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MANUFACTURING BEYOND COVID-19

RETHINKING GLOBAL STRATEGIES AND PUBLIC SUPPORT AT THE REGIONAL LEVEL AFTER THE PANDEMIC

Group Leader

Shira Fano, Silvia Oliva, Gianluca Toschi

Researcher, Senior Researcher, Senior Researcher
Fondazione Nord Est

CONTRIBUTORS

Christian Altmann

Manager Cluster and Networks,
Business Upper Austria

M. Pierre-Olivier Boyer

Director of Strategic Partnerships, Vicat

Raffaele Brancati

Economist and Director, MET Economia

Jacopo Fusi

Head of Environment and Circular Economy,
Confindustria Lombardia

Roberta Gagliardi

Head of Institutional Relations,
Confartigianato Lombardia

Francesco Mosca

Head of Innovation and Competitiveness,
Confindustria Piemonte

Diletta Pegoraro

Researcher, University of Birmingham
and University of Trento

Alberto Pezzi

Director of Competitive Strategy, ACCIO'

Paolo Rolandi

President of Mechanical Sector
of Confartigianato Lombardia
and CEO of Cromatura Cassanese Srl

Adnan Seric

Economist, UNIDO

Roger Suarez

International Networks Manager, ACCIO'



INTRODUCTION

Up to now most of the economic policies that have been implemented to face the Covid-19 pandemic are policies needed to face the emergency. Nevertheless, soon we will be assisting in the medium and long run at structural changes that will reshape economic systems. Focusing on the regional level, we are mainly interested in this structural transformation.

Regions will have a key role in the re-start of manufacturing after the pandemic. The questions we would like to answer are:

which are the best practices adopted by regions around the world? and, from a practical point of view, which policy tools can be applied in the post-Covid scenario?

We identified the main drivers of competitiveness of regions, considering, for example, ease of automation in a given territory, as well as drivers linked to firm's image and sustainability.

Attracting investments is one of the possible ways to develop a territory. Therefore, we focused also on the topic of reshoring as increasing competitiveness of a region may attract, for example, domestic companies previously locating their production abroad. We focused on the topic of "reshoring platforms", discussing the different definitions of reshoring, and investigated how a territory can be attractive for reshoring movements, that will be possibly generated by the reorganization of Global Value Chains. In the rest of this note, we discuss the economics context, recommendations that emerged from our discussion and recap the main findings in the conclusions.

CONTEXT

Issue

If we consider the case of Italy, data collected by MET¹ which is in line with the one released by ISTAT, shows that there is a difference between the crisis due to the Covid-19 outbreak and the one of 2008. Due to the Pandemic, companies that suffered more were mainly the intermediate ones, not the weakest, which

are precisely those trying to invest in innovation, R&D and export, but at the same time without a very strong structure. The emergency faced by these firms was mainly of three kinds.

The first was a financial emergency, in terms of liquidity. This one was dealt with quite well in the developed countries.

The second was the financial structure emergency. The structure is mainly based on bank credit. More than 35 percent of research programs that were approved in January, was abandoned with the Covid outbreak. This was mainly due to the financial structure of firms characterized by low capitalization and a low possibility to join financial markets different from credit. Firms could use equity funds but at the regional level, there is a lot of fragmentation. In Italy, for example, there are up to six different funds for venture capital. There is therefore a need for coordination, at the regional level, for the availability of equity funds.

The third emergency is related to competitiveness in the medium and long run. In the last years, recovery was mainly due to investment in innovation, research and export. These strategies are put under stress due to the high market and technology risk. In the "green sector" for example, there are lots of possibilities due to new technologies, but they have high risk as not all new technologies succeed and arrive to be produced and commercialized. Particularly for small firms, this can be not financially sustainable.

In Italy, for example, there are available instruments such as SACE but regions should stimulate their use, and help understanding how the instruments work.



OPPORTUNITIES & RECOMMENDATIONS

Competitiveness of territories in the medium and long run, is the core of our discussions. We are interested in identifying which are the main elements that contribute to creating an ecosystem favourable to the manufacturing sector. Reshoring movements will probably increase due to the Covid-19 outbreak, that has shown the fragility of long chains, nevertheless, they have a different origin and different reasons.

It is therefore very interesting to think about which are the main drivers that contribute to making a territory attractive for manufacturing, in the first place, and which regional policies can be implemented to favour domestic and foreign investments.

Regarding the financial emergency discussed in the previous paragraph, to overcome these issues one of broad recommendations that emerged from our discussions is the following.

Recommendation 1 Together with credit and liquidity supporting firms in a timely manner, we need to **redirect resources** from the financial markets to the real economy, promoting new tools that manage to channel the resources coming from saving towards the real economy and the supply chains.

The classic and intuitive drivers of competitiveness of a given territory are linked to the institutional framework of a region, the quality of the workforce and the availability of skilled labour. The presence of infrastructures, which the economic crisis has put under stress, and the availability of natural resources are also fundamental elements for attracting businesses and for reshoring movements. Most of the factors that make a territory favourable to manufacturing for domestic firms are the same factors that can contribute to foreign direct investments and reshoring movements.

Originally companies that decided to localize their production abroad were mainly attracted by the availability of competitive labour costs. Companies that nowadays decide to relocate their production to Europe instead will make less use of intensive labour and substitute it

with high levels of automation. Ease of automation, in a given territory, therefore becomes a key factor for the competitiveness of regions and for attracting reshoring movements.

Recommendation 2 To increase attractiveness, regions should therefore **favour policies for education and vocational training**, such as courses for example of electronics and robotics.

In general terms, attractive territories are those able to create ecosystems favourable to the development of highly technological firms.

Specific technical and technological skills develop in regions that invest in creating qualified human capital. Local policies capable of attracting businesses are for example the creation of public or private research centres and universities and policies developing the interactions between firms and research centres. Particularly innovative territories can attract investments and reshoring movements so all families of policies that encourage innovations become important drivers.

Recommendation 3 The new organization of economic activity and business models must respond to the dual objective of high productivity while offering a guarantee of continuity.

Obligatory steps become the **updating of skills, training of employees, the recruitment of young workers** that should be encouraged to support the introduction of new skills and knowledge in the company, capable of supporting digitalization processes.

Another obligatory step is the reduction of labour costs, at the same time guaranteeing more flexibility in the labour market.

Recommendation 4 Considering the previous recommendation, it is important to focus the attention on some items: **promoting apprenticeship** as a modern and dynamic form of training, increasing the number of hours of training within the company, promoting activities able to boost the skills and excellence in both industry and craftsmanship.



Recommendation 5 Another important issue is the need of **bureaucratic simplification**, ensuring the adoption of the “once only” principle through enhanced interoperability between databases and acceleration of bureaucracy.

Recommendation 6 One of the necessary actions is the need for **renewed governance**, that must be necessarily originated from subsidiarity principles, in the awareness that any policy will not be able to leave socio-economic stakeholders out of consideration. The path towards the new normality must be based on **trust**.

This should contribute to the construction of a new vision of society, which is more responsible and synergic with the economy. The lack of trust and increasing uncertainty, are often holding back the economic restart. Trust must be understood as the compliance to rules, security and a guarantee on the regularity of payments, being able to make companies stable and responsible. Legislative certainty is of course a relevant issue in this process.

Recommendation 7 To support companies and in particular SMEs it is also important to invest in the development of **infrastructures**, both physical and digital, needed to accelerate competitiveness and redistribute territory’s wellbeing.

Recommendation 8 Firms’ **image and sustainability** issues in a broad sense are other relevant drivers of competitiveness and in particular of reshoring movements for manufacturing firms. Consumers are increasingly sensitive to these issues and in their consumption preferences they also include the social impact of companies in a given territory. For example, firms that decide to base their production in regions with strict environmental regulations give a “positive signal” to consumers. This is, for example, the case in the Italian clothing, footwear, and fashion industry. Within the different policies, we believe sustainability will probably go up in the rank of priorities, considering both the social and environmental level, following in particular the European Plan 2021-2027 and Green Deal, which will be a real turning point in terms of investments in ener-

gy, circular economy, and climate change.

The transition to a circular economy is a unique revolution and opportunity for the organization of production, logistics and consumption. The circular economy represents a unique opportunity for Europe to reduce the dependencies and risks of global supply chains and to build up competitive production, as many other continents do not have circular economy concepts on their agenda due to their abundance of raw materials. On the one hand, new concepts in the field of circular economy enable the substitution of critical raw materials with alternative materials and the use of future-oriented digital technologies and thus in turn contribute to more resilient value chains.

We believe it is interesting to focus our attention on the drivers of reshoring movements as public policies that favour reshoring movements contribute bringing back to a given territory a manufacturing capability in strategic sectors, and this is seen by some economists as a public good. Therefore, this phenomenon is strategic, and the entire system may benefit as a whole. The manufacturing capability can generate positive spill overs fostering the creation of innovations in other sectors². Other significant drivers of reshoring movements are quicker replenishment and proximity to customers, which are mainly demand-driven external factors. Nowadays demand is much more volatile and forms of production that allow making small lots available in a short amount of time and near the final market are preferred to systems that require instead to work with large quantities. The COVID-19 emergency has shown that long chains are more fragile, while shorter global value chains allow to better manage fluctuations in demand.

Reduced carbon footprint is also a relevant driver of reshoring movements and consumers are increasingly sensitive to this issue. Portugal, for example, is very sensitive to this topic as it is one of the last European countries with an active clothing industry³. In the clothing and fashion industry, ongoing protest movements are pointing out that this sector is one of the most polluting and this seems true. This industry contributes to polluting the environment not only for the production techniques used in dyeing and colouring the materials



but also because the products are transported all over the world producing CO₂ emissions. Proximity of the production plants to consumers could therefore contribute to reduce this problem.

A significant driver of reshoring movements is also better traceability of products, which is a particularly relevant topic in the food industry. The pandemic has increased our sensibility towards the origin and quality of food.

In the following part of our analysis we focus our attention on reshoring movements that have gained a lot of attention in the media and press in the past months. Regarding, reshoring movements, up to now, there is no real evidence of big reshoring phenomenon and the consequent reduction of Global Value Chains, this is based on data collections performed by MET⁴, but coherent also with other data collections. There is instead evidence of growing vertical integration. Nevertheless, it is maybe partially too early to be able to measure these phenomena.

At the European level, surveys on manufacturing firms have asked questions on the uptake of different technologies and if firms are willing to come home also due to advancing technology and digitalization. At the European level, there is low evidence that reshoring is going to take place rapidly and this is partially because when firms decide to go abroad, they build a local ecosystem and embed themselves with these ecosystems. In many cases firms are located abroad in China for example to capitalize on the local or regional markets, not only to ship products in Europe. These companies become almost “domestic” in some sense. If this is the reason why they decide to go abroad expecting them to reshore due to fear that the supply chains will continue operating under uncertain conditions, is in our opinion unlikely.

The cases of firms that decide to relocate their production “at home” as they can produce efficiently due to new technologies are approximately 5 to 8 per cent. Interviews of firms in the Basque countries⁵ have shown that companies that decide to reshore are: i) firms that offshored in the first place and were not able to reach their targets as they struggled due to the lack of competitiveness in local markets; ii) companies that simply overestimated the financial commitment that such

ventures required, incurring in financial troubles; iii) companies that went through a global restructuring and simply brought production home as they had spare capacity.

Moreover, as Asian economies are being able to quickly overcome the crisis this is a reason against the idea that business will leave these territories. The region is very quick in adopting Industry 4.0 technologies and the labour force is highly competitive in this respect; there could therefore be a trigger for highly technological firms moving to China. This will very much depend also on geopolitics and on how the current political climate will evolve.

Reshoring may have different definitions and interpretations. Reshoring can mean a firm that decided to locate production abroad and decides to come back, but it can also be seen as a reduction of the number of international suppliers for the domestic one; finally, it can be applied to reshoring of the supply chain (not a single firm strategy). This is close to the Italian sub-supplier system in which small firms do not have an international production, but they are small companies that work with international players, so they are hooked in global value chains. According to this definition, there are not many firms that are reshoring, because there are not many companies that have multinational plants.

Reshoring comes from a restructuration of the firm's strategy and it is very demanding as firms must establish trust with suppliers and all the standards must be set and respected. Therefore, there is a lot of work that must be done, and reshoring is a very complex strategy. There is an efficiency-seeking factor towards the supply chain, not only internal to the firm. Regarding production location, suppliers in the region are extremely important in this respect. There are also well-known examples of failures in reshoring in the textile sector: the first is the case of Adidas. They reshored a manufacturing plant in Germany adopting only automation but now they are closing as they do not have the suppliers at the backend. Another failure is the case of Benetton: they reopened a manufacturing plant in Oderzo (in the province of Treviso) by investing in automation. The company created a sweater with the zip code of the location, but it was sold at a much higher price and con-



sumers bought the cheaper one. In this case, there was a lack of marketing strategy. These are just examples of the fact that reshoring is a very complex strategy.

Regarding reshoring policies, at the moment there are no unique reshoring policies at the European level as a single policy could be quite limiting, as you are excluding all those companies that are not reshoring. This brings back to the definition of reshoring and on how to tackle down this issue.

Regarding the efficiency-seeking factors for a more efficient supply chain the following topics should be considered: the digitalization of the production processes, automation, rationalization of the number of suppliers.

Recommendation 9 There is, therefore, the need to find a **policy that is intersectoral** that can help to develop skills, which can be spent in any sector, for example, the so-called soft skills. For example, policies should be oriented to all those elements that allow to better digitalize the production processes, even for small firms. Examples are courses of Big Data, data analysis, cybersecurity and in general quantitative skills. Security is also a very important issue, in this respect, it is important to invest in cybersecurity, cloud computing blockchain, to guarantee that firms share their information with suppliers, for example, in a safe way. Policies should be oriented in developing these skills, which are useful for all sectors. High levels of technologies nowadays characterize all sectors, also the food and agricultural sector.

Recommendation 10 Together with these technologies, it is also important to invest in correlated services therefore **servitisation** of production is a topic that will surely come up in the near future. Local policy should have a key role, as there is no unique solution that fits all environments.

Recommendation 11 We believe there is the need for a regional plan for investments and policies should have a **broad strategy** for all sectors, plus **policies that are customized** for specific regions. Moreover, within regions, policies should be targeted to specific sectors.

Recommendation 12 Within this framework, **clusters** can play a special role in the current efforts to create more resilient value chains and, in particular, favoring the use of digital technologies to drive forward the economy.

Clusters can contribute to the topic of resilience strategies and new regional value chains with:

- Initiation of cross-regional and European cooperation projects
- Involvement of important leading companies of the development of resilience strategies
- Setting up cross-company innovation and technology projects.

Most of the existing Global Value Chains are broadly related to three large sectors: electronics, mechanics, and the one related to the textile, footwear and fashion sectors. It is less likely that large reshoring movements will occur in the electronics sectors, especially concerning consumer electronics. There could instead be reorganizations in the mechanical or in the fashion sectors. Regarding electronics, Europe could perhaps remain competitive in high-level electronics and production of customized electronic cards.

Regarding the effect of reshoring movements on the labour market, studies have shown that the creation of new jobs due to reshoring movements is relatively low.⁶ This is mainly because companies that relocate in Europe are characterized by high levels of automation. However, reshoring movements of manufacturing firms create positive effects on employment in correlated sectors. Companies that relocate, for example, need many different types of services, and this contributes to the boost in employment.



CONCLUSION

We hope the Pandemic will be taken as a real occasion of change and renewal on several levels. In this respect, regions will play a key role in the restart and there are several different policies in the first place that can be implemented to strengthen the competitiveness of a region.

Companies, especially SMEs, must rethink their corporate structures and be able to adapt to the new environment in a very short amount of time. In this scenario, speed and effectiveness of action, together with creativity and flexibility will be key drivers to win over the rigidity of systems, guaranteeing the development of firms.

In this white paper we have discussed the main drivers of competitiveness and among other results we believe there is the need for a dual action. On one hand, policy-makers at the regional level must focus on hard and soft skills that are fundamental for all sectors and, on the other, they should implement sector and region-specific policies.

Digitalization, e-commerce and remote working are surely relevant, but they cannot be adopted by all companies, particularly in the manufacturing sector, where they are relevant only for administrative roles. There is, therefore, the need to find a policy that is intersectoral that can help to develop skills, which can be spent in any sector, for example, the so-called soft skills. For example, policy should be oriented to all those elements that allow to better digitalize the production processes, even for small firms. Examples are courses of Big Data, data analysis, cybersecurity and in general quantitative skills.

Given the increasing uncertainty we are facing, we believe we are moving to a scenario in which it is very important to monitor, so foresight activity, in all sectors, will become increasingly relevant.

Regarding Italy, a relevant issue that emerged is the need to overcome the adoption of the ATECO (ATtività ECONomiche) classification of economic activities, which is the Italian version of NACE (from French Nomenclature statistique des activités économiques dans la Communauté européenne). We discussed about the

different definitions of reshoring. We do not know yet if we will be assisting at big reshoring phenomena, or if instead the discussions on this topic were partially due to the fear of problems of supply in long chains due to the Pandemic. But for sure, the debate on the issues brought back the discussion on fundamental issues related to identifying the drivers of competitiveness of regions in the medium and long run.

Finally, one of the messages that emerged from our discussions, is that entrepreneurs should work together with the other stakeholders, such as governmental institutions, associations representing companies, so-called intermediary bodies, and international organizations; they should all collaborate in supporting the development of firms. In this respect, we advise a higher level of coordination at the regional level among the different stakeholders to increase efficiency and effectiveness in fostering the development of manufacturing firms in the medium and long run.

ANNEX

The case of Lombardy Region

Different policies and plans have been implemented at the regional level, both to face the emergency, but also to stimulate the competitiveness of firms in the medium and long run. As an example, on September 15th “Il Piano Lombardia” has been presented, allocating 3,5 billion for the economic recovery.⁷ The first tranche consists of 400 million euros, for 3021 projects in the municipalities of the region and 97 projects in the provinces. Projects are related to the development of infrastructures, sustainable development, digitalization, hydrogeological instability, and energy efficiency.



ENDNOTES

¹MET is a research center located in Rome, Italy conducting data collection and research in the fields of microeconomics and policy evaluation, see

<https://www.met-economia.it/>

²Srai, J. S., & Ané, C. (2016). Institutional and strategic operations perspectives on manufacturing reshoring. International Journal of Production Research (Abstract)

³Costa, I., Martins, F. G., & Alves, I. (2019). Ecological Footprint as a sustainability indicator to analyze energy consumption in a Portuguese textile facility. International Journal of Energy and Environmental Engineering.

⁴Retrieved from:

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⁵Retrieved from:

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⁶See Krenz, A., Prettner, K., & Strulik, H. (2018). Robots, reshoring, and the lot of low-skilled workers. Center for European Governance and Economic Development Research (CEGE), (351).

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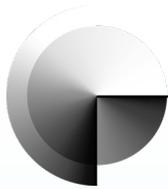
⁷For more information on “Il Piano Lombardia see:

<https://www.regione.lombardia.it/wps/portal/istituzionale/HP/DettaglioRedazionale/istituzione/attivita-istituzionali/piano-lombardia-tour-province-lombarde>



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For more information on the project and to read other topic-focused white papers that are part of the initiative, visit <https://worldmanufacturing.org/report/whitepaper-back-to-the-future/>



**WORLD
MANUFACTURING
FOUNDATION**

World Manufacturing Foundation
Via Pantano, 9 - 20122 Milano, Italy

info@worldmanufacturing.org
worldmanufacturing.org