

Dipartimento di Scienze Economiche  
Università degli Studi di Firenze

Working Paper Series

**REGIONS, NATIONS AND BEYOND IN  
MARSHALLIAN EXTERNAL ECONOMIES**

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Working Paper N. 13/2009  
November 2009

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[www.dse.unifi.it](http://www.dse.unifi.it)

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Stampato in proprio in Firenze dal Dipartimento Scienze Economiche  
(Via delle Pandette 9, 50127 Firenze) nel mese di Novembre 2009,  
Esemplare Fuori Commercio Per il Deposito Legale  
agli effetti della Legge 15 Aprile 2004, N.106

## REGIONS, NATIONS AND BEYOND IN MARSHALLIAN EXTERNAL ECONOMIES

Marco Bellandi<sup>1</sup>

ABSTRACT: The clearest expressions of Marshallian external economies are found in the life and working of compact industrial districts. However Alfred Marshall did not limit their application to such types of places, nor to their territorial scale. This paper illustrates some important extensions found in Marshall's works, particularly in *Industry and Trade*, concerning firstly the advantages accruing to industrial districts within larger industrial regions and national contexts. The concept of a national capital including technical, human and social resources, or of a "Marshallian capital" as Silvio Goglio proposed to call it, plays a pivotal role in suggesting both the common nature of the different expressions and scales of Marshallian external economies, and the possible interrelation between them. Processes and conditions associated by Marshall to either non place-bound or distant trans-local contexts of external economies are considered too. An implicit and open multi-territorial framework emerges. Some of its different meanings are discussed in the conclusions of this paper with the help of interpretations of industrial districts, regions, nations, and global networks developed after Marshall, starting from those of Austin Robinson and Giacomo Becattini.

JEL CODES: D24, R12, B10.

KEYWORDS: External economies; Alfred Marshall; industrial districts, regions and nations.

### 1. Introduction

In the 2<sup>nd</sup> edition of the *Principles of Economics* (1891) Alfred Marshall ("M." in what follows) introduced more diffusely the concept of external economies, together with a de-coupling of them from the narrow association with the localization of industries and the concentration of many small businesses in industrial districts, which characterized the 1<sup>st</sup> edition and his earlier writings. The external economies ("EEs" in what follows) realized within single industrial districts are still seen as 'very important', and Chapter X is still devoted to them. But other types are given an

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appropriate consideration too, in particular “those connected with the growth of knowledge and the progress of the arts” which “depend chiefly on the aggregate volume of production in the whole civilized world” (M. 1920, p. 266). The de-coupling may be seen both as application of the principle of continuity, and as acknowledgement of the progress of some important market and technological tendencies observed by M.

What is the nature of such “mobile” EEs<sup>2</sup>? Suggestions on them are scattered in M.’s works, but the point is quite important, because different consequences in terms of industrial organization and development are related to different interpretations. For example, mobile EEs could be thought as the expression of factors of efficiency which are provided in various non market ways (public action, private spill-over, etc.) and freely accessed by firms in a single trade or in a cluster of related trades, independently on the specific relations of providers and users with particular places (e.g. the development and access to the knowledge of production sets in a black box vision of technology). If going to the extreme consequences all EEs would be sourced in a similar way, the industrial game would be settled by the balances between economies and diseconomies internal to the single houses of business, which also depend on the relative capacity to exploit external factors by firms of different size, and by the relation with any given extent of the markets. I take this account as representing the de-territorialised core of those neo-classical approaches which have mainstreamed economics throughout large part of last century<sup>3</sup>. According to a neatly different approach, the principles of division of labour and increasing returns may be applied not only between single firms, but also between different specialized centres of industry. An interpretation consistent with such approach (mark 1) sees the “mobile” EEs as produced in important centres of industry and accessed quite freely by other different, possibly minor, centres of related industries<sup>4</sup>. A similar but more symmetrical interpretation (mark 2) sees the EEs produced and sourced locally by the

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<sup>2</sup> “Mobile” in the words of E.A.G. Robinson (1958, p. 124) defines precisely those EEs which “depend not on the size of the industry in one locality, but on the size of that industry in the world as a whole”.

<sup>3</sup> In de-territorialised approaches space may be artificially factored in with the generic reference to the macro level of national economic systems. Another way of generic introduction is with models in which location is only another possible character attached to goods within the decision set of boundless maximizing economic agents able to reach equilibrium thanks to lack both of increasing returns and of sunk costs in location decisions. See Martin (2003).

<sup>4</sup> This is precisely the interpretation proposed by Robinson (1958, p. 125).

firms of one centre as complemented by both those which leaks, at least partly, from inter-local trade and those related to the growth of cosmopolitan scientific knowledge<sup>5</sup>. In both case, the life and production of the centres of industry are the real source of Marshallian EEs, even if the relations between different centres may complement those economies with the realization of technological or pecuniary EEs spilling from competitive imitation or market exchanges at trans-local, national or international levels<sup>6</sup>.

It is not a surprise to find, in M.'s works, suggestions and exemplifications which support different interpretations and some combination of them as well. In this paper I intend to go through and illustrate some of these passages, in large part taken by *Industry and Trade*, where M. more extensively collected his life reflections on the organization of industry and the industrial tendencies of his age<sup>7</sup>. With the help of such illustrations we see that the de-coupling of Marshallian EEs from a local basis may be hosted in a common interpretative framework which combines "mobile" and "immobile" EEs (in Robinson's words). Though M., contrary to what he did with time scales, did not dare make explicit a definition of such multi-territorial framework, he had a vision of it, as many illustrations in *Industry and Trade* confirm. The lack of such an explicit definition may be seen as a confirmation of methodological problems of a more general order which M. met in his ever ending elaboration and re-elaboration of the *Principles*<sup>8</sup>. However the implicit vision is still important, because it contributes to a disciplined approach to interpretative alternatives as those recalled before, which are at least as important nowadays as in M.'s days.

Section 2 of this paper suggests that the role given by M. to 'places' can be extended from a single compact centre of life and industry, such as an industrial district, to different interlinked territorial levels, much as 'time' in M. has different interlinked scales. Section 3 illustrates and discusses the more direct extensions, concerning the advantages accruing to industrial districts within industrial regions and larger national contexts. Section 4 touches upon processes and conditions which are associated to either non local or distant trans-local contexts of "mobile" EEs. The

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<sup>5</sup> See Becattini (2006a, p. 669).

<sup>6</sup> The distinction between technological and pecuniary EEs was codified by T. Scitovsky (1954).

<sup>7</sup> But of course we refer also to the early writings, to the *Economics of Industry*, and to the *Principles*.

<sup>8</sup> See again Becattini (2006b, p. 209) and Becattini (2006a, p. 670), and also Quéré and Ravix (1998, p. 95).

concluding section 5 compares M.'s implicit multi-territorial framework with different interpretations of mobile EEs as those referred above.

## 2. Place and locality

It is useful to start from one classical *locus* in the *Principles*. In the Preface of the first edition of 1890, M. asserts in general terms the need to define the study of economic motives and results according to time and place. While individual pecuniary gains may be a quite general motive, other motives, even of an altruistic nature, have an influence. These other motives have in general a various and changing nature, but it is to be expected, according to M., that their combinations within "the members of an industrial group" take a quite regular shape and effect "at any time and place", i.e. in specific sets of people devoted to economic action and to production in particular (M. 1920, p. vi).

### 2.1. Compact centres of industry as places of external economies

Appendix C, on the scope and method of economics, provides an explicit statement on differences of motives:

"The difference may sometimes be explained simply as the result of variations in general enlightenment, or of moral strength of character and habits of mutual trust. But often the explanation is more difficult. At one time or place men will go far in trust of one another and in sacrifice of themselves for the common wellbeing, but only in certain directions; and at another time or place there will be a similar limitation, but the directions will be different; and every variation of this kind limits the range of deduction in economics." (M. 1920, p. 772)

The reasons for the role given by M. to place are quite well known. Firstly, a common place of production and social life makes easier to stay in personal touch, to exchange information on goods and services to be exchanged, to learn and imitate, to build rules of fair behaviour within the community and give trust supported by close control and social sanctions against offenders<sup>9</sup>. Secondly, there are geographical

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<sup>9</sup> There are many passages that could be quoted here. From the early writings to those where M. talks about the working of the market place in the *Principles*, to a great page of *Industry and Trade* (M. 1919, p. 113) on "The foundations of modern business in general confidence and credit." We will come back later on this page.

(“unequal distribution of ... natural resources”) and historical factors (“accidental localization of special industrial aptitudes”) which tend to concentrate “sectional interests” in “particular places” (M. 1919, p. 410).

The constitution of special local aptitudes and motives are reinforced by the development of EEs. In the sentence which, in Book IV, Chapter 10 of the *Principles*, opens the famous description of the district EEs, i.e. of the advantages of localized industries in manufacturing towns or in thickly peopled industrial districts, M. writes: “When an industry has thus chosen a locality for itself, it is likely to stay there long: so great are the advantages which people following the same skilled trade get from near neighbourhood to one another” (M. 1920, p.271). No need here to recall extensively the analysis which follows this opening, on the sources of those EEs. They include learning of the mysteries of the industry through social networks; discussion and circulation of information on good work, invention and new ideas in the organization of the business; the growth of subsidiary industries (goods and services); the use of highly specialized machinery; the local market for special skills; and the support of collective purposes lent by various public and private agencies, like “Chambers of Commerce, especially such as represent the homes of definitely localized industries” (M. 1919, p. 612)<sup>10</sup>. It would seem that those sources are attached by M. to a local identification: that is the places<sup>11</sup> where Marshallian EEs are produced and accessed would necessarily be “localities”. However things are more intricate, and interpreted by M. in the light of the “Principle of Continuity” (Loasby, 1998).

## 2.2. National industrial leadership

For sake of clarity let us return to some famous passages of chapter 2, book 1 of *Industry and Trade* on some general relations between industry and trade. The relations between nation and international trade are introduced as an organizing topic of *Industry and Trade*, whose sub-title is “A Study of industrial technique and business organization; and of their influences on the condition of various classes and nations.”

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<sup>10</sup> The last source is taken from a passage of *Industry and Trade* concerning constructive combinations (M. 1919, p. 612); the other items of the list are illustrated in the same page of the *Principles* just quoted in the text. For recent comments and interpretations on sources and scope of district EEs in M., see the relevant chapters in Raffaelli et al. (2006) and in Becattini et al. (2009).

<sup>11</sup> Normally “place” is referred by M. to various geographical objects. It may be a great city or a part of it: “in East London and other places, where the popular demand for fried fish is very large and constant” (M. 1919, p. 503). Or it may refer to villages, towns and districts, or to a country containing “villages and some towns” (Ibid, p. 27). Etc.

The study is helped by the reference to what is called nowadays the technological frontier that for M. is "industrial leadership":

"The test of leadership is the doing things, which other countries with similar economic problems will be doing a little later, but are not ready and able to do yet. One of the best indications of the nature and extent of a country's leadership is to be found in the character of the goods which she exports, and of those which she imports. ... A country's foreign trade is something more than a number of dealings between individuals at home and abroad; it is the outcome of the relations in which the industries that belong to her, that are a part of her life, and embody much of her character, stand to the industries of other countries." (Ibid, ps. 13-14)

Book 1 of *Industry and Trade* focuses on the historical constitution and present character of the industrial leadership of four great Western nations, i.e. Britain, France, Germany, and United States. Of course references to other countries and their industries are included as well.

As with a lot of the main concepts he uses, M. does not give an explicit definition of what a nation is<sup>12</sup>. Yet, the concept pivots around cases of countries (i.e. places with a state organization) showing a high degree of specific characters like those recalled compactly in the same pages introducing industrial leadership. First comes the sharing of national ideals, or a national spirit:

"Industrial leadership counts for much among national ideals. And if an individual, devoted merely to material ends, is but a poor creature, still more ignoble is a nation that is devoid of national ideals; that is, of ideals which recognize a national life as something more than the aggregate of individual lives." (Ibid, p. 13)

A second important character is that the life of the nation both helps and intertwines with the accumulation of technical and human capital ("resources and faculties") supporting the development of her leading industries:

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<sup>12</sup> I have not the possibility now to go in deep on what M. truly intended as a nation. For some premises, in particular on M.'s idea of an evolutionary relation between the diffusion of individual self-consciousness and the emergence of a rational organization of state political and legal structures, I would refer to the introduction by Cook (2005) of the recent publication of M.'s manuscript material on the *History of Civilizations*, on the *History of Political Economy*, and on the *Hegel's Philosophy of History*. On a comparison of concepts of nation in Smith, M., and Ricardo see Arena (1998).



“The trade of one individual with another is mainly of private concern: while the causes which enable large quantities of anything to be made for foreign sale at a profit, generally lie deep down in resources and faculties that are not wholly individual, but are in great part the collective property of a nation as a whole.” (Ibid, p. 13)

So the national spirit, that is also sense of belonging and trust both in a network of individual relations and in the overall organization of the society and the state, may be seen as a national social capital; where social capital precisely ties together and increases the productivity of the technical and human capital of a people. Part of the advantages constituting the industrial leadership comes from conditions which are not “wholly individual”, i.e. they are EEs<sup>13</sup>. Together, the national social capital and the nationally embedded technical and human capital define both the stature and the specific characters (e.g. the types of industrial leadership) of a country as a nation<sup>14</sup>.

### 2.3. The core of the multi-territorial framework

The relation with the composite national capital is the basis for the extension of EEs beyond the local level. Moreover, since specific endowments of a national-like capital may be rooted in places defined at possibly different, yet not indifferent, territorial levels within a country, the same relation allows to come back and give light to a side of the EEs at the district level:

“(T)he argument will be understood to apply also in a great measure to the external trade of any province or county, such as Normandy or Lancashire, or of any industrial city, such as Leeds or Chemnitz. If the local spirit of any place ran high: if those born in it would much rather stay there than migrate to another place: if most of the capital employed in the industries of the place were accumulated from those industries, and nearly all the income enjoyed in it were derived from its own resources:—if all these conditions were satisfied, then the people of such a place would be a nation within a nation in a degree sufficient to render propositions, which relate to international trade, applicable to their case from an abstract point of view; though in the absence of any statistics of the

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<sup>13</sup> On Marshall and social capital see Reisman (2003); on contemporary views on the relation between social capital and development of places, see Trigilia (2001); on contemporary views on the relation between “collective property”, public action, and Marshallian EEs, see Bellandi (2009), Best (2009), and Gilly and Perrat (2006).

<sup>14</sup> It is to be recalled here the definition of “Marshallian capital” proposed by Goglio (2001, p. 72), comprising precisely technical, human and social capital embedded in a place, and the relation which he proposes with the Marshallian notion of “economic nation”. Here I take this concept and see it as referring to the core support of the various interlinked scales of realization of Marshallian external economies.

imports and exports of the place, they would to some extent still lack reality. This observation of course does not apply to a residentiary town such as Bournemouth, or Newport in Rhode Island.” (M. 1919, ps. 20-21)

Manufacturing towns and cities and compact industrial districts, within the narrow boundaries of which groups of skilled workers and entrepreneurs gather and share a large amount of daily life, are, even after the spread of modern means of distant communication, places of overlapping social and industrial experiences, motives and ideas. This constant overlapping, when coupled with some specific original factor of geographic or historic nature, gives strength to the accumulation and re-investment of (technical, human, and social) capital in the place; this capital possibly supplements the enlargement of the advantages of localized industries, i.e. of the district EEs. When they do not coincide with a country and her state organization, as it is often the case in Marshall’s and in present times, those compact centres of industry may be still seen as (let’s say) “local” economic nations.<sup>15</sup>

It appears that the explicit introduction of the composite national capital closes the circle of those evolutionary effects which, as suggested above, support the importance attributed by M. to places in the study of economic agency. On one side, positive feed-backs generate increasing returns; on the other side, the place-bound accumulation of the composite national capital increases the importance of places. It is what nowadays would be termed a path of local and human development<sup>16</sup>. Of course, the progress of a virtuous circle may be interrupted or disrupted by various internal and external processes and accidents, as M. explicitly acknowledges. And many places, from localities to entire countries, have a low degree of a national spirit, being sites of partial, disrupted or weakened social functions, nor supporting the accumulation and re-investment of a place specific pool of technical, human and social capital.

In fact the strength of local virtuous circles, when they work, suggests to M. that, seen in evolutionary terms, the constitution of larger nations has its root precisely at the local level. The “forerunners of national trade” were particular localities, according to M., that is the great (European) industrial cities of the Middle ages:

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<sup>15</sup> On corporative and local notions of “economic nations” in M., see Becattini (2006b, p. 205).

<sup>16</sup> On evolution and industrial districts in M. see Raffaelli (2003). Let me here refer, for a recent assessment on contemporary thinking on districts and local development, to the general introduction to Becattini et al.(2009).

“since in these, direct communication by word of mouth sufficed for nearly all the purposes of the modern printing press, post and telegraph: therefore they developed as patriotic a pride in their work as in their military strength. And, as List says, that which is now called the spirit of economic nationality, is really the spirit of Bruges or Antwerp; of Venice, Florence or Milan, spread over a whole.” (Ibid., p. 33)

Yet the progress of communication systems and the development of trade and cultural intercourse beyond the local level allows the spread of national spirit and composite capital at larger territorial scales, in some cases overlapping with the constitution and strengthening of a state organization at the level of more or less extended countries. This is the core of the multi-territorial framework of the Marshallian EEs. Are there specific sources and contents both of EEs rooted in places larger than compact centres of industry, and of EEs rooted in contexts stretching over and between distant localities? It is a crucial question, since without the definition of such specific sources and contents the framework would be useless as a positive interpretative tool. After some premises in his early writings and in the *Economics of Industry*, M. concentrates in the late *Industry and Trade* a wealth of suggestions and exemplifications on the point.

### **3. Combinations of mobile and immobile external economies at regional and national level**

Let us focus then on the sources and types of Marshallian EEs which are supported significantly by contexts larger than just those of compact centres of industry. I propose to discuss four levels of context of action and life of producers and firms where they may access specific types of “mobile” EEs: first, an industrial region emerging from the relations among various compact centres of industry; second, a nation state, more or less extended, hosting various regions and centres of industry; third, the nation state as such, or even networks of economic agents at a cosmopolitan scale; fourth, the district in relation with other distant districts, perhaps on an international scale. The first two types are discussed in this section, being an important extension of the same processes and conditions which lay at the basis of “immobile” EEs. The last two types are discussed in the next section.

### 3.1. Industrial regions

An industrial region (or a great metropolitan area) generates EEs related to intra-regional district specialization in related products. The relations may be both vertical and horizontal. The exemplifications applied by M. to Lancashire, especially in *Industry and Trade*, are well-known in the literature, even if usually they are not given a significant role<sup>17</sup>. In the second half of the nineteenth century the region was the world leader of cotton products, with its textile and related industries localized partly in Manchester, partly in nearby specialized industrial districts. The economies concern both marketing and “production as distinguished from marketing”.

On the first side, M. observes that “dealers of various kinds flock to Manchester from all quarters of the globe; and they are able, by aid of motor cars, to enter into direct contact with makers of innumerable specialties spread over an area of some two hundred square miles” (M. 1919, p. 381). In the great city or cities at the economic core of the region (Manchester in case of Lancashire) all sorts of specialized services grow in support of such trading activities. Furthermore, if the cities are or develop as hubs in long distance transport systems, the specialization in trade services of general and specific type helps also the flows of importation and exportation of all sorts of goods from and to national and international markets, increasing the role of the cities and their regions within the international economic, social, and political networks.

Similar types of economies are referred by M. to other important European regions of his age, for example in Germany: “The facilities for traffic, begun by the Zollverein, were developed by railways, and have helped to build up much the largest industrial district in Europe” (Ibid, pp. 87-88). M. is referring here to the lower Rhineland and Westphalia<sup>18</sup>. It is suggested that marketing economies of a similar type are also at the basis of the dominant role of great cities and their regions in ancient and modern

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<sup>17</sup> An exception is Sraffa (1925), who criticized the economies external to the firm and internal to the sector, but acknowledged the possible empirical importance of EEs stretching across different sectors in the same territory. Becattini (2006a, p. 669) has recently given a new attention to this point, considering a concept of multi-industry district. Another exception is Goglio (2001) who discusses trajectories of enlargement of the Marshallian capital from one locality to other nearby ones, bringing about the constitution of economic nations at the regional level.

<sup>18</sup> Here M. clearly refers not to a “compact” centre of industry but to a larger yet densely industrialized region.

times, where the size and strength of the regional logistic infrastructure depended heavily on water transport<sup>19</sup>.

Coming to the second side, that is the economies of production as distinguished from marketing in an industrial region, the principles are again those of specialization. Three chief applications are suggested in *Industry and Trade*. The first concerns specialization in the manufacture of "various sorts of the same class of product". Referring to the Lancashire cotton industry, and in particular to "those branches of it, which are mainly in the hands of a multitude of independent businesses of moderate size", M. sees that "fine spinning, coarse spinning, and weaving are localized separately". Furthermore, individual firms in different localities may specialize on a narrow range of products. "Blackburn, Preston, Nelson and Oldham are centres of four different classes of staple cotton cloths, and so on" (M. 1919, pp. 381-382). The significance of this external economy of manufacturing scope is of course dependent also on the economy of marketing referred above.

The second application concerns the relation between various industrial branches and the production of specialized machinery used in the same branches. Referring not only to Lancashire with the cotton industry, but also to Yorkshire with the woollen and worsted industries, M. states that the "high automatic organization of these industries ... is in great measure due to the fact that their plant is made in their own districts, with constant intercommunication of ideas between machine makers and machine users. Nearly the whole of it is of British invention, and sought for by rival industries in other countries" (ibid, p. 382). As Rosenberg (1982) has noted many years later, the development and working of specialized instrumental goods benefits a lot from learning by using, and new findings may potentially spread to various horizontal applications. The constant intercommunication of ideas in a big industrial region with interrelated localized industries helps both processes on an enlarged scale. On the other hand, writes M., "the silk industry, for which the damp British climate is not well suited, is on too small a scale, to be well organized automatically. Its machinery is said to lag rather behind the best practice of some other countries; and it is inclined

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<sup>19</sup> "But the rule applies fairly well to a trading port in close touch with an archipelago or river delta studded with rich markets. Such a port is indeed likely to derive moral advantages, as well as commercial, from its commanding position. And, in this sense it is true, that the law of squares has had much to do with the brilliant careers of Athens, Alexandria, Byzantium, Marseilles, and Venice; of the Hanseatic League, and of Holland." (M. 1919, p. 30). Quite curiously top industrializing Chinese regions have nowadays a strong support in the water infrastructure of great river deltas, like the Pearl River Delta and the Yangtze Delta.

therefore to look for artificial aid" (Ibid, p. 382). So a single compact and relatively small district could not have the access to the same amount of potential economies on this front. On the other hand, as always in M., sheer size does not work alone; a moral, cognitive, and institutional support is needed. Referring again to Lancashire: "Moreover the character of the population fitted them to develop the engineering industries. Thus makers and users of textile, and especially cotton machinery have had nearly all the advantages of concentrated effort that could belong to a population of more than a million persons in a single composite business; while avoiding the cumbrous network of organization that would be required by it"<sup>20</sup> (ibid, p. 381).

The third application relates to the manufacturing and artisan branches of industry which may be still localized in the urban fabric of great cities, possibly those at the core of large industrial regions: "the advantages to be derived from personal contact between customer, trader and producer have caused capital cities to become the homes of miscellaneous industries of all grades and especially of high grades" (ibid, p. 189). Among these industries, printing, finance and commerce are recalled, but also "the finest manual work" with an artistic element and sometimes using "subtle mechanical appliances". They offer "unrivalled opportunities to middlemen, who procure from working artisans and small masters the making of high-class goods to the order of wealthy customers" (ibid. P.189). Some of those high grades industries are related to the manufacturing specialization in nearby districts, and add to the image (marketing) and innovative (production) potential of the industrial region<sup>21</sup>.

Finally, properly intersecting both marketing and production sides, is an economy of diversification related to the conditions of great districts (M. 1920, p. 271). When two (or more) localized industries are important in the place, and have different labour requirements and final markets, they may give alternative opportunities of labour and of integration of families' budget both to different classes of workers, and to the same classes in different periods.

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<sup>20</sup> These notes may be nicely confronted with the later development of specialized mechanical instrument industries in Italian industrial districts, and in particular to the strength of regional systems like Emilia Romagna and Lombardia with a high vocation to engineering industries. See Brusco (1989) and Russo (2009).

<sup>21</sup> Here again come to mind images of the later development of Italian industry and its "magic circles" of industrial districts and cities with cultural traditions and service facilities in the north-central regions (Dunford and Greco, 2005). This is also connected to economies of marketing.

The industrial region has possibly the support of past political and geographical factors of bonding. The re-localization of large factories (from the congested core cities to “surrounding rural districts and small towns” of the region) and the development of specialized services and products of higher grade (still related to the re-localized businesses) within the core cities strengthen the presence of a relatively close network of communications and interests among the members of various industrial groups localized in the region. This helps also an expansion and adaptation of the local national capital from the ancient districts and core cities to a set of growing new industrial districts and communities in the region. Of course, the formation of industrial regions which are economic nations in a “high degree” is far from an obvious result<sup>22</sup>, and in any case the regional processes of accumulation of the composite capital of national type may take different forms, contents, and intensities. The sub-section below and the following section touch upon topics which may be related to some variations to this theme.

### 3.2. Industrial districts in small and large countries

There are advantages which accrue to the members of an industrial district and which depend on the inclusion of the same district into the economy of a country, the more so if she is a large country and a great nation. Two significant passages of *Industry and Trade* may be related to this topic. The first is a specific one. After having recalled that the industrial districts of a small country, like Switzerland, Belgium, or Holland, may have close economic relations with nearby countries, and that this benefits foreign trade largely, M. (1919, p. 29) asserts that a larger country may have further advantages:

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<sup>22</sup> For example the development around the core cities may take the form of an urban sprawl, including large quarters or slums of poor people. “The other industrial speciality of large cities has been in the past, and is still to some extent, the employment of vast numbers of workers who have inherited weakness of body, mind and character from several generations... The large supplies of labour of this class (...) have been a blot on almost every old civilization, and not least that of the modern western world” (M. 1919, p. 189). If this type of processes prevails the accumulation of national composite capital at the regional level is easily weakened. However public and collective action may reduce the extension and the risks of this dark side: “But better knowledge, especially in regard to sanitary matters; a higher sense of social responsibility; and increasing facilities for cheap traffic even over the whole area of such a city as London (which surpasses in population many considerable States) are tending to lighten the dark shade of this blot, if not to remove it altogether” (ibid, p. 189). See Becattini and Corsani (2006).

“Her large area gives greater facilities for the development of those great industrial districts in which, as we shall see presently, concentrated specialization is now carried to its highest extent: and such districts have generally a better approach to her own large markets than the industrial districts of a small country can have to foreign markets, even if their frontiers are not beset by import duties.”

They are economies of the “marketing” type. Furthermore, as already seen with the industrial region, the larger national context may be a platform for other type of economies as well, as those related to the circulation of knowledge and arts. They not only correspond to competitive advantages in internal markets, but extend their scope to international markets as well. The large national platform plays as a laboratory for testing, improving and articulating the integration of complex frames of division of labour.

What does the difference between a large and a small country impinge on? Let us refer to the case of a large country well endowed with national characters. Her people share languages for communicating easily, sets of business usages, commercial laws and jurisdiction (Ibid, p. 30). “Social credit” stays at the top of these features. It is not only trust in personal relations:

“(I)t is also, and for the larger part, trust in the character of society; in the stability of public order, in freedom from disturbance at home and from foreign attack; in the gradual and harmonious development of economic conditions; in the probity and reasonableness of people generally, and especially business men and legislators; and—to lay special stress on one important detail— in the solidity and good working of that currency which acts as a medium of exchange and a standard measure for gauging economic obligations and transactions of all kinds.” (Ibid. p. 113)

The broad type of confidence is needed for trade and investments within the fabric of a highly complex division of labour which includes, but goes beyond the sphere of the partners with which ordinary local transactions are done<sup>23</sup>.

It follows that a large and great nation, as far as she supports expectations and institutions like those just recalled, is an extended and reliable field for inserting in and developing complex frames of division of labour.

However differences either in the intensity of such features, or in the way in which they combine with specificities in geographical, cultural and institutional factors,

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<sup>23</sup> See on the different meaning and levels of trust: Dei Ottati (2009) and Dupuy and Torre (2006).



impact on the support given by the national context to the district economies. A comparison between England and France in terms of railways networks says something at this regard. After having recalled the inventions by Stephenson and the early development of steam railways in England, M. asserts that:

“There was no place in the world where they could get at once so heavy and remunerative a traffic as between her various industrial districts, and from them to London. So small are the distances between the chief centres of industry that the six thousand miles of railways that were open in 1850 connected nearly all the chief towns and industrial districts of England and Scotland.” (Ibid, p. 55)

So England and Scotland (in parts, but also parts of Wales, considering other passages) are depicted as something like an extended, surely diversified, but compact industrial region; a region which also corresponds to a large part of a nation (Great Britain) with a well interconnected endowment of specific national (technical, human, and social) capital. France had also in M.’s time a strong national identity – who may doubt it – and a strong industrial leadership based on “constructive genius” applied to “fine results” more than to the methods of mass production. But her specific endowment of national capital was not as interconnected as was with the core of Great Britain, being conditioned by the over centralistic role of Paris. Here M. focuses again on the shape of the railways network:

“The geographical distribution of the industrial districts of France has retained its general character with comparatively little change to the present time. Railways have indeed spread over her whole surface. But Paris dominated France; and the railway companies trusted to Government aid more than to local initiative. So the country divided out into a number of basins, each with its apex at Paris and extending to the frontier, and each with its own railway system: so there is very little easy communication between the industrial districts, save through Paris; and in all France there is no dense industrial district nearly as large as can be found in England, Germany, or even Belgium.” (Ibid, p. 78)<sup>24</sup>

Finally, cases of large nations which extend beyond the borders of small state entities could also be considered (central northern Italy in the Renaissance); and large countries which have not a unified national core, as well <sup>25</sup>.

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<sup>24</sup> Perhaps M. over-stresses the facts, since Lyons and Lille were great industrial districts. However, just to confirm the idea of an over-centralistic structure, M. claims that “even Lyons is said to depend increasingly on Paris designers” (M. 1919, p. 84).

<sup>25</sup> After Renaissance Italy has been “crippled during centuries of internal conflict and of oppression by external force” (ibid, p. 77). M., knowing Italy through personal visits, was however confident of her future: “she is throwing out flashes of genius, so reminiscent of the

#### 4. Mobile external economies at national and international level

We have recalled at the beginning of this paper the passage in the *Principles* where M. acknowledges a de-coupling between the EEs and the industrial districts. In the previous section we have seen that the de-coupling does not necessarily mean the loss of importance of the local dimension of EEs, or of "immobile" EEs (in Robinson's words), but its inclusion in larger connected territorial contexts. We come now to types of Marshallian EEs which show purer "mobile" forms and contents.

##### 4.1. De-localized contexts

The de-coupling may go till the extreme limits of independence of "local aid", when an increasing importance of resources internal to large firms and thus of internal economies is coupled with access by the same firms to extra-local EEs:

"(W)ith the growth of capital, the development of machinery, and the improvement of the means of communication, the importance of internal economies has increased steadily and fast; while some of the old [i.e. "common to a whole district"] EEs have declined in importance; and many of those which have risen in their place are national, or even cosmopolitan, rather than local." (Ibid. p. 115)

The ever expanding introduction of machine and standardization in the production processes, especially under the American leadership, reduces the need of a large mass of highly skilled people: "the chief need of the large majority of modern industries is for alert intelligence, good judgment, promptness and trustworthiness in conduct on the part of the more responsible employees", and these type of attitudes are quite diffused, so that a powerful company may import a good staff of "leading men" and set up a big factory in districts which have not industrial tradition but have a good supply of such alert intelligence, etc. The progress in transport systems makes easy the provision of standardized machineries and other components from distant places; and some specific services for which proximity is needed may be supplied by "subsidiary workshops, erected for the purpose by a single vast factory" (ibid. p. 116).

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two ages in which she was the centre of the world, that she may ere long be again a chief leader: but the time is not yet" (ibid, p. 77). See on related contemporary Italian matters Goglio (2001, pp. 79-89), and Becattini (2009).

Furthermore, "another disruptive influence, which helps a strong business in able hands to be independent of its surroundings, is the certainty with which business success attracts capital". Again, the development of the joint-stock forms gives to large companies also a relative independence from the processes of local reproduction of entrepreneurial vigour and leadership (Ibid. p. 206)<sup>26</sup>. Finally, science for industry may be tapped at a cosmopolitan level: "Even now science is so far cosmopolitan, that progress, made anywhere, quickly becomes the basis of new advances everywhere" (ibid. p. 386).

In industries dominated by such tendencies, localities (*viz.* their locally embedded agents) bear passively the action of powerful companies. EEs at the level of regions or countries may still have a role related to very large material infrastructure, education and research institutions, and all the features which contributes to social credit. M. for example recalls how the leadership of Germany in mass chemical products and in other applications of science to massive productions depends heavily on the German university system.

"Not the least of the benefits which railways have conferred on the industries of Germany, lies in their quickening of the intercourse of her Universities. Though German Schools have a severer discipline than the English, yet in German Universities both students and teachers have great freedom; while the constant migration of teachers as well as students from one University to another brings a national opinion to bear on each one." (Ibid. p. 90)

It was a true "national" system and contributed significantly to the national capital of Germany, in M.'s view, as "the zeal for education ... was associated with the rise of the national spirit" (Ibid. p. 89). This also helps in explaining the difference between national and cosmopolitan EEs. The first ones characterize a specific national context and are accessed by companies that, even when large and with facilities distributed worldwide, retain or develop roots with such context.

The cosmopolitan EEs develop and are accessed in world-wide networks<sup>27</sup>. They may still imply a certain amount of close communication and trust relations between partners, as when the particular markets and the external trade connections of firms are involved (Ibid. pp. 124). But markets do not need to have limited territorial

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<sup>26</sup> See again to Arena and Quéré (2003), Raffaelli et al. (2006), and Becattini et al. (2009) for general accounts on the Marshallian distinction between internal and EEs of scale.

<sup>27</sup> For a contemporary view in which EEs of innovation develop in contextualized but not necessarily local networks see Amin and Cohendet (2005).

boundaries, if the traders are "by means of fairs, meetings, published price lists, the post-office or otherwise, in close communication with each other"<sup>28</sup>.

#### 4.2. Distant trans-local contexts

Is the trans-national stage of industrial tendencies only reserved to networks of specific agents, often top managers of giant companies, great capitalists, scientists, and policy-makers of powerful nations? In *Industry and Trade's* illustrations of industrial tendencies in many countries in the last centuries, M. follows too, with keen attention, another type of great social process at regional, national, continental and inter-continental scale. It is the flow of migrants. Indeed this subject is considered worth noting by M. from his early writings on international trade<sup>29</sup>. With regard to industrial districts, his suggestion that "history shows that a strong centre of specialized industry often attracts much new shrewd energy to supplement that of native origin, and is thus able to expand and maintain its lead" is often quoted (M. 1919, p. 191). The inflows of new energies come not only from nearby rural districts and towns. The scale may be much more extended.

Among important examples of migrations of skilled people recalled by M., there are foreign artisans "imported" by Edward III in the fourteenth century; those "who in later times sought England as a refuge from persecution" (ibid, p. 444), laying the competence basis for the development of the English textile industries in various localities of Lancashire and Yorkshire; and again rich Jews merchant mentioned by Sombart (ibid, note 489, pp. 646-647).

Mass migrations have a different nature, including surely a large part of less skilled people. However, also in those cases, the energy and courage of the migrants may have some positive effects. For example M. gives them a central place in both the rapid growth of (a not densely populated) America to industrial leadership and the shape it took.

Not surprisingly M. considers migrations also as the manifestation of common motives falling upon social or industrial groups. When pushed to move (for example by poverty and persecutions), migrants try to find new homes, perhaps in distant

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<sup>28</sup> This is a part of a quotation by M. (1920, p. 325) of a passage from Jevons' *Theory of Political Economy*.

<sup>29</sup> Whitacker (1975). According to the young M. the hypothesis of lack of significant international migrations at the basis of the economic models of international trade which he proposes does not apply easily in the long run and surely not in the very long run.

countries, sometimes common new homes (e.g. in developing cities featuring “liberality of spirit”). Such a type of flows sometimes allows the fertilization of a locality with industrial competences and attitudes coming from another (possibly) distant locality. It is true that the carrier may be a migrating group with a specific identity which does not change with the localization; but skills and industrial attitudes are not constant quantities, and the reproduction of their value needs the insertion in more or less complex frames of division of labour<sup>30</sup>. When they do not fall completely under the integrating power of large firms, such frames interpenetrate in the networks of daily local life, where focussed entrepreneurial migrants are able to break in.

This means that there may be non casual genetic links between the technical, human and social capital of distant localities. The cosmopolitan scene does not belong only to collaborating and competing networks of un-local agents, often powerful firms, groups of scientists, and national governments; but also to trans-local relations, more or less deliberate, transferring advantages between distant localities.

The scope of trans-local relations is surely enlarged by the same “improved education and extended travel” which in M.’s age tended to diminish those “hindrances to communication” acting against the extension of international trade and impinging on “differences of language, of business usage, of commercial law and jurisdiction, and so on” (ibid. p. 30). Actually, the growth of international trans-local relations are included as part of a larger tendency involving nations: “as the individual life is made up largely of social intercourse, so is the national ... and the mutual knowledge which results from close trade intercourse has done something, and may do much more, towards the development of an ideal comity of nations” (ibid. p. 14).

An enlarged scope of such relations would include not only trade exchanges but also trans-local production, innovation and marketing projects among agents bridging distant localities. Such projects are occasioned by the increasing ease of international communications, sometimes strengthened by ties kept by migrant communities between old and new homes<sup>31</sup>.

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<sup>30</sup> Quoting “The Jewish Immigrant” by J. A. Dyche, in the *Contemporary Review*, vol. LXXV, M. (1919, p. 570, n. 153) states: “The success of small Jewish masters in the East End of London seems to be partly due to the care with which they select for each man work suited to his latent aptitudes.”

<sup>31</sup> Some recent contributions on trans-local networks and collaborative projects are summarized in Saxenian and Sabel (2009) and Bellandi (2009). At the moment of writing this paper the author is not aware of explicit suggestions by M. along this further line. However, the same line seems quite consistent with the general drift of his reasoning on related matters. Just to take a previous point, on science and its applications to industry being increasingly

## 5. Concluding remarks

This section proposes firstly some concluding (though not conclusive) comments in the light of the four contexts retrieved from *Industry and Trade*, and discussed in sections 3 and 4 above; secondly, the alternative interpretations of mobile EEs recalled in the introduction are taken again and related to the multi-territorial framework. Just to recall, the first context is the compact centre of industry (let's say a dense industrial district) within an industrial region; the second is the compact centre within (a large) country (as a nation); the third is given by non localized national and international conditions complementing the action of firms relatively large and independent from local aid; the fourth is the network of trans-local relations. These are possible contexts of EEs de-coupled by a narrow sourcing and access within the bounds of individual compact centres of industry; those bounds representing context zero, i.e. the realm of immobile EEs.

The first comment is that M.'s claim (both in the later editions of the *Principles of Economics*, and in *Industry and Trade*) of an increasing importance of EEs sourced and accessed beyond the bounds of single industrial districts (and the like) was not just a simple suggestion, being related to a rich set of materials and reflections disposed within an ordered though implicit framework. The second comment is about the interpretative meaning of such framework. I would suggest that M. used it not only as a classificatory device, but also as a support to the narrative of tendencies which seemed to point towards, or which could bring to an increasing international cooperation. However, and this is the third comment, since the different contexts imply also contradictory forces, and since each context houses a bundle of possible paths, the framework as such does not lend to clues on the prevalence of specific outcomes; i.e. clues which would define combinations and types of prevailing mobile and immobile EEs, according to different conditions which influence the interactions between the contexts. The analysis presented in this paper has not found in M. a theoretical discourse allowing the generation of those clues. The final comment

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cosmopolitan (see section 4.1 above), it is worth noting that the passage where M. proposes this statement is accompanied by a note where M. recalls, with a positive accent, cases of institutes of specialized industrial research, schools of technology and design, etc. promoted within U.K. industrial districts (M. 1919, n. 401, p. 631).

concerns precisely the possibility to associate the framework with theoretical discourses bringing to more definite clues on conditions, interactions, and outcomes. It is a post-Marshall affair, which may be tried either drawing final points where the outcomes gravitate, or setting up explicitly dynamic models. I would maintain that interpretations of M.'s de-coupling between EEs and compact centres of industry, as those suggested in the introduction of this paper, provide alternative final points, while not going too far in terms of inner dynamics. The last part of this section is devoted to some remarks on that field of relations and possible advancements.

Let's start with what I have termed in the Introduction the de-territorialized economic interpretation of mobile EEs. The third context of M.'s multi-territorial framework seems to fall near to it. The contemporary importance of the third context is admitted by M. who was seeing, at the beginning of the twentieth century, an increasing number of old and new industries, being characterized in this way, in particular the heavy and mass production ones. Here M. writes explicitly of "independence from the local aid". However there are at least two elements which are at odds with any simplistic assimilation of the third context with such interpretation: 1) the social and territorial correlates of a growth process led by large firms which have lost their local roots may be ugly, and need specific territorial policies which contain such effects, and leave space for different paths of development (see here note 22); 2) the realization of internal economies needs appropriate organizational contexts too, both internal to the firm and external, even if not (or less and less) at the ~~territorial level~~. Alternatively, the second context could be seen as consistent with the generic reference to national economic systems, that is often found in empirical applications of economic theories incorporating the de-territorialized interpretation. It would be enough to cancel out, from the Marshallian frame, the explicit consideration of the district intermediary role, and we would obtain the picture of the economic system of a country, with many (more or less) competitive markets, and perhaps internal economies and EEs at the level of country markets possibly left to explain increasing returns. It would be plausible, even justified by some passages found in M.'s work<sup>32</sup>,

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<sup>32</sup> There is a stream of interpretations that see in the later editions of the *Principles* the loss of a territorial approach to economic and social problems which instead would have been more evident in the young M. (see note 8). However, even the *Economics of Industry* includes the consideration that the "growing intelligence of the labourer and the increasing facility of movement from one part of the country [England at this time] to another have caused a close communication and to some extent a free circulation of labour between the various centres of industry" (M. and M. 1879, p. 48).

but for the under-statement that it would imply of one important side. It is the access to the public or shared elements ("the collective property") of the specific endowment of national capital (technical, human, social) which allows EEs at the national level; and large ranks of small firms, start-ups, and ventures of new entrepreneurs coming from the working classes, have difficulties in accessing directly such capital. Compact centres of industry, which are themselves in some degree small (economic) nations, both allow an intermediated access, and contribute to the same accumulation of the (country) national endowment<sup>33</sup>.

The other interpretations of the de-coupling referred in the Introduction, which I like to think as truly neo-Marshallian (mark 1 from E.A.G. Robinson, and mark 2 from G. Becattini), are quite consistent with the first, the second, and the fourth context of the list. This is because in all those three contexts, the EEs generated within compact centres of industry are at the core of larger systems, where other or complementary EEs (the "mobile" ones) are sourced and accessed.

Mark 2 (that is the "archipelago" of districts as small economic nations tied by relatively generic relations of exchange) does rather focus on the local level where daily life and work experiences overlap systematically (context zero), than give credit to the possibility of discerning a meaningful multi-territorial architecture above, a part from: a) both regional or national contexts being the geographical and cultural seed-bed where compact industrial districts develop; b) trade and other exchanges being a fabric connecting the archipelago; c) in particular, cosmopolitan networks being the context of progress and exchange of scientific knowledge, though its application to industrial advancement needs cross-fertilization with local pools of know-how and entrepreneurship. So mark 2 is close to a version of the first and second type of our list for what concerns genetic linkages; and to the fourth type for what concerns the picture of stable territorial interdependencies (Becattini 2009, pp. 24-25).

Mark 1 (that is EEs spilling over from one powerful centre of industry to minor, possibly distant, centres of similar industries) is clearly close to the fourth type of our list; even if spill-over or imitation still give too a partial picture of the trans-local relations which may support the transfer and cross-fertilization of industrial

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<sup>33</sup> It cannot be denied that the same M. favoured miss-understanding when separated the problem of the progress of nations from the foundations of the study of economic problems, i.e. the *Principles* (M. 1920, p. 270). See Becattini (2006a, p. 670) on some turns in M.'s work on related issues. However in the preface to the Eight edition, published one year after the first edition of *Industry and Trade*, M. states explicitly that this one is to be seen as "a continuation of the present volume" (Ibid, p. xii).



knowledge, competences and attitudes. Furthermore, the idea of a powerful centre of industry could be related to conditions of industrial districts (and the like) benefiting from the inclusion in larger but still well connected industrial regions and nations (context one and two). Finally, mark 1 adds the idea that mobile EEs may be the result of competitive actions by which advantages generated and enjoyed in a sort of "local monopoly" are diffused and replicated in an enlarged and possibly not contiguous set of compact centres of industry<sup>34</sup>.

The combination of the four types of EEs sourced in non-strictly local contexts with the three types of interpretation gives some hints on the possible features of dynamic multi-territorial models of EEs. A specific study of this field has to be deferred to other occasions. It may be supposed that dynamic models consistent with the Marshallian multi-territorial premises will carry an explicit evolutionary character. The different contexts should be delimited by porous borders allowing both competitive and collaborative relations, and the change of the inner characters of the same contexts as joint-effect of the reciprocal influences. Multi-territorial policy implications (see notes 13 and 22) should be defined at the interface between contextual constraints and the political processes which define the means and goals of deliberate action on the collective property of the places.

## References

- Amin Ash, and Cohendet Patrick (2005), "Geographies of knowledge formation in firms", in *Industry and innovation*, Vol. 12, no. 4, pp. 465–486.
- Arena Richard (1998), "The nation as an organized system of production", in Michel Bellet, and Corine L'Hammet, eds., *Industry, space and competition*, Cheltenham, Edward Elgar, pp. 51-69.
- Arena Richard, and Quéré Michel eds. (2003), *The economics of Alfred Marshall. Revisiting Marshall's legacy*, Basingstoke: Palgrave Macmillan.
- Becattini Giacomo (2006a), "The industrial district and development economics", in Tiziano Raffaelli, Giacomo Becattini, and Marco Dardi (eds.) (2006) *The Elgar Companion to Alfred Marshall*, Cheltenham: Edward Elgar, pp. 664-671.

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<sup>34</sup> In a recent model Storper (2009) sees a circular process of generation of local EEs and their diffusion, producing increasing returns. The erosion of the sources of local EEs may go together not only with the importance of internal economies of large firms, but also with EEs related to larger contexts or to un-exploited local opportunities (Dardi 2003, p.102).

- Becattini Giacomo (2006b), "Economic nations", in Tiziano Raffaelli, Giacomo Becattini, and Marco Dardi (eds.) (2006) *The Elgar Companion to Alfred Marshall*, Cheltenham: Edward Elgar, pp. 203-209.
- Becattini Giacomo, and Corsani Gabriele (2006), "Environmentalism and town planning", in Tiziano Raffaelli, Giacomo Becattini, and Marco Dardi, eds. (2006) *The Elgar Companion to Alfred Marshall*, Cheltenham: Edward Elgar, pp. 547-553.
- Becattini Giacomo (2009), *Ritorno al territorio*, Bologna: Il Mulino.
- Becattini Giacomo, Bellandi Marco, and De Propriis Lisa eds. (2009), *A handbook of industrial districts*, Cheltenham: Edward Elgar.
- Bellandi Marco (2009), "External economies, specific public goods and policies", in Giacomo Becattini, Marco Bellandi, and Lisa De Propriis, eds., *A handbook of industrial districts*, Cheltenham: Edward Elgar, pp. 712-725.
- Best Michael (2009), "Massachusetts high tech: A 'manufactory of species'", in Giacomo Becattini, Marco Bellandi, and Lisa De Propriis eds., *A handbook of industrial districts*, Cheltenham: Edward Elgar, pp. 648-665.
- Brusco Sebastiano (1989), *Piccole imprese e distretti industriali*, Torino: Rosenberg & Sellier.
- Cook Simon (2005), "Marshall's Essay on the history of civilization", in *Marshall studies bulletin*, vol. 9.
- Dardi Marco (2003), 'Alfred Marshall's partial equilibrium: Dynamics in disguise', in Richard Arena and Michel Quére (eds.), *The economics of Alfred Marshall. Revisiting Marshall's legacy*, Basingstoke: Palgrave Macmillan, pp. 84-112.
- Dei Ottati Gabi (2009), "Semi-automatic and deliberate actions in the evolution of industrial districts", in Giacomo Becattini, Marco Bellandi, and Lisa De Propriis eds., *A handbook of industrial districts*, Cheltenham: Edward Elgar, pp. 204-215.
- Dunford Michael, and Greco Lidia (2005), *After the Three Italies. Wealth, inequality and industrial change*, Oxford: Blackwell Publishing.
- Dupuy Claude, and Torre André (2006), "Local clusters, trust, confidence and proximity", in Christos Pitelis, Roger Sugden, and James Wilson eds., *Clusters and globalization: The development of economies*, Cheltenham: Edward Elgar, pp. 175-195.
- Gilly Jean Pierre, and Perrat Jacques (2006), "The institutional dynamics at work in territories: Between local governance and global regulation", in Christos Pitelis, Roger Sugden and James Wilson (eds.), *Clusters and globalization: The development of economies*, Cheltenham: Edward Elgar, pp. 159-174.
- Goglio Silvio (2001), "Relazioni locali e sovra-locali nell'industrializzazione italiana", in Giacomo Becattini, Marco Bellandi, Gabi Dei Ottati, Fabio Sforzi (a cura di), *Il*

*caledoscopio dello sviluppo locale. Trasformazioni economiche nell'Italia contemporanea*, Torino: Rosenberg&Sellier.

Loasby Brian, "Industrial districts as knowledge communities", in Michel Bellet, and Corine L'Hammet, eds., *Industry, space and competition*, Cheltenham, Edward Elgar, pp. 70-85.

Marshall Alfred (1919), *Industry and trade*, London: Macmillan.

Marshall Alfred (1920), *Principles of economics*, 8<sup>th</sup> edn, London: Macmillan (first edn. 1890, re-edited as vol. 1 of Guillebaud, C. W. ed. 1961 *Alfred Marshall, Principles of economics*, 9th Variorum edn, London: Macmillan).

Marshall Alfred, and Marshall Mary P. (1879), *The economics of industry*, London: Macmillan (2<sup>nd</sup> edn, 1881).

Martin Ron (2003), "Putting the Economy in its Place: On Economics and Geography", Paper presented at the Cambridge Journal of Economics Conference *Economics for the Future: Celebrating 100 Years of Cambridge Economics*, 17-19 September.

Quéré Michel, and Ravix Joël T. (1998), "Alfred Marshall and territorial organization of industry", in in Michel Bellet, and Corine L'Hammet, eds., *Industry, space and competition*, Cheltenham, Edward Elgar, pp. 86-103.

Raffaelli Tiziano (2003), *Marshall's evolutionary economics*, London: Routledge.

Raffaelli Tiziano, Becattini Giacomo, and Dardi Marco, eds. (2006) *The Elgar Companion to Alfred Marshall*, Cheltenham: Edward Elgar.

Reisman David (2003), "Alfred Marshall on Social Capital", in Richard Arena and Michel Quéré (eds.), *The economics of Alfred Marshall. Revisiting Marshall's legacy*, Basingstoke: Palgrave Macmillan, pp. 53-66.

Robinson E. Austin G. (1958) *The structure of competitive industry*, Cambridge UK: Cambridge University Press (first edition 1931).

Rosenberg Nathan (1982), *Inside the black box: technology and economics*, Cambridge UK: Cambridge University Press.

Russo Margherita ed. (2009), *L'industria meccanica in Italia. Analisi spaziale delle specializzazioni produttive 1951-2001*, Roma: Carocci.

Saxenian AnnaLee, and Sabel Charles F. (2009), "The new Argonauts, global search and local institution Building", in Giacomo Becattini, Marco Bellandi, and Lisa De Propriis eds., *A handbook of industrial districts*, Cheltenham: Edward Elgar, pp. 229-242.

Scitovsky Tibor (1954), "Two concepts of external economies", in *Journal of Political Economy*, vol. 62, pp. 143-151.

- Sraffa Piero (1925) "Sulle relazioni fra costo e quantità prodotta", *Annali di Economia*, vol. 2, no. 1, pp. 277–328. (English Trans. in *Italian Economic Papers*, ed. Luigi L. Pasinetti, vol. 3, pp. 323–363. Oxford: Oxford University Press, 1998).
- Storper Michael (2009), "The economics of context, location and trade: Another great transformation?", in Giacomo Becattini, Marco Bellandi, and Lisa De Propris eds., *A handbook of industrial districts*, Cheltenham: Edward Elgar, pp. 141-157.
- Trigilia Carlo (2001), "Social capital and local development", in *European Journal of Social Theory*, vol. 4 no. 4, pp. 427-442.
- Whitaker John K. ed. (1975), *The early economic writings of A. Marshall, 1867-1890*, 2 vls, London: Macmillan.