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# Relations Between Institutions and Industrial Policies

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## 1. Introduction

This paper intends to show some of the complex relations between institutions and industrial policies. Owing to the fact that institutions are important factors in determining the slow pace of change of societies, their economies, states and private sectors, they therefore present important consequences for the design of industrial policies (which are also, one must underline, institutions). Thus, the paper tries to expose the relevance of the institutionality of a country for the choice of industrial policies and for their possibilities of success.

However, looking at the matter from the opposite angle, one important focus for many industrial policies are institutional changes, whether these institutions are connected to the State (and so, are more directly related to the implementation of industrial policies), to the relationship between the State and the private sector, only to the latter sector, or even consist of institutions that pervade the entire society. That is, the State, whether with firm foundations or otherwise (Chang, 1994a:70-1; 1994b:299) may desire to change a great number of institutions in certain sectors of society, or even those that pervade the whole society, in its intention to create what it considers an adequate institutionality which will be able to implement certain industrial policies. Of course this does not mean that the State is necessarily right in its intention to transform these institutions or that it will be able to realise such a desire. But simply that the State can try to make such changes, with the effective and full results of those actions only known *ex-post*.

The article contains four additional sections: in the following one, I better define the concepts of institutions and industrial policies. In the third section, I investigate the repercussions of institutions on the elaboration and execution of industrial policies. In the

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fourth, I analyse the situation from an opposing perspective, i.e., I discuss the means through which industrial policies influence institutional changes. Finally, I present some brief conclusions.

## 2. Some Important Definitions

Institutions are defined as rules and patterns of behaviour or interaction among people verified in one (or part of a) society, rules and patterns of behaviour which must acquire some stability, i.e., need to be repeated, even for a short time span. That is, institutions set up and, at the same time, restrict, the choices of individuals, at least in terms of what is socially recognised or considered acceptable and/or rational. Of course this does not mean that these individuals must be conscious of these norms and rules, or of their meaning or function.<sup>1</sup> Institutions reflect and, at the same time, settle, the value structure of societies.<sup>2</sup> And, therefore, they prescribe the expected behaviour and performance of some social functions and situations, and also determine – together with some ways of rewarding and creating incentives,<sup>3</sup> and with sanctions against deviating behaviours – the motivations<sup>4</sup> for and the level of confidence that one can have in this behaviour and performance.

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<sup>1</sup> Hall (1986:19); Elster (1989:99). Elster shows that social norms need to be shared by some (or many) people. Johnson (1992:26) includes among institutions the habits, routines, rules, norms and laws, as well as the organisations. I include communication between people in these patterns and rules of behaviour and interaction: As explained by Tool (1990:166): “Socially correlated patterns of behaviour are internalised by individuals and become habitual. Institutions, then, are made up of habits but they are not determined by habits. Being constituted of habits, institutions are often resistant to change. Rules, codes, customs, and attitudes, once established and embedded as habits, define expected behaviour and are presumed to be continuing.” See also North (1990:4; 1991; 1994); Landesmann & Pagano (1994:199); Langlois (1986a:17; 1986b); Akerlof (1976:24) and Popper (1963:149-52).

<sup>2</sup> Tool (1990:166). See also DiMaggio & Powell (1991a) for the visions and importance of values for Parsons and Bourdieu. For these authors, values are set before institutionalisation, i.e., they are preconditions to institutionalisation.

<sup>3</sup> Popper (1963:156); Rizzo (1985:881-2); Elster (1989:99-100). That is why I prefer to define institutions as patterns of behaviour and not as rules which define or impose them, as, for instance, in North (1990:3). For rewards, despite the fact that they may be established by rules (at least in the majority of cases), can hardly be seen as restrictions.

<sup>4</sup> Granovetter (1985); North (1990; 1991). In this definition of institutions I do not include ideologies, as, for instance, in Veblen (1899:110), or in some other important contemporary institutionalists (Friedland & Alford, 1991:243; Johnson, 1992:27-8). This does not mean that “mental habits” or the ideas of different individuals do not acquire some stability and routine characteristics — historically, culturally or personally determined — which cannot be included in a definition of institutions. The objection is to overburden this concept with the one of ideology, for ideologies, in spite of some collective aspects that they hold, have a marked individual nature, which escape the definition of institutions presented before. I define ideology as the way through which a person tries to explain “the world” as a whole, understood as everything which enters

On the other hand, I consider industrial policy as every policy directed specifically to an industrial and/or service sector (given the increasing interrelationship among these sectors),<sup>5</sup> and also to the industrial share of the agribusiness (while excluding the activities that can be easily classified as belonging mainly to the primary sector). Such a broad concept can be defended in spite of the fact that the industrial sector, in the majority, is not the one with the greatest share of the GNP in the most developed nations (Strachman, 2000:67). For in these economies, as is well known, the share of the industrial sector has been increasingly surpassed by that of the service sector. However, this does not prevent the industrial sector from commanding all the productive logic of society, through its relations with other sectors. That is to say, the industrial sector, in great measure, directs these other economic sectors and is responsible for a great share of their (and of the societies as a whole) economic growth and technological dynamism (Cohen & Zysman, 1987; Borrus & Zysman, 1992:23). This is evidenced by the (sometimes ill-considered) acceptance of the logic, structure and/or procedures adopted in manufacturing and/or in private enterprises by sectors with little (or practically no) relation to the aforementioned, e.g. education, health, government, etc.<sup>6</sup>

Industrial policies should, then, be defined broadly, in order to include in their scope all those policies which are directed to the industrial sector, to the service segments directed to the industrial sector and also to the agro-industrial segments of the primary sector, whether on the supply or on the demand side. In this sense, the concept of industrial policies should also include the “industrial side” of the so-called agribusiness (but should exclude the activities that can be more easily classified as belonging to the primary sector as, for instance, “traditional” crop growing or cattle breeding), despite the ever increasing difficulties of separating what is agribusiness and what is industry, at least in the most modern sectors of the agribusiness, because of their growing connections with industry (Silva, 1992).

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his/her field of perception, or on which he/she reflects (in this case it can surely also include things that do not exist). In a similar sense, cf. North (1990:16-23,137-8) and Fligstein (1991). See also Vasconcelos *et alii* (1999).

<sup>5</sup> Adams & Bollino (1983); Fajnzylber (1983), Chang (1994a:56-58) and Thurow (1992).

<sup>6</sup> Fajnzylber (1983); Meyer & Rowan (1991:55-6); DiMaggio & Powell (1991b:70); Dosi & Kogut (1993:249-53).

Thus, I exclude macroeconomic policies, those that are most clearly directed to the agribusiness, and the social and regional policies (when not primarily connected to industry) from this definition of industrial policy, in spite of the impacts of all of them on industrial policies, and vice-versa (Nelson & Rosenberg, 1993:13). This exclusion is to avoid transforming this definition into a catch-all term (Chang, 1994a:59-61), that would deprive it of any real meaningful content, since it would include policies which have as their main or even exclusive objective, economic or social sectors other than the industry. However, the policies directed to the physical infrastructure are contemplated in this definition of industrial policies. And this for two basic reasons: a) because these policies need, essentially, the decisive action of broad segments of the industrial and service sectors to be carried out, contributing therefore, from the demand side, to the economic and, in many cases, technological performance of such sectors; and b) because of the impact that they have on these same sectors (and also on agribusiness) when considered from the perspective of infrastructure as input, i.e., when viewed from the standpoint of the costs and working conditions of the firms (that is to say, when analysed from the supply side).

Parodying Johnson (1984a: 7), one could say that industrial policies are, together with fiscal, monetary and exchange policies i.e., with what is generally recognised as economic policies the fourth side of public policies, which should include, in the same way, agriculture (or nowadays, the entire agribusiness sector) and the social policies, that is, a fifth and a sixth component.

### 3. The Impacts of Institutions over Industrial Policies

It is important to stress, once more, that industrial policies are constituted of institutions, which implies the presence of strong relationships with the many other institutions in society, given the virtuous and/or vicious stability of the entire institutional edifice in which they are present and the interrelations among the various institutions (Jepperson & Meyer, 1991; Orrù *et alii*, 1991; Johnson, 1988; 1992). Hence, the creation or changing of some institutions implies dynamic (that is to say, through time) impacts, many of which unintentional, on a whole chain of more or less related institutions. These consequences, some of which are not foreseeable, occur also because of the feedback upon the institutions which are modified first and, subsequently, across the whole (or a good part

of the) set of institutions. Moreover, the level of the repercussions is differentiated according to the level of interrelation between the various institutions. For the creation of institutions and institutional transformation are conjugated with the totality of the structural evolution, or with a large part of it. Some of these institutional and structural mutations result from planned actions, others through happenstance. And it is impossible, unless if the most simplistic authors and models are followed, to predict all the consequences of premeditated structural and/or institutional changes.<sup>7</sup>

The consequences of this are that any industrial policies in effective use at a specific moment, outside of any consideration about their efficiency, have important connections with several other (non) economic institutions, with some of these connections being stronger than others (Veblen, 1899; Abramovitz, 1986:388-90). So, new industrial policies, in order to be accepted in and adapted to a certain institutionality, need to be able to connect dynamically to the entire institutional structure and, above all, to those institutions more strongly related to them.<sup>8</sup> Nevertheless, this does not mean that other countries will find it impossible to emulate institutions (industrial policies being amongst these) since many institutions can be emulated (sometimes with insignificant) adaptations. Regardless of what our opinion might be about the emulation of these institutions, world history, especially that of recent times, provides many examples of such events. Thus, with exclusive reference to *economic institutions*, it is possible to give examples almost at random, of the emulation of institutions by several countries in the areas of wages, work legislation, laws of limited responsibility, regulations of joint-stock companies, incentives through payment for productivity and/or profit bonuses, lifetime or part-time employment, the easing of regulations concerning worker dismissal, quality control circles, incentives for increased participation of employees in the firms where they work, etc. (Powell & DiMaggio, 1991). Furthermore, it is possible also to mention as examples of *mainly or strictly non-economic institutions* the emulation by several countries of republican, federalist, bicameral, etc., political systems; of transit laws; of the most different types of educational institutions (Noble, 1977; Brint & Karabel, 1991); of health institutions of various kinds, including hospitals, etc. (DiMaggio & Powell, 1991a; 1991b). Of course,

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<sup>7</sup> Hirschman (1984; 1995); Popper (1963:150-1); Johnson (1988); North (1990).

<sup>8</sup> The industrial policies should also connect quite harmoniously with the other components of the societies (or social factors) interests, politics, ideology, and so on.

each of these institutions was little adapted to the anterior characteristics of the countries which imported them, and therefore had to acquire a certain local “flavour”.<sup>9</sup>

However, it is certain that some institutions (including industrial policies) are more likely to emerge in and to conform to certain institutionalities, and are less likely to adapt to countries with much more diverse institutionalities than their places of origin.<sup>10</sup> This is one of the (social) factors, together with ideologies, politics, interests, etc., which explains the great, at least in an explicit way, resistance, of certain countries (such as the Anglo-Saxon countries) to accept anticipatory industrial policies, whereas others (like the Asian countries as a whole, or the Continental Europe nations) do not face major problems following such types of policies, because their institutionalities are more adapted to them.<sup>11</sup>

The same can be said of those nations that follow corporatist industrial policies, i.e., policies in which the harmonization of interests presents an enormous relevance. Thus, there are few countries which, currently, can assume corporatist policies without spending great efforts on a prior construction of a whole set of institutions (and of interests,

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<sup>9</sup> This is one reason why arguments that many institutions could not be accepted and adapted to certain countries are simply disguises, in a great number of cases, for strong interests connected to the maintenance of old institutionalities (Chang, 1994a:88-9). As a matter of fact, such interests are responsible for making these arguments true.

<sup>10</sup> Johnson (1992:41). This would happen at least in quite stable situations, i.e., one without wars, revolutions, or foreign occupations, or any other more serious menace from abroad which could divert the institutionality of such countries from their previous path (Abramovitz, 1986:389-90). On the other hand, this resistance to transformations and/or the adherence to a senile institutionality can even put the survival of a nation at risk, as was demonstrated in the case of China, in the XIX century. Another example of fidelity to inefficient institutions is the case of Great-Britain during the II World War, when she risked her own survival as an independent nation. That country excessively delayed a thorough re-equipping of her armed forces, in order to keep her fiscal budget in “equilibrium”, while the Germans, in those times, were certainly not paying any consideration to such minor issues (Polanyi, 1944:240; Hayes, 1987). And, the same Great-Britain, after that war, remained attached to a set of equally old and obstructive institutions and interests. This resulted in an additional loss of her global importance (Blank, 1978; Zysman, 1983; Hall, 1986; Abramovitz, 1986:389-404).

<sup>11</sup> Anticipatory industrial policies are much more intrusive than reactive ones. They should also be comprehensive and integrated, aiming structural transformations and trying to anticipate the appearance of problems brought about by specific sector, economic or social developments. Hence, such anticipatory industrial policies are in opposition to reactive ones – those directed to sectors in decline or facing difficulties. According to Gerybadze (1992:151-2,159-60), in the main industrialised nations, industrial policies have been increasingly active and anticipatory, i.e., directed towards what one figures the future will be, in opposition to the merely reactive policies, which are implemented after changes in relatively stable prior conditions. In this precise sense, one can register in the industrialised countries an increase in the policies directed to science and technology, whether executed alone or through international agreements (OECD, 1992a; Chesnais, 1994). The main explanation for such an increase in the use of technological policies, particularly of those with an international scope, is the perception of their great relevance for the long term performance of those countries. Thus, given the uncertainty which surrounds the results of R & D expenditures, different governments have been considering it profitable to pursue policies that stir up such expenditures.

ideologies, etc.) which are able to reinforce them (Katzenstein, 1984; 1985). For public policies, in corporatism, are a result of a never-ending series of trials and errors, which includes those involved in the building-up of an entire institutionality, and which on the basis of such attempts, achieves this reinforcement and can improve the whole through favourable individual decisions and results.

As Katzenstein explains (1985:58), on corporatism

“there are many small hands, many small blows, many mistakes and many corrections. This sort of response looks confused and disorderly. In an increasingly uncertain economic environment where rates of economic change are accelerating, however, the response is the small European states’ important contribution to the repertoire of modern capitalism.”

This does not mean, as Katzenstein stresses, that it is impossible for larger countries (whether geographically or demographically determined) and/or with a very different institutionality from those of the corporatist countries which systematically resort to harmonization strategies, to learn and use several of the “techniques” practiced by these small countries (with the exception of Germany, which is a large country and has almost always made political agreements in the corporatist vein). Nevertheless, it is necessary to make a series of adaptations so that those nations not used to resorting to the harmonization of interests (that is to say, nations that do not use concertation schemes, which include representatives from almost all the sectors of society) are able to benefit from the experience of corporatist countries. Logically, the carrying out of such a type of negotiation is more difficult in larger countries, due to the higher number of players and of interests involved. But, in such countries the agreements could, for example, be limited to a smaller number of aspects to concur upon, than in negotiations conducted in the smaller ones.

Consequently, it should be clear that certain institutions give support to certain industrial policies, e.g., the ones referred to in the concertation of interests. However, it is important to emphasise that it is not only, or even primarily, the formalized institutions that are responsible for this support. Certain customs, non-written norms (besides the other social factors) allow specific societies to establish as a basic principle, for instance, the

inclusion of all or most of their inhabitants and/or citizens in the objectives pursued by these societies, while in other communities this does not happen.<sup>12</sup>

It is also important to notice the intertwining of these formal and informal institutions with the ideology and interests which permeate such a “decision”, making it quite difficult, though still possible, to clearly separate institutions, ideology and interests. This is confirmed through the observation that societies, in their day-to-day existence, do not explicitly decide precisely the method by which they organise themselves or the objectives that they envisage. Instead they reach an unspoken agreement on such questions, which, then, generally appear (in a deceptive manner) to these societies as something “natural”, precisely because of this overlapping among institutions, ideologies, interests, politics, etc.<sup>13</sup> Only in extraordinary conditions will such societies have to make significant decisions on their methods of social organization. And, chiefly in the case of countries which have had recent successes, there is often such a strong support for these sort of decisions amongst the citizens of these societies (i.e., due to their support and understanding of prior decisions, ideologies, interests, forms of political harmonization, etc.) that efficient forms of organisation<sup>14</sup> emerge as almost natural to these citizens, whether they have been decided on individually or collectively. That is to say, these people can, in these circumstances, rely on a common resource of knowledge and experience which will appear to be both natural and logical.

So, it should now be clear that each (of the above) type of institutionality is more capable of receiving, conceiving of or adapting to certain types of institutions (industrial policies among them). On the other hand, this does not imply that societies which are composed of such institutionalities could not incorporate elements from other institutionalities and, hence, improve themselves, even though these institutionalities are quite different from their own. This is especially the case when they notice that these new elements are essential to making positive transformations (at least from the perspective of

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<sup>12</sup> Cf. Katzenstein (1984; 1985) for the distinctions between the kinds of corporatism of different countries, even with respect to the inclusion or not of foreigners (thus, inhabitants, but often not citizens) in the goals of harmonization.

<sup>13</sup> For societies almost never, or rarely, decide on a more radical change. They only maintain, by virtue of inertia, the way in which they organise themselves, whether it be efficient or inefficient.

<sup>14</sup> Or inefficient forms, in the case of societies that could not learn from past mistakes and/or from the examples of other societies, and in which such a learning process is made up by dysfunctional *non-solutions*.

international competition, given that there is also competition among institutions (Lazonick, 1992a).

#### 4. The Influence of Industrial Policies over Institutions

On the other hand, the State frequently needs to create a new institutional structure for both society and economy or, at least, make some important institutional changes to that structure (Chang, 1994b:300), although this is clearly restricted to those institutions over which they can exert a more decisive influence. In this sense, the State itself is not hugely different from the private sector, if compared to that sector when it is in a phase of reshaping or generating new institutions or while it is trying to implement more radical changes.<sup>15</sup> That is, the State, when trying to participate more actively in the destiny of a country, including in the fate of the economy, also often needs to promote institutional changes, even though they might be slight, in order to carry out its objectives.<sup>16</sup> For instance, the State must frequently create new mechanisms of coordination for the various private and public agents, or even for the relations between these two types of agents, and also must generate new forms of protection for the society, the national firms, workers, etc. In reality,

“[t]he establishment of a new coordination structure necessarily requires state involvement, even if the particular government in power does not want it. This is because only the state has the power to legalize (or at least give implicit backing to) the new property rights and the new power relations (both at the societal level and at the enterprise level), which provide an institutional reality to the new coordination structure. In other words, by giving the emergent coordination structure an institutional reality, the state will help agents with bounded rationality to establish quickly new organizations, new productive routines and new contracts which would enable them to deal with the ‘new world’ with less informational burden. In this process of institutional building, the

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<sup>15</sup> As, for instance, those changes which made possible the rapid and efficient diffusion of the (private) railways by the British, in the XIX century, even in foreign countries which received British investments; the Fordist mass production; the “Toyotist” lean production; etc. (Chang, 1994b:300.; Chandler Jr., 1990; Landes, 1969; Lazonick, 1992a; 1992b; 1993; Womack *et alii*, 1990). It is important to observe that any modification or innovation in a rule, law, custom, etc., conforms to an institutional change. However, in this case I am not considering these small changes, but only the more radical ones.

<sup>16</sup> As Chang stresses (1994b:300): “This means that we [also] need to look at the role of the state as an institution builder.”

state is not merely responding to changes but also leading them, as it cannot grant property (and other) rights to people in a coherent way, unless it has a certain vision of what it regards as the desirable future.... In this sense, the state is both responding to *and* shaping the course of changes, as any good entrepreneur would do.”(Chang, 1994b:300).

In a similar vein, the capacity of the State to avoid lock-ins in instrumentally inefficient processes should be emphasised, whether they refer to an unfavourable and premature institutionalisation of a determined technology or to the concentration of the institutional arrangements not exactly referring to techniques in certain types of “solution”.<sup>17</sup> This outlining and setting up of institutions by the State can also make feasible the reduction of several transaction costs, by, for example, decreasing coordination costs to a level far below those of market solutions. In this case, the State can count on some support for its activities from those which are not in such a opposition of power and privilege that it would make them oppose any solution other than those of the market, i.e. to any solution that does not respect the current distribution of power and privilege (Chang, 1994a:54; David, 1993b; 1994).

On the other hand, it is necessary to emphasise that the fact that the State assumes such tasks does not necessarily mean that it will be able to execute them. This gives those agents who do not accept any intervention by the State in the economy some ground to stand on. However, there are certain pre-determined characteristics that could favour the success of the State in these activities, like the fact that it *can represent* the national and public interests, which may be a key element in certain situations.<sup>18</sup>

Nevertheless, many authors base the difficulties which the State faces in the carrying out of efficient industrial policies in underdeveloped countries precisely on the absence of adequate institutions to implement them, in opposition to the state of affairs in the developed nations. They indicate, as examples of these obstacles in the less developed

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<sup>17</sup> In this sense, one should always remember the existence of established interests contrary to certain institutional changes, and the search by the agents who represent these interests to direct these changes according to their will (David, 1985; 1987; 1993a; 1994; Chang, 1994b:300-1, n. 10).

<sup>18</sup> Chang (1994a:71). As an illustration, one could recall the implementation of recession cartels in Japan by some industries, after the oil price hike, in 1973/74: “In the case of the aluminium-smelting industry, one reason put forward for not cutting capacity to the level dictated by current relative prices... was the need to maintain a sizeable industry to support an R & D capacity, which is an important precondition for regaining international competitiveness if the cost situation improves in the future.”(Chang, 1994a:149,n. 27). Cf. also Torres F<sup>o</sup> (1991).

countries, the absence of a sufficiently competent bureaucracy and the prevailing conflicts existent in many of the relations between State and private sector, which are also a consequence of the precariousness of the State and private institutionalities.<sup>19</sup> Hence, based upon a line of argument with implicit institutionalist content, these authors underline the difficulties of “importing” institutions by those countries less institutionally and/or bureaucratically developed. For them, this factor alone would constitute an insurmountable obstacle to carry out efficient industrial policies, in spite of its potential positive results.

However, these obstacles should not be exaggerated, if one considers that the history of every country in the world has been marked by institutional emulation from the copying of European institutions by the Americans and the Japanese, in the XIX century, to the imitations in the opposite direction, in the XX century, or the emulation of Japanese institutions by many Asian countries, which have been taking place since the end of the 50's/beginning of the 60's. In many of these cases, as in several countries in East Asia, the process of emulation began, specifically concerning those institutions which were directed to industrialization and development, with a precarious institutional base. So, in these countries a whole institutionality had to be created internally almost from scratch, by modelling the institutions on foreign ones. In this sense, it is important to mention the rapid institutional transformation made by the Newly Industrialized Countries (NICs) from southeast Asia especially in the case of South Korea and Taiwan, but also of Hong Kong and Singapore who had the explicit ends of industrial policy in mind, when they began to emulate Japanese institutions and industrial policies, from the end of the 50's until the beginning of the 70's. Subsequently, the desire for development on the part of the new NICs from southeast Asia e.g., Indonesia, Malaysia and Thailand also led these countries, at the beginning of the 80's, to examine the results, institutions and policies of this initial set of PRIs, in order to set out on a similar path of efficient industrial and economic transformation.

<sup>19</sup> Chang (1994a:87). But, as Chang (1994a:152, n. 50) also points out, these characteristics are mainly underlined by the British scholars who emphasise the conflicts between the State and the private sector or the American ones who, on the other hand, stress the relevance of a competent bureaucracy thus taking with rather little awareness national problems as parameters for this “general” assertion. Cf. also Zysman (1983); Hall (1986) and Norton (1986).

But certainly, in many cases, countries can create their own institutions, from original ideas or from certain previous institutional characteristics and/or historical events. For example, the appearance, at least in the big companies of Japan, of lifetime employment, came into being after a series of strikes and serious workplace conflicts, immediately after World War II, and was not due to any time-honoured tradition (Johnson, 1982:14; Chang, 1994a:87). The same happened with the *keiretsus* and the system of suppliers subcontracting, which display some characteristics of the pre-World War II period, but were enormously stimulated by a specific change during the war, still in the time of the *zaibatsus*. This change was the forced merger by the State of small and medium companies with big manufacturers of machinery and weapons, with the aim of increasing the efficiency of the whole Japanese productive system (Johnson, 1982:14). Something similar happened to the fast build up of a meritocracy system of workers recruited for the Japanese State in the XIX century. Such a system “perverted” some feudal traditions (thus institutions) and at the same time emulated, with due modifications, a great number of European and American institutions, in the Japanese effort to keep the country independent and modernize it, according to the technical and institutional vanguard of the time (Hobsbawm, 1977:164-71; 1994:201-2).

In a similar vein, the heavy interventionism of the French State after World War II was a consequence of transformations in the elite which ruled that nation, and also a result of the humiliating defeat inflicted by the Germans (Monnet, 1976; Zysman, 1983), and not of a deep interventionist tradition. For, one should not forget that the French State was known, prior to that war, for its liberalism and anti-modernism (Chang, 1994a:87-8). And also the “traditional” and renowned Swedish welfare model, based on the concertation between labour and capital initiated with the transformations carried out in a very short period, had as its foundations some of the most contested industrial relations in 1920’s Europe, and also a enormous risk of seeing a Fascist regime ascending to power (mainly because of the very high levels of unemployment at the beginning of the 30’s – Chang 1994a:88; Polanyi, 1944).

On the other hand, the fact that a country may learn through the analysis of other competitors institutions and try to emulate their favourable characteristics absolutely does not mean that they want to copy the original institutions with complete fidelity, even if this

were possible (Orrù *et alii*, 1991; Chang, 1994a:88). Often it proves beneficial for these countries to preserve the institutions which are performing quite well, and to only modify those which are somehow inefficient. For example, for practical purposes, the concertation policies of some of the smallest and most successful European countries, or even of Germany, have certain similarities to the lifetime employment system of the big Japanese companies, in terms of guaranteeing employment, which opens up the possibility of a positive attitude in relation to technical changes, despite the fact that the institutional employment structure of these various countries is completely diverse (Katzenstein, 1984; 1985). As Dore (1986) stresses, it is not necessary to absorb the Confucian ethic or to be as nationalist as many of the Japanese in order to emulate some of the advantages achieved by that nation after World War II,<sup>20</sup> even if those ideologies seem attractive to some people.

“[W]e should ask ourselves whether there are not other ways in which some of the things which Japanese institutions and traditions achieve for the Japanese might be obtained by other methods, other institutional arrangements, more consonant with our own [British] tradition. If close co-operation and consultation between managers and workers seems to be a precondition for rapid innovation in manufacturing firms, and if it is difficult to achieve this, given our adversarial traditions, what forms of industrial democracy or workplace decision-sharing might substitute for the easy acceptance of bureaucratic hierarchy which facilitates co-operation in Japanese firms? If we cannot have, and do not want, lifetime employment to be the norm, if we want to preserve a more mobile system with the greater personal freedom which that provides, can we at the same time devise schemes which could give British employers the same incentive to invest in training their employees as the lifetime employment expectation gives Japanese employers? If the crucial aspect of the Japanese system of financing industry seems to be the way in which it facilitates long-term planning and investment, and reduces preoccupations with next year’s bottom line, is there any way in which our own financial institutions could be mended to achieve the same effect, without necessarily modelling our stock exchange on Japan’s? If inflation control in Japan crucially depends on institutionalised wage leadership and a nationally simultaneous pay

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<sup>20</sup> See also Fajnzylber (1983).

settlement date, does that not suggest the wisdom of re-examining the many suggestions that have been made for introducing synchro-pay in Britain?”(Dore, 1986:252, *apud* Chang, 1994a:88-9).

Hence, a country, when trying to emulate certain institutions, can try to adapt them to her pre-existing institutionality, i.e., to its “national particularities”. However, it will also try to make these institutions conform to the objectives of that country, which, in many cases, include the desire to avoid transplanting all the characteristics of another countries institutions or institutionality as a whole. Nevertheless, such a fact, does not imply that an institutional renovation will always succeed, for there will be instances in which the introduction of these new institutions will not be welcome. This would cause, for example, a lack of political support for such a transplant, even if it would only occur with modifications, or maybe the import may only be allowed in with such a large number of changes made to harmonise the new institutions to the old that a complete distortion of the emulated institutions will be brought about. That is why there are cases in which the copying of the institutions is not carried out and everything stops after the initial analyses, or alternatively, the process is completed only after significant transformation of the original concept.

This discussion makes us return necessarily to that of the “underdeveloped State”. It is important to understand that the underdevelopment does not only occur in the so-called productive sector (whether State or private owned), of certain countries or regions. On the contrary: it is accompanied, and also largely caused by a mainly unsatisfactory and underdeveloped institutionality, in which one shall include the institutions of the State that “commands” (or should “command”) the country under its rule (North, 1990).

As a consequence any intention of carrying a development project requires the prior build up or profound restructuring of the institutionality of this underdeveloped State (if it is considered inefficient), in order that it may effectively direct the development process.<sup>21</sup> And this often also means the necessity of creating, or at least of directing, the private

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<sup>21</sup> As we know, as one leave aside liberal speeches and pay attention to the real institutionality of the States in the developed countries, one notices that these States are also well developed certainly with differences among the various countries, but never to the point which impedes the national governments from carrying out the public policies they want. This assertion is confirmed by the slow, but continual growth in the share of the public budgets in these countries GNP (OECD, 1989, 1992b)

institutions, in order that they better adapt to the objectives of development. It is obvious that, to realize such an intention, and even to negotiate the desired institutions, an efficient State, formed by an equally efficient institutionality is needed. This however, does not mean that the State cannot be built gradually.

Therefore, some questions almost naturally appear: which conditions would be those necessary to ensure the adequate success of far-reaching and dynamically efficient institutional changes? And, at the same time, which industrial policy decisions could create changes in institutions judged important for the very success of such a policy?

As a matter of fact, one needs a whole set of factors (the social factors explained above: ideologies, interests, institutions, political support) that mutually reinforce each other, in order to surpass a determined threshold (a critical mass, the level of which probably could never be scientifically established), on the basis of which the adoption of certain institutions and a certain institutionality acquire inevitability, and make a return to the former *status quo* impossible. These would be the conditions which were both necessary and adequate to the task of carrying out the project. But unfortunately these conditions are impossible to determine with precision, at least with the knowledge currently at our disposal. In the same vein, a set of factors is needed to assign certain characteristics to the designed institutions (including the industrial policies), to make them more instrumental (functional in relation to specific desired purposes). These factors would be worked out on the basis of these initially worked out transformations, but also on the basis of the complex interrelations between the several institutions and, in addition, on the basis of the relations among these institutions, the technical and structural conditions, and the various social factors that constitute societies (Veblen, 1899; Zysman, 1983:cap. 6). In this case, and in answer to the second question, there is the possibility of an efficient institutional change to occur.

This set of factors which reinforce and correlate with each other, although in a uncertain way, imply an infinite possibility of combinations, making even more vain any attempt to determine exactly the values for the (partially) independent variables (since they are correlated) which would make possible the establishment of the exact value of the

dependent variable the execution or not of industrial policies of a certain type.<sup>22</sup> Furthermore, how can things such as political support, interests, ideology, institutions, etc. be quantified?

Powell (1991:199) corroborates this assertion, describing with perspicacity the necessity of a whole set of interests, political support and ideologies that might allow the appearance or permanence of certain institutions and policies:

“The influence of external pressures may be partial, inconsistent or short-lived. For example, government agencies, corporate sponsors, or community groups may have the influence to encourage the adoption of particular practices but lack the power to mandate them. In such cases, support for new politics may be strategic, that is, organizations will embrace them as long as it is in their own interest. Various collective actors, such as professional associations, trade associations, and other sources of reference group influence, may be able to promulgate ideas for change, but not require them. Similarly, government may legislate certain policies (such as equal opportunity employment), but leave the actual implementation of the policy unspecified. As a result, practices may become only weakly institutionalized. In each of these cases, practices that appear to have institutional support will have unequal staying power. As a result, policies may be introduced but not reproduced, or practices may take a firm hold for a short period, only to quickly wane when their source of normative support erodes.”

Thus, this threshold or critical mass can be provided by the relative stress on the relevance and presence of any one of the social factors, or by mixing them “correctly” in the right proportions, i.e. according to certain minimum requirements for each of them. In these terms we may contemplate the importance which certain characteristics of some countries or regions assume, in the lead-up to a process of industrialization, as for example, the presence of a very nationalist and important group inside the Armed Forces in South Korea (Coutinho, 1999) i.e., such a group also implies a particular combination of interests, nationalist ideology and political force who mounted an institutional structure

<sup>22</sup> As in a *virtual* graph with, say, six dimensions, one for each of the following “factors”: industrial policies, institutions, ideologies, politics, interests and historical moment (constituted by the material conditions of a country or region, at a specific moment, to which one should add the international historical circumstances, all determining the developmental possibilities and the policies to which one can resort to when with that aim in mind).

appropriate to a rapid industrialization process, at a propitious moment in the international economy.

This type of national elite and its accompanying ideology had equally an important role in other countries, as for instance in Brazil. However, in Brazil the political forces, ideologies, interests and the hegemony of this elite (whether or not its members were inside the State apparatus) were weaker than in South Korea, making its position less solid and therefore their interests and needs of a lower priority among the other interests of society as a whole.

Bearing this in mind, certainly one can still try, in particular empirical situations, to make predictions on the values and the effective “weight” of each one of the social factors, or on the whole set of them, but only with a great risk of these predictions being revealed *ex-post* as having been short of the reality. For it is only *ex-post* that one can know the “real weight” of each of the factors in the institutional or industrial development of a country. Nevertheless, even this knowledge will not be entirely objective, because of the aforementioned problems of analysis and/or quantification of so complex, multi-determined and interrelated factors, which are very familiar issues for instance to historians. It is this characteristic that causes so many mistakes in the predictions of social scientists (and economists are undoubtedly among them) and which by far outnumber the mistakes made by scientists from other areas, since the problems to be foreseen and/or explained (*ex-ante* and/or *ex-post*) are the result of an intricate relationship of innumerable variables, which are frequently not reproducible, not completely independent, and also correlated in an uncertain manner.

Nevertheless, we still are left with the need to understand when these processes of institutional transformation occur historically. Although I do not intend in this short space to give a definitive answer to such a complex question, I hope that all the elements presented and analysed so far may help us in this task. Thus, the multiple factors analysed in this paper may allow a better understanding of the great number of variables involved and off the impossibility of quantifying them, and also that these variables differ among the various countries.<sup>23</sup>

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<sup>23</sup> This difference occurs even when such countries are quite near to each other, culturally or geographically, as, for instance, Denmark Sweden and Germany (Johnson, 1992:39).

Thus, on the basis of what has already been discussed in this article, the great difficulty or even impossibility of achieving institutional transformation *lato sensu* (that means, including formal and informal institutions) by means of a voluntaristic industrial policy, which is detached from a reasonable (but unquantifiable!) support of other factors, becomes evident. This voluntaristic industrial policy can even *formally* establish some institutions which are supposed to effectively support a developmental policy. But such institutions can be hindered (*before or after* their effective implantation, i.e., even after their initial discussions and presentations) by the other (formal and/or informal) institutions and by interests, ideology, politics, etc. (North, 1990; Powell, 1991:199). This does not mean that it will be impossible to make institutional transformations,<sup>24</sup> but that it will be difficult to establish the right timing and conditions etc., for the establishment of an economic and institutional development cycle. It is likewise important to bear in mind that a mistake in this attempt to reform, even if only in relation to the timing, can lead to a stagnation, or worse still to a retrocession, because of the incitement and joining together of previously dispersed opposing interests, which in turn might lead to immobility, because of the fear of encountering potentially undesirable reactions.

It is also important to underline the possibility that transformations which begin with economic, technical or institutional changes spread over other factors, as political or ideological ones, and then to interests, and so on. This can be a counterbalance to an excessive cautious stance, for relevant transformations in some variables may be essential in order to break the *status quo*. It is important to bear this in mind in order not to lose sight that changes in the institutional path can occur not only through modifications made in this same institutions, but also through triggered by economic and technical changes (in production, processing, production organization, distribution, marketing, etc.)<sup>25</sup> to transform the ruling institutionality, and vice-versa (Veblen, 1899; Johnson, 1992), therefore making possible the breaking of the *status quo*. This is why it is so difficult to establish a general rule, which might determine with little margin of error, the possibility of

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<sup>24</sup> In many cases the very developmental process, through the changes brought about in formal institutions, can also effect modifications, and in a desired direction, in an entire institutionality (now including informal institutions) and also in the other social factors. But in other cases, as in many examples of Latin America, this does not happen (North, 1990).

modifying societies or of the State providing the initial impulse to global changes in societal organization.

The State might also be attentive to and take advantage of certain technological economic and/or institutional (in the wide sense given above) “windows of opportunity” (Perez, 1985; Perez & Soete, 1988), in order to start such transformations. These windows rarely provide the possibility of making radical changes in the path taken by a society (because, when they appear, they are not well utilized). In many cases, however, these windows at least allow for a small worthwhile deviation in the initial path, when the State, acting in the vanguard, or the society acting autonomously, takes advantage of them. Thereafter the State may either escort the society or instead pick up the rearguard.

It might be once more pointed out, that some of those opportunities are constituted of situations, “business” conditions and other social activities (like the interests, ideology, politics, etc.) which are all other than normal, and which serve to pull the society out of its usual inertia (Hirschman, 1995) and make it become, almost naturally, inspired by and predisposed towards transformations in institutions and other social components (including those concerning the “material conditions” of societies, i.e., the economy and technology). In fact, wars, invasions, revolutions, radical economic transformations, etc., cause such accentuated disturbances and such serious long term consequences in the societies where they happen, that it is almost impossible to return to the prior *status quo* after they end. Consequently, such types of event can lead to radical institutional changes, which allow the goals of sovereignty and the development of a country to be taken up again (Abramovitz, 1986), if they had been relinquished (remember, once more, the French case, after World War II). On the other hand, in the cases where this does not happen, decline and complete subservience to another country(ies) seems inevitable.

## 5. Conclusions

In this article, I tried to expose the complex relations between institutions and industrial policies. As we saw, institutions are, to a large extent, responsible for the slow changing of societies and their economies, and this represents an important fact to be

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<sup>25</sup> Hence, innovations in the sense of Schumpeter (1942), whether they are radical or incremental. And that even if these innovations could be considered as such only for those countries which are trying to catch-up, i.e., if they are already widespread in the developed countries.

considered when seeking the implementation of industrial policies (and, perhaps, policies directed to other aspects of the economy and society, as for instance social policies). This becomes clear when the impacts of a country's institutionality over the choice of determined industrial policies and the greater or lesser possibility of the success of these policies was explained.

However, looking at the question from the opposite angle, this mutual influence can be equally examined from the perspective of the attempt made by industrial policy makers, to modify and/or to generate certain other institutions (perhaps copying them, even if only partially, from other countries) whether these institutions belong to the State, to the private sector or to the interface between this sector and the State. So, this paper has tried to show the relations between industrial policies and institutions from both points of view.

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### Abstract

The paper aims to show some of the complex relationships between institutions and industrial policies. Institutions are important factors determining the slow pace of change of the societies, their economies, States and private sectors, therefore presenting important consequences for the design of industrial policies. Having this as a backdrop, the paper tries to expose the relevance of a country institutionality for the choice of industrial policies and their possibilities of success. In the opposite direction, one important focus for many industrial policies are institutional changes, whether they are connected to the State or to the relationship between the State and the private sector, or even only to this last sector. The paper also investigates some of the difficulties and limits for these institutional changes.