed however currency to easy speculation. During 1992 instability in fact European currencies fell one after another under speculation attack and member states had little possibility to defend. This led to a deeper bond of EMS currencies, getting ready to a strong and

⁹² Schön L. (2010) *Vår världs ekonomiska historia – den industriella tiden* (p. 497-501). Kristiansand, SNS förlag.

⁹³ Bomberg E., Peterson J. and Stubb A (2008) *The European Union: how does it work?* (p. 34-36) Oxford, Oxford University Press, 2nd Edition.

⁹⁴ *ibid*

stable monetary union⁹⁵. The plan for the European Monetary Union was on the track, also to prevent a German European disaffection after its reunification. Convergence's criterion were established in Maastricht 1991 as reduction of GPD deficit, but they were easily met during late 90ies boom period. In 1999 Euro definitely united the European market, guaranteeing those favourable conditions towards the world that a great economy with a well-functioning internal market can have similarly to the United State⁹⁶.

6 *Policy analysis*

Once again it seemed that the European Union managed to re-establish new institutional agreements able to further support the development of large scale economy. These changes have permitted us to effectively take part in the global market, however they have also reshaped our productive and consumption system and their effects on the societies are now pervasive. If while during the 80ies and 90ies this phase of industrialisation was at its dawn, now we have reached a point where our economy has to sustain high reorganisation and rationalisation's costs.

First of all, from the 70ies onwards, the services sector has quickly gained importance over the industrial one. Despite a great productivity augmentation of European manufacturing in fact, nowadays European employment is mostly provided by the third sector, while the industrial one employs only the 28% of labour force⁹⁷. This change entailed a mutation of the circular flow of income and, due to the liberalised global capital market, low transport costs and technologies, scale economy has quickly outsourced manufacturing from high to low income economies, generating a deindustrialisation effect.

Moreover, if during the first decades of new technologies' implementation the profit margin has been high, investment's returns have now abundantly decreased, causing difficulties in the return of the debt and a consequential credit crunch. So, as an additional result of the global goods and capital market, financial difficulties are now worsened by the aggressive concurrence performed by new industrialised super economies.

This situation has drastically reduced European governments' leeway.

⁹⁵ Schön L. (2010) *Vår världs ekonomiska historia – den industriella tiden* (p. 500). Kristiansand, SNS förlag.

⁹⁶ *ibid*

⁹⁷ Schön L. (2010) *Vår världs ekonomiska historia – den industriella tiden* (p. 481-484). Kristiansand, SNS förlag.

Since effectiveness and increased production has been achieved thanks to the fusion of national markets into the European one and since the European currencies have now a fixed exchange rate (rate which is established by the market), the policies of single member states have minimal possibility to alter economic conditions. The European and global market amply exceed in fact states jurisdiction, scope and resources, while free capital market can easily speculate against the actions undertaken by a single country. Consequentially, in order to guarantee a cohesive and effective reorganisation of the European productive system, a large scale management of structural reforms has to be embarked on a supranational level.

The European Commission's priority to strengthen the integration of European manufacturing through a common effort has to be analysed in this perspective. However, before to proceed further, it is important to remind that industrial policies are neither included in those policy areas under Commission's exclusive control nor shared competence. Industrial policies are in fact still of full national authority and the Commission can only carry out co-operational support programs in order to ease member states achievements in a European framework⁹⁸.

Nevertheless the Commission seems to be fully aware of the central role of manufacturing, opening its publication "A new industrial revolution" it emphasises the need of a common European industrial policy.

Europe's recovery from the economic crisis has been relatively slow and fragile. From the outset, the focus has been on improving public finances and strengthening Europe's financial system. While these issues remain important, strengthening the real economy – industrial companies and others entrepreneurs delivering concrete goods and services – is ultimately the key to economic recovery. Moreover, with globalization and intensifying competition from emerging countries, Europe's long-term economic prosperity will depend on the strength of our industrial base; our economy cannot be based on services and banks alone⁹⁹.

The Commission considers industrial modernisation fundamental to boost European competitiveness, however, despite the fact that it theoretically aims to a new sustainable reindustrialisation thanks to investments in research and innovation and access to finance¹⁰⁰, its limited authority is clear.

⁹⁸ Tallberg J. (2013) *EU:s politiska system* (p. 55-56) Lund, Studentlitteratur AB, 5th edition

⁹⁹ European Commission DG for Communication (2013) *A new industrial revolution* (p. 3) *The European Union Explained*. Luxembourg: Publication Office of the European Union.

¹⁰⁰ *ibid* (p. 16)

Nearly all programs suggested in the paper rely in fact on the financing and direction of other European Institutions as the European Investment Bank or national states. Even those propositions that involve major European authority in enforcement, as the regulations of the single market and the introduction of new European standard, need to be carried out by external offices or institution (for example the DG Internal Market and Services and the European standardisation organisation ESO)¹⁰¹.

This means that concerning industrial policy, the main role of the European Commission is relegated to monitoring activities. Its work is mostly to analyse the condition of our productive system and to report recommendations to national states and other competent institutions.

6.1

A new industrial revolution? Institutional constraints

These recommendations are then conveyed in the regular communications to the Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. The latest one drafted by the Commission in January 2014 is entitled “For a European Industrial Renaissance”.

The report calls for immediate action towards a European industrial policy, exhorting member states to recognise the centrality of the issue and to remedy the problematic delay in the implementation of a common market with equal standards and possibilities¹⁰².

Main problems are considered to be the absence of an internal market for energy in order to open to European concurrence and enable European industry for lower energy prices. Moreover the conditions of the fragmented energy network are regionally considered insufficient and in need of urgent modernisation. This structural problems entail that, between 2008 and 2012, European electricity prices for industry grew on average 3.5% a year and that they are estimated to be the double than in the USA and Russia and 20% more than China¹⁰³.

Bureaucracy is another limit to our industry: since regulatory and administrative costs can impact on small and medium enterprises^{xi} up to ten

¹⁰¹ European Commission DG for Communication (2013) *A new industrial revolution* (p. 6-7) *The European Union Explained*. Luxembourg: Publication Office of the European Union

¹⁰² European Commission, about *Mission Growth: Europe at the Lead of the New Industrial Revolution* (www). Date 29-05-2014

¹⁰³ European Commission. (2014) *For a European Renaissance*. (p. 12-13) Brussels

times more than larger companies, the Commission promotes simplification and demands member states to eliminate the very uneven bureaucratic costs to start companies in different countries. Moreover, since smaller the enterprises are, greater is their difficulty in accessing credit and investing in innovation, the Commission also suggests easier access to early-stage founding¹⁰⁴.

Finally, considered the possibilities given by new technologies, SMEs should be supported to create cross-European cluster cooperation. Nevertheless, to create favourable conditions to the development of a transnational and cohesive production chain, institutions must be responsible for the implementation of an effective single market for both goods and services. However transport networks and telecommunication are still suffering national fragmentation and regulations, hindering the implementation of cluster specialisation¹⁰⁵.

Anyway, in order to achieve industrial modernisation, investments are also necessary in both research and development and human capital.

The program “Europe 2020” sets member states’ target investments in technological advancement and innovation to 3% of their national GDP¹⁰⁶. Moreover the Commission guarantees some specific programs supported by EU financial instruments to improve both training system and mobility. For instance the Erasmus program for young entrepreneurs is thought to facilitate learning mobility. However the gap with other united economies is still relevant: if in the USA 2.4% of the population moves annually to another member state for professional purpose, here in Europe it is only the 0.3%¹⁰⁷.

These points that I have underlined are just some of the reforms and investments demanded by the Commission regarding the industrial situation in the European internal market. Nevertheless, I believe that, if we want to gain global competitiveness and avoid internal downward trends, they are enough to suggest the extent of the structural reforms needed.

Furthermore, to give a quantifiable example of the actual framework, it is necessary to say that while the DG Enterprise and Industry of the European

¹⁰⁴ European Commission. (2014) *For a European Renaissance*. (p. 12-13) Brussels

¹⁰⁵ *ibid.* (p. 2-3;18)

¹⁰⁶ *ibid.* (p. 9)

¹⁰⁷ *ibid.* (p. 15-17)

Commission is responsible for a budget of circa € 1.5 billion¹⁰⁸, the Swedish Ministry of Industry manage an available budget of some € 6¹⁰⁹.

Said so, which kind of common European industrial policy could be possible? Even if the Commission has the task to control the progress of member states' enforcement of the approved solutions, today an effective implementation of a common industrial policy seems to be highly limited.

7

Final words

The European Union owes its legitimacy to economic growth.

So far the process of European Integration has guaranteed those favourable institutional agreement that could implement mechanisms of productivity enhancing on a large scale market, while the cooperation has deepened through the European common market and currency.

However, while the scope and capacity of the Union have decisively increased, its political organisation is still resembling the one of the old European Community. Moreover there are still relevant deficits in the implementation of those structural economic policies of convergence under member states responsibility.

However the fact that the role of European Institutions hasn't undergone a relevant political and social structural transformation yet shouldn't surprise. Since the EU is mostly implemented on economic interests rather than a common European sense of belonging, the European Integration can't be a directly defined path towards federalism. The European organisation and the amount of sovereignty that national states agree to entrust to its institutions, is in fact the outcome of the negotiation among different national, international and supranational actors in order to maximise potential economic benefits.

Nevertheless, considering the rapid and deep economic and social changings, I believe that nowadays crisis shows how this process of European Integration has come to insufficient point. As a matter of fact I believe that, in order to direct and accomplish those structural reforms that are needed to restore economic growth, the path has to go through a real political integration.

¹⁰⁸ European Commission, about *Who we are and what we do* (www). Date 20-06-2014

¹⁰⁹ Regeringskansliet, about *Näringsdepartementets organisation* (www). Date 02-08-2014

The present system of multilevel-governance should be reformed towards more effective solutions and the Union should gain considerably more sovereignty: this to guarantee to European Institution the specific power of direct implementation of those amendments regarding transnational convergence policies and infrastructural modernisation.

Necessary this idea entails the passage from an organisation based on the power of law to one based on its financial capability to implement transnational welfare policies autonomously from national states and vested interests.

To conclude, in case the actual political actors won't find a feasible compromise in that direction, I am afraid that the Union will not be able to continue stand the increasing challenges set by globalisation and other concurring super-economies. In this case it will gradually lose its *raison d'être*, firstly among its citizens severely hit by the crisis, ending its long and once successful story at the mercy of the first populist politician.

7

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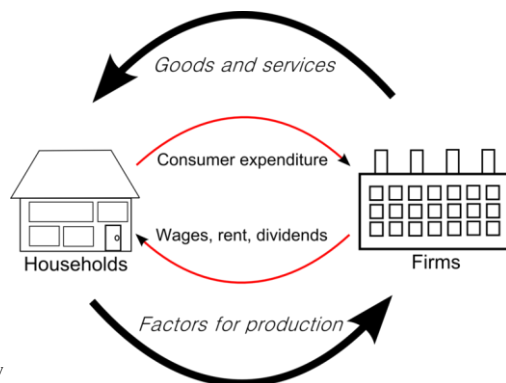
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Post notes

ⁱ“Economies of scale are essentially a modern phenomenon where technology plays a fundamental role in developing the most efficient (lower cost per unit) production. This objective requires a highly complex organisation structure like joint-stocks companies, chartered companies or corporations, etc. While such organisations were first sanctioned by states, late on institutions and specific propriety rights were created to allow individuals to capture the profits possible from organisation on such a large scale.” (North, Thomas, 1970. p. 6)

ⁱⁱ Just as an example: it can be interesting to think that, if half the land surface of Britain had been covered with woodland, on sustained-yield bases the bone-dry wood would only have sufficed to produce 1.25 million tons of bar iron per year (a production reached by the late 1830). That would have been completely insufficient to sustain the expanding industrialisation, considering that, by the first decade of the 20th century, Britain’s iron production had already reached 10 million tons per year. (Wrigley, 2010. p.16-17)

ⁱⁱⁱ Different kind of steam engines existed since long time before. Since 1718 steam pumps started to be used in English coalmine to pump out water. However in 1781 Watt patented a new and more efficient machine able to produce a continuous rotative motion, easily applicable to several different uses. (Wikipedia, 2014. *Steam Engine*)



^{iv}

^v Yet, in the article “Economic Theory in a Dynamic World (p. 9)” North affirms that western world’s institutions had been flexible enough to mitigate the effects of some problems caused by the desegregation of foregoing productive system on society, encouraging the development of political and economic organisation able to “replace” some of its traditional functions: although imperfectly, the traditional educational and insurance task of the family has been limited in favour of a standardised –and economically accountable- one, the insecurity relied to a world of specialisation have been reduced and developed flexible economic organisation (and

technologies) to low transactions costs, started to tackle environmental and urbanisation problems etc.

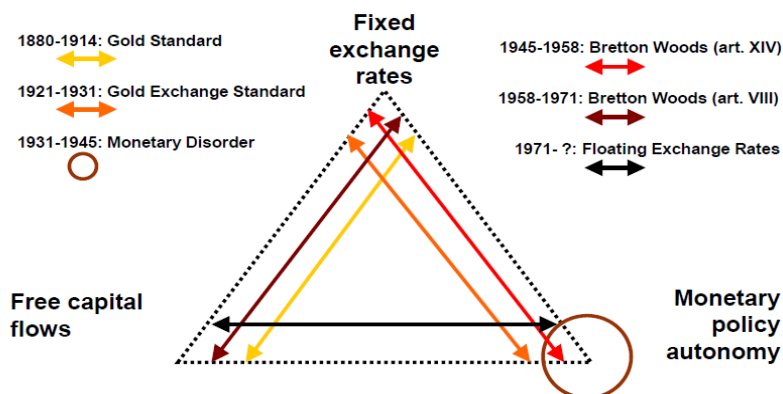
^{vi} The gold standard refers to a monetary system in which the standard economic unit of account is based on convertibility in gold. In late 19th and early 20th century it constituted a stable rate exchange among different European and American currencies. The gold standard facilitated international trade and capital flow, but limited states' monetary policy autonomy.

^{vii} Deflation is a negative inflation rate. It augments the real value of the money over time and, consequentially the debt.

^{viii} "Organization of the Petroleum Exporting Countries"

^{ix} Since both the WB and IMF have their headquarters in Washington.

Mundell triangeln och internationella monetära system



x

Anders Ögren – Världens ekonomiska historia

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^{xi} Small and medium enterprises (SME) represent 98% of European business providing 67% of jobs.