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The Cantonese model: Clusters of firms and local industrial development policy in Southern China

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ABSTRACT

Studying first-comers industrialization processes or today's "new-comers" experiences of industrial development it is clear that firms are not indifferent to geography. This paper illustrates the experience of the Southern China Guangdong Province, where, rather differently from what has been happening in many countries, agglomerations of firms have been extensively encouraged by government interventions. The government has selected several localities within the Province where the agglomeration of specialized companies has been strongly stimulated. In the Cantonese experience, therefore, the firm-clustering process cannot be considered only the aggregate result of single-firm choices but, on the contrary, it has been strongly connected to the local government's vision and interventions.

Keywords: Cluster, China, local industrial development, industrial policy

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1 Introduction

Old and new paths of industrialization have clearly shown that the spatial distribution of factories and plants is uneven in most countries. Studying *first-comers* industrialization processes or today's "new-comers" experiences of industrial development it is clear that firms are not indifferent to geography. Today, as it has been in the past, companies have their preferences in this strategic field and they are clearly sensitive to specific factors that may attract them in one location instead of another.

In other words, firm-clustering is a common characteristic of any industrialization process and it can be explained as the aggregate result of similar single-firm localization choices. Firms are attracted by a set of specific factors that can be found in one location and not in another and this is why they will tend to cluster in some specific geographic areas and not in others.

In the remote past of the first industrial revolution firms typically clustered close to the water, as it represented one of the first sources of energy. Thinking about our contemporary industry, we have obviously to update some traditional considerations, but firms clearly continue to cluster, for similar reasons as they have always clustered in the past. For example agglomerations of firms can be explained by the spatial proximity to specific inputs or assets: in the past centuries steel refineries tended to agglomerate close to coal or iron ore while today biotech companies seem incline to agglomerate close to universities. Or to refer to another simple intuitive case, companies cluster in some localities because of transport costs: in the past companies have been inclined to concentrate near ports or rail lines and today they seem to find interest in clustering around airports or highway junctions. In this intuitive list of rationales it is finally important to underline that companies, today as in the very past, continue to be attracted by other firms: this is because of the possibility of exploiting externalities, because of local public goods or simply because of the prospect of developing strategic collaborations.

In this scenario, the case presented in this paper, based on the experience of

the Southern China Guangdong Province, is rather different. Clusters or agglomerations of firms are still the objects of our analysis. However, in the experience we report the development of these agglomerations of firms have been extensively encouraged by government interventions. In particular, the local government based in Canton (Guangzhou) has planned to stimulate, accelerate and guide the firm-clustering process by means of ad hoc policy measures. A long list of localities scattered around the Guangdong Province have been gradually selected by government authorities and in these localities the agglomeration of specialized companies has been strongly stimulated. In other words, in the Cantonese experience the firm-clustering process cannot be considered only the aggregate result of single-firm choices. On the contrary, in Guangdong the emergence in the last decade of a wide number of clusters of firms has been strongly connected to the local government's vision and interventions. Clusters have become policy targets and their development has been considered part of the wider industrial policy strategy that has guided the last decades of the Cantonese impressive growth.

The following section introduces the Cantonese model of policy in favor of the development of clusters of specialized firms: the 'one city, one product' program. It was launched in 2000 and it aimed at supporting and encouraging the growth and development of the so called 'specialized towns' (STs): spatial agglomerations of firms operating in the same sector or *filiere* and officially recognised as such by the government. Section 3 follows the evolution of the programme using the data on specialized towns to identify the different aims followed by the provincial government in the various stages of its development process. Section 4 presents then the recent challenges for the development of specialized towns, while section 5 illustrates the role of local governments in their promotion, with specific reference to the most recent measures. The article ends with the concluding remarks. All the data presented are the result of an on-going research project led by the authors

2. The ‘one city, one product’ programme

It was the Department of Science and Technology of Guangdong Government (DSTGG) that firstly introduced the idea of ‘specialized town’, which is still at the centre of its contemporary industrial policy promotion strategy of the province. The support to specialized towns originated at the end of 1980, when the Chinese government launched the ‘*Spark Plan*’ to increase the technological innovation capacity in several rural areas of the country (DSTGG, 2003; Bolognini, 2000; Barbieri et al., 2009a and 2009b; Di Tommaso et al., 2012). The underlying idea was that strengthening the innovative capacity of the agricultural sector would have had positive spill-over effects on the whole economy, favouring therefore a parallel growth of the industrial productions (Di Tommaso and Rubini, 2006). Among the foreseen measures, the Spark Plan included the creation of several investment areas (Spark Technology Investment Zones), where firms could benefit from the availability of funds coming from government subsidies and bank loans. These investment zones represented the seed from which several Guangdong specialized towns originated.

It was in fact while studying these investment areas that some DSTGG experts and officials realized that in most cases each area tended to specialise in a specific sector, what has been called ‘one city, one product’. Given that the town was the prevailing administrative unit among these agglomerations, they were defined as *‘specialized towns’* (Lu, 2006; Barbieri et al., 2009a and 2009b; Wang and Yue, 2010).

In that period many studies were available on the successful experience all over the world of some analogous international cases. This has caught policy makers’ attention and they started to design measures to actively support this kind of industrial agglomerations. The main one has been the programme launched in 1998 by the Department of Science and Technology of Guangdong government to support a first group of specialized towns, subsequently extended to several other

cities.

Since then, the department officially acknowledges as ‘specialized towns’ those meeting the following criteria (Bellandi and Di Tommaso, 2005; Di Tommaso et al., 2012):

- Being administratively a ‘township’ or, less frequently, a ‘county’ or an ‘urban district’;
- at least 30 per cent of its industrial output (or employment) being concentrated in one specific sector, called ‘specialized sector’. One city can have more than one specialized sector;
- the annual value of the industrial output exceeding 2 billion RMB.

As a consequence of the official recognition, specialized towns are entitled to receive a subsidy partly financed by the DSTGG and partly by the local government (Wang, 2009; Wang and Yue, 2010). This money has to be mainly used to establish an innovation centre helping firms develop new technologies, upgrade their production and establish and consolidate their relations with other actors. The innovation centres should also favour an improvement in the reputation of the whole productive system of the town, possibly supporting the development of a common and easily recognisable brand (Arvanitis and Qiu, 2004; Wang J., 2004; DSTGG, 2003 and 2006a).

In the following section, we illustrate the evolution of the specific aims pursued with the ‘one city, one product’ programme by means of the analysis of the specialized towns evolvement in the provincial territory. We will refer to the data we have been collecting since 2001 gathering, checking and integrating information coming from official documents, statistics, field research and interviews.

3. The evolution of the specialized towns policy tool

By the end of 2011 the officially recognized specialized towns were 326. Their importance within the provincial economy has been growing over time. From 2001 to 2010, they have passed to represent from 3.66 per cent to 28.5 per cent of total provincial GDP, and from 2 per cent to more than 33 per cent of Guangdong population. The increase is equally impressive in terms of number of firms (from 14,800 in 2001 to more than 950,000 in 2010) and industrial output of the specialized sector (from 42 b. RMB in 2001 to more than 132 b. nine years later) (Di Tommaso et al., 2012).

Even if affected by the 2008-2009 international crisis (-1.56% annual reduction in 2009 in terms of weight of STs on provincial GDP, -17.2% industrial firms and -30.9% firms in the specialization sector), specialized towns have however been able to increase the value added of their production by 7.9% in 2009. In 2010 specialized towns also demonstrate a rapid recovery capacity, with all data starting to grow again.

Data also indicate a steady attention towards innovation. From 2001 to 2009 the number of high-tech firms has increased by more than 2,200 per cent, with a slow but constant growth in their incidence on the total number of specialized firms. Furthermore, there has also been a steady rising flow of local government funds directed to science and technology and an amazing boom in the number of accumulated patents, which has passed from 2,852 in 2001 to almost 154,000 in 2009 (for a more detailed analysis of innovation in specialized towns, see Di Tommaso et al., 2012; Barbieri et al, 2009a and 2009b).

Data seem therefore to show the pertinence of the decision of the provincial government to foster the development of industry by means of specialized town acknowledgement. This was in fact the first main aim of the ‘one city, one product’ programme. Over time, the specialized towns official recognition has been used to solve new problems arising during the development path of Guangdong. In particular, great attention has been placed on how to shape the

‘geography’ of Guangdong industry, influencing the location of firms within the province territory. The objective is to rationalize the incredibly fast - and often chaotic - development of the area while at the same time encouraging the development of the other lagging parts of the province. In most recent years, Guangdong has started to show an uneven development path, too imbalanced in favour of the central-eastern part of the province (the so-called Pearl River Delta area), with growing problems in terms of congestion, pollution, increase in labour and land costs, etc.. The more recent actions of the DSTGG are therefore directed at trying to rebalance the provincial development by promoting the ST establishment in rural and mountainous territories. The DSTGG has already started to pursue this objective by formally acknowledging new STs in rural areas, especially in resource based and agriculture-related sectors. Coherently with these measures, after the first wave of acknowledgement (up to 2003), specialized towns have flourished especially outside the Pearl River Delta region, with the majority of new ones acknowledged in prefectures such as Meizhou, Zhangjiang, Yunfu and Jieyang that are not included in the Pearl River Delta (PRD) (Di Tommaso et al., 2012).

At the same time, the government is promoting the relocation of high-tech sectors and services in the central Pearl River Delta area, while moving the low value added industries toward the external area, in compliance with the so-called double relocation policy implemented at provincial level (Di Tommaso et al., 2012). This attempt to re-balance the development of the province also by means of specialized towns is confirmed in the ‘Coordinated plan for cluster development in the Pearl River Delta, 2004-2020’, launched by Guangdong government to increase the competitiveness of the area by means of the support to the development of ad-hoc clusters. In particular, the plan clearly identifies specific industrial priorities to be reached in the next few years in terms of specialized town promotion (Barbieri et al., 2009b; Di Tommaso and Rubini, 2005 and 2006; OECD, 2010).

Our perception on the development of the programme is that by searching, in these areas, for localities that already show a specialization (or sometimes just a

vocation for a certain production), the government encourages further agglomeration and links this aspect to innovation and industrial upgrading.

In these last few years, the provincial government authorities are concentrating most of their efforts in the attempt of increasing the innovative capacity and of facilitating the technology upgrading of STs (see Barbieri et al., 2009; Di Tommaso et al., 2012). The aim of favouring the shift of the economic activities to higher value added productions while re-balancing the territorial development is in line with the more general development priorities set by the provincial government (Di Tommaso et al., 2012).

Not only therefore, as already seen, there has been a growing number of specialised towns recognised outside the PRD, but also the choice of sectors of specialization of the new towns has been all but accidental. The first three years of implementation of the 'one city, one product' programme show a large prevalence of low-tech sectors[1] (about 46 per cent of the total number of specialized towns). Over time, the weight of this category has been progressively reduced, already starting from the second wave of recognition (2004-2006), when low-tech STs accounted only for 24 per cent of total.

Also the medium-tech sectors have seen a reduction over time: they represented only about eight per cent of the specialized towns recognized in the period 2009-2011, against 20 per cent in the period 2000-2006. This reduction seems to have been compensated in two ways: on one side with an increase in the weight of services (tourism, business services, logistics, etc.) and high-tech activities, and on the other with a strong growth in the number of agriculture-related and resource-based (such as, for example, paper production, food processing, stone extraction, etc.) specialized towns. In the case of services and of high-tech activities (among others, pharmaceutical chemistry, solar photovoltaic panels or environmental-friendly materials), the growth in the number of specialized towns is slower, probably because it requires heavier investment in the

[1] For our analysis, we have divided the specialized towns in three categories: resource-based, low-tech, medium-tech and high-tech. This classification is the same adopted by UNIDO (United Nations Industrial Development Organization) (for more information see UNIDO, 2002, Technical Annex).

training and attraction of skilled workforce and advanced technologies.

These changes can be better understood by matching the data on the sectoral specialization of STs with those on their geographic distribution. As we have seen, in most recent years the Department of Science and Technology of Guangdong province has formally acknowledged many new specialized towns in the hinterland areas of the province, which have a rural and mainly agricultural vocation. This has not been done by chance: in this way the provincial government has used the formal recognition of specialized towns as a direct tool to reach specific industrial aims set by the general policy framework. This goes together with the simultaneous promotion of high-tech manufacturing activities and of the tertiary sector. The choice to move from the acknowledgement of purely manufacturing specialized towns to new sectors, and in particular to services and tourism, reflects instead the need to diversify the production specialization of Guangdong (Barbieri et al., 2009a and 2009b; Di Tommaso et al., 2012).

4. Recent challenges for the development of specialized towns

Data presented in the previous section indicate that Guangdong policy makers have used – and still use – the specialized town formal recognition as a tool going beyond a mere support to industrial development. Chinese policy makers seem to have paid particular attention to the successful cases in the developed world, in Europe and in particular in Italy with the industrial districts (Di Tommaso and Rubini, 2006; Bellandi and Di Tommaso, 2006; Becattini, 1989). The ‘one city, one product’ programme seems to be having visible effects in terms of industrial development, territorial re-balancing and technological upgrading. However, as it was reasonable to expect, a policy able to lead in only ten years to the recognition of more than 320 STs cannot be free from problems.

First of all, the formal acknowledgement of specialized towns is however not sufficient *per se* to obtain the economies and advantages that the international

literature traditionally assigns to the agglomeration of firms. It is also necessary to foster and consolidate the establishment of relations among actors. This is particularly difficult if we consider that some specialized towns, as observed by the Department of Science and Technology of Guangdong province, not only tend to overcome the administrative boundaries (city, prefecture and town) but also to become inter-sectoral, increasingly involving actors operating in other fields, with growing linkages among agriculture, industry and services (DSTGG, 2003).

Already in 2005, only few years after the launch of the programme, in its official document "Thoughts and strategies for the development of clusters in Guangdong and for brands creation", the Department of Finance of Guangdong government underlined the priorities to tackle while implementing the industrial development strategy by means of industrial cluster promotion:

- to foster not only the development of specialized towns per se, but also the collaboration among specialized towns, in order to limit territorial overlapping and intra-provincial competition;
- to create ad hoc supporting centres specialized in quality control;
- to favour the creation of brands at local level so as to increase the capacity of firms and specialized towns to compete effectively on the international markets;
- to increase the diffusion of knowledge on the rules for patenting and for the protection of intellectual rights.

Further limits in the development of STs have arisen during the meetings we had over the years with several local actors and studying official documents and interviews reported by the local press and previous available studies on this aspect (Li&Fung, 2006; Wang, 2009). The main ones are the following:

a. Under-utilization of innovation supporting measures. The formal acknowledgement of a specialized town is usually followed by the establishment of innovation centres serving all firms that operate in the town. The mere creation of these centres, however, is not a guarantee of their success (Barbieri et al., 2010; Di Tommaso et al., 2012). In many cases, in fact, these innovation platforms are under-utilized: on one side large firms

have their own internal R&D resources, and on the other small firms do not often believe in the utility and safety of external resources to promote innovation, fearing information leakages and a consequent loss of competitiveness. This fear is also fed by a regulation for the protection of IPRs that is still unclear, granting an insufficient defence both at national and at international level. Finally, in some cases the publicly-funded innovation centres fail to be a reference point for the promotion of innovation in STs because they are not properly connected to the local production system and to the external world, they do not employ sufficiently prepared personnel and they are not able to properly sensitize the potential users about the benefits of their supporting measures (Barbieri et al., 2010).

b. Insufficient coordination in ST promotion. Despite of what stated in the cited document of the Department of Finance of Guangdong Province, there is still a need for a better coordination among localities. The tumultuous growth of STs, coupled with a fierce antagonism among Guangdong municipalities, have caused the multiplication in the provincial area of ‘overlapping’ towns (Qian and Stiglitz, 1996). Many of them are directly competing with one another because they concentrate on similar productions. In some cases, the situation is even worse, and specialized towns operate not only in the same field, but also in the same specific phase of the productive process (Li&Fung, 2006). A strong boost to the whole ST production system would derive from an increased effort of government authorities in developing vertical specializations. This implies to drive each specialized town towards the gradual concentration in a specific stage of the production process, while at the same time facilitating the establishment of vertical relations among STs (supplier-customer and not competitor-competitor relations). The result of this action would possibly be a reinforced industrial system at provincial level and the reduction of internal competition among Guangdong specialized towns. Official sources quote that some results are already being reached in this direction. For example, the production of furniture in Shunde (Foshan) is strictly related to the woodworking machinery in Lunjiao (Foshan), to the

paints of Ronggui (Foshan), to the metals of Junan (Dongguan), etc. These relations have ended in the creation of a complex system for the furniture production that has increased its overall competitive capacity, being able to sell furniture articles all over the world (DSTC, 2011a).

c. Problems related to the impact of a fast industrial development. The use of the ST promotion tool has undoubtedly been among the factors allowing a rapid development of Guangdong province (and in particular of the PRD). The other side of the coin has been an equally astonishing increase in problems such as air, water and land pollution, resource scarcity, higher labour costs, decrease in the overall quality of life, etc. For this reason, many ST governments are now designing sets of policies specifically aimed at fostering a harmonious development of the area and at decreasing the 'collateral effects' of the rapid industrial growth.

d. Insufficient qualification of specialized towns. On one side, the high number of towns specialized in traditional sectors need to increase their innovative capacity. The DSTGG recent measures are devoted to reach this objective by means of support to cooperation among firms, to the workforce qualification and to the technology upgrading of enterprises. At the same, great attention is also posed on the strengthening of high-tech sectors. The number of high-tech STs is in fact considered to be still too low and in many cases the technology is under the control of foreign-funded companies. For this reason, in the future the government wants to increase the embedding of STs in their localities in order to better control their technological potential.

5. The role of local government in the promotion of specialized towns

The launch of the 'one city, one product' policy by the Department of Science and Technology of Guangdong province has been but one of the steps of a wider strategy where local governments were strongly encouraged to increase their role.

The 1994 fiscal reform of the tax-sharing system allowed local governments to retain part of the tax revenues collected. As a consequence local governments were stimulated to act in strong connection with local firms in order to push the development of the local economic system.

In this scenario, local governments have been encouraged to pursue specific objectives, as they have been defined by the DSTGG (DSTGG, 2003; Barbieri et al., 2009b; Di Tommaso and Rubini, 2005; Bellandi and Di Tommaso, 2005; OECD, 2010). In particular, they should:

- Help create supporting institutions that offer services to all firms of the town;
- Promote R&D and innovation, in accordance with the general guidelines on industrial technology upgrading defined at the national and provincial levels (Di Tommaso et al., 2012);
- Encourage the circulation of knowledge within the town and facilitate the flows of reliable information on market scenarios, new technologies, local and international competitors, and so on. This action is of great importance in STs, where small and medium sized firms are diffused and often lack adequate access to the above-mentioned strategic information;
- Design and offer sector-specific professional training programmes. Again, this indication is in line with the overall policy priority set by the national and provincial government: the investment in human capital and the improvement of the skills and expertise of PRC's workforce are seen as a priority tool to enhance the competitiveness of the Chinese economy (Di Tommaso et al., 2012).
- Stimulate the knowledge and technology transfer by supporting the relations between firms and universities/research centres (Barbieri et al., 2010);
- Increase the international visibility of towns by means of national and international events. Following this indication, many towns have organized sector-specific trade fairs, attracting investors from all over the world. This has been the case, for example, of the 'International Famous Furniture Fair' in Houjie (Dongguan), of the 'China International Lighting Fair' in Guzhen (Zhongshan) or of the 'International Fashion Fair' in Humen (Dongguan).

It is important to underline that local governments seem to have taken the challenge and following the indications coming from the DSTGG they have strongly supported the growth of their STs, developing a wide variety of supporting actions, ranging from vocational training to policies for town brands, from the construction of town-level exhibition centres to the organization of big events at national and international level.

In all these interventions the intention of the local government is to limit the support to specific firms or group of firms; the aim is rather to support the development of the town as a whole and, as it has been explicitly argued by policy makers in several interviews, create and maintain a stable environment that can favour the social and economic development of the town.

The most recent development guidelines for specialized towns have been discussed in January 2011 during a large meeting that took place in Dongguan on the future evolution of specialized towns. A wide arena of policy makers involved in the promotion of specialised towns at local and provincial level participated in the event. Two are the main foreseen actions for the future of STs (DSTC, 2011a and 2011b).

The first is related to the increased attention towards a sustainable development, in line with the view of the recent 12th five year plan (Di Tommaso et al., 2012). If, on one side, this could be simply considered a political slogan, the experience of several towns shows that the effort to establish public parks and green areas in addition to industrial infrastructures are real.

One of the most quoted cases is that of Nanzhuang, in Chancheng prefecture. According to many policy makers Nanzhuang is a *best practice* in the reconversion of the industrial production so that it could meet green standards. The town leads the provincial production of ceramics and tiles, accounting for 25 per cent of the national total and for 12.5 per cent of the world total. The notable industrial growth of the last decades has increased the wealth of local population, but at the same time the increasing pollution was worsening the quality of life. In

order to solve the problem the town created a research and engineering centre to develop and adopt clean production processes while pushing towards a general requalification of the productive system. Local policy makers agree that the results are already visible, with a great improvement in the quality of air and water.

A similar change is being experienced by Shilong (Dongguan), a town specialized in the production of digital office equipment. In these last few years, the local government has re-directed its investment to promote the diffusion of clean technologies, the reduction of power consumption and the re-utilization of industrial waste (reaching 100 per cent, according to official sources). The town is now known as the 'green town of Guangdong'.

In line with the "laboratory" approach that characterizes the industrial development of Guangdong, the government plans to select one 'pilot specialized town' in charge to test the implementation of a sustainable urbanization process, supported by a technological upgrading and a sustainable growth both at regional an at national level (Di Tommaso et al., 2012). With this first selection process the government aims at generating and diffusing best practices related to a sustainable environment and development in other STs of the province (DSTC, 2011b and 2011c).

The second priority action stressed during the 2011 Dongguan meeting is to push the ST system towards the so-called 'one city, one policy' objective (DSTC, 2011a and 2011c). The "one city, one policy" approach means that every town has to identify its own development path, while at the same time supporting the overall economic development of Guangdong province. This means acting on different fronts, that have been identified by the government with the following main keywords:

1) 'To free': the political administration of specialized towns has to be simplified and to this aim a further decentralization of the economic management of the town to local authorities is envisaged;
2) 'To transfer': that is to optimize and strengthen the industrial structure of STs while rationalizing the urban development;

3) ‘To invest’: public accounts must be restored in order to guarantee the resources for the renewal of old infrastructures and the construction of new ones;
4) ‘To transform’: the quality of production becomes a priority, especially in traditional low-value added industries;
5) ‘To defend’: STs have to be helped to increase their GDP, their innovation potential and, more in general, their competitive capacity.

5. Final remarks and research agenda

In Chinese government circles the idea that “clusters” are important policy targets is today widely diffused. In this scenario the specific experience of local development policy presented in this paper is unique for four main reasons. First, it has a very long history being the pioneering result of a debate initiated in the Southern China Province of Guangdong in the early Nineties. Second, this program in favor of the development of local clusters of specialized firms has actively involved an impressive number of towns. Third, the development of this long list of specialized clusters has occurred in one of the most successful areas of contemporary global manufacturing characterized by three decades of continuous growth and industrialization. Fourth, cluster-supporting policies have been used over time to reach a variety of different goals and to answer to the new challenges arising during the process of growth and industrialization.

In this context, the policy vision of the leading Cantonese policy makers has been clear. First, agglomerations of specialized firms can offer important competitive advantages to local industry. Second, specialized firm clustering at the (administrative) town level offers a unique tool to govern a very fast industrial growth minimizing the costs associated to the lack of long-term strategy. Finally, specialized towns development should be encouraged and guided by *ad hoc* government policies.

In the early stages of development and growth, clusters have been considered a very important policy target in order to guide the process of

industrialization, technological upgrading and structural change. More recently, clusters have continued to be targeted in order to manage the unbalanced outcomes of two decades of continuous growth: the congestions of central highly industrialized areas and the marginalization of some lagged territories.

In this scenario, the long list of policy acknowledged Specialized Towns has actively participated in the impressive growth of the last two decades that has characterised the whole area. In this perspective, one could argue that the 'one city, one product' programme has had visible effects in terms of industrial development and technological upgrading. In addition, the clear intention of policy makers to continue along the road of targeting and referring to specialized towns as a relevant unit of intervention would suggest some success of the policy programme.

However there still seem to be some controversial and open issues that call for further researches on STs.

First of all no clear relation of causality has been proven between policies supporting STs and the industrial growth of the Province. In other words the question "to what extent have specialised towns directly contributed to the impressive growth thanks to the specific government intervention in favour of clustering?" is still open.

The debate over the effectiveness of the policies that we have described is to a large extent internal (to Chinese policy making circuits and academia). The international debate on the effectiveness of this type of local development policies in China is still at an early stage. Therefore the capacity to collect evidence on the causality between the specific program and the industrial performance is limited. On one hand there are problems in accessing the local data needed to approach this question at the relevant unit of analysis. Most international contributions focus on the general "China" case, or on specific firm-case studies. The *meso* level is much less explored. On the other hand, it can be difficult for international observers to model the functioning of a local economy in China where the traditional categories - such as firms, joint ventures, governments, public, private etc. - often have different meanings than the ones normally assumed by western

scholars (Di Tommaso et al., 2012).

Second, few are the evidences able to illustrate the details of the government intervention functioning. It is clear that a policy leading in only ten years to the recognition of more than 320 STs could not be free from problems. It is also clear that policy makers themselves are aware of most of these problems and have been searching for solutions, ranging from new programs, to new and different incentives to firms. However the effectiveness of these solutions depends to a large extent on the mechanisms that regulate the policy-making process, including the management of public officials incentives and their career system (Di Tommaso et al., 2012). Again these are aspects that are still extremely marginal in the international debate over industrial and local development.

What is clear from our analysis is that governments are playing an active role in promoting clusters in Southern China. It is also clear that the policy instruments connected to the establishment of STs (such as the definition of incentives to innovation centres and technological upgrading, the definition of priority sectors, the identification of priority issues such as the environment and so forth) are carefully planned and are part of a long term provincial strategy.

In this scenario the relevance of Guangdong in the global market and its weight in the international industrial value chains make this Province something more than an interesting case study. It is a place where scholars can find new and fresh interpretations of how contemporary industry works today. It is a place that can offer ideas and evidence for the debate on the role of governments in contemporary industry. In this context it is of utmost importance for future research agendas in the field of industrial and local development to concentrate on theoretical and empirical analyses on the effectiveness of government interventions in places like the Guangdong Province.

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