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FOLLOW, LEAD, OR OVERRIDE THE MARKET? VARIETIES OF INDUSTRIAL POLICY, ECONOMIC STRUCTURES AND STATE-BUSINESS RELATIONS

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ABSTRACT

What explains the variation in industrialization strategies across countries? In this thesis paper, I explore the influence of the business environment and economic elites in the varieties of industrial policy. I theorize that differences in how firms are integrated into an economy and relative proximity between economic and political elites are crucial to understanding why policymakers choose different policy paths. I test this hypothesis on two prototypical cases of successful late-industrialization: South Korea and Taiwan. I find suggestive historical evidence that initial conditions of the economic structure and state business-relations critically shape the long-term developmental project.

Keywords: industrial policy; developmental states; state-business relations, economic policy.

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Introduction

After the post-war era, almost every government in the developing world actively sought to speed-up industrialization via industrial policies.[1] However, the strategies used by governments to achieve their policy goals were highly heterogeneous. Even among the successful late-industrializers,[2] governments sometimes *followed* the market by supporting already existing firms and their particular strategic plans to enter new markets, speed-up technological catch-up, and increase their international competitiveness. Other times, however, governments dismissed static competitive advantages and *led* substantial efforts to change their industrial structures by luring or coercing private firms into new ventures. Sometimes they even *overrode* the market by supplanting the allocation of goods via the price mechanisms or establishing state-owned enterprises (SOEs) in new markets.

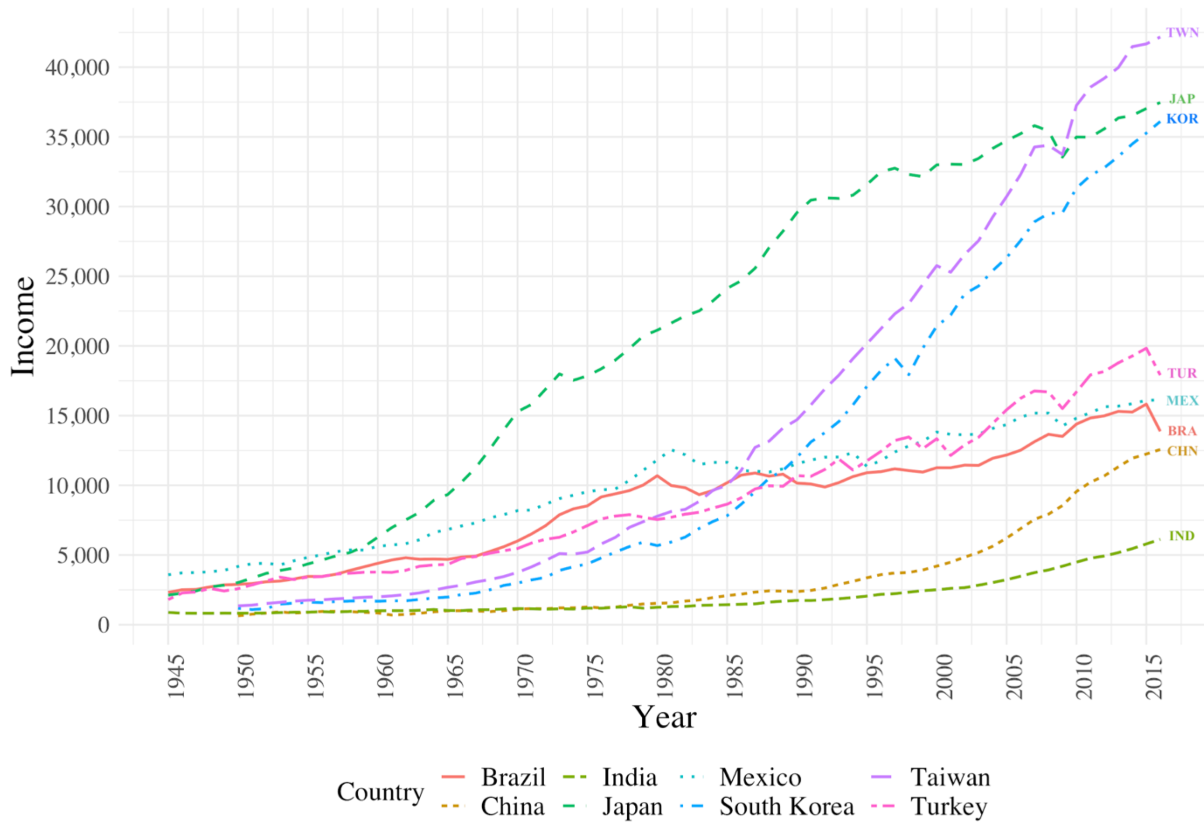
South Korea and Taiwan are the two prototypical cases of post-war late-industrializers that raised from an abyss of poverty and achieved a structural transformation following parallel paths of income growth (see Graph 1). These postwar economic-miracles of East Asia are usually thought of as similar because of their public-private coordination approach to industrial innovation, their export-oriented industrial policies, or their Weberian bureaucracies. However, a closer look, not focused on bureaucratic capabilities or the specific trade or industrial policy tools used, but on the *purpose* of industrial policy reveals important differences in their industrial policy strategies. This phenomenon is both of theoretical and practical interests. First,

[1] In this paper I refer to industrial policy as the use of deliberate and selective government intervention with the objective to stimulate specific economic sectors or firms based on the assumption that better outcomes would not have occurred without it.

[2] Alice Amsden (1989) used the term late-industrializers to describe a subset of countries that during the first half of the twentieth century had the potential to transform their productive structures from primary to secondary activities, achieving higher levels of productivity and development. Among those countries where Brazil, India, Japan, South Korea, Mexico, Taiwan, and Turkey.

because understanding the similarities and differences between their industrialization strategies might hold valuable lessons to understand how suboptimal institutional arrangements make or break depending on indigenous factors. Second, because those lessons might help policymakers and private firms guide their efforts to overcome barriers to development. This thesis paper explores the historical conditions that put countries on different policy paths and argues for plausible reasons for the persistence and change of those strategies.

Graph 1. Income trajectories of late-industralizers (1945-2016)
Income adjusted by purchasing power parity (2011 $USD)



Source: Maddison Project Database 2018

The dominant narrative in the literature on developmental states[3] is that to overcome or take advantage of externalities governments should play a *leading* role in shaping the strategic decisions and inducing the cooperation of a risk-averse and under-capitalized private sector, via powerful and autonomous bureaucratic agencies that design and implement industrial policies.[4]

In successful developmental states, the visible hand of the state was omnipresent and it did more than merely picking winners. It shaped markets by rewarding entrance to new markets and fine-tuning competition in sectors to prevent excess capacity. It created conditions for public-private coordination with embedded bureaucracies that communicated and coordinated with private firms and associations. It pushed for technological catch-up and bolstered the international competitiveness of their private firms by making a pivotal investment that deliberately *got the prices wrong* by using a variety of industrial policy tools, including subsidized credits; fiscal stimulus; trade protections; assistance for the acquisition of foreign

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[3] The main alternative narrative to the developmental states literature has come mainly from neoclassical economists that have emphasized the role of macroeconomic policies and market reforms on sustained economic growth or the rent seeking effects of trade and industrial policy (Krueger 1978; Bhagwati 1975, 1978; Balassa 1982; Srinivasan and Bhagwati, 2001; Panagariya 2019). It has been a proponent of attracting investment by removing distortions in the markets, by *getting the prices right*, limit government to enforcing property rights, lowering barriers of entry to markets, and ensuring fair competition. It has been largely skeptical of industrial policy and has even argued about its negative effects on development (Little, Scitovsky, and Scott 1970; Balassa 1971; Krueger and Tuncer 1982; Lal 2000; Yoo 1990; Krugman 1994; Noland and Pack 2003; Pack and Saggi 2006). This debate has been revised by Sebastian Edwards (1993) and on substantive and methodological grounds by Francisco Rodríguez and Dani Rodrik (2000). Nathaniel Lane (2020) has shown that the many cross-country and cross-industry analyses that where fundamental to the neoclassical approach failed to account for the endogeneity of industrial policies and Robert Wade (1990/2014) and Dani Rodrik (2008) argued that they have failed to correctly identify the counterfactuals.

[4] The developmental state literature has argued that the state had a prominent and leading role in the economy, in particular for some countries in East Asia it was a constitutive element of their development (Johnson 1982; Amsden 1989, 2001; Gereffi and Wyman 1990; Wade 1990/2004; Woo 1991; Chaudhry 1993; Haggard 1993, 2018; Chang 1994, 2002; Evans, Skocpol, and Rueschemeyer 1985; Evans 1995; Rodrik 1995; Campos and Root 2001). Additionally, a new wave of case studies on the effects of industrial policy has emerged in the last decades (Irwin 2000; Ohashi 2005), and empirical studies with quasi-experimental designs (Mattingly 2017; Kalouptsidi 2018; Lane 2019; Juhász 2018; Mitrunen 2019) has tested the relationship between industrial policy and a diverse set of economic indicators.

technology; technical assistance and employee training; state-owned enterprises; and public research and development centers to transfer technology to national companies.

First, this research thesis argues that the presence of the *visible hand of the state* in developmental cases does not always mean that the government was directing the strategic decisions of private firms. In other words, I argue that an interventionist or active government does not always translate into a *leading* government. To address this conceptual and empirical inaccuracy, the first part of this research thesis builds upon Robert Wade (1993/2014) to offer a reformulation of what it means to *lead* or to *follow* the market in a definition that does not depend on the industrial policy tools used by governments or the degree of intervention. I call this conceptualization a *strategic-decisions approach*.

Leading is understood, as in the Big Push literature (Rosenstein-Rodan 1943, 1961; Gerschenkron 1962), as *the deliberate action of the government to change the strategic investment decisions of national private firms, so that they enter new ventures*. F*ollowing* is understood as Wade (1993/2014) did, as the government action to support existing firms in strategies that they are already pursuing or would have pursued without government support. Additionally, I offer a new category that I call *overriding*, which includes instances when governments directly establish SOEs.

Second, I ask, why do countries choose between these different industrialization strategies? I argue that whether governments *follow* or *lead* is crucially shaped by historically rooted state-business relations, and whether governments *override* depends on the economic structure that policymakers use as a platform for their industrial policies. Governments will tend to *follow* the strategic plans of private firms when there is high proximity between economic and political elites at the beginning of a developmental project. On the other hand, governments will tend to *lead,* when the proximity of state-business relations is less intense. And, in another dimension, governments will tend to *override* when the economic structure is more horizontal than vertically integrated. For an argument summary see Table 1.

Table 1. Influence of initial conditions of state business-relations and economic organization in the varieties of industrial policy

		State Business-Relations	
		Close	Distant
Economic Structure	Vertical Integration	More *following* industrial policies	More *leading* industrial policies
	Horizontal Integration	More *following* and *overriding* industrial policies	More *leading* and *overriding* industrial policies

Note: This table summarizes the main argument.

I argue that policy paths persist when two conditions are met: the policy generates economic returns to private firms; and, contributes to the political survival of the ruling coalition. In contrast, it and changes or deviates only under conditions that modify the priorities of the ruling coalition and/or the economic returns of the industrial policy for the targeted sectors.

I analyze the differences in industrial policy strategies in two prototypical developmental states during their takeoff periods: Taiwan from 1949 to 1975, and South Korea from 1953 to 1979.[5] Methodologically, I use a comparative historical analysis framework to identify critical junctures that led to these dissimilar industrialization strategies, and understand the underlying forces driving the persistence and change in their industrial policy strategies.[6]

[5] I use the name Taiwan to refer to the country with the official name of Republic of China. And I use South Korea instead of Dehan Mingug (대한민국), the official name of the southern country in the Korean Peninsula.

[6] According to Alexander George and Andrew Bennett (2005, 8), middle-range theories, as the ones in the scope of this research thesis, "provide more contingent and specific generalization for policymakers and allow researchers

I find suggestive historical evidence that initial conditions of state-business relations and the economic organization of private firms shaped the way public and private actors communicated and coordinated, and thus led to dissimilar policy outcomes.

This thesis paper makes three main contributions. In the first chapter, I offer a reformulation of industrial policy strategies based on their effects on the strategies of private firms, not on the industrial policy tools used or the intensity of the economic intervention of the government. Second, the approach to understanding the policymaking process contributes to the "relative neglect" of the role of the private sector in the literature on developmental states, noted by Stephan Haggard (2018, 39), by putting private firms, and not only bureaucracies, at the center of study.[7] Third, while the focus of the thesis paper is on policy varieties and not on economic outcomes *per se*, it indirectly shows that there is no single industrial policy model. South Korea relied on a few large national private industries with oligopolistic privileges while Taiwan relied on small and medium-sized enterprises (SMEs), foreign direct investment (FDI), and SOEs. Yet both managed to develop and display parallel income trajectories (as shown by Graph 1).

I. Varieties of Industrial Policy: leading, following, or overriding.

Chalmers Johnson (1982) pioneering study of developmental states distinguishes between two kinds of government-business relations: a market-rational role, where the government has a regulatory role that procures fair competition and provides some public goods; and a plan-

to contribute to more nuanced theories," although they lack broad temporal and spatial generalization.

[7] Some contributions to this approach can be found in the developmental literature in Richard Grabowski (1994) and on Gregg W. Huff, Gerda Dewit, and Christine Oughton (2001), who modeled relations between the state and the private sector.

rational system, where governments outline specific industrialization objectives and use different strategies to achieve those goals via industrial and macroeconomic policy.[8] But Johnson's overall distinction, while it demarcates two broad varieties of capitalism, assumes that under the presence of a plan-rational system the government always leads the industrialization drive, neglecting the possibility that governments might be instead following private firms.

The missing distinction of industrial policy strategies is relevant for at least three reasons: we want to understand how incentives and constraints shape the policymaking process; we want to distinguish if the adoption of industrial policy means that the government is actively and effectively pursuing it; and third, we want to distinguish if an industrial policy was guided mainly by governments or private firms since governments might be tempted to window dress the reach of their industrial policies and take the achievements of private entrepreneurs and industrial sectors as their own, even when their support could be negligible.

Robert Wade (1993/2014) addressed these issues directly by offering a typology to distinguish between industrial policy strategies. He used the cases of industrial sectors in South Korea and Taiwan to describe when governments *led* or *followed* the market.[9] The categories in Wade's typology of industrial policy strategies are descriptive and derived from a historical analysis of the inception and development of specific industrial sectors in Taiwan, South Korea, and Hong Kong. In his conclusions *leading* appears to be the natural role of the developmental state. According to Wade, South Korea fits this mold better. While *following* appears to be a

[8] For a more comprehensive analysis of the work of Chalmers Johnson (1982) see Robert Wade (1998, 14-20).

[9] He concludes, among other things, that the extent of leadership or followership does not appear to be connected to industrial sector types or chronological phases, at least for the cases of South Korea, Taiwan, and Hong Kong, and that what we might observe different modes of leadership or followership among countries. In this research thesis, however, I will not consider Singapore or Hong Kong since their s
tages of development differ from other countries with the presence of larger territories and rural sectors.

sign of dilution of the state capabilities to tame markets. This is, in his line of reasoning, the case of Taiwan.

Building upon Wade (1993/2014), I offer a reformulation of what it means for a government to *lead* or *follow* that does not depend on the industrial policy tools used, the state capacity, or the intensity of the government intervention in the economy, but one based on the desired effect that those industrial policies have on the strategic decisions of private firms. I call this conceptualization the *strategic-decisions approach*.

The government *leads* the market when its conscious and targeted interventions (i.e. industrial policy) *seek to change the strategic decisions of national firms* to enter new markets. I partially base this definition on the classic "Big Push" literature inaugurated by Paul N. Rosenstein-Rodan (1943)[10], which suggests that the role of government is to assist the convergence of expectations of firms that depend on the willingness of other firms to invest in a new market.

Instead, the government follows the market when it assists the strategic decisions of private firms to achieve their own private goals. Governments may do so for several reasons: to help firms expand their market presence, accelerate productive capabilities or technological advancements, increase their competitiveness, or give sunset industries a softer exit. As described by Wade (1993/2014), following, in an extreme case, would mean private firms or business associations give government officials a list of industrial, trade or technological projects, and government officials work to support those private goals.

I add an additional category that I call *override* when governments bypass private firms and directly enter a new venture with SOEs. This new category, while not excludable from *leading* and *following*, is useful to understand why public and private cooperation might be

[10] An economic formalization was offered by Kevin Murphy, Andrei Shleifer, and Robert W. Vishny (1989), where a positive externality is created by the increasing returns and changes in the size of the market.

complemented or supplanted in response to specific challenges and limitations of the private sector.

Thus, the government leads the market when industrial policy pushes private firms to be the first movers into new ventures that were targeted by the government; follows when it supports already existing firms in their own particular plans; and overrides when the state is the first mover into a new market.

This new categorization could contribute to both theoretical studies. Dani Rodrik (2008) argues that there is a strong case for industrial policy in theory and an ambiguous one in practice. Applying this new categorization could give a finer distinction to this argument: that in the economic literature there is a solid theoretical case for leading and overriding,11 but there is no clear theoretical case developed for the following kind.

It could also contribute to empirical studies, some of which have used the degree of intervention as a sign of a *leading* government but have not consider the possibility of a high interventionist government that *follows* the strategic decisions of private firms. This is, in this research thesis the case of South Korea; contrary to Wade's (1993/2014) conclusions. Finally, the categorization shows different industrial policy tools (direct subsidies, subsidized credits, tariffs, fiscal benefits) that can be used both for *leading* and *following* varieties of industrial policy.

[11] Ricardo Hausmann and Dani Rodrik (2003), have argued that information externalities and coordination failures lead to underinvestment in new activities, and thus the government should lead companies with an industrial policy that incentivizes private firms to be first movers into new markets.

II. Why do countries choose between different varieties of industrial policy?

Industrial policy can be understood as a coordination game situated in a social and historical context. This research thesis focuses on policy outcomes from a perspective of organization theory and political economy using a comparative historical analysis framework. With the limitations of a mid-range theory, it recognizes that the context matters in two ways since actors respond, not only to fixed incentives from the economic or political structure, but also to historically developed organizational forms and patterns of authority (Orrú 1991; Biggart and Guillen 1999; Williamson 2008) and an ideological context that shapes who are the legitimate actors and their roles in public-private relations (Kuhonta 2011).[12]

Richard F. Donner, Bryan K. Richie, and Dan Slater (2005),[13] argued that, while the foundations of developmental institutions or state capacity could have been transplanted by colonization, other factors determine if countries take advantage of or neglect their institutional endowments. In contrast, I argue that the developmental institutions, or state capacity for that matter, do not remain as empty shells that are only used because of extreme internal or external pressures, but rather, developmental institutions are rooted in a historical interdependence

[12] The economic structure of a society is understood in the organization theory lenses, similar to Oliver E. Williamson (2008), who argued that the nature of firms are a result of agents with limited knowledge that adapt, not only spontaneously to market signals (Hayek 1945), but also purposefully to political and cultural relations. According to Williamson (2008, 176) this two factors shape whether societies "will use the market to supply some transactions and recourse to hierarchy for others" (176).

[13] They argue that countries with systemic vulnerabilities act as push factors for leaders to seek growth enhancing policies to finance national defense and side payments to broad sectors of society. Systemic vulnerabilities encompass diverse arguments in the literature of development that try to explain how governments develop strong institutions: external threats, severe resource constraints, and the need to deliver side payments to sectors of society. This arguments on their own, as argued by Donner, Richie and Slater fail to explain how some countries with external threats, like some Asian and African countries do not create strong institutions, or why resource endowed countries like Botswana did not become a predatory state.

between government and firms.[14] In other words, external threats, lack of natural resources, and pressures form domestic groups are an epiphenomenon to industrial policy strategies.

In the following subsections, I argue that two forces driving industrialization paths can be found in: state and business relations, that are historically rooted patterns of authority; and in differences in the economic structures, whether firms are more vertically or horizontally integrated in the economy.

II.a State-Business Relations: following or leading private firms

Typically, political incumbents are going to have an upper hand in the design, implementation, and enforcement of their developmental projects but they will need to cooperate and strengthen weaker actors (private firms or business associations) to achieve better outcomes.[15] Those who are part of the ruling coalition and critical for the development of industrial policy are going to try to include or exclude actors for two reasons: political, they will target actors who are critical for their political survival and, because of contextual ideological reasons, who are considered legitimate actors to participate in industrial policy.

We can expect private firms and business associations to have more influence on the industrial policy paths when they are critical to the political survival of the ruling elite. Thus governments will tend to follow private firms or business associations, rather than to lead private firms into new ventures. While governments with a more distant relation with national private firms could approach industrial policy, less in the desired fashion of specific private firms and

[14] See also Linda Weiss and Elizabeth Thurbon (2019).

[15] An argument that echoes Avner Greif, Paul Milgrom and Barry R. Weingast (1994), since in the lenses of Weiss (1995) *governed interdependence*, and Campos and Root (2001), a powerful actor (the government) creates spaces for weaker actors (private firms) to communicate and coordinate, sometimes against its relative power, to achieve superior economic and technological outcomes.

take a more prominent and leading role in the design and implementation of industrial policy and even in the creation and strengthening of business associations.

II.b Economic Structure: overriding

The economic structure is going to play a role as well. Whether firms are more vertically or horizontally integrated in an economy, shapes why some economic activities are more feasible in some countries than in others (Chandler 1990; Orrú, Biggart and Hamilton 1997) and the collective action capacities of private firms (Noble and Katzenstein 1998). Thus, the economic structure will mark the advantages and disadvantages that are going to be taken into account in the design and implementation of industrial policy. Also, it will shape the collective action capabilities of private actors to organize and influence the policymaking process.

We can expect that countries with a more horizontal economic structure, composed of networks of small and medium companies, to have the advantage of having a more adaptive and competitive economic environment (Orrú 1991, Biggart, Woosley, and Guillén 1999). However, this economic structure will require long-term industrial policies that cope with the coordination and capital limitations of private firms. For example, governments could directly make investments in expensive R&D ventures that could help private firms achieve technological advancements or by *overriding* the market with SOEs in capital intensive industries. Also there is a political economy effect, as sectoral trade associations could gain more prominence since they are going to be more important for individual firms to influence the desire policy outcomes and, on the other side, the government, or specifically economic bureaucracies, will prefer to gather information and coordinate with fewer rather than many actors.

On the other hand, we could expect that countries with a more vertically integrated economic structure, with a few big companies that grow by vertically integrating other firms to have the advantage of larger economies of scale, lower transaction costs, provide mutual insurance to different branches in face of economic hardships, and the capacity to manage big investment projects in technologies or capital intensive industries. However, we can expect more problems related to corporate governance, excess of competition in markets, and a higher systemic risk of the economy as a whole from a plausible bankruptcy of one firm. These disadvantages would require long-term industrial policies targeted at shaping competition in specific economic sectors. Additionally, we could expect large private firms to communicate and coordinate more easily and directly with the government without fundamentally depend on peak or sectoral business associations.

III. Case Selection

South Korea and Taiwan are prototypical cases of post-war late-industrializers that had a structural transformation and followed parallel paths of income growth (see Graph 1). This postwar economic-miracles of East Asia are usually thought as similar because they are located in a specific geographical region, with significant natural resources constraints, both were influenced by Chinese dynasties, experienced an intense period of Japanese colonialism, and face significant external threats. They also had authoritarian political institutions, and developed export-oriented industrial policies implemented by particular autonomous and Weberian bureaucracies (for a case summary see Table 2).

Table 2. Case Summary: Differences and Similarities between South Korea and Taiwan (1960-1988)

	South Korea	*Taiwan*
Geographic Location	North East Asia: 952 km to Beijing, 1,159 km to Tokyo	North East Asia: 1,721 km to Beijing, 2,100 km to Tokyo
Average Climate and Rainfall	12°C / 1,370 mm	22°C / 2,590 mm

Dominant Pre-Colonial Culture	Confucianism and Buddhism	Confucianism and Buddhism
External Threats	Democratic People's Republic of Korea (North Korea)	People's Republic of China (Mainland China)
Colonial Experience	Japanese Occupation (1910-45)	Japanese Occupation (1895-1945)
Extensive Land Reform	1949-52	1949-53
US Development Loans, Grants and Assistance	High (1948-68)	High (1950-61)
Authoritarian Regime Type	Authoritarian personalistic government that had a legislature that included opposition parties (1953-1988).	Authoritarian, One-Party State that excluded opposition parties from the legislative branch (1945-2000).

Main Sources: Seth (2010) and Manthorpe (2005) [16]

[16] Taiwan was occupied by Japan in 1895, and Korea was officially annexed in 1915. Both countries achieved their independence with the surrender of the Empire of Japan. Japanese education, state organization, and industrial policies were given continuity with some minor changes by political leaders after their independence (Cummings 1984; Kohli 2004; Vu 2010). According to Andrea M. Savada and William Shaw (1992), the Japanese colonialism altered the relation between the state and society and catalyzed the early-modernization of the Korean Peninsula. As shown by Mitsuhiko Kimura (1989), the Korean peninsula saw more resources flow from Tokyo than the other way around, and Taiwan became self-sufficient until 1905, possibly because of its more favorable conditions for agriculture. The Japanese sought to transform almost every aspect of both societies by heavily spending the expansion of literacy with emphasis on Japanese language, cultural values, and an ideological indoctrination that sought a "patriotic fervor for the Japanese Empire" (Manthorpe 2005, 168). The extent of influence of Japanese colonialism on long-term institutional and economic outcomes remains an ongoing debate. For two classical views of this debate see Atul Kohli (1994) and Stephan Haggard, David Kang, and Chung-In Moon (1997).

During their pre-colonial period Taiwan was a spurned territory of the Fujian Province of the Qing Empire, and the Korean Peninsula functioned as vassal state of the Qing Dynasty from the seventeenth century until the signature of the Treaty of Kanghwa Island (1876).[17] They inherited Chinese writing, Buddhist and Confucianist practices, and had a feudal-like social stratification with a few powerful families on top.

At the dawn of the nineteenth century, both countries started a complex process of cultural and economic integration into the Empire of Japan that left a deeply authoritarian and penetrating state (Kohli 2004), a project that was truncated at the dawn of the Second World War with the surrender of Imperial Japan. In both colonies the elimination of tax farming and an extensive cadastral registry established the legal foundations of private property and catalyzed an unprecedented increase in the fiscal and public good provision capacity of the colonies (Kimura 1989).[18]

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[17] The Treaty of Kanghwa Island (KR: 강화도 조약; JP: 日朝修好条規), is treaty that ended a 500 year old Chinese dominion and trade autarky of the Choson Dynasty and initiated a complex process of economic and cultural integration of the peninsula into the Empire of Japan.

[18] During their colonial periods, in a first stage of the colonial period, both economies increase their agricultural output to secure Japanese food self-sufficiency. And in a second stage after the 1930s, developed modern financial structures. While Taiwan and Korea increased their agricultural output, especially in sugar and rice for the later, and rice of the former, that did not mean that local agricultural consumption increased. By some estimations it probably dropped (Tohata and Ohkawa 1935) and real rural wages too (Kimura 1989). The food consumption problem shows to aspects of the colonial government: it served ultimately the Japanese interest above anything else. It used the Korean Peninsula and Taiwan as a tool to gain agricultural self-sufficiency, and at the same time it preserved privilege wealth positions of elites to maintain peace. Japanese and Korean elites secured permissions for key industries, businesses, where awarded pieces in the form of agricultural land, trade licenses, and rights for the extraction of minerals (Manthorpe 2005). As noted by Meredith Jung-en Woo (1991), the Japanese channelled more resources to the Korean Peninsula for military purposes. The Japanese wanted to conquer Manchuria and other parts of China, and thus invested more heavily in the development of military oriented infrastructure in light industries, large scale mines of coal and magnesium, hydroelectric plants, and the network of railways (Woo 1991; Kohli 2004).

South Korea and Taiwan were at the frontline of the Cold War and faced severe external threats and attacks from their neighbors in their first decades as independent nations. South Korea was invaded by the North during the Korean War (1950-53), and hostilities remained present until the mid 1970s. Taiwan (Republic of China) and China (People's Republic of China) separated after the defeat of the Kuomintang (KMT) in the Chinese Civil War in 1949. The two countries remained in a state of war until 1978.

The United States provided financial, technical and military aid to South Korea, after the surrender of the Empire of Japan in 1945 and had an active military presence until today.[19] For Taiwan, direct economic and military support came after the end of the Korean War, in 1954. Economic support was reduced significantly during the mid-1960s, also military support was almost halted in 1979, when the government of the United States migrated the embassy from Taipei to Beijing.[20] In their first two decades as independent nations, the United States deeply interfered via USAID in Taiwan and South Korea and used financial and technical as a "bargaining chip" for their anti-communist contention during the Cold War (Woo 1991). In the early post-war era, the United States had a predominant role in South Korea and Taiwan, not only as a key military ally but also as an economic advisor and a trade partner. The presence and support from the United States offered certainty to foreign investors but it also used this leverage to shape economic and military decisions.[21]

An initial glimpse of the differences between the two countries can be seen by analyzing the industrial policy tools used in their take-off periods (see Table 3). How did two countries

[19] Under the United States Forces in Korea a thirty-thousand-man military were deployed as a subdivision of the United States Indo-Pacific Command.

[20] The United States Taiwan Defense Command was a military agreement between Taiwan (Republic of China) and the United States.

[21] This leverage most likley reduced in both countries in the mid -1960s as economic aid declined significantly and the economies of both countries grew, becoming less dependent on economic aid.

with similar initial conditions and historical and cultural influences take on different paths of industrialization? For the reasons exposed here, the two cases are particularly useful to understand the underlying currents that shape the industrialization strategies of countries by allowing us to control for geographical and temporal variation, unobserved cultural legacies from the feudal and colonial period, the external threats during the postwar era, the influence from the Cold-War superpowers, and the type of political regime.

Table 3. Industrial Policy Targets and Tools in South Korea and Taiwan (1953-1979)

	South Korea	*Taiwan*
Main Targets	Few multi-sector industries	A wide variety of sector-specific SMEs
Fiscal Policy	High Foreign Debt	Conservative Public Finances
Fiscal Assistance	Tax Exemptions	Tax Exemptions
	Land and Transport subsidies to targeted industries	-
Public and Financial Resources	Subsidized Credit	Small direct subsidies for SMEs (for a short period) and cheap credit for SOEs
	High control over the financial sector	High control over the financial sector
Regulatory Assistance	High barriers to entry to domestic and foreign players	-
	Oligopolistic power to firms	-
Supply Chain Support	High barriers to entry for FDI	Attracting FDI from firms linked with Taiwanese suppliers
	State-sponsored mergers and sellouts	SOEs as backward linkages and

Trade Protectionism	Import Substitution Tariffs Non-Tariff Protections	Import Substitution Tariffs Non-Tariff Protections
Technological Assistance	Transfer of technology of foreign firms via direct purchases and joint partnerships Some public R&D centers and Joint public-private R&D centers	Transfer of technology of foreign firms with joint partnerships More reliance on public R&D centers

Sources: Amsden (1989), Wade (1990/2014), Evans (1995), Haggard (2018).

IV. Varieties of industrial Policy in South Korea and Taiwan

Many people outside of South Korea have heard the name Samsung but a lower number outside of Taiwan have heard the name Hon Hai Precision Industry, and yet, at the end of 2018, both companies produced respectively the leading products in the smartphone market: the Samsung Smartphones and Apple's iPhones. The reason why the Hon Hai Precision Industry remains recognized, at best, as a background player is because the government of Taiwan, the country of origin of this company, actively pursued an industrial policy that supported the development of original design and equipment manufacturers (Wu and Hsu 2001). South Korea, on another hand, focused on expanding economies of scale for a few national champions that branded their finished products. Both Samsung and Hon Hai Precision Industry are currently the dominant exporters in their home countries. What led two similar countries to be leaders of a high-tech market with different strategies of industrialization? In this subsection, I test my main hypothesis on historical evidence from Taiwan and South Korea. Two similar countries that present an initial variation on state-business relations and their economic structure.

Governments, with marked exemptions, create policies in the void: they respond to the particular challenges in the context and economic structures[22] in which they are embedded and they require the political and economic support of private actors to achieve their goals (see, for example, Johnson 1982; Wade 1990/2004, Evans 1995).

In the following subsections, I explore how the relation between the economic structure and the industrial policies generated a positive feedback loop that influences the persistence of specific organization forms. Wade (1990/2004, 66), indirectly tackled the correlation between these two variables as he showed that, between 1966 and 1976, the number of manufacturing firms in Taiwan increased 250 percent, but the number of employees only increased by 29 percent. While in South Korea the number of manufacturing firms increased by 10 percent, but the number of employees per firm doubled. However, Wade did not offer an explanation of the underlying mechanisms that pushed for the persistence of specific organization forms.

In benefit of the purposes of this research thesis, the dissimilar state-business relations between South Korea and Taiwan have been widely discussed in a variety of sociological and political studies. Some authors have attributed their similarities, to the influence of the Japanese colonial era in South Korea and the relative lack of a direct influence of the KMT in Taiwan (Woo 1991; Kohli 2004). However, I suggest that state-business relations can be traced back to the Choson Dynasty period for the case of South Korea, and in Taiwan to the peculiar historical event of the exodus of the KMT from mainland China. In contrast to Perkins (2013) and in the same vein as Tuong Vu (2010), I trace the nature of South Korean state-business relations back to the pre-colonial period and show that South Korea's state-business relations where already vertical and paternalistic before the colonial period, while for Taiwan I focus in a particular historical event, the massive exodus of the KMT from mainland China.

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[22] Robert Wade (1990/2004) looked at both economic structures and baptized South Korea's multisectoral industrial conglomerates as the "octopi" and Taiwan's small family-owned companies as "shrimps".

The relation between political institutions and industrial policy is one that is more directly discussed in the literature of development and developmental states since many authors have tried to distinguish between developmental and authoritarian futures and its impact on development.[23] For the cases selected in this thesis paper, I can only answer a subset of the main question, and ask if differences in authoritarian types can explain differences in industrialization strategies. As Jennifer Gandhi (2008) argues, political institutions in authoritarian regimes are often wrongly discarded as window dressing, but they are important channels to direct concessions and coordinate with groups outside the ruling coalition. I try to understand how the political institutions influenced how relevant were private firms to the political survival of the ruling elite during their industrial take-off periods.

A different and smaller branch of the literature of developmental states has put private actors at the center of the stage to understand how societies solve collective action problems through industrial policies.[24] The approach of this research thesis resonates the statement of

[23] This underlying argument of the political economy of economic policy comes from Bates (1981); Bates (1988); Cheng (1990). Mushtaq H. Khan and Kwame Sundaram (2000), and to some extent David C. Kang (2002) argue that developmental states did not override rent-seeking but actively promoted its use to achieve efficient investments. Although it has been recognized that authoritarian institutions are not a guaranty of economic development (Olson 1993; Knack and Keefer 1995; Przeworski 2003), four main arguments have been proposed on how authoritarian political institutions can achieve economic policies that promote growth: first, they can be efficient at low levels of development to increase state capacity (Fukuyama 2013; Hanson 2014) by promoting grand national development plans that restrict consumption and boost resources needed for investment in strategic sectors (Romero and Berasaluce 2018); second, they can coordinate long-term expectations and overcome collective action problems with specific institutions or bureaucracies (Moon and Prasad 1994; Evans 1995; Boix 2003); third, the collective action capacity of the ruling coalition will the policies selected by the leader to benefit a wider public (North and Weingast 1989; Mesquita, et al. 2005; Haber, Razo, and Maurer 2003; Magaloni 2006; Besley and Kudamatsu 2007; Gehlbach and Keffer 2012); fourth, they can increase the competitiveness of labor intensive activities in early stages of development by oppressing labor organizations (Chang 2009).

[24] See Andrew McIntyre (1994) for a collection of essays that explore the relation of government and business in East Asia and Southeast Asia (see also Amsden 1989; Evans 1995; Maxfield and Schneider 1997; Weiss 1995; Noble and Katzenstein 1998; Kang 2002; Weiss and Thurbon 2020).

Stephan Haggard, David Kang, and Chung-In Moon (1997, 868) who argued that, "It is not the *bureaucracy* which ultimately makes policy, but the political elites who control it."

IV.a. South Korea's Asymmetric Partnership: following the chaebols

South Korea pushed for the development of large economies of scale via the *chaebols*, large family-owned industrial conglomerates that had roots in the pre-colonial period but mostly developed in the reconstruction period after the Korean War (Kim 1997). South Korea's government acquired foreign loans and implemented a *high-risk high-payoff* strategy[25] by supplying chaebols with cheap credit based on export performance targets.[26] The chaebols enjoyed oligopolistic power domestically and sold diverse consumer products and intermediate goods internationally. Companies were awarded cheap-credits based on export-performance targets and companies were assisted to update their technologies via the creation of joint research and development (R&D) institutes.[27] In both periods, the South Korean government avoided the creation of state-owned enterprises (SOEs) and was reluctant to accept FDI without technological transfers to national firms.

[25] Term used by Kim (2011) to describe the massive loans directed to specific *chaebols* during the industrialization take-off period.

[26] This has been called an *all-export drive*, where companies were incentivized to export in order for the government to acquire foreign currencies (Lane 2019; Romero and Berasaluce 2018). This was made clear in the second five-year development plan (1966-1971) that explicitly established that the acquisition of foreign capital was crucial as a development strategy.

[27] Many joint R&D became less relevant as the chaebols grew and became capable of developing their own technology in the second half of the 1970s.

State-Business Relations in Korea

South Korea's economic elites have been historically closely tied to the ruling coalition. During the Choson Dynasty, the structure of social relations was framed by a rigid class system that had at the top the *House of Yi*, the royal family, and the *yangbang*, an elite mostly made of landed civil servants and military officials. These two groups acted in some respects as a predatory and patrimonial elite over inferior classes with no clue of a developmental project in mind. According to Young-Jun Cho and Lee Hun Chang (2014, 33-34), the House of Yi preferred "rule by morals than by laws", they believed in the moral supremacy of agricultural labor, and intervened in fixing prices on markets and regulating international trade but mainly to produce benefits for them and the yangbang. They traded with the Quing Dynasty for diplomatic purposes while they also tried to monopolize trade gains (Cho and Lee 2014, 31).

Even after the signature of the Treaty of Kanghwa Island, the landed elites maintained economic privileges in exchange for cooperation with the Japanese colonial authorities. The Japanese, while they prioritized privileges to Japanese businessman and landowners, they replicated the *zaibatsu* model of close ties between the government and a few rich urban and rural elites.[28]

In South Korea, the post-colonial governments made minor aesthetic changes to the institutions used to link public and private actors during the colonial period. The governments of Rhee Syngman (1948-60) and his successor, Park Chung-hee (1961-79), were deeply influenced by the economic and social ideas of the Japanese Meiji Restoration Period. As stated by Martin Hart-Landsberg (1993, 140), in South Korea most men of that age were educated under the Japanese system and its military academies. Rhee Syngman founded a central bank and state planning institutions that emulated the Japanese counterparts. In 1952, affiliation to

[28] The colonial government in Korea established in 1910 the *Chusin*, a council of economic affairs composed of 65 Korean yangbangs, but this council was rarely used (Henderson 1968).

the association of the Korean Chamber of Commerce and Industry (KCCI) and other associations, was made mandatory. The Chamber echoed the Seoul Chamber of Commerce and Industry (SCCI), founded by the Governor-General of Chosen, the chief administrator during the Japanese colonial period (Savada and Shaw 1992). Rhee also made the first steps to build channels of public-private coordination. These channels came in the form of industrial associations, that served the three main purposes: gather information, monitor performance, and implement industrial policies. Most of the coordination of large private firms with the government happened directly, while coordination between firms in private ventures and government projects was virtually non-existing.[29]

However, the geopolitical and economic context of South Korea did not allow for a direct emulation of the Meiji Model and its particular strong ties with a few private conglomerates, other constraints of the structure of the economy came to play. Japan during the Meiji Restoration could amass its own capital from domestic savings. As shown by Joe Studwell (2014), the South Koreans implemented a variety of mechanisms to promote and coerce savings, but they had to mainly borrow abroad and receive financial aid from the United States in the first stages of their industrialization.[30] In Japan, the *zaibatsu,* the large industrial Japanese conglomerates, could finance their own growth and development of technologies with the use of their own private financial institutions, while in South Korea the government directly owned the banks and financed private firms. The Japanese could test their own industries in their bigger domestic market, while the South Koreans had to use international markets. Finally, a mature labor-intensive industry was already developed in Japan, while in South Korea had to be

[29] Other important associations include the Federation of Korean Industries and the Central Association of Small Business Cooperative Associations.

[30] Taiwan also relied on the United States financial aid and was more open to FDI.

developed almost from scratch after the Korean War.[31] The Japanese rule in Korea and Taiwan show that colonial legacies matter as they left trails of developmental institutions that are key for public and private coordination.

Tuong Vu (2010, 48) notes that during the government of Rhee Syngman (1953-1960), “former colonial elites, including landlords, industrialists, and bureaucrats, were brought into a new alliance with conservative nationalists and protected by the regime”. This created a small and compact alliance that during the Rhee Syngman government was highly corrupt and predatory, and they were more preoccupied with the reconstruction of the country and their political survival (Haggard, Kang, and Moon 1997).

An early sign of the radical change in state-business relations came in the aftermath of the military coup of Park Chung-hee when several heads of the chaebols were arrested under charges of illicit wealth accumulation, tax evasion, illegal cash transfers to political campaigns, among other charges. The charges were later dropped, business leaders committed to Park government development goals, and some even signed letters promising to forfeit part of their wealth to the South Korean government.

The founding of the EPB, on a similar vein, marked a radical transformation of the formal institutional channels of coordination between private firms and the government. The EPB founded under the Park Chung-hee regime served as the main coordinator between the chaebols and the government, as a pilot agency that led other ministries, such as the Ministry of Finance and the Ministry of Trade and Industry, and cooperated with peak business associations, especially the Federation of Korean Industries, in the design and implementation of industrial policy. The EPB manipulated resource allocation as it channeled foreign aid and debt for development goals, broke deals to acquire foreign technology, provided state guarantees on

[31] This difference is critical, since it made South Korean companies, with no track record, too risky for foreign investors.

private firm's loans, controlled licenses, taxes, and audits, among other tools to coerce and incentivize private firms into development projects.

The state-business relation in South Korea under Park Chung-hee has been described ranging from *Korea Inc*, a mutually penetrated relation between high bureaucracy and chaebols families (Amsden 1989), but also as a crony capitalist relation, where private firms captured different state institutions.[32] The uncontroversial fact is that a few players that worked closely with the government managed to expand their capabilities and transformed their medium and large firms into multi-sectoral industrial conglomerates under a system that provided oligopolistic entry privileges and access to subsidized credit but also ask for kickbacks and political campaign contributions. The authoritarian leadership of Park Chung-hee (1961-1979) used more discretionary power and relied less on multinational companies (MNCs) than in Taiwan and continuously worked with chaebols towards risky ventures. Park personally gathered information of the *chaebols* through their bureaucratic agencies, the Korean Central Intelligence Agency, and met directly with the *chaebols* for monthly meetings or in one-on-one with business leaders to strike deals (Perkins 2013; Studwell 2014), and while it held significant discretionary power over them[33] it also allowed the CEOs implement industrial policies with

[32] In the literature of developmental states there is an ongoing debate on how politically passive where economic elites, according to Moon and Prasad (1994, 142), "the state is seen as benign, interventionist and economically sophisticated [...] Private enterprise is characterized as highly successful, entrepreneurial, but politically passive and even subservient." Marxist have long argued that the state was captured by business (Chang 2009), and others have argued a more interdependent nature of both government and business (Evans, 1995; Lee 90; Kim 1988). According to Eun Mee Kim and Gil-Sung Park (2011, 267) the *chaebols* where both cronies and entrepreneurs. As I will discuss below this relation changed over time and, as Robert Wade (1998) points out, business where not passive, and as they gained power became more relevant for politics and policy.

[33] According to Byung-Kook Kim (2011, 201), Park sought policy feedback from the chaebols and the state bureaucracy, "but only as advice on how to achieve his goals". In order to achieve his high-risk high-payoff plans, "the EPB worked "backward from Park's directives" (p. 201). Peter Evans (1995) described the relation as "continuous negotiation" in which Park had the last word.

great autonomy and discretion (Kim and Park 2011), and allowed them to communicate their complaints and needs (Perkins, 2013).[34]

The South Korean industrial policy strategy became *locked-in* as the government achieved high-rates of economic growth and the *chaebols* gain several benefits: increasing international competitiveness, external economies of scale, a helping hand to acquire foreign debt, and subsidized credit, and privileged access to new domestic markets.

While the characteristics of the relationship remain controversial, the relation between government and business was more close, repressive, and discretionary than that of Taiwan. In this asymmetric partnership, the government *followed* for the most part the strategic decisions of specific firms and supported their expansion and diversification. The government assisted private firms to enter new ventures by granting them oligopolistic power and cheap credits. And industrial associations, "as subsidies nurtured the growth of large groups in the 1960s", "took an increasingly passive role, especially from the 1970s onwards" (Weiss 1995, 602).

Economic Structure in South Korea

The first modern retailers and industries appeared in Korea after the 1930s when the Japanese conducted major industrial investments in the Korean Peninsula. The *zaibatsu* Japanese model of close cooperation between top family-owned firms and the government was replicated in the Korean peninsula during the colonial rule.[35]

[34] The Korean Central Intelligence Agency (KCIA) maintained the state-business alliance but it also helped business suppress labor unions and labor activism. This has been a major topic in Marxists interpretations of the developmental experiences in East Asia (see Chang 2009).

[35] Even the word, chaebol (재벌) is written with the same Chinese characters (財閥) as zaibatsu in Japan (chae means "wealth or property", and beol means "faction or clan"). Also, it is important to note that the Japanese discriminated against Korean entrepreneurs and limit their access to top government positions.

Some chaebols were founded during the Japanese colonial rule. For example, SSangyong (1930), Samsung (1938), Daelim Group (1939),[36] Hyundai (1940).[37] However, other chaebols were founded after the end of the colonial rule as wealthy Koreans bought Japanese factories that came from the seizure and privatization of Japanese property after the liberation and, in close collusion with the government of Rhee Syngman, gained privileged access to markets, construction and transport contracts, trade protections, foreign currency, and subsidized credit. For example, Lak Hui Chemical Industrial Corp (1947),[38] Tongyang Confectionery Manufacturing Company (1956).

After the Korean War, the chaebols expanded rapidly into new sectors as they benefited from the influx of technical and financial foreign aid.[39] For example, Kim Sung Kon, founder of SSangyong, built jeeps for the United States army; Chung Ju Yung, the founder of Hyundai, managed to win construction contracts with the United States military and later became a personal favorite of Park Chung Hee for domestic and foreign construction projects; Lee Yang-gu (nicknamed "the Sugar King"), owner of the Tongyang Confectionery Manufacturing Company,[40] entered the construction material industry when he purchased a factory that was built in 1942 by the Onda corporation.[41]

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[36] Founded as Burim Corporation.

[37] For example, Lee Byung Chull, founder of Samsung (1938), was the son of wealthy Korean landowners. He assisted Waseda University in Tokyo during the colonial occupation and upon his return, after a first failure in the rice business, he managed to transformed Samsung Trading Company in one of the most important companies in the peninsula during the Japanese rule.

[38] Later know as Lucky Goldstar, and now known by the name LG.

[39] During the Korean War around two million, mostly civilians, perished. Half of the industrial capacity, a third of its housing, and much of the public infrastructure of the southern part of the peninsula was destroyed (Eckert et al. 1990).

[40] Now known as the Tong Yang Group a conglomerate that is famous for his securities and insurance branches.

[41] The factory was established in Samcheok, an eastern city in South Korea and the Onda corporation is now known as Taiheiyo Cement Corporation.

Thus, the liberation of Korea from the Japanese rule and the Korean War (1950-1953) deeply disrupted the Korean economy, but it did not change its modern economic structure. Biggart and Guillén (1999, 733) described this persistence of close cooperation with top economic elites in Korea as historically rooted in a patrimonial form of organization that "tends to develop unequal, vertically integrated units under the command of centralized authority" and "does not promote connections between groups for synergy or innovation".

Ideology and legitimate actors in state-business relations: aversion to SOEs and FDI

Rhee Syngman's government anti-Japanese sentiments, nationalistic and anti-communist ideologies, the need to keep the country unified before and after the Korean War, and the United States pressures, shaped who was a legitimate actor in the Korean economy. The anti-communist rhetoric played in favor of supporting the already existing authoritarian political structure and the economic structure of vertical integration by supporting the development of large economies of scale and against SOEs. And the nationalistic sentiments, rooted in the turbulent colonial period, also influenced the government in favor of working with national private firms rather than with MNCs.[42]

Rhee's government had a hard time delivering an industrial policy that created long-term development. Its government developed grand national plans and an import-substitution industrial policy, but it appears to have served its government to channel funds and ask for kickbacks from economic elites. The plans of Rhee's government did not had any effective tools to push firms towards riskier ventures; as argued by Jones and Sakong (1980), firms in this period relied more on rent-seeking from US aid rather than on increments of productivity.

[42] Additionally, Rhee's government eliminated most of the trade with Japan, a policy that lasted until 1965.

Exports were almost non-existing and of little diversity and imports were paid with support from the United Nations and US aid (Perkins, 2013).

While the economic elites and nationalist and anti-communist ideology remained practically unchanged after the Park Chung-hee coup d'état of 1961, the anti-Japanese sentiments and power asymmetry of the state-business relation changed substantially in comparison with his predecessor. In 1965, Park's government tried to heal the anti-Japanese sentiments that lacerated diplomatic and trade ties with Japan since 1945. With the signature of the Treaty of Basic Relations diplomatic and trade relations were normalized; Japan recognized South Korea as the sole legitimate government of the Korean Peninsula and agreed to pay substantial reparations from abuses of the colonial period in the form of loans, grants, and technical assistance to South Korea.

On the other hand, according to Perkins (2013), urban industrialists that were not part of Park's coalition started to gain relevance for the developmental project. Two events mark a critical juncture for state-business relations in Korea. The first, the famous arrest of many of the *chaebol* leaders that were close to the Rhee's government and second the founding of the EPB.

External threats: the external shock of the Nixon Doctrine

Only after 1969, in the face of an exogenous shock of a possible withdrawal of United States troops under the Nixon Doctrine, the Korean government was pushed to make radical changes to ensure the military supremacy of South Korea and the political survival of the ruling coalition.[43] Park Chung-hee temporally dissolved the National Assembly, curtailed civil liberties, and gave himself dictatorial powers by proclaiming the *Yushin Constitution*. This also

[43] Targeted industrial sectors included non-ferrous metals, petrochemicals, electronics, machinery, and shipbuilding.

carried a radical change in the industrial objectives with the establishment of the Defense Industry Bureau and other institutions that worked intensely with the private sector to develop industries that were key to military objectives (Kim 2011).

The Korean government *overrode* the market in the upstream industries of iron and steel and took a more *leading* role to lure selected private companies into petrochemicals, heavy machinery, automobiles, and electronics. But even this deviation from the original policy path required crucial participation of the private sector in the implementation. Selected companies that were taught that could handle the endeavor were given generous financial support, foreign loan guarantees, and infrastructural support by the government (Wade 1990/2004). However, the private sector was left on its own to accomplish the desired production and export targets of the industrial policy.

Gradual liberalization and the new following strategy

The South Korean state-business relations and many of the industrial policies that were key to the economic transformation ended after the assassination of Park Chung-hee in 1979. His political successor, Chun Doo-hwan, did not continue the Heavy and Chemical Industrial Drive and started a process of gradual trade liberalization, control of inflation, privatization of banks, early reforms to corporate governance, and laid the first antitrust regulation agencies to improve the competition in the domestic market. This marked a significant transformation from the controlled business environment to a more open and competitive domestic and international environment.[44] The chaebols remain a fundamental actor of the Korean economy and export, however, the government industrial policy focus has drifted form a firm focused approach to the

[44] The EPB was eventually disbanded in 1994 (Kim 2015) and, in the face of the Asian Financial crisis of 1997, the government actively worked to change the corporate structure of the *chaebols* seeking greater transparency and dynamism.

promotion of research and development of technologically advanced sectors and the support of projects to integrate SMEs to the digital economy.

IV.b. Taiwan's Sectoral Paternalism: Leading and Overriding clusters of firms

The Taiwanese government served mainly SMEs as a business consultor that *led* networks of companies to get international deals to manufacture intermediate products and acquire foreign technology from MNCs; and as a powerbroker that gave special privileges to well-connected families and to party-owned enterprises. To a larger degree than in South Korea, the Taiwanese government relied on public R&D centers that transferred technology to national firms and *overrode* the market via SOEs in sectors with high internal returns of scale that functioned as backward linkages for private exporters.

According to Robert Wade (1990/2004) and John Mins (2006, 183), during the 1950s and the first half of the 1960s, SOEs accounted for 50 percent of industrial production and, according to Perkins (2013, 87), around 90,000 SMEs functioned as the backbone of Taiwan manufactured exports.[45] This *overriding* strategy deepened the industrial structure and catalyzed the creation of diverse downstream small-industries run by native Taiwanese that transformed the inputs (petrochemicals, processed metals, and plastics) into products that served as inputs for foreign MNCs.

The government also *led* many companies at the same time into new sectors. It did so in three ways: first, it directly guided technological agreements and joint ventures between business networks and foreign firms; similarly, during the 1960s, it began establishing R&D institutes and organizations that promoted sectorial "technological and managerial upgrading" of private firms in the industrial sectors of chemicals, electronics, glass, textiles, and many

[45] During the early 1950s, it also directly *overrode* the market by supplying raw cotton to spinning mills outside of a market structure.

others (Wade 1990a, 95); and third, in close collaboration with the United States, attracted foreign firms of finished consumer goods to Taiwan so that networks of local firms could act as their first and second-tier suppliers. This allowed, for example, Taiwanese firms to become leaders in the production of synthetic fibers and by-products, as noted in Wade (1990/2004, 91), "Taiwan by 1981 was the fourth biggest producer of synthetic fibers in the world"; or in the electronics sectors during the 1980s and 1990s.

The Taiwanese industrialization strategy was similar in the development challenges faced by South Korea during the early industrialization era but different both in the relationship between government and business and its approach to tackling those challenges.

State Business-Relations in Taiwan

The relationship of the government with the business community was mostly hierarchical and indirect. This relationship has historical and ethnical roots. During the Chinese Civil War (1929-1949), the Nationalist Party eventually was pursued and kicked-out from mainland China by the Chinese Communist Party. Around two million soldiers, top bureaucrats, and civilians arrived at Taiwan during 1949, an island of six million inhabitants. The mere size, military power, and economic wealth of this group face no relevant resistance from the indigenous Taiwanese. Where in South Korea rulers had been educated in the Japanese colonial system, the members of the KMT were not.

Taiwan became a one-party system that in the later forty years was ruled by three persons from the same authoritarian coalition: Chiang Kai-shek, from 1948 until his death 1975; then succeeded by Yen Chia-kan, as interim president until 1978; and followed by the election of Chiang Ching-kuo, son of Chiang Kai-shek, who ruled until 1988.[46]

[46] And, using Milan W. Svolik's (2012) terminology, Taiwan remained under this *authoritarian spell* until 2000, when the KMT loss the Presidential elections.

For decades native Taiwanese were excluded from top government jobs, SOEs, and military. During the era of Chiang Kai-shek, Taiwan was an established autocracy that had legislative power, but prohibited competition and dissent outside the nationalist party. Across the 1960s more indigenous Taiwanese started to affiliate to the KMT, who had been almost exclusively represented by mainlanders, and the electoral competition was relaxed at the municipal level by allowing independent candidates to run for office without political affiliation. Until 1975, with the creation of the political group *tang wai* (outside party)*,* more active space for political dissent was created, which eventually led to the creation of the Democratic Progressive Party in 1986 (Cooper 1989).

The authoritarian KMT in Taiwan actively kept business groups at bay by forbidding any collective action outside official channels. As noted by Yun-han Chu (1989), the governments demobilized different sectors by a mixture of control of mass-media, use of secret police, and state corporatism that incorporated business groups, labor unions, intellectuals, artists, and professional associations to the party and government positions. These ethnic divisions were ameliorated with the political reforms that increased electoral competition and the advent of democracy around the year 2000.

In Taiwan, the line between the state and business was clear because of the ethnic divide, but the line between the party and the state was blurred. Bureaucratic, SOEs, legislative, judicial, and executive appointments were delegated to the central decision-making body of the KMT with the authoritarian leader maintaining the top position of the political structure.

Chiang Kai-shek did not meet regularly with industrialists (Perkins, 2013), as in South Korea. The KMT government in Taiwan preferred a sectoral approach by working with business clusters and to a lesser degree with peak business associations, such as the Chinese Federation of Industries (Kondoh 2002). Following the example of Japan, they made substantial efforts in the early stages of the developmental project to strengthen business associations (Weiss 1995). The government-mandated the creation of trade associations such as the Taiwan Textile Federation (TTF) and the Taiwan Electrical Appliances Manufacturer Association (TEAMA) (Weiss 1995, 603).

The industrial policy strategy that Taiwan followed started in the early 1950s when the government made substantial efforts to devalue the exchange rate, create export processing zones, deepen the structure light industries by a mix of *leading* business networks and *overriding* with SOEs in upstream industries to fill gaps in the industrial structure and lower costs for private small downstream industries (Lin 1973; Scott 1979; Gold 1981).

The use of SOEs was significantly more intense and diverse than in South Korea. The government controlled, mostly as a monopolist, industrial sectors with high internal economies of scale such as energy, petrochemicals, steel, shipbuilding, and machinery (Kirby 1990), as well as other industries such as fertilizers, sugar refining, tobacco, and wine. Its reach extended to service sectors such as insurance and financial services (Wade 1990/2004). As reported by Tun-jen Cheng and Stephan Haggard (1987), the SOEs served both economic and political purposes, and according to Yun-han Chu (1994), they were used as a training ground for technocrats to develop managerial and planning expertise.

The Taiwanese government relied on two economic agencies to design and implement economic policies: the Council for Economic Planning and Development (CEPD) and the Industrial Development Bureau (IDB). The CEPD served as an advisory body headed by cabinet members and the head of the central bank. The staff informed them of the status of the national economy, reviewed economic policy proposals, and evaluated large-scale public enterprise projects. The IDB was the central bureaucratic agency for shaping and implementing economic outlines and industrial policy devised by the CEPD. It did so by establishing the fiscal, trade, and financial incentives and of giving consultancy for mergers and long-term contracts. It was the main point of coordination between government and business in different sectors.

As documented by Robert Wade (1990/2004) the members of the IDB had to go out several days a month to visit facilities and firms with two tasks: they brought information on what was happening in world markets to companies and gathered information on the challenges faced by firms. This flow of information resulted in industrialization plans that mostly *led* the market, as they focused on a more predominant role of the state in speeding up the technological change for SMEs, finding new markets for the products of Taiwanese firms, and building partnerships with foreign firms so that Taiwanese intermediate industries could become suppliers of major MNCs.

Economic Structure in Taiwan

In Taiwan, patrilineal institutional logics and partible inheritance from their Chinese cultural inheritance favored the creation of horizontally integrated networks of sector-specific SMEs (Wong 1985; Biggart and Guillén 1999).

The early stages of the developmental project in Taiwan illuminate how policymakers adapt to the particular limitations and advantages of the economic structures.

The Plan for Economic Rehabilitation (1953-56) was the first economic plan in Taiwan and it targeted agriculture, fertilizers, and textiles for selective intervention. According to Robert Wade (1990/2004, 79), the first textile industries were established by relocated mainlanders. With the help of United States aid, the KMT created an environment of market-distorting conditions for its development. Among these conditions was the direct control of the government in the allocation of upstream supplies (in cotton and yarn), and also helping firms cover all working capital advancements and establishing infant industrial protection tariffs (Chang 1965; Gold 1981; Wade 1990/2004).[47]

By 1954 the government targeted diversification of cotton textile industries into synthetic fibers. The domestic chemical industries could provide most of the inputs to make rayon, but there were significant capital and technological limitations to build a ryon-making plant. The government, with help from the United States advisors and a United States company, von Kohom, established a government-controlled industry, the China Man-Made Fiber

[47] The Second Four-Year Plan (1958-65) was the first to set production targets and to reformulate the strategy to attract investment by overseas Chinese and other foreign countries.

Corporation, that by 1957 started to supply ryon domestic to textile factories (Gold 1981; Wade 1990/2004).

This method of intervention in upstream industries, via *overriding* with SOEs or by supporting the creation of private firms in capital-intensive industries by supplying cheap credits and coordinating training and technological transfers by foreign firms, created positive conditions for SMEs to leap into new sectors in the following decades. Other examples are found in plastics, automobile parts, electronics.

The failure of Taiwan to export assembled automobiles is particularly illuminating on how the economic structure marks the capabilities and limits of policymakers to promote specific industries. Nicole W. Biggart and Mauro F. Guillén (1999) explored this phenomenon and argued that the success in generating external economies of scale in automobile parts in Taiwan and the failure to establish competitive automobile assemblers can be found in historically developed patterns of social organization.

Ideology and legitimate actors in state-business relations: use of SOEs and FDI

According to the argument presented the presence of *overriding* should respond to the economic structure, whether firms are more horizontal or vertically integrated, but as in the case of South Korea, ideology derived by particular historical events could have influenced a more statist-oriented approach to industrialization in Taiwan.

Some authors have argued that the ideological influence in KMT political leaders came from two historical events: first, the influence of interwar Russia and Germany (1914-1939) on the KMT; and second, the defeat of the KMT and its refugee in Taiwan, during the Chinese Civil War (1927-1950).

Before the end of the Second World War, mainland China under the KMT was already experimenting with SOEs. Joe Studwell (2014) noted that Chiang Kai-shek and its allies saw with suspicion the role of the private industry since they were influenced by Russian industrialization under Lenin and Stalin, as well as by interwar fascist Germany.[48] Marco Orru, Nicole Woolsey Biggart, and Gary Hamilton (1997), when further back in history and argued that public-private relations of Taiwan where rooted in Chinese imperial statecraft, with a general distrust of creating powerful economic elites that could capture state institutions. Robert Wade (1993/2014) reported a "tenacious suspicion of big Chinese capitalists among Taiwan industrial policymakers" and the "ethnic tensions" between the mainlander-government and the native Taiwanese business elites resulted in a "greater conflict of interest".

However, this plausible ideological influence of Chinese imperial statecraft or interwar Germany and Russia on who were the legitimate actors in the Taiwanese developmental project did not mean that they could directly emulate the economic projects of foreign countries or replicate the ones carried out in mainland China. Taiwan is an island with scarce natural resources, and at the end of the 1940s had mostly a poor and uneducated society. The defeated KMT in Taiwan had to adapt and plan according to this restrains, as my theory suggests, that could explain why contrary to nationalist ideology, the Taiwanese government had to rely more on FDI to the island as a tool to promote SMEs as international competitive suppliers.

External threats and varieties of industrial policy

As in South Korea, an external shock pushed political elites to speed up and industrial structure that could serve a war economy. In 1971 Taiwan was kicked out of the United Nations as a representative of all China, and in 1972 President Nixon made his famous trip to Beijing in 1972. And, in 1979 the US withdraw formal diplomatic recognition of Taiwan in 1979. The Taiwanese government began to adapt to these changing geopolitical circumstances and pushed further the development of a heavy industrial sector in sectors such as steel, shipbuilding, and

[48] According to Joe Studwell (2014), the Germans became their main foreign advisors on industrial and military modernization of China's KMT.

petrochemicals. Compared to South Korea, the HCI-push had a more statist approach, following the strategy of *leading* and *overriding*, and was implemented in a slower pace. The early stages of the heavy industrial drive between 1971 and 1978 was conducted with SOEs like China Petroleum, Chung-tai Chemicals, and the China Steel Corporation.

Gradual liberalization and the prevalence of Taiwanese sectorial paternalism

During the 1980s the Taiwanese implemented an incubator strategy for their electronic industry push. The mission was to support the inception and growth of private companies with the support of quasi-public corporations and institutes, such as the United Microelectronics Corporation, the Taiwan semiconductor company, and various universities and R&D centers.

The Taiwanese economy further liberalized with the bid to enter the General Agreement on Tariffs and Trade (GATT) but the underlying strategy until today has not changed: the governments support the development of many sector-specific firms with its coordinating abilities to link universities, research centers and offer partial or complete financial backup.

IV.c. Similarities between Taiwan and South Korea

Both countries had broad similarities in their macroeconomic and industrial policy tools plausibly because they faced similar challenges of internal threats of rebellion, a weak domestic capital market, and scarce foreign currencies.

Both countries started their paths towards development with extensive land reforms that reduce the initial inequality. They also had a tight control on capital allocation. Through direct ownership of the financial sector and tight control over foreign exchange the governments directed capital for purchasing equipment, technology upgrading, and they even gave working capital loans in the early stages of their industrialization. However, the countries differed on who received the loans. Taiwan mainly targeted SOEs (Johnson 1982, 149), while South Korea channeled credit to private conglomerates based on export performance targets. Finally, they both avoided getting stuck subsidizing inefficient companies using two tools: updating and adapting industrial policy towards new objectives; and using direct interventions to shape industrial sectors, for example by merging companies, force-selling parts of one company to its competitors, and letting companies go bust when companies were financially unsustainable. According to Ha-Joon Chang (1993), this created a business environment that dynamically changed the top players in the game.

Both countries experienced a gradual liberalization period during the late 1970s and 1980s that somewhat deviated from what we can call a developmental state, however, while South Korea tried to drift from the *following* the chaebol to *leading* Korean SMEs, Taiwan reinforced the strategy of *leading* in the computer and microchips markets with the guidance of public R&D institutes, such as the Industrial Technology Research Institute and the Electronics Research and Service Organization.

V. Conclusions

This research paper has tackled two aspects of the literature of developmental states: first, an unclear conceptualization of what it means *to lead* or *to follow* the market; and second, it explored plausible explanations for the observed variation in industrialization strategies across countries.

First, based on Wade (1993/2014), I offered a typology to understand what we mean when we say that governments *lead*, *follow,* or *override* the markets. I based this typology on the explicit effect that the industrial policy has on the strategic decisions of firms: if it changes them, the government *leads*, if it assists them, the government *follows,* if the government changes the allocation mechanisms and/or establishes a SOEs in new markets it *overrides* them.

Second, I explored different factors that could explain the variance in industrialization strategies. This thesis paper emphasized the role of state-business relations and economic structure as a central factor to understand variance in industrial policy strategies across countries. I found suggestive historical evidence to support this argument. The vertical integration of firms in South Korea was used to create large economies of scale by supporting the creation of multisectoral companies that could have more managerial power over grand investment and research projects. The more close and intense relationship of the South Korean *chaebols* was consequential to an industrial policy that mostly *followed* private firms. This evolved into a symbiotic relationship where the line between the public and private objectives became blurred.

On the other hand, the more horizontal economic structure of Taiwan had the advantage of having an adaptive and competitive economic environment that requires less intervention of the government in shaping markets but a more active role in areas such as R&D and the creation of SOEs that function as backward linkages. The distant relations between the government in exile of the Republic of China (Taiwan) and the Taiwanese native population produce an indirect and sectoral approach to industrialization that required a more *leading* industrial policy to coordinate large numbers of actors.

The initial state-business relations shaped the functioning of their economic bureaucracies which in turn supported the persistence of the particular business environment of each country promoting vertical integration in South Korea and facilitating network cooperation between SMEs in Taiwan.

I show that Japanese colonialism, while controversial, set the bedrock of their bureaucratic and fiscal capabilities but argued that it did not have a differentiated effect on their industrialization strategies between Taiwan and South Korea. I argue that state-business relations can be traced back into de pre-colonial era for South Korea, and for the particular role of the KMT after the Chinese civil war in Taiwan.

I find, contrary to my main hypothesis, that external threat can increase the level of government *overriding,* since economic targets are adjusted to military objectives. In particular, the Nixon Doctrine pushed South Korea and Taiwan towards *overriding* the market to develop industries that could be used for military purposes. But both countries maintained the particular characteristics of their prior industrialization strategies: South Korea relied more on the *chaebols* while Taiwan developed many more SOEs in sectors that could serve a war economy.

I also show that the financial, technical, and military aid of the United States was used to influence military and economic policies but had no significant differences in both countries as to explain their dissimilar industrialization strategies.

There are areas for further research. First, as we have seen different policy paths depend on historically rooted economic structures and state-business relations, independent to the degree of economic intervention. However, it remains an unfinished task to explore how state capacity influences the effectiveness of the implementation of varieties of industrial policy.

Second, this thesis paper argues that political institutions have effects on the *closeness* of state-business relations. Nevertheless, there are other factors that could be explored. For example, countries with more natural resources could be less dependent on economic elites, and thus, establish *leading* or *overriding* industrial policies via hierarchical systems of public-private coordination. While countries with less natural resources could establish more symbiotic relations with the private sector and implement *following* industrial policies.

Second, the particular cases used in this thesis paper show that industrial policy, by helping ameliorate or take advantage of negative or positive externalities, could contribute to the persistence of particular business environments. Research in this area could broaden our understanding of how industrial policy in conjunction with the market affects what Oliver E. Williamson (2002) referred to as the *governance structure of firms* and the persistence of particular forms of economic organization.

Fourth, the tradeoffs of particular varieties of industrial policy are another point of interest. For example, pushing for particular industrial policy strategies that benefit the creation of giant conglomerates, like the one observed in South Korea and the United States, could serve countries in the early stages of industrialization but have the potential of increasing the systematic risk in the economy and become an important or plausibly harmful center of political power.

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