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This paper written based on a research period of more than a year, conducted in Catalonia. Material of this field work was previously used to write the paper 'Catalunya: Quo Vadis? Motor of Europe or industrial desert' (Tilburg, 1994), under guidance of Prof.dr. J.J.J. van Dijck, Dr. F.W. Boekema and Dr. J. Trullén i Tomas. This 'revisited' version was written after graduating and staying half a year more in Catalunya in order to update knowledge on certain topics. The ultimate of goal of writing this second paper is not only to encourage discussions and suggestions on my work and therefore constructive reactions, it is also meant to diffuse readable (scientific) knowledge on Catalonia among Spanish, Dutch and other more Northern European readers. My gratitude goes out not only to the ones that guided me officially with this work, but foremost to all those wonderful nobodies and the few celebrities I got to know; all those that inspired me during my stay in 'Dolça Catalunya'.

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Catalunya: Quo Vadis? Revisited

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Abstract

In this paper the underlying institutional and organisational foundations of Catalonia's economy is analyzed in the light of ongoing internationalization processes. Being one of the Spanish and/or European regions that seems to have taken most benefit of the integration processes in Europe, this paper provides insights in the factors that make of Catalonia a vibrant regional economy and it also shows the weaknesses of its industrial fabric. Based on an analysis on regional and enterprisal level by means of business system and industrial district theories, recommendations will be given in order to strengthen the economic potential of Catalonia in an economic world that becomes ever more internationalized, both in Europe as in Spain. As softer, socioeconomic factors and geographic proximity appear to play an important role in SME and family enterprise based economics like Catalonia's solutions are mainly to be found in the strengthening of (socioeconomic and institutional) structures and inter-firm relations clustered around locally concentrated sectors.

1. Introduction

At the moment traditional national barriers within Europe become less meaningful regarding international trade. This is a result of political and economic integration processes, such as the European Monetary Union, the European Political Union and Interior Market projects. Other processes that change the role of national borders are non-governmental regulated processes like
the increased amount of cross-border activities of enterprises and the coming of new (information) technologies, new production and distribution concepts, the creation of high-grade international traffic and communication networks and the increased mobility of persons.

These processes result in the fact that the regulating power of national governments decrease (look f.i. at the increased effectivity of national public interventions in the economic field and the emergency of international industrial networks). And as national frontiers fall down and protectionistic policies disappear, enterprises -the real motors of globalization compete with each other in increasingly open markets. Also on previously protected national markets. Productivity then becomes the imperative which makes continuous (production process) innovations more and more necessary. In other words, the introduction of a more perfect form of competition means that every company, in order to compete in its sector, will have to reach an absolute productivity level (Porter, 1990).

Regarding this, it are not only the technological innovations that deserve attention. Also social and organizational innovations become more and more important. In this respect, all the latest research about comparing competitiveness of companies show that social dynamics, like organization forms and the mobility of human capital, are ruling (De Jouvenel & Roque, 1993). Apart from problems around qualifications of personnel and the organizational structures of the company they are working for, also mental skills and social behaviour towards the introduction of changes and new systems is of critical importance. Therefore, in order for its companies to become successful, a locality has to create an environment which stimulates the development of efficient and effective organization formula and receptive stances among its human resources towards innovations and changes.

Against this background, here, an investigation after the institutional and organisational foundations of the economy of the Spanish autonomous region 'Catalunyall will be conducted. With the objective to find out whether and in which way these foundations can and should be influenced and altered by means of policies. What is understood by institutional and organisational foundations here can broadly be described as the way enterprises are organised and prevalent patterns of behaviour, actions, coordination and collaboration within and between economic agents like companies, syndicates and government. Several indicators of these foundations will be screened throughout this paper.
The investigation will be conducted via applying three analytical frameworks in order to describe the dominant patterns and to define policy recommendations. The analysis will be divided into two stages.

First; these foundations will be analyzed via applying the Business System approach of Richard D. Whitley and the Industrial District approach of Giacomo Becattini cum suis. Second; based on the insights these analyses yielded policy recommendations will be given to improve and/or strengthen the foundations in question in order to enlarge the chances of improving the performance of private enterprises under the new business circumstances. The thesis, then, runs as follows:

Define policy recommendations in order to improve the institutional and organisational foundations of the Catalan economy

Throughout the paper attention will be paid to the effect economic internationalization processes, as one of the most shaping powers of today’s business circumstances, have (had) on the state and effectiveness of institutional and organisational foundations of the Catalan economy.

One of the results of these economic internationalization processes was the entrance of non-Catalan companies on Catalan soil. This means that attention has to be paid to the question if, and if so in which way, this changed the institutional and organisational foundations of the Catalan economy. This is because foreign (owned) companies on a locality’s soil often do not have neutral effects on the way these companies function. And it are the companies on a locality’s soil which are co-shapers of its institutional and organisational foundations. With respect to this, Porter (1990) uses the term 'home base'. The home base is the place where '... the essential competitive advantages of the enterprise are created and sustained' (pp. 19) and where '... a firm's strategy is set and the core product and process technology (broadly defined) are created and maintained' (pp. 19). Regarding foreign ownership of and foreign control over companies -located in a region-, Porter (1990) says the following. 'As long as the local company remains the true home base by retaining effective strategic, creative and technical control, the nation (or region [Ed.]) still reaps most of the benefits to its economy even if the firm is owned by foreign investors or by a foreign firm' (pp. 19). This means that it does make a difference for a region’s institutional and organisational foundations and its overall prosperity,
whether or not foreign enterprises exert strategic and technological power over a region’s firms, as it affects some of its factor creating and upgrading mechanisms and actors.

2. Comunitat autònoma de Catalunya

The object of analysis is the Spanish 'Comunitat Autònoma de Catalunya' (hereafter: Catalonia). Catalonia is a region located in the northeastern part of Spain along the Mediterranean sea and separated from France by the Pyrenees. It encloses 31,930 km², slightly smaller than the Netherlands slightly bigger than Belgium. Its population counted 6,082,030 in 1992, with almost half of it living in Barcelona’s metropolitan area.

Catalonia is a frontier region forming part of one of the most decentralised states in Europe. Apart from being an economic-administrative whole, it is also a whole in cultural-historical and linguistic respect. Therefore it is both a planning and a homogeneous region. The latter is the result of a long historical process, the former is the result of recent, first of all political, developments in Spain.

Throughout its history Catalonia swayed between dependency and independency. After the death of Francisco Franco y Bahamonde in 1975 a process towards limited independency and democratic institutional building along with a devolution of powers from the central government to regional authorities took place. This transition from dictatorship to democracy and from centralism to regionalism, i.e. the installation of the 'Comunidades Autónomas', was done in order to improve the possibilities of these regions to develop economically; the so called 'desarrollismo'. A strong call for this kind of administrative restructuring came from the Catalans, as more than three decades of central repression had resulted in a general disaffection of Catalonia for central Spanish political life. The first democratic elections in 1977 opened the way for a policy of adjustment. It took off with 'los acuerdos de la Moncloa' in 1978, agreed upon by all political parties, employers representants and syndicates. In the first place the Moncloa pacts were concluded to confirm all social partner’s commitment to democracy, but also to commit them to new forms of economic policies. Catalonia as a Comunidad Autónoma got a legal status on december the 27th, 1978 with the 'Constitución Espagniola'. This gave it the legal ability to exert legislational, administrative and limited jurisdictional power over
housing, urban and regional planification, agriculture, regional infrastructure and transport, health, education, social services and culture. Since then, Catalonia has its own autonomous institutional organisation, made up of a legislative assembly, a government advice counsel, a president of the counsel and a high court of justice.

Democratisation processes also opened the way for Catalonia, to establish more economic relations with the rest of Europe and the rest of the world. These possibilities were improved by Spain's entrance into the European Community in 1986. Since then, Catalonia's government took part actively in various forums and associations for the promotion of initiatives aimed at increasing the presence of regions at the EC-level. Among these associations were the Assembly of European Regions, the Association of European Frontier Regions and the Group of European Regions with Industrial Traditions. In the same spirit, Catalonia signed cooperation agreements (Four Motors of Europe) with other buoyant regions; Baden-Württemberg, Lombardia and Rhône-Alpes.

Catalonia's geographic situation is one of the pillars of its economy as it makes Catalonia a trait d'union between Spain and the rest of Europe. Most of the goods that go from Spain to other parts of Europe and vice versa pass Catalonia, making it a crucial link in one of Europe's main trading routes. Also, as Catalonia is situated partly along the Mediterranean sea and Barcelona's harbour is large and well equipped, it is easy to ship goods to other areas, like France, Italy, the Spanish coast and the Maghreb. This advantage plus the early position in textiles gave Catalonia a strong position in trading that has never been lost. Also the more entrepreneurial spirit of Catalans and a stronger orientation towards the rest of Europe, compared to the inhabitants of other parts of Spain, allowed its firms to establish and maintain commercial contacts with major European economic countries.

Now, powers which currently shape the environment in which Catalan private enterprises have to operate will be analysed. The internationalization of the Catalan economy is the most important one. Other processes which will be screened are political integration, concentration of economic activities around metropolitan areas, individualisation of society and an increasing importance of new (information) technologies.
3. Shaping powers

§ 1 Internationalisation of the Catalan economy

Internationalisation can take place via two forms. In the case of Catalonia; foreign companies that become established there, and Catalan companies that develop activities abroad. Both ways, internationalisation is a means to achieve economic growth (Adam Smith, 1776).

What has happened the last decade is more of the former than the latter.

In a quick tempo the Catalan economy internationalised. The quotient 'foreign trade of Catalonia/BIP of Catalonia' rose between 1980 and 1992 from 34 to 39% (COCINB, Banca Catalana & own elaboration).

The coming of foreign companies on a large scale has helped the Catalan economy reorientate its production apparatus. Activities of foreign companies have also been beneficial regarding the internationalisation of the Catalan economy and the integration of Catalan enterprises into multinational networks.

This was the positive side of the internationalisation processes. However, as exposure to international competition creates for each industry an absolute productivity standard necessary to meet in order to survive, the increased international trade meant a threat for the economy of Catalonia and its companies. In many cases, it appeared that Catalan firms were not competitive enough.

The result was a deindustrialisation process, meaning an absolute and relative loss of jobs in industrial activities, especially in manufacturing activities as a result of lower growth or decreasing demand after industrial products and a transfer of jobs to non-manufacturing branches (Petitbó & Bosch. In: Banco de Bilbao, 1983, pp. 242). And even though a transfer of jobs to non-manufacturing branches took place in those years, it was not sufficient to avoid a quick rise in unemployment rose in that period (from 17.3% in 1981 to 20.1% in 1993 (Banca Catalana & INE).
For a region like Catalonia, which has based its development almost entirely in industrial activities, this disequilibrium between industrial and non-industrial employment is a clear sign that its industrial activities are on average not competitive anymore.

What happened then in Catalonia was that foreign firms took on key positions in (the most important subsectors of) the Catalan economy, such as the electronical, the chemical, pharmaceutical, the finance sector and the automobile sector.

Grosso modo, it were especially the imports to Catalonia that grew whereas export growth of Catalan products to other parts of the world was much more modest. The setting up of Catalan plants or branch locations outside Catalonia, as a means to support the latter, is indeed something that has to increase as only 5,000 of the mere 47,500 companies (1991) in Catalonia sell their products on non-Spanish markets (Tecno 2000, may-june 1993, pp. 3). Another indicator that reveals that internationalisation processes regarding Catalonia go one way is foreign investment. In 1988 the height of the total foreign investment was 49,719 million pesetas, in 1991 it was 108,620.6 million pesetas (Rovira y Benet, 1992 & Banca Catalana, 1993, Q 18 pp. 182). Foreign investments into Catalonia per sector gives the following figures. Over the years 1988-1992 (in mln pesetas): chemical (432,541), finance (1111,995); production equipment (699,733); paper, graphics & publishing (200,000); and vehicle manufacturing & automation (100,000) (Source: MEH, DG Foreign investment, 1988-1992).

With the years then a polarisation within the Catalan economy took place. Two blocks can be distinguished nowadays: on the one hand, large foreign companies which play a big role in the strategic sectors; those that are capital-intensive or depending on advanced technologies. On the other hand, the local family-owned PYMES that operate in the more mature, low or medium-tech and low information-intensive segments of the economy.

The latter will be the primary object of analysis in the following.

§ 2 Individualisation
To start with, under the Franco-regime demand conditions -low real incomes year after year- and supply conditions -many production centres became nationalised and 'monopolised' - did not nurture demanding, sophisticated and individually different consumers. Instead, consume
patterns were more of the uniform kind. Also the nationalisation of companies was unfavourable for sophisticated demand as it replaced more critical and profit-oriented private ownerships.

Therefore, in the first place Catalonia did not inherit an economy focused on offering specialised and individualised products. Today, the execution of individualisation trends have more chances within Catalonia. Nonetheless, there are some factors that make that individualisation does not take place at the same pace as in e.g. Northern-European countries where individuals develop more and more diverging consumption patterns, starting already at very young ages.

In Northern Europe as well as in the United States of America the part of one's behaviour that is determined through social-economic background, religious beliefs and education is diminishing more and more.

In Catalonia, as in the rest of Spain, lifestyles of especially young people tend not to diverge as much as. This is largely due to traditional reasons; youngsters stay with their parents until they marry, and to economic reasons: Spain's Catholic welfare state. Social security grants for unemployed are not sufficient to lead an independent life and therefore a lot of young people stay with their family until a rather high age. This makes that relatively few of them wander out developing their own style and preferences. Instead they stay a long part of their life within the family environment. Consequently strong ruptures in taste, desires and demands get smoothened as the family is for a great part of a Catalan's life the most important provider of socialisation. High unemployment rates, again especially among youngsters, and low income on average, make that Catalan consumers can not become demanding buyers.

Catalan demand does in general not anticipate, nor define, foreign demand. It is more the opposite, foreign countries impose their demand on Catalan consumers, who are following. The reason for this can partly be explained via pointing to Catalonia's recent Franco past. Due to this era the prevalent political and social values in Catalonia can still be characterised as conservative and prudent. Therefore, they will not foreshadow needs and norms that will eventually emerge elsewhere.
All this creates a bad climate for Catalan enterprises as it makes it very difficult for them to anticipate on new demand or to be the first to innovate and upgrade in existing industries or pioneer in new fields and industries.

§ 3 Increasing importance of new (information) technologies
In recent years, telecommunication services have developed into basic elements and strategic factors of modern production systems. The ability of companies to use telecommunication services in an effective and efficient way is for a large part depending on the telecommunication network, which forms the basis of all forms of advanced communication, that is prevalent in a territory.

Until now Catalonia still suffers from a shortage of telecommunications infrastructure. The scarce investments of the last years have avoided the taking place of large scale use of teletext, telefax, digital communication, fibre glass connections and satellite transmissions within enterprises. The Generalitat hopes to solve these problems through continued investment in the coming years, after having had a real investment budget of 243,296 million pesetas for 1993. Also Telefónica contributes to this. It created for Catalonia the Plan Fotón, with which it pretends to connect all Catalan enterprises, that might need the new telecommunication service possibilities in the future, to a glass fibre network.

Regarding the situation within Catalan enterprises, basic information technology (hereafter: IT) like electronic mail and videotext, is already being used on a large scale. The same can not be said about other, more advanced, IT services like Electronic Data Interchange or video conferencing.

As states Mr. Cornella from ESADE; 'Within Catalan enterprises there is a culture of informatica, but there is not a culture of information' (In: Tecno 2000, gener-febrer 1994) . One of the reasons for this is the fact that Catalan businesses seem to undervalue information services. This means that equipment is available in a lot of cases, but there exist a lack of knowledge concerned the possibilities of the material. This has made enterprises seldomly consult accessible databases with potential strategic information via computers, terminals and other networks. The same can be said about the frequency with which advanced telecommunication systems are used to spread or collect information as a large amount of
Catalan companies are still not connected to networks which make an improvement of communications possible and which give access to new information bases.

§ 4 Geo-political integration processes
At the moment, within Europe, simultaneously globalization and regionalization processes take place. This is caused by a crisis of the nation state. According to the sociologist Daniel Bell the state nowadays is too small to solve big problems and too big to solve small problems.

Countries that are especially vulnerable to this are countries like Spain that have recently ended a period of authoritarianism. Also in other EC member-states, except for Germany and to a lesser extend Italy, centralized governing was ruling. But in recent times decentralization has taken place strongly in Belgium, Spain, France and Portugal.

An independent factor in this is the failure of totalitarian ideologies which means a return to local for local policies and local institutional building as instruments of societal construction, renewal, solidarity and cultural identity. On this wave, in Europe regionalism and regionalisation becomes ever more important. From the Spanish state level, it still remains to be seen if in the future Catalonia, and other autonomous communities, will be granted more financial and fiscal powers. This looks unavoidable.

The Maastricht Treaty (1991) was the first EC-Treaty in which the term 'region' was mentioned in the sense of administrative body. Nowadays, regions are in a lot of cases the executors of communitarian policies following the subsidiarity principle. This is also illustrated by the emergence of many cooperation structures and bodies between regions. Examples of these bodies of which Catalonia is an active member are: 'Four motors of Europe' (together with Rhone-Alpes, Lombardia and Baden-Wurttemberg), 'Euregion' (together with Languedoc-Rousillon and Midi Pyrenees), 'Community of Labour of the Pyrenees' (idem), 'the Assembly of European Regions' and 'the High-Tech Route of Southern Europe'. Another, but not institutionalized, example of this is the Latin Arch (from Valencia to Rome) of which Catalonia forms part.

On the other hand there is the construction of Europe as a supra or metanational political entity to realize a economic and political union. Regarding the mediterranean zone, countries like
Spain are striving to increase political and commercial cooperation between the EC and the Maghreb countries -united in the Union of Arabian Maghreb- in order to increase mutual economic benefits and political and social stability, as well as a decrease in the coming of immigrants, whether they are legal or not, and demanders of asylum. These policies are laid down in the Renewed Mediterranean Policy of the EC of 1990. Especially the companies from northern mediterranean zones like Catalonia itself could benefit from these policies, because of their cultural geographical proximity.

It looks as if in the future these two tendencies will lead to more economic and political power and responsibility for regions like Catalonia.

§ 5 Concentration of economic activities around metropolitan areas

All through Catalonias most recent economic history, a swift of production activities towards the more densely populated areas have taken place. Especially towards the metropolitan area of Barcelona; Barcelonès.

That geographical proximity of diverse production activities is not always beneficial is a well known fact. Among others it can be a potential source of congestion and inefficiencies if planification is inadequate and infrastructural facilities are insufficient.

This is also the case in the Barcelona area where malpractices in planification on the regional level were a result of the centralised political system in Spain until the eighties. As an illustration: the costs of traffic congestion in Barcelonès were already in 1973 estimated on 3,000 million pesetas\(^1\)

For these reasons a stronger dispersion of activities within the Barcelona provincia, as well as a transfer of activities to other provincias, especially to Tarragona and Lleida, was promoted.

Nonetheless, the transfer of activities was a selective one. Barcelona remained the most important location for activities of those service and industrial sectors with the highest added value. E.g. industries like pharmaceutics, electronics, machinery and graphic arts. These are

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\(^1\) Círculo de Economía, Gestión o caos, Barcelona, 1973
sectors for which agglomeration factors, the availability of qualified personnel and proximity to customers are more crucial than low labour, ground and estate prices. Generally speaking, these are sectors which need qualified personnel and an environment that supports the introduction of innovations and therefore makes companies able to survive in dynamic and complex markets.

Intermediate industries and distribution activities moved to the belt surrounding Barcelona, whereas the industries with big plants like textile, metallurgy and wood activities moved to more inland places, establishing themselves along the most important transport roads.

This unequal spread of economic activities over the Catalan territory makes that the perspectives of people living in other regions worsen and that eventually they move to the city, thereby strengthening the process of concentration.

This makes the necessity of a more equal spread of industrial activities both more urgent and impossible as delocalising and decentralising activities away from Barcelona becomes rowing upstream. Although for environmental reasons and for the spread of employment and consequently population, a spread of economic activities would be more than welcome, former industrial heartlands of Catalonia like Ripolles and Berga, can only be revitalised if education, technology and transport infrastructures to attract industries are improved in the surroundings of these cities. Nowadays, if MNCs enter you can not expect them to locate in Berga instead of Barcelona as they always want to locate where there are universities, suppliers, R&D-institutes etc. More examples of the 'Parc Tecnolàgic del Vallès' in the Vallès area should become operational in order to spread activities and to help to decongest greater Barcelona.

4. Plan of action

The work will consist of three main parts. First of all, the theoretical frameworks which will be used in this paper will be exposed.

To begin with, the Business System concept will be presented, after that the Industrial District concept.
Second, institutional and organisational foundations will be analysed.

More concrete, what will be done in this chapter is describing the (functioning of the) most important economic agents in the Catalan economy and their actions towards the economy and the institutionalized patterns of behaviour, organisation and cooperation within and between them. For the description of these foundations the business system analysis is more important as it provides us with 'tools' that make it possible to give a detailed impression of how and why Catalonia has its particular foundations. The industrial district analysis on the other hand provides us with better tools to bridge the gap towards the making of policy recommendations to improve the foundations. Thus, both models are used complementary.

This is possible as both theories start from socio-economical principles. Finally then, policies will be described meant to upgrade the institutional and organisational foundations of the Catalan economy.

5. Presentation of analytical frameworks and theoretical position-finding

§1 Whitleys business system
The business system (hereafter: BS) approach is the first framework which will used here. This approach makes possible an analysis of patterns of behaviour and actions around production circumstances i.e. both structural arrangements and rules system. Thereby one can describe the way in which economic activities in an economy are organised by which actors and how and why these organisational patterns have become established. Thus, it is possible to embed the economy in a sociological-institutional context.

Richard Whitley, the designer of this approach, describes BS as configurations of hierarchy-market relations which become institutionalised in different market economies in different ways as the result of variations in dominant institutions. In Whitleys work, the legacy of Max Webers work on different expressions of capitalism are easily recognizable. The following passage, clearly inspired by earlier socio-economical works, derived from Whitleys 1993 book: 'European business systems', illustrates this. Although the last two centuries in North America and Western Europe and in Catalonia the ruling form of the economy consisted
of a system of pricemaking markets, the place the economy occupied in human society is still partly regulated by a great variety of other than market- institutions in which man's livelihood is embedded. Taken from this approach, the economy and its parts can be regulated and coordinated via different social or institutional mechanisms and arrangements. The instituting of the economy provides unity and stability and the way in which it is instituted is highly dependent on cognitive, cultural, organisational and political networks of social relations within a certain geographic entity. The inclusion of the noneconomic is vital, for religion, social philosophies or governmental ideologies and postures may be as important for the functioning and structure of the economy as for example monetary and market-led institutions. Together these value systems determine largely firm strategies and their (international) entrepreneurial posture, the structuring of organisations and rivalistic and cooperative relations between firms.

And that is what Whitley's theory is about; linking both inter and intraorganisation approaches. In his view, the organisation, or the firm, is considered the basic unit of decision-making, in which resources are integrated, controlled and coordinated through an authority-system. The fact that organisations become more and more open and are primarily knot of its relations, makes that also a lot attention is paid to external contacts of organisations in the BS concept.

§2 Theoretical position-finding of the business system concept

Both economic and sociological theories have formed ingredients for Whitley to come to his BS concept.

Concerning the economic approaches, one stream should be mentioned. This is the Transaction Cost Economics. In this stream the central focus is on the organisation of all kinds of business related transactions e.g. labour, capital in order to discover forms of appropriate business governance structures. According to Williamson what is appropriate in economic sense i.e. efficient depends on organisational circumstances. He presumes a selection process to be at work taking care of the survival of the fitter organizational structure. In other words, a contingent relation between organizations and their environment.

Concerning the sociological approaches of organizations, explicitly the theories of embeddedness should be treated. That way can be made understandable that the institutional environment influences the behaviour of actors, while these same actors can influence their environment.
Embeddedness implies that firms operate in a system of power relations, values and norms, in which they have developed routinized behaviour which only in this setting is meaningful and effective.

Regarding the contexts or settings in which firms operate; these are depending on the grade of decentralization in a country- either country or region-specific. Major institutionalized domains like financing, education, labour relations and employment are to a high degree the same for all kinds of industries within the same administrative locality.

§3 Elements of the business system
Whitley’s BS analysis is formed by three main elements that make up the actual BS and two additional elements that provide tools to describe the contexts through which a BS took shape.

First, the nature of the firm; how are economic activities and resources coordinated and controlled. About style of management and leadership; whether its authority, (de)centralized, collegial, participative or paternalistic etc.

Second, the organisation of markets; how are market connections between authoritatively coordinated economic activities in firms organised. About interorganisational practices and institutional cooperations and collective actions f.i. with contributions from Chambers of Commerce, Gremia, public administrations, banks etc.

Third, the way in which authoritative coordination is exerted and control systems are used; how are activities and skills within firms organised and directed through authority relations. This is about the organisation of production activities.

The two additional elements help describing the institutional contexts of the BS.

The first of these is the background social institutions. About the religious and cultural context which shapes and influences overall mentality and behaviour: the sources of socialisation.
The fifth element is the proximate social institutions. Here, the political, legal, fiscal and financial systems which have their effect on productive activities and entrepreneurship, are treated.

§4 The industrial district concept

The industrial districts approach is the second framework with which the Catalan economy will be analysed. This approach is the product of a school of mainly Italian scientists around Giacomo Becattini. It is build upon research undertaken in geographic entities largely made up of small and medium-sized companies.

The industrial districts (hereafter: ID) theories are a concept in the tradition of regional economics. It has firm roots in the theories of Marshall, e.g. in his book 'Principles of economics' (London, 1890) in which he offers extensive, now and then impressionistic, commentaries on externalities, agglomerations, localisation and what he calls the industrial atmosphere prevalent in regions of closely linked small firms. Therefore, in a way ID theories have an avant-la-letre character as they picked up these fundaments already in the seventies (see for example: Becattini, G., Invito a una riieitura di Marshall, Milano, 1975 & Bagnasco, A., Tre Italie, Bologna, 1977). Abundantly before authors like Porter and Krugman published books in the early nineties which were manifestly inspired by Marshall’s work (respectively: 'The competitive advantages of nations, New York, 1990' & 'Geography and trade, Leuven, 1991').

§5 Theoretical position-finding of the Industrial District concept

Orthodox economic analysis of the concentration of economic activity in a finite number of locations begins at the most elementary level with the theory of economies of scale internal to the producing firm. But economies of scale can also occur when individual firms have possibilities to enjoy external economies e.g. via mutual subcontracting and outsourcing of capacity. Especially if a region contains a high concentration of one particular industry, the individual companies can potentially take large advantages of each others resources, flexibility, knowledge and scale. Marshall (1890) identified a class of external economies that focus on the benefits for individual firms from the growth of pools of common production factors, like land, labour, capital, energy and transportation. When many producers share access to the same common pools, the supply of these resources is enhanced (capital and labour will migrate to these areas in order to take advantage of the larger markets to which they can sell their
services), and the pools are more likely to achieve Critical mass in the sense that they come to include a wide variety of specialities. Both the enhanced supplies of these factors and the greater specialisation of pools tends to drive down factor prices or raise factor productivities in the long run. It is here where the external benefit to the user firms lies: in the long run, each individual users unit production costs will be lower because of the presence of such common infrastructures and specialised pools of labour and capital.

When a region forms the site for expansion of common pools of labour, capital and infrastructure, or when pecuniary externalities can be traced to the new investments made by a firm in some particular place, then the lower unit costs of production facing firms in that place are called agglomeration economies (Harrison, 1991, pp. 472).

These common pools and services from which each individual firm in the region can draw, formed an important part of the whole of private and public arrangements in the Italian IDs that have received so much attention in North-American and Latin-European literature the last decades as these measures and arrangements were highly responsible for their vibrant economic growth. However, for these arrangements to be successful trust between the participants is a necessary ingredient. On this, we will comment later on in this chapter.

Marshall’s theories explain for a large part how such well-endowed places come into existence. Other authors helped to understand how upgrading and expansion of these places takes place. It was Perroux\(^2\) who explained most comprehensively that dynamically growing places are the locales of innovative firms and industries. Although Perroux’s ’pôles de croissance referred to sectors rather than to places as such, what follows directly from his argument is that locales in which the newer industries producing innovative goods (and services) are situated will not only grow faster than the average of all locales, but also that -through linkage and price effects- these growth impulses get diffused and multiplied, making the complexes of linked industries and their locales consequently more attractive for a next wave of investors. As these multiplied growth effects are experienced locally, external economies are being generated. Thus Perroux’s theorising permitted to close the circle that associates innovative activity with the creation of agglomeration economies. The healthiest growth poles are those that are able to continually

\(^2\) Perroux, F., Note sur la notion de 'pôle de croissance'. In: Economie Appliquée, janvier-june, pp. 307-320.
regenerate themselves by 'freeing' new innovative products and processes are born into the old growth pole.

Well then, ID theories are more than just about externality and agglomeration. The ID construct also has a less quantifiable and more sociological aspect: 'What holds together the firms which make up the ... industrial district... is a complex and tangled web of external economies and diseconomies, of joint and associated costs, of historical and cultural vestiges, which envelops both inter-firm and interpersonal relationships ... a localised Thickening' ... which is reasonably stable over time'.

The 'historical and cultural vestiges' which supposedly contribute to the 'localised thickening', are notions that come from a totally different scientific stream that has influenced the writing on IDs. This is the idea of 'embeddedness, which is very different from the modes of theorising of the conventional neoclassical (regional) economic theory. Thus the ID theories also take into account that relations of production and distribution are influenced by sociological, political, cultural and anthropological considerations such as size, location and history of a community, the presence or legacy of attachment to guilds or family and ethnic ties. In Pyke et al. (1992) for example one can read in this respect that in textile areas, communities that have been producing textile products for centuries develop a culture of clothing as well as the completion of great economic and productive interest, tradition and knowledge linked to textile. It is this concept of embedding that makes ID theories essentially different from neoclassical agglomeration theory.

Within the ID theories an active role is provided for 'concrete personal relations and structures (or networks)'. In these relationships and structures, phenomena like partnership, loyalty, morality and mutual trust, which were also treated in the BS analysis, are very important. These phenomena play a crucial role when first contacts between companies are established, (in)formal arrangements are renegotiated, redesigned or prolonged. They can only be built up over time, through experience and continual (re)contracting. And then we are back where we started; it

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is spatial proximity and shared backgrounds and events; history in general, that makes these phenomena easier to produce.

This is the ID theorists’ explanation for the continuing relevance of agglomeration to regional economic vitality. If partnership, loyalty and trust can best be build through learning about the idiosyncrasies of the actors, and if this requires repeated interaction, then such interaction is likely to be facilitated by personal contact and geographical proximity.

In the ID theories, probably the most important net result of the embedding concept is the otherwise paradoxical combination of cooperation and competition. Sabel 5 6 emphasizes how entrepreneurs who normally compete with one another also see each other frequently in social clubs, churches and advisory boards of local cooperatives and regional government agencies. By combining the various features which were outlined here, the ID theories succeed in embedding economic relations into a deeper social fabric.

§6 Elements of Industrial Districts

What do IDs consist of? IDs refer to geographically defined production systems which are characterised by a large number of firms that are clustered around a certain product group. Exposed more systematically, the characteristics of industrial districts are the following.

A first important aspect is the fact that a large proportion of these firms are small or medium-sized. This conglomerate of firms does not have a centre for strategic decisions. This changes in many cases when MNCs from abroad enter the ID and commit PYMES, via subcontracting, to their activities. Most of the time then, these PYMES are doomed to take care of the activities with the lowest added value in a particular production chain.

Earlier on was mentioned that international trade not only affects the functioning of local economies via competition on world markets, but also via the establishment of foreign enterprises in those areas. The reason for this is the fact that their coming affects the

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socioeconomic and industrial fabric of the local economy, as it brings forth the alteration or destruction of economic entities and ties between them. According to various scientists from the ID school; Amin, Robbins, Brutti and Calistrri, the activities of large enterprises -especially MNCS- are a threat for highly local organised production systems. As an important characteristic of IDs is the fact that there are a lot of small independent enterprises; only depending on each other because of their different specialisations with none of them forming a strategic centre in decision taking, the coming of MNCs threatens the independence of the smaller enterprises. Becattini points in this respect to the problem of maintaining the previous existing interfirm relations and business value-systems, which are of vital importance for the functioning of these production systems, when large foreign enterprises enter the scene (In: Pyke et al., 1992, pp. 22-23).

A second important feature is the fact that IDs can be seen as a social and economic whole ('Gestalt'). This means that there exists a strong interrelatedness between the social, the political and the economic spheres, and the functioning of one of these is conditioned through the functioning and the organisation of the others. Therefore, success of an ID not only depends on the economic side. The social and institutional spheres are equally important.

A third important feature is the capacity to adapt and innovate, together with the local capacity to respond rapidly to changing demand conditions. This depends highly on the flexibility of the labour power and the production networks.

A fourth important characteristic is the fact that the motor behind the success is not a big vertically integrated company. On the contrary, it are the small firms, strongly interlinked based on different specialisations, providing local accumulation of advanced specialised knowledge and technical capabilities. This is the result of the situation that all the district's companies fulfil a certain step in the production or service chain, with organic interdependency as a result. Because of this organic interdependency, the whole of the smaller enterprises is able to produce and reap economies of scale because expensive production equipment can be fully used to answer the demand of all the members, mostly via subcontracting, within the production or service chain of the district. Thus, economies of scale can also be achieved with small firms. For example via mutual subcontracting and the outsourcing of production capacity. Of course, what is necessary then is mutual trust, contact and the will to cooperate. For this form of
cooperation the prevalent local value-systems which introduce important elements for cohesion and which make a smooth resolution of disputes possible, are very important.

A fifth characteristic is the balance between competition and cooperation. Competition exists between companies elaborating the same product or executing the same activity; horizontal competition. On the other hand there is a lot of vertical cooperation. In other words, companies that are different work together, whereas the companies that do the same thing compete fiercely among each other.

6. The Catalan business system: economic agents, their functioning, organisation and interaction

§1.1 The Catalan firm
Catalonials private enterprises; 'the firms', will be the first economic agents to be analyzed. Concerning the nature of the firm, one should start with identifying the key decision-making unit in an economy. Only the firms that have Catalonia as their home base in the Porterian interpretation will be analysed, so, foreign firms will not be screened as these deploy their resources on a supranational base and are thus not depending on favourable organisational and institutional foundations on Catalan soil.

What remains, the indigenous part of the Catalan industrial fabric, are largely PYMES. The lack of a large amount of large Catalan enterprises is due to the fact that international entrepreneuring was for a long time constrained by political situations and protectionistic measures, the fact that Catalan entrepreneurs are mostly orientated on the Catalan or Spanish market, their individualistic posture and need for independence, conservatism, distrust and austerity and the fact that entrepreneuring for a large part is practised within the family framework. Also the hostile environment of the firm (bureaucracy, fiscalities, syndicats), the rigid labour market and the attitude of financial institutions played a role in this.

In the current Catalan situation family capitalism rules. Consequently, in most PYMES members of the founding family are the key decision-makers. As a result of the high percentage of firms that still have a family character, in a large part of the Catalan firms the degree of managerial discretion from the owners is low. Features of the nowadays situation of the nature of the
indigenous Catalan firm are the important role individual entrepreneurs play and the large amount of family-controlled small-scale companies in which ownership and management are concentrated in one dynasty.

The specialisation of managerial capabilities and activities within authority hierarchies is low as the way in which most firms are organised is what Henry Mintzberg (1989) would call 'simple structure'. This is the type of organisation where the director is the sole responsible for production management, human resources management and other (strategic) areas within the organisation. Only Catalan firms that operate cross-border or are of a big size, have more elaborated organisational structures.

The degree to which company growth is discontinuous and involves radical changes in skills and activities is rather low. Adapting to or preparing for growth opportunities always involves a certain amount of risk. Due to, in general, individualistic postures of Catalan directors, they rarely look for help from third parties like government, syndicats, banks or other firms. Either then a firm can decide to take the risk; with the chance of bankruptcy, or not. The aggregated effect is that growth possibilities are low. If a Catalan company starts to grow, in a lot of cases Catalan business man do not know how to manage this process organisationally. In the best case, they decide to expand his business via so called trustmen. That is, individuals who will accept anything, but rarely contribute something in terms of innovative ideas or cutting-edge activities. Another reason for the low degree of discontinuous growth and low necessity for radical changes in skills and activities is caused by the fact that Catalan businessmen tend to avoid large industrial commitments. Thus, they do not consider those processes and investments which rentability need to be assessed over a long period of time. Also, growth of Catalan companies has often been blocked because owners sold their companies to MNCs whenever the latter offered a good price. This 'speculative entrepreneurship' thus frequently frustrated the evolution of bigger, but for one person unmanageable, Catalan enterprises.

§1.2 The organisation of markets

How are market connections between authoritatively coordinated economic activities in firms organised i.e. cooperation and competition between companies in Catalonia.
Cooperation between PYMES and MNCs is high, with the MNCs forming a sort of core around which various PYMES are centred via subcontracting. Among PYMES there is hardly any cooperation, the more exists 'cut-throat' competition. Between PYMES strong vertical linkages (within the production chain) do exist, but connections have in most cases only a transfer-of-goods character. Both short and long-term cooperative relations between PYMES within and between sectors are low as a result of distrust and individuality and the aversion against long-term commitments.

Although there are initiatives for cooperation from private side, the significance of intermediaries like departments and institutes of the Generalitat, sectoral Gremia, the Chambers of Commerce etc. is still very high in these affairs. The awareness of the usefulness of cooperation between private enterprises has led owners of PYMES to develop on a small scale collaboration projects in different branches. These projects depend heavily on geographic proximity and personal ties. The only longstanding private initiative in this respect is l'Associació Multisectorial d'Empreses (AMEC), which was created in 1969.

§1.3 Coordination and control within firms

The primary emphasis here lies on authoritative coordination and control of work, the nature of managerial authority, how it is exercised and the ways in which commitment to organisations is developed and maintained.

The way control is exercised in PYMES is highly personal, informal and centralised, but without an excess of long term planning and direction and there is a high aversion of risk. But whenever there is more than one manager is present within a PYMES there is a quite high degree of specialisation towards the various functions.

In general, Catalan businessmen tend to avoid the building of an organisation with professional managers to whom responsibilities have to be delegated. The small scale of PYMES discharges normally speaking into nonspecialised authority structures and authority thus covers various areas of subordinates concerns and activities and business responsibilities.

Contracting new personnel normally does not go via the official channels. For one reason because INEM (Spanish labour exchange agency) does not work too efficiently. For another
reason because the business leader establish strong relationships with his core workforce. It are in general the members of this core workforce, or friends or family, that introduce new employees. Because of these contracting methods and because of the scale of the enterprises and the maintenance of close personal contact with his employees, distance between the director and his employees is rather low. However, not as but as the sole a result of the directors capabilities in the first place, result of his position.

As a result of the historically scarce attention for technology from the side of the Catalan entrepreneurs, technological knowledge of Catalan business leaders is poor. This makes decentralisation of control over production activities necessary as the technical skills of employees lower in the organisation often outpasses those of the men in charge. The result is that in the production area 'todo el mundo hace de todo'.

Nonetheless, this lead of employees over their employers is threatened by the fact that once they enter a PYME, the possibilities to keep up-to-date with latest technological developments are scarce as few training and education possibilities are offered.

In-company training that is provided is in most cases task and firm specific and the practical skills workers thus acquire are not very standardised or generalisable across work organisations and industries.

Concerning training practices and upgrading personnel within companies, there exists a certain dualism in Catalonia. On the one hand larger enterprises pay a lot of attention to the upgrading of their personnel. PYMES, on the other hand, do not, although to a certain extent this depends on the generation of the leader of the company and the sector in which the company operates. An investigation conducted by l'Institut Català de Noves Professions and l'Associació Catalana de Centres de Formació i Acadèmies Privades in 1992 showed that among the Catalan PYMES only 30% had a budget for the training of their human resources (Muñoz, 1993, pp. 56).

There are two main reasons for the low spending of PYMES in this area. First, a lack of financial sources and second, the fact that directors of PYMES still see training in many cases as a cost and not as an investment. In the case an employee wants to follow a certain training course his request is often granted not for reasons pertaining to possible benefits for the
company, but because directors see picking up knowledge as a social virtue which should not be denied. These differences are not only a matter of outlook, but also a result of the company structure and wealthiness. Directors of PYMES find it difficult to organise trainings in their companies, first of all as it is difficult for them to replace the person who is temporarily gone during the training period; second, as it is difficult to foresee which skills their personnel will need in the future, and third, because of difficulties to finance the trainings. As a result PYMES have severe problems with contracting and maintaining qualified personnel.

On top of that, as was commented earlier, efforts of PYMES in R&D and other means to foment technological knowledge, are indispensable low. New technology and machinery are usually, if at all, bought from third parties. It seems that to develop products and to innovate is something that doesn’t fit with the Catalan nature. Of old they are more active in trade than in industrial activities. This provides reason for optimism but it also explains Catalonials following role in innovations.

Because of this, Catalonia’s technological balance shows a large deficit. Between 1975 and 1989, the export/import coverage rate of technology was on average 19% (Parellada, 1990, pp. 323 & Ajuntament de Barcelona, 1991, pp. 78). Apart from this, according to the general director of ICT, Miquel Barceló Roca, what was really alarming for Catalonia was neither its technological deficit nor its supposed dependence on foreign R&D, but its low level of assimilation to imported technologies and the fact that assimilation is concentrated in few MNCs (ICT, 1993, pp. 5). One of the main causes for this is Catalonials low spending on R&D as a percentage of its GDP.

Figure 1. Spending on R&D as a percentage of GDP

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<tr>
<td>United States</td>
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<tr>
<td>Japan</td>
<td>2.98</td>
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<tr>
<td>Germany</td>
<td>2.88</td>
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<tr>
<td>The Netherlands</td>
<td>2.17</td>
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<td>Spain</td>
<td>0.57</td>
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<tr>
<td>Catalunya</td>
<td>0.37</td>
<td>0.46</td>
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Source: OECD, Main science and technology, Paris, 1991 & CIRIT, 1993, pp. 56

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The percentages paid for in 1989 by the private sector of overall R&D spending were respectively 52% and 78% in the EC and Japan (UAB, L'Autònoma, Bellatera, Març 1994). Catalonials 41.7% was compared to this rather low. In explaining the technological deficit one can also discover an entrepreneurial component. Nueno (1994) explained that each time technological evolution made possible the production of new products that had potential to stimulate demand, Catalan entrepreneurs responded with less aggressiveness. This has been particularly true for the last twenty years.

§2.1 The Catalan banking system

Although the financial system of Catalonia is dependent on the strategical and tactical provisions of the central government's financial policies, many occurrences in the Catalan banking world have influenced strongly the functioning of the Catalan financial system and its relationship with the industrial system.

Traditionally, the organisation of financial sector and the relationship between financial and industrial capital has been weak in Catalonia.

From the side of the Catalan business class pride played a role in the taking shape of the bank-industry relationships. The industrial development of Catalonia had a large private component, which produced an enterprisal class that expressed its pride in avoiding the use of grants from banks as they saw this as an indicator of their industrial power (Esteban, 1994, pp. 61). Regarding the asking of help from banks, companies rather internalise risks than establishing close firm-bank connections.

From the banking side; a lot of Catalan banks had bad experiences with involvement in industrial activities e.g. Banc de Sabadell, Banco de Barcelona, Banco de Cataluña and Banco Industrial de Cataluña in 1970. These set-backs encouraged a more prudent stance from banks towards companies and vice versa. Generally speaking it produced a big distrust towards all kinds of banking activities of Catalan financial organisations. Consequently a large amount of the Catalan savings were relocated towards Banco de España, savings banks and various large national banks (Mufloz, 1988, pp. 258). Also the surpluses Catalan companies obtained via

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7 For this paragraph I made use of several interviews I held with Mr. F. Cabana, former top manager of Banca Catalana; to whom I owe gratitude
trade became more and more deposited in current accounts of Banco de Espagna and banks of Madrid and Bilbao. The result was a more dominant presence of non-Catalan banks in Catalonia, which from the 1930s onwards almost absolutely controlled banking activities in Catalonia, thereby becoming more able to control at their own discretion the distribution of Catalan saving agents' money.

The installing of much more conservative policies by Catalan banks since then, survives until today and is especially strong in times when deathrate of companies are high. A symptom of this conservative stance is the high degree of risk-aversion among Catalan banks. This further limits their chances on growth as their expansion depends on the evolution of the own Catalan economy, as the role of Catalan banks in the rest of Spain is modest. Consequently, by becoming less active in Catalan economic life they also arrest their own growth.

The Catalan banking system was of old relatively strong involved in stock exchange activities. The concentration on these activities problems forms a serious disadvantage as well. As without strong commercial banks focused on expansion, the completion of the much needed strong industrial enterprises remains an impossibility in the Catalan economy.

The stock exchange way of transferring private savings to private businesses also conditioned the relationships between the financial and industrial system in a negative way as it produced difficulties concerning the establishing of strong ties and identification between financier and enterprises. Neither did it guarantee companies the continuity of capital nor was it good for the tranquility within a company as shareholders are in the first place after short-term profits and returns.

In 1978 Bankpyme was founded. A bank which objective it is to provide modern and sophisticated banking services to smaller entrepreneurs. The founding of this bank is beneficial in view of a possible integration of small and medium-sized Catalan companies into the

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8 Vidal-Barraquer i Cot, J.M. Director PYMEC, interview

(inter)national financial system as this bank has more detailed knowledge of these companies' activities and their credit-worthiness.

§2.2 Savings banks
Catalonia shelters large part of Spain's savings banks. The position of Catalonia with respect to the major banking institutions represented 10.59% in 1987 of the whole of Spain, whereas this figure was substantially higher for the Confederated Savings Banks where the percentage in 1987 was 31.59 (Bayo & Penalva, 1990, pp. 257). The fact that savings banks were not allowed to finance industrial activities by government decree, was therefore especially unfavourable for the Catalan economy. During 'la época de Franco' they were made to pay a certain proportion of their investments to the state which used these to finance various public companies of the INI-consortium. In the middle of the eighties this was still 35% (Hebbert, 1985). Whereas this banking type is the most important one in Catalonia, most INI-companies are located outside Catalonia. Therefore, these deposit banks have not become too involved in providing capital for Catalan industry.

§2.3 Risk capital market
For economical progress the financing of high-risk new business formation is getting crucially important. As these businesses require often a long period of research, development, manufacturing and commercialisation solid financial backing is much needed. For this reason in the eighties risk capital markets emerged on which Venture Capital Companies operate '... whose sole object is the promotion or foundation of non-financial companies by means of temporary participation in their capital' (Royal Decree-Law 1186 of 14th of March). Access to risk capital is especially important in industries where capital requirements can not be met with individual savings or internally generated funds.

The Catalan risk capital market has a strong public character. One reason for this is the high risk-aversion from the side of private banks. Another factor the legal circumstances surrounding these markets in Spain. Normal banking activities are much safer and the legal protection of risk-capital companies is low, whereas the fiscal advantages of operating on the risk capital market are insufficient until now (Guadalupe, 1994). A third factor is lack of trust. Some explanation for this can be found in the fact that the risk capital market in Catalonia is focused too strongly on the smaller PYMES which can not or do not want to give a clear impression
of what kind of projects they are going to execute. This leads to misunderstandings and bad
relationships between the involved parties. The fact that risk capital efforts are focused strongly
on PYMES is also a mistake due to their size as bigger enterprises achieve much more
innovative results in general. Apart from this, it is seed-capital (money to set up totally new
companies) instead of venture-capital (money to create co-operative structures in a certain area
between already existing companies) that gets most attention. This creates additional problems,
such as organisational ones, which thus diminishes the chance on success.

§3.1 The public administrations
The goal here is to describe in which way the Generalitat and the central government have
affected the taking shape and functioning of the institutional and organisational foundations over
the years. Strategic industrial policies from the regional and national governmental side have
been largely absent. The efforts to stimulate economic and industrial development in Catalonia
will be outlined here.

§3.2 Spanish economic and industrial policies
Economic governmental intervention in a modern sense started in Spain in 1959 with the
introduction of the Plan de Estabilización. It encouraged the independent forces inside the
Spanish economy, which changed the weighting of different company structures in Spain in
favour specifically of that size which was least favoured by the introduced new policies; the
PYMES. The amount of PYMES grew while the amount of large enterprises (more than 500
workers) lowered. The same could be said about the amount of labour both types of enterprises
offered (Sola, 1978, pp. 56-57). The different types of economic policies (monetary, fiscal,
labour and exterior policies) in the twenty years after the Plan de Estabilización did not conduce
to prosperous PYMES. Then, at the end of the seventies, the whole of Europe was enveloped
in an economic crisis. The then designed national anticrisis policy in Spain only had an impact
on certain sectors of the Catalan economy like the textile, the electro-domestics and
manufacturing sectors. Apart from the textile sector, which received general support, the help
in Catalonia was aimed at a small amount of enterprises. The first failure of this anticrisis policy
was its late initiation\textsuperscript{10}. Not before the 5th of June 1981 when the decreet law 9/81 was born,

\textsuperscript{10} Fernández Fernández, P., La política de reconversión industrial, ICE, nr. 1843 del 29 de
julio de 1982
a start was made. Following the concepts of Curzon Price\textsuperscript{11}, this anticrisis policy could be qualified as negative: more about protecting declining sectors and firms than of promoting and nurturing new industries and technologies. PYMES could not dispose of any kind of public help in overcoming necessary adaptations. The results of these national plans were therefore, and not only in Catalonia, less than satisfactory.

\section*{3.2.1 Functioning of the Catalan labour market and contracting practices}

About labour policy one can be short as there was no such policy at all in 1959 as this was the only policy terrain that was kept totally aside of the liberalisation operations at the end of the fifties. The labour market continued to be as rigid as it was during the autarchic period with its interventionistic principles. Until today within Spain the labour market is in European respect very unflexible. The rigidness of the labour market affected the functioning of companies and frustrated the dynamics of PYMES.

In 1980 certain flexibility in labour contracts was evoked via the 'Estatuto de los trabajadores' which treated the regulation of temporary contracts, the normalisation of contracting modalities like part-time work and other non-traditional contracting possibilities. The reforms of this Estatuto in 1984 made contracting labour power in Spain again more flexible by way of amplifying the possibilities of temporary contracts, normalising part-time contracts and amplifying the possibilities to contract youngsters via the reform of contracts pertaining to training and exercise periods. Until today, part-time contracts represent a much lower percentage in Spain as a whole (8.5 in 1991) of the total amount of labour contracts than in the majority of the European countries, in some of which this was above 20\% in 1991 (Dept. d'Indústria i Energia, 1993e, pp. 15). It has grown though significantly as in 1984 it was only 2.6\% in Spain. Most of the flexible, and especially part-time, contracts are found in the service sector. In the industrial sector flexibility still leaves much to be desired.

The enlargement of the flexibility of contracts since 1984 and the creation of new, more flexible, types of contracts, improved micro-economic flexibility and allowed a significant reduction of adjustment costs whenever circumstances required changes in the amount of people employed: numerical or external flexibility. The more flexible and enlarged contracting

\textsuperscript{11} Curzon Price, V., Industrial policies in the European community. Hong Kong, 1981
possibilities also created better circumstances for functional mobility, for modifications of working conditions and for the introduction of organisational changes like decentralisation of production phases or flexible working times; together these form the so called internal flexibility. This makes enterprises more able to adapt to all kinds of (technological) innovations and economic developments.

Although current contracting means offer more possibilities and are more flexible, within the European context, concerning both external and internal flexibility, Spain still takes on a mediocre position. Especially, when it comes to firing or ending a contract, employers in most other EC countries have more freedom and flexibility. Restructuring companies in Spain is still an unattractive and financially dangerous operation as firing people on fixed contracts can be prohibitively expensive.

Spain's rigid contracts have driven employers to hire more and more temporary hands. When in April 1992 the minimum length of temporary contracts was enlarged from six months to a year, companies switched from using this type of contract to other types which maintained their flexibility. In 1993, then, the maximum length for temporary contracts was raised from three to four years, which meant that, in the case of a temporary job, the minimum uncertainty about one's job was prolonged to a year and the maximum to four years. In January 1994 the law on the so called 'contratos de basura' for youngsters was approved. Via these contracts, employers can hire youngsters as apprentices for extremely low wages.

While rigidity on the Spanish and Catalan labour market continues to exist, its traditional labour cost advantage starts to vanish. Lately, Catalan unit labour costs have risen sharper than those of its main EC competitors; between 1985-1992 7.0% versus 5.4% in the EC-12 (Dept. d'Indústria i Energia, 1993e, pp. 72). Nowadays, Catalonians unit labour costs are already 2/3 of EC-average (Dept. d'Indústria i Energia, pp. 42, 1993), but wages are already roughly equivalent to those in Britain. Part of this is caused by the collective wage-bargaining system applied in Spain that does not make it possible to let wages rise per region based on regional productivity growth rates.
§3.2.2 Monetary policies

In the field of monetary and fiscal policies PYMES not only had to face a lack of stimuli, but also frontal attacks. In many sectors companies that wanted to become active had to have a minimum size set by the Ministry of Industry (Sola, 1978, pp. 60). This was done in order to disatomiise the Spanish economy and because the World Bank Review wrote in those days that many Spanish enterprises were too small to be able to operate efficiently. Therefore, fiscal incentives were given to foment fusions and concentrations of companies, which also seemed to have been made exclusively for large enterprises and not for PYMES. As PYMES did not have wide access to the majority of the sources of finance, like stock exchange market, bond emissions and big financial or industrial groups, also monetary policies were detrimental to PYMES as these made the financing of activities very difficult via restrictive monetary policies. These were adopted in the seventies in order to control inflation and this made it very unattractive to borrow money. What remained for the PYMES was self financing, also because of the hostile stance of banks towards companies and vice versa. A phenomenon especially vivid in Catalonia.

In general it can be said that the impact of monetary policy on the majority of the PYMES was large, as these were private-owned manufacturing companies operating in branches in which—contrary to the service sector—it is difficult to translate higher costs into the prices of their products because of fierce competition.

This pricing policy difference between industrial and service sectors can be highlighted via pointing at the rise of prices in both camps. In other words, if one takes a closer look at inflation, it turns out that Spain has a dual economy: industrial prices rose on average 4.97% between 1986 and 1992, those of services 9.41% (DG de Previsión y Coyuntura del Ministerio de Economía y Hacienda). This difference can be explained through the fact that Spanish industry is exposed to strong international competition, whereas many Spanish service activities are not. This means that price rises in the industrial sector are conditioned by the exchange rate of the peseta and external inflation rates which have, in general, been lower than Spanish ones. As the Spanish service sector is not operating in the same international context, the evolution of the costs are determined by the evolution of prices within Spain (Raymond y Bara,


32
1992). As a consequence of this, the service sector can afford to translate higher costs into the price of the services they offer, whereas this is much more difficult for Spanish industrial enterprises as these face fierce competition both on the international and the Spanish market.

Spains main weapon against inflation has been tight money, as was commented earlier, which provoked high interest rates and bad conditions especially for PYMES to borrow money. In 1991 interest rates in Spain for short and long term were respectively 12.8 and 12.4 (Banco de Espagna, OECD, the Economist), the EC-average in the same year was 9.4 and 9.1 (idem).

§3.2.3 Fiscal policies
High fiscal pressure on companies hinders flexibility in determining wages, therefore forming an obstacle to fight inflation. It also lowers the savings quota of companies and logically speaking, as high fiscal pressure normally goes with high fiscal pressure in a country in general, also of other economic agents. Savings as a percentage of income of families in the sixties and seventies was +/- 14.0%, whereas in 1992 it was only 9.5% (Argimon et al., 1993, pp. 313). Savings are a necessary ingredient for investments. So, if taxes are high in such a way that a country as a whole generates too little savings to finance its investments, it is delivered up to foreign sources. And to attract foreign money and also to keep national savings within the country, interest rates are kept high, which erodes the interior competitiveness directly as it makes financing expensive investments and research difficult. But it also indirectly erodes competitiveness as it leads to an overvaluation of the Spanish peseta. Fiscal pressure on companies as a percentage of the BIP in Spain developed as follows:

Figure 2. Evolution of fiscal pressure in Spain and EC as % of the BIP

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<tbody>
<tr>
<td>Spain</td>
<td>9.7</td>
<td>11.0</td>
<td>11.0</td>
<td>13.0</td>
</tr>
<tr>
<td>EC</td>
<td>9.2</td>
<td>9.6</td>
<td>10.1</td>
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Source: OECD, Statistiques des recettes publiques, 1991
The complexity and intransparency of the fiscal system, its changing character and the heightening of fiscal pressure are all factors that negatively influence the competitiveness of the Spanish and thus the Catalan economy.

The impact of fiscalities as factors of costs for companies, via taxing labour power or profits, or disturbances at the labour market, via arresting the mobility between labour market and companies, is often misunderstood and therefore undervalued. The consequences of fiscal policies are generally speaking more far-reaching in the sectors that relatively depend strongest on labour power, i.e. the industrial and construction sectors. The former is within the Catalan economy a very important one.

§3.2.4 Technology policies

In 1990, public investment in R&D in Catalonia was 39,884.2 million pesetas. 51.1% of it was invested by the Generalitat; the remaining 48.9% by the central state. From governmental side plans have been designed to elevate the 'technological level' within companies. Sad enough, until now the only result has been that technological within public enterprises has gone up, not in private enterprises. As the majority of the coordination and organisation of R&D is still done centrally, there are hardly custommade supporting policies for the Catalan industrial situation. Some formal improvement occurred in this situation when the responsibility for Catalan universities was transferred from the central state to the Generalitat in 1987 (Dept. d'Industria i Energia, 1993, pp. 94), which therefore now has more opportunities to connect research with specific necessities of Catalan industries.

Stimulating own R&D investments is of crucial importance as acquiring technology from outside is not only a money matter. It is also about the control foreign enterprises acquire over Catalan production processes and on a more aggregated level over the Catalan economy by transferring their goods. If Catalonials production is highly dependent on foreign technology, it means that Catalans themselves do not determine fully the production processes, which indirectly means power for foreign enterprises over Catalan ones. It also means that the available technology in Catalonia is largely second-generation. The ongoing buying of Catalan enterprises by foreign companies is another factor affecting the research infrastructures and activities in Catalonia as it has caused a partial dismantling of Catalan R&D centres and structures. Activities were in many cases transferred abroad.
As research and science budgets were never decentralised to the Comunidades Autónomas, it has been difficult for the Generalitat to create and plan scientific policies adapted to Catalonia's R&D necessities. Recently, public institutes have been founded to support business and sectoral R&D initiatives. If one takes into account that PYMES often lack the financial and infrastructural means to conduct their own research, it is immediately clear that these initiatives should be stimulated and that contract research possibilities, carried out in public institutions or universities, should be enlarged. What has to be secured in order to secure long-term benefits, is that not only applied but also basic research is being conducted. Public institutes offer a better guarantee for this than individual efforts of smaller companies.

Universities that carry out important research are the Central (UB), the Autònoma (UAB) and the Politecnica (UPC). At all of them technology transfer centres were created which allowed them to increase links with the business world in the last years. The result was a quicker inter-change of research results and a commercialization of these results via their application into salable products and services.

Besides the 'general' research facilities universities offer, other more specialized research centres exist. Such as the Consell Superior d'Investigacions Científiques for scientific research, the Centre de Recerca en Química Fina, the Institut de Recerca i Tecnologia Agroalimentària and the Institute of Applied Automobile Research.

Another policy initiative created to stimulate the interchange of research results and the creation of synergy-effects between entities conducting research in technologically innovative sectors is the Parc Tecnològic de Vallès. Nowadays it shelters some hundred foreign and domestic companies, which operate in the field of microelectronics, biotechnology, fine chemicals, telecommunications and advanced materials. This 'Silicon Vallès' maintains close ties with higher education centres like the UPC and the UAB and a large network of potential supplier companies.

§3.3 Catalan economic and industrial policies
At the end of the seventies with the installation of the Comunidades Autónomas, industrial policy was also initiated at the regional level. The framework for this policy was the Programme of Economic Action; introduced on november the 5th of 1980. The supply side of
this programme was pursued by the business-oriented centre-right political elite of Catalonia with an explicit philosophy of incrementalism and a deliberate orientation towards middle-sized regionally based businesses. The latter is logical as the small and medium-sized business interests comprise the hegemonic political elite in Catalonia.

Franco’s death also produced a growing interest in the territorial dimension of the capital flows accompanied by political demands for ‘local control of local resources’. Catalonia tried to make its savings banks become more able to contribute to economic development. Therefore it tried to lower the percentage of the savings banks investment that had gone to state-consortium INI since the installation of the Falanges. By negotiation the Generalitat obtained a compromise, whereby the then used 35% was split equally with the central government. Of its 17.5%, the Generalitat could now target 7.5% to designated industrial stocks and bonds with the remaining 10% going to small credits for cooperatives, housing developments, craft workshops etc.

Industrial policy in Catalonia was oriented in two directions. The first was to help the Catalan economy to recuperate internationally favourable positions. The other was to create a whole of service infrastructures for enterprises to facilitate their activities continuously. The most important examples of centres allied to industry which were created since, are the following.

‘Laboratori General d’Assaigs i Investigacions’. This General Laboratory for testing and Research of the Department of Industry and Energy is basically responsible for collaboration with industry through testing and research on specific technical problems in industries, as well as international certification of products and processes.

The Generalitat also offers, among other technological help services, one of the most extensive CAD/CAM Services in Europe.

CIDEM (Centre d’Informació i Desenvolupament Empresarial). This is an organisation pertaining to the Department of Industry and Energy, responsible for informing, orientating and assessing companies with regard to all services offered by organisations and institutions collaborating in the development of their products, production processes and organisational

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13 Bordas i Pallarès, J.M., Generalitat i reconversió industrial. Revista de economia industrial, 170, gener-febrer, 1982
structures. E.g. CIDEM has more than 130 Catalan laboratories and research centres on file; these centres contract out their services on improvement and innovations, product analysis, certification, etc. to any company needing them. CIDEM also maintains a file of organisations which provide companies with any technical, commercial, economic and statistical information which they may need.

COPCA (Consorti de Promoció Commercial de Catalunya). This consortium, with various branch locations all over the world, tries to help Catalan companies with exporting their products and services. This is done via the promotion of commerce, the offering of information and common services (telex, translations … ), the organization of collective studies on sales, the publishing of catalogues on sectors and the promotion of international contacts etc.

Centre Català de la Qualitat (CCQ). This is an organization which was set up to provide programmes to improve quality and productivity levels of Catalan companies. Per sector at a minimum 10 companies have to apply at the same time in order to start up a CCQ-programme. Thus? these programmes also help to foment cooperation between branchpartners.

In February 1984 the creation of the Catalan Institute of Finance became a fact, which was intended to be the major credit mechanism of the Generalitat, servicing both public and private sector agencies within the region. In order to create internationally favourable positions for its companies, the Generalitat voluntarily approaches foreign companies. These are then selected on their willingness to subcontract Catalan PYMES or to make use of the services of local companies as their suppliers instead of foreign transfer centres and the launching of investigation associates that function as an interface between the academic world and businesses.

§3.4 Demand policies

As a major buyer of many products, public works and constructions in a nation, the Spanish government and public companies could incent certain demand patterns. RENFE, the national railway company is such a public company. Nonetheless, recently more and more of its orders ended up at foreign MNCS.

Concerning the setting of local product standards or regulation governmental policies also tend to retard national firms. For example, instead of trying to impose progressive environmental
standards on its national firms, the Spanish government concentrates its energy in finding ways to protect its companies from having to work according to these standards. That makes it difficult for Spanish and thus Catalan companies in various sectors to be advanced producers. Besides, a delayed construction of environmental infrastructures and measures can have unpleasant effects - seen in the light of coming harmonisation of environmental laws and standards on products and production processes - on the competitiveness of companies and the types of industry remaining present.

Concerning sectoral opportunities the lack of investments in infrastructural and telecommunicational facilities and the mediocre attention for environmental health will make it very difficult to attract high-tech activities. Especially 'environmental infrastructures'; facilities for recycling, storage of polluting material and residuals, are so scarcely build in Catalonia, that it will be difficult to attract in the future promising industries, because these facilities will determine strongly the future industrial localisation.

This has not been the first time the Spanish government gave the wrong signals to the business community. If one looks at the beginning of the seventies when the electronics sector broke through, Catalonia had a promising electronic sector. However, the way the government managed this sector made that by now the electronics industry in Catalonia has died. As an illustration the following example: while other countries tried to stimulate their national electronic industries, the Spanish government put on the price of every colour television a luxury tax of 14,000 pesetas. In the end then, the luxury was to have electronics industry.

§4 The social partners as economic agents
The influence of social partners on a lot of economic and enterprisal aspects is low, especially on the regional level is low.

First of all because bargaining between syndicates, employers organisations and the administration takes place on the national level.

Second, because their say in labour market matters is still not big. Traditionally, the power of employees and employers organizations under Franco was systematically held small.
Third, a characteristic of the leaders of Catalan, especially PYMES, leaders is that they ignore syndicates whenever possible and they won't allow them to have a say in policies of the companies on matters like lay offs, employment. Not even after there were some legislational changes in this field in Spain. Therefore, syndicates nowadays in reality only have an informative role. Big enterprises take syndicates more seriously.

Fourth, as the amount of members of especially syndicates is rather low. Latest figures of the OECD showed that in 1985 only 16.0% of workers was member of a syndicate. Two reasons for this low score are the domination of Spain's economy by PYMES and the high unemployment rates.

Four representing organizations of employers and employees will pass in review here. PIMEC; the Catalan employers organization for the small and medium-sized companies. FTN; the employers organization for the bigger companies. UGT; the syndicate related to the Spanish socialist party of president Felipe González, and CC.00.; the syndicate related to the left wing party IU.

As cooperation between PYMES is not too big, PIMEC tries to stimulate horizontal and vertical cooperation via the setting up of certain projects, in order to produce economies of scale for participating PYMES.

As relations between PYMES and banks are not too good, PIMEC also tries to help in this area. PYMES take on a weak position against banks, who are very cautious with giving credit to companies whom they see in general as their enemies, in times like these in which a lot of companies go bankrupt or have to ask for suspension of payment. Via establishing collaboration between PYMES the whole gets a certain 'critical mass'. This is favourable in negotiations with banks about loans. Thus, trying to arrange favourable arrangements with banks for small companies, is another work area of PIMEC.

Because of the absence of cooperation between Catalan companies, also CC.00. initiated various 'cooperativas'. Most of those lasted three or five years, some of them longer. The organisational models used in these cooperativas were later adopted by the Generalitat, who now uses it for her projects aimed at fomenting inter-firm cooperation.
UGT is active in supporting professional formation courses within companies. There are also plans to set up organisations for the export of products, the development of more modern and professional organisation structures and stimulating R&D within companies. Via the fulfilling of intermediate positions, also the excessive fragmentation which characterises the business spectre of Catalonia can be overcome.

In order to help companies with exporting their products, FTN started export consortia to facilitate this. The opinion is that this could be organised best from branch to branch.

§5 The institutional contexts of the Catalan business system
For analysing the key social institutions that influence the BS of Catalonia, it is useful to distinguish between institutions that structure general patterns of trust, cooperation, identity and subordination in a society; background social institutions, and those that influence the economic system and constitute the immediate business environment more directly; proximate social institutions.

§5.1 Background social institutions
The entrepreneurial stance of Catalan businessmen in terms of their loyalty to the family and the way they organise companies seems to stem from the dominant religion which is practised in Catalonia: Roman Catholicism.

Religion not only influences the religious life of people, but also their social and work life, the building of certain mentality characteristics and work ethics. Protestantism e.g. places high value on work for its own sake and considers work as the central core of life and a major vehicle for realising capabilities. According to Luther work was a duty and according to Zwingli and Calvin work was a moral obligation. Catholicism considers work more as a means to achieve other goals (Kanungo & Wright, 1983). In the Catholic approach of mankind, family and friends fulfil a much more central role. Herein, one could see a link with the large amount of family enterprises in Catalonia. Concerning the organisation and average size of enterprises in Catalonia, both Euro-Christian religions have different conceptions. Whereas the Protestant ethic appears to place greater emphasis on continually striving for more than is currently possessed and values commercial and organisational growth and success strongly, the Catholic


ethic and its family-orientation appears to emphasize enjoyment of and contentment with whatever one has (Kanungo & Wright, 1983, pp. 121).

Protestantism accepts professional secularisation. This leads to a spread of tasks, responsibilities and interests in doing business and so it nurtures the shaping of large scale enterprises. The Catholic value system, on the other hand, stimulates the creation of small scale enterprises.

Catholic working ethic leads to labour satisfaction based on extrinsic labour outputs. Managers and entrepreneurs who are the product of the latter kind of socialisation will not see work as a way to perfectionate themselves, but as a way to take (good) care of and supply security or benefits to family and friends. Consequently, these kind of company leaders tend to create small and easy to manage, transparent family organisation structures. This seems also partly the product of business culture characteristics of Latin Europe (which of course themselves are influenced by religious conceptions). These also come across, when explaining the organisation and the size of the average Catalan enterprise. As in all of Latin Europe, in Catalan companies authoritative leaders that like to keep everything under personal control ('Monsieur Le Patron'), are a well-known phenomenon. This type of leadership makes the accomplishment of large enterprises very difficult, for it makes effective management of this complicated type of organisation impossible and from the point of view and the nature of the business leader undesirable.

In the Catalan economy trust between non-kin businessmen and businessmen not belonging to the same circle of friends is rather low: 'it is universally agreed that the Catalans are distrustful of people whom they do not know well' (Martinez & Nueno, 1988, pp. 71). According to Plans and Maluquer the origin of this distrust and individualism is in an antagonistic feeling about superiority and inferiority vis-à-vis business counterparts or competitors. Individualism and risk-aversion of Catalans is another factor that impeded cooperation and the pursuit of collective interests and thus the coming into being of large corporations: 'Catalan business people fear the group and they feel insecure; as a result they opt for individual action' (Martinez & Nueno, 1988, pp. 71). As they fear they will be surpassed by others in the area they feel they have to

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14 Juan Plans is the secretary general of the Sabadell
control, the use of trustmen in Catalan enterprises has been a common phenomenon (see also: Martinez & Nueno, 1988; Nueno, 1991).

The low extent, then, to which loyalty and commitment can be mobilised to collective entities beyond the immediate family in Catalonia certainly frustrated the completion of large enterprises. That is, because trust is not only important to coordinate economic activities between firms, but also to organise work and delegate responsibilities within them. And it is enterprisal growth and large ranges of related activities, that demand the development of large managerial hierarchies. This also demands the ability and willingness to rely on formal and depersonalised authority relationships, as highly personal forms of authority limit the effective use of formal rules and procedures to coordinate economic activities on a large scale. Therefore, in Catalonia small family-businesses are still ruling.

§5.2 Proximate social institutions

The major proximate social institutions affecting forms of business organisation in Catalonia are the larger Spanish political and legal system and the financial system.

The Spanish state has never been active in the field of strategic industrial policies. Neither during Franco, when industrial policies were focused on import-substitution instead of export-stimulation of internationally competitive and wanted products. Nor after his death when development of industry was dropped as a political issue, at least that is how it seems, and the socialist government was, within the European context, more concerned about political integration instead of catching up economically with Western Europe. Thus, the strength of the central state to develop and implement successful economic growth policies was rather weak and it did not have to legitimate its power via economic growth as Franco kept in charge for almost forty years and the socialists were reelected three times already.

At the level of the Generalitat (since 1980) it seems that the intention to accomplish -especially industrial- growth is more alive although apparently it has not been too successful either. For one reason because it lacks sufficient sources to achieve its intentions. Unlike the central government, which puts more efforts on the service sector to achieve economic growth, the Generalitat focuses strongly on industry.
Textile Manufacturers Association. Salvador Maluquer is the secretary general of the Association of Cotton Products Manufacturers

The commitment of the Generalitat to industrial growth is illustrated by its prominent presence on the capital risk market, as a sign of willingness to share risks with firms, and its willingness to do concessions to major enterprises, as currently occurred in the Volkswagen-SEAT case.

Of course, a by-product of these efforts has been that in Catalonia a strong business dependence on the state developed in an era – 'The PYMES won't survive in the unitary market if they don't work together to compete with the big enterprises' (In: El Pais Negocios, 12 de enero de 1992, pp. 1) – in which for their growth and advancement PYMES-like companies need to join forces and create various types of linkages and cooperation in order to advance. PYMES instead turned largely to state help and lined up with foreign MNCS. The former is conform Whitleys statement saying that business dependence on the state is likely to lead to limited interfirm cooperation (1993, pp. 29).

Regarding education policies of the Generalitat; education centres, especially universities, have been unsuccessful in delivering students with practical skills and increasing the attractiveness and societal prestige of technical education. In this sense, through the centuries nothing has changed: according to many sources Catalonia never has been very industrial-minded and never had an adequate technical infrastructure – particularly in the educational system15. As the origin of many industrial leaders were rural areas, they were therefore adverse to investments in technological risks16 and Catalan business people have traditionally diverted resources from industry to non-industrial activities, even when positive results were observed17. Garrabou18 showed that the engineering schools limited their objectives to certain aspects of manufacturing and never emphasized R&D.

17 Pinilla de las Heras, E. (1967). L’Empresari català, Barcelona
18 Garrabou, R. (1982). Enginyers industrials, modernització, econòmica i burgesia a Catalunya, Barcelona
Another crucial component of the business environment is the financial system, via its ability to support and guide industrial development and the nature of firms strategic choices and risk management. Relations between the financial and industrial system in Catalonia have always been weak.

Clearly, there has been an interaction between the evolution of both the financial as the industrial system. As a result of lack of mineral resources, no heavy industry -which needs large capital investments; more than any single family can bring in- came off the ground in Catalonia. As this blocked the necessity for accumulation of capital, large strong banks which are necessary to support basic industrial activities never were created.

Accumulation of capital was also hindered because of the fact that large flows of savings money were invested elsewhere because of the presence of large banks from other parts of Spain in Catalonia to which a lot of Catalan citizens trusted their money. This meant that a significant part of Catalan savings did not produce any beneficial effect at all for the Catalan economy. From that time on Catalan banking continues to be weak and ineffective with large industries being doomed to failure. The only option left for the Catalan industrial middle class was thus to manufacture consumer goods which required moderate financial support. This also formed a stimulus for and was consistent with the preference for maintenance of small family management and ownership.

Until recently, the state bureaucracy exerted extensive control over the sectoral allocation of financial resources via the so called laccion concertadol. Shift to democracy in 1978 and the awareness that too strong an emphasis on the purposive control of the state over industrial funds was counterproductive, led to an increased involvement of investment or lending banks in the making available of capital to industry in the last decades.

However, as activities initiated by PYMES were usually less credit-led because of low capital-intensiveness of their businesses, high interestrates and because most owners did not want to risk the loss of financial independence and strategic control to financial institutions; financial and fiscal incentives to borrow more money from credit providing institutions were highly lost on PYMES. Although borrowing from banks has become more common and socially
accepted, bank involvement in, and control over, the internal affairs of companies is still of a
low level.

§6 Conclusions after the analysis of the Catalan business system

What can we derive from this i.e. what is lacking and what can be improved? Within
companies, first of all, there is a lack of professional structures and management and attention
for technology and education.

Between companies, the extent of long-term cooperative relations within and between sectors
is lacking as the willingness to manage risks through mutual dependence is low. The same
counts for inter-company trust and the willingness to share resources. This is a grave situation
as, because of the small size of the average companies, this could function as an alternative to
achieve economies of scale.

This increases the significance of intermediaries in the coordination of joint transactions and
projects. However, constructive backing of the industrial system by other economic agents, like
banks, social partners or government, is also capable of improvement. This relation is weak,
first of all because of the posture of Catalan business men. Secondly, because of a lack of
possibilities from the other side to influence positively the functioning of companies; social
partners and the Generalitat, and a prudent or laissez-faire stance; respectively the banking
system and the central government.

Regarding the company-level, the points which brake a good and lasting performance of
companies most, seem to be the lack of attention to R&D and education. on the inter-firm level,
the lack of integration into and scope of business groups is a negative factor. On the
macro-level, the lack of stimulating policies of potential actors; in the provision of capital,
technology, education, labour market conditions, collaboration, is something that has to be
changed.
7. Industrial Districts

§1.1 General introduction

When treating IDs one comes close to the Porter concept 'Cluster'. With this term, in the tradition of Alfred Marshall, Porter leaves the traditional sector approach. Porter (1990) describes clusters as follows: a cluster consists of industries related by vertical and horizontal links of various kinds. With the term cluster he incorporates companies from -statistically speaking- different sectors into one cluster. This concept is derived from the sector interpretation of Alfred Marshall: '... a sector is vaguely defined related to a certain commodity. We distinguish different commodities: bread, steel, clothing etc. and a sector is a group of entrepreneurs who bring forth a type of commodity ... This way the whole economic cosmos is divided into a series of sectors, which correspond with one of the commodities' (Marshall, 1925, pp. 5). The following description of Becattini (In: Pyke et al., 1992) can be considered as supplementary in this respect: 'a sector should not be seen as a statistical unit, but as a whole of elements coming from different subsectors'. With the Marshallian approach it is thus possible to classify e.g. transport activities under the dairy sector. What is important in his approach is the whole production chain. In his sector approach strong interweavings exist between, in the traditional sense, separated sectors. Now, if you add geographical concentration to this sector interpretation, you come to talk about 'industrial districts'. In the most strict sense, the term industrial district does not only refer to geographically concentrated Marshallian sectors; it also refers to certain organisational characteristics between and size of the entities forming the IDs; as was already explained. The final objective in this chapter is to see which of the ID characteristics the Catalan economy incorporates.

§1.2 Els avantatges competitius de Catalunya

Research undertaken by Monitor Company (1993); in order to orientate on which industrial activities Catalonia should focus, showed that six promising sectors within the Catalan economy could be found: the tourism sector, the basic chemicals sector, the production equipment sector, the health sector, the agro-food sector and the fashion and furniture sector.

The methodology used for this research was a mix of ingredients from Porters diamond theory and elements from the ID school. The result was the identification of what they call
'microclusters'. Related microclusters together form the six promising sectors. N.B. According to certain Generalitat representants the term ID can be used freely for these microclusters.

The microclusters in this study are one level of aggregation above the individual firm and one under the branch. It is a group of sectorally related companies that are also geographically concentrated. After determining which microclusters Catalonia sheltered and where they were located, for each microcluster the core competences were analysed (referring to Prahalad and Hamel). All together some 75 microclusters were found, which form together the six sectors. After that was investigated which of the microclusters in Catalonia indeed had at its disposal the necessary competences. Also was accounted for the growth potential, as published by the OECD, of each microcluster.

The first four sectors which were identified as promising, have strong industrial district characteristics, the latter two have, through the decades, taken on more and more the form of geographically dispersed sectors. Concerning the IDs; the basic chemicals sector is located in Tarragona and the tourism sector alongside the Costa Brava, the production equipment and health sector are centred in Barcelonès. The agricultural sector is located all over the inland and Pyrenean comarcas, whereas food and beverage industries are located in the more densely populated areas.

So the Marshallian agro-food 'complex' is of a sector and not of an ID kind. The same can be said about the fashion and furniture sector. Of old concentrated in the Vallès regions, nowadays its activities are dispersed all over Catalonia. As Barcelonès shelters various sectors, it should be seen as an industrial urban subsystem (Capecchi, In: Pyke et al., 1992). This is mainly the same as an ID, with the difference that it is a locality not dominated by only one type of production activity, but more than one industrial subsystem, with none of them dominating the productive system.

§1.3 Breadth and depth of sectors and interrelatedness
A good touchstone to determine the cohesiveness within the economy in general and between the six above mentioned sectors in particular is to trace relations between different sectors that provide chances for networking, cross-pollination and learning effects.
To determine the depth and breadth within and cohesion between sectors the latest 'Taula input-output' of the Catalan economy handling the year 1987. This study contains a part called 'Demanda intermèdial; this was analysed. In this part one can determine the flows of goods and services between the various Catalan sectors. With this input-output table it is also possible to analyse which sectors deliver, compared to foreign suppliers, a large part to a certain sector.

A deep sector covers various parts; basic industries, manufacturing and supporting functions and final consumption goods and services. A broad sector is embedded in both agricultural, industrial and service-based.................

It appears that certain sectors have quite strong relationships with other sectors. The basic chemicals sector is a broad sector with strong horizontal relationships with the agro-food sector; most important are the production of fertilizers, additives and colorants.

The links between the farming sector and the Catalan food industries (as a deep agro-food complex) are also strong. They have become more intense in recent years which resulted in the fact that the food industries now obtain up to two thirds of their requirements from local agricultural producers which on their behalf supply the food industry with around 60% of its intermediate products (EIU, 1991, pp. 34).

The basic chemicals sector forms more or less the spill of the Catalan economy, as it also maintains -via related industries in fine chemicals strong links with the fashion and furniture complex (synthetic fibres and dyes), the construction sector, the production equipment sector (especially plastics, rubber and paint), the health sector (biotechnology, pharmaceutic products and gas products) and the tourism sector.

The agro-food sector has strong links with the tourism sector, with the latter being another crucial sector within the Catalan economy. However, not in the same sense as the basic chemical sector; the tourism sector is a sector to which products and services from other sectors find their way; it is so to say a Pull-sector' to which a lot of other industries are supplying their goods or services.
The production equipment sector also has strong links with the agro-food cluster; it provides input to the latter. Production equipment is a deep sector, just as the agro-food complex, while related industries; which determine the breadth of a sector, are less pronounced. As a wide range of textile industries is linked up via relationships, the whole of it can be termed the Catalan fashion and furniture complex.

§1.4 Geographical evolution of related industries

The presence of industries that are related to a certain sector often leads to new industries. Starting point of a lot of sectoral diversification processes in Catalonia was the textile industry. From its success and sole functioning a lot of related industries emerged e.g. textile machinery. The chemical industry, especially the fine chemicals, has its origins also in the industries related to textile and to a lesser extent in the agrofood industries. From the diversification rooted in the textile boom in the past century, an industrial atmosphere was born, which made possible the birth of an industrial complex; industries that were linked to the 'mother industry', in which geographical proximity and relationships between leading figures of various industries and individual companies played a central role regarding the cohesion of this complex.

The textile sector used to be concentrated in the Vallès comarcas because of the rivers running there, in which the raw ingredients could easily be washed. However, as it diversified and related industries emerged, it evolved more into a fashion and furniture sector. The current fashion and furniture complex has more a region-wide character than the ID character the textile sector used to have. And although most of the related industries in the beginning also located near the original starting point, with the diversification also a geographic dispersion of these businesses took place over the years with supporting activities becoming located throughout Catalonia. Nonetheless, many textile-specific supporting and related industries are still concentrated in the Vallès area because of inertia.

§2 Applying the ID theories to Catalonia

To see how Catalonia could take profit from ID findings, one should first determine to what extent in the over-all situation, similarities exist between the theoretical ID framework, as described earlier, and Catalonia. Catalonia can not be seen as an ideal type industrial district
as some of the characteristic features are missing and because, as a whole, Catalonia is
-geographically speaking- too big.

Catalonia does possess the first characteristic; it is an economy based on small and
medium-sized businesses, which together do not have a centre for strategic decisions.

Partly it possesses the second characteristic; strong interweavages between the economic, the
political and social scene. Theoretically speaking this should be the fact since the instauration
of the Generalitat, in which the ruling party, the CiU, represents strongly the interests of the
entrepreneurs of small and medium-sized companies (Hebbert, 1985). However, as these
processes take time the political and economic spheres are not yet too strongly intertwined.
Regarding the relationships between the social and the economic spheres the following.
Although having its own language and culture should make the region able to create a strong
sense of belonging as well as regional pride in striving collectively to improve the business
situation of the region, until date this has not happened. Nevertheless, the large potential to
strengthen the ties of the social, political and economic spheres in order to build a strong
regional identity which could mean an important stimulus for the business community and its
performance offers hope.

Catalonia does not possess the third, the fourth and fifth characteristic.

The third characteristic; a large capacity to adapt and innovate, together with the local capacity
to respond rapidly to changing demand conditions, is not satisfied. Catalan companies in general
are not prime movers when faced with changing conditions. Nueno (1994) explained that each
time technological evolution offered new demand opportunities, Catalan entrepreneurs responded
with less aggressiveness. Spending on R&D as a percentage of GDP in Catalonia are low:
0.67% in 1990 (OECD). Also the organisational practices of companies adopted by Catalan
business men reveal little willingness to utilise new circumstances and opportunities. Catalan
companies are hardly ever prime movers in new markets or in the vanguard of mature markets,
labour conditions are still far from flexible, networking in production sense is an almost
unknown phenomenon and investments in innovative activities by Catalan enterprises are on the
average rather low.
Fourth; the condition that the motor behind the whole are not large vertically integrated companies is not fulfilled. It are, since their infiltration, more and more the foreign MNCs that form the driving forces behind the dynamics in the Catalan economy. They dominate the most dynamic information and technology-intensive sectors and segments of the economy. It is them who transfer innovations or new technologies or stimulate the subcontracting PYMES to invest in technology and innovative research and processes ('Lopez-effect'). Sadly enough it are not the PYMES themselves that generate progress and advancement in the Catalan economy. It would be irreal to talk about organic interdependence between these PYMES because of the absence of strong interlinkages between them.

Fifth; the balance between competition and cooperation. Because of lack of strong inter-firm interlinkages, what exists between Catalan PYMES is mere competition, with interfirm cooperation being almost completely absent.

8. Synthesis based on BS and ID analyses

The BS analysis showed that the organizational and institutional foundations that determine the nature of Catalan business structures, do not make a prosperous large scale enterprises very likely. This leads to insufficient scale and resources within individual companies, which frustrate the creation of more professional structures and the paying of attention to education, R&D and export activities.

Another weakness is the lack of cooperation between both companies and companies and other economic agents. The fact that interaction between different economic agents is lacking diminishes the alternative possibility to mobilize forces and resources in order to improve the performance of private Catalan enterprises.

Faced with these two aspects, it seems it is a question of or... or. That is, or we will put efforts in making larger companies or we will try to increase cooperation.

Taking the ID theories as a starting point, it seems more likely, however, that performance of Catalan firms can be improved via linking up and connecting various PYMES; constructing
supporting organisational infrastructures instead of concentrating PYMES and making large-scale enterprises out of them. Creating large-scale enterprises is based on the assumption that big is better and more efficient. Findings of ID studies show that small firms can compete when organised in the appropriate way.

Starting from the theories of the ID school, we should accept that Catalonia is made of up small and medium-sized businesses. From there on, based on ID principles, we can design ways to create stronger institutional and organisational foundations. Thereby we can avoid having to create large scale enterprises and still overcome the disadvantages small companies have compared to large companies.

Concluding part

How then, can we, based on the methodological concepts, improve the organisational and institutional foundations from which Catalan companies depart. Starting point when defining policy recommendations should be what the applied theories can teach us. As was stated in the introduction, the BS analysis has been used for descriptive reasons whereas the ID analysis has been used more to open ways to describe policy recommendations.

First of all, what we can learn from the ID theories is that IDs do not need a strategic centre and that it are not large scale vertically integrated companies that form the motor behind the success of an ID.

This means that policies towards improving institutional and organisational foundations of the Catalan economy should not aim at an intensification of subcontracting between foreign MNCs and local PYMES nor a closer integration of the latter into the network of the former. Instead Catalonia should choose for economic development based on resources under control of Catalan actors,1 and structures between these.

Secondly, in an economy where forces and resources are so dispersed as in Catalonia, the role of the public administrations are most important regarding strategic coordination between agents and resources. Therefore, the way to improve the foundations underpinning the economy should
initially be government-lead: 'étatistic'. Then, via the creation of closer ties between the political and economic spheres, an increase in inter-company cooperation does not have to be left alone to private entrepreneurs. Public organisations should bring companies together and create a basis of trust between those. Later, when things are put in motion, more should be left to private initiative regarding the upgrading the created facilities and structures: the 'entrepreneurial' phase.

Following the ID principles, the creation of these structures will have to be build around locally concentrated sectors. The ID projects will then have to be focused on export, education and technology.

Then, the first task is to identify within the whole cosmos of the Catalan economy geographical localities that shelter a highly concentrated amount of related production activities; the IDs.

Second, identify the 'stakeholders' of each ID. Here, not only private companies that form the productive fabric of the ID are meant. Also political, economic and other entities that create the wider setting in which the productive entities of the ID in question operate, must be identified. Concerning spotting companies, Chambres of Commerce can play an important role via making a register of all the firms and their activities in its respective resorts. Thus, spotting firms with complementary activities. This is absolutely necessary, as although it looks like everybody knows each other within these resorts, there exists a great ignorancy about their industrial potential. That way, companies can be spotted, brought together and it can be avoided that companies look outside their own region for partners.

Third, make them, together with representants of other but region-wide operating agents (banks and regional government), spot the lacunes -in terms of interfirni and inter-institutional cooperation, financing, R&D, export and education facilities- which prevent the productive entities of the ID from successful performance. It is important that also banks become involved in the financing of ID projects e.g. in export, education or technology and innovation centres and projects. For this can give a push to private initiatives on the risk-capital market, as it gives banks the chance to provide venture capital instead of seed-capital to substantial projects instead of tiny projects of small individual PYMES.
Further, from the side of the private enterprises it is recommendable that these unite themselves in ID-lead bodies, as to assure a high rate of participation, low barriers to cooperation and diffusion of information and project results.

Then, per aspect should be sorted out what should be done and created to overcome the shortcoming as well as determining which party should do and contribute what.

The construction of these new tangible and intangible institutions will provide a constructive contribution to vitalizing existing IDs which in a lot of cases are in decline, thereby avoiding a heading towards a less diversified economy and a stopping of an ongoing process of concentration of economic activities in metropolitan areas.

Another advantage is that exclusive dependence on foreign MNCs can be avoided as, via 'horizontal contacts and cooperation', equal opportunities to develop new products and technologies can be provided. These also assure that more value added activities of production chains become ID's business. It will also provoke a change in business organisation and mentality as cooperation and openness are vital elements in the whole plan.

Then, with these steps set in motion a positive change in the performance of the Catalan economy can be brought about. To this, not only the creation of export centres which sole objective should be the stimulation of sales cross-border contribute, but also the fact that more advanced and better functioning (inter-)company structures and facilities will lead to more competitive products which sell themselves. Both in Catalonia as in other markets which have become accessible for Catalan companies due the internationalization of economic life.
References


Appendix I

To give some concrete examples of what can be beneficial for companies making up IDs and for which practical solutions should be found; the following list:

**Education**

* Increase in-company trainings, also in PYMES: provide incentives for éducation permanente
* Create a dual educational system; establish e.g. next to theoretically oriented (politechnical) universities more practically oriented (technical and craft) colleges where business men are part-time teachers and workers can revitalise their knowledge via schooling sessions
* Strengthen the practical component of studies via stages, apprenticeships programmes and on-the-job learning opportunities
* Create study centres that provide knowledge in line with the production characteristic of IDs; like the School for Textile Engineers in Terrassa
* Increase technical component of studies and teach students possibilities of IT hardware and software

**Technology**

* Diminish the acquisition of foreign technology, develop an own base. In the case of acquisition do not just apply it; improve it
* Encourage R&D and innovation activities within firms via credits or special interest rates
* Create technology and innovation centres in line with the dominant sectoral production activities of IDs
* Increase and improve local facilities and institutes to develop, diffuse and acquire electronic and mechanical technology and information systems
* Strengthen ties between currently existing university technology transfer centres and the private sector and open new ones tied to different sectors, run by sectorally well-trained intermediaries
Fostering cooperation

* Promote endogenous development from local resources under basically local control via strategic coordination on the micro and meso-level
* Establish cooperation among PYMES in fields as education and training, R&D, design, buying and usage of machinery and services and export activities
* Eliminate the administrative and fiscal barriers that hinder the cooperation, the absorption and fusion between PYMES
* Create larger involvement/commitment of employers and employees organisations and the financial and educational system in/to the economy
* Stimulate bank investments in industrial projects e.g. via a more active posture on risk capital market
* Make operating on the risk capital market more attractive e.g. via exemption from certain payments or taxes or the giving of bonuses