

The New European Industrial Strategy and the Company's Organization Models

*Riccardo Cappellin**

Abstract

A new growth strategy for the European economy should be based on the following principles:

- new production must be driven by the internal demand for investment and consumption, both private and public, and not only by exports, given an increasingly fragmented and declining global market,*
- industrial policies and the companies should be tightly embedded in the various regions and cities of the European territory and aim to respond to the emerging and still latent needs of the citizens and to a better environmental quality and quality life of the citizens.*
- the reconversion from productions to new productions, where the demand increases, require a greater effort in not only technological innovations, but also organizational, social and institutional innovation, based on improved education of the workers and on networks of collaborations between companies, universities, public administration and communities of citizens.*

Keywords: European Economy; Industrial Strategy; Modern Companies; Territory; Governance

1. Covid 19 and Impacts of Lockdown Restrictions

The shock of Covid19 has a very different impact on the various local communities, on the various tertiary and industrial productions and on the various companies. Thus, also the stimulus measures should be “specific” and be focused on the demand and supply of individual productions.

The key problem of European economic policies after the Covid crisis is how to increase employment in the coming years, even more than the increase of production and company's profits. The actors of a new European industrial strategy are not only the companies, but also the citizens and the various stakeholders living and working in a specific territory, regions and cities in Europe.

The lockdown has decreased the consumer's demand, especially in service activities, such as trade, tourism, entertainment, culture, education, health and professional services, which represent more than 70% of jobs in the euro area.

The employment fall is not homogenous in the various regions, but is concentrated in cities and especially in large metropolitan areas. In fact, services have been most affected by social distancing measures, since they require a tight interaction between

* Full Professor of Applied Economics, University of Rome “Tor Vergata” (cappellin@economia.uniroma2.it)

the producers and the users. Moreover, population and services are concentrated in cities and the spatial agglomeration of people has facilitated the spread of Coronavirus in the most densely populated regions.

The more relevant discrepancies in GDP growth have been registered in construction and in trade, transportation, accommodation and food services, due to the differences in the national economic structure and in the lockdown restrictions. For instance, construction activity fell (second quarter 2020 compared to 2019) in the euro area by (-15,1%). in France (-30,8%). in Spain (-27,5%) and in Italy (-27,4 %) compared to an increase of (1,7%) in Germany and of an increase of (1,0%) in Finland and Sweden and a decrease of only (-2,1%) in Netherlands. On the other hand, trade and related services indicate an average decline for the EU of (-25, 5%) (second quarter of 2020 compared to 2019). with national differences ranging from (-12,9%) in Germany, -(-15,4%) in Finland, (-16,1%) in Sweden and (-16,4%) in Netherlands to (-28,7%) for France and Italy and (-44,9%) in Spain.

The negative impact (second quarter 2020 compared to 2019) on the total hours worked has been very different in the various sectors of the euro area. The decline has been (-17,0%) for the overall economy and greater in tertiary sectors, such as arts and entertainment and other service activities (-28,5%). trade, transportation, accommodation and food services (-28,3%). construction (-18,3%). manufacturing (-16,9) and (-16,5%) professional activities, and lower in public administration (-5,5%). financial activities and information and communication services (-6,8%) and agriculture (-7,8%).

2. The Need for a “Big Push” of Investments for a Transformation of the European Economy

The European Union must use monetary policy or public budget policy, and a third and tightly complementary instrument of economic policy. This instrument may be called a “new European industrial strategy”, aimed to orient the investments of private companies (with loans, grants, public equity participations and public investments) towards new strategic productions, which can diversify the European economy and respond to the emerging needs of European citizens.

The “European Recovery Fund” should promote a “Big Push”, as indicated by the well-known “balanced growth theory” or a large intersectoral/horizontal increase of investment, similar to the Marshall Plan, which united Europe after World War 2. The focus would be to relaunch the actual depressed aggregate demand in the European economy and to reactivate the supply side through a diversification toward to new modern productions with high employment and productivity. Nurkse (1961) stated that in order to growth a country needs to make large investments in a number of industries simultaneously and that, following Adam Smith, “the limited size of the domestic market in a low income country can thus constitute an obstacle to the application of capital by any individual firm or industry working for the market”.

The Group “Growth Investments and Territory” has indicated the need that after the Covid crisis the EU policy makers change their neo-liberal or ordo-liberal ideologies, adopted after the 2007-2008 financial crisis with a decade of sluggish growth. These proposals for a change of the recent European policies have been elaborated since 2014 by a group of Italian and European economists who have

organized various workshops and publications (Cappellin et al. 2014, 2015, 2017, 2019, 2020, Discussion Group, 2018, Group growth Investment and Territory, 2019). The analysis and policy proposals by the Group “Growth Investments and Territory” are based on neo-Keynesian and neo-Schumpeterian macroeconomic growth theories and attribute a key role to the strategic objective of relaunching investments, innovation and employment as key factors of future growth.

In particular, there is the need of a large investment program aimed to change the traditional specialization in “middle income” productions, in order to diversify the EU economy toward those goods and services, which are increasingly demanded by the EU citizens and can insure a higher growth rate of the economy in a medium-long term perspective. In fact, the European economy is specialized in traditional sectors, i.e. mechanical industry, auto and machine tools, and it needs to expand and reconvert into new modern productions, where the US and China have concentrated their investments and are now world leaders. Therefore, the Covid-19 crisis after a decade of slow growth may represent the stimulus for a major diversification of the European production system in the various countries and regions of the European territory. The “strategic” sectors are not only those that are now larger in the economy, but above all those that have the potential to play a crucial role in promoting a process of production diversification / reconversion towards productions with greater productivity, thanks to the creation of product and not only process innovation.

The aim of a “New European Industrial Strategy” is broader than the sectoral goals of the traditional industrial policies (Aiginger & Rodrik, 2020, Bianchi et al., 2019, Cresti et al., 2020, Rodrik, 2004, Wade, 2012, Warwick, 2013, Wigger, 2018). In fact, the “New European Industrial Strategy” consider the manufacturing sectors in a strategic perspective for the economic growth, and respond to the new needs for a better wellbeing of the European citizens, for a sustainable environment in the various regions and countries in Europe.

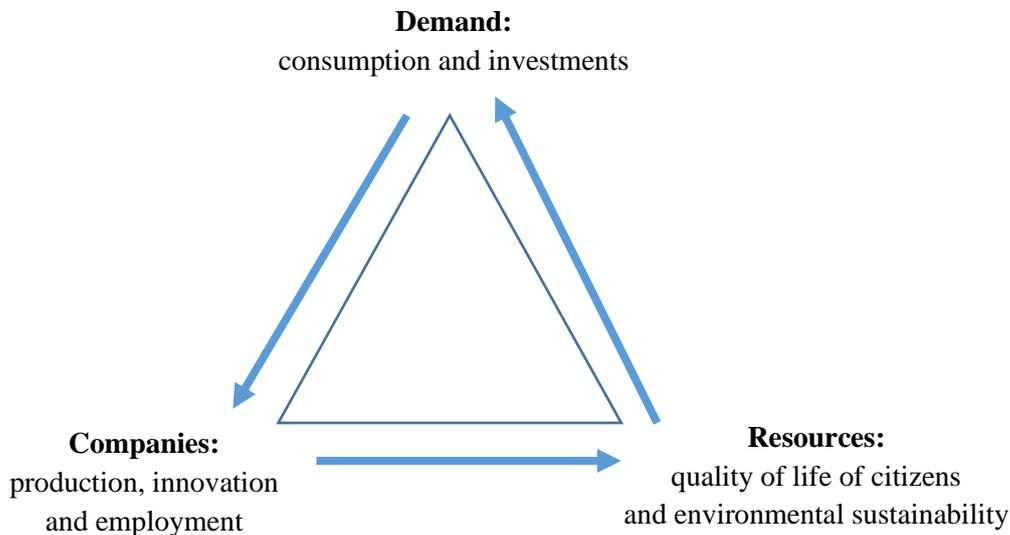
3. The Need for a Macroeconomic Perspective in the Design of Industrial Policies

The priority interventions of a new European industrial strategy, as indicated in Figure 1, should be:

- a) relaunching the internal demand,
- b) development of new manufacturing and services production chains,
- c) improve environment, cities and social services.

A new industrial strategy should not only expand the supply capacity of companies by reducing costs and increasing productivity, but it should also stimulate the consumer demand for new products and services, as that will create new markets and drive the investment effort by the companies, thus diversifying the European and national production systems. The key instrument is not only technological innovation within the companies and sectors (i.e. the “supply side”), but also changes in the industrial structure of the economy and social and institutional innovations. Moreover, innovation is important also in the pattern of the demand by the citizens, as a new industrial strategy should reorient the domestic demand, which will stimulate new innovative and sustainable productions.

Figure 1: *The Three Strategic Aims of the Recovery Plan: A Circular Development Model*



A third related dimension of the process of aggregate growth, indicated in Figure 1, is represented by the role of natural resources and the quality of life of the citizens, as they are tightly related to the evolution of both the productions structures and the demand patterns. In fact, the environmental benefits will determine a greater well-being for the citizens and that will stimulate the demand, by both the households and the companies, for new economic goods and services.

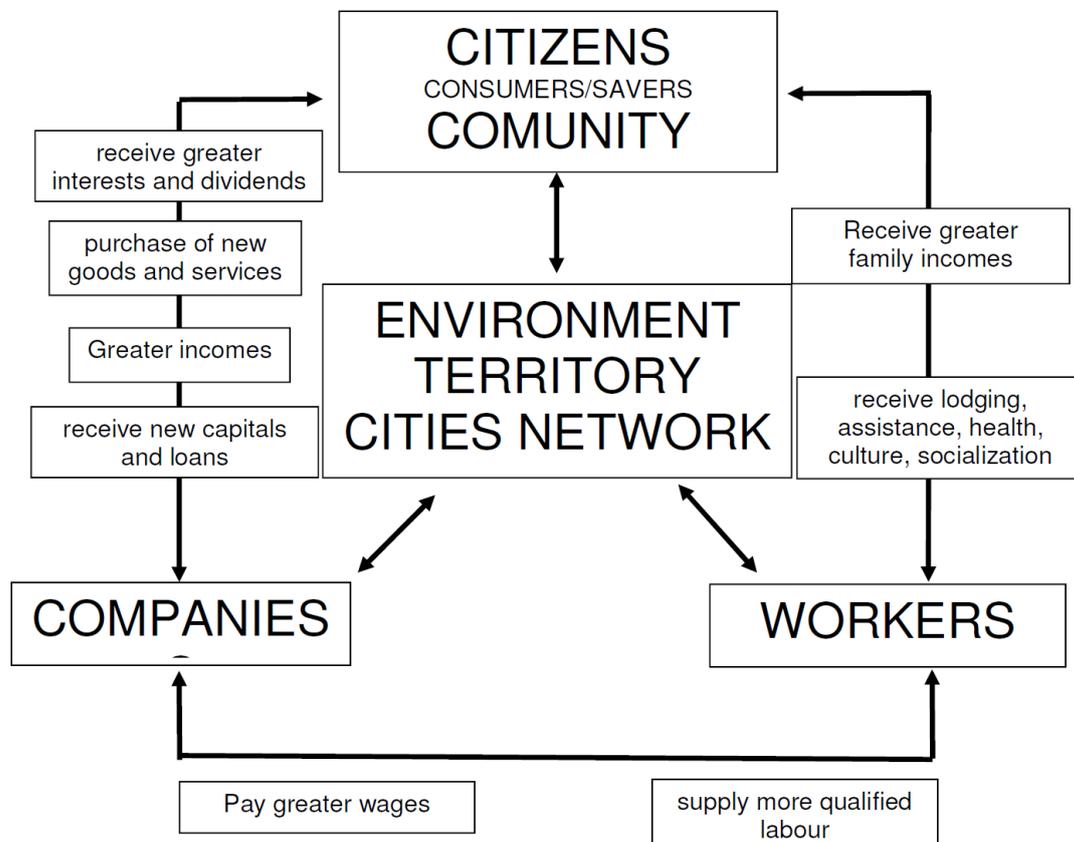
A better environment will imply less damages and lower risks of natural disasters such the actual recurrent floods will create a greater security, a greater trust in the institutions and sense of common belonging and cooperative behaviors, which would lead to lower the rivalry or the transactions costs between actors, which are obstacles in the innovation processes. In fact, the investment in “common goods”, such as the environment, which create benefits to all European citizens, will increase the “external economies” both in production and in consumption, as it is typical of the concept or “relational goods” and of the model of the “sharing economy” or “circular economy”.

Therefore, the four priorities of the European Union in term of “macro-economic stability, productivity, fairness and environmental sustainability” (European Commission 2020) should be interpreted in term: a) of increasing the growth of the internal demand and GDP thus reducing the debt ratio, b) of preserving and creating jobs in industries with good prospects for employment, productivity, innovation thus closing the divide with US and China, c) of increasing the income of the citizens thus closing the disparities between regions and countries and d) of improvement of the physical environment and also of the living quality.

4. The Regional and Territorial Dimension of the Economic Recovery

The territory, the urban areas and the cities networks (Cappellin 2011, Ciciotti 2017) are the priority political and geographical framework for the new European industrial strategy. Innovation is not a process that depends only on the internal resources of the company, but depends also on the external environment, as it requires the exchange of knowledge between the actors who are contiguous. In fact, knowledge is “tacit” and can be transferred only through direct personal contacts. In fact, tacit knowledge cannot be acquired on the market like the “codified” knowledge, which can be transferred via data and publications even over long distances.

Figure 2: From the Economic and Employment Immediate Impact to the Medium Term Recovery



Industrial policy should be integrated with territorial and urban policies as the growth process is “place based” or rooted in a specific territory. In fact, the stimuli for economic development do not only come from international markets, but also from the territory, where the emerging needs by citizens, workers, users and consumers are concentrated and where the skills or the tacit knowledge leading to innovation are easily accessible to industrial and service companies. The role of regions and cities in the economic development process is illustrated by the literature on “Regional Innovation Systems” (Cappellin, 2003b, 2010c, Cappellin & Wink,

2009, Bellandi & De Propris, 2017, Garofoli & Holland, 2017) which since the end of the nineties highlighted how innovation is not an exclusively internal process within the company. In fact, relations with the other actors of the same production system (Etzkowitz, 2003) are not only economic or carried out through market relations, but also through the direct interactions between these different actors and are favoured by geographical and social proximity. These direct relationships (“external economies” or “spill-over”) guarantee the transfer of the knowledge necessary to generate those products and processes innovations, both within the individual company and in the structure of the overall production system, which determine greater productivity and therefore economic growth.

As indicated in the Figure 2, a new modern industrial strategy having a territorial dimension must take into account the interactions between four types of actors within a modern industrial system:

- a) the companies,
- b) the workers,
- c) the community of citizens, who are also consumers and savers,
- d) the territory, the city networks and the natural environment.

5. The Changing Sectoral Structure of the European Economy

The specific contribution of each sector to the GDP growth may be attributed to the respective increase of employment and of productivity, which represent the strategic aims of a modern European industrial strategy, as indicated in Table 1. In the case of overall Euro area, the growth rate of GDP (9,40%) in the 2008-2019 period has been determined almost in the same measure by an employment (4,18%) and a productivity (4,98%) increase.

In particular, during the recent years, employment in the euro area has been growing in service much more than in industrial activities and the specific sectors where employment has most increased are: professional services, public administration, retail, and wholesale trade. These are sectors where a high education and the pull effect by internal demand are most important.

Manufacturing has had a negative impact due to the employment decrease compensated by a large productivity increase. Construction has also had a large employment decrease. Trade and related activities have had a positive productivity and employment effect. Financial activities have had a negative employment effect compensated by a positive productivity increase. Information and communication has been characterized by a positive productivity effect and a positive employment effect. Professional activities have had a very important employment increase while the slow growth of productivity has had a negative effect. Similarly, in the case of public administration the employment effect has been very positive while the increase of productivity has been small. Finally, also in the arts and related activities the employment effect has been positive and the productivity effect negative.

Table 1: Sectoral Diversification and the Employment Vs the Productivity Effects in the Recent European GDP Growth (2008-2019)

	a	b	c
EURO AREA	Productivity effect	Employment effect	Total effect
Total - all NACE activities	4,984%	4,385%	9,368%
Agriculture, forestry and fishing	0,244%	-0,198%	0,046%
Industry (except construction and manufacturing)	-0,203%	0,192%	-0,012%
Manufacturing	3,112%	-1,559%	1,553%
Construction	0,188%	-1,072%	-0,884%
Wholesale and retail trade, transport, accommodation and food service activities	0,856%	0,999%	1,855%
Information and communication	0,980%	0,767%	1,747%
Financial and insurance activities	0,543%	-0,539%	0,004%
Real estate activities	1,290%	0,145%	1,436%
Professional, scientific and technical activities; administrative and support service activities	-0,417%	2,186%	1,769%
Public administration, defence, education, human health and social work activities	-0,316%	1,993%	1,676%
Arts, entertainment and recreation; other service activities; activities of household and extra-territorial organizations and bodies	-0,127%	0,215%	0,088%

Note: column (a) indicates the impact of productivity taken employment constant: $(Y1/N1 - Y0/N0) * N0 / Y0^*$; column (b) indicates the impact of employment taken productivity constant: $(N1 - N0) * Y1/N1 / Y0^*$; column (c) indicates the total product change: $(Y1 - Y0) / Y0^*$. Values refer to the different sectors: Y indicates value added, N employment, and zero the initial year, one the final year. $Y0^*$ indicates total GDP in the initial year

Source: Eurostat national accounts database

Moreover, the needs and priorities of citizens have changed profoundly, at least in Europe. These changes require a different response by the public institutions and by the private companies, due to the greater sensitivity of citizens to the environmental problems on a global and local scale as to new issues, such as the availability and use of free time and leisure opportunities and the quality of work and the increasing social disparities. On the other hand, these new needs by the citizens create opportunities for the growth of new activities and can create new jobs.

The changes in the sectoral structure of the European economy largely correspond to the changes in the patterns of private consumption in Euro area, in the 2008-2018 period, measured in current prices. In fact, the consumption items indicated according in a decreasing growth rate are: Social protection, Package holidays, Accommodation services, Recreational and cultural services, Transport services, Health, Education, Other recreational items and equipment, Catering services, Housing, water, electricity, gas and other fuels, Personal care, Total, Food and non-alcoholic beverages, Purchase of vehicles, Operation of personal transport equipment, Other major durables for recreation and culture, Insurance, Furnishings, household equipment and routine household maintenance, Clothing and footwear, Communications, Newspapers, books and stationery, Audio-visual, photographic and information processing equipment, Financial services n.e.c..

Therefore, the long-term trends both in the euro area indicate that the reconversion of employment is characterized by a decrease in manufacturing and construction, compensated by an increase of employment in professional activities, public administration, retail and also arts and related activities. These no manufacturing or

tertiary activities may become the focus of the future European industrial strategy, in order to compensate the negative impact on employment levels determined by the macroeconomic crisis and the technological automation especially in manufacturing, construction and financial activities. Clearly, to achieve a greater employment growth and to support to the creation of new firms in these no-manufacturing sectors, higher material and immaterial investments are needed in these sectors.

6. The New Strategic Sectors of a European Economic Recovery Plan

The choice of the sectoral allocation of the investments of the EU Recovery Fund should respond to the increasing need for private goods and services and for collective (i.e. “common goods”) by the citizens. In particular, the emerging changes in the pattern of demand especially in the urban areas and the cities networks indicate the clear importance in terms of new employment and investments of the following new productions and supply chains, linking material goods and immaterial services:

- a) local agriculture and agri-food productions;
- b) urban renewal in large and small cities and social housing;
- c) urban transport, logistics, regional-national infrastructures and digital networks,
- d) tourism and travel to urban and rural areas, leisure, media and sports;
- e) health, social assistance, education, R&D;
- f) natural environment, energy saving, natural disasters and spatial planning.

These modern productions are “demand oriented” or driven by the internal demand and not by exports and capable to respond to the new consumer preferences of the European citizens, as indicated by the analysis of the recent consumption patterns in the euro area.

In fact, the large latent demand existing in Europe for these productions indicates that they could drive a large investment push not only by the public infrastructure investments by the Governments, but also by private companies in production investments financed by the loans of the banks, by equity increase on the capital market as also by public grants.

These productions are downstream or close to the final demand, but are also tightly vertically integrated upstream with many traditional intermediate manufacturing productions, such as machinery, automobile and chemical sectors, which are clearly in the declining phase of the product life cycle and indicate the need to a diversification of the European economy to more modern and dynamic sectors. Thus, these productions are certainly candidate for being a future production specialization in the ongoing process of structural transformation of the European economy.

Also in the less developed regions of South Europe, a new industrial strategy should focus on the support of the local demand and on the closing the North-South gap in the satisfaction of the citizens’ needs for those “common goods”, which can drive new modern production chains, such as: agro-industry, city renewal, tourism, health, environment. That policy priority requires recapitalizing SMEs, investing in continuous labour training and promoting local large and small-integrated innovation projects.

These productions are mostly “medium tech” production sectors (Cappellin and Wink 2009, Cappellin 2010c) and do not imply a high capital intensity. They may be suited for the aim to increase employment in new activities, capable to compensate

the employment decrease within the distressed and restructuring traditional activities, such as the automobile sector, and due to the automation or digitalization process occurring in the technology advanced sectors.

7. A Critique of the EU Industrial Policy Priorities

A new European industrial strategy should generate new productions leading to a diversification of the economy and to a medium-long term increase of the GDP and it should be oriented to respond to the expected market demand by the users of these specific productions. The future incomes of the private companies should become large enough to justify the increase of the debt or the equity sales of the companies, in order to avoid to create “zombie” companies and to increase the “no-performing loans” (NPL). A medium-long term increase of the GDP will allow a decrease of the Debt/GDP ratio and will increase the capability to reimburse the past public expenses linked to the large fiscal transfers to companies and workers during the Covid emergency and to the large public and private investments in the coming years.

In synthesis, the European industrial policies by the EU Council and Commission focus on: “the need to further promote private and public investments in research, innovation, including disruptive innovation, digitalization, big data, artificial intelligence, clean technologies, circular economy and other sustainable economic models to further consolidate and further develop a strong and competitive EU industrial base” (European Council, 2019). These tasks are clearly different from the proposals, which have been illustrated above. The European Commission strongly encourages (2020) member States to include in their plans investment and reforms in the following flagship areas: clean technologies, renewables, energy efficiency, broadband services including fiber and 5G networks, digitalization of public administration, industrial data cloud capacities and the development of the most powerful, cutting edge, and sustainable processors, support digital skills and educational and vocational training for all ages.

However, a new European industrial strategy should address a broader field of production and technologies than the well-known different scientific and technological fields tightly related to the so-called “fourth industrial revolution”. It should consider not only manufacturing, but also the entire economy and especially the sectors, which have suffered the largest disruption in the Covid crisis. It should promote not only international exports and competitiveness, but also the growth of the GDP, the internal demand and employment. It should promote not only the high tech, but also medium tech productions. It is also important to integrate the sectoral perspective with a territorial perspective, which considers the wide differences in strengths, weaknesses, opportunities and threats of the various regions and countries. Finally, a new industrial strategy should enhance not only the “shareholder value” of the companies, but also the capability to respond to the emerging and latent needs of the citizens and to have a positive impact on the natural environment and on the quality of life of the citizens.

It is clearly positive that the EU industrial policy (European Council, 2020a and 2020b) underlines the importance of the circular economy and aims at protecting human health and the environment. However, the priorities of the EU Commission

are mainly focused on advanced technology rather than on employment and even on GDP growth.

In particular, the differences between the proposals of the EU industrial policy and the proposals of the new European Industrial Strategy by the Group “Growth, Investment and Territory” may be explained by the fact that while the EU industrial policy complies to a traditional “technology push theory”, the second responds to a more modern “demand pull theory of economic and social innovation”. In synthesis, the EU industrial policy: a) aims to recover the lost European global leadership in technology, rather than to respond to the actual needs of the European citizens and b) it focuses on the supply rather than on the demand of new productions and c) it gives incentives mainly to the producers rather than to the users, d) it focuses on specific manufacturing sectors and the most developed countries in Europe and disregard the policy priorities of other no-manufacturing sectors and other European countries.

In fact, the information and communication sector represents just the 3% of the European employment and 5% of the European GDP. The focus of the industrial policy approach of the EU Commission on high-tech technologies forgets that most workers in the European economy are occupied in productions different from manufacturing and that especially in South Europe are is occupied in SMEs working in “medium or low technology” sectors. The growth of these productions seems to depend on product and process innovation and on material and immaterial investments quite specific of the individual production considered and they may create greater benefits and imply lower costs than the high tech technologies indicated above.

Moreover, the new high tech productions are developing almost spontaneously, as they are characterized by monopolistic markets, characterized by few large no European multinational companies and very few European companies. Thus, these companies can reap large profits, which until now it has been almost impossible to tax both in Europe and in the US. These companies have disrupted the smaller companies working in the same and related sectors and have created quite limited new jobs.

Moreover, the growth of digital technologies has even been enhanced by the Covid crisis, while the negative impact of the pandemic has been most severe in services and in the medium-low tech sectors. Finally, it is important to underline that in these sectors there are many small and large dynamic companies, which have created millions of jobs and many companies, which may be helped to reconvert to new related productions and to become more competitive through a new European industrial strategy.

8. The Evolution of the Company’s Organization Models

The aims of past industrial policies and of a new European Industry Strategy for the European recovery after the Covid crisis are tightly related to the important organizational changes, which have occurred both within the companies and in the structure of the European production system. In particular, different models of company organization can be identified in the long-term perspective:

- the large Fordist companies (60s and 70s);

- the flexible specialization model of SMEs (70s-80s);
- the outsourcing process of industrial production (80s-90s);
- the creation of new productions based on knowledge and creativity, requiring interactive learning processes and a tight interaction between companies (2000s);
- the increasing complementarity between industrial products and services for complex productions addressed to the emerging needs by the intermediate users and final consumers (2010s).

A new European industrial strategy should promote the innovation in a wide variety of companies, such as the high tech companies (“unicorns”) and the large strategic companies (i.e. “national champions”) diversified into various modern productions, but it should also promote an increase of the size and the recapitalization of small and medium size companies (SMEs) in industry and services. However, the inadequate size of SMEs is tightly due to the low innovation capabilities of SME, as that which hinders an increase of their markets and productions. Therefore, it is important that the institutions orient the entrepreneurs toward product and process innovation.

9. A Broader Sense of Purpose by Companies against “Short-Termism”

Investments in capital expenditure, rather than in speculative financial operations, are constrained by the fact that the corporate tax codes, following a neoliberal ideology, in Europe have been modified during the last decades in favor of the aim of maximizing the “shareholder value” rather than “collective” aims, such as the GDP growth at national or regional level, the increase of employment or environmental sustainability and the decrease of income and wealth disparities between social groups, the regions and the countries in Europe. In fact, the burden of taxes has been gradually shifted from the production and financial companies to the individual citizens/consumer/savers.

Companies cannot succeed alone due to the capability of their managers. They depend also on the competencies of their employees, on the support of their industrial and service suppliers and of their best clients, of the local bank and financial institutions, of the local infrastructures and services, and finally on the support of the civil society and the local institutions within their local territory. Companies are taking for granted or even sometime consider the role of the various external stakeholders as a constraint. On the contrary, companies should develop the collaborations with the trade unions, the schools and universities, the private professional services, the banks, the local public utilities and especially the local and regional institutions.

Thus, a new European Industrial Strategy should promote the companies to adopt a broader sense of purpose against “short-termism” and to consider not only the financial profits but also the social and environmental outcomes of their activity. Companies should commit to concrete actions, which meet the needs of all stakeholders: customers, employees, suppliers, local communities, not just the shareholders.

The principles of the “stakeholder capitalism” have been indicated in the statement of Business Round Table, which was prompted by Jamie Dimon, CEO of JPMorgan, and was signed by 184 CEOs of major U.S. corporations (Business Roundtable, 2019, Fortune, 2019). The “stakeholder capitalism” is the antithesis of the

“shareholder capitalism”. However, it has been criticized since some have noticed that you always have to take care of the stakeholders – otherwise the company won’t succeed financially”. Moreover, any real leverage by the various stakeholders to influence decision-making is impossible without giving to them specific voting or enforcement rights, similar to those that the shareholders have on the appointment of the company’s directors. Therefore, as indicated by the US former Presidential candidates Elizabeth Warren and Bernie Sanders, stakeholder capitalism: “It’s a good idea that should be legislated” (Rodrik, 2020).

Table 2: Four Innovations Strategies for the Recovery of European Companies

SAME TECHNOLOGY	
I (auto et al.)	II (fashion et al.)
<p>New organization in the same products and incremental change in technology and markets</p> <p>AIMS: Cost minimization and shareholder value POLICIES: commitment to existing business, exploitation of economies of scale, adoption of labour saving and capital deepening technologies, liquidation, divestiture, consolidation, outsourcing, restructuring, concentrated growth, turnaround, complementarities and operating and purchasing synergies, merge with competitors, vertical integration with clients or suppliers EMPLOYMENT decrease. INNOVATION: incremental innovation CASES: industrial SMEs, auto, utilities, banks and insurance, “supplier dominated sectors” (Pavitt)</p>	<p>New markets with same or improved products</p> <p>AIMS: New market development and globalization POLICIES: exploitation of economies of scope, customization, product improvements, related diversification, marketing innovation, respond to new users, improve local embeddedness, exports and investment abroad EMPLOYMENT increase INNOVATION: architectural innovation CASES: agrifood and catering, production of investment goods, fashion and personal care, hotels and tourism, airlines, retail, energy and chemical, tires, constructions, telecommunications, culture and entertainment, consulting services, “economies of scale sectors” (Pavitt).</p>
SAME PRODUCT OR MARKET	NEW PRODUCT OR MARKET
III (airspace et al.)	IV (FAANG et al.)
<p>New technology with the same or improved product</p> <p>AIMS: technological excellence and market share POLICIES: decrease time to market, quality improvement, increases of prices and of revenues, R&D investments, use of technical services, creation of spin-offs and start up, acquisitions EMPLOYMENT of high qualified human resources INNOVATION: modular innovation CASES: Industry 4.0, aerospace, electric cars, software, environment, education and business schools, “specialized supplier sectors” (Pavitt)</p>	<p>New products and new future paradigm</p> <p>AIMS: New products and new future paradigm POLICIES: completely new products with new markets and new technology, product development, disruptive innovation, horizontal integration, concentric diversification, unrelated diversification, conglomerate diversification, joint ventures and strategic alliances, acquisitions EMPLOYMENT of high qualified human resources INNOVATION: radical innovation CASES: high tech (FAANG). pharma and health, “science based sectors” (Pavitt)</p>
NEW TECHNOLOGY	

On the other hand, the concept of the “shareholder capitalism” seems quite ambiguous since the real problem is “managerialism” or a system in which managers exercise the most power and they have relegated shareholders to the role of capital providers, whose interests are to be guarded by the law or by internal agreements. In fact, measures to be adopted by the managers are so complex that no shareholder can dictate to the directors what to do, not even a very capable shareholder such as Warren Buffet.

In a strategic perspective, the interdependence between internal strength and weaknesses and external opportunities and threats may lead the managers to orient their strategies according to the four cases indicated in Table 2.

According to the behavioral theory of the firm by Cyert and March (1963) decisions emerge not from profit maximization, but from bargaining between numerous individuals and groups, which pursue a variety of often conflicting objectives and according to Alchian and Demsetz (1972) the company is characterized by teamwork that requires coordination and cooperation between numerous input suppliers. It is clear that the decisions by the directors of a large or of small company depend on the many variables, aims and instruments to be considered and that directors can choose between almost infinite alternatives. Thus, management seems more an art than a science. In fact, the sectoral belonging or the company size or the country characteristic do not dictate the different alternative measures, while they vary widely within the same sector, size and country. They depend on the preferences of the individual managers, the specific opportunities or constraints of the external environment and the characteristics and preferences of the external stakeholders. Therefore, the power of decisions belongs to the directors and they have to balance their own personal interests and preferences, as managers, with the impact of their choices have multiple consequences on the various interest seekers, as the shareholders, bond holders, banks and other stakeholders, such as labour, clients, suppliers, local communities and national states. Only negotiations and bargaining powers and trade-offs or compromise will allow finding a solution. Therefore, managers should internalize the lessons of “stakeholder capitalism” as criteria for the long-term sustainability of their company.

However, it is true that the result will also be determined by the process of market competition or that no company can survive if it does not insure the condition of a no negative profit. Therefore, the factors leading to a change in the company’s policies are determined implicitly at least as much from the market as from the explicit choices of the managers.

10. The New Industrial Strategy as the Institutional Framework of Company’s Decisions

Free market competition does not lead to efficiency, if the markets are all connected to each other because the same actors play on different “tables”, thus leading to conflicts of interest, as they are related to multiple organizations. In fact, these pervasive conflicts of interest are due to “shareholders’ agreement” that defend the incumbent parties, “transactions with related parties” that ensure particular advantages to some actors, and to “asymmetrical information” and “opportunistic

behaviours". The current tight and complex intertwining between the different financial groups determines the so-called "relational capitalism".

The main "structural reform" is now to separate the different financial and real markets, as that would insure the "division of labour" indicated by Adam Smith or that, in a neoclassical perspective, the price of a homogeneous good could be a transparent information of the marginal costs for the producers and the marginal benefit for the users. On the contrary, in the actual situation the free market competition can't work, since the monetary supply and demand by the various companies in the market have a no comparable real nature, since they are made by the complex aggregation of no homogeneous products.

On the other hand, given the macroeconomic and social relevance of the company's decisions, the State cannot be neutral and it should try to orient the choices of the companies or even prevent those decisions, which may have a large negative impact, that sometime the managers and the shareholders may not even be aware (Cappellin, 2009). Therefore, the State can give incentives and punishments through appropriate and binding legislations and regulations, such as through taxes and incentives, and it may regulate the balance of power between a company and its employees, its banks and financing institutions, the customers, the suppliers and the relationships between the company and the local governments.

In this perspective, a European and national industrial strategy can be an instrument of "governance" or for guiding ("steering") the decisions of the managers, which may facilitate the compatibility of the aims of the stakeholders and of the economy and society at large, with the decisions and the monetary benefits of the individual companies. The public sector should aim to a strategic coordination of the various economic and social actors (Etzkowitz, 2003) or to create that "institutional framework", which can best orient and support the process of "entrepreneurial discovery" by individual private companies toward new innovative activities. In fact, in several cases, a joint agreement may apparently imply an immediate loss for a company with respect to the individual independent choice, but it would also imply a medium term benefit as it would avoid a conflict, which would hinder to reach a sort of "Pareto optimal solution". Therefore, a European industrial strategy a key component of an economic policy aiming to increase the investment rate of the European economy, together with complementary monetary and fiscal policies.

11. The Process of Multilevel Governance and the Management of the European Recovery Plan

Finally, the European industrial strategy requires to decide the operative procedures for a multilevel governance process and to define the role of the various actors: companies, citizens and local and national institutions. The specific fields of intervention of a new European Industrial Strategy are rather different from that of the traditional industrial policies, focusing on specific technologies and productions. They are more integrated with the instruments of monetary and fiscal policies at the national and European level and with those of the regional policies both at the national and European level.

It may be useful to distinguish the instruments of the New European Industrial Strategy according to the time perspective, which is relevant:

- a long term perspective: measures on the public-private ownership, mergers and recapitalization of European strategic companies;
- a medium term perspective: measures on the growth of production capacity and employment in the various strategic productions;
- a short-term perspective: measures on the turnover, financial earning and taxes for all private companies in all or specific strategic sectors.

Therefore, in a long term perspective, considering how to orient the investment by large companies, a new European Industrial Strategy should be integrated with measures, such as the regulation of mergers and acquisitions, the regulation of monopolies and the application of antitrust rules, the policies of nationalizations or privatizations or the public-private partnerships in strategic companies. In this perspective, there is a tight interaction with monetary policy, since new production projects require specialized financial intermediaries and banks, focused on innovation that typically implies a high level of risk. Therefore, a new industrial strategy must necessarily be coordinated at the European scale, similarly to monetary policies and fiscal policies, as if country should act independently in industrial policies, they would determine positive or negative external effects (“spillovers”) for other countries.

Concerning the medium term perspective, a new European industrial strategy requires the design and implementation of strategic programs of investment in various fields, such as agri-food, social housing, tourism and culture and leisure, regional transport, health and tertiary education, environment and energy. In particular, there is the need of a long-term perspective (6-10 years similar to the EU multiannual financial framework). The management of large and small projects requires the creation of “special purpose vehicle” or “boards”, such as joint ventures, societies mixtes, consortia of companies, PPP, often in collaboration with specialized financial institutions (European Bank of Investments, National investment banks, or large national and international banks) and professional technical and legal services and research institutions. Examples are semiautonomous public agencies, such as the French “Poles de competitivité” or the American “authorities” on infrastructure programs. Fiscal and financial policies (i.e. grants, loans and equity shares) should also facilitate companies in participating to large joint projects aiming to create local and regional infrastructures and/or new productions capacity in joint ventures together with other complementary SMEs belonging to the same production chain or the same territory.

Thirdly, in a short-term perspective, the aims and instruments of a new industrial strategy should be integrated with those specific fiscal and financial measures, which are taken in the yearly public budget law and in specific ad hoc regulations. A new industrial strategy should and it can integrate the instruments of many public policies, such as investment and innovation, industrial, regional, urban, fiscal, banking and corporate finance, environmental, labor, research and education, culture and tourism, transportation and infrastructure, health, food and agriculture. In particular, a tighter integration is needed between industrial policies, labor policies, and corporate tax policies. A tighter integration between the industrial and labor policies is needed, as innovation requires larger public and private immaterial investment in secondary and especially in tertiary education, know-how and formal R&D, rather than subsidies and tax expenditure to labour saving technologies.

12. Conclusions

In synthesis, a new European Industrial Strategy should aim to kick start an economic recovery process and aim to an increase of employment especially of young workers, a decrease interregional income disparities and an improvement of the quality of life and environment, according to the increasingly emerging new needs by EU citizens and focus on investments and innovations.

The new European industrial strategy proposed in this article is different from the traditional industrial policy, which focuses on the growth of the production in specific technologies and manufacturing sectors without taking into account the demand of the same productions and their interdependence with social, territorial, and environmental dimensions. On the contrary, it is based on a macro and microeconomic approach that takes into account the interdependence between supply and demand at the aggregate level and in the different sectors. Secondly, the new industrial strategy must take into account the relationship between the quantity of production in the various sectors and the requirements of the same sectors in terms of new investments, new jobs and of product and process innovations in the individual companies, the sectors and the different areas of the European territory.

Thirdly, it must take into account the negative or positive impact that the development of productions will have on the natural environment and on the territory and the positive/negative effects that the natural environment may have on the demand, the consumption and the investments by the citizens and the companies.

Therefore, the European Union must use not only monetary policy or public budget policy, but also a third instrument of economic policy, which is that of a “new European Industrial Strategy”, which orients the investments of private companies, also through public investments, towards new strategic productions and societal needs.

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