Vertical networks or clusters: what tool for industrial policy?

By Jean-Luc Gaffard

The concept of a "vertical network" [*filière*] is back in the spotlight and is playing the role of an instrument of the new industrial policy. A working document of the Fabrique de l'Industrie [Manufacturing Industry], 'What use are 'vertical networks'?" (Bidet-Mayer and Tubal, 2013) recognizes that the concept has the virtue of helping to identify good practices and develop their application in relationships between businesses and between business and government. However, the same paper concludes by questioning the merits of a concept that emphasizes an approach to industrial organization that is more technical than entrepreneurial.

Our purpose here is to explore this issue and to challenge the relevance of the "vertical network" concept and to advocate instead the notion of a "cluster", which seems to correspond better to the need – for industrial policy – to recognize the leading role of the company in making strategic decisions.

The "vertical network": a simplistic notion

In its old but strict sense, a "vertical network" consists of all or part of the successive stages of production, ranging from raw materials to the final product. This chain of products extends from upstream to downstream and is composed of technical relationships, which are identifiable based on technical coefficients of production. These are subsets of input-output tables that are characterized by the existence of a high level of spill-over or dominance effects that stem from the fact that the concentration of relationships is denser in some industries than in others (Mougeot, Auray and Duru,

1977).

Defined like this, a “vertical network” obviously says nothing about industrial organization *per se*, that is to say, about how firms set the boundaries for their activities. The companies concerned may choose to integrate the different stages in a vertical network or on the contrary focus on one stage and build pure market relations both upstream and downstream. They can also choose to form a relationship that could be described as a hybrid, based on medium-term contractual relationships both upstream and downstream.

The organizational decision takes place in a specific technical context, based on a comparison between the costs of operating through the market, through contracts or through internal transactions (Coase, 1937; Williamson, 1975). The technical features are covered over by the transaction costs and have limited relevance. The specific characteristics of the assets, which have a technical dimension, are taken into account in making the choice, but primarily because of the possibility for opportunistic behaviour (hostage-taking) that it permits.

The designation of a thusly defined “vertical network” as a tool of industrial policy, based on a certain stability of technical relations, creates an obstacle to innovation, whose major characteristic is to upset linkages within the vertical network and thus its very structure. In fact, the use of the “vertical network” concept really holds interest only for a short-term perspective, when it comes to measuring the impact of the transmission of cyclical fluctuations within a technically stable, productive structure (Mougeot, Auray and Duru, 1977).

The industrial policy measures that flow from this may affect how companies define the scope of their activities by affecting transaction costs. One example is the rules governing the relationships between contractors and

subcontractors. But their effects are somewhat unclear with respect to the expected impact on the innovative capacity of the firms concerned.

The simplicity of the concept of a vertical network, together with its limitations, make the way that the concept is used (1) dangerous, if the fixed nature of the technique is taken literally (as has been the case in the past), and (2) ambiguous, if it is understood as dealing with the technical and organizational changes inherent in a market economy. As evidence of this ambiguity, consider a list of "vertical networks" today, which refer to objects such as cars, trains and planes; to luxury items whose most common feature is that they are aimed at a very rich clientele; to generic technologies such as information and communication technology; and to social issues such as health care and the ecological transition, not to mention the mishmash constituted by the consumer goods industry.

While the notion of a vertical network, that is to say, a group of industries that are technically related, has to some extent fallen into disuse since the 1980s, it is precisely because strategic business decisions are far from being dominated by technology, and a frozen state of technology in particular. The structuring of the industrial fabric is constantly changing as a result of the choices and constraints that determine them. In other words, industries are more the result of processes of innovation than of technical frameworks that supposedly control strategic choices.

It is not surprising, then, that industrial policy in the narrow sense of direct aid to companies in specific sectors has itself fallen into disuse and made room for policies on competition and regulation that are designed as efforts to move closer to a state of full competition.

The company: the essential reference

This observation does not mean that intra- and inter-vertical network relations do not matter and that all that counts are market incentives. Companies are not islands of planned coordination in a sea of ??market relations. They come to agreements about technology, distribution and marketing and develop subcontracting relationships and create joint ventures (Richardson, 1972). There is a major reason for this. To invest, a company has a need for coordination that cannot be met simply by the competitive market, but rather involves the emergence of forms of cooperation that reflect membership in a particular group. This company is characterized by its mobility, which leads it to introduce new products or even to change vertical network, thereby upsetting the relationships it has formed with others, but always along a trajectory that is determined by its core competencies.

Generally speaking, companies interact and have to solve difficulties in coordination arising from a lack of information. This is not so much a lack of technical information as a lack of information about market conditions, meaning the configuration of demand but also of competing and complementary suppliers (Richardson, 1960).

In fact, companies face two deadlines: a deadline for the gestation of irreversible investments, including investments in intangibles, and a deadline for acquiring market information. To deal with this and decide how to invest effectively, companies need to have a certain degree of confidence about the levels of competing investments and of complementary investments. The coordination required is not assured solely by market signals or, more precisely, by price signals alone. This also demands that cooperative relationships between companies complement their competitive relations (Richardson, 1960). These relationships constitute business networks for which the qualification of a “vertical network” is undoubtedly too narrow, even if technical proximities or complementarities do play a role. Belonging to

a group characterized by having broadly similar skills or qualifications, rather than to a vertical network or business sector, is related to these relationships which secure the investments of each group member.

Companies seeking to innovate do not mainly face the existence of entry barriers (due to the price or investment behaviour of the established companies) or barriers to business creation. They have to deal in particular with the existence of barriers to growth that are related to their ability to be mobile (Caves and Porter, 1977). It is obviously difficult for companies to enter new business fields or to increase their size significantly. They are successful in attaining new size thresholds whenever they can acquire new managerial capabilities and ensure control of their capital. They enter into a new activity, possibly one that is quite different from their current activity in terms of the markets served, only so long as the technical and managerial skills in one business are useful in the other. Thus business groups come into being that are organized around similar or complementary skills, which transcend divisions into industries or sectors. These groups are the arenas where competition is carried out. Their very nature limits, or even thwarts, the development of an oligopolistic consensus. Because of their structural similarities, each group member responds in the same way to internal and external disturbances and anticipates the reactions of the others with a good deal of accuracy (Caves and Porter, 1977). A sort of coordination and mutual dependence thus develops within each group.

Based on this dual observation of the need for both coordination and mobility, it is clear that an industrial fabric is complex and can only with difficulty be reduced to "vertical networks" in the original meaning. Industrial policy is thereby inevitably affected, as it cannot be reduced to direct aid to firms, sectors or even technologies, nor to the application of rules on supposedly perfect competition.

Clusters: a suitable response

The nature of the productive system requires a horizontal industrial policy, which involves in particular subsidizing R&D and occupational training, but which makes sense only if this type of aid is conditional on the achievement of the objective of business mobility and of vertical as well as horizontal cooperation between companies.

It is with regard to this objective that the creation and development of *clusters* should be preferred, this being understood to mean groups or networks of companies and institutional structures that, while certainly having a geographical dimension, cannot necessarily be reduced to a strictly defined territory. A cluster is primarily a tool that aims to develop both voluntary cooperation between companies and a network of expertise. Its configuration is determined by the companies. The capacity building that arises from this organizational network nourishes a capillary type of action and the progressive entry of the individual members into new fields of activity.

Logically speaking, the initiative for these clusters should come from the companies themselves, with the government's role being to encourage them, specifically by making its aid contingent on the reality of the cooperation achieved. Ensuring that there is genuine cooperation requires that public funding be conditional on the contribution of private funds. The method of governance must recognize the pre-eminent role of the firms in the industry. It is this feature that has underpinned the success of German industry – it is, to say the least, risky to chalk this success up to competitiveness gains generated by labour market reform (Duval, 2013).

In this light, there should be nothing surprising about the successes and failures of industrial policy. When these configurations have the characteristics of clusters in the sense used here, whether this involves aerospace, automotive

or railway, the mechanisms implemented have allowed for credible projects that have promoted competitiveness. When the supposed industries are loosely or not at all structured and bear no relationship to clusters, the failures are obvious, because there are no eligible projects under existing public procedures and in particular because of the weak involvement of small and medium-sized enterprises in collaborative projects.

The fact that the vertical networks adopted cover almost every industry forbids, moreover, any real discrimination between the forms of industrial organization. There is thus a very real risk that public funds will be wasted. Some groups, who are accustomed to dealing with the government, will capture aid for projects that they would have carried out anyway, while at the same time companies that are engaged in innovative activities will not win any support, due to failing to fit the pre-defined framework.

Once again on the question of company size

There is a functional relationship between organizational efficiency and the growth rate, with the first falling when the second rises beyond a certain threshold (Richardson, 1964). The exploitation of new investment opportunities normally goes to companies that have the most suitable production experience, business contacts and marketing skills. These capabilities are a matter of degree. The degree of organizational constraint will depend not only on the growth rate but also on the direction in which the expansion takes place. This will also depend on the extent to which the company concerned can acquire the skills, including managerial, required to be mobile without incurring excessive costs (Richardson, 1964). A cluster type organization will be able to help.

The cluster is a place for exchanges and skills transfers that facilitate the entry of firms into new fields of activity,

even if only geographical, which should enable the smaller ones to grow in size. The cluster organization can also promote mechanisms that facilitate the access by small firms to the financing required for investment, while at the same time allowing them to retain control of their capital, and thus their identity.

By way of a conclusion

As is clear, industrial policy should not amount to planning based on a purely technical approach to industrial organization, the kind captured in the "vertical network" concept, which would make it hostage to local and national lobbies. Nor should it be reduced to regulatory and competition policies designed for a virtual world where the only relations among companies are market relations. It must be understood as a way to stimulate the creation and development of clusters designed as operational networks of expertise, whose governance must be ensured under conditions that favour entrepreneurial decisions, and not bureaucratic ones.

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Is nationalization a trap or a tool of industrial policy?

By Jean-Luc Gaffard

The closure of the Florange blast furnaces in the Moselle region by ArcelorMittal and the French government's hunt for a buyer led it to temporarily consider nationalizing the site, that is, not only the production of crude steel, but also the cold forming line. The threat of nationalization was clearly wielded with a view to forcing the hand of the Mittal group so that it would sell the operations to another firm. If a nationalisation like this had been carried out, it would have been a penalty-nationalization, *i.e.* a sanction of behaviour by the Mittal group deemed contrary to the public interest. Apart from this unusual feature, it would have also raised issues about competition.

The project around the Mittal site is reminiscent in some ways of the nationalization of Renault in 1945. It would be hard to argue, however, that any reproaches would be along the same lines. There would clearly be no question of the nationalized site being made a showcase for a social policy designed to spur the country's growth. The goal was less ambitious. It involved neither more nor less than a transfer of ownership from one private group to another. This would, of course, have

been a first in the use of the weapon of nationalization. Any comparison with the French government's support for Alstom in 2004 doesn't hold: in this latter case, the point was to save a company that might go bankrupt as a result of risky acquisitions, and not simply to replace it with another company. Moreover, the problem was confined to the company in question, with no global or even sectoral implications. Comparisons with the support of the Obama administration for the automotive industry in 2009 are also out of place, as that involved saving a company that was being forced into bankruptcy in an industry generally considered strategic.

The reality in the case of Florange was and remains that no potential buyer thought they would be able to keep the blast furnaces operating in an environment marked by falling demand for steel, in particular in the wake of the crisis in the automobile industry. That is why, whatever happened, the buyer would demand to keep the rolling mill too. This requirement would be in its best interest: the blast furnaces could not be taken over except on the condition that they could supply the activity immediately downstream on the same site. If this condition had been met, it would undoubtedly have posed a problem for the Mittal group, as it currently provides the steel for the mill in Florange from its Dunkirk site, so the new situation would have caused it difficulties, including in terms of jobs. In other words, a temporary nationalization with a view to a transfer of ownership would interfere with competition between private entities. It is far from clear that this was in line with the general interest.

The occasionally argued thesis that Mittal's strategy was the act of managers who were merely obeying the shareholders and who were advocates of an economy without factories or machines does not really hold water in light of the nature of the firm's activity and the degree of integration of the different production sites. One could, however, make the hypothesis that Mittal's strategy involving the closure of the blast furnaces

in Florange amounted to a plan to ration supply that was designed to prevent a collapse of steel prices and boost already low margins. This hypothesis might be credible if the demand for steel depended primarily on its price, whereas it is obvious that the decline observed is the result of the global crisis and particularly the slump in sales in the automotive and construction industries. In other words, a fall in steel prices today would not lead to higher demand and ensure the continued operation of all the blast furnaces. It is much more plausible to assume that, in the current macroeconomic environment, the transfer of ownership that was considered would simply have resulted in changing market shares rather than increasing the market's size.

In fact, there could only be real doubt about both the legitimacy and the capacity of the public authorities to arrange the most appropriate configuration for the market, or even the breakdown of the jobs to be saved or destroyed. Furthermore, if a decision to nationalize had indeed been taken in a situation like this, any determination of fair compensation would have proven difficult and prone to litigation.

In short, the nationalization under consideration could hardly have been an effective tool of industrial policy. It is not for the public authorities to arbitrate between private interests to determine who owns what, including when certain sites are to be closed. This type of arbitration is the responsibility of the competition authorities. Industrial policy, in turn, should interfere as little as possible with the division of market shares between the various competitors. At most it could ensure the survival of companies whose activity is considered strategic and who are going through a difficult period due to the global situation or to industrial choices that have proved erroneous or simply more expensive than expected.

In this situation, it is not surprising that the government

did not follow up with the nationalization project and instead supported the compromise of simply requiring that Mittal undertakes to make investments to modernize the site and to maintain the blast furnaces in running order with a view to equipping them with highly efficient technology in terms of carbon dioxide emissions, leading to a gain in competitiveness, as part of the European Ultra-Low Carbon Dioxide Steelmaking project (Ulcos).

The nationalization under consideration was indeed a trap in every sense of the word. The political and media battle about the fate of the Florange site revealed, in fact, an error in the government's analysis. The difficulties being experienced by the French steel industry result from a lack of demand, which is in turn the result of a policy choice of generalized austerity. Trying to resolve this macroeconomic problem with a microeconomic solution was, at a minimum, risky and shows the inconsistency of the short-term and medium-term decisions being taken on economic policy.

The citizen must be the foundation of any industrial policy – even a free market one

By Sarah Guillou

The purpose of industrial policy is to direct productive specialization towards sectors that are deemed strategic for well-being or economic growth. This means recognizing that productive specialization is important for growth. But what criteria should be used to determine the importance of a given sector? The argument developed here is that there are no sound criteria that do not refer to the collective preferences of present and future citizens.

There are a limited number of theoretical principles for justifying an industrial policy and demonstrating its effectiveness. From the defence of nascent industries (List, 1841) to support for basic industries that generate externalities for growth, the theoretical arguments set out very limited conditions for the exercise of policy. The international legal framework is also very stringent, especially for European Union countries whose authorities are concerned primarily with creating a level playing field for all EU companies and keeping control over payments by the State.

The limited space for industrial policy

In this limited space, the exercise of industrial policy has struggled to find reasons to exist. Even though a movement of "normalization", dear to Dani Rodrik, currently seems to be affecting the study of industrial policy (see Aghion et al., 2011), it is still not part of "normal" policy in the same way as monetary, fiscal, or trade policy, for example. Industrial policy is exceptional policy resulting from exceptional circumstances. It is in the definition of this term "exceptional", of its nature and its temporality, that industrial policy derives its legitimacy. Even recently, exceptional circumstances, both political and economic, have served as strong grounds for industrial policy, whereas they actually conceal policies to promote employment and satisfy electoral objectives. Illustrations of this include businesses set up to rescue factories, from Lejaby lingerie units to

SeaFrance, as well as announcements of regulations on plant closures when a buyer exists. Even though these interventions have the benefit of reducing information asymmetries between the players by offering mediation that is often useful, they are not really part of industrial policy.

The only “authorized” industrial policy today that is consistent with the institutional and legal framework of Europe and America is one that meets the conditions inherited from liberal doctrine on state intervention in the functioning of the economy. One may wish that the rules on intervention were re-defined – which by the way, would bring a little more transparency into state practices – but the ambition of this note is both more modest and broader. This note aims to show that, even within the minimalist framework of the free market approach, industrial policy must be defined in accordance with a social project that engages the productive specialization of the economy.

As a general principle, liberal doctrine considers competition to be the most efficient process for allocating resources. In other words, competition is the best system for maximizing wealth creation. Indeed, it is supposed to foster emulation between the players and motivate them to increase their productivity and performance; to allow the eviction of inefficient activities that waste poorly exploited resources; and, finally, to ensure equality and freedom among the players with respect to market entry, and thus the free exercise of economic activity. Liberal economic theory thus envisages only very specific situations for the exercise of industrial policy.

In this framework, state intervention is justified (i) to restore competitive conditions concerning transparency of information; (ii) to support investment in activities that generate positive externalities, such as R&D, or conversely to discourage activities that generate negative externalities, such as pollution, and (iii) to support activities that are

considered strategic. Note that these are precisely the three justifications that underpin the European Union's policy on industry and competition. It should be noted above all that while the last two reasons do indeed call for an industrial policy, they demand a higher principle of a political nature that invokes the collective preferences of present and future generations.

Encouraging the externalities that arise from R&D spending does not of course necessarily reflect a political choice. Indeed, the underlying economic logic might be sufficient: the externalities from R&D include a boost in productivity induced by the diffusion of knowledge, which benefits society as a whole. This increased productivity provides additional growth that fuels the creation of jobs and wealth. It is indeed this economic dynamic that is emphasized by the European authorities, including the European Commission (see Buch-Hansen and Wigger, 2010; EC, 2011), just as it underpins American policy on subsidies for R&D (Ketels, 2007). The policy decision to support R&D and more generally investment in human capital can thus be based simply on economic logic.

Any policy that is intended to guide specialization involves society's future

Nevertheless, this logic is not enough: once we have accepted that investment in R&D is needed, then it is necessary to decide how to ensure that public resources, which are scarce and whose opportunity cost is rising as debt mounts, are invested in the wisest way. The definition of industrial policy must be based on a set of political (and legal) guidelines that are precise enough to lead business to invest in technology whose returns are inherently uncertain. For example, companies do not spontaneously tend to invest in clean technologies. Incentives need to be created that induce them to adopt sustainable development pathways, as is shown by the results of Acemoglu et al. (2011).

In general, any policy that aims to guide specialization involves the future of society: directing the production process towards sustainable development and environmental protection is a decision that will ensure the sustainability of resources, the quality of life and technological innovation. Directing capital towards strategic technologies, such as biotechnology, nanotechnology or space, is a necessity in light of the heavy investments – the fixed costs – that are associated with their development, given that mastering these technologies is essential to society's future well-being. Finally, investing in human capital, a prerequisite to any policy to support R&D, is a way not only to improve people's living standards and quality of life and to qualitatively strengthen their ability to adapt to technological change, but also to ensure the strength and sustainability of democracy (Glaeser et al., 2007).

A commitment to a policy of support for investment in research and education is of course widely shared by political leaders, as it is a general feature of a progressive vision of society, or, in short, a certain vision of social welfare. And a package of measures to meet the objectives of a policy to support R&D in France does clearly exist: the research tax credit for the country's "competitive clusters"; in this respect, France is often seen as a driving force in terms of its industrial policies. But the purpose evoked to justify these measures is to ensure competitiveness, and not specifically economic growth *per se*.

Nevertheless, the selection of promising technologies and investment in the specializations of the future demands that politics takes precedence, as it must take a stand on the technological future of society, including in matters of protection, security, health and the environment. Ultimately, even a free market industrial policy assumes political choices that correspond to a vision of society. And it is in the name of this social vision that the expenditure associated with

industrial policy can be justified. The justifications related to the economic mechanisms set the constraints, but policy choices must set the goals. The expression of collective preferences during the forthcoming electoral processes requires that the technological implications of policy proposals be expressed as clearly as possible.

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A carbon tax at Europe's borders: Fasten your seat belts!

By Éloi Laurent and Jacques Le Cacheux

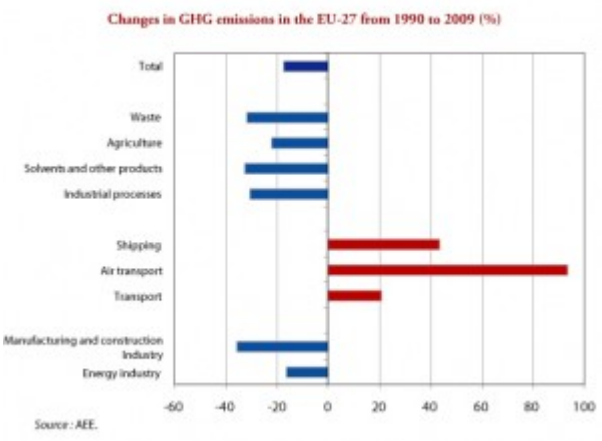
How can the current deadlock in international climate negotiations be resolved? By an optimal mix of incentives and constraints. In the case that currently opposes the European Union and the international air carriers, the EU is legitimately bringing this winning combination to bear by imposing what amounts to a carbon tax on its borders. It is brandishing a constraint, the threat of financial penalties, to encourage an industry-wide agreement that is long overdue among the airlines to reduce their greenhouse gas (GHG) emissions.

The ongoing face-off with the carriers of several major countries, which, with the more or less open support of their governments, are contesting the application of these new regulations on GHG emissions from planes flying into or out of the EU is, from this perspective, a crucial test. It is an issue with considerable symbolic value, as it represents a first: all the airlines serving airports in the EU are subject to the new measure, regardless of their nationality. On March 9th, European officials reaffirmed their determination to

maintain this regulation, so long as a satisfactory solution has not been proposed by the International Civil Aviation Organization (ICAO). However, 26 of the 36 member states of the ICAO Board, including China, the United States and Russia, have expressed their opposition to the new European requirement, advising their airlines not to comply. And the Chinese government is now threatening to block or outright cancel orders for 45 Airbus aircraft, including 10 A380 super-jumbos, if the European measure is not repealed.

Air emissions up sharply

GHG emissions attributable to air transport account for only about 3% of global and European emissions (about 12% of total emissions from transport in the EU). But despite the progress made by aircraft manufacturers in energy intensity, these emissions, which are still modest compared to road transport, have been experiencing explosive growth over the last 20 years, and are rising much faster than those in all other sectors, including shipping (see chart). They must be controlled.



In addition, in most countries, in particular in the EU, airline fuel is not subject to the usual taxation applied to oil products, which obviously distorts competition with other modes of transport.

A robust legal framework

The new European regulations, which took effect on 1 January 2012, require all airlines serving any EU airport to acquire emission permits in an amount corresponding to 15% of the CO2 emissions generated by each trip to or from that airport. The measure is non-discriminatory, since it affects all airlines flying into or out of European air space, whatever their nationality or legal residence. This requirement, which is grounded in environmental protection, is therefore fully consistent with the Charter of the World Trade Organization (WTO).

The measure is also of course in compliance with European treaties as well as with the various provisions of international law in the field of civil aviation, as is reiterated in the judgment of 21 December 2011 by the Court of Justice of the European Union, in a case brought by several US carriers challenging its legality. The legal framework for this new provision is thus robust.

Towards the death of air transportation?

The airlines and the governments of the countries that are major emitters of greenhouse gases and that are hostile to this measure justify their outright opposition by arguing its poor timing, given the current economic climate of low growth and rising fuel costs, and its excessive cost, *i.e.* that the resulting rise in passenger air fares would be likely to further depress an already fragile industry.

In reality, the measure is largely symbolic and the cost is almost insignificant. Judge for yourself: according to the Air France calculator approved by the French environmental agency, the ADEME, emissions per passenger amount to just over one tonne of CO2 for a Paris-New York return trip, and approximately 1.4 tonnes for Paris-Beijing. The current price of a tonne of carbon on the European carbon market on which companies must buy emissions permits, the ETS, is just under 8 euros. The additional cost per ticket thus amounts,

respectively to 2 euros for Paris-New York and 1.7 euros for Paris-Beijing! (estimates using the ICAO calculator are even lower).

Towards a trade war?

Given the current state of the legislation, the threats to cancel Airbus orders or similar retaliatory trade measures are obviously out of proportion to the economic impact of the tax on the European skies. To fear that this might trigger a "trade war" is also to forget that such a war has already been declared in industry, particularly in the aviation sector (with the multiplication of more or less disguised subsidies, including in Europe, and with the use of exchange rates as a veritable weapon of industrial policy). Furthermore, agreements or cancellations of orders in this sector are in any case very often influenced by the political context, sometimes for dubious reasons (as in the case of diplomatic reconciliation with relatively distasteful regimes). In this case the cause, the defence of the integrity of Europe's climate policy, is legitimate.

The various threats and blackmail attempts being taken up by the pressure groups targeted, in this case air passengers, are intended to sway governments for obtaining short-sighted gains. They are targeting particular countries, foremost among them Germany and Poland, which are currently dragging their feet in accepting the EU Commission's proposal to accelerate the pace of European emissions reduction by raising the goal of emissions reduction for 2020 from 20% to 30% (compared to 1990 levels). As is their right, on the climate issue Germany and Poland have been following an approach that is in accordance, respectively, with a growth strategy based on exports and an energy strategy based on coal. In both cases, these are national decisions that should not take precedence over the European approach. From the perspective of Europe's interests, there is therefore no valid reason to yield to these pressures even if some member states become involved.

By confirming its determination, the EU can provide proof that leadership by example on the climate can go beyond simply setting a moral example and lead to actual changes in economic behaviour. The EU can ensure that everyone sees that, despite the impasse at the global level, a regional climate strategy can still be effective. If its approach is confirmed, the success of the European strategy, which consists of encouraging cooperative strategies under the threat of credible sanctions, would point towards a way to break the deadlock on climate negotiations.

The European Union will, in the coming weeks, be passing through a zone of turbulence (yet another) on the issue of its border carbon tax. It would be legally absurd and politically very costly to make a U-turn now: instead, let's fasten our seat belts and wait calmly for the stop light to change.

"Buy French": From the slogan to the reality

By Jean-Luc Gaffard, Sarah Guillou, Lionel Nesta

The current election campaign is lending weight to simplistic proposals like the slogan "buy French", which evokes the need for France to re-industrialize. And to accomplish this, what could be simpler than to convince the population to buy native products designated with a special label? This is also more politically correct than advocating a straightforward return to protectionism. Employment is expected to benefit, along

with the balance of trade. But if we look more closely, not only is it difficult to identify the geographical origin of products, but even if that were possible, any preference that these products might enjoy could well wind up in job losses. This solution for dealing with the need for re-industrialization ultimately reflects a refusal to get to the bottom of the problem.

Can we really define what it means to “buy French”? Does it mean buying the products of French companies? What about buying products made in France by foreign companies instead of buying products made abroad by French companies? These simple questions show that it is not so easy to pin down what is “Made in France”. One major difficulty is that the final goods produced in a country usually incorporate intermediate goods manufactured abroad. It may even happen that the components of a final product are manufactured by a competitor in another country. The iPhone is emblematic of this fragmentation. Should we refrain from purchasing intermediate goods from low-wage countries even though this makes it possible to produce final goods at a lower cost and boost exports by being more competitive on price? Those who think so should no longer be touting German industry as an example, since everyone knows about the growing share of imported inputs in the production of the final goods Germany exports (OECD, *Measuring Globalisation: OECD Economic Globalisation Indicators 2010*, p. 212).

Imagine, nevertheless, domestic consumers who are able to identify products with a high labour content and are ready to make sacrifices out of a spirit of economic patriotism. Don’t the polls tell us that over two-thirds of consumers would be willing to pay more for French goods? While there are doubts about whether they would actually do this, it would be risky to ignore the opportunity cost of such a choice. Buying more expensive products simply because they are French reduces purchasing power. Other goods and services would not be

purchased or would be bought for less abroad. The balance sheet for employment is far from certain.

Should this exercise in economic patriotism actually materialize, it would be a way that consumers form attachments to certain types of products, in this case based on their place of manufacture, which would in turn reduce the intensity of competition. This could lead the companies concerned to cut back on their efforts to become more competitive on price and other factors. Why, indeed, should they shell out for expensive and risky investments when have a guaranteed customer base? It's a safe bet that they will not do this much, if at all. The national economy would then be locked in a low technology trap, doomed to slower growth, obviously with damaging consequences for employment in the medium and long term. This would also deprive the economy of the means to innovate and improve the competitiveness of its products.

Finally, it is likely that the willingness to buy French products would benefit products that replace goods made elsewhere in Europe rather than goods made in developing countries, either because the latter are no longer manufactured at all in France or because the price differences with French products would still be prohibitive. Ultimately it would not be possible to avoid further shifts in production to low-wage countries, with the consequent job losses. Furthermore, from a European perspective the non-cooperative character of this kind of measure could lead our European partners to adopt reciprocal measures, which would be detrimental to exports and employment.

The slogan "buy French" masks a refusal to see that the downturn is a global phenomenon which calls for a comprehensive response at the European level, and a refusal to consider a proactive industrial policy that takes into account the realities of supply as well as demand.

This is not just a matter of looking the other way. France is

undergoing a deindustrialization process that threatens its capacity for growth. But who can deny that this phenomenon has accelerated with the crisis and that this acceleration is set to increase as the general austerity measures and restrictions on bank credit further undermine domestic and European demand for consumer durables? Unless we are willing to accept that an entire segment of industry in France and elsewhere in Europe is destroyed, with no hope of ever returning, and with as a consequence still greater disparities between countries and sharper conflicts of interest, it is clearly urgent to support this kind of demand.

Is this kind of support "the solution"? Of course not: propping up demand will not be enough, as an industrial policy aimed at strengthening the supply side is also needed. The point is not to protect domestic production nor to promote the conquest of foreign markets through competition on taxation or social charges, but to stimulate investments designed to produce new goods and services, which is the only way to create stable jobs. Rather than try to rely on dubious slogans, the goal should be to consolidate production that has the advantage of being high quality in terms of design, safety and reliability, and which corresponds to what French and European consumers genuinely want.