# 1

# Reputed Authors in the Field of Territorial Economics



Economic thinking, which has developed gradually over the centuries, places more emphasis on the aim of studying the economic actors than their actual geographical environment. "To begin with, the territory had no independent existence at the heart of economic theory" [ZIM 08, p. 106]. It was as if the concept of territory was implicit and that there was no need to refer to it. Thus, in line with the assertion of liberal thinking (first classic and then neoclassic), the reference to territory disappeared gradually. As a matter of fact, it is present in the mercantilist works, with reference to the borders of the realm, or in those of the physiocrats, with reference to the land's production capacity. However, it almost disappeared in the classic works on the subject and was totally non-existent in those of the marginalists, who, however, developed economic theory during the 20th Century. Territorial economics is somewhat specific, compared to economic theory as a whole, having, on the one hand, developed when industrial capitalism became the dominant production model in Western Europe and, on the other hand, emerged within those countries which were in decline as compared to the two dominant economic powers from the beginning of the 19th Century, these being Great Britain and France. It was indeed in Germany that the foundational texts on territorial economic analyses were published,

particularly with the foundational works on the subject by Von Thünen and Alfred Weber. The only difference to this epistemological representation was Marshall, who, out of necessity, we will discuss in this chapter.

In the context of this section, we will present a short assessment of territorial economics. We will show that the territorial aspect of economic development has not followed a lineal course from ignorance to recognition. In fact, it has been quite the contrary. The re-emergence of the concept of territory at the end of the 20th Century falls within this historic trajectory. Economic thinking upon territory falls within a given economic, social, political, and intellectual context which contributes to structuring this line of questioning. As a consequence, we have differentiated the founding fathers of territorial economics (see section 1.1), encompassing the longest chronological time period (from the Ancient Greeks to the 20th Century) and contemporary theories (see section 1.2) which provides the broad outline of the almost exponential growth of the territorial economy since the end of the 20th Century.

## 1.1. The founding fathers of territorial economics

### 1.1.1. *The disappearance of the concept of territory*

In its etymological sense, economics (derived from the Greek term "oikonomia") is defined as "household management", the household referring in the ancient Greek lexicon to a landholding, or an economic entity, which is both geographically defined and situated. In the ancient Greek context, the economist refers to the one who manages this landholding, which includes those who live there (whether they be slaves, their wives, or children). In *The Economist* (published around 362 BC), Xénophon is full of advice for the maintenance of the land and agricultural work. He placed emphasis upon what has since been termed "innovation" to increase outputs.

There was very little economic analysis during the European Middle Ages, except for some authors such as St. Augustine (in the

4th Century) or St. Thomas Aquinas (in the 13th Century). However, only certain authors around the Mediterranean Basin were distinguished writers upon the subject. Thus, during the second half of the 14th Century, Ihn Khaldoum, who Marx and Engels subsequently identified as the pioneer of materialism, developed a multi-disciplinary social territory theory based upon a dialectic analysis between rural and urban order: economic development starts in the countryside (which is characterized by stability and the inter-dependence of social order). However, this situation evolves with urban growth where the inhabitants are, of necessity, corrupted by comfort and luxury which urban life offers. This evolution, denounced by Ihn Khaldoum, also follows the process of change from an economy based upon production (the countryside) towards an economy based upon trade (at that time the town). The town was identified as a place full of danger, luxury and vice. On the other hand, the countryside is a territorial area for production, based upon social relationships at local level.

The economics of the mercantilist era (between the 16th and the 18th Century) also implicitly defended the idea of territorial anchorage of economic activity as mercantilist thinking was orientated towards the defense of the realm's interests, and, as a consequence, of the territory, the main objective being to bring maximum wealth into the realm whilst only spending the minimum abroad. It was necessary to protect the realm's borders by two fundamental means:

a) war (expanding the territory and securing access to new resources);

b) trading but securing the physical integrity of the territory, by means of a protectionist policy, and promoting economic activity within the realm, by creating manufacturers by appointment to royalty. The mercantilist state structured the territory by its efforts, in particular with assistance from Vauban [CLA 08].

However, territorial analysis by the French and British mercantilists remained rudimentary, confusing political, legal,

economic and cultural spaces; "The notions of state, territory, market, and nation were, as a consequence, considered to be equivalents" [GAR 01, p. 25]. This was not the case in Germany where the concept of multi-dimensional space was at the heart of economic theory.

Physiocracy, the free-market movement which developed during the *Age of Enlightenment*, did not ignore the territory either. For the physiocrats, economic development was based upon two foundations: agriculture and free-market. The reference to territory is also implicit, taking account of the status afforded to agriculture. François Quesnay particularly placed emphasis upon private property and agricultural work. The economic development of the realm involved the development of large rural holdings, applying modern agriculture methods.

This theory was expanded in the thinking of Jean-Baptiste Say, who, known for his free-market ideas at the beginning of the 19th Century, developed an analysis of the economic role of the territory, which in some respects heralded the thinking of Alfred Marshall upon "agglomeration effects" or the "industrial atmosphere". Say explains how entrepreneurial activity develops much more quickly in a territory which is instantly active on the economic front. An entrepreneur can more easily do good business in Paris or London than in a village far away from these large urban centers. "A merchant established in a rich and populous town sells a much larger amount than one who sets up in a poor district, with a population sunk in indolence and apathy. What could an active manufacturer, or an intelligent merchant, do in a small deserted and semi-barbarous town in a remote corner of Poland or Westphalia?" [SAY 80, p. 58]. Then he adds, "(...) whilst in Paris, Amsterdam or London, in spite of the competition from a hundred dealers on his own line, he might do business on the largest scale possible. The reason is obvious. He is surrounded by people who produce largely in an infinite number of ways, and who make purchases, each with his respective products, that is to say, with the money arising from the sale of what he may have produced" [SAY 80, p. 58]. Wealth generates wealth through a

dynamic process. Say particularly emphasizes the role of urban areas where wealth and economic activity are concentrated. Urban centers are both the centers of consumption where "rich people" find what they wish to consume and the centers of production, as businesses locate their head office in urban centers. In addition, the capital, which is essential for setting up a business, is in circulation there. There is also the implied idea according to which a network of close relations is forged, as the capitalist who puts money into a business desires to monitor its use. In Paris, London and Amsterdam, there are shops, where nothing else is sold but the single article of tea, oil or vinegar; and it is natural to suppose that such shops have a much better assortment of the single article, than those dealing in many different commodities, all at once. Thus, in a rich and populous country, the middleman, the wholesaler, and the retail dealer each conduct a separate branch of commercial industry, and conduct it with greater perfection as well as greater economy. Yet they all benefit by this economy; and the fact that they do so, if the explanations already given are not convincing, experience bears irrefragable testimony; for consumers always buy cheapest where commercial industry is the most subdivided. *Ceterisparibus*, a commodity brought from the same distance is sold cheaper at a large town or fair, than in a village or hamlet" [SAY 80, p. 40].

This particular novelty in Say's philosophy towards the classics as a whole is undoubtedly linked to his personal experience in the early 19th Century as an entrepreneur in a rural agricultural region. During this time, Say faced a number of complications due to his distance from the main European cities [UZU 15].

The British classical writers in the field on the other hand, are at odds with these works. In their works which appeared when Great Britain was the "workshop" of the world, the global market constituted the territory. The international division of labor flowing from free trade took shape independently of territorial affiliation (in the national sense of the term). National territories were perceived as resource pools (of labor and arable land). This only took account of available and exploitable resources. The British classic writers in the

field thus very quickly imposed a model of economic development, intended to be universal, or a kind of turnkey recipe, which in all probability, would be used everywhere all the time. The theories of Adam Smith and David Ricardo upon international trade are particularly symbolic of this aim. Strictly speaking, the territory does not exist, except for the flow of trade between two sovereign nations, which only exist by virtue of their factor endowments (these being labor and arable land). On the other hand, the theory of profitability which Ricardo and Thomas Malthus opposed, and the underlying worry about the availability of obtainable resources, indirectly raises the issue of territory. Indeed, demographic pressure over a given geographical area leads to cultivation of less and less fertile land, which has a negative impact on work productivity.

The concept of territory suggested by Karl Marx is just as embryonic, not to say simplistic. Without shaping a theory around reasons for economic activity location in any geographical area, Marx suggests a relational theory between territory and capitalism. He writes in *Das Kapital*: "It is not the tropics with their luxuriant vegetation, but the temperate zone, that is the mother-country of capital. It is not the mere fertility of the soil, but the differentiation of the soils, the variety of the natural products, the change of the seasons, which form the capital basis of the social division of labour, and which by changes in the natural surroundings, spur man on the multiplication of his wants, his capabilities, his means and modes of labour" [MAR 67, p. 362]. The structuring role of nation states is also hammered home in the *Communist Party Manifesto* (1848), closely related to *Capital*'s dynamics.Karl Marx and Friedrich Engels write to the effect that the *bourgeoisie* created the global market and that Dialectically, the development of capitalism relies upon negation and affirmation at national levels. However, apart from these considerations, Marx and Engels only granted economic geography a minor role in their global representation.

From this era and whatever the school of thought, whether free-market or heterodox, the territory is no longer a dimension which has been largely forgotten by economists. The model of "perfect competition" indeed ignores the geographical and historical economic

realities fundamentally. In an article published in 2008, Georges Benko [BEN 08, p. 24] makes reference to this state of affairs, recalling Marshall's words upon this matter: "The difficulties of the problem especially relate to the relative differences in space and time over which the market in question extends, the influence of time being more fundamental than that of space." Benko continues with the issue thus: "Curiously, although man has always lived within spatial areas, economists have for a long time ignored this evidence. Their works fall within a 'Wonderland of unquantifiable proportions – space per se is irrelevant.'" Indeed, for economists, spatial areas would simply contribute to the realism of models, adding nothing to their predictive powers. Benko stresses that distance has thus been perceived a little dialectically by economists, having both negative and positive aspects. Distance is a constraint as it increases costs, delays and transport risks. Moreover, the merchant who knows the routes unknown to his competitors grows richer by controlling the supply of diverse resources. Distance is also an advantage removing actual or potential competitors.

Seeking an explanation to this question, Benko lists various explanations, which for all their having been frequently spelled out, seem to him nevertheless unsatisfactory. He underlines implicitly that classic British thinking was only a type of parenthesis with regard to what happened before and after. He thus emphasizes that "between the 16th and 19th Centuries, the realities of space were perceived through the divisions of the latter (in political and religious units), use of the soils within agriculture, means of communication (road networks and waterways), traffic (tolls, customs, and borders), trade flows (at local, national, international levels) and the presence of industries" [BEN 08, p. 25].

From the end of the 19th Century, a change occurred. Economic theory became "territorial" afresh in response to over-simplifications of the marginalist model based on methodological individualism and competition, pure and perfect (Figure 1.1).

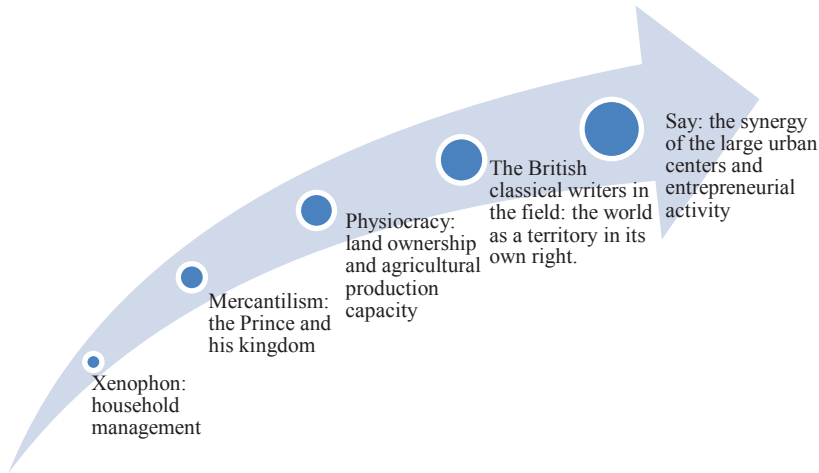


**Figure 1.1.** *The infancy of the territorial economy*

### 1.1.2. *The precursors to territorial thinking; distance and organization of economic activity*

Faced with the Universalist and universalising upsurge which is peculiar to a vast majority of economists, some of these stood out as putting together atypical analyses. The object of this chapter is to present the most important of them, in particular those of Johann Heinrich Von Thünen and Alfred Weber. Their analyses complement each other. The first concentrates on the subjects of production and trade in agricultural goods while the second concentrates on industrial products. The theories of Johann Heinrich Von Thünen and Alfred Weber on the economic role of the territory falls into a long historical tradition of German political economics, which has since the 17th and 18th Centuries placed the territory at the heart of its thinking. The first German analytical economic works in effect distinguish three levels: local (agricultural production, workshop production or industrial production), the relationships between economic actors (for example, traders and the state) and international, which refers to commercial relations with other states [GAR 01].

The German sociologist and economist, Johann Heinrich, was a member of the German Historical School and was described by Walter Isard [ISA 56] as the unquestionable and undisputed reference for regional science and spatial economy, as the founder of location theory. Indeed, Von Thünen is the author of a key work on the subject *The Isolated State Engaging with Agriculture and the National Economy*, which was published in 1826. He expounded upon a model designed using concentric circles starting with a central core, of which a market town is located at the center. Economic activity does not develop in a homogeneous and regular way within this territory, but according to transport costs, quality (perishability) of agricultural resources, livestock products, and trade. Economic activity on the outskirts of the town, according to a given economic behavior as per transport costs, which depends on the distance and the product between the place of production and the place of consumption (Figure 1.2).

The German sociologist and economist Alfred Weber, whose views were at the confluence of the German Historical School and neoclassic theory [LAM 08], puts together in the Theory of Industrial Location, published in 1909, the triangle for industrial location according to the costs of the necessary raw materials and energy needed for the industry concerned. Alfred Weber's approach falls directly within the social sciences' domain by combining their respective economic, sociological, historical and geographical approaches. Indeed, it is highly linked to an intellectual circle composed, among others, of his brother Max but also Joseph Schumpeter and Werner Sombart. In Location Theory, he distinguishes so-called "techno-natural" and "socio-cultural" factors [LAM 08, p. 60] whilst other factors are clearly technical (such as transport costs) or indeed, natural (for example, climate). Still others depend on the social and political system, such as the differences in interest rates and profit. He also takes into account the cost of labor, which not only depends on natural conditions (for example, race and heredity), but also on the social and cultural backgrounds (such as standard of living and education).

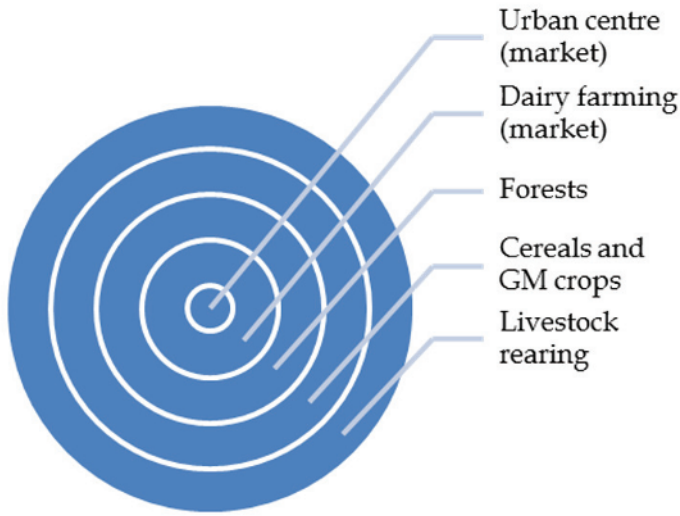


**Figure 1.2.** *Von Thünen's model*

Weber's analysis on the location of industrial activities has its natural place within this work on entrepreneurial ecosystems because of the role assigned to the entrepreneur. Weber develops his analysis of location by the empirical study of industry location in Germany between 1865 and 1895. Starting with this study, he draws from it a set of fundamental principles. An entrepreneur who decides to set up a business must take account of different elements so that he reduces his production costs. Weber uses the example of cast iron production: the entrepreneur needs coal, iron ore and limestone. He will thus consider the best factory location. Three elements are, therefore, taken into consideration by the entrepreneur: the coal (for energy), iron ore mineral, and the market (for sales). His theory was founded on three basic premises:

a) a large number of materials have a specific location. Entrepreneurs cannot find them everywhere (except for water and air which are considered to be "ubiquitous" materials, that is to say that you *can* find them everywhere);

b) the markets for the finished products are located at certain points and the competition is perfect;

c) the labor pools are localized and can offer an unlimited number of workers a particular rate of pay.

The geographical space is totally uniform in terms of cultural, political and spatial factors. Thus, Weber's three factors influence industry location: a) two regional factors (transport and labor costs) and b) one local factor (agglomeration forces). Transport cost is the most important factor. In Weber's triangle two summits represent the supply points for two raw materials (the examples of iron ore and coal) and one stage the demand for the finished product. The workforce is ubiquitous. Weber calculates an index which is the relationship between inputs (those which are not located everywhere) and outputs (the market, customer base etc.), as Figure 1.3 shows.

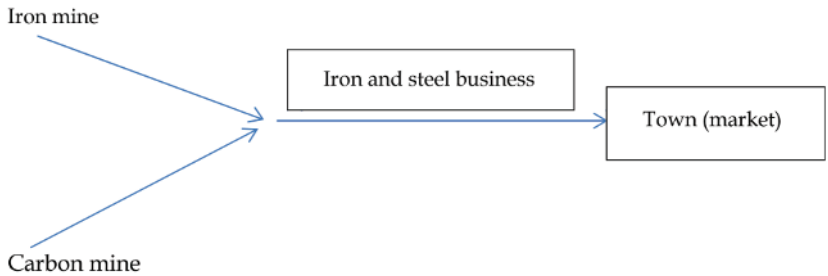


**Figure 1.3.** *Alfred Weber's model*

Weber thus also constructs a model where a population arrives in a hypothetical new and empty country, creating an isolated economic system, the development of which he analyzes. His objective "is to determine if what he had considered as a hypothesis in his first theoretical idea (location of markets, deposits and the labor pool) can be explained by the pure theory" [LAM 08, p. 62]. Weber's view is that this applies to all variables, except the labor market. On the other hand, what shows that his model works is explaining the location of businesses with respect to location of raw material resources and as a consequence, the transport costs that flow from it. These are the raw materials which play a determining role in the location of businesses

within a given territory. However, in some way, Weber falls back upon the marginal abstraction concept (by starting with a new and empty country). By the same token he removes everything which makes up the territorial identity, or its history and culture, elements which, on the other hand, economists of the 20th Century and more especially in the 21st Century take into consideration (Figure 1.4).

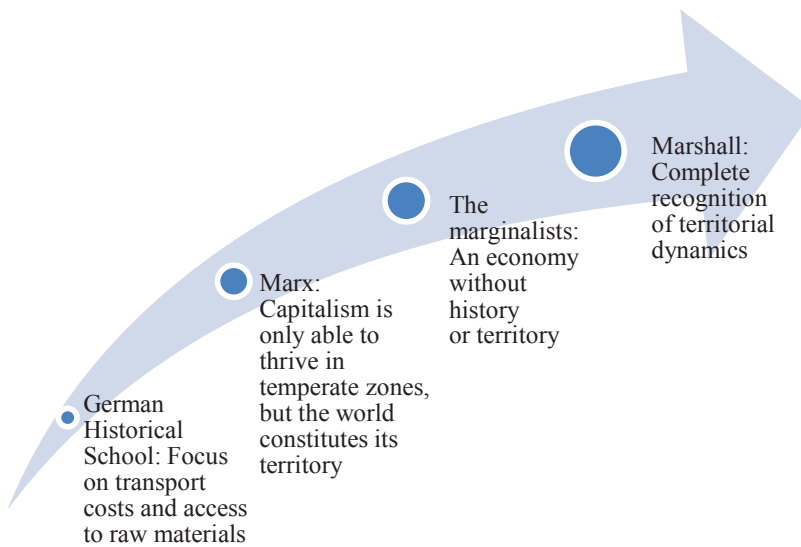


**Figure 1.4.** *The foundations of the territorial economy*

### 1.1.3. *The founders of economic analysis from the territory to growth poles*

A critical interpretation of the marginalist model led to major advanced theories in connection with economic analysis of territory. Alfred Marshall completed pioneering analysis of "agglomeration effects" and "industrial districts" and upon dialectic relationships based upon competition and cooperation between firms concentrated over the same spatial area. During the 1960s in particular this gave

rise to the works of François Perroux upon industrial growth poles, whose effects were significant particularly upon the spatial organization of the French economy, but also within a number of other industrialized and developed countries. As Marshall does, Perroux shows that the economy does not develop in a homogeneous way within a territory. Whilst the state is certainly no stranger to this situation, it is far from being the sole influential factor.

### 1.1.4. *Marshall: agglomeration effects, industrial atmosphere and industrial districts, fundamental elements of an economic interpretation of the territory*

The British neoclassical economist Alfred Marshall greatly contributed to the evolution of territorial economic analysis by the end of the 19th Century. He thus elaborated concepts which have practically become common terms, such as "agglomeration effect", "industrial atmosphere" or "industrial district" amongst many others. Although of the free-market school of thought, Marshall thus, challenges market coordination peculiar to marginialist economists. He strives to uncover market weaknesses, considering that spatial issues are neutral and have no influence upon economic phenomena. Marshall certainly occupies a particular position amongst economists as Blaug [BLA 81] emphasizes stating: "*The Principles of Economics* by Marshall is the most long-lasting and viable book of the entire history of economics." He emphasizes that "it is the only work on 19th Century economic theory which we still see hundreds of examples of a century later" [BLA 81, p. 493]. In some ways, with the perpetuation of general works (not upon the subject of territory) by the German School of History, the analysis of territory by Marshall comes under a historic view of economic development. Indeed, "the district opens up reflections upon temporal-based relationships, memory effects, the dynamics of irreversibility, in other words long-term dynamics" [LEC 93, p. 205].

Marshall's contribution in relation to the neoclassical model cuts across many levels. For a start, the market does not thus behave, indubitably taking into consideration reciprocal player satisfaction, as the concept of "external economies" or "externalities" (both positive

and negative) demonstrates. These were subsequently developed by A. Pigou. We can define this by an economic situation where an agent is favored (or on the contrary penalized) by the commercial activity of a third party, without the agent having to pay any money. However, market operation is not solely governed by competition rules.

By taking this position, Marshall challenges the view of the marginalists who do not take account of historical and geographical factors. He thus develops an analysis of technological progress, which rests, on the one hand, on "the specific nature of human resources which expresses the reality of a localized training process". On the other hand it rests upon "an organizational context characterized by non-market inter-dependencies and means of productive organization, at an intra- and inter-firm level, and of a cooperative type. The innovation process is thus understood as a sequential collective learning process, falling within a specific creative approach with a particular productive context" [LEC 93, p. 207]. If the Marshallian district is made up of a highly marked sector-specific content, a wide range of complementary economic activities are built around the prevailing activity. These participate in the development of a vast network of close formal and informal relations. However, whilst Alfred Weber ponders the specific issue of the labor market, and indeed favors the issue of raw materials by other competitors, Marshall compellingly emphasizes the reality for businesses of a place-based management approach to the work force, "(…), in all but the earliest stages of economic development a localized industry gains great advantage from the fact that it offers a constant market for skill. Employers are apt to resort to any place where they are likely to find a good choice of workers with the special skill which they require; while men seeking employment naturally go to places where there are many employers who need such skill as theirs, and where therefore, the employer is likely to find a good market" [MAR 20, p. 198].

Marshall crudely distinguishes between "internal economies" and "external economies". He superficially defines external economies as those which stem from general industrial development. On the other

hand, internal economies depend on each business' own resources. He shows that economies of scale can derive from "external effects" (or externalities) produced by the context in which the production system fits and from which business located in the territory can naturally benefit. External economies explain both firm location in the same area, as well as the overall efficiency of a district, which generates advantages by being close by. The external effect concept (otherwise known as an "externality") encompasses the idea that the nearby presence of a given number of firms contributes to reducing their respective production costs. Beginning with this approach, Marshall stresses the importance of forms of industrial organization constructed within given territories and the fundamental role played often by aspects of industrial culture, industrial atmosphere, which cannot be quantified and evidence of the existence of some non-commercial relationships between economic actors (examples being cooperation and non-competition). He says, "The mysteries of the trade become *not mysteries*; but are as it were in the air, and children learn many of them unconsciously. Good work is rightly appreciated; inventions and improvements in machinery, in processes, and the general organization of the business have their merits promptly discussed: if one man propounds a new idea, it is taken up by others, and combined with suggestions of their own; and thus it becomes the source of further new ideas" [MAR 20, p. 198]. Thus entrepreneurs, including small-timers, have the means to exploit more resources from their environment than they could otherwise bring into play within their own organization, given the small size of their business. Indeed, atmosphere phenomena consist of emulation, the rapid spread of progress and the means to allow agglomeration. In a reduced spatial context, efficient communication is made easier, more information allows the small entrepreneurs to survive and to compensate, at least partially, for the internal savings of large firms [AYD 65, p. 949].

The main significance of Marshall's territorial analysis is to show that economic development cannot be reduced to the commercial relationships between customers and suppliers. However, such development also involves a range of non-commercial and cooperative business-to-business relationships. These may also allow exploitation

of resources from the territory which businesses themselves do not have. Large and small businesses, without being on an equal footing, participate in the same dynamic industry. These are known as the synergetic effects between actors, which generate economic wealth in some territories in preference to others. On the other hand, this pattern of territorial development does not include institutional intervention. It is the product of endogenous development, which rests exclusively upon decisions taken by firms.

However, it is appropriate to adjust positive conclusions of industrial districts, which are frequently promoted in Marshall's analysis. In the latter case, the district is not a magic formula for territorial development [DAU 14, p. 14]. Marshall is very aware that there are a series of limits. As a matter of fact, a district which is dominated by a single industry has some weaknesses. It cannot provide work to the entire population and is subject to raw material or end product price variations. Furthermore, handicaps arising from location do not always make up for small business weaknesses. In addition, a district may disappear with the development of integration as it inevitably carries a risk of "weakening the links" with the territory. "Finally, with the progress of communication means and trade, external cost advantages see their significance reduced in favor of internal cost advantages, or cost advantages even develop on a national or international scale rather than local, which tends to reduce the importance of industrial location" [DAU 14, p. 14]. In other words, if the industrial district has a history, this history is a continual work-in-progress. Factors, which were once the engine for the development of the district, are susceptible, in the medium to long term, to becoming a weakness. This idea is highly significant at a time when policy makers, as much at local as national level, are seeking what one might label enduring economic policies.

### 1.1.5. *Hotelling's law and straight-line competition*

We can identify some of Weber's concerns in Hotelling's model. By the end of the 1920s, as part of an ongoing reinterpretation of the marginalist model, the American economist Harold Hotelling [HOT 29]

published an article in the *The Economic Journal*: titled "*Stability in Competition*". In this paper, he sought to identify a relationship between establishing the price of homogeneous goods, the market dimension, and the location of two sellers of this particular product. Without questioning either perfect competition or methodological individualism, Hotelling explains how two firms set up in a straight street, attract the maximum customer base, and as a consequence, fix the item's sale price. Unlike Marshall's model, Hotelling rejects the idea of cooperation between the two economic entities and instead favors the existence of competitive relationships between economic actors. A straight line represents the market. Buyers are distributed along the line on a uniform basis. Under some conditions, of which the main one is perfect inelasticity of demand, Hotelling demonstrates that optimum locations for duopolists will be at the center of the market. This result is known as Hotelling's law. In other words, it shows that two sellers who are entirely mobile within a given geographical space, tend in the end, to be located next to each other, resulting from their respective efforts to maximize the size of their individual markets. However, two firms may be close geographically without developing cooperative relationships. Hotelling's law anticipates that if two firms are competing in the same street, they will thus tend to set up towards the middle of the so-called axis. From a social standpoint, it would be more advantageous if the two firms were not next to each other. Each one could thus attract part of the customer base. However, neither of the two owners is likely to take the initiative to set up at one end of the street, as that could allow the other shop to set up in the middle of it and acquire half of this sector's market share.

Moreover, Hotelling's law falls within the pattern of analysis of Marshall's agglomeration effects with businesses being geographically closer, all things being equal. However, these agglomeration effects do not engender cooperative relationships between firms clustered in the same territory, firms wishing to both preserve and grow their respective market shares.

### 1.1.6. *Perroux's growth poles*

Soon after World War II, the emphasis was placed upon Keynesian interventionist public policies. Thus, economic growth between 1950 and 1970 rested upon two pillars, standardized mass production of manufactured goods and mass paid employment. Post-war reconstruction required states to develop into "entrepreneurs". It was the era of economies of scale and rationalization of industrial labor. "The success of Keynesian economics favored the global analysis of economic cycles. The significance of spatial distribution was, once again, at the forefront of analysis. Post-war political and economic bolstering allowed Keynesian concepts to come into play. National economic spatial uniformity became a priority in developed countries. The period also saw the beginning of regional planning. This might be defined as the geographical application of Keynesian economics" [BEN 08, p. 31]. Drawing upon Marshall's agglomeration economics, economists wrote papers about growth poles in the context of regional planning policies. The so-called *Trente Glorieuses*[1] was also scientifically marked by the emergence of so-called "regional science", owing to the pioneering work of the American economist Walter Isard [ISA 56] who very quickly became an authority in this field. In 1954, Isard created the *Association Internationale des Sciences Régionales*[2] [DUE 11, p. 741]. For Claval [CLA 08], it was a case of the first transformation of economic theory toward the regional territorial study.

In France, the *Association de Science Régionale de Langue Française (ASRDLF)*[3] was created in 1961 by three economists, François Perroux, Jacques Boudeville and Walter Isard [BEN 08, p. 32]. Co-incidentally, 1947 was also the year that the celebrated work of Jean-François Gravier was published, *Paris et le Désert Français*[4], which identified the political concerns about national regional planning. However, this question goes back as far as 1942; at Perroux's request, by means of the publisher *Presses Universitaires de*

1 French term for the thirty-year post-war economic boom years.
2 International Association for Regional Sciences.
3 The French Language Association of Regional Science.
4 *Paris and the French Desert*.

*France*, Gravier had already published his collection, drawing upon the "*Bibliothèque du Peuple*"[5] collection, a work entitled *Régions et Nations*[6] [COU 03, p. 85] which identified these questions. Perroux's collection drew upon literature that analyzed the historical development of countries. With the rebuilding process, from 1950 onward, the question of regional planning thus became a prominent political and economic problem in France. Within this particular context at the beginning of the 1960s, two iron and steel manufacturing sites were created, at Dunkirk (in the north of France) and Fos-sur-Mer (in the south of France).

François Perroux, a French economist, critic of the marginalist model and also of methodological individualism, sought to develop a theoretical pattern in which economic actors were anchored in history. Such players have a past and are not indistinguishable, as the marginalist analysis suggests. Likewise, he challenges the neoclassical truism of territorial neutrality. Perroux's research program on territorial economics started with the publication of a pioneering article in 1950 titled "*Les Espaces Économiques*"[7]. The history of this article is highly remarkable as Perroux had, at first, published it in English in *The Quarterly Journal of Economics* under the title "*Economic Spaces: Theory and Applications*" in February 1950. This article was also the subject of a public debate on 2 November 1949, in Walter Isard's presence [COU 03], which is evidence of the significance of the question of territory as a research theme in academic circles at the time, in line with political concerns. In France, Perroux was thus the first economist to introduce the concept of territory into economic analysis.

However, Perroux's concept of territory has no or few similarities with the geographical or physical dimension. In this sense, he presents numerous similarities with the prior pioneering analyses. In Perroux's terminology, a territory is an abstract entity, which is

5 This translates in English as "Nation's Library".
6 Regions and Nations.
7 Economic Spaces.

primarily defined by its economic dynamism, and secondly, as far as geography goes, by given geographical frontiers. Starting from this point, Perroux establishes a territorial classification according to the means of analysis of the researcher and his objectives. For Perroux, there are thus three types of economic space: space as a homogenous ensemble, space as a force field, and space as the content of the plan. Perroux explains his idea, giving the example of the firm. On the one hand, the latter is involved in a homogenous economic space which can be defined specifically, for example, by a pricing unit. On the other hand, the firm releases both centripetal and centrifugal forces, which are a manifestation of its influence; the field which these forces make up is the second type of economic space. Lastly, all of the firm's relationships with output buyers and input suppliers constitute its physical space [BEG 63]. The geographical space is described by Perroux as "banal space", which he defines as including all sites but with which he does not confuse geographical space. For example, to locate a business in a given geographical space, it is insufficient to know its geographical coordinates. Other elements must be taken account of: whether is it an urban or agricultural space, characterized by demographic structures, and by given social and economic characteristics. Yet, Perroux regrets that economists generally remain in the banal space, without taking into account the economic, social, political and cultural characteristics which give its identity. Perroux defines the economic space of the firm as "the content of a plan", or as "all of the relationships between the firm, its suppliers and buyers. This geographical space has no similarities with the banal space, and is not subject to any geographical representation" [COU 03, p. 31].

The definition of these different types of geographical areas is significant in Perroux's economic analysis, as the latter states that economic growth is apparent at specific geographical points or "growth poles" having variable intensities. Economic growth spreads through different channels and with varying ultimate effects across the whole of the economy. It does not therefore happen simultaneously everywhere. It is area-specific, dynamic, and develops according to the region's spatial, industrial and urban framework. As he says, "Growth does not emerge everywhere at once. It manifests within

growth points or poles with variable intensities. It spreads by different channels with ultimate varying effects for the whole of the economy" [BEN 08, p. 33]. Regional growth depends on growth which takes place in urban centers and the growth development throughout the region. There is no national mechanism for economic growth. National growth only depends on regional economic performance, as the latter is linked to that of the urban centers, of which, it is comprised. Some firms, by virtue of their size or their position within the production system, are able to play a dominant role. The stimuli that they are able to send out also forces reactions from independent production units, which will tend to intensify the initial stimulus. Perroux believes that, as a consequence, the economy is fundamentally organized into a hierarchy, which is not the case with perfect competition, due the hypothesis of the atomicity of the market (a large number of consumers and a large number of producers). By means of external cost advantages (financial and especially technological), economic growth spreads from an innovation which is introduced by a "power unit". It is also by this means that the theory of "growth poles" takes on a spatial dimension. Indeed here, external economies are agglomeration economies, which clearly evidences two opposing phenomena; that is those of clustering and dispersion. Perroux puts the emphasis on dominant relationships and the influences that some businesses are able to exert over others. Supply structure is not market atomization but the contrary. Supply is structurally organized in an economic space marked by asymmetrical relations. Perroux defines a growth pole almost tautologically as a "growth point" [BEG 63, p. 581] which is located in an economic space from where forces emanate and are absorbed simultaneously. A growth pole cannot be directly linked to a given site. It is defined as "all of driving forces which exert knock-on effects with regards to an entire economically or territorially defined space" [PER 61, p. 115]. In summary, agglomeration economies offer comparative advantages in terms of productivity that a region is able to procure for a firm (or a group of firms), compared to another region. They are traditionally divided into two categories:

a) location economies linked to industrial concentration. These involve cost advantages which are external to the firm but internal to the localized industry;

b) Urbanization economies linked to population concentration and other activities within the urban environment. They involve cost advantages which are external to the industry to which the firm belongs [CAT 97].

## 1.2. Contemporary theories

From the 1970s onward, the theory of territorial economics returned to its Marshallian origins; between the end of World War II and the beginning of the 1980s, states thought exclusively in terms of national development due to big business development which structured the local geographical area, as made evident by Perroux's growth theory and the policy of regional reorganization which occurred during that period. On the other hand, from the 1980s onward, the situation changed radically after the years (1950–60) of unprecedented economic growth. The motors for Keynesian economic growth seized up. Regions, which had built their prosperity by specializing in heavy industry in the United States and in Europe, were affected heavily by the crisis. Moreover, these major changes affecting industrial countries were, in part, linked to a new international division of labor and new relations between industrial and developed countries. The emergence of the Asian tiger economies was the result of multi-national corporates' choices of industrial relocation partially, such corporates at that timehailed mainly from industrial countries. The phrase "territorial turning point" was in vogue then [PEC 97, PEC 04], as territorial development was perceived as the result of a specific endogenous process which was not stimulated by outside forces. Thus, "in the end, the territory ceased to be a dormant framework so as to become a genuine production factor" [DAU 14]. The end of 20th Century also marked the emergence of new theories regarding the urban center's place and its role in economic development, from Richard Florida's creative class, to Tim Hall and Phil Hubbard's (1996) idea of the entrepreneurial city to the sustainable city, from which ensued the UN concept of sustainable development.

### 1.2.1. *The Italian district*

By the end of the 1970s, the magic Keynesian formula was obsolete. Economic growth slowed down significantly and unemployment increased considerably in industrial countries. The global economy was in a period of change and the balance of power between countries evolved. The Fordist model based on large-scale industrial units and mass labor was in crisis. A new interpretation and analysis of territorial development took shape with this period of certainty ending. For numerous economists the economic slowdown was not linked to the present economic climate but was, in fact, structural and that the return to prosperity would require radical structural change, including some at the level of the economic role attributed to the territory. The most symbolic work of this period was that of Michael Piore and Charles Sabel on the need to go beyond the Fordist model and challenge the mass production model in general. This took the form of *The Second Industrial Divide*, published in 1986, where the authors put forward the advantages of a flexible specialization. Their contribution is fundamental as they interpreted the success of industrial districts, through a single case study drawing upon a broader trend [BEN 07]. Large firms restructured by adopting flexible technologies, decentralizing their activity (favoring outsourcing), and collaborating with other firms. On the other hand, local networks of small and medium-sized enterprises (SME) expanded. There was therefore a reconciliation of the two forms of industrialization and not a conflict, as had previously been thought, which also led to a new interpretation of the specific organization of production activity. However, the issue of industrial districts emerged genuinely by the end of the 1970s, not owing so much to the decline in the old industrial regions, but more through the unforeseen and spectacular successes of the "Third Italy's" productive micro-systems. The founding work in this regard was Arnaldo Bagnasco's *Tre Italia. La problematica territoriale dello sviluppo italiano*[8], published in 1977. Numerous works followed with those of Giacomo Becattini topping the list. The latter shared Marshall's idea according to which high concentration of specialized businesses within the same territory

8 This translates as "The Third Italy. The Territorial Problem of Italian Growth".

creates positive externalities. However, the district was, above all, for Becattini, a socio-economic reality. He speaks of the territory in terms of a "socio-territorial entity". Becattini emphasizes osmosis or symbiosis which occurs at territorial level between firms on the one hand and the local community on the other. From this follows a reinterpretation of the industrial atmosphere. For Marshall, it is exclusively the product of local accumulation of knowledge, whilst Becattini defines it as "all of the conditions which create social cohesion and common values within the local population, like all of the relationships between actors within the territory which make this collective learning possible" [DAU 14, p. 14]. The difficulty of quantifying this territorial socio-economic reality facilitated highly varied interpretations of the Italian district phenomenon. There is an evident difficulty in the assessment of qualitative rather than quantitative reality. It is, however, important to emphasize integration of the territory in economic theory which has allowed account to be taken of the dimensions that economists have had enormous difficulty appreciating, such as cultural, social and familial and religious dimensions [LAC 96].

From the Italian district of Becattini a wide variety of concepts translating this condition from local, economic and social dynamics were born. Such concepts included "the territorial system of production", "the local or localized system of production", skilled regions (or learning regions), "the innovative environment", "the local industrial system", etc., which in turn were the subject of more or less complex sub-typologies, highlighting specific phenomena. Whatever the definition and interpretation given to these territorial economic phenomena, their discovery contributed to dispel the myth of the large firm, and its corollary, the inevitable disappearance of the small firms. This increase in the number of concepts is not necessarily fruitful, as one comes back to defining a concept in each case study carried out, which runs counter to the scientific approach. However, whilst Marshall's works led to emphasize the history of districts, Daumas and Lescure [DAU 14] considered that the latter neglected district analysis in the modern sense of the word, as the fact that districts are born, live and die, and are possibly reborn, is played down. In addition, particular account should be taken of the current dynamism

in districts, which rests upon very ancient roots, often from long before the Industrial Revolution. The conditions for pre-industrialization cannot be underestimated as they contribute to creating technological-economic trajectories frequently, by feeding the dynamics of productive specialization.

In France, institutional recognition of the industrial district dates back to the publication of a work in 1992 by Benko and Lipietz which stood out, *Des Régions qui Gagnent*[9], then in 2000 *La Richesse des Régions*[10]. The 1992 work contributed to the spread of Becattini's argument, although numerous French research works are much older, and date back to the 1980s, with for example the works of Pecqueur and Courlet. Thus, as with Marshall, some decades later, the territorial economy is linked to the industrial economy.

### 1.2.2. *The innovative milieu of the* groupe de recherche européen sur les milieux innovateurs *(GREMI)*[11]

The *Groupe de recherche Européen sur les Milieux Innovateurs* was constituted in 1984 by Philippe Aydalot, and subsequently in 1986 was turned into an association [TAB 05]. When first established, it brought together around twenty European and North American researchers wishing to study the relationship between technical and territorial innovation. For Aydalot and GREMI, innovative business does not pre-exist in local milieux but is exhibited by them. Innovative behaviors essentially depend on local and regional variables. GREMI also places emphasis on territorial history, but also on territorial capacity to bring about a joint project; the consensus which provides a structure for the project is the root of innovation, in line with the concept of the Marshallian industrial atmosphere. The terminology used also develops, as it is no longer a question of "territory", but "milieu", in order to emphasize the existence of collaborative relationships between actors and integral components of the environment. GREMI also puts forward the hypothesis for the

9 *Winner Regions*.
10 *The Wealth of Regions*.
11 European Research Group on Innovative Milieus.

determining role played by innovative milieus as incubators of innovation. It is therefore no longer a question of territory but milieu. An innovative milieu is "a territorialized grouping in which interactions between economic actors grow through learning achieved within multilateral transactions which are generated from externalities specific to innovation and through the convergence of learning towards more and more successful forms of joint resource management" [MAI 93, p. 6]. Behind the term milieu are highly varied situations: the milieu may or may not be specialized, unlike the district, which by necessity is indeed specialized. Furthermore, GREMI emphasizes the importance of close links between territorial actors, which may be both small and large firms, via the innovative networks that they implement. An analysis, often used, states that big firms do not necessarily behave in a nomadic way, seeking raw materials and the lowest cost workforce, while also searching for territorial anchorage [ZIM 98]. However, if the milieu even exhibits, by its terms, an evident simplicity, it constitutes a relatively complex reality, which includes a large variety of both actors and variables, such as for example, local political institutions and local culture.

GREMI's theoretical context is very close to the Italian industrial districts, the French School of Regulation, the University of California and the evolutionary trend of industrial economics. GREMI carried out several research programs aiming to study the role of local innovation factors in relation to external regional factors by triggering business innovation. Innovation may take many forms. It can arise from industrial reconversion, be the product of firms, which came before redeploying know-how, or it can flow directly from the research etc. In these various cases, several spatial processes are apparent; the process of break and continuity (the territorial capacity to implement change, on the basis of knowledge and know-how), or the capacity to attract outside businesses owing to amenities and local externalities. These processes may also be evident through a process of new focus upon science or newly created businesses establishing advantageous links with research institutions – major knowledge creation centers [TAB 05]. The GREMI team thus defines several ideal types using these various criteria.

GREMI emphasizes territorial history which influences its evolutionary trajectories. History conditions the development of know-how, rules, relational capital and outward orientated development. Constraints inherited from the past often limit developmental scope, owing to the existence of routines and behaviors that are difficult to change. In this sense, two concepts are fundamental; the lifecycle of the milieu and change management. The first refers to an endogenous process within the environment. On the other hand, the second may be caused by external forces. Institutional change may thus take three different directions:

a) increasing milieu complexity and increasing diversification within the milieu;

b) formation of a hierarchy within the milieu with dominant and dominated firms, etc.;

c) external milieu connection either with an external or an internal center of gravity [TAB 05].

### 1.2.3. *The regulatory approach*

The regulation theory [DUE 11] developed its own territorial approach around innovation systems and influenced the theory of spatial proximity very strongly (Bellet, Courlet, Maillat, etc.) in conceiving local production systems (LPS) and the University of California (such as Harrison, Scott, Storper, etc.) within the conception of new industrial spaces. Several arguments and regulationist theories were published in the works written in 1992 and 2000 by Benko and Lipietz.

These authors all have in common the hypothesis of the crisis in the Fordist accumulation regime and study flexible means of accumulation in response to the Fordist model being in crisis. In particular, they seek to understand how the global economy is rooted in historic territorial structures, in short, how the global economy feeds off the local one and vice versa [VEL 96]. Bernard Pecqueur [PEC 97] states that the territory becomes a source for specific asset creation as it allows, thanks to relations of proximity, the opportunity

to create conditions which provide a necessary focal point to coordinate initiatives. In Denis Maillat's view [MAI 95], the territory cannot be reduced to simply supporting the so-called location of location factors (qualified workforce, research centers, means of communication, etc.), but as a collection of territorial actors, economic, socio-cultural and institutional elements possessing means of specific regulation.

The research programs of Georges Benko and Alain Lipietz are fundamentally multi-disciplinary. Their objective is to build a new socio-economic geography by combining economics and sociology to understand territorial development. They question the new means of territorial organization which can replace the fundamentally Fordist organization (growth poles). They criticize Krugman's analysis which is exclusively based on economic territorial analysis. For Benko and Lipietz, it is necessary to take account of all aspects which are relevant in territorial definition: its past (history), relationships between banks, firms, regional and local authorities, etc., in short, the representation of contemporary capitalism at territorial level. These works are heavily influenced by the School of Regulation which defends the idea of a co-construction between politics and economics, which participates in building an "accumulation regime" (a production system) and a "social means of regulation" (a structure for political governance). In the context of these concepts, Leborgne and Lipietz [LEB 92, p. 40] have developed a highly critical analysis of post-Fordism emphasizing that "Fordism played a strong role, as the dominant post-war development model for economic recovery during that period". They stress, amongst other things, that a development model should not be reduced to a technological paradigm. Fordism is not limited to mass production and post-Fordism to flexibility. On the other hand, if this tendency for flexibility may be confirmed, this does not signify a lack of tough power relationships, as was the case with Fordism. In fact, it is quite the reverse.

### 1.2.4. *Theory of transaction costs devised by the University of California*

Furthermore, the University of California, impressed by urban growth within in particular Los Angeles, came to similar conclusions, with regard to the demonstration of the agglomeration effect, all things being equal. Whilst adopting a different theoretical framework, by starting from Coase-Williamson-Scott's theorem, by which industrial organization rests upon a comparison of a firm's internal organizational and transaction costs between firms. Fordist integration of large businesses was replaced by grouping together small businesses within the agglomerations. Businesses seek a center of gravity which allows them to:

a) reduce transaction costs;

b) increase the speed of information flow;

c) reinforce the means of social solidarity which are, indirectly, the effects of the so-called industrial atmosphere. Non-commercial factors have become determiners of public policy as they allow the development of localized competitive advantages. The authors also emphasize the importance of history. A common thread that these authors share with Porter is studying the same territory, California, but the territorial dimension is far less evidenced by Porter than with the University of California. In Porter's analysis, territory is a form of *alibi*, but it does not make up the central element from which the author forms his reasoning.

The work published by Storper in 1997, *The Regional World. Territorial Development in a Global Economy*, is one of the pioneering works of the University of California. It places emphasis on the existence of dialectic relationships between, on the one hand, both local and territorial factors and the global economy on the other. It is expanded upon in a 2006 article co-written by Scott and Storper. This text places emphasis upon the urban phenomenon. Urban areas are shown as favored areas for economic growth "(...) they achieve cost advantages from which stem the other cost advantages through high capital-intensive infrastructures (...) permitting the achievement of significant economies of scale in given places. To this obvious

factor, we should add three other groups of phenomena which not only complete but intensify the effects (...):

1) the dynamics of upstream and downstream links of firms in industrial systems;

2) the establishment of dense labor markets around numerous workplaces;

3) the emergence of localized relational assets which favor learning and innovation outcomes."

By coming back to transport and communication costs, Scott and Storper emphasize that although they have declined over time, these remain an important element of firm location. They stress that improvements in this field "have nearly always reinforced spatial concentration of economic activity by increasing the market scope of any given center and contributed to releasing new waves of specialization in existing urban areas" [SCO 06, p. 175]. Numerous business-to-business transactions can occur over long distances. In practice, one observes that the transmission of complex and equivocal messages takes place face to face, being based on trustworthy relationships. Like Say, they stress the advantage of dense agglomerations which allow "suppliers and clients to compensate for variability and incertitude by offering immediate access to resources the demand for which is immediate" [SCO 06, p. 175]. It works likewise for the labor market. Firms can thus recruit the specialized personnel that they need more easily. Labor turnover is also faster, depending upon business needs. Workers are also persuaded to invest in their training to acquire new skills and find a corresponding job. Relying upon the works of Granovetter [GRO 86] on social networks, Scott and Storper stress the importance of the latter in localized business relationships. Storper and Harrisson [STO 92] introduced the notion of governance in spatial analysis taking the form of business-to-business arrangements, going beyond commercial relations. They show that there remains a wide variety of forms of governance, according to the industrial organization, social division of labor, institutions, and feasible locations. In short, each factor which explains geographic concentration creates positive externalities for businesses and workers.

Scott [SCO 05] applies these analytical tools to study the dynamics of capitalism in time and space. In an older article written with Storper [STO 92, p. 10], the latter defines capitalism as "a group of factories or establishments (that is to say the basic units for economic activity) implementing working capital combinations." Like Marx, Scott [SCO 05] emphasizes the international scale of capitalism, even since its beginnings. Capitalism thus developed from national economies, led by states which played a decisive role (for example, protectionist policies). Yet, the capacity for government intervention weakened and had an important impact on the erosion of national borders. This phenomenon favored the formation of associations of regions as so-called localized complexes, defined by economic and social activity. By referring to the theory of externalities, Scott shows that large clusters of industrial producers emerge, taking the form of dense agglomerations linked together as an international division of labor, in line with spatial extension of regional production systems. This phenomenon will intensify as the force of externalities exerts an accelerator effect on business, territorial performance, and creates a strong demand for spatial proximity in important sectors of the economy. On the one hand, it reflects Ricardo's theory of comparative advantages, while it reflects the Marshallian industrial district, the territorial economy is particularly distinguished by the theory of international commerce and the geographical distribution of economic activities reflecting the works of Krugman on the new economic geography on the other hand.

### 1.2.5. *Krugman and the New Economic Geography*

From the 1970s onward, a new economic geography emerged with the works of Paul Krugman (laureate of the Nobel Prize for Economics in 2008), combining the approach of Kaldor and Marshall (on economics, of course), Walter Isard (in respect of regional sciences), and the neoclassical theory for international trade. A number of Paul Krugman's major articles were grouped together in a work published in 2000 translated into French entitled

*Pop Internationalism*[12]. In summary, Krugman envisages economic geography from three angles which are both distinct and complementary. Like Ohlin, he considers that economic geography is a hybrid construction which is the product of the reconciliation of the theory of international trade the theory of location. However, economic geography is a synthesis of several disciplines together with pure sciences (including physics and biology) and social sciences (including economics). Finally, he understands economic geography as an entirely separate branch of the economic sciences. In summary, Krugman considers economic geography as a spatial location production theory. However, the apparent simplicity of this definition has sustained a very ambitious research program since economic geography was presented by Krugman as a research into logic, behind the apparent complexity of the world, in which the determinants of clustering and location, the unequal development of territories and the origin of crises lie. However, this hybrid combination has not been of interest to economists who, for a long time, were not aware of his works. Several economists remain highly critical of these works at present, considering them extremely simplified [BEN 08].

Starting principally from the Heckscher-Ohlin-Samuelson model and Marshallian districts, Krugman shows that if international commerce is largely shaped by economies of scale, the economic regions producing the most will become the most competitive. The existence of external economies might lead to an unequal spatial division of economic activities, favoring some regions to the detriment of others. However, whilst Marshall described three sorts of externalities, Krugman only retained two; those of labor pools and the availability of specialized suppliers. He disregards the impact of the third being the existence of technical knowledge training. Yet, "in the theory of international trade, he says that exchanges produce positive externalities because innovative businesses do not succeed in conserving the monopoly of knowledge that they produce" [COI 07, p. 120].

12 The work was translated into French with the title "*La Mondialisation n'est pas Coupable*" ("Globalization Is Not to Blame").

Taking the example of a belt manufacturer on the eastern side of the United States, Krugman shows how an unequal "center-periphery" structure may emerge in an endogenous way. Yet, in this type of model, transport costs play an essential role as they represent the driving force for industrial clustering. On this issue, Krugman refers to Von Thünen. Krugman thus constructs a model showing that increasing yields intervene on all economic levels and give history an essential role in the final configuration of geographical structures and the spatial organization of economic activities. It is for this reason that production tends to be clustered in some countries, regions or towns which become more densely populated and enjoy higher income levels. Moreover, discussions upon Marshallian districts call into question the concept of "a dependence upon the past" and of the irreversible nature of localized group training and agglomeration processes. Indeed, if in the past some regions had a very fast rate of economic growth it was often at the expense of high levels of specialization which turned into a weakness when the markets supporting these activities were no longer growth areas. Yet cycles of economic change are dependent upon the past. The industrial district has a history and it cannot easily rid itself of the burden of the past [KRU 91a, KRU 91b]. In the ongoing analysis of Marshall's industrial districts, Krugman clearly shows that territorial economic power cannot be sustainable. Krugman's works were very quickly essential for economists offering an analysis which is both clear and pertinent. However, they were also frequently subject to numerous criticisms. For example in France, Benko [BEN 00] proved highly critical of Krugman by criticizing him for not having studied the social past of territories in-depth, and with respect to power relations between social groups which make up the territory and the governance relationships linking them. However, these critics remain relatively insignificant given Paul Krugman's international reputation.

### 1.2.6. *Clusters and areas of expertise at the heart of global competition*

Having been convinced for a long time of the weaknesses of the Keynesian model, the free-market economists have also turned their attention to territorial analysis, resuming this facet along with their

territorial competitiveness. Porter's contribution is entirely symbolic of this evolution. Starting from the field of industrial economics (which follows Marshall's preliminary works) with the 1980 publication of *Competitive Strategy,* Porter continued his work with the publication of the book *The Competitive Advantage of Nations* in 1990. He thus developed an entirely new terminology that has been appropriated right across the spectrum of humanities and social sciences and, first and foremost, the terms "cluster" and "skills cluster" in line with the French concept. It has become extremely difficult to speak only of clusters or skills clusters, as it is possible to find several different terms. With simplification in mind, we define a cluster as a range of decision-makers who create and maintain a relational system, allowing them to increase their business and growth opportunities. The structure of Porter's relational systems is the so-called "diamond" which links firms, demand (specific orders whose activities allow for both specialization and external growth), firms acting as clients for other firms, and other determinants (that is to say the elements of the institutional context: institutions, infrastructures, universities etc.). An abundant literature has developed from the "cluster" concept.

The concept of clusters devised by Porter [POR 00] justifies policies which aim to support innovation, thanks to the creation of localized ecosystems, which gave France its growth clusters. A large part of Porter's investigative works revolve around California, which is also the field of the University of California, that, when compared to Porter, includes the facet of placing emphasis on history and the territorial dimension of economic activity. Porter calls into question the interventionist patterns. The principle of cooperation between local actors is acknowledged, and with it the interventionist impulse of the Keynesian state. "If the place of innovation varies according to the territories considered, the aim of its promotion at the time of integration and globalization is to resist both, the pull of the large agglomerations and the competition from countries with low labor cost, by creating a new term on the spectrum between territories and the global economies (that is to say 'glocalization'): the endogenous elements of territory are combined with exogenous factors to harness global wealth fluctuations" [LES 14, p. 10].

### 1.2.7. *The theory of spatial proximity or the actor strategy*

The theory of spatial proximity has its roots in the special edition of the *Revue d'économie régionale et urbaine*[13] published in 1993, but previous texts should also be cited, such as that co-signed by seven economists [TOR 92] in *La revue d'économie industrielle*[14] published one year in advance. However, *La Revue d'économie régionale et urbaine* remains the so-called founding father in this theoretical field. Right from the beginning of the 1990s, several editions have reviewed the development of the theory of proximity, whose principal objective was to provide a response to the issues related to business-to-business cooperation, the location of activities, the innovation process, the function of clusters, the mechanisms of local governance, etc. The theory of spatial proximity examines the involvement of economic actors within a given economic space. Yet, this space, like that defined by Perroux, has a variable geometry. However, the theory of proximity was certainly highly influenced by the economics of convention, whose primary objective was to demonstrate how economic actors were equipped with a bounded rationality and to develop cooperative behavior patterns in situations of uncertainty. However, the proponents of the theory of proximity sought to distinguish it from the theory of regulation, by proposing a more meso-economic approach [DEU 11]. Proximity, like territory, is a very large concept which groups together highly varied situations, although fundamentally the initial economists principally distinguished between geographical proximity (relating to the distance between actors) and organizational proximity (relating to belonging to the same economic sector and identical management practices). However, the other types of proximity, such as institutional proximity, were also defined taking into account the cognitive distance between individuals, considering their understanding of a given environment or shared values. Proximity may also be interpreted as technological, productive or indeed financial proximity [TOR 92]. In this sense, economists concerned with this theory refer to Perroux's definitions of space which distinguishes geographical space, physical space, and economic space described as above. It is highly evident that

13 Review of Regional and Urban Economics.
14 Review of Industrial Economics.

the second dimension is the focus for authors, as it allows for the identification of productive dimensions which go beyond the geographical order. From that relationship, cooperation and competition networks may be identified between actors, whosoever they may be.

As such, the proximity theory does not form a homogeneous whole, linked as it is to the theory of local production systems, which, of itself, connects highly heterogeneous situations. Moreover, like the Italian district theory, Marshall had a strong influence on the development of the proximity theory through the concepts of industrial atmosphere and externalities. Proximity also exists in the options for development trajectories to follow, but it is used little to describe the innovation processes. Owing to the theory of proximity, the territory is best understood as a so-called "construction site" for specific resources. Indeed, development factors are historically rooted in the local social reality and are not easily transferable from one space to another" [PEC 95, p. 44]. To summarize, with the theory of proximity, territorial analysis is created as follows:

1) forms of proximity are effects of territorial history which are determined by the dynamics of local relationships between a range of players and institutions, such as the creation of a local innovation network or the existence of local associative networks which seek to protect a territory's established heritage;

2) the territory is also a structure based upon proximity relationships, which determine its form;

3) the territory is a place to design public policy initiatives and can be confused with the responsible local authority, where there is one.

Viewed more specifically from an organizational proximity standpoint [TOR 92, p. 118], territory can be understood as three different levels as follows:

1) a system through which all players are represented;

2) a suitable space in which to define their strategy;

3) the time frame for their initiative.

Indeed, through successive trial and error, the actor strives to achieve a territory that measures up to his expectations. Territory may include organizational structures. However it may also produce norms through its ability to sort, arrange or organize information into a hierarchy. Actors clustered in a given territory are heterogeneous. They do not all have the same lines of thought or the same objectives and do not all have the same information at their fingertips.

However, the various types of proximity which we have mentioned already, that is to say spatial, organizational and cognitive proximity may often fuse together [UZU 10]. This may be seen, for example, within the concept of continuity, particularly within the works of GREMI through a systemic innovative approach. The firm's capacity for innovation is shaped by the milieu in which it is located owing to the development of networks between actors (such as firms, research centers, and universities, etc.). Innovation networks materialize through reviewing relationships of synergism, within a scientific and technological system of a country. These arise in four ways: the proliferation of exchanges between publicly-funded research, the creation of institutions which value research, aid the creation of technological businesses, or regional planning on the basis of so-called scientific and technological "centers of excellence" or "competitiveness poles". It is both the environment and milieu which allows for the development of research, for innovations to be realized, the creation of businesses, which is likely to reassure both the manager as well as the entrepreneur. The entrepreneur, or even the business, which acquires (and exploits) all kinds of scientific and technical knowledge then serves a nodal function amidst a whole set of inter-relationships, opportunities, innovation and profit.

Ever since the founding works of the German economists (Von Thünen and Alfred Weber) and Marshall, the territory has been a key actor in economic development. Contrary to popular belief, during the *Trente Glorieuses*, economists did not ignore the concept of territory as the works of Perroux evidence. It was indeed during this period that regional science was recognized upon Isard's initiative,

first in the United States, then in Europe. The fundamental change occurred during the 1980s, with the means to understand the economic role of the territory, leaving local actors greater leeway for decision-making. Using this approach, analyses aiming to emphasize networks of actors increased, contributing to stimulating researchers' imaginations. Figure 1.5 charts the recent evolution of the territorial economy.

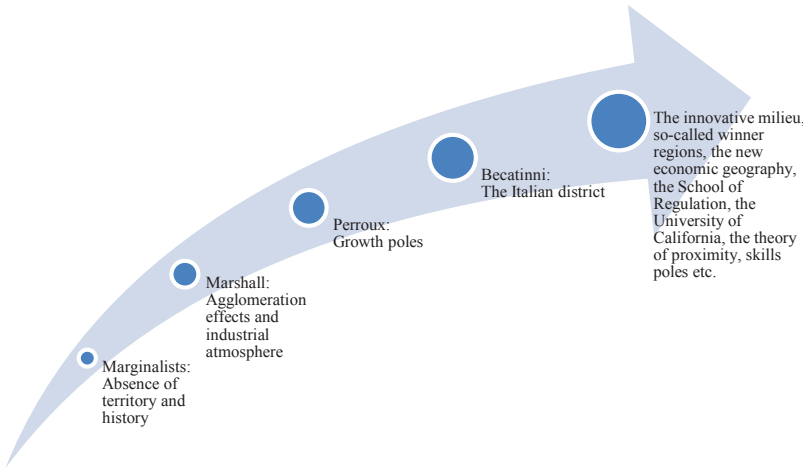


**Figure 1.5.** *The territorial economy or the end of the century revolution*

Since the end of the 20th Century, the entirety of these works have nurtured a wealth of thinking on the nature of the synergies between the entrepreneur business, the territory, and public institutions. The issue of entrepreneurial ecosystems, which we develop in Chapter 2, falls within this intellectual perspective.

### 1.2.8. *From the territory to the city – what are the new economic challenges?*

The city as a specific territory has attracted particular attention from geographers, sociologists and economists. The industrial crisis had dramatic consequences for the urban areas (industrial wastelands,

increase in delinquency, and insecurity within the urban environment). Three types of studies emerged, which predominantly were:

1) entrepreneurial;

2) environmental;

3) cultural.

Entrepreneurial models aim to define the components of the entrepreneurial dynamics of a city. The classification system for this is the European Cities Entrepreneurship Ranking (ECER). It rests upon five types of criteria which aim to create a framework conducive to entrepreneurial activity as follows:

1) the promotion of cities through events;

2) policies aiming to support the process prior to business creation;

3) support post-creation;

4) financial aid for business projects; and

5) the economic environment ranging from transport terms through to living conditions [LEV 10].

The works of Andrés Barreneche Garcia show that the entrepreneurial dynamism of a town essentially rests upon three elements: city size by number of inhabitants, the enthusiasm for an individual initiative and the presence of higher education institutions, and the emphasis being placed upon the creation of high-endenterprises. Per the definition of the Canadian Federation of Independent Businesses (CFEI)[15], which protects the interests of SMEs in Canada, the entrepreneurial city is distinguished from others on the basis of three characteristics:

1) the present situation;

2) prospects;

3) public policy measures implemented (see Table 1.1).

15 http://www.cfib-fcei.ca/francais/index.html.

| |
|---|
| – *Present Situation* |
| Increase in commercial organizations |
| Commercial organizations per inhabitant |
| Rate of employment within independent businesses as a percentage of total employment |
| Business in the information and culture sectors |
| – *Prospects* |
| Business productivity forecasts |
| Expectations of hiring full-time staff |
| Overall position of business |
| Building permissions for commercial, industrial and institutional organization |
| Life satisfaction |
| – *Politics* |
| Local authority's fiscal balance |
| Local authority's operating costs |
| Local authority awareness of small businesses |
| Local authority returns. |
| Existence of online information tools for permits and licenses |

**Table 1.1.** *The Entrepreneurial City According to the CFEI*

Predominantly environmental models aim to define the sustainable city upon the division at the urban level of the three items of sustainable development: economic (creativity, innovation, entrepreneurship and appeal), social (local employment, harmonious co-existence, and participative democracy), local (heritage preservation), and environment (environmental protection and improvement of the inhabitants living environment) [ATT 14]. This concept emerged as part of the framework of *Agenda 21* in Rio de Janeiro (an agreement signed in Rio in 1992 upon sustainable development goals). The sustainable city, as a matter of fact, must combine quality of life and reduction of social and ecological inequalities [EME 07]. Finally the predominantly cultural city must respond to Richard Florida's three T's (2003): that is to say, talent,

technology and tolerance. All of these models are closer to Perroux's economic models, where the territory is less of a given geographical space than a force field or a space in which to implement public policy. The territory is thus perceived as a space to implement an institutional framework aiming to favor entrepreneurial development, all of which assume both action on the part of economic players and public policy measures. This has been so since the introduction of new concepts, in particular that of the entrepreneurial ecosystem, which clearly tend to favor the institutional aspects of territorial dynamics.