

Chapter 1

From Administrative Spatial Units to Local Labour Market Areas

Some Remarks on the Unit of Investigation of Regional Economics with Particular Reference to the Applied Research in Italy

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1.1 Introduction

The region as the unit of investigation is what distinguishes Regional Economics from other branches of Economics. Edgar M. Hoover, the founder of the Regional Economics, devoted a chapter of his book *An Introduction to Regional Economics* (Hoover 1971) to the region and its definition.

The region in Regional Economics is different from the region in Economic Geography (which corresponds to a productive agglomeration) and from the region in Political Science (which corresponds to a political-administrative entity). Moreover, while for Economic Geography and Political Science the region itself is the object of study, for Regional Economics it is the instrument used to investigate economic phenomena and take policy decisions.

Regional economists are aware of this difference, but they have shown a regrettable tendency to ignore it, and to use administrative units as a proxy of the region in their empirical analyses. Sometimes, they claim that this choice is due to the lack of alternatives, or the impossibility of having a region consistent with the theoretical assumptions of Regional Economics. But they should not underestimate the fact that if the unit of investigation they adopt is not consistent with the theoretical framework of the discipline, empirical results will be meaningless.

A number of researchers – initially in the United States, in the 1960s (Fox and Kumar 1965), then in Europe, since the 1970s (Smart 1974) – have devised quantitative techniques for the identification of regions consistent with the theoretical framework of Regional Economics. Different names were given to these regions, such as Functional Economic Area and Labour Market Area, but they all signified a region that internalizes the home-to-work daily journeys of its residents.

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In Italy, the debate on the unit of investigation started when regional economic policy appeared in the 1970s.¹

The problem was to define the appropriate territorial unit for economic research to support policy decisions (Sforzi-IRPET 1977).

This debate in the political field was influenced by the parallel debate taking place in academia about the unit of investigation of Industrial Economics (Becattini 1979). It was the culmination of theoretical thinking on the concept of industry begun in the 1960s (Becattini 1962) and continued in the 1970s with the industrial district-based interpretation of the economic development of Tuscany (Becattini-IRPET 1969, 1975), connected with a new reading of Alfred Marshall's writings and thought (Becattini 1962, 1975).

Research on the economic development of Tuscany (entrusted in 1972 to IRPET by the Tuscany Region²) was to be the prerequisite for the formulation of policies for place-based economic development by the regional government (Sforzi 2007).

The implementation of these policies required the definition of appropriate territorial units. That is, a place where people share a common interest.

IRPET had a leading role in defining these territorial units. It established criteria and methodology for carving up the 'political region' (Tuscany) into a meaningful set of 'functional regions' (places) (Sforzi-IRPET 1977; Regione Toscana/Dipartimento Programmazione-IRPET 1978; Regione Toscana 1979; Sforzi 1980, 1982).

The functional regions were composed of groups of municipalities (the basic units of analysis) merged together by daily journeys from home to work. Data were gathered via the 1971 Population Census.

A few years later, thanks to a research agreement with the National Institute of Statistics (ISTAT), the IRPET approach to functional regionalization was applied to Italy as a whole (ISTAT-IRPET 1986). The 1981-based functional regions were called *Sistemi Locali del Lavoro* (in English, Local Labour Market Areas: LLMAs). After that, LLMAs were updated on the basis of data collected by the Censuses of 1991 and 2001 (ISTAT 1997, 2005).

This updating showed that the boundaries and number of LLMAs were modifiable. LLMAs thus proved that stable administrative units are not useful for the understanding of the multiple paths of industrialization. This became apparent both in the old industrialized areas of Northern Italy and in those newly industrialized of the South. LLMAs substantially changed the knowledge of how the Italian economy was spatially organized. And to some extent, the attention of

¹The regions (NUTS level 2 in the Eurostat classification) were established by the Italian Constitution of 1948, but they were instituted in 1971. Their main task was the design and implementation of policies for the development of the regional economy.

²IRPET was, and still is, the Regional Institute for Economic Planning of Tuscany. It was founded in 1968 with the aim of carrying out studies on the region's economy and society. From 1968 to 1973 Irpet was directed by Giacomo Becattini. In 1974 became a public body under Regional law 48/1974 enacted by the Tuscany Region.

academics and policymakers has shifted from a sector approach to a place-based approach.

Over time, LLMA have become an instrument of analysis: (a) for collecting official statistical data; (b) for studying patterns and changes in the Italian economy.

After this Introduction, the remainder of the chapter is organised as follows. Section 1.2 summarises the background of the Italian experience of regionalization. Section 1.3 introduces the philosophy of regionalization. Section 1.4 describes the data and the methodology used for the identification of LLMA, and the results. Section 1.5 is devoted to a short description of the main applications of LLMA for research and policy. The concluding section contains some final remarks.

1.2 Background

The Italian experience of functional regionalization is rooted in Tuscany's regional economic policy and preparatory studies conducted by IRPET between the late 1960s and the mid-1970s (Becattini-IRPET 1969, 1975). Aimed at interpreting the industrialization of the region, these studies overturned the approach of mainstream economic research. The mainstream approach began with the analysis of industrial sectors on a regional scale, and proceeded to their territorial distribution in search of industrial agglomerations and the related location factors. The IRPET approach, by contrast, started from the places to explain the underlying causes of their change and the effects of such changes on the economic and social structure of the region.

The change in each place – it was argued – was determined not only by internal forces (economic, social, and institutional), but also by external circumstances, including the concurrent behaviour of other places (near and remote) with which the places of the region had economic and social exchanges (i.e., flows of goods and people).

The places represented the unit of investigation of economic research, and were conceptualized as 'economic regions' within the 'political region'. They did not coincide with the boundaries of territorial administrative units (municipalities and provinces: LAU level 2 and NUTS level 3 in the Eurostat classification) located within the political region.

This conceptualization of the place had equally important: (a) the field of economic research, and (b) the field of political action.

1.2.1 *Political Action*

In the 1970s IRPET was a 'hybrid' research centre as it was located at the intersection between academia and politics (Sforzi 2008). The two worlds cooperated rather than conflicted. Research did not underestimate the operational need of politics, while politics did not underestimate the need for rigor in research.

As a matter of fact, it called for rigorous answers to its demand for knowledge before taking the final policy decisions. These were under the sole responsibility of politics. So, the two worlds influenced each other.

The design of regional economic policy was based on the principle of inter-institutional cooperation between the region, as the institution responsible for regional economic policy, and municipalities, as the institutions representing the common interest of local population. Municipalities had to contribute to the determination of objectives of the regional economic policy (Regione Toscana/Dipartimento Programmazione IRPET 1978). However, this institutional role could not be carried out effectively because their political boundaries no longer corresponded to the economic ones.

The changes in the urban-rural and organization of production, the changes in spatial relationships of supply and demand for labour and, thus, for services extended the space of everyday life of the local population. This was highlighted in the industrial change of Tuscany by the IRPET study (Becattini-IRPET 1975).

So the common interest of the local population needed to be identified at a supra-municipality level. This raised the question of redrawing the boundaries of municipalities to enable them to effectively play the role of local partners of the region in economic policy making. In other words, it raised the question of the functional regionalization of Tuscany for economic policy purposes. The guiding principle was obvious: the appropriate territorial unit for the regional economic policy needed to represent – through its own institutions – the common interest of its people (Sforzi-IRPET 1977).

This conceptual framework led to a new way of thinking about region and regionalization:

- The region should not be conceived as a territorial unit to be built by means of a regionalization procedure, but as a place (or local community), historically and geographically determined. It needs to be a reality for local community. The crucial question is how it emerges;
- Regionalization should not be conceived as a procedure to be executed efficiently by means of given criteria, but as the research for appropriate criteria and related strategy to better approximate the identification of something that in social reality already exists (Regione Toscana/Dipartimento Programmazione IRPET 1978).

The criteria used to regionalise Tuscany or divide it into ‘places’ are briefly summarized as follows:

- The municipality is the basic unit of analysis;
- A place must be identified on the basis of daily journeys from home to work, because labour has a basic role in people’s life and guides their territorial behaviour with regard to the municipality where they live and work. This may be the same or different;
- A place must correspond to the area where the local population develops most of its economic and social relationships;

- A place must allow for the common interest of the local population to be identified as a whole.

Although statistically a place is a proximate and interconnected group of municipalities, it mirrors a local community of people that work and live within it. This is why places became the reference for the Tuscany region in the process of institutionalization of ‘inter-municipal associations’ (Regione Toscana/Consiglio Regionale 1978). A place in this sense was the appropriate territorial unit for designing and implementing regional economic policy (Regione Toscana 1979).

1.2.2 *Economic Research*

After his work at IRPET and coordinating the two studies on the industrialization of Tuscany (Becattini-IRPET 1969, 1975), Giacomo Becattini illustrated the theoretical background of these studies in his famous essay *Dal ‘settore’ industriale al ‘distretto’ industriale. Alcune sull’unità d’indagine dell’economia industriale – From the industrial ‘sector’ to industrial ‘district’: Some remarks on the unit of investigation of industrial economics* (Becattini 1979). The theoretical framework focused on the subject of local-external economies underpinning the Tuscan model of industrialization, because the small manufacturing enterprises embedded in specialized local communities played a leading role in the model. The essay paved the way for the discovery of the importance of small business for the whole Italian economy, and for the later conceptualization of the industrial district as a ‘model of production’ (Becattini 1989) and a ‘way of industrialization’ (Bellandi and Sforzi 2001).

It is also especially important as Becattini addressed the problem of the appropriate unit of investigation for economic research and policy decisions. To do this he looked back of Marshall’s writings on economic nations.

Marshall in fact introduced the concept of economic nation in *Industry and Trade* (Marshall 1920b: p. 20), as follows:

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* [emphasis added] 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 imports and exports of the place, they would to some extent still lack reality.

What attracted the Becattini’s interest in the concept was the ‘sense of belonging’ that holds together these places. The sense of belonging in which objective

components of a common interest and subjective components of a historical-cultural nature are blended together (Becattini 1979: p. 52).

If it is true that in Regional Economics “the normal attribute of a region is the general consciousness of a common regional interest” by its people (Hoover: p. 152), in Becattini’s interpretation, places (‘economic nations’ within have the same characteristics as the region in Regional Economics).

The sense of belonging is one of the possible founding criteria for re-conceptualizing industry, going beyond the more traditional criterion of technology. It makes possible the conception of industry through the “awareness of economic agents (employers and employees) of belonging to a particular industry” (Becattini 1962), and that is a place-based concept.

The awareness forms inside the place where “a set of productions have the common characteristic of occurring under the same technical conditions, that is characterized by the same production process” (Marshall, as quoted in Becattini 1962: pp. 22–23). This sense of belonging embeds the technology in the place where the production occurs “since neither the production technique nor the relations of competition or alliance towards the counterpart from feelings of rivalry and solidarity that arise (e.g. between employers and employees) can be strictly separated from the culture and social relationships that go with” (Becattini 1962: p. 28).

Along this line of thought the industrial district was proposed as the unit of investigation of Industrial Economics (Becattini 1979), and more generally of the national economy within the analytical framework of Applied Economics (Becattini 1987).

1.3 Philosophy of Regionalization

In Italy, the philosophy of regionalization based on the common ground of regional economic policy and economic research, entered the nascent field of Regional Science through the key role played by the regional research institutes like IRPET and other similar institutions. Although it was not a shared widely followed philosophy, but many regional scientists looked on it as a cornerstone of Italian Regional Science (Bianchi and Magnani 1985).

Within the field of Italian Regional Science there was a heated discussion about where this new field of research lay within Italian social sciences. The opinion of one founder (Bianchi 2009: p. 136) was that

Regional Science – under the impulse of Isard’s spatial economics – was becoming a branch of mathematical economics, while our purpose was to join economists, urban planners, sociologists, historians, geographers, lawyers etc.; that is, everybody, both academics and practitioners, that meant to grapple with the territory.

It was claimed that Regional Science was neither a branch of Economics nor a new discipline, but a common house of the different disciplines that shared interest

in the territorial organization of society. This criticism was concretely expressed in the identification of the daily urban system (a conceptualisation of functional region) as the unit of investigation for studies of Regional Science.

As is widely known, the notion of daily urban system was introduced by Torsten Hägerstrand in his presidential address to the Ninth Congress of the European Regional Science Association in Copenhagen in 1969. The address was entitled *What about people in Regional Science?*, and later published in the Papers of the Association (Hägerstrand 1970).

At the beginning of his address, Hägerstrand (1970: p. 7) pointed out “a difference in emphasis or tone between the European and North American meetings” of Regional Science:

When looking over the proceedings of the sixties, one gets the impression that participants in this part of the world have preferred to remain closer to issues of application rather than to issues of pure theory. We in Europe seem to have been looking at Regional Science primarily as one of the possible instruments with which to guide policy and planning. I have chosen to proceed along this line by suggesting that regional scientists take a closer look at the problem which is coming more and more to the forefront in discussions among planners, politicians, and street demonstrators, namely, the fate of the individual human being in an increasingly complicated environment or, if one prefers, questions as to the quality of life. The problem is a practical one and, therefore, for the builder of theoretical models, a ‘hard nut to crack’.

Now, first of all, does the problem fall within the scope of Regional Science? I think it does. A forest economist remarked some time ago that, ‘forestry is people, not trees’. How much more accurate it would be to say that Regional Science is about people and not just about locations. And this ought to be so, not only for reason of application. Regional Science defines itself as a social science, thus its assumptions about people are also of scientific relevance.

So according to Hägerstrand, Regional deals with people, not just with industrial location, and deals with them as local community (forestry) and not as individuals (trees). In this statement there is the premise of the argument that leads Hägerstrand to define the way in which a local community circumscribes itself, that is, through the behaviour of people moving from the locality where they live to the locality where they work, coming back home at the end of the workday. (This is developed later in Hägerstrand’s address).

This behaviour bounds a place that is conceptualized as daily urban system. The boundaries of such a place are given by economic relations, but most of everyday social relationships also develop within it. The daily urban system is open, since it trades people, goods and knowledge with other places, near or remote. Besides being permeable, the boundaries also change over time, to the extent to which businesses change their productive organization and people change their orientation towards labour.

So there is a clear difference between frameworks of Hägerstrand and Isard. The American economist supported a spatial reorientation of Economics through a general theory relating to industrial location (Isard 1956), while the Swedish geographer argues for overturning this setting, by placing the local community of which industry is an attribute at the centre.

Let me give an example to clarify this point. Langhirano is a place well known to gourmets because it produces ‘Parma Ham’. Langhirano can be seen either as one of the places where the food industry is localized, or as a local community near Parma which procures what it cannot produce itself by specializing in what it makes best. In the first view, the unit of investigation is the food industry, and a study of its spatial location across Italy reveals Langhirano. In the second view, the unit of investigation is the local community of Langhirano and research on the production structure of the place brings into focus the food industry. In the first view, the socio-economic reality is seen as ‘an array of interrelated industries’ and in the second view it is ‘a system of places’ (or local communities).

The similarity between Hägerstrand’s conception of Regional Science and Marshall’s conception of Economics is remarkable. Marshall considered Economics more important as part of the study of man – not in the abstract, but in relation to a given place and time – than as a study of wealth (Marshall 1920a).

The similarity is even more compelling when one considers that both Hägerstrand and Marshall put at the centre of their thinking labour and place, place being bound by labour. According to Marshall, social, and therefore economic change, mostly occurs in place, through the formation and enhancement of human abilities.

In Marshall’s social philosophy, labour occupies a central position (Becattini 1962). It is “the essential purpose of life”; indeed – as Marshall says – the labour “is life itself”. In particular, “labour is a necessity for the formation of character and, therefore, for progress”, because it is labour that educates and exercises human abilities, and allows their development (Sforzi 2008).

Human abilities are made up of all skills needed to carry out an economic activity: ranging from technical skills to the entrepreneurship. They contribute to the productivity of people.

Human abilities “are a means of production important as any other kind of capital” (Marshall 1920a: p. 347). Their increase is crucial for economic development. This statement follows from the role that Marshall attaches to knowledge among the agents of production, and the relationship he establishes between knowledge and organization, when he claims that “organization aids knowledge” (Marshall 1920a: p. 238). This aid varies according to different forms of production that the organization takes in different places.

Through the development of human abilities, the individual changes the place where s/he lives and, at the same time, it changes itself (Raffaelli 2001), conferring advantages to the individual. Among these advantages, Marshall lists the development of specialized skills: “so great are the advantages which people following the same skilled trade get from near neighbourhood to one another” (Marshall 1920a: p. 395). Some of these advantages concern the circulation of knowledge so that “the mysteries of the trade become no mysteries, but are as it were in the air” (Marshall 1920a: p. 395), becoming a place-specific public good.

To sum up, it can be argued that the place conceptualised as daily urban system by Hägerstrand and as economic nation by Marshall share the same conceptual framework.

1.4 The Unit of Investigation: Local Labour Market Areas

The *sine qua non* for regionalizing a national economy in a meaningful set of functional regions as conceptualised above is the accessibility to suitable data.

In Italy, this opportunity arose in the mid-1980s when ISTAT processed the 1981 Census data on daily journeys to work between municipalities. Thanks to the experience matured by IRPET in the functional regionalization of Tuscany (Sforzi-IRPET 1977; Sforzi 1980, 1982) and the reputation acquired for its studies on regional economic development exploiting local census data (IRPET 1976, 1980, 1983), ISTAT accepted the proposal to sign a research agreement for regionalizing Italy.

The functional regionalization of the Italian economic system was performed by means of a multi-stage analytical strategy consistent with the philosophy of regionalization discussed above (ISTAT-IRPET 1989). The definition of this strategy of regionalization had benefited from a survey of various available strategies and quantitative methods performed by applying them to Tuscany (Sforzi 1980, 1982; Sforzi and Martinelli 1980; Sforzi et al. 1982; Sforzi and Openshaw 1983).

The places identified through the functional regionalization were officially named Sistemi Locali del Lavoro (in English, Local Labour Market Areas: LLMAs).

The 1981-based LLMAs were presented in 1986 in a joint ISTAT-IRPET seminar, and the full research was published 3 years later (ISTAT-IRPET 1989). The research agreement was renewed for the following Censuses, so that regionalization was updated in 1991 and in 2001 (ISTAT 1997, 2005). Figures 1.1, 1.2, and 1.3 show the functional regionalization of 1981, 1991 and 2001.

As mentioned above, the boundaries of places change over time. This change is confirmed by the modifications in boundaries and number that LLMAs show from 1981 to 2001. There were 955 LLMAs in 1981, 784 in 1991 and 686 in 2001 (ISTAT 1997, 2005). These modifications occurred to varying extents across Italy, and do not follow a general rule.

LLMAs can be classified by their main productive activity or demographic size. A LLMA can be urban or rural, industrial or agricultural, but also specialized in consumer or business services which offer support to the industrial sector across the country. These varied criteria mean that a LLMA is not characterised by pre-defined economic features. A LLMA is not dominated by either small or large businesses, so that it can subsequently be characterized as an industrial district (i.e., a manufacturing LLMA dominated by SMEs) or as an industrial pole (i.e., a manufacturing LLMA dominated by one or a few large firms). Finally, a LLMA can also be classified as metropolitan, based on criteria such as an established population size or demographic density, or the localization of national level services. In short, a LLMA can be classified on the basis of localization economies in the form of Jacobian diversity externalities.

To illustrate this, let me comment on a couple of figures. These show LLMAs identified as local economies specialized in manufacturing industry (Fig. 1.4) and in consumer services or the hospitality industry (Fig. 1.5).



Fig. 1.1 Local labour market areas, 1981 (Source: ISTAT-IRPET 1989)

Figure 1.4 shows the widespread presence across the country of local economies typified by SMEs; that is, industrial districts dominate the industrial landscape of Northern and Central Italy, although they are also located in the South (Sforzi 2009).

To some extent Fig. 1.5 is complementary to Fig. 1.4. The local economies typified by the hospitality industry are mainly located in poorly industrialized areas. Particularly apparent is the localization of these local economies in the extreme North-East (South Tyrol). An economist (or a tourist) can easily recognize well-known Italian resort areas like Capri (Campania), Taormina (Sicily) and the Costa Smeralda (Sardinia).



Fig. 1.2 Local labour market areas, 1991 (Source: ISTAT 1997)

1.5 Main Applications

LLMAs reflect the methodology of aiming for a single consistent pattern of units of investigation for economic research and policy decisions. They have been very widely used in academia and institutions and the number of studies and applications is so high that it is impossible to compile an exhaustive bibliography.

In Italy, LLMAs were used, and are still commonly used today, for studies on industrial economics, urban and regional development, local development, sociology of innovation, among other fields. They have made possible a substantial



Fig. 1.3 Local labour market areas, 2001 (Source: ISTAT 2005)

advancement of knowledge in methodological, theoretical and factual issues. Below are some of the main applications.

In industrial economics the identification of industrial districts is important.

Before the mapping of the Italian industrial districts was completed (Sforzi 1987; Goodman et al. 1989; Pyke et al. 1990), the district was a concept in search of empirical evidence in order to be recognised as an effective ‘instrument of analysis’ for the interpretation of Italian economic development based on small businesses. Until then, the importance of small businesses for economic development was based on anecdotal evidence. The empirical evidence, supported by a statistically reliable approach, showed that industrial districts accounted for a large



Fig. 1.4 Industrial districts, 2001 (Source: Sforzi 2009)

part of the Italian economy, and that small businesses, when they were organized according to the district model, could be competitive as a single large company.

The mapping proved that the district could also be a potential ‘policy instrument’ to support the competitiveness of SMEs. This recognition had important policy implications because in the early 1990s the Italian government enacted a law where the industrial district was constituted as a legal instrument to foster technological innovation of SMEs (Ministero dell’Industria 1991, 1993). The regions were to implement this innovation policy by identifying their own districts on the basis of the LLMAs.



Fig. 1.5 LLMAs specialised in consumer services, 2001 (Source: ISTAT 2005)

After this, studies on industrial districts were widespread and varied (Signorini 1994; ISTAT 1996; Brusco and Paba 1997; Fabiani et al. 1998; Casavola et al. 1999; Signorini 2000; Tessieri 2000; Ministero delle Attività Produttive 2002). Within the same strand of research, LLMAs studies led to the identification of other types of industrial areas, such as local production systems (Burrioni and Trigilia 2001). The OECD territorial review of Italy used LLMAs to assess changes in the North–divide (OECD 2001) began to monitor industrial districts with the dissemination of data from the 2001 Census of industry and services (ISTAT 2006; Fazio and Pascucci 2006–2007).

Studies on urban and regional development have used the LLMA for analysing the Italian urban system and European integration (Dematteis and Bonavero 1997) and the production system in the framework of the political geography of Italian regions (Conti and Sforzi 1997).

The analysis of Italian industrialization carried out through LLMA highlighted a geographical pattern different from the model of the ‘Three Italies’ (Bagnasco 1977). Note that the unit of investigation used by Bagnasco was the region at NUTS 2 level. This is further evidence of the superiority of the place-based approach to territorial administrative units.

A more recent application of the LLMA is the mapping of creative cities (Lazzeretti et al. 2008).

The availability of an analytical grid of LLMA for the whole country benefited studies on local development. The possibility to conceptualize the term ‘local’, releasing it from the constraint of the territorial administrative units was important. Before the term local was conceptualized as a ‘place’, and place was empirically established as LLMA, local could mean a municipality, an urban district, or even a group of municipalities clustered to provide public services. Once the correspondence between local and place (or local community) was established, it was possible to give theoretical concreteness to the debate. For example, local development was no longer automatically associated with administrative devolution and people’s participation. Local development was no longer seen as a reaction to globalisation, confusing it with political localism. It was no longer identified with municipalism, spatial planning policies and investment in social overhead capital undertaken by municipalities. However, it was not possible to prevent that local development from being associated with LLMA dominated by SMEs and, therefore, with industrial districts (Signorini 2000). As a consequence, it became necessary to clarify that districts were only one among the multiple paths of local development (Bellandi and Sforzi 2001).

In the field of sociology of innovation, LLMA have been adopted to identify areas of high-tech activity (Biagiotti et al. 2011) and which are more conducive to innovation, as measured by the number of patents (Gherardini 2010).

A new frontier of the applied research using LLMA are the studies on international migration linked to entrepreneurship. This field of research is of increasing interest in Italy because many local economies are experiencing a process of ethnicisation of their industrial structure (Barberis 2008). Migrant entrepreneurs are producing ‘made in Italy’ goods but with a lower integration with the local business community and a higher integration with their community of origin in the motherland. This phenomenon is summarized by the words ‘made in Italy by ...’, where migrant entrepreneurs who ‘make’ are mostly Chinese (Lombardi et al. 2011).

The decision to apply the Italian LLMA approach to Spain (Boix and Galletto 2005) paved the way for international comparisons. This has affected both the industrial districts (Boix and Galletto 2008) and rural areas (Boix and Vaillant 2010).

LLMAs are now part of the ISTAT information system. They are used as territorial units to produce statistics on national economic performance, enterprises and their local units, and exports. These place-based statistics are disseminated online through the website and are freely available to researchers and practitioners, public and private, as well as to policymakers. The boundaries of LLMAs are a component of the digital cartography (ISTAT) and form an information layer of the Statistical Atlas of Municipalities, helping to meet the increasing demand for local data by people involved in analysis, design and evaluation of local development policies (ISTAT).

1.6 Final Remarks

The place-based approach to economic phenomena has brought academics, practitioners and policymakers a new way of interpreting economic reality and its change, and has proved a useful support to policy decisions.

Until ISTAT was able to provide national place-based statistics, the new approach lacked concreteness. However, it is equally true that without a single and coherent set of LLMAs that had proven its reliability for applied research the supply of place-based statistics would not have found any justification.

The development and dissemination of *ad hoc* statistics – such as place-based statistics – has a cost, since they are not required for institutional duties. If little or ineffective use is made of them the national statistics office may decide to ‘close the tap’, and stop producing them.

It can be argued that the relation between production and use of place-based statistics is a circular process: ‘applied research/knowledge/policy decisions’. The way in which this circuit is activated and whether it starts from research or policy is less important than how feedback is incorporated.

The lesson from the Italian experience is that the demand of knowledge for policy purposes motivated economic research to look for the appropriate unit of investigation. Research had the strength to resist the political influence, and freely developed its theoretical thinking and empirical applications with the intention of generating new knowledge, aware of its policy implications. It should be recognized, however, that economic research was not caught unprepared: its critical thinking on the subject was already in progress.

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