Financialization and industrial policies in Japan and Korea: Evolving complementarities and loss of institutional capabilities

Sébastien Lechevalier, Pauline Debanes, Shin Wonkyu

INCAS

DP Series

Discussion Paper Series 2016 #01

Financialization and industrial policies in Japan and Korea: Evolving complementarities and loss of institutional capabilities

Sébastien Lechevalier (EHESS)

Pauline Debanes (EHESS)

Wonkyu Shin (Kyung Hee University)

This work has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement n° 645763.

INCAS

Understanding institutional change in Asia: a comparative perspective with Europe

http://incas.hypotheses.org/

ABOUT THE INCAS PROJECT

INCAS is a Marie Skłodowska-Curie Actions R.I.S.E funded project under the European Commission's H2020 Programme.

The project INCAS aims at creating a top-level research and advanced training network on institutional change in Asia, in comparative perspective with Europe.
The coordinator, Ecole des Hautes Etudes en Sciences Sociales (France), promotes this network together with Oxford University (UK), Freie Universität Berlin (Germany), and in collaboration with Waseda University (Japan). The aim of the proposed mobility scheme is to give birth to a European consortium and network of faculties and advanced graduate students specialized in the comparative analysis of institutional change in Asia and Europe. The partners have chosen Japan as a reference point because of its comparability with Europe as shown by previous studies, its historical influence on development and further institutional changes in Asia, and the expertise accumulated within our research team.

Analyzing current economic dynamics in Japan and later expanding this analysis to other Asian countries promises to generate insights that might be help to better understand challenges for Europe and to prepare relevant policy proposals. Our purpose is to compare the results obtained in the case of Japan and few other Asian countries (South Korea, Taiwan, China, and possibly Thailand, after having checked the data availability), not only to previous results on Europe but also to original results we will get on European countries (primarily France – which will be our reference country in Europe – and then the UK, Germany, and Italy) in mobilizing new historical data and applying our theoretical framework.

Financialization and industrial policies in Japan and Korea: Evolving complementarities and loss of institutional capabilities

Sébastien Lechevalier (EHESS)

Pauline Debanes (EHESS)

Wonkyu Shin (Kyung Hee University) [1]

Abstract:

The purpose of this article is to analyze the revival of industrial policies from the late 2000s in Japan and Korea and their limitations. Our approach has two major characteristics. First, we adopt the perspective of historical institutionalism to focus on the relation between IPs and financial systems and study their evolution over the last 40 years. Second, by mobilizing the concepts of institutional complementarities and hierarchy, we discuss the limits of this revival in a context of liberalized financial systems, to which IPs have contributed. Our major result is that, in the context of financialization, past complementarities of the developmental state have weakened and contradictions have arisen. It resulted in a restructuration of state capabilities to design and implement IPs, and to its inability to subordinate finance to its goals, despite the discourses and ambitions of governments. However, and this is our second result, comparison between Japan and Korea also allows us to identify some significant differences that may explain diverging trends in terms of the deindustrialization and internationalization of these two economies.

Key words: Institutional complementarities, institutional hierarchy, developmental state, structural reforms, liberalization

JEL: 025, 053, P110, P16, P51

1 Corresponding author: sebastien.lechevalier@ehess.fr. EHESS, office # 637, 190 avenue de France 75013 Paris FRANCE. Sebastien Lechevalier and Pauline Debanes wish to acknowledge the financial support from the GDRI program "institasie" (CNRS) and from the RISE Marie Curie program "INCAS". This work was also supported by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2015S1A3A2046224). We are grateful to Jun Suzuki and Tetsuji Okazaki for their advice as well as to Keun Lee, Ilcheong Yi, and Keiran Macrae for their helpful comments. Usual caveats apply.

1. Introduction

Industrial policies (IPs) in OECD countries have undergone a remarkable evolution in their conception, framing and practices during the last four decades (Andreoni, 2014; Chang et al., 2013). In the context of the post-2007 global financial crisis and great stagnation in advanced economies, IPs have been rehabilitated to some extent. In this paper, based on the Japanese and Korean cases, we argue that the financialization process - defined broadly as the growing impact of financial markets, actors, practices and representations on social structures and dynamics (see Epstein, 2005) - is a key factor to understand and interpret the evolution of IP and should thus be at the center of pertinent analysis. Japan and Korea are of particular interest as their experiences are central in the evaluation of the contribution of IPs to development and growth (Dore, 1986; Amsden, 1989; Wade, 1990; Chang, 1993; 1994; Chang et al., 2013). Their strategic IPs were implemented in a specific developmental state framework, which has been well described in the literature (Debanes & Lechevalier, 2014). IP and the involvement of the state have been criticized and reconsidered in both countries, respectively from the 1980s and the early 1990s, before experiencing a revival in the late 2000s in the double context of global crisis and political change. The nature and the extent of this revival are matters of debate between those who argue that there is a strong continuity in the developmental state framework (Thurbon, 2016), those who think that it corresponds to a specific period which is now over (Chang et Evans, 2005; Pirie 2006; M. Suzuki, 2013) and those who identify a form of hybridization (Wong, 2004; Suzuki, 2014; Chu, 2014). In any case, IPss in these countries have experienced dramatic changes that do not follow exactly the path of other OECD countries mentioned above in terms of direction and timing (Lechevalier, 2006; Goto and Kodama, 2006; Vogel, 2006; Tiberghien, 2007). Japan and Korea have participated in the renewed interest regarding IPs but this revival is not without contradictions. This article engages with the literature on IPs in Japan and Korea from the following perspective. Instead of trying to qualify whether the developmental state is still alive or not, we look at the institutional changes that have affected the developmental state framework as it developed in the postwar. Institutional change is not a straightforward process and past institutional arrangements often coexist with more recent ones. Considering a developmental state framework as a historical institutional arrangement, this analysis discusses institutional changes that have been unfolding for several decades in these two countries. Similarly to what happened in other OECD countries, financialization has been a driving force of change. Japan and Korea have experienced financialization that followed financial liberalization in the 1980s and the 1990s, and has taken specific forms in these two countries (Hoshi & Kasyap, 2001; Crotty & Lee, 2005; Doucette & Seo, 2011; Lechevalier, 2014). This approach allows us to fill the systematic gap between the evaluation of IPs in Japan and Korea made by Western scholars and the reality in these two countries. These contributions have underestimated the institutional environment of IPs, in particular with respect to the finance-state nexus. The major aim of the article is to jointly analyze the evolution of financial systems and IPs in Korea and Japan in order to outline new complementarities and contradictions that have arisen from the implementation of IPs with financialization since the 1990s.

The increasing role of finance in economic dynamics is widely recognized but the reach of the financialization process has revealed to be larger than a set of structural changes in the financial sector such as liberalization, privatization, internationalization (van der Zwan, 2014). In this article, we focus on the institutional transformations of the financial sector and their implications both on the state and the business sector.

We stress the importance of financial structures of the economy for the nature and evolution of IPs. This is largely underestimated in existing research from an empirical viewpoint, especially most recently. We contribute to the literature taking into account the embeddedness of IPs in institutional frameworks by considering finance not only as an input of IPs (O'Sullivan et al, 2013) but also an output and a vehicle. Moreover, most of the recent theoretical frameworks mobilized to analyze IPs under-conceptualize the state and downplay its active role in shaping financial systems. Also, this approach allows us to take into account the industrial dynamics, at the aggregate (i.e. deindustrialization) and micro levels (i.e. change of corporate governance and corporate strategy).

We contend that the joint transformations of financial systems and forms of IPs overtime have had important implications on the recent evolution of IPs in these two countries and beyond. On the one hand, the development of the financial sector has been a goal of IP by itself. In this, states are not passive agents or outsiders providing and enforcing regulation, they have been proactive in shaping financial systems through deregulation. On the other hand, we address how financialization has been one of the major sources of change for the developmental state framework regarding the area of IP in Japan and Korea.

Our theoretical background mobilizes Regulation theory emphasizing both evolving institutional complementarities and hierarchy between finance and the state (Boyer, 1990, 2005). Moreover, Regulation theory is helpful to understand how evolving IPs relate to the transformation of the state in a liberalized context and the diversity of trajectories across countries. This historical comparative institutionalist approach is enriched by a political economy perspective that sees institutions as political compromises between socio-political groups and adopts a more dynamic approach of institutional change (Amable & Palombarini, 2009; Amable, 2015).

Based on this approach, we show that while developmental states such as Japan and Korea subordinated the financial sector to industrial needs during industrialization ("financial containment and mobilization"), the financialization of these economies is reshuffling both the hierarchy and complementarities at play ("financial development and disconnection"). Our major result is that even if there might be new institutional complementarities between new forms of IPs and the financialized environment, this is not enough to compensate contradictions and the loss of institutional capabilities. More precisely, we address how the revival of IPs in Japan and Korea is thwarted by the reconfigured articulation of the financial system and the state's economic apparatus. We also identify the different mechanisms of institutional change that have transformed the developmental state framework in these two countries and the remaining institutional legacy. This enables us to draw some implications with respect to the divergent industrial and labor dynamics in Japan and Korea.

The rest of the article is built as follows. In section 2, we introduce our theoretical framework. In section 3, we summarize the major characteristics of IPs in Japan and Korea and their interrelations with the financial structures of the economies during their Golden Ages (respectively from the 1950s to the 1970s in Japan and from the 1960s to the 1980s in Korea). Sections 4 and 5 analyze how IPs in Japan and Korea were not passive *vis-à-vis* financialization, but, quite on the contrary, both indeed contributed to it. They also show how financialization has in turn modified the environment of IPs in these two countries. Section 6 discusses the differences and commonalities of the Japanese and Korean experiences. A final section provides a conclusion.

2. Theoretical framework: mobilizing the concepts of institutional complementarities and hierarchy from historical comparative institutionalism and political economy perspectives

2.1 Comparative historical institutionalism

Our theoretical background comes from historical institutionalism and is largely inspired by literature on comparative capitalism and in particular Regulation theory (Streeck & Thelen, 2005; Amable, 2003; Morgan et al, 2010; Boyer et al, 2011). In these approaches national political economies are defined by institutional settings that result from political processes. Each configuration is characterized by the consonance between fundamental institutional domains which codify key social relations and partly determine macro level performances and micro diversity. Industrial dynamics then depend on the national institutional settings they are embedded in (Andreoni, 2014). The relation among these key institutional domains structure the modality of coordination between economic actors (see Hollingswoth & Boyer, 1997; Boyer, 2005).

In the present contribution, we mobilize the concepts of institutional complementarities and hierarchy. In doing so, we adopt the usual definition of complementarities, according to which two institutions are complementary, when the presence of one institution is reinforcing another (Boyer, 2005; Amable, 2003; Streeck & Thelen, 2005). We specify below our political approach to this concept. As for the understanding of the concept of institutional hierarchy, we focus on the one that refers to the "power" of institutions over others. Our goal is then to analyze the evolving complementarities and hierarchy between these two institutional domains. Used in a dynamic manner, the concepts of complementarity and hierarchy are insightful to apprehend the tremendous institutional changes that have occurred from the catching-up period to the current financialization period in Japan and Korea.

Studies focusing on Asian political economies stress their common features as much as the diversity among them (Amable, 2003, 2015; Boyer et al, 2012; Walter & Zhang, 2012; Storz et al, 2013). In the case of Japan and Korea, a tight relation between the state, the financial system and the business sector is often emphasized as the major characteristic of the so-called developmental state framework. Based on this theoretical framework, the financial system and the state are two fundamental institutional domains and IPs are part of the economic apparatus of the state.

Previous literature documented to what extent financialization has put pressure on post-war institutional configurations (e.g. different trajectories proposed by Engelen & Konings [2010]) towards the domination of the financial institutional domain. One key result is that, despite the persistence of diversity across national political economies, institutional change that has occurred in the financial sector from the 1970s has instilled a convergent force towards financialized practices and representations found in Anglo-Saxon countries even in the more coordinated type as Germany and Japan (Yamamura & Streeck, 2003). More precisely, financial systems tend to be less segmented and corporate financing through markets and financial instruments has increased compared to corporate loans while corporate governance is more and more oriented towards the maximization of shareholder value.

These general results are relevant to our study as, during the catching-up period, Japan and Korea developed, through a strong state regulation, a bank-based system in a close relationship with very large corporations organized as highly diversified conglomerates (Amable, 2015)[2]. Therefore the financialization process, by promoting disintermediation of corporate financing, put pressure on complementarities associated with a centralized financial system (Deeg, 2010). The financial liberalization in these two countries, in part through the pressure on the stakeholder type of corporate governance, led to the reconfiguration of the coordination between banks, conglomerates and the state (see sections 3, 4 and 5).

A final characteristic of our approach comes from a particular attention to the micro (especially corporate) level. Given the fact that there is no isomorphism (i.e. no perfect correspondence between the organization of a given form and the institutional architecture), we have to pay a particular attention to the corporate heterogeneity and its evolution (Boyer, 2005). Instead of using the concept of institutional coherence (see Boyer, 2005), we resort to a concept of coordination which refers to the outcome of this micro heterogeneity at the aggregate level. The outcome of corporate diversity at the aggregate level is indeed undetermined and fundamentally depends on the quality of coordination that contributes to the diffusion of innovation and productivity gains (Lechevalier, 2014). IP is one of the institutional devices that improves the degree of coordination between heterogeneous players.

2.2 Political economy of institutional change and the state

This brief account of the institutional change that has been occurring in financial systems leads us to stress the importance of understanding the underlying mechanisms. In order to open the "black box" of institutional change, our proposition is to root it in political processes taking place in a fragmented social space between heterogeneous socio-political coalitions[3]. It means that institutions are not defined according to efficiency or rationality but as the results of political compromises among different interest groups that form socio-political coalitions to advance their interests. In this view, institutional change results from and reflects a changing balance of power among socio-political coalitions (Amable & Palombarini, 2009).

The concepts of complementarities and hierarchies can then be rethought and rephrased in terms of political processes. Complementarities of institutions reflect the enhancing effect of the joined presence of institutions for a given socio-political group; hierarchy of institutional domains follows the hierarchy among the different fractions of a socio-political coalition. The overlap of complementary and hierarchical (unstable) institutional relationships can be a source of contradictions over time that can be resolved through new political compromises or result in latent instabilities. Hence, contradictory interests between actors can have consequences on the pace and scope of institutional change.

This approach allows us to elucidate IP as part of the state, which we define in terms of reflecting and sustaining the existing balance of power within social forces (Poulantzas, 1978; Jessop, 2002).[4] Industrial structures and institutional settings are embedded in the political economy sphere. In other words, the room for maneuver for policymakers reflects the way in which governments understand their relationship and role in the development and transformation of their economies but also the balance of power between conflicting interests (Andreoni, 2014).

We refer to a definition of IPs that encompasses all government interventions aiming at favoring growth, which involve policies implemented in many fundamental institutional domains as education and research policies, legal frameworks protecting intellectual property rights, etc. (Cimoli et al, 2009; Warwick, 2013). However, we limit our analysis to state entities that are strategically influencing the allocation of resources across sectors of the economy. Because each institution has some strategic value for a given socio-political coalition (Poulantzas, 1978), a hierarchy exists within the state that structures its economic role and determines the goals of IP, the type of policy implemented as well as the choice of instruments.[5] The specific form of the state composes its institutional capabilities, which are

2 Moreover, complementarities of the financial domain with other fundamental institutional domains should not be overlooked.

3 The term 'socio-political coalitions' is derived from Gramsci's concepts of historic hegemons blocs (Poulantzas, 2013 [1978]; Gramsci, 2011 [1983]) as it has been used in Regulation theory (e.g. Jessop, 2002; Boyer, 2004).

4 IPs are the result of political processes taking place inside the economic apparatus of the state, defined as comprising both formal institutional and political dimensions (Jessop, 2002).

5 Instruments of IPs are numerous, and are usually categorized according to their scope (targeted sectors or undifferentiated support), their implementation (direct or indirect) or their content (structural policies or monetary support). In our view instruments are contingent on the national institutional framework; thus, evolution of instruments should then be understood as a result of institutional change.

themselves related to the institutional complementarities and hierarchy that exist between different institutional domains. In the case of Japan and Korea, institutions in charge of IP used to be at the top of the hierarchy during the Golden Age period, though without being omnipotent. It can be shown how progressive liberalization and concerns over financial and trade integration shifted power away from states or gave them new functions and goals (see section 3), and thus have affected their institutional capabilities regarding IP.

2.3 Political economy of the linkage between finance and industrial policies

The joint analysis of finance (including the financial sector, financial intermediation and corporate governance) and IP (i.e. a component of the state) is crucial, given their similar but also potentially complementary role in allocating the resources. The financial system is supposed to mediate the allocation of resources from the household sector to the corporate sector while IPs are designed to allocate resources and capabilities according to a strategic view on productive structure. Financial systems are then considered as a set of constraints as well as resources to IPs. They are resources because financial innovations, market liquidity and developed capital markets are financial instruments that allow governments to raise money and eventually to support financially IPs. They are also constraints that emanate from financial and non-financial actors over firms' strategies to maximize their market value or profitability based on standard financial evaluations (DiMaggio & Powell, 1983).

Our aim is to propose a new narrative of the Golden Age of IP in Japan and Korea but also an original interpretation of the contemporary attempts of government to implement "new" forms of IP. Industrial development in Japan and Korea has given birth to an active research program that emphasizes the role of the state in these countries (e.g. Johnson, 1982; Amsden, 1989). These empirical cases are our starting point to question the complementarities, hierarchy and possible contradictions between the state and the financial sector in the financialized era. Indeed, despite the ambition of governments to implement a given IP, contradictions between the financial system and the capabilities of the state hinge on the ability of the latter to modify the allocation of resources within sectors (Chang et al., 2013). Especially, since the global financial crisis, many governments have been so concerned with curbing deficits that it has undermined their commitment to long-term strategies (Schäfer & Streeck, 2013; Chatelain et al., 2013).

Based on this theoretical framework we can rephrase our empirical question. We propose an analysis of the institutional change that has occurred within the financial sector and corporate governance as well as within the institutional economic state apparatus in terms of the changing balance of power between actors leading to transformations of complementarities and the hierarchy of the developmental state framework towards a more financialized framework. On this ground, our aim is to question the "revival" of IP and to understand whether it has been accompanied by subsequent changes that ensure a dominant position of institutions devoted to IP in the Japanese and Korean institutional configurations. In particular we are interested in the current balance of power between actors involved in the accumulation process, especially state elites, political elites, firms and financial actors.

This comparative analysis of Japan and Korea intend to address the following research questions:

- What were the complementarities and hierarchies at play during the developmental state era and how have they evolved?
- What are the potentials of IPs given the financialized framework in these national political economies?
- Are there contradictions between the state's intent to get more involved in resource allocation vis-à-vis IP and the current financial system whose links with the productive system have become more intricate with financialization?
- Is the revival of IP illustrating a shift in power within the state?

3. Back to the Golden Age of industrial policies in Japan and Korea: when developmental states put finance at the service of industrial development

In this section, we describe the major characteristics of the financial systems in Japan and Korea, which are mainly the results of state control and regulation, in order to show how concretely finance has been put at the service of industrial development. Instead of the term "financial repression" proposed by Patrick and Park (1994), among others, to characterize the Japanese, Korean and Taiwanese financial systems before liberalization, we prefer to use here the concept of "financial containment and mobilization." The latter captures a twofold characteristic of financial regulations:

they were indeed a form of impediment to the development of market-based financial systems but they also contributed to the mobilization of resources that led to capital accumulation and thus growth of GDP at double-digit rates.

In this section, we also analyze the interrelations between these financial systems and the major dimensions of IPs during their Golden Age. The lack of space and our focus on the most recent period do not allow us to enter into the details of the historical building of the financial systems and IPs in Japan and Korea. Nevertheless, we want to emphasize that one of the main sources of the complementarities and hierarchy of the financial system and IPs are to be found in the compromises among different interests that has been possible thanks to the building of a pro-growth consensus fitting with nationalist concerns of independence.

In Korea as in Japan, this pro-growth consensus took place within what has been called the developmental state framework to describe the active and strategic role of the economic bureaucracy to implement economic policies in a close relationship with the corporate sector (Evans, 1992). From our perspective, the developmental state framework describes the coordinative role of IP, but also the preponderance of capital accumulation over technological accumulation until the 1980s in Japan and the late 1990s in Korea. The features of this framework differed in these two countries especially regarding the way it favored coordination among actors. While the system was highly decentralized in Japan and that some inter-firm coordination existed, Korea was much more centralized with an exclusive coordination between big businesses and the economic bureaucracy.

3.1 The Golden Age of IP in Japan: financial containment and mobilization, decentralization and coordination

Before introducing the major characteristics of the financial system and IPs during their Golden Age in Japan, it is worth describing briefly the overall institutional environment. Two elements matter for our purpose: on the one hand, the fact that it was highly decentralized, more than in the US in a sense, as many of the rules governing it (such as employment and financial relations) were defined at the micro level; on the other hand, the necessity, because of this high degree of decentralization, to have specific forms of coordination, both private, such as *keiretsu*, and public such as IP (Lechevalier, 2014). These private and public forms of coordination were themselves coordinated as indicated by the expression "iron triangle" that describes the interrelations between the politicians (especially from the Liberal Democratic Party [LDP], which was in power continuously from the mid-1950s to the early 1990s), the bureaucracy and the industries (Cargill & Sakamoto, 2008).

A key component of this overall institutional architecture was the financial system, whose regulation has evolved over time (Aoki & Patrick, 1994; Hoshi & Kashyap, 2001). Placed under the dual authority of the Ministry of Finance (MOF) and of the Bank of Japan (BoJ), the classical Japanese financial system had three major characteristics: 1) its isolation and protection from the rest of the world; 2) its high degree of specialization and segmentation; 3) a tight control on interest rates. Although the isolation of the Japanese financial system is certainly the key characteristic - as it allowed some practices that became impossible as soon as it became integrated into the global financial system – we leave it aside here and focus on the two other characteristics that are directly related to "financial containment and mobilization".

The Japanese financial system was highly segmented until the 1980s with numerous and diversified private financial institutions. The scope of the current study does not allow for a detailed description of the private financial institutions.[6] However, it is worth mentioning that, as a whole, this segmentation of the private financial institutions had two effects: it limited their (market and political) power and it allowed government to control indirectly the allocation of capital. Besides private financial institutions, the Japanese financial system was also characterized by the important role of the public financial sector. Its major component was the Post,[7] who was in charge of collecting household savings. The "Trust fund Bureau" of the Ministry of Finance was in charge of intermediating this process. Collecting around 60% of postal savings, this bureau invested a part of it directly in government bonds and a major part in so-called Fiscal investment loan program (FILP) that represented a kind of second budget, whose aim was to finance the "collective" (industrial or social) capital. This public system was completed by two public banks. The role of the Development Bank of Japan (*nihon kaihatsu ginko*) – whose board was composed of officials from the BoJ, MoF, MITI or Ministry of transports – was to invest in fields not yet profitable or no longer profitable (e.g. declining industries of

6 The most important private financial institutions for industrial development were principally the "city banks" (such as Bank of Tokyo or Fuji bank), which were commercial banks. They played a major role in the financing of industrial development and were essentially at the service of large companies, which can be explained by the fact that most of them were the main banks of the keiretsu. The second pillar of the post war Japanese system was securities houses (shoken gaisha) whose activities were strictly limited to operations in financial markets. Within this highly segmented financial system, there were many other types of banks. Other important actors for industrial development were the long-term credit banks and the regional banks, which are characterized by a clear division of labor as defined by the law.

7 More precisely the Postal saving direction of Ministry of Post and Telecommunication

the 1970s such as textile, aluminum or construction naval). As for Eximbank (*Nihon Yushutsu Yunyu ginko*), it was a key component in the system to control exports and imports according to priorities set by the government. This public part of the financial system was complementary of the private one to provide funding for economic development and long-term growth with a clear ascendancy of the state bureaucracy over the path of development of the financial system.

The tight control over interest rates is the second key characteristic of the Japanese financial system during this Golden Age of IPs.[8] The accumulation of capital was supported by a fiscal policy that promoted saving and through a monetary policy at the service of growth through a double device of low interest rates and availability of enough volume of credit through the BoJ. It had negative consequences for the profitability of the banking sector, but this was countered by its power and stability. The banking sector was then at the exclusive service of industrial expansion and was the major intermediating institutional device between the abundant savings of households and the enormous needs for financing the growth of industrial investments.

As a result of these two characteristics (segmentation of financial actors and tight control on interest rates), national saving was well directed towards investment in a way that corresponded more or less to the priorities set by the government in terms of industrial development. More precisely, during this Golden Age period, investment was almost entirely financed by national saving (mainly household saving) that more than represented roughly 35% of GNP against 23% on average for OECD countries. This saving was intermediated through the banking system. From the viewpoint of firms, self-funding decreased from 40% in the mid-1950s to 20% in the 1970s. In order to sustain growth at 15% of the investment rate, firms needed external resources, which were basically bank loans, as financial markets played a minor role therein.[9] It is also worth noting the role of fiscal policy: it was advantageous for borrowers, as interests were deductible but not dividends, which were limited in consequence (Hoshi & Kashyap, 2001).

What did all of this mean for private companies? The importance of the *keiretsu* is well known and, to our view, they exemplify the fact that finance was at the service of (mainly manufacturing) industries.[10] Indeed, this hierarchy was internalized within the *keiretsu* despite the power of the main banks.[11] The main bank was defined less by its capital investment in of the group (which was legally limited to 5%) than by its position as privileged creditor. What has been particularly emphasized in the literature are the positive outcomes both from the viewpoint of corporate governance (e.g. less attention to short term profits, protection from hostile takeovers) and from the point of view of innovation capabilities.[12]

During its Golden Age, the goal of IPy was clear and corresponded to the core of the agenda of the state: after a period of reconstruction, the goal was to catch-up, first with the European economies and then the US. From the 1950s to the early 1980s, IP gave priority to investment over consumption as the major source of growth. The economic strategy during the high-growth period emphasized the protection of emerging industries and the promotion of exporting industries, which was a necessity for an economy that grew fast but was very poor in natural resources, primary goods and energy. As explained above, this national goal was achieved through the mobilization of savings which were channeled to investment through the intermediation of the banking sector. In this context, the responsibility of the ministries in charge of IP – and among them, MITI – was not so much to finance R&D expenditures but to structure and coordinate the expansion of industries. The major contribution of IP was to be a form of coordination, which implied a vision that would be common to various actors and promote different forms of collaboration between them (Lechevalier, 2014). This policy led to the promotion of R&D consortia, which attracted a lot of attention in the rest of the world (Lechevalier, Ikeda & Nishimura, 2010). However, what has been poorly understood is that the coordination was not limited to coordination of the industries by the government but implied coordination between public actors such as ministries and various agencies, which was far from being a given, as interests were highly conflictual. The institutional device that has been used to overcome this latent conflict took the form of what Aoki has called "bureaupluralism," or the representation of the diversity of interests within the bureaucracy and the search for compromises within this framework (Aoki, 1988).

8 For Patrick & Park (1994), it is the core of what they called "financial repression."

9 Moreover, they were characterized by the importance of cross-shareholding that protected firms against hostile takeovers.

10 Notall the firms belonged to a keirestu. The importance of the keiretsu structure in classical Japanese capitalism has to be carefully assessed: if one takes a restrictive definition, it is never represented. More than 20% of the aggregate value added (and even less for employment). However, in adopting a broader definition of 'network capitalism' (Gerlach, 1992) its influence has been much larger (Lechevalier, 2014).

11 The keiretsu was a form of 'conglomerate' with, at its centre, a main bank that played a role equivalent to that of the holding company in the framework of pre-war zaibatsu (Okazaki & Okuno-Fujiwara, 1999). Although the keiretsu structure still exists formally, we conceive of it here as bygone entity as it has strongly declined and lost its influence (Lechevalier, 2014).

12 It has been indeed proved that the structure of the keiretsu favored spillovers among the members of the keiretsu, or in other words, the diffusion of innovation (Suzuki, 1993), and it may be easily understood that they attracted the attention of the policy makers in charge of the conception and implementation of industrial policy.

3.2 The Golden Age of IP in Korea: financial containment and mobilization, coordination and centralization

In a similar way as in Japan, a developmental state framework was implemented in the 1960s after General Park took power. Embedded in a larger institutional framework, it provided the resources and coordination necessary to fulfill the catch-up plan and meet the pro-growth consensus prevailing at the time. Departing from the Japanese case, the Korean system was highly centralized and the economic bureaucracy fostered a strong coordination with the corporate sector. The government was the main actor that could mobilize capital at home and abroad (especially from the United States and Japan) and effectively channel it to the export sector. Selected firms, the top *chaebols*, were not just instrumental to the government's IP, they had a strong interest to support the developmental state to grow and access global markets (Chibber, 1999).

The financial system was a major instrument used by the state to support economic development in the take-off period until the 1980s. The government nationalized commercial banks in 1962 and held full control of specialized banks such as the Korea Development Bank and the Export-Import Bank that were established under the umbrella of the Finance Ministry (Cole and Park, 1983). The government influenced the sectoral allocation of credit through various ways such as the appointment of bank management and credit controls. In turning to export-led industrialization, the financial sector was mobilized towards financing exporting firms. Export financing was granted to firms through export letters of credits at subsidized interest rates by commercial banks thanks to the BoK's rediscounting policy, and it was backed by the approval of state's financial agencies. These financial institutions were under the supervision of the Minister of Finance (MoF) and the Bank of Korea (BoK) itself was put under the control of the MoF. As such, the MoF, a powerful institution under the command of the Blue House, became heavily involved in deciding major monetary policies, such as setting interest rates and discount rates as well as market manipulation. The control over interest rates was a key component of the government's financial policy and IP.

This era of "financial containment and mobilization" consisted of authoritative financial policies from the government to provide capital, directly or indirectly, to targeted firms and/or sectors. The control over interest rates, and more precisely the subsidized interest rates for strategically selected sectors of firms, had a positive impact on reallocation of resources especially because of the stability it provided (Galbraith & Kim, 1998). Hence, the development of the financial sector was intrinsically related to the needs of industry. The complementarities where then very strong as the state used the financial sector as an intermediary for its developmental strategy. The bank-based system fostered at the time deeply influenced the path of development of the financial sector after the 1980s. The containment of the financial sector for such a long period has been preventing domestic banks from becoming innovators in the financial sector and, consequently, opened a highway for foreign banks to enter the Korean market starting in the 1980s. Contradictions arose from this containment as the under supply of capital led the corporate sector to seek other sources of funding (such as in curb and/or foreign markets). Meanwhile, the corporate sector started to look for financial investments and, in particular, big businesses started to invest in financial activities as they were forbidden to have shares in banks. The solution taken by the government in the 1980s, revealing the growing influence of pro-markets bureaucrats, was a gradual and timid financial liberalization.

The centralization of power based on authoritarian military rule made possible the construction of an economic apparatus unified around a pro-growth consensus as well as a nationalist agenda of economic independence (*jarip gyongjé*). This economic apparatus of the state encompassed a powerful economic agency (Economic Planning Board [EPB]), an exclusively public financial system, a large public sector, and a strong coordination with the private sector (e.g. Amsden, 1992, Wade, 1990). The EPB was in charge of the economic policy agenda focused on industrial upgrading (Chang, 1993). Its role was twofold, a direct role of crafting economic policy (especially the 5-years economic plan) and a role of coordinating ministries and state agencies. Headed by the deputy prime minister, the EPB enjoyed a close relationship with the President and a formal dominant position in the hierarchy among ministries. Its favored position in the government influenced the policy-making of other ministries and agencies, creating a more coherent drive towards industrial upgrading. The administration, which was focused on keeping the Korean economy growing continually, faced challenges in four areas: exports (producing more capital-intensive goods), security issues (need for self-defense due to the Nixon Doctrine and a new course of détente with China), financial sector restructuring (easing firms' financial burden due to high interest rates and foreign debt), and revitalization of investment.

During this Golden Age, the state was a key driver of the economic development leading financial system and firms to meet policy goals under the growth-consensus. The main thrust of the economic policy agenda was an export promotion policy in the 1960s and an infant industry policy in the 1970s towards selecting heavy-chemical industries such as steel, nonferrous metal, machinery, petro-chemical, shipbuilding, and electronics for development strategy

(Woo, 1991). Two main financial instruments were designed to support these policies, the export credit programs and the National Investment fund (Kim & Lee, 2010). The launch of the heavy and chemical industrialization (HCI) was a solution to concurrently resolve the export ladder and national security concerns (Kim, 2011). The National Investment Fund was the main creditor of the HCI policy (64% of total equipment loans by banks [Kim & Lee, 2010])[13].

In this context, firms were strongly influenced to allocate their capital for investment and production into sectors strategically selected by the government. Due to the skewed industrial structure, the large family-run firms – *chaebols*- that emerged after the war were used as the workhorses of IP. There seemed no better choice for them but to follow or respond to the government incentives under the Economic Development Plans. Park's administration took "carrot and stick" and "select and concentrate" approaches by linking government direct financial support with the performance-based evaluation system (Cho and Kim, 1995; Kim et al. 1995). Moreover, the government used huge public procurement deals to strengthen its power and to provide firms with greater incentives. In doing so, the state was acting as a prosecutor and a coordinator for the use of capital resources. As Chang recalls, this performance-based selection system was nothing but conflictual and involved a great share of bargaining among the bureaucrats and the private sector (Chang, 1993). Compromises found were then unstable and subject to adjustment according to the evolving balance of power between them.

Chaebols were the main beneficiaries of the complementarities between IPs and the financial system and they were able to shield themselves from inefficiencies as inflation, credit shortage, excess capacities, and weak demand. In this context, chaebols maintained a contradictory stance towards financial liberalization that explains both their pivotal role in the process as well as the policy choices made by reflecting their interests in part. Indeed, chaebols were not ready to give up their central position and the rents derived from it (e.g. Rajan & Zingales, 2003) as much as the government did not want to renounce its control over the financial sector at least until the social demands for economic justice exploded in the 1980s. This privileged alliance between the state and the chaebols during the Golden Age have had tremendous consequences for industrial structure, corporate diversity and corporate governance in Korea. Indeed, the chaebols started to diversify and enter all the sectors favored by the state. As a result, the productive structure was overly dominated by chaebols, maintaining SMEs (if not absorbed by the group) in a subcontractor position with consequences not only for weakening spillovers but also for labor (e.g. Koo, 2001).

3.3 Liberalization as a way to resolve contradictions and accommodate a changing balance of power

After this description of the financial system and the IPs in Japan and Korea during the Golden Age of developmental state, we are in position to provide a more precise meaning for the expression "Putting finance at the service of industrial expansion," and therefore revisit the notion of the developmental state in its financial dimension. At the time, it corresponded to a domination of the institutions in charge of IP in a complementary relationship with the financial system characterized by containment and mobilization. This relationship was complementary in the sense that both IP and the financial system were oriented toward economic catching-up compelling the financial system to provide below-the market rate funding to strategically selected industries.

In fact, it is possible to consider that the major influence of the government in the economy, especially through the regulation of the financial system, was mediated through the objective functions of firms. Although there was an important diversity across firms, the developmental state framework contributed to the emphasis on growth rather than on short-term profits. As it will be seen in sections 4 & 5, this situation would change with financialization.

During the Golden Age, the existing political equilibrium was based on a strong alliance between bureaucrats, big businesses and the political elite in charge (LDP in Japan, military in Korea) at the root of the developmental state framework (Evans, 1992). It contributed to the coordination of the economy by upholding institutional complementarities. Nevertheless, the existence of a political equilibrium did not mean that there was no conflict of interests but more that contradictions were temporarily mitigated (Amable & Palombarini, 2009).

In these two countries, the leading actors of IP (respectively MITI and EPB) were not omnipotent and had to face jurisdictional conflicts with other ministries. One significant difference between the two countries could be found in the coordination devices used. Decentralization of power in Japan entailed that the Prime Minister and its cabinet office were not able to play the role of coordinator and to set priorities based on the pro-growth consensus; they were weak (the Cabinet office did not have its own administration and relied on other ministries) and volatile (Prime

13 By using the August 3 Decree of 1972, the government tackled the issues of financial sector restructuring and revitalization of investment; in particular, the government reduced the interest rates of banking institutions and provided guarantees for firms that lacked international standing to raise their capital and investments.

Minister terms were characterized by a high turnover). Continuity was ensured by the LDP that maintained a political majority from the mid-1950s until the early 1990s and the "iron triangle" it formed with the administration and the industries was also an important condition. In Korea, the centralization of power allowed a strong coordination around the agenda set by the EPB which still had to make sure the President would vouch for their orientation (Choi, 1987). This political equilibrium was progressively exhausted as the pro-growth consensus started to scramble making it more and more difficult to fix the inner contradictions of the developmental state framework. Section 4 for Japan and 5 for Korea will describe how these countries have been coping with the dismantling of this framework by focusing on the evolution of their respective IPs and financial systems.

4. Liberalization, financialization and the evolution of industrial policy: the Japanese experience

The purpose of this section is to analyze the joint evolution of the financial system and IP in Japan from the late 1970s. In doing so, we revisit a well-known story in emphasizing two points that have been partly neglected by the literature. First, financial liberalization has led to a drastic change for the environment of IPs. Second, among the various causes that led to this liberalization, the pro-active role of MITI should be underlined in the following sense: liberalization has been less a functional answer to the crisis than the consequence of the evolving goals of IP.

The process of financial liberalization and deregulation in Japan started gradually in the 1970s and transformed the three main characteristics of the financial system (isolation, segmentation, interest rate regulation). It began with the gradual opening of the financial system (1970s), continued with the deregulation of interest rates (1980s) and was ultimately achieved by the process of de-segmentation and consolidation of the sector from the 1990s to the mid-2000s in a context of banking and financial crises that had great consequences on the rhythm of the process (Meyer, 1996; Tiberghien, 2007; Lechevalier, 2014).

The process of financialization that has resulted from this liberalization in Japan is similar in many ways to what has happened in other advanced countries, despite some specificities such as the relative importance of banks compared to financial markets, though these have undergone remarkable development since the 1970s, and the increasing differences in the financial structure of SMEs (relying more on banks) and of large companies (resorting more to internal funding). This notwithstanding, the progressive financialization of the Japanese economy put an end to the era of "financial containment and mobilization"; the financial system has been reconfigured, intermediation freed itself of tight government control and the financial sector developed into a distinct service sector.

Meanwhile, IP has experienced decay in terms of objectives and tools, exactly at the time it was celebrated by Western scholars. From the late 1970s, liberalization and development of the financial sector have been continuously at the top of the agenda of public bodies in charge of IP.

4.1 Financial liberalization and changing industrial policy: a co-evolution process and the key role of MITI

The first stage of the deregulation of the financial system in Japan started in the late 1970s, partly under the pressure of the US administration, partly as an answer to a coalition of actors such as globalized non-financial Japanese firms but also financial firms that had lost some of their sources of profit, as the former increasingly used alternative source of financing abroad. Although the evaluation of this first stage is still controversial, it is possible to consider two points: 1) it has been substantial though incomplete; 2) it was not motivated by a reaction to the crisis that occurred later and it may even have contributed to it. The second stage of the reform was achieved during Hashimoto and Obuchi's administrations (1996-2000) under the name "Big Bang," encompassing three principles of "free, fair and global" and aiming to rebuild the Japanese financial market into an international market comparable to the New York and London markets. Although some economists considered that the previous stage of liberalization had contributed to the bubble and its burst, there was really no voice to stop the process or to reverse it. On the contrary, crisis was used as an additional argument to accelerate the process. It has been presented as a necessary attempt to deal with the malfunctioning Japanese financial system. The next stage of the financial reform took place during the term of Prime Minister Koizumi (2001-2005) with formal reform of the FILP and privatization of the Post. There were two goals: to hinder bureaucrats and politicians to use the FILP to promote policy goals; to stop the flow of funds from the private economy to government financial intermediation, programs and projects. More precisely, Japan's postal services were privatized and divided into four companies under a holding company (Japan Post) in October 2007. Moreover, government financial institutions such as the Development Bank of Japan, the Central Cooperative Bank for Commerce and Industry, or the Japan Bank for International Cooperation were either liberalized or restructured. Finally, Koizumi also cut by half the FILP budget during his term. Hence, along the process of liberalization, public financial institutions, which were the financial arm of IP, were reformed or privatized, and this hindered on institutional capabilities of IP.[14]

In order to understand this process, few competing explanation have been given, from the international (i.e. the US) pressures to the functional demands of financial and non-financial actors and to the key role of the MoF. Our own argument, partly inspired by previous works such as Okazaki (2012), Tiberghien (2007), or Vogel (2006), is that the Ministry in charge of IP (MITI/METI) has played the key role in this process of liberalization in the context of changing goals of IP between the late 1970s and the late 1980s.[15] In turn, this process has been at the origin of substantial changes in the tools and institutional capabilities of IP. As well phrased by Tiberghien (in Lechevalier, 2014), "The state has become the actor of its own decay." This means that that MITI has been a key player in decreasing its own influence as shown for example by the role of the Industrial Competition Council in the late 1990s (Vogel, 2006; Tiberghien, 2007).

The best symbol of the changes in the IP in Japan is the ambition of the government in the late 1980s, with the financial euphoria of the time, to make Tokyo a global financial center. This is a turning point, as IP in Japan had mainly been based on the postulate that economic development was equal to industrialization and other sectors should be at the service of the manufacturing industries. As shown by Okazaki (2012), given the financial wealth of Japanese banks and the net position of Japan towards the rest of the world, the idea emerges in the first half of the 1980s, within MITI and other ministries, that the next stage of Japanese development could be a finance-led growth with the Tokyo Stock Exchange at its center.[16]

Thus, it is essential to understand how the goals of IP have evolved and how they have led to financial liberalization. It is possible to summarize this process as follows. Until the late 1970s, the top priority has been the catching-up of European and US economies. Then, the focus has been on sustained prosperity from the mid-1980s (Maekawa report of 1985) to the second half of the 1990s (that is until the conclusion was reached that the burst of the Bubble had reached an irreversible stage). From the early 1990s, gradually, but with an increasing strength in the 2000s and 2010s, the major goal has been to avoid a decay and the hollowing out of industries by winning the competition with emerging super manufacturing powers such as South Korea and above all China.[17]

In fact, in Japan, as in many European countries, one has observed the transformation and decomposition of IP from the 1980s and the early 1990s into competition policy, globalization policy, and innovation policy, whose coherence was emphasized through the use of the catch all expression "structural reforms," without specifying the conditions of their articulation. The purpose of the first one has been to promote market mechanisms in the domestic economy on all markets (finance, goods, labor) while the goal of the second one has been first to solve the problems of trade conflicts with Japan's partners and then to beneficiate from the new global environment through trade, FDI and financial flows, but without contributing to the building process of the international regulatory framework. As for innovation policy, it has been strongly inspired by the experience of the Silicon Valley (Lechevalier, 2006, 2014). Besides the reform of the higher education system and of the IPR regime, it has guided a certain number of structural reforms, whose justification has lied on the promotion of startups and of the emergence of new industries (mainly ITC and biotechnologies).

4.2 A political economy interpretation: MITI at the forefront of the emergence of a new social coalition

In considering the history of IP in Japan, how can we explain that the very actor at the center of the developmental state framework has led the process of liberalization? Our explanation is composed of two pillars. The first one – partly inspired by Okazaki (2012) - describes an ideological shift symbolized by the evolution and the influence of the famous Japanese economist, Masahiko Aoki. Together with other economists, he has played a key role in the evolution of

14 We deliberately put aside the desegmentation of private institution that has been the result of an intentional policy but also the outcome of industrial dynamics in the financial sector.

15 As for the MoF, it has been rather conservative in the process, as it has been considered as responsible for the crisis and lost its influence in the mid-1990s.

16 The second half of the 1980s and the Bubble (which was not seen as such at that time) seemed to validate this strategy. Needless to say, the burst of the Bubble, the banking crisis and the Lost Decade showed in the 1990s its vanity and the failure of IP in this field. The Tokyo stock exchange did not become the Asian equivalent of London or New York and it was the resulting stagnation that was ultimately finance-led, not growth.

17 In a later stage, more recently, it seems that one observes a convergence between the nationalist and the economic agendas, as exemplified by Abe strategic priorities since he became prime minister for the second time, from late 2012. In our view, it means that industrial policy is less mobilized according to a certain economic rationality (that can be of course criticized by other economic arguments) than in function of a political agenda that puts the power of the nation at the first rank. As we will see in section 6, this evolution may lead to a form of schizophrenia because the economic agenda of liberalization in unchanged and may harm this nationalist agenda.

the mainstream thinking within METI through his vision of the future of the Japanese economy. His institutional analysis of the Japanese economy led him to the conclusion that major institutions – such as financial systems and labor markets - that had been characterized by important complementarities and played a determinant role in the catching up process, were no more adapted to the new stage of the Japanese economy, after the catching-up process had been achieved. Henceforth, a liberalized environment was required in order to promote decentralized innovation and more diverse corporate organization that could not be dealt with by a centralized and top-down approach (Aoki, 2000, 2001). This vision had strong influence on the conclusions of various committees (the so-called *shingikai*) and then the policy reports of MITI (the so-called White Papers).

However, an ideological shift is not enough to explain the evolution of the role of MITI/METI and should be complemented by a second pillar that explains how some groups have used the ideological shift in order to impose some reforms that would fit their interests. MITI was not alone in pushing for the "remodeling" of Japan (Vogel, 2006). It would not have been possible without the formation of a new coalition. As for its nature, a hint is given by the composition of the committees in which representatives of very large companies were classically over-represented – together with bureaucrats – but whose origin and background has evolved with an increasing representation of successful entrepreneurs such as Hiroshi Mikitani (founder of Rakuten) or Yasuyuki Nambu (President of Pasona), both supporters of neoliberal reforms. Some conversions can be also noted such as the one of Okuda, the relatively conservative president of Toyota, who became close to Koizumi, in the context of his role as a member of the Council for Economic and Fiscal Policy between 2001 and 2006.

The interpretation in terms of evolving socio-political coalitions is indeed powerful to explain the background of liberalization, although it is not easy in the context of the 1980s-2000s to identify the composition of the groups. In the political sphere, political entrepreneurs such as Koizumi or Takenaka, supported by a part of the administration of MITI,[18] which was the only actor to have the ability to conduct the reform, tried to increase their influence in destabilizing the iron triangle (Tiberghien, 2007). However, it is worth emphasizing that both the LDP - the dominant conservative party - and the bureaucracy have been divided by debates regarding the goals and the means of the reforms. The same divide has been observed among employers and it is difficult to find a simple and single criterion to classify different groups, at the time of the difficult emergence of a new dominant social bloc.[19] To summarize, each group that used to be part of the "iron triangle" has been characterized by internal divisions. This explains why each step has been disputed and bargained and why the neo-liberal transition has been very progressive and non-linear, although the conflictual interests were not well represented in the committees in charge of the conception of reforms (Lechevalier, 2014). The period since the early 1990s has been characterized by a few political changes, especially in 1993 with the socialist party and in 2009 with the Democratic Party of Japan (center right), in contrast to the previous period of political stability (Magara, 2014). Despite the fact that both have failed, it is clear that they each corresponded to the attempt by a new socio-political coalition to emerge, especially with support from the mainstream and moderate trade unions such as Rengo in 2009. In both cases (but especially in 2009), they corresponded to a pause in the implementation of the neoliberal agenda. However, it is worthy of note that these pauses were not based on a pointed criticism of the program of structural reforms. This is not a surprise as most of their leaders (e.g. Ichiro Ozawa) have been involved in their conception. At best, in 2009, this encompassed an effort to fight against its most undesirable consequences in terms of inequalities by proposing a new form of welfare, disconnected from the DS apparatus, whose revival is not easy to identify.

In sum, the crisis from the early 1990s and its deepening in the late 1990s certainly made possible some reforms - which could not be achieved in the 1980s despite some attempts – by creating momentum, changing the bargaining power of each group and promoting the emergence of a new socio-political coalition (Yamamura & Streeck, 2003; Lechevalier, 2014). In turn, this coalition has supported the pro-active role of the state apparatus to implement structural reforms. However, it has not led to a convergence towards the liberal form of capitalism due to a permanent and internal process of contestation within and outside the state apparatus.

4.3 Characterizing the evolution of industrial policy in Japan in a liberalized environment: re-coordination as a means to search for new complementarities

As it has been shown above, there was an overall coherence between liberalization (especially of financial markets) and the transformation of IP: from the 1980s, the alternative became relatively clear between state intervention and market enhancement, despite the understanding of economic historians that the very success of the Japanese

18 In this respect, MITI did not act anymore as a micro-regulator of the economy but rather as a think-tank that promoted the reform, as exemplified by the increasing role of RIETI, the public think-tank with MITI that provided the intellectual legitimacy to the reform, especially during the presidency of Masahiko Aoki (2001-2006).

19 This point is developed in section 6.

experience of development since the Meiji period relied on these two legs. Our argument is that it may be no more the case with a certain form of revival of IP that can be interpreted as an answer to deal with the negative externalities of liberalization.[20]

The gradual nature of institutional changes in general and of the evolution of IP in Japan since the 1980s makes difficult to identify a clear turning point as, very often, decay has been accompanied by a simultaneous revival through a conversion of instrument and a remodeling of the framework. In conformity with the famous predictions of Karl Polanyi, the great transformation of Japanese capitalism under the influence of neo-liberal policies has endogenously generated a revival of state intervention (Vogel, 2006). However, it has not been without contradictions in an overall liberalized environment characterized by different types of complementarities and fundamental problems of coordination (Lechevalier, 2014). In contrast with various accounts of the recent evolution of IP in Japan (e.g. Nezu, 2007; Fields, 2012; Chang et al., 2013; Akkemik, 2015), we focus here on few examples that are representatives of the efforts of government to re-coordinate the economy in order to benefit from institutional complementarities that seemed to have vanished, as identified in various contributions (such as Aoki, Jackson, and Miyajima, 2007, for example). Three examples can illustrate this revival: the effort to downplay the negative externalities of the increasing heterogeneity of firms; the reform to better coordinate government bodies; the more recent attempt of Abenomics in coordinating countercyclical policies and growth strategy, which can be considered as a potential synthesis between structural reforms and IP.

First, the Japanese government has tried partly intentionally and more or less explicitly to increase spillovers in the economy by coordinating the increasing heterogeneity of firms. The process of liberalization had indeed increased corporate diversity, through various channels, especially in destabilizing some previous forms of coordination (Lechevalier, 2012, 2014). As a consequence, and contrary to what was expected by economists inspired by Schumpeter or Aoki, a decay of spillovers, which are nothing but automatic, have decreased with a negative impact on aggregate growth (Fukao, 2013; Lechevalier, 2014). It is in this context that various ministries have introduced new schemes or improved the existing ones in order to increase spillovers across firms, universities and public research institutes with a rising budget. The most famous case is the cluster policy that has been well studied (Kodama, 2008). Another policy instrument, which was celebrated in Europe and in the US in the 1980s but had relatively declined by the late 1990s, is the so-called R&D consortia. The example of robotics is particularly interesting, as, for a budget that has been relatively constant, efforts to adopt a more comprehensive view and to coordinate various programs has increased spillovers, as measured with patent data (Lechevalier, Ikeda and Nishimura, 2010).

The efforts to re-coordinate the economy do not concern only the corporate actors but the government itself. Liberalization indeed increased the decentralization and compartmentalization of IP between different ministries, which have been described in section 3, and which had major negative side effects on the coordination within the government. From the second half of the 1990s to the mid-2000s, efforts to coordinate industrial/innovation policies have taken the form of Basic Plans for Science and Technology, whose aim is to set priorities for periods of 5 years after coordination between different ministries by the so-called Council for Science and Technology Policy (CSTP), directly attached to the Prime Minister. Its influence therefore depends very much on the leadership of the Prime Minister but it is possible to consider that it has a bargaining power of its own that is potentially stronger than individual ministries in the process of budget negotiation with the MoF. It may explain why, despite fiscal consolidation, the public budget for R&D has continued to grow along priorities set by the CSTP (Lechevalier, 2006; Harayama, 2001).

Finally, more recently, there has been a noticeable effort to coordinate growth strategy and counter-cyclical policies. The best example here is the so-called "Abenomics," the name given to the "new" economic policy package introduced by Prime Minister Abe from December 2012. In rupture with previous practices, the major novelty of Abenomics is the idea that the success of growth strategy is conditioned by fiscal and monetary policies. This is symbolized by the metaphor of three arrows that emphasize the high degree of complementarity between the different dimensions of economic policy: the conjunction of the first arrow (aggressive monetary policy), the second one (flexible and progressive fiscal consolidation) and the third one (growth strategy) makes their effect stronger than if they were conceived and implemented individually (Lechevalier and Monfort, 2016). Beyond the metaphor, it is possible to draw a comparison with the 1960s and the 1970s, despite the very different macroeconomic context, as fiscal and monetary policies were at the service of growth through financial containment and mobilization. However, this parallel has its own limitations as the major expected effect of the aggressive monetary policy is to increase the stock markets indexes as it has been observed since Abenomics has been introduced (e.g. increase of the Nikkei index of 30% in 2013). Generally speaking, in contrast to the previous phase of "financial containment and mobilization, we propose to characterize the relationship between the productive sector and the financial system taking place within the financialization process as

20 We leave here aside the possible contradictions of this revival of IP in a liberalized environment. They will be considered in section 6.

"financial empowerment and disconnection." The financial sector is no more subordinated to the need of the industry, it develops itself according to its own logic and, in the meantime, its development has an important impact on the industrial dynamics (Ertürk & Solari, 2007; Orhangazi, 2011).

5. Liberalization, Financialization, and the evolution of industrial policy: the Korean Experience

With the same line of argumentation as the Japanese experience, this section stresses the specificities of the Korean case by discussing the political economy of the transformation leading to the financialization era and the evolving goals and tools of IP. We outline the emergence of a new coalition after the 1997 crisis in which the interests of pro-liberalization fractions gain ascendency. The *chaebols* have been a key player in the restructuring process. Their ambivalent and fragmented interests towards liberalization had implications for the stability of the emerging coalition and on the state-business nexus. These political processes are reflected in the substantial institutional changes taking place after the 1997 crisis, both in the financial sector and the apparatus of IPs.

5.1 Understanding the process of liberalization: a political economy perspective on the post 1997 crisis restructuring.

Although liberalization started in the 1980s, the 1997 crisis was the tipping point in this process, as it facilitated an extensive integration of the Korean economy into the world economy and had important implications for the joint evolution of the financial system and IP. From the mid-to-late 1980s, as the idea of political democratization spread into the economic realm, economic democratization was somewhat understood as moving away from centralization to marketization and then financial liberalization (Hundt, 2015). In the early 1990s, the liberalization process took place at a swift pace under the "New Economic Plan" initiated by the YS Kim administration. The plan aimed to revitalize the Korean economy through deregulation (i.e. internationalization), privatization, and liberalization.[21] For example, two policies were initiated: the first being OECD membership as a first step for trade and financial liberalization and the second was financial deregulation, especially allowing "investment finance companies" to enlarge "merchant banks" (i.e. investment banks) that engage in securities business. This liberalization process foreshadowed the end of "financial containment and mobilization" and the beginning of the financialization era.

Following the 1997 crisis, a far-reaching restructuring of the financial system –including corporate governance- and its supervision were operated by the newly elected DJ Kim government. The government restructured the financial sector supervision bodies under a single agency, the Financial Supervisory Commission (FSC), in early 1998 with close oversight from the Blue House. The full opening of financial and non-financial industries to foreign investment took place according to the law entitled "Enforcement Decree of the Foreign Investment Promotion Act" that was designed prior to the 1997 crisis but had failed to be implemented. Under the reform transforming the Korean economy in line with the liberal market, this law was successfully enacted. Restrictions on foreign equity ownership were lifted in the banking sector, which promoted and increased foreign ownership in the largest Korean banks. The IMF specified detailed recommendations on structural adjustments to tackle crony capitalism by detaching the financial system from *chaebols*. The financial market underwent restructuring to be more transparent; insolvent financial institutions controlled by *chaebols* were sold off or liquidated. After the crisis, almost 50% of the commercial banks and more than 40% of Non-Banking Financial Institutes (NBFIs) were closed or merged with others (Chang, 2003). Public institutions played an important role in recapitalizing insolvent financial institutions (Korea Asset Management Corporation and Korea Deposit Insurance Corporation). In addition to adopting consolidated financial statements and prohibiting payments guarantees among affiliates of *chaebols*, corporate restructuring took place; thirty out of the 63 largest *chaebols* were forced to undergo some form of financial structural adjustments, the government mandated *chaebols* to downsize by reducing their debt-to-equity ratio by half and an attempt to rationalize the top-five *chaebols* was attempted (so-called 'Big Deal').

Regardless of the debates and different narratives over the causes of the 1997 crisis,[22] the structural changes in the financial and corporate sectors during the crisis acted as a catalyst to shift the balance of power among socio-economic-political forces (the state, the *chaebols*, labor groups and foreign investors). From the government perspective, financial reforms and the structural adjustment program were used to reconfigure the *chaebol*-oriented market to become more

21 The new economic team of the YS Kim administration devised the New Economic Plan, which substituted the series of Five-Year-Economic-Development Plans designed by the Economic Planning Board (EPB).

22 The DJ Kim government blamed *chaebols* and their relation with the former administrations and embraced the IMF reforms. Meanwhile, the *chaebols* criticized the state's regulation and over-involvement in the economy and argued that the IMF reforms were biased against their corporate governance (Ji, 2013).

competitive and diversified under the reform-consensus and the IMF imperatives. In this process, the rise of neoliberal bureaucrats in the Blue House and Ministry of Finance (MoF) played an active part (Ji, 2011). To achieve its goal of domestic reform, the government interests converged with those of foreign investors. On the surface, the reforms seemed to be successful in weakening the concentration of economic power by breaking the nexus between the financial sector and *chaebols*, which owned and used financial institutions, NBFIs in particular, at their leisure. However, the series of reforms in fact served as an important impetus to weaken *chaebols*' dependence on policy finance and state guidance (i.e. IP). This structural change and more liberalized market conditions reduced room for rent-seeking activities of firms with respect to the state. Yet, the reforms provided *chaebols* with greater access to global capital (Stubbs 2009) and decreased financial resources for the state to implement IPs. Labor groups were also pivotal to the restructuring of the dominant socio-political coalition. At the onset of the crisis, DJ Kim's left-wing political party had to reflect the voices of labor unions and other political interest groups and stand against the former YS Kim administration (Tiberghien, 2007). However, labor market reforms and extensive financial liberalization were implemented, undermining labor unions legitimacy, as the domestic economic policymakers used the IMF intervention as a launch pad to maximize their interests (Pirie, 2006; Hundt, 2015; Ji, 2013).

5.2 The evolution of industrial policy: in-between market-enhancing and chaebol-friendly

During the 1997 crisis, more efforts were put into liberalizing and restructuring the economy in accordance with international "good practices." The Korean government did not necessary simply wish to relinquish the "developmental state" and set IPs by selecting industries (Weiss, 2003). The government, however, changed its roles in and strategies on implementing IPs and where to allocate the budget (Hundt, 2014; Jung, 2015). Henceforth, the government avoided direct intervention in corporate investment while continuing to enhance market institutions and favoring competitive behavior (Fields, 2012). We argue that one major feature of the evolution of IP is the twofold orientation of the administrations, oscillating from being market-enhancing to being *chaebol*-friendly, due to endogenous institutional inconsistency and the urgency of achieving policy goals in their term.

The development of the financial sector and the restructuring of the financial system were one of the major goals of IP in the post-crisis period activating new complementarities. President Noh promoted the Northeast Asian Hub Strategy, an ambitious policy aimed at attracting foreign financial institutions by deepening financialization of international capital and developing the domestic financial system. Based on this strategy, the Noh administration initiated the "Indirect Investment Asset Management Business Act" to vitalize the private equity fund market by expanding investment vehicles from securities to derivatives and tangible assets in 2003. A retirement pension system was introduced in 2004, and pension funds were allowed to invest in the stock market and the Korea Investment Corporation (KIC) was established in 2005.[23] The plan to enact the Capital Market Consolidation Act (CMCA), in order to develop financial capital, was announced the following year. The MB Lee administration introduced the Insurance Business Act, rules on the separation between industrial and financial capital were relaxed and firms were permitted to increase stakes from 4% to 9%. Privatization of the Korea Development Bank was planned, and the administration relaxed regulations on various investment funds. The CMCA took effect in 2009, permitting new investment products and financial derivatives under the negative list approach. Moreover, the GH Park administration expanded the coverage of CMCA and deepened financialization by making an amendment in 2013 that would reinforce the investment banking sector (FSC, 2013-15). These active policies suggest the government's goals towards achieving a Korean model for the financial system by promoting independent growth of the finance sector rather than solely servicing the real economy.

Besides the financial industry, the goals of IPs in the post crisis can be summarized as follows. During the DJ Kim administration, ICT (Information Communication Technology), in which Korea likely had a comparative advantage with a vast number of internet users and technologies to catch up market leaders, was the major target for IPs. Similar to other OECD countries, the Korean government was inspired to become an innovation-driven society. The DJ Kim government promoted the ICT industry through deregulation and giving greater weight to the Ministry of Information and Communication. The government also emphasized venture business and capital by enacting a relevant law. Various incentives were provided through the liberalized financial system; foreign investments were promoted and the ICT sector gained access to the securities market. In addition to ICT-related policies, the MH Noh administration tried to highlight "pro-competition" (privatization) and drive globalization strategies as well as trade policies, such as the "multi-track simultaneous approach" to free trade agreements to boost the economy after the burst of the IT bubble. Sandwiched between the emergence of China and the partly sustained comparative advantage of the Japanese economy, which was disadvantageous for *chaebols,* the MB Lee and GH Park administrations kept promoting FTAs for an economic breakthrough. Each administration had distinctive IP focuses—green growth for the MB Lee

23 See the Financial investment services and capital markets act enacted in 2007.

administration and creative economy for the GH Park administration (OECD, 2015).

Since the 2008 global financial crisis, in order to complement the growth strategy and business-friendly economic environment, both governments have continued to reiterate a call for IPs of "shared growth" and "youth employment" to address disparities between possible winners (*chaebols*) and losers (SMEs and labor groups). These governments have emphasized growth of SMEs in the name of "shared growth"; therein, however, the term "growth" was bound to be given greater weight than "shared." Indeed, MB Lee's policy loans, accounting for 25% of total bank loans, mostly went to industries such as shipbuilding, plants, construction, chemicals, and steels where *chaebols* or its affiliates play a major role (Thurbon, 2016). The GH Park pledge regarding "shared" growth has also quickly been replaced by the economic stimulus policies to support the *chaebols'* globalization strategy and capital market access with greater financial and trade liberalization. In short the DJ Kim administration and subsequent governments let the corporate sector take the lead on industrial strategy and made IPs coincide better with the global financial and trading system (Weiss, 2003). However, as also argued in section 4, it became difficult for the Korean government's IP strategies to be effective in coordinating financial resources and the corporate sector under deepened liberalization and financialization (Hundt, 2014; 2015; Jung, 2015; Lee *et al.* 2015).

5.3 Revival of industrial policy? The limitation of industrial policies in a liberalized environment and the revamping of the state-business nexus

With lessons learnt from the crisis, the restructured Korean economy faced the following constraints in terms of IP formulation. First, IPs planned and led by the government were no longer welcomed politically at home in light of "economic democratization" and abroad because of "international standards." Such IPs became a political burden to administrations as the coalition between the government and the corporate sector was believed to be one of main causes for the crisis (Chang, 2003; Ji, 2013). Since then, the government has sought legitimacy and justification for the government's policy initiatives though mobilizing political resources, such as trade unions and industrial lobbying (Hundt, 2015).[24] Second, the corporate sector also realized that its growth strategy of solely relying on the government no longer guaranteed success and became more self-cautious. Large *chaebols* that once seemed invincible faced bankruptcies and their management was tried in court. Furthermore, the government had to retreat from intervening through subsidies because they were considered to be inconsistent with the WTO rules (Lee *et al.* 2015). A strong signal was sent to the corporate sector that the government could no longer be relied on as a last resort as in the "Golden" days.

In the post-crisis period, the government faced a dilemma. While its official position supported financial and trade liberalization, it desired to continue to maintain its influence over the corporate sector by strengthening regulations and providing financial incentives through domestic financial institutions if possible (Jung, 2015). It had witnessed the so-called "dual process of embracing and dismantling the legacy of the former state-led developmental regime" (Kalinowski and Cho, 2009). The IMF condition enabled the DJ Kim administration to carry out structural reforms through strong surveillance on *chaebols* immediately after the Asian financial crisis for a brief period which, in turn, narrowed the policy space of the developmental state in a more liberalized market environment (Lee *et al.* 2015).

The corporate sector attempted to diversify strategies given the international environment characterized by the WTO and FTAs with stronger regulations on trade, reduced policy space, and prohibition of public funds or subsidies for specific firms as well as tradeoffs from financialization (Ahn and Shin, 2011; Lee et al. 2015; Shin et al. 2015). Greater use of global capital brought more freedom to domestic firms, especially the large ones, from government IPs and financial incentives (Shin and Ahn, 2016). In addition to raising capital outside of the country, the corporate sector could avoid stronger financial regulations and surveillance in Korea and increase overseas investment while retaining policy support from the government through the green growth and "Global Korea" policies (Watson, 2014). However, in terms of succession issues and corporate management, *chaebols* have asked for protection from foreign investors and lobbied the government, politicians, and NGOs appealing to nationalism. In return, the *chaebols* seemed to partially support the government's policies on green growth, creative economy, and FTA negotiations when in need. With more leverage, the corporate sector was able to advocate its interests more efficiently during FTA negotiations. From a big firm's perspective, Korea's FTAs with the U.S., EU, and China are not necessary conditions for their survival and growth. The FTAs were rather necessary for the government to maintain support through visible results in economic policy. In

24 However, directly or indirectly through the Ministries (especially the Ministry of Finance and Ministry of Trade), Industry and, Energy, the government (the Blue House) has promoted its IPs and commercial policies by urging NGO support. For example, the four big NGOs are Korea International Trade Association (KITA), the Federation of the Korean Industries, Korea Federation of SMEs, Korea Chamber of Commerce and Industry (KCCI), and many think tanks are also intrinsically intertwined with each other through government procurement or personnel affairs (CEOs, vice-CEOs, and board members). Business associations have actively published their evaluations and various policy reports on the government's IP and put forward their opinions in presidential election years. For example, the Federation of Korean Industries representing chaebols has issued the "policy agenda for the next administration" since 1992 (http://www.fki.or.kr/publication/report/list.aspx).

areas where harmful consequences and direct losses were expected, *chaebols* urged the government to negotiate with foreign governments in their favor.[25] The critical role of business strategies of *chaebols* like Hyundai Motors during Korea-U.S. FTA and Korea-EU FTA negotiations are a compelling example of the advancement of *chaebols*' interests in governments' industrial and commercial policies. When the two FTAs were signed, Hyundai Motors and its subsidiaries became one of largest beneficiaries from increased stock prices and export growth. Meanwhile, fearing an inflow of Japanese automobile components, Hyundai Motors directly and indirectly expressed their opinions through industrial reports on possible losses and public hearings, urging the government to be more cautious when initiating an FTA with Japan. Hyundai Motors also voiced opposition to TPP membership, calling it a back door for a Korea-Japan FTA.

We have seen in this section to what extent the government used IP to develop its financial sector and actively triggered the "financial empowerment and disconnection" phase of financialization. In doing so, the government abandoned some institutional capabilities regarding its impact on firms' strategies and long-term investment decisions. Indeed, the business sector beneficiated from liberalization by diversifying their funding as well as their modality of integration to global value chains. These changes were propelled by the emergence of a new compromise around liberalization promoted by a reconfigured socio-political coalition. As a result, the state-business nexus was revamped. While *chaebols* increased their autonomy vis-à-vis IPs, the state organizations supporting IPs have also been reoriented. Especially, the MOFE took a dominant position within the state apparatus and assumed oversight of the financial sector as well as, to a major extent, IPs. Under its supervision, the organizations implementing IPs was fragmented with the rise of the MCT and the demise of the MOTIE. This reshuffling within the state has not been straightforward as, for example, illustrated by the struggle for influence between the MOFE and the FSC (Haggard, Pinkston & Seo, 1999). Therefore, IPs have relatively succeeded in the ICT industry but failed to counteract the unbalanced industrial structure.

6. Contradictions of industrial policy revival in a financialized environment: loss of institutional capabilities and unstable political compromises.

In the two previous sections we described the financial liberalization and the coincidental institutional changes that have transformed the DS framework described in section 3. We insisted that these transformations and evolutions of IPs and the financial system, far from being incidental or forced exogenously, resulted from underlying political processes reshuffling the balance of power between social forces. Liberalization and financialization were then a consistent response to the rising contradictions of the developmental state framework from the point of view of the respective dominant socio-political coalition in Japan and Korea, including governments, bureaucrats, foreign investors, domestic financial actors and large firms.[26]

As in other OECD countries, the rationale for IPs has been transformed. IPs are now designed to fit with the liberalized environment in order to induce new complementarities between the state and the financial system based on a new compromise between political forces. Recent IPs in Japan and Korea are partly characterized by a form of coherence of the policies implemented by reference to the "needs" of the industrial structure. Notwithstanding, contradictions have developed as symbolized by the systematic failures of IPs in some domains as well as the deepening of corporate diversity. How, then, can we explain the limited success despite the new complementarities –by design – with the financialized institutional environment? At first glance, the very existence of these contradictions conflicts with the new complementarity we outlined. In fact, we contend that these contradictions arise both from conflicts - that are not mitigated in the absence of a stable political equilibrium - and from a loss of institutional capabilities resulting from the mechanisms of institutional change at play in Japan and Korea (Fields, 2012).

To develop our argument we first discuss to what extent failures and increasing corporate diversity can be seen as unresolved contradictions. Second, we characterize and compare the mechanisms of institutional change in Japan and Korea. Then, we root these changes in the instability stemming from the reconfiguring of the dominant socio-political coalition. These institutional and political transformations have had consequences on the policy space available for IP revival since 2008 especially regarding the state-business nexus. Finally, we discuss the possible implications of the differences between the Japanese and the Korean cases in terms of industrial and labor dynamics.

25 For example, with the competition-law issue, antitrust law was to be stipulated according to the request of the US (US Chamber of Commerce). The US has doubted whether competition laws have been applied to *chaebols*. The Korean government has disagreed and argued that since antitrust laws already apply to *chaebols*, additional explicit stipulation in the FTA provision will be inappropriate (Lee at al., 2011).

26 This overall consistency we are outlining does not mean a struggle-free and straightforward process, it is more a temporary unstable solution (situated in time and space).

6.1 Failures of industrial policy and increasing corporate diversity as examples of unresolved contradictions.

At this stage, the isolated attempts to re-coordinate the economy (as described in sections 4 & 5) have been showing mixed results in both Japan and Korea. This lack of efficiency of IPs can be interpreted, at least partly, as their difficulty to foster new institutional complementarities resulting from contradictory interests within the state unable to promote the emergence of a new compromise. The transformation of the institutional framework after the Golden Age has changed the institutional capabilities of IP, which can be illustrated by doomed IP attempts from the government.

The best example of the failures of IPs in Japan and Korea in the financialization era is certainly the pro-SME and startup policies. In an attempt to facilitate the emergence of a new generation of entrepreneurs and to mimic the process observed in Silicon Valley, the focus has been on the liberalization of labor market in order to favor human resource mobility and even more importantly on a new stage of liberalization of financial market through the promotion of venture capital. Perhaps more than ever, the complementarity between the innovation strategy and the institutional environment –especially labor and finance institutions – can be ascertained here. However, it is yet far from being enough, as can be shown through the low rate of new firm creation, the difficulties of venture capitalism and the poor development of SMEs, despite a few successes such as the ones of Rakuten or Softbank in Japan (Sako & Kotosaka, 2012) or Naver and Kakao in Korea (Kim, 2015). To us, besides any form of path-dependent complementarities that cannot be easily reversed, the major explanation of this failure is as follows. Although the promotion of SMEs and startups is really at the center of government's agenda, it lacks means if one compares the (e.g. fiscal) advantages, from which well-established large firms benefit, with their market power and political ties. There have been few examples in Japan such as the Livedoor case (Dore, 2009) in the late 1990s, when incumbent firms resisted newcomers and finally *de facto* received government support. The backing of pro-market policy by large established firms encounters its own limits when there is a risk of increasing competition and reducing margins. In Korea, similar contradictions can be observed in pro-SME and startup policies and how the effect of the government's IP has not been realized as expected. Newly established Korean investment banks provided less than 13% of total corporate credits and financing to businesses (including SMEs) as of the end of 2014, a rather insignificant amount.[27] The Livedoor case in Japan vividly echoes to the recent Elliot-Samsung case in Korea where the US hedge fund Elliot Associates tried to prevent a merger by two Samsung affiliates. Backed by the government, who happened to be the second largest shareholder of Samsung C&T involved in the merger through the National Pension Service, the merger proceeded (Shin, 2015).

As for evolving corporate diversity, the Korean case regarding the increasing divide between *chaebols* and the rest of the economy is particularly striking. In the Japanese case, such a divide exists between large firms and SMEs or between manufacturing and non-manufacturing firms, but what is particularly interesting is the increasing discrete diversity, i.e. between firms of similar size and belonging to the same sector (Lechevalier, 2014). The promotion of corporate diversity can be a goal of IP, as shown by the political recommendation of Aoki (2000) that he tried to push for when he was the head of RIETI, the think-tank of METI. However, what has been observed both in terms of performance and organization is rather out of the control of the government and has not led to higher growth rates, but lower ones.

The inconsistencies of the Japanese and Korean governments with respect to incentives for foreign investment and domestic preferences and shared growth and sustaining strong ties with large firms are signs of unresolved contradictions within the institutional settings or at least the difficulties in enhancing new complementarities. The failure of venture capitalism is a good example because it is a typical feature of Anglo-Saxon economies and its emulation is difficult given that it encompasses fundamental institutional domains, such as those of finance, labor and education. Large firms have historically undertaken venture capitalism in Japan and Korea mostly through acquisitions of innovative firms. Overcoming this path dependency requires tremendous institutional change and a strong complementarity that IPs have not succeeded (yet) in instigating. On the political economy level, these contradictions reveal the conflicting interest between foreign investors, the domestic management of large firms and the government.

6.2 Layering and conversion vs. layering and drift of the developmental state framework causing a loss of institutional capabilities: two different cases of gradual institutional change

Based on our previous description of institutional changes having affected the developmental state framework, we recognize mechanisms of gradual but substantial institutional change in Japan and Korea. In doing so, we apply Streeck and Thelen's (2005) framework to our case study. In both countries we observe a *layering* mechanism, which refers to

27 FSC's Report on corporate financing of five Korean investment banks (Samsung, Hyundai, Daewoo, Woori, and Korea Investment & Securities Co., Ltd) for 2014 parliamentary inspection of the administration (in Korean).

when a new set of rules, policies and practices are superposed on existing ones without replacing them. Different logics are then at play at the same time with the new ones tending to overcome the past ones. This mechanism is particularly interesting to understand why a debate still exists about the persistence of the developmental state framework in these two countries. Indeed, some organizations and practices have survived since the Golden Age period and can potentially be mobilized by policy makers and political elites. In addition, new organizations were created, mostly related to market regulation and liberalization (e.g. Financial Service Supervision, Financial Service Commission, FTA in Korea; Financial Services Agency and Japan Fair Trade Commission in Japan) without frontally jeopardizing the existence of past institutions. Thus, some public organizations devoted to industrial upgrading during the Golden Age (Korea Development Bank, Korea Export Import Bank in Korea; Japan Bank for International Cooperation or JBIC and Nippon Export and Investment Insurance or NEXI in Japan) are nowadays among the most active instruments of IP. One component of the IP revival has been the promotion of public long-term finance banks in both countries in an attempt by the governments to attain the financial means for their IPs. In those organizations, a strong commitment to industry is still very much alive and constitutes a bastion of resistance as illustrated by their opposition to privatization plans. The complexity of the semi-privatization of the Japan Post, which collects the largest share of Japanese households' savings, initiated in 2005 and still unfinished after ten years is a compelling example. A parallel can be drawn with the withdrawal by President Park GH in 2014 of the privatization of the Korea Development Bank announced by President Lee MB in 2008 or the postponing of the privatization of the Industrial Bank of Korea since 2006.

In combination with this layering process, a *conversion* mechanism took place in Japan while *drift* seems to have dominated in Korea (see Hacker et al, 2013 on conversion and drift). Conversion involves a gradual replacement within the same structure of representation and practices. In Japan, some institutions like the METI have been progressively converted towards supporting markets liberalization and integration and were the main actors of liberalization. More generally, DS institutions have not been so much amended or allowed to decay as they have redirected to new goals, functions or purposes; existing institutions have been adapted to serve new goals or fit the interests of new actors (Vogel, 2005). Though it was gradual, the conversion started in the 1990s and was close to achievement in the mid-2000s. As a result of this specific form of change, we argue that the DS in Japan has experienced a great transformation but has not disappeared. In this context, the concept of "remodeling" used by S. Vogel (2006) is appropriate, under the condition that it is interpreted as a combination of stability and change (see also Fields, 2012). In Korea, the drift mechanism is a better fit to explain how organizations devoted to the industry were partly replaced by ones implementing pro-financial sector policies. Change through drift occurs when institutions adhere to past logics (due to active or passive political processes) despite the need for adaptation to the new environment. This gap between institutions and the environment they are embedded to leads to a change of outcomes. Before 1997, some part of industrial-policy setting and the financial system were left unchanged despite the financial liberalization undertaken and the change of economic environment. For example, the existing financial supervision body was underdeveloped and unable to regulate the chaebol debt-led bubble in the 1990s that eventually burst in 1997. These entities were left to drift by political elites so as to become obsolete. This drift ended in 1997, which created the political space for the newly established socio-political coalition to make the changes needed (Heo, 2014) and add a new institutional layer. The same happened, under the appearance of stability, with past key organizations of IP setting. If we take the EPB case, it progressively lost power during the Kim YS administration as bureaucrats from the Ministry of Finance claimed more prerogatives (Kim, 1999). Eventually, the EPB was absorbed in 1994 by the newly created and powerful Ministry of Finance and Economy. The drift of former developmental agencies, their absorption by a newly formed one, while others remain active reveals the conflictual reconfiguration within the dominant social coalition between factions committed to preserving the legacy of the developmental state and others clearly turning to widespread liberalization (Haggard & Mo, 2000; Jung, 2011).

These mechanisms of institutional change in Japan and Korea, yet different, have contributed to a loss of institutional capabilities regarding IP. Even though some key agencies, especially long-term finance agencies, have remained active, on the one hand, past key agencies have been converted towards new objectives or have drifted and became marginalized. The layering mechanism associates old and new organizations, hence it does not hinge on institutional capabilities *per se* yet it introduces – at least implicitly - a hierarchy between the latter and the former, but without coherence (i.e. complementarities). To a certain extent, Japan and Korea are still able to mobilize long-term finance to support their IPs but the scope of the expertise of public finance agencies has shrunk. Conversion and drift mechanisms involve more significant changes in terms of capabilities as practices and representation of institutions are changing. The conversion within the MITI/METI in Japan or the absorption of the EPB within the MOFE had profound effects as they were major coordination devices of IPs. The coordination capabilities to allocate resources among sectors were partly lost in this process while the political compromises behind the new organizations created were focused on enabling market-based coordination devices. The differences between these two mechanisms have consequences on the coordination of actors. With conversion, formal rules remained, which prevent a clear and straightforward re-coordination of actors according to new logics. By contrast, in the case of drift we described, formal rules ended up changing.

Finally, the difference between these conversion and drift mechanisms seems to have led to remaining institutional capabilities stronger in Korea than in Japan. To support our argument, we stress the analogy between the types of institutional change, the type of crisis faced by these two countries and the remaining legacies of IPs. The long stagnation in the 1990s in Japan has led to the process of conversion of the IP apparatus but the latent-type of crisis has produced a slow but unresolved miscoordination of economic agents (Lechevalier, 2014). Because successive governments failed to alter the downward macroeconomic spiral, the dismantlement of the IP apparatus did not lead to a coherent alternative; thus, Japan still seems in the middle of the river. In Korea, even though the 1997 crisis was largely endogenous and had grown for more than a decade (Chang H.-J. et al, 1998), the shock was abrupt and motivated radical measures to end pre-crisis behavior. In a short period of time, market stability as well as foreign investors' trust was restored, illustrative of a prompt re-coordination of agents, even if it is not yet fully achieved. This quick recovery allowed the government to engage with major structural reforms that fixed some contradictions and to a certain extent helped preserve some institutional capabilities regarding IPs.

6.3 Difficult emergence of a new political equilibrium: loss of institutional capabilities from a political economy perspective

The loss of institutional capabilities we described did not happen in vacuum, it is rooted in political processes underlying institutional change. In both countries, major restructuring within the dominant socio-political coalition has occurred since the Golden Age. We argue that the lack of a stable political equilibrium among social forces makes the rationales for IP very contentious and hinders governments' political space to recover institutional capabilities. We thus propose a definition of institutional capabilities that is not only technical but that also encompasses a political economy perspective: to be effective, institutional capabilities require the existence of a political equilibrium. We identify two main transformations within the dominant coalition that have affected institutional capabilities of IP: the integration of foreign actors and the de-coordination of the state-business nexus.

The pro-growth consensus during the Golden Age describes a large coalition that existed prioritizing economic growth even though it meant labor repression. After scrambling for a while, this political equilibrium collapsed in both countries in the 1990s and a new compromise was formed around liberalization. This new consensus was achieved after the 1997 turmoil in Korea while the turning point in Japan certainly took place at the end of the 1990s, when it appeared that the crisis would last and there seemed to be no other prescriptions than the pro-market ones. However, we argue that, in the case of Japan, the consensus has never been fully reached, mainly because of conflicts of interest between the leading firms themselves. Moreover, it is important to note here that one major difference between the reconfiguring of the dominant coalition in Japan and Korea has been the role of labor: in Japan, it is possible to argue it has literally disappeared, as exemplified by the decay of *shunto*, the coordinated wage bargaining process (Lechevalier, 2014),[28] contributing to the lack of stable political equilibrium, in a way which is very similar to what has been observed in Italy in the 1990s (Palombarini, 2001); in Korea, the democratization of 1987 was made possible by labor but since then, except in some large *chaebols*, labor unions remain pretty weak and disorganized due to firm-based negotiation (Hundt, 2015).

Beyond the reconfiguring of domestic fractions, one of the major transformations within the dominant coalition has been the increasing role of foreign actors. Indeed, foreign actors - foreign investors but also foreign organizations such as the IMF - have played a bigger role in the liberalized environment and are more and more integrated into the domestic socio-political coalition. This does not mean the subjugation of Japanese and Korean policies to foreign interests but rather the convergence of interests of factions of the dominant social group with some foreign interests is now reflected in adopting public policies. In Japan, it has been particularly true for the liberalization of financial and good markets: some domestic actors have used the foreign pressure (*gaiatsu*) in order to push forward their own agenda; it has been fully accomplished for the financial market, more uneven for the good markets, given the veto position of some actors for specific sectors (Lechevalier, 2014). The same happened in Korea with the Kim YS government which used foreign pressure to implement its globalization strategy (*segyehwa drive*). In Korea, competition policies were a mode of convergence between foreign actor and anti-*chaebol* interests. International economic organizations and foreign investors were strongly pushing the Korean government to open the domestic market to foreign actors (Lee *at al.* 2015; Kihl, 2005).

If this liberalization consensus was strong enough in the 1990s to achieve the transition to the financialization era, the political equilibrium has been rather unstable since then, especially in Japan. In both countries, almost all major fractions are now supporting economic reform towards deepening financialization. The two key dividing lines of the

28 Trade unions contributed to political change in 2009 with the victory of the Democratic Party of Japan but this new coalition was extremely fragile and literally disappeared after S. Abe became Prime Minister in December 2012, closing the de facto window of opportunity for labor to influence economic and social policy.

socio-political coalitions now seem to lie in: first, the modality of integration into the global value chain (organization of production domestically and abroad); second, attitudes toward social inclusion (how much should be spent on social needs and what type of institutional devices should be chosen). As a result, we argue that the instability of the political compromise stems in part from rising contradictions in the state-business sector due to increasing corporate diversity.[29]

The financialization process, by reversing the hierarchy between the state and the financial system, has put pressure on the state-business nexus prevalent during the Golden Age and led to a decoupling of the IP agenda with corporate strategy of leading firms. Moreover, the rise of the financial sector and its impact on corporate governance has also transformed the finance-business nexus (Jung, 2015; Dore, 2000). The loss of government control over the financial system freed the strategy of leading firms from government concerns and undermined the overall coordination between firms and the state. The problem of increasing corporate diversity at the industrial level has its counterpart in the political economy sphere. Hence, the de-coordination we observed between the state and the business sector has implications for the balance of power between dominant socio-political fractions and thus the kind of policy implemented. Because the state has applied 'carrots' but less and less 'sticks' as a result of the loss of institutional capabilities, IPs depend on the commitment of the business sector to play along.

In Korea, because the domestic industrial structure is strongly unbalanced, the government needs the *chaebols* to get involved despite common *chaebol*-bashing from politicians (reflecting public opinion). The fragmentation of interests between large *chaebols* and subcontractors is blatant. Even within the top-5 *chaebols* strategies of integration into global value chains are different (see Lee, 2002) and therefore attitude towards government IPs is different. Hyundai Motors, which still produces a large volume of cars domestically and has strong labor unions, has incentives to be responsive to government policies. However, Samsung and LG have relatively weak incentives to cooperate with the government with respect to short-term and somewhat risky IP initiatives. For instance, except for several construction industry-related firms such as Hyundai Groups, other *chaebols* did not show much enthusiasm towards the green growth policy of the MB Lee administration and did not make relevant long-term investment commitments. The same phenomenon is happening with regard to various government policies on the creative economy and youth unemployment promoted by the current government (Jones and Kim, 2014; OECD, 2015). On the contrary, the government has no choice but to support *chaebols*' investment decisions and to adapt to their long-term when designing IPs. For example, Samsung announced their investment plan for the Bio and health sector in 2007[30] and started to build plants and business clusters through a global consortium in 2011 in Incheon. The MB Lee and GH Park's administrations followed suit on this plan and promised to be fully supportive of Samsung's investment decisions with all necessary administration and regulative efforts.

In Japan, the increasing corporate diversity described in section 6.1 also has its political economy counterpart (Lechevalier, 2014). To summarize, and at the risk of caricaturing, we may contrast the views of Jiro Ushio, President of Denki Ushio, an enterprise in the electronics sector, and one time President of the *Keizai Dōyūkai* (1995-9), with those of Hiroshi Okuda, President of Toyota between 1995 and 1999, then a part of the main business organization, *Keidanren* (2002-6), before the fusion of the different business organizations. For Ushio, Japanese firms should adopt the model of American management, notably in matters of employment, because it demonstrated its superiority in the 1990s. The position of Okuda was more nuanced. If it was necessary to reform the system of employment, favoring most notably the mobility of qualified workers, then it was necessary at the same time to preserve that which had created the success of the Japanese model in the past, that is to say the accumulation of skills at the heart of firms and the responsibility of firms towards their employees. These two views regarding the model of firms led to similar divide on other topics such as the role of government in the allocation of resources. This absence of consensus among employers corresponds to a divide in their interest that goes beyond firm size or industry differences. This is why, contrary to what is often assumed, we consider that from the 1980s to the early 2010s, there has been no stable political equilibrium in Japan and that the trend towards liberalization has been essentially achieved because of the absence of strong opposition on the labor side and not because of a consensus in society (Tiberghien, 2014).

To summarize, there are various commonalities and differences between Japan and Korea in the revival of IP in a financialized environment (Table 1). As for the commonalities, there have been in both countries unstable political compromises and losses of institutional compromises. The differences, on the other hand, are as follows. First, contrary to what is often argued, the situation in Japan has been much more conflictual, not in the sense of labor/capital divide, as labor has lost almost all power, but rather in terms of division among workers. Second, the loss of institutional capabilities has been deeper in Japan, which can be explained by two elements: the initial conditions were different as

29 One other major source of instability stems from contradictions with labor but it is beyond the scope of this paper (see Lee, 2015; Sako, 2006)

30 CEO Kun-Hee Lee's initiative in 2007 included a long-term investment in the Bio-and-health-tech industry of about 20 trillion won until 2020.

the organization of IP in Japan was more decentralized and thus required more coordination than in Korea; the process itself has also been different in terms of the layering process, as institutional change has been dominated by conversion in Japan while it has been characterized by drift and replacement in Korea. This does not mean that the developmental state is much alive in Korea but that institutional capabilities regarding IP remain stronger to the extent that some have been preserved by the new dominant socio-political coalition.

6.4 Implications: understanding industrial and labor dynamics in Japan and Korea.

We contend that the loss of institutional capabilities and the de-coordination between the state and the business sector have had consequences for industrial and labor dynamics. Rather than linking evaluation of IP to short-term economic performance we draw implications from specific institutional settings for industrial dynamics. In this view, different configurations in terms of IP and financialization may have an impact on industrial dynamics.

One of the major challenges faced by advanced countries is deindustrialization, especially for countries as geographically close to China as Japan and Korea. The fear of the hollowing out of industry is acute in both countries. The cases of Japan and Korea are different though (Lechevalier, 2015). Indeed, one cannot ignore that while Japan is deindustrializing both in terms of employment and value-added manufacturing, Korea manages to maintain a value-added manufacturing while it has caught up to Japan within a few years in terms of the decay of manufacturing employment and further destabilization of domestic labor markets (Figures 1 & 2). Numerous factors may explain these evolutions. Our argument is that it they have to do with the institutional capabilities of the state, to a certain extent. We contend that a major difference that explains the different deindustrialization trajectories between Japan and Korea is twofold. First, the pro-industrial consensus is stronger in Korea than in Japan even if it has declined relative to the 1980s; second, institutional capabilities regarding IP in Korea have remained stronger than in Japan. Therefore, it is more difficult in Japan to promote the emergence of shared goals; and in case they do emerge, it is more difficult to implement adequate policies, especially in the financial dimension due to the weakness of institutional capabilities regarding IP.

Another major challenge faced by Japan and Korea, closely linked to industrial dynamics, is rising inequalities (Lechevalier, 2015). More precisely, the increasing trend of income concentration has been sharper in Korea than in Japan (Kim N. N. & Kim J., 2014; Lechevalier, 2015). One reason is that labor repression has been stronger in Korea than in Japan, despite the stronger representation of labor's voice. Another reason is that there may be a sort of trade-off between the preservation of institutional capabilities of IP and the building of welfare capabilities. The specific dynamics of inequalities in those countries is closely connected to the labor market and wage inequalities (Lechevalier, 2015; Lee, 2015) and not so much to capital inequalities as in the United State (Piketty, 2014). It is also explained by inadequate welfare systems.

7. Conclusion

In this paper, we have analyzed the revival of IPs from the late 2000s in Japan and Korea. Our approach has two major characteristics. First, we have adopted the perspective of historical institutionalism to focus on the relation of institutions to financial systems and to study their evolution over the last 40 years. Second, by mobilizing the concepts of institutional complementarities and hierarchy, we have discussed the limits of this revival in a context of a liberalized financial system, to which IPs have contributed.

Our major finding is that, in the context of financialization, past complementarities of the developmental state have weakened and contradictions have arisen. Hence, this has led to a restructuring of state capabilities to design and implement IPs and to its inability to subordinate finance to its goals, despite the discourses and ambitions of governments. Basically, such change has been essentially endogenous and driven by political economy mechanisms. We have shown to what extent evolving IPs have contributed to financialization through the empowerment of the financial sector to overtake the role of intermediation it was limited to during the Golden Age of IP in Japan and Korea (respectively post-war to the 1980s and 1960s-1980s). We have also addressed how the rise of finance - and the transformations associated with it - has been one of the major sources of change for the developmental state framework pertaining to the area of IP. Indeed, there have been mutual transformations of financial systems and the forms of IPs overtime. This has important implications for our understanding of the recent revival of IPs in these two countries.

More precisely, complementarities between IPs and the financial system (characterized by "financial containment and mobilization") allowed Japan and Korea to catch-up with most of the European economies and, at the sectoral level, with the US. However, they were gradually exhausted and induced contradictions that resulted in growing macroeconomic imbalances. The political equilibrium was restructured and the balance of power within the dominant socio-political coalition shifted towards pro-market or pro-liberalization forces. In a similar fashion in Japan and Korea, the compromise within socio-political forces shifted from a pro-growth consensus based on industrial upgrading toward a pro-growth consensus based on integration into global financial and trade markets. This had a tremendous impact on the power and the interests of the corporate sector. Indeed, the ability of the state to allocate resources across sectors, besides its complementarities with the financial system, depends heavily on coordination with the corporate sector. The empowerment and disconnection of the financial system decoupled the allocation of resources from the strategic policy agenda of the state. Liberated from the public supply of credit, the corporate sector was able to allocate resources based on corporate strategy mainly oriented to maximize its position in global value chains. IPs thus became dependent on reaching a compromise between the state and the corporate sector. Moreover, with integration into the global market and liberalization, firms became more internationalized and the weight of foreign actors increased in these two national political economies. This shift within the dominant socio-political coalition has resulted in weaker complementarities between the economic apparatus of the state and the financial system and a de-coordination of the state's policy agenda and the corporate strategy of leading firms.

Our second result concerns the comparison between Japan and Korea that allowed us to identify some significant differences that may explain the diverging trends in terms of deindustrialization and internationalization of these two economies. The Golden Age of complementarities was based on different institutional features in Japan and Korea, respectively decentralization and centralization of the state economic apparatuses. Moreover, the forms of institutional change have not been exactly similar in Japan and Korea: although both can be qualified as gradual institutional change and incorporate a layering dimension, conversion has been the second dominant form of change in Japan whereas it has been drift in Korea. To us, this is related to the fact that the evolution of the dominant social coalition did not follow the same path. In Korea, a political equilibrium has been rebuilt around industry, although it is fragile and it is not as large as during the Golden Age. By contrast, contrary to the apparent more stable political environment, conflicts within the dominant social bloc are stronger in Japan, which makes difficult the emergence of a new political equilibrium. In short, this political economy approach of institutional complementarities offers a plausible explanation for the two different forms of deindustrialization in Japan and in Korea.

To us, this paper is of interest for the analysis of the evolution of IP because focusing on financialization allows one to overcome some of the limitations of the literature. First, the importance of the financial structures of the economy for the nature and evolution of IPs has been underestimated from an empirical viewpoint, especially recently. Second, most of the recent theoretical frameworks mobilized to analyze IPs under-conceptualize the state and downplay its active role in shaping financial systems. Third, this perspective is a means to analyze the evolving growth regime, to which financialization is directly connected (Stockhammer, 2007).

Broader implications can be drawn from our results, especially from a policy-making perspective. If the revival of IPs in OECD countries can be a powerful basis for a strong and durable recovery, attention should be given to the institutional environment of this revival. We can here give a precise meaning to the over-used expression "Institutions matter." They are both constraints and resources from the viewpoint of IP. In case of strong institutional complementarities and well-established institutional hierarchy, the environment of IP can be mobilized at the service of the goals of the government; however, in the reverse case, contradictions may emerge and drastically reduce the effects of a given policy, whatever its merits are in an abstract context. Thus, at the meso-level, policy-makers should focus on (re)building institutional capabilities of IPs and building a political compromise around an industrial agenda; they should also promote the catching up of leading firms by the rest of the economy in order to reduce corporate diversity, which is a manifestation of unresolved contradictions. In brief, in considering institutional changes associated with financialization and, in particular, the evolving environment that conditions the implementation of IPs, we argued that analyzing the joint evolution of finance and IPs is insightful to understand their contrasted forms and performance across countries.

Finally, let us mention three major limits of the present paper. First, although the different institutional capabilities of revived IPs in Japan and in Korea may partly explain the divergent industrial and labor market dynamics, we were not able to empirically prove and measure this causal relationship. Second, sociological fieldwork would be necessary to describe more precisely the evolution of socio-political coalitions in both countries. Third, we focused on two fundamental institutional domains (finance and the state), and a more systemic approach would yield more accurate results (see Streeck, 2009). These issues are left for future studies.

8. References

Ahn, D., & Shin, W. (2011). Analysis of anti-dumping use in free trade agreements. *Journal of World Trade*, 45(2), 431-456.

Akkemik, A. K. (2015). Economic Planning and Industrial Policy in the Globalizing Economy: Concepts, Experience and Prospects. In M. Yülek (Ed.). Cham: Springer International Publishing.

Amable, B. (2015). Institutional complementarities in the dynamic comparative analysis of capitalism. *Journal of Institutional Economics* , 1-25.

Amable, B. (2003). *The diversity of modern capitalism.* Oxford University Press.

Amable, B., & Palombarini, S. (2009). A neorealist approach to institutional change and the diversity of capitalism. *Socio-economic review , 7* (1), 123-143.

Amsden, A. (1989). *Asia's next giant: South Korea and late industrialization.* Oxford University Press.

Andreoni, A. (2014). Varieties of Industrial Policy: Models, Packages, and Transformation cycles. *Working Paper* .

Aoki, M. (2000). *information, corporate governance, and institutional diversity : competitiveness in japan, the usa, and the transitional economies.* oxford: Oxford university press.

Aoki, M. (1988). *Information, incentives and bargaining in the Japanese economy: a microtheory of the Japanese Economy.* Cambridge University Press.

Aoki, M. (2001). *Toward a comparative institutional analysis.* Cambridge, MA: MIT Press.

Aoki, M., & Patrick, H. (1994). *The Japanese main bank system: Its relevance for developing and transforming economies.* (M. Aoki, & H. Patrick, Eds.) Oxford University Press.

Aoki, M., & Patrick, H. (1994). *The Japanese main bank system: Its relevance for developing and transforming economies.* Oxford University Press.

Boyer, R. (2005). Coherence, diversity, and the evolution of capitalisms.The institutional complementarity hypothesis. *Evolutionary and Institutional Economics Review , 2* (1), 43-80.

Boyer, R. (1990). *The regulation school: a critical introduction.* Columbia University Press.

Boyer, R. (2004). *Une théorie du capitalisme est-elle possible?* Odile Jacob.

Boyer, R., Uemura, H., & Isogai, A. (2012). *Diversity and transformations of Asian Capitalisms* (Vol. 96). Routledge.

Cargill, T. F., & Sakamoto, T. (2008). Japan since 1980. *Cambridge Books* .

Chang, H.-J. (1994). State, institutions and structural change. *Structural Change and Economic Dynamics , 5* (2), 293-313.

Chang, H.-J. (1993). The political economy of industrial policy in Korea. *Cambridge Journal of Economics* , 131-157.

Chang, H.-J., & Evans, P. (2005). The role of institutions in economic change. *Reimagining growth: to-*

wards a renewal of development theory , 99-129.

Chang, H.-J., Andreoni, A., & Kuan, M. L. (2013). International industrial policy experiences and the lessons for the UK.

Chang, S.-J. (2003). *Financial crisis and transformation of Korean business groups: The rise and fall of chaebols.* Cambridge university press.

Chatelain, J.-B., Tinel, B., Azizi, K., & Canry, N. (2012). Are the No-Ponzi Game and the Transversality Conditions Relevant for Public Debt? A Keynesian Appraisal. *European Journal of Economic and Social Systems , 25* (1-2), 39-58.

Cho, Y. J. (2009). *The State Governance Structure and Economic Policies in Korea* (in korean ed.). Hanwool Academy.

Cho, Y.-J., & Kim, J.-K. (1995). *Credit policies and the industrialization of Korea* (Vol. 286). World Bank Publications.

Choi, B.-S. (1987). The structure of the economic policy-making institutions in Korea and the strategic role of the Economic Planning Board (EPB).

Chu, Y.-w. (2014). La reconstitution de l'alliance développementaliste en Corée du Sud et à Taïwan. *Critique internationale* (2), 41-58.

Cimoli, M., Dosi, G., & J., é. S. (2009). *Industrial Policy and Development: The Political Economy of Capabilities Accumulation.* Oxford,: Oxford University Press.

Crotty, J., & Lee, K.-K. (2005). The effects of neoliberal ?reforms? on the post-crisis Korean economy. In G. A. Epstein (Ed.), *Financialization and the world economy.* Edward Elgar Publishing.

Deeg. (2010). Institutional change in financial systems. In G. Morgan, J. Campbell, C. Crouch, O. K. Pedersen, & R. Whitley (Eds.), *The Oxford handbook of comparative institutional analysis* (pp. 309-334). Oxford University Press.

DiMaggio, P., & Powell, W. W. (1983). The iron cage revisited: Collective rationality and institutional isomorphism in organizational fields. *American Sociological Review , 48* (2), 147-160.

Dore, R. (1986). *Flexible rigidities: Industrial policy and structural adjustment in the Japanese economy, 1970-80.* Standord, CA: Stanford University Press.

Dore, R. (2009). Japan's conversion to investor capitalism. In S. Deakin, & H. W. (eds.) (Eds.), *Corporate Governance and Managerial Reform in Japan* (pp. 134-162). Oxford: Oxford University Press.

Doucette, J., & Seo, B. (2011). Limits to Financialization? Locating. *Economy and Society , 29* (1), 146-159.

Engelen, E., & Konings, M. (2010). Financial capitalism resurgent: Comparative institutionalism and the challenges of financialization. *The Oxford handbook of comparative institutional analysis* , 601-624.

Epstein, G. A. (2005). *Financialization and the world economy.* (G. A. Epstein, Ed.) Edward Elgar Publishing.

Erturk, I., & Solari, S. (2007). Banks as Continuous Reinvention. *New Political Economy , 12* (3), 369-388.

Evans, P. (1992). The state as problem and solution: predation, embedded autonomy, and structural change. In S. Haggard, & R. Kaufman (Eds.), *The politics of economic adjustment* (pp. 139-181). Princeton, NJ: Princeton University Press.

Fields, K. J. (2012). Not of a piece: developmental states, industrial policy, and evolving patterns of capitalism in Japan, Korea, and Taiwan'. *East Asian Capitalism: Diversity, Continuity, and Change* , 46-67.

Fukao, K. (2013). Explaining Japan's unproductive two decades. *Asian Economic Policy Review , 8* (2), 193-213.

Gerlach, M. (1992). *Alliance capitalism: The social organization of Japanese business.* Berkeley, CA : University of California Press.

Goto, A., & Kodama, T. (2006). Japan?s National Innovation System: Rebuilding the Engine of Growth. *University of Tokyo Press: Tokyo, Japan* .

Gramsci, A. (2011[1983]). *Guerre de mouvement et guerre de position.* (R. Textes choisis et présentés par Keucheyan, Ed.) La fabrique.

Hacker, J. S., Thelen, K., & Pierson, P. (2013). Drift and Conversion: Hidden Faces of Institutional Change. *APSA 2013 Annual Meeting Paper.*

Haggard, S., & Mo, J. (2000). The political economy of the Korean financial crisis. *Review of International Political Economy , 7* (2), 197-218.

Haggard, S., Pinkston, D., & Seo, J. (1999). Reforming Korea Inc.: the politics of structural adjustment under Kim Dae Jung. *Asian Perspective* , 201-235.

Harayama, Y. (2001). Japanese Technology Policy: History and a New Perspective. *RIETI Discussion Papers , 01-E-001*.

Heo, I. (2014). The Political Economy of Reforming Financial Supervision in South Korea. *Journal of Asian and African Studies , 49* (6), 690-704.

Hollingsworth, J. R., & Boyer, R. (1997). Coordination of economic actors and social systems of production. In *Contemporary capitalism: the embeddedness of institutions* (pp. 1-47). Cambridge University Press Cambridge.

Hoshi, T., & Kashyap, A. (2001). *Corporate financing and governance in Japan* . Cambridge, MA,: the MIT Press.

Hundt, D. (2014). Economic crisis in Korea and the degraded developmental state. *Australian Journal of International Affairs , 68* (5), 499-514.

Hundt, D. (2015). Neoliberalism, the Developmental State and Civil Society in Korea. *Asian Studies Review , 39* (3), 466-482.

Jessop, B. (2002). *The future of the capitalist state.* Polity Cambridge.

Ji, J.-H. (2013). The Neoliberalization of South Korea after the 1997 Economic Crisis. In F. Panizza, & G. Philip (Eds.), *Moments of Truth: The Politics of Financial Crises in Comparative Perspective* (p. 60). Routledge.

Johnson, C. (1982). *MITI and the Japanese miracle: the growth of industrial policy, 1925-1975.* Stanford, CA: Stanford University Press.

Jones, R. S., & Kim, M. (2014). Promoting the Financing of SMEs and Start-ups in Korea.

Jung, J. (2015). Financial Liberalisation and Institutional Incompatibility: The Unresolved Dilemma of the Korean Economy. *Politics , 35* (1), 46-57.

Jung, J.-Y. (2011). How a powerful bureaucracy fell: The abolition of the Economic Planning Board in South Korea. *Korea Observer , 42* (4), 551.

Kalinowski, T., & Cho, H. (2009). The political economy of financial liberalization in South Korea: State, big business, and foreign investors. *Asian Survey , 49* (2), 221-242.

Kim, H.-A. (2011). Heavy and Chemical Industrialization, 1973-1979: South Korea's Homeland Security Measures. In *Reassessing the Park Chung Hee Era, 1961-1979: Development, Political Thought, Democracy, and Cultural Influence.* University of Washington Press.

Kim, J.-K., & Lee, C. H. (2010). Finance and Economic Development in Korea. *Seoul National University Institute for Research in Finance and Economics Working Paper Series* , 10--A05.

Kim, J.-K., Dal Shim, S., & Kim, J.-I. (1995). The role of the government in promoting industrialization and human capital accumulation in Korea. In *Growth Theories in Light of the East Asian Experience, NBER-EASE Volume 4* (pp. 181-200). University of Chicago Press.

Kim, N. N., & Kim, J. (2014). Top incomes in Korea, 1933-2010 Evidence from income tax statistics. *Working paper 2014-03* .

Kim, S.-K. (2015). Building up the startup ecosystem in Korea. *International Journal of Teaching and Case Studies , 6* (2), 170-182.

Kim, Y. T. (2008). *Bureaucrats and Entrepreneurs: The State and the Chaebol in Korea.* Jimoondang.

Kim, Y. T. (1999). Neoliberalism and the decline of the developmental state. *Journal of Contemporary Asia , 29* (4), 441-461.

Koo, H. (2001). *Korean workers: The culture and politics of class formation.* Cornell University Press.

Lechevalier, S. (2015). Globalization and labor market outcomes: de-industrialization, job security, and wage inequalities. *special issue of Review of World Economics , 151* (3).

Lechevalier, S. (2006). Recent Changes in the Japanese Public Research and Innovation Policies?Lessons for Europe. *Research Project undertaken for the European Commission to Japan* , (in French).

Lechevalier, S. (2014). *The Great Transformation of Japanese Capitalism.* Routledge.

Lechevalier, S. (2012). The Japanese Firm. From The Analysis Of A Model To The Understanding Of Its Increasing Heterogeneity . In M. Dietrich, & J. Krafft (Eds.), *Handbook On The Economics And Theory Of The Firm* (p. Forthcoming). Cheltenham : Edward Elgar.

Lechevalier, S., & Monfort, B. (2016). *Lessons from the Japanese experience. Towards a new economic policy.* Editions de l'ENS (in French).

Lechevalier, S., Ikeda, Y., & Nishimura, J. (2010). The effect of participation in government consortia on the

R&D productivity of firms: a case study of robot technology in Japan. *Economics of Innovation and New Technology , 19* (8), 669-692.

Lee, K., Shin, W., & Shin, H. (2015). How large is the Policy Space? WTO Regime and Industrial Policy. In J. A. Ocampo, & J. A. Alonso (Eds.), *New global rules and governance for the post-2015 era: Ensuring an enabling environment for development.* United Nations publication.

Lee, M.-S. (2002). *Political Economy of Industrial Transformation: A Case Study Of The Development Of An Automobile Industry In Korea.* Ph.D. dissertation, The University of Georgia.

Lee, S. S.-Y. (2015). Institutional legacy of state corporatism in de-industrial labour markets: a comparative study of Japan, South Korea and Taiwan. *Socio-Economic Review* .

Magara, H. (2014). *Economic Crises and Policy Regimes: The Dynamics of Policy Innovation and Paradigmatic Change.* Edward Elgar Publishing.

Meyer, C. (1996). *La puissance financière du Japon [The Financial Power of Japan]*. Economica.

Morgan, G., Campbell, J., Crouch, C., Pedersen, O. K., & Whitley, R. (2010). *The Oxford handbook of comparative institutional analysis.* Oxford University Press.

Nezu, R. (2007). Industrial policy in Japan. *Journal of Industry, Competition and Trade , 7* (3-4), 229-243.

OECD. (2015). Better Policies Series - Korea: Policy priorities for a dynamic, inclusive and creative economy. *OECD Publishing* .

Okazaki, T., & Okuno-Fujiwara, M. .. (1999). Japan's present-day economic system and its historical origins. *The Japanese Economic System and Its Historical Origins* .

Orhangazi, Ö. (2008). *Financialization and the US Economy.* Edward Elgar Publishing.

O'Sullivan, E., Andreoni, A., López-Gómez, C., & Gregory, M. (2013). What is new in the new industrial policy? A manufacturing systems perspective. *Oxford Review of Economic Policy , 29* (2), 432-462.

Palombarini, S. (2001). La rupture du compromis social italien. Un essai de macro{\'e}conomie politique. *La rupture du compromis social italien. Un essai de macro{\'e}conomie politique* . Editions du CNRS, Paris.

Patrick, H. T., & Park, Y. C. (1994). *The financial development of Japan, Korea, and Taiwan: Growth, repression, and liberalization.* Oxford University Press on Demand.

Piketty, T. (2014). *Capital in the twenty-first century.* Harvard University Press.

Pirie, I. (2006). Economic crisis and the construction of a neo-liberal regulatory regime in Korea. *Competition & Change , 10* (1), 49-71.

Poulantzas, N. (1978 [2013]). *L'Etat, le pouvoir, le socialisme.* Les Prairies Ordinaires.

Rajan, R. G., & Zingales, L. (2003). The great reversals: the politics of financial development in the twentieth century. *Journal of financial economics , 69* (1), 5-50.

Sako, M. (2006). *Shifting boundaries of the firm: Japanese company-Japanese labour.* Oxford: Oxford University Press.

Sako, M., & Kotosaka, M. (2012). Continuity and Change in the Japanese Economy: Evidence of Institutional Interactions between Financial and Labour Markets. In A. Walters, & X. Zhang (Eds.), *East Asian Capitalism: Diversity, Continuity, and Change* (pp. 132-157). Oxford University Press.

Schäfer, A., & Streeck, W. (2013). Introduction. In *Politics in the Age of Austerity.* Polity Press.

Shin, J.-S. (2015). The Reality of "Actions" by Activist Hedge Funds and Public Policies on Chaebols-Lessons from the Elliott-Samsung Dispute. *KERI Insight , 15* (19).

Storz, C., Amable, B., Casper, S., & Lechevalier, S. (2013). Bringing Asia into the comparative capitalism perspective. *Socio-Economic Review , 11* (2), 217-232.

Streeck, W., & Thelen, K. (2005). *Beyond continuity: Institutional change in advanced political economies.* Oxford University Press.

Stubbs, R. (2009). What ever happened to the East Asian Developmental State? The unfolding debate. *The Pacific Review , 22* (1), 1-22.

Suzuki, K. (1993). R&D spillovers and technology transfer among and within vertical keiretsu groups: Evidence from the Japanese electrical machinery industry. *International Journal of Industrial Organization , 11* (4), 573-591.

Suzuki, T. (2014). L'hybridation néolibérale de l'État développeur japonais. *Critique internationale* (2), 19-39.

Thurbon, E. (2016). *Developmental Mindset: The Revival of Financial Activism in South Korea.* Ithaca: Cornell University Press.

Thurbon, E. (2001). Two paths to financial liberalization: South Korea and Taiwan. *The Pacific Review , 14* (2), 241-267.

Tiberghien, Y. (2007). *Entrepreneurial states: Reforming corporate governance in France, Japan, and Korea.* Ithaca, NY,: Cornell University Press .

Tiberghien, Y. (2014). Thirty years of neo-liberal reforms in Japan. In S. Lechevalier (Ed.), *The Great Transformation of Japanese Capitalism* (pp. 26-55). Routledge.

van der Zwan, N. (2014). Making sense of financialization. *Socio-Economic Review , 12* (1), 99-129.

Vogel, S. (2006). *Japan remodeled: How government and industry are reforming Japanese capitalism* (Vol. 224). Ithaca, NY,: Cornell University Press .

Vogel, S. (2005). Routine adjustment and bounded innovation: the changing political economy of Japan. In W. Streeck, & K. Thelen (Eds.), *Beyond continuity: Institutional change in advanced political economies* (p. 145).

Wade, R. (1990). *Governing the market: Economic theory and the role of government in East Asian industrialization.* Princeton University Press.

Wade, R. (2004). Governing the market: Economic theory and the role of government in East Asian industrialization. Princeton, NJ: Princeton University Press.

Walter, A., & Zhang, X. (2012). *East Asian capitalism: Diversity, continuity, and change.* Oxford University Press.

Warwick, K. (2013). Beyond Industrial Policy: Emerging Issues and New Trends. *OECD Science, Technology and Industry Policy Papers* (2).

Watson, I. (2014). Green Growth, Neoliberalism and Conflicting Hegemonic Interests: The Case of Korea. *International Critical Thought , 4* (1), 53-66.

Weiss, L. (2003). Guiding globalisation in East Asia: new roles for old developmental states. In l. weiss (Ed.), *States in the Global Economy: Bringing Domestic Institutions Back In* (p. 245).

Weiss, L. (2010). The state in the economy: neoliberal or neoactivist? In *The Oxford Handbook of Comparative Institutional Analysis* (pp. 183-209). Oxford University Press.

Wong, J. (2004). The adaptive developmental state in East Asia. *Journal of East Asian Studies , 4* (3), 345-362.

Woo, J.-E. (1991). *Race to the swift: State and finance in Korean industrialization.* Columbia University Press.

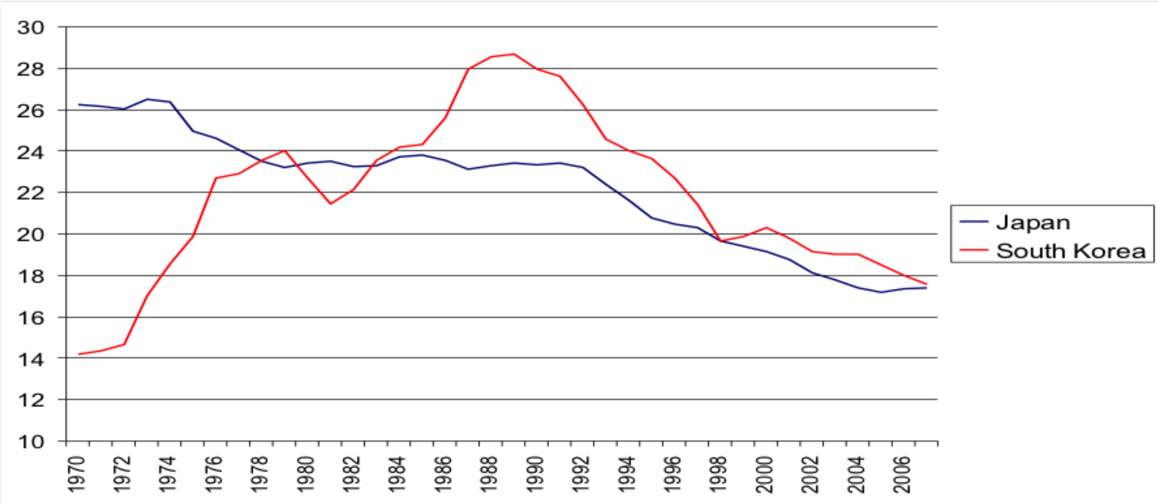
Yamamura, K., & Streeck, W. (2003). *The end of diversity? Prospects for German and Japanese capitalism.* Cornell University Press.

9. Figures and tables

Table 1: Complementarities and contradictions between the revival of IP and the liberalization of the financial system in Japan and in Korea

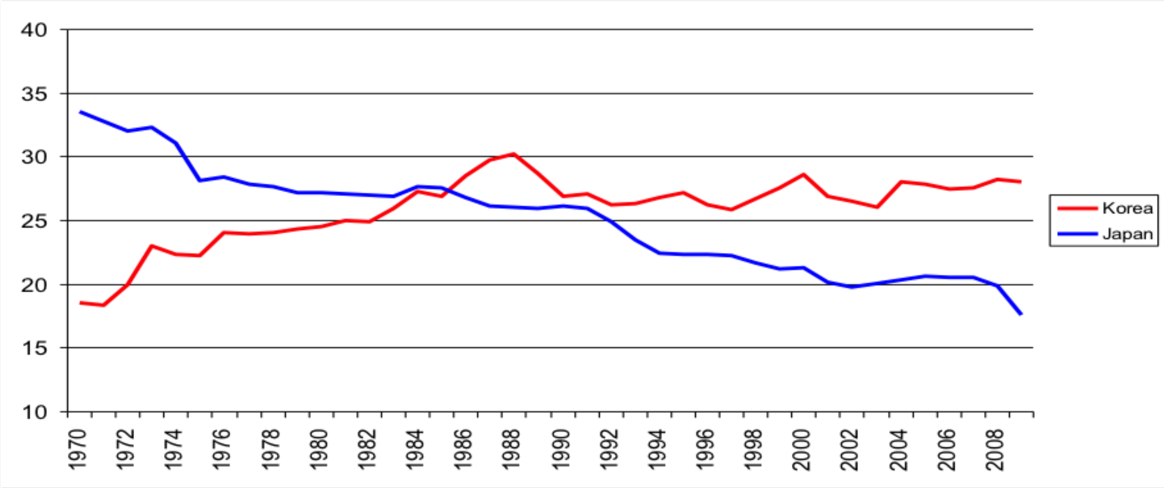
	Japan	Korea
Overall evolution	- Gradual liberalization - Layering and conversion of the developmental state framework - Absence of political equilibrium - Loss of institutions capabilities hinge on the ambition of industrial revival.	- Fast but uneven liberalization - Layering and drift of the developmental state framework - Relatively stable political equilibrium - External constraints are strong but institutional capabilities of IP remain relatively important to avoid deindustrialization
Complementarities	- Increasing public budget for IP and development of R&D consortia & cluster - Effort to coordinate public entities in charge of IP - Effort to coordinate countercyclical policies and growth strategies (Abenomics)	- Strong support to firm-based R&D - IP for the development of the financial industry as an engine of growth - Ease of financial constraints by large policy loans directed to SMEs
Contradictions	- Increasing discrete corporate diversity - Failure of the promotion of startups - Unachieved reform of the Post and implication for capital channeling - Problematic articulation of competition, globalization and innovation policies	- *Increasing dualism between chaebols and the rest of the economy* - Venture promotion while the capital market is still under-developed. - Anti-*chaebols* policies slow down their financial activies in insurance.

Figure 1: Evolution of the share of manufacturing in total employment in Japan and Korea (1970-2007)



Source: STAN data (OECD)

Figure 2: Evolution of the share of manufacturing in total value added in Japan and Korea (1970-2007)



Source : STAN data (OECD)