

The Mysterious Overvaluation of KRW in the 1990s

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Abstract

Existing theories on real exchange rates predict a significant undervaluation of the Korean won (KRW) in the early and mid-1990s. The paper demonstrates why this expectation did not materialize and instead an unprecedentedly large degree of overvaluation took place. Focusing on three variables, namely, financial repression, devaluation pass-through, and policy exhibitionism, the paper examines how the unraveling of the developmental state eventually gave rise to the 1990s' overvaluation. It argues that the policy exhibitionism of the new civilian government amplified the influence of Chaebol on monetary policies, which in turn created a strong appreciative force to KRW. It also contends that the increasing exchange rate pass-through onto the prices of imported intermediate goods explains why Chaebol did not desire to tame the excessive appreciative trend despite its detrimental effect on their exports. The paper offers policy implications for other state-led, emerging economies.

Keywords: Real Exchange Rates, Chaebol, Young Democracy, policy exhibitionism, Pass-through, State-business relations

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Abstract

Existing theories on real exchange rates predict a significant undervaluation of the Korean won (KRW) in the early and mid-1990s. The paper demonstrates why this expectation did not materialize and instead an unprecedentedly large degree of overvaluation took place. Focusing on three variables, namely, financial repression, devaluation pass-through, and policy exhibitionism, the paper examines how the unraveling of the developmental state eventually gave rise to the 1990s' overvaluation. It argues that the policy exhibitionism of the new civilian government amplified the influence of Chaebol on monetary policies, which in turn created a strong appreciative force to KRW. It also contends that the increasing exchange rate pass-through onto the prices of imported intermediate goods explains why Chaebol did not desire to tame the excessive appreciative trend despite its detrimental effect on their exports. The paper offers policy implications for other state-led, emerging economies.

1 Introduction

While the 1997 Asian Financial Crisis heralded the end of the debate on state-led growth strategies, the economic success of China in the past two decades seems to point to its persistence in the 21st century. Analysts find the relevance of the Chinese model in other emerging Asian economies (e.g., Pham 2012) as well as in Sub-Saharan African context (e.g., Zenawi 2012). At the heart of this state-led development lies competitive undervaluation and financial repression underpinning it (Steinberg 2015).

The latest appreciation of the yuan and other financial liberalization of China raise questions about the future of these growth strategies. Given that the policy domain beyond modest financial liberalization is an uncharted terrain for these economies, understanding these changes poses significant analytical challenges to researchers. Are the financial liberalization and the appreciation actually indicative of a slow demise of state-led growth?

Seeking to answer this question, this paper turns back the clock and focuses on the unexpected overvaluation of the Korean won during the 1990s during which intense financial liberalization actually took place. Specifically, the paper investigates why the Korean government did not rein in the rapid appreciation of the Korean won (KRW, hereafter) even though macroeconomic indicators suggested otherwise. It also unveils why the major exporters, particularly Chaebol,¹ who were influential enough to push the government for devaluation, remained bystanders during the half-decade long overvaluation, deviating from their traditional policy positions.

¹Chaebol are defined as 'large business conglomerates in South Korea run by family networks'. For the rise and development of Chaebol, see Kim (1997a).

The existing studies largely overlooked the analytical importance of KRW overvaluation during this period. The KRW overvaluation has been treated merely as a procedural factor that existed in the run up to the 1997-8 Crisis. Such a practice overshadows two important implications that it could otherwise offer. First, focusing on the crisis conceals the fact that the overvaluation was a dramatic departure from the conventional policy position. The Korean state had almost always embraced undervaluation as a means for generating price competitiveness for the country's exports. Whenever there was an upward pressure, the monetary authority's instant sterilization ensued to preserve the competitive edge of its exports. The eight-year-long overvaluation in this context is an obvious policy anomaly. Second, focusing on the crisis limits the time frame for the determinants of the overvaluation, ignoring the structural changes in the state-society relationship put in motion in the much earlier period. As explained below, the conditions that enabled the overvaluation go further back into the history in their making than much of the political economy literature on the crisis presumes.

This paper aims to extend this limited purview of the literature. Taking advantage of a simple panel regression model, the paper first highlights the abnormality of the 1990s' KRW rates. It then draws on the process-tracing method using rich historical data on the Korean political economy, which reveals that the acceleration of the financial liberalization in the 1990s 1) altered the traditional state-Chaebol relations and 2) engendered the influx of foreign capital. These two factors, the paper argues, significantly contributed to appreciative pressures on KRW. The paper explains that the political vulnerabilities—and the resultant “policy exhibitionism”—of the Kim Youngsam (YS hereafter) government was behind this development while acknowledging that the liberalization was initially kicked off in the 1980s. The paper also finds that business pressures for depreciation were absent because doing so would have actually undermined the interests of Chaebols: the increasing trend of incorporation of their exporting sectors into the ‘global value chain’ heightened the cost of imported inputs and, thus, reduced the net gain of undervaluation significantly. Combined with the colossal amount of foreign currency-denominated debt they had to service, the paper argues, this fruitlessness of devaluation pushed Chaebol toward overvaluation.

The paper speaks to the literature on macroeconomic reform and democratization. The traditional literature tends to view heterodox reforms in populist regimes before and after democratization as a main culprit for a sub-optimal policy equilibrium as opposed to the case of non-populist Chile (e.g, Haggard and Kaufman 1995). This paper suggests that a similar result can be reached via full-fledged liberalization—and subsequent currency appreciation, when it takes place in a developmental regime around democratization. The key variable seems to be how the transformation of economic policies reshape governance, not the direction of the reform per se.

In addition, the paper offers an interesting implication for other emerging Asian

economies that have been developing through state-led growth such as China and Vietnam. Large business actors seem to have been born out of this rapid development via seemingly endless credit supply from the government. The Korean case suggests that these actors can create a dire predicament for sustaining the traditional development strategies when the very foundation of state control over society starts unraveling amid a political transformation. The government's attempt to appeal to the public may only exacerbate the situation.

The paper is composed of five sections. Following this introduction is a survey of theoretical literature on exchange rates, which helps show empirically that the values of KRW defied the theory-based predictions during the first half of the 1990s. The third section untangles the mystery of the lack of undervaluation by critically evaluating how the state lost control over financial markets amid the democratic transition as well as investigating the changing cost-benefit structure of Chaebol's exports, thereby letting the appreciative pressure on KRW bloat. The last section briefly reviews the findings and discusses the paper's implication.

2 Why the 1990s? The Gap Between Theory and Reality

2.1 Theories on Real Exchange Rates

Although there is a plethora of studies identifying the determinants of RERs (or the effect thereof), most of them fall into one of the three discrete theoretical strands in the international political economy literature. First, traditional understandings of real exchange rates (RERs) boil down to the notion that it is a gauge of international competitiveness (e.g., Balassa 1964). Since RER is 'the ratio of domestic and international prices', high RERs indicate domestic prices relatively higher than international ones, implying low international competitiveness of the economy's exports. The exact opposite is the case for undervaluation. Weak currencies indicate that goods produced domestically are cheaper than those produced internationally and, accordingly, have a competitive edge against imported ones. Hence, many practitioners (e.g., Rickards 2011) and academics (e.g., Rodrik 2008) view that RERs are an important policy tool in managing current account balance. When running a serious current account deficit, for example, devaluation is considered the most common solution.

Building on this traditional understanding, the 'sectoral framework' postulates that RER policies produce clear winners and losers domestically. Internationally oriented members of the market or 'tradables' producers benefit from undervalued currencies due to their positive effect on price competitiveness. Such actors include exporters and

traders. Domestically oriented actors or ‘non-tradables producers’ such as public sector employees prefer the opposite, overvaluation, because of its positive effect on their purchasing power (e.g., Frieden et al. 2001). RERs, in this regard, are determined by the orientation—i.e. international or domestic—of dominant economic actors, or the coalition thereof (Iversen and Soskice 2010).

Lastly, the ‘supply-side’ political economy literature highlights the general unpopularity of undervalued currencies given their negative effect on purchasing power of domestic economic actors (Frankel 2005). The literature thus contends that governments that are more insulated from general public’s day-to-day economic needs are more likely to depreciate or at least cling to undervaluation. In particular, the literature establishes that when the next election is much further down the road (Walter 2009), when a conservative government is in place (Bearce 2003), or when the time-horizon of the government is long (Steinberg and Malhotra 2014), undervaluation is relatively more likely.

2.2 The Prediction and the Reality

How much of the real KRW rates do the empirical expectations based on this line of literature (not) explain? To answer this question in a systematic manner, a simple panel regression model including independent variables accounting for the three theoretical strands is constructed.²

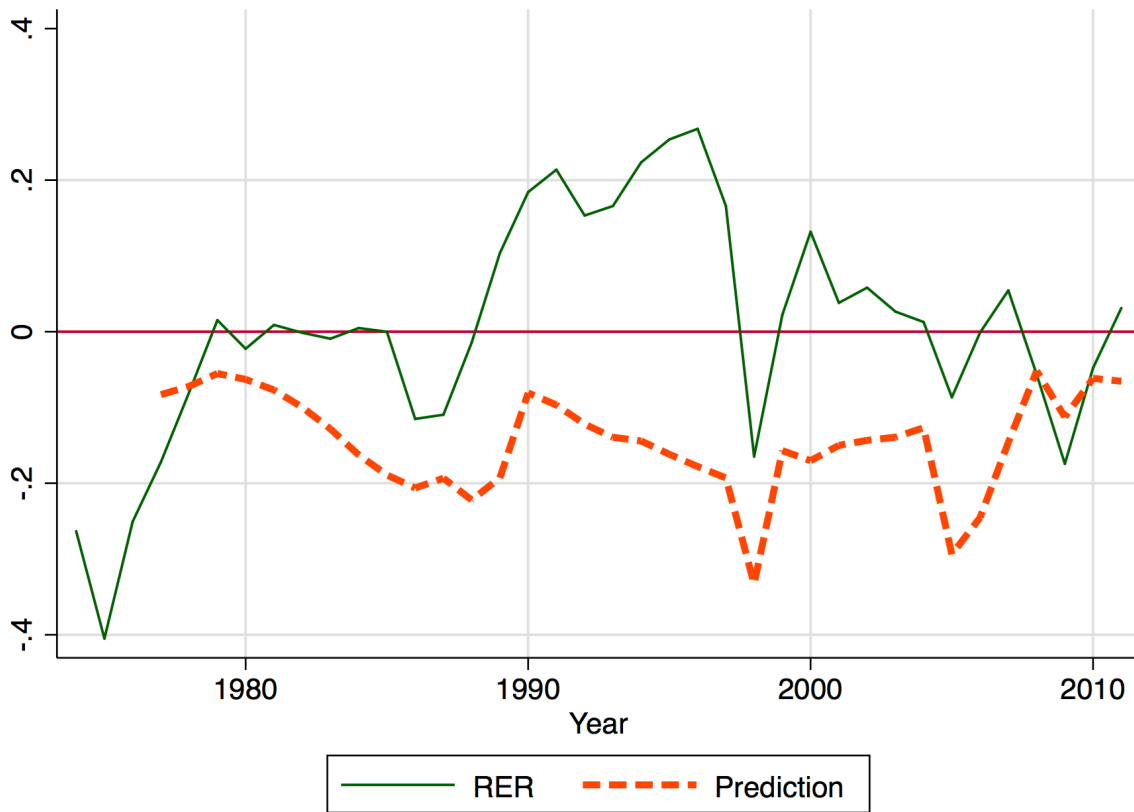
Figure 1 depicts the trends of the KRW RER data (solid line) as well as the fitted (i.e., projected) values (dashed line) based on the regression model. Values above (below) the zero line are considered to represent overvaluation (undervaluation) of KRW. The temporal trend of KRW’s RERs is largely consistent with the popular understanding of the Korean economic history. The noticeable degree of undervaluation during the mid-1970s represents the traditional industrial policy geared toward obtaining maximum price-competitiveness of exporting goods (Amsden 1989). The early to mid-1980s’ near-market equilibrium RERs indicate the Chun Doo Hwan government’s ‘regulated’ liberal adjustments following the debacle of 1979 (Woo-Cummings 1999). And the sharp devaluation in the late 1990s and mild fluctuations around the market equilibrium level (zero) thereafter are understood as consequences of the Asian Financial Crisis and the restructuring and adjustment that ensued in its aftermath.

The prediction made by the theories (dashed line) does not diverge too wildly from the actual trend of RERs during the 1980s as well as the post-crisis period. Though modestly lowballing, the prediction largely follows the directions—i.e. appreciating and depreciating patterns—of KRW movements during these periods with reasonably narrow margins.

A clear exception is, as numerically reported in Appendix Table A1, the period leading

²See Online Appendix for details on the regression model.

Figure 1: Predicted and Actual RERs of the won



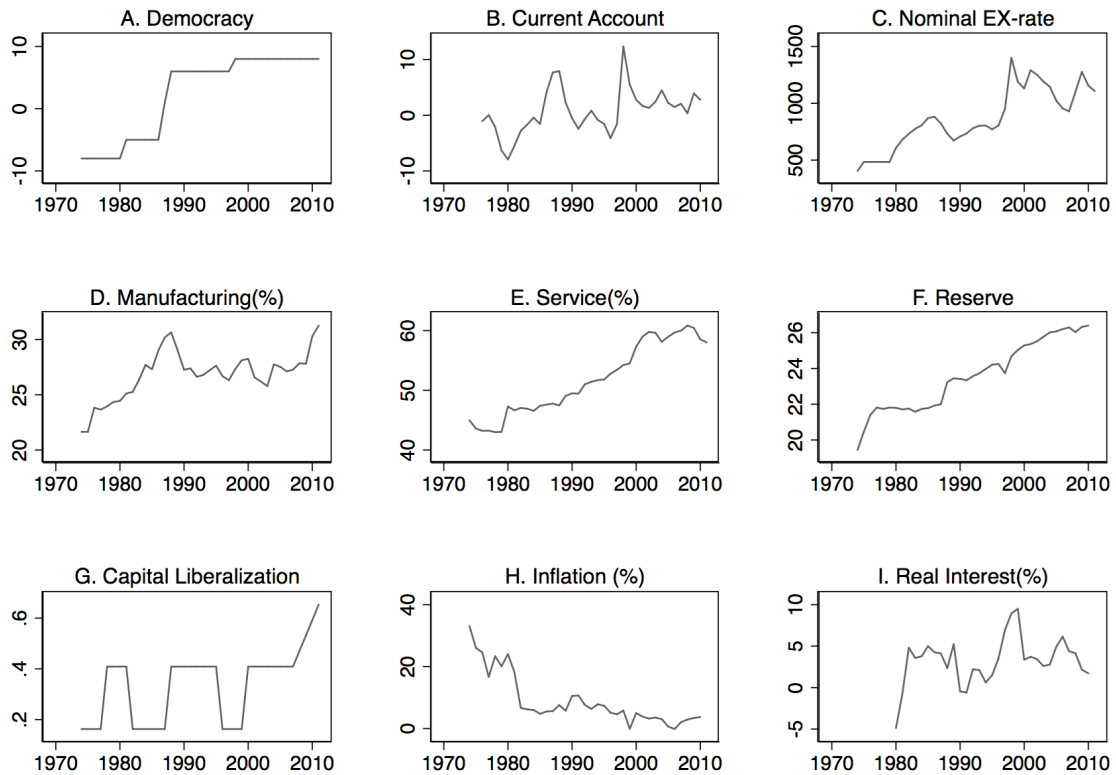
Note: The y-axis is the natural log of RER of KRW whereas the x-axis represents years. The solid line indicates the actual values of RERs while the dashed line is the predicted values based on Model (1) of Appendix Table A1.

up to the 1997 crash, namely the early to mid-1990s. Not only is the sheer size of the gap between the prediction and the actuality the largest in this period, the directions of their movements are also diametrically opposite. While the theory predicts a sharp depreciation (and constant undervaluation up to the eve of the 1997 crisis), the currency was rapidly appreciated in the late 1980s and early 1990s, eventually touching its pinnacle in the mid-1990s.

A qualitative examination of the time-series data reveals that none of the conventional theories indeed offers a compelling explanation as to why KRW appreciated drastically and remained grossly overvalued for a relatively long period of time—eight years.

The traditional understanding of the relationship between RERs and trade, first of all, does not seem to explain the lack of devaluation in the wake of mounting current account deficits of Korea in the early-to-mid 1990s. As the inverted ‘W’ shape in Graph (B) of Figure 2 indicates, turning to the 1990s, Korea started experiencing sharp decline in the balance of account and continued to do so well into the dawn of the 1997 crisis. A depreciation would have effectively curtailed these deficits, precisely because they were driven by the erosion of the price competitiveness of the Korean exports.

Figure 2: Trends of Selected Variables



Furthermore, such a depreciation would have been politically feasible. The persistence of large manufacturing sectors in the 1990s (Graph D of Figure 2) indicates the presence of a strong pro-devaluation coalition. More importantly, there was no national level election scheduled between 1992 and 1996, which helped free up the ruling Democratic Liberal Party from the woes over electoral backlashes against depreciation.

Macroeconomic factors were also pointing to depreciation. One of the most general concerns over devaluation in developing economies, hyperinflation, for instance, was only a remote possibility as shown in Graph (H) of Figure 2. Similarly, there was enough room for raising interest rates as well as abundance of foreign exchange reserves to keep currency speculators at bay in case devaluation was to create expectations for further weakening of KRW (Graph (I) of Figure 2).

One indicator that might point to overvaluation was the steady-growth of service sectors. As the ‘sectoral framework’ posits, service sectors benefit (suffer) from the increase (decrease) in the purchasing power generated by overvaluation (devaluation). The fact that the service sector in Korea increased over time (Graph (E) of Figure 2) pertains to the upward movement of KRW RERs in the 1990s. However, the structure of Korean service sector negates much of the possible influence that their growth would have brought about. Unlike the manufacturing sectors heavily concentrated on few Chaebol, the vast majority of Korean service sectors are made of small, self-employed family businesses

(Eichengreen et al. 2012, 114) and, thus, suffer from collective action problems even if they were to attempt to influence economic policies.

In short, given the underlying political and economic conditions of Korea, it was depreciation, not appreciation, of KRW that should have happened during the first half of the 1990s. What explains this discrepancy between the theory and the reality?

3 Unveiling the Mysterious Lack of Depreciation

Overvaluation of a currency indicates that appreciative pressures (the force that pushes up the RER from a market equilibrium) are consistently stronger than depreciative pressure (the force pushing down the value of the currency back to the market level). Continuation of overvaluation over an extended period of time is rather ‘unnatural’ since the latter almost automatically comes into play in an open economy as markets respond to the former. In practice, monetary authorities intervene in the currency market against this correction mechanism to sustain over- or under-valuation for various reasons.

Highlighting this simple macroeconomic framework in the historical context of South Korea points to important explanatory variables for KRW RERs that were not taken into account in the panel regression models above. That is, there were economic and political conditions in Korea that might have significantly influenced the monetary authority such that the values of KRW deviated dramatically from the natural course of action during the early 1990s. Three such conditions are considered here.

First, the government’s control over the financial sectors, namely, ‘financial repression’, played a critical role keeping Chaebol’s business operations subjugated to the state’s development strategies in general and competitive undervaluation in particular. The lack of such repression in the 1990s subsequently added up to an appreciative pressure on KRW. That is, as demonstrated below, exploring the course of financial liberalization is essentially examining a core mediating variable leading to the overvaluation of KRW. Second, the increase in input costs for manufacturing exports generated by devaluation, namely, exchange rate ‘pass-through’,³ was also an obstacle for undervaluation. If the goal of the traditional undervaluation of KRW was to attain price competitiveness of the country’s exports, increase in the pass-through would make devaluation a less attractive policy choice. Third, the YS government, a young democratic regime unusually sensitive to the national economic performance, attempted to portray itself as a competent economic policymaker and was less likely than its predecessors to undervalue KRW given its contractionary effects in the short-run. Such an obsession of government with strong performance indicators—which I call ‘policy exhibitionism’—drove other pro-appreciation

³Note that, for convenience, the pass through in this paper refers specifically to the effect of exchange rate changes on the price of imported (intermediate) goods. In principle, pass through includes exchange rate effect on *any* prices.

factors. Most notable of such was the end of financial repression, as doing so could easily bring about investment boom and short-term growth.

Undercurrent of these changes was the shifting relationship between the Korean state and Chaebol in the 1990s. The near-complete autonomy of the state almost evaporated in the midst of democratization and financial liberalization; the state became dependent on Chaebol and eventually the latter’s preferences were directly translated into exchange rate policies despite the indicators of a looming crisis suggesting otherwise towards the mid-1990s.

Table 1 summarizes these explanations. In what follows, I sequence the temporal variation of the three core independent variables—financial repression, pass-through, and policy exhibitionism—to illuminate how the unusual appreciative pressure on KRW came eventually came around in the 1990s.

Table 1: State Autonomy and Overvaluation of KRW

	– 1978	1980 – 1987	1988 – 1997
DV:KRW Valuation	undervaluation	market equilibrium	overvaluation
Independent Variables			
Financial Repression (–)	strong	mild	very weak
pass-through (–)	low	medium	high
Policy exhibitionism (+)	weak	weak	strong
State-Chaebol Relations	autonomous state	(weakly) autonomous state	dependent state

note: (+) indicates appreciative pressure when the variable is high (strong); (-) depreciative.

3.1 Undervaluation under Autonomous State (- 1978)

The foremost force that contained appreciative pressures during the 1960s and 70s well under the market equilibrium level was financial repression. Although it may take various forms, a feature common to any financial repression is strong state control over financial sectors, often against commercial banks’ own interests. The type of financial repression that the Korean military dictatorship undertook in the 1960s and 1970s was closely aligned with the state-led industrial policies that defined the ontology of Park Chunghee regime. During this period, commercial banks were effectively nationalized and the availability of non-bank resources such as stocks and securities was extremely limited (Woo-Cummings 1997). Hence, credit allocation toward major industry actors, particularly to Chaebol, was simply dictated by the government.

This lending practice, widely known as ‘policy loan’, provided the state with an unequivocally strong influence over Chaebols. Since the state monopolized the supply of credits, Chaebol had to rigorously follow the directives of the government, particularly

the Economic Planning Board (EPB) or, for the later part of this period, the Ministry of Commerce and Industry (MCI) to keep their businesses afloat (Haggard and Moon 1990). Firms grew highly leveraged and therefore a small change in discount rates made by the government could seriously damage their finance. Eventually, state intervention with the workings of Chaebol was considered as “internal directives of the corporate head office to its sub-units” (Lee et al. 2002, 19).

The state used this strong influence to establish a manufacturing-centered industrial system optimized for export-led growth, where undervaluation was a key conduit for competitiveness. Each Chaebol was assigned a specific manufacturing sector to specialize in. Indeed, ‘monthly meetings’ or ‘export reviews’ were held by the president’s office where Chaebol were summoned to brief how they accomplished the ‘export targets’ and offered bank credits accordingly (Amsden 1989). A strong depreciative pressure on KRW was a rather natural consequence of the ‘cheap money’ in this equation for export-led industrial buildup.

Financial repression also helped keeping KRW undervalued after the initial devaluation. Devaluation naturally creates upward pressure on interest rates given its implication for inflation and monetary expansion. The upward pressure on interest rates in turn appreciates the currency. The Park government broke this natural cycle and kept KRW undervalued by providing Chaebol with the same low lending rates (Steinberg 2015). Given the reduction in profitability of the banks such arbitrary lending decisions caused, it is not hard to see that keeping KRW undervalued would have been difficult had there not been financial repression of the state.

The complete control over the financial system also meant that the state could easily suppress the inflow of foreign borrowings as well as the appreciative pressure originating from it. With the exception of the aftermaths of the two Oil Shocks, external borrowing was constrained, managed, and monitored by the government for the majority of the 1960s and 1970s (Sakong 1993), keeping appreciative pressures mild.

Even when credit needs surged, the autonomous state was able to effectively suppress them such that the appreciative pressure did not balloon. The 1972 devaluation was a good example. Following the inflation shock in 1971, KRW appreciated against USD. When the government devalued the currency, a slew of firms with foreign liabilities rushed to the ‘curb market’ despite its significantly high interest rates (Sakong 1993). This shift in the financial landscape of Korea could have appreciated KRW, had the curb market turned to foreign lenders in order to meet the demands of the domestic firms in desperate need of credits. Instead, the government intervened forcefully adjusting curb-market rates as well as providing preferential credits where necessary (Lai 2012), both of which helped suppress the upward pressure on KRW.

Another factor to be considered is the de facto reduction of the pass through of devaluation. The devaluation increased the production costs of their exports along with the

price hikes of intermediate goods, raw materials, and energy for which Korean companies had to rely almost entirely on imports. Tax breaks and government-funded infrastructural investments (e.g., ‘industrial complexes’), however, canceled out the effect of much of these cost increases (Graham 2003). In addition, the prices of key imports such as petroleum was directly controlled by government, further curtailing the effect of devaluation on the ‘input cost.’ The pass-through, therefore, was minimized until the late-1970s.

On the political front, the government was essentially insulated from the possible societal backlashes to devaluation. The political mechanism that might have put upward pressure on KRW was not at play in this period: Freedom of assembly was suppressed, the media were controlled by the government and, particularly under the totalitarian Yushin system put in place by the Park regime in 1972, all political activities of opposition parties became effectively illegal. Consequently, the very source of public abhorrence of devaluation, namely, reduction in purchase power of ordinary citizens and other contractionary effects (Frankel 2005), could not materialize into any substantive collective action against the government until early 1979 by which time the situation became too dire.

In short, all three independent variables—strong financial repression, low pass-through, and little need for consulting societal actors—point to undervaluation in the reign of Park Chunghee and his military government.

3.2 Stabilization and Market-equilibrium Rates (1980-1987)

Beginning from the mid- to late-1970s, the very foundation of the long-standing undervaluation started overheating the economy. The relatively cautious approaches to development plans based on checks-and-balances within the government that used to sustain the efficiency of the industrial policies quickly waned by the mid-1970s (Woo-Cummings 1997). Such changes were made against the backdrop of the HCI (Heavy-Chemical Industrialization) drive. This ‘big push’ towards output growth was put forth directly by the Blue House. Credit offering for Chaebol became even more aggressive than before, entailing dramatic increases in the investment in manufacturing sectors. The production capacity of these sectors completely outgrew the market demand as a result. Combined with the Second Oil Shock, this excess eventually led to cataclysmic collapse of KRW in early 1979 as well as a series of civil unrest in the southern areas of the country, culminating in the assassination of Park in late 1979.

The call for reining in the unhinged industrial expansion and reforming the perverse economic structure had already been made within the government at the dawn of the meltdown. Given the looming political and economic crises, in 1979, the EPB outlined a number of stabilization goals while bringing in the US-educated economic technocrats such as Jaeik Kim, Sukjun Suh, Kihwan Ki, and Kyungsik Kang (who later led the fi-

nancial liberalization in the 1990s). As in many other countries (Chwieroth 2007), the neo-classically minded team diagnosed that the economic difficulties arose from excessive government intervention in the market. They proposed a restructuring scheme, ‘Comprehensive Measures for Economic Stabilization’, including radical financial liberalization. Although initially disputed by arduous statisticians in the government, the plan did partially materialize after these neoclassical technocrats gained considerable political grounds under the new military regime of Doohwan Chun (Ji 2011; Haggard and Moon 1990). The Reagan administration, particularly the State Department, also advised financial liberalization, lending extra support to the new team (Woo-Cummings 1997).

The restructuring that started out as import liberalization and tariff reduction in the early 1980s soon expanded to partially liberalizing lending practices. The measures through which the state exerted influence over Chaebol started disappearing: some of the commercial banks were partially privatized; the restrictions to investing in the non-bank financial institutions (NBFIs), many of which were already owned by Chaebol, were loosened; interest rates were partially liberalized; ‘export review’ was practically abolished (Lim 2009); Chaebol now had access to new sources of financing, namely, securities and stock markets (Woo 1991). As a result, monetary base expanded significantly in the early 1980s forming a considerable appreciative force on KRW.

Yet, the 1980s’ liberalization was largely “embedded” in industrial policies (Amsden and Euh 1993) and therefore a “regulated deregulation” (Woo-Cummings 1999). Not surprisingly, the ways in which the state controlled Chaebol and exchange rates of KRW was not fundamentally altered. First of all, the financial repression was not entirely lifted. The privatization of commercial banks were only partial and the Ministry of Finance (MoF) maintained virtual control over core functions of the banks through informal channels called ‘window guidance.’ The most notable example was direct phone calls made by the minister to presidents of commercial banks regularly in order to pass down the directives of the government (Amsden and Euh 1993, 382). Consequently, interest rates offered for Chaebol, albeit ‘liberalized’, were much lower than it would have been without the government influence.

Foreign liabilities actually decreased during this period. With diversified sources of financing and low interest rates, Chaebol’s reliance on foreign credits decreased despite the partial liberalization of capital accounts. More importantly, much of the 1970s’ lending practice, policy loan, was still in place. Although the volume of domestic credit decreased marginally in the early 1980s, the portion of preferential financing, most of which was for Chaebol, increased based on the state’s previous commitment to selected exporting sectors (Haggard and Moon 1990, 225). In addition, some of the highly leveraged large companies were forcibly liquidated, further easing overall anti-devaluation forces although the regime’s motivation for such a push was sometimes scandalous (Kang 2002, 187-188). Despite Chaebol’s rather fierce complaints (Shim and Lee 2008; Lee et al. 2002), the

Chun government's macroeconomic policies were consistently focused on cooling down the overheated economy and restructuring the over-stretched industrial structure. A significant depreciative pressure that the continuing state control over the financial sectors engendered, therefore, negated the appreciative pressure from the liberalization.

Nor did the new military regime itself favor overvaluation. Though new, the government inherited most of the means of violence from the Park regime and secured support from the Reagan administration. Political activities were still heavily limited. Most importantly, the initial success of stabilization added to the regime's confidence on their economic policies and dispelled the woes over the re-emergence of popular uprisings triggered by hyperinflation in 1979. Therefore, the Chun regime did not have urgent incentives to appease the public by appreciating the currency, unlike the prototypical post-hyperinflation situations in many Latin American countries (Haggard and Kaufman 1995).

In sum, the liberalization in the 1980s did create some upward pressure for KRW as it eased financial repression. Such an easing, however, was not enough to completely alter the monetary policies of the new military regime. The state maintained control over much of the financial sectors as well as Chaebol such that depreciative, or counter-appreciative, pressures still existed. With the two opposite forces offsetting each other, the real value of KRW was kept around the market equilibrium level for the most of the 1980s.

3.3 Financial Liberalization and Overvaluation (1988-1997)

The late 1980s and particularly early 1990s witnessed dramatic acceleration and deepening of the financial liberalization that had been set in motion under the Chun regime. Massive influx of foreign capital inflows ensued. Combined with growing pass-through of devaluation, financial liberalization eventually led to large and lasting overvaluation of KRW.

3.3.1 Initial Appreciation (1988-1992)

At the heart of this dramatic shift in the macroeconomic landscape of Korea was democratization. The united front of anti-authoritarian movement led by student organizations, religious leaders, and other civil society groups forced the Chun regime to concede to the demand for democratization in 1987. The first democratic government, despite the accusation of being an extension of the Chun regime, or a *dictablanda* (Kim 2000, 118), faced a qualitatively different political environment where state influence was quickly waning in all societal dimensions. The new government acknowledged that Chaebol were dissatisfied with the Chun regime's repressive stabilization policies and rather "predatory" demand for political contribution (Narayan 2013). At the same time, the rest of the society started wielding profound influence over the government given their increased or-

ganizational capacity. Furthermore, the general election in 1988 turned out devastating for the ruling Democratic Justice Party which gained barely over forty percent of the parliamentary seats.

Upon this line of political vulnerabilities, the Roh government initially sought allies from “farmers, labor, and small and medium-sized business” (Haggard and Moon 1990, 235). The anti-inflationary price-control measures were abandoned to appeal to farmers; NBFIs were further liberalized such that small and medium-sized business could have easier access to credits; labor rights protection, while still limited, improved significantly. These policy changes quickly translated into appreciative pressures on KRW. As shown in Figure 2, inflation surged and touched on the double-digit level between 1989 and 1990 (Graph (H)) and real interest rates plummeted to zero (Graph (I)). In addition, real wage increased, though not as dramatically as during the late 1970s, following a series of labor disputes mushrooming around large industrial complexes (McKay 2003).

The continuation of financial liberalization provided further boost to KRW appreciation. According to the “Plan for Internationalization of Financial Market” announced in late 1988, which was a follow-up on the initial financial ‘internationalization’ of the Chun government, much of the restrictions on capital and stock market transactions were eliminated (Park 2009, 315-316). The most notable change was dramatic easing of the restriction on foreigners’ participation in Korean stock market that was initially strictly controlled in fear of foreign control of domestic financial flows (Amsden and Euh 1993). This liberalization naturally allowed massive foreign capital inflow around 1990, contributing to the appreciative pressure on KRW.

External conditions during the mid- to late-1980s also played an equally, if not more, important role in adding up to the upward pressure on KRW. The Plaza Agreement of 1985, for example, dramatically depreciated the US dollar. A series of financial panic ensued, leading to Japanese interest rate dive in an attempt to provide liquidity.⁴ In addition, the widening trade deficits between US and Korea during the mid-1980s turned the relatively weak KRW into a political agenda in Washington (United States General Accounting Office 1989), putting direct pressure on the Roh government. This line of events formed an exogenous appreciative pressure on KRW in the late 1980s and early 1990s.

3.3.2 Long-Lasting Overvaluation (1993-1997)

As much as the degree of the appreciation between 1988 and 1992 was unprecedented, it would not have been much of a surprise if depreciation followed to ‘correct’ the bloated KRW rates. After all, the appreciation was the function of domestic (continued financial liberalization) and external factors (Plaza Agreement), both of which were still in the

⁴Japanese interest rates along with West Germany’s bounced back in 1988 but plummeted again in 1990 and was kept low well into 1992.

purview of the traditional theories on exchange rate movements. By 1993, the external factors effectively faded away. KRW was expected to depreciate. The solid line in Figure 1, the actual RER of KRW, shows otherwise.

The three variables—financial repression, pass-through, and policy exhibitionism—that explain the RERs of KRW for previous periods are still of particular importance in illuminating this surprise. The most direct contributor to the appreciative pressure was the dramatic acceleration of financial liberalization. The Five-Year Financial Liberalization Plan announced with the inauguration of YS widened the channels in which foreign capital flew into Korea on all possible fronts: interest rates were entirely deregulated; a considerable degree of managerial autonomy was granted on commercial banks; capital account was now completely liberalized; the minimal restriction still attached to access to NBFIs was lifted (Lim 2009). This all-around liberalization left the government very little to be called ‘financial repression’.

The pinnacle of the financial liberalization was the end of policy loan. Until the late 1980s, Chaebol were still largely dependent on the state for their access to credits and the Korean firms’ “unusually high propensity to conform to the industrial policy goals of the state” (Woo 1991, 120) was still the norm. Leveraging this situation, the state attempted to rein in Chaebol’s inefficient expansion and contain them in the traditional role—engines for export-led growth. Aside from the 1970’s explicit repression, regulation of real-estate speculation (Lee et al. 2002) and the promotion of research and development spending increase during the late-1980s were implicitly linked to the preferential allocation of credits in the future.

The YS government officially abandoned this powerful policy apparatus condemning such practice as “Korea Disease” in 1992 (Um et al. 2014). The end of state-sponsored credit supply had two implications for KRW overvaluation. First, unshackled from the state’s traditional directives towards export-promotion that sometimes undercut their own interests, Chaebol now scrambled for expansion. Even when they lacked the competitive edge in some of the sectors they ventured into, the expansion itself was still highly lucrative. At the very least, the capital holdings from owning real estate of a new subsidiary far exceeded the loss coming from the incompetent business operation as real estate price kept soaring in this period. The financial damage done by the expansion, furthermore, was dealt with their own financial companies, particularly insurance firms, which they were newly allowed to own as a result of the liberalization (Shim and Lee 2008).

Second, the end of policy loan also transmitted this expansion fever to offshore credit markets. Since the very foundation of Chaebol had been debt-financing, the ending of cheap and stable credit supply from the state meant that these giant conglomerates had to seek an alternative source to keep their business afloat. With the opening of the financial market to foreign creditors, consequently, binge-borrowing from abroad ensued

to fund Chaebol's explosive expansion. Indeed, between 1994 and 1996, the foreign debt-financed investments by large enterprises grew 45.7 per cent (Haggard and Mo 2000, 200). A strong appreciative force was built up, consequently.

While this deepening/acceleration of financial liberalization explains the strong appreciative power in the early 1990s, it does not offer answers as to *why* such changes of pace came around. In other words, why did the YS government embark on this seismic policy switch instead of reining in the rapid appreciation as its predecessors would have done?

The answer lies in the 'policy exhibitionism'—a tendency to propagandize governments' policy competency—prevalent in nascent democratic regimes. Young democratic regimes are often viewed as mandated to prove that "democracy works" (Brender and Drazen 2007, 2). Given that key stakeholders of the new regime—bureaucrats, civil societies, and/or ordinary citizens—might break away from the new political arrangements upon disappointing performances of the government (O'Donnell 1973), economic success is generally deemed key to completing democratic transition (Bratton and Lewis 2007). This was particularly true in Korea where citizens' "self-image rests on [the nation's] economic prowess" (Eichengreen et al. 2012). The once pro-democratic citizens would turn away from democratic values, and YS himself, if the new regime's transcript for economic performance did not live up to this high expectation (Son 2016). To consolidate the new-born democracy and fend off the pressure for autocratic reversal that would not allow civilian involvement in governance, the YS government in 1993 needed a demonstratable economic success almost instantaneously—or at least fast enough to keep up with the swift reforms in other policy areas (Kim 1997b). Impetuous, Soviet-style policy schemes such as 'New Economy 100-Day Plan' (Kong 2013) launched in early 1993 actually signify the desperation of the YS government to accomplish this goal in time.

Such a success could not be attainable without the cooperation with Chaebol, which, by 1984, had already accounted for the absolute majority of the national economy as the top-fifty Chaebol's sales were as large as 90% of the country's GDP (Fields 1995). By 1992 mere ten Chaebol accounted for over 30 % of the GDP (Kim 2012, 19). Therefore, allowing, and perhaps encouraging, the expansion of these concentrated businesses would be an efficient, if not the most efficient, way to produce a visible positive outcome on the national economy in the short-run.⁵ Despite its appreciative effect on KRW, dramatic acceleration of financial liberalization in this respect can be understood as the state's means of catering to Chaebol's needs by severing the old string for controlling them.

From the standpoint of Chaebol, this change in the government's policy orientation was in fact long time coming. Even in the initial phase of the financial liberalization, that is, in the mid-1980s, Chaebol started making a unified voice through agents like

⁵Indeed, the heated investment boom and mushrooming subsidiaries of Chaebol companies plunged the unemployment rate to around 2 % in 1995 (KOSIS 2016).

the Federation of Korean Industries to lead the government policies to their advantage (Haggard and Moon 1990; Shim and Lee 2008). After the rather ambivalent relationship with the Roh government, Chaebol's effort to shake off the state influence on their business operation intensified. By promising increase in investment and job growth, Chaebol accomplished this goal rather early on in YS's presidency. The old-fashioned government intervention/consultation on Chaebol business was now nearly invisible. Not only did the liberalization grant Chaebol independence from the state intervention, it also provided them with new rules tailored to Chaebol's interests in patrimonial corporate governance. Despite Chaebol's appetite for offshore financing, for instance, long-term investment and equity participation were not open to foreign investors even after the liberalization because of the big conglomerates' concerns over international challenges to their corporate ownership (Kalinowski 2008, 225).

In essence, the 1990s' appreciation was a function of the vulnerability of the new civilian government to national economic performance or, simply, strong policy exhibitionism. The government found promoting the already-overgrown Chaebol businesses through financial liberalization to be an efficient model in order to overcome this vulnerability. In so doing, the state lost the critical tool with which it used to influence Chaebol and formulate industrial policies—financial repression.

Not only did the state let Chaebol become independent of its influence, it also became rather dependent on it. The financial liberalization and the resultant appreciation further amplified the size of Chaebol. In 1997, for example, the total assets of the top-fifty Chaebol alone explained 70.71% of the national GDP, a 18-point increase from 1992 (Wi 2014, Table 1). In order to keep up the good record in the first year, the government had to keep accommodating Chaebol needs. The input of Chaebol demand was made into the government through the remnants of the old-fashioned developmental state. For example, the organizational structure that tied the bureaucrats and Chaebol such as the 'revolving doors' was still upheld, creating inter-personal channels through which Chaebol could communicate their needs with policymakers directly. In fact, researchers lament that, by the mid-1990s, the state was "captured by Chaebol" (Lee et al. 2002, 20).

In addition to helping explain the initial formation of appreciative pressure on KRW, policy exhibitionism also provides some useful answers as to why the state was reluctant to depreciate in the later phases despite the loss of price competitiveness, ballooning debt-burden, and, thus, a looming crisis. That is, once the recipe for a quick and easy success based on Chaebol's expansion was established, it was hard for the YS government to depreciate KRW, which would certainly curb the upward growth trend. Specifically, when the government boasted in 1995 that the country's Gross Domestic Product (GDP) per capita reached \$10,000, a level somehow considered by many the milestone on the road towards the 'developed' world, depreciation that would by definition plunge the figure was deemed unacceptable (Lee 2003, 63).

Financial liberalization, of course, was not solely driven by the policy exhibitionism and changing state-Chaebol relations. One important factor that pushed for lifting state regulations in the financial sector came from abroad. The wave of global financial openness swept through much of the developing world during the early 1990s after the end of the Cold War. Korea in particular received a hefty pressure for liberalization from the Western world, particularly from the United States.

It is not clear, however, if such external pressures had any independent effect on initiating or accelerating the financial liberalization in Korea. After all, the groundwork for the liberalization was put forth in the early 1980s before the pressure for liberalization intensified with the Plaza Accord. Much of the acceleration of liberalization including the ending of policy loans and complete privatization of commercial banks, by contrast, come about too late and too abruptly given that the external pressure ramped up quite gradually from the mid-1980s.

Rather, the external pressure was used by the government as an excuse to usher in unfamiliar, radical measures. The joining of the Organization of Economic Cooperation and Development (OECD) was the most notable example. Despite the strong opposition from political rivals as well as academics, the YS government vigorously pursued the membership of the OECD. The prerequisite for the membership included extensive economic liberalization and abolishing the traditional industrial policies, which the YS government identified as “the price to be paid for the admittance to the OECD” (Lai 2012, 46). Since being part of ‘the rich’s club’ was considered prestigious, it was believed to alleviate the concerns of the public and the old elites over the consequences of the liberalization.⁶ In addition, the membership in itself could be a trophy of the much-needed economic success of the nascent regime (Ji 2011).

An alternative to the ‘policy exhibitionism’ explanation for financial liberalization (and thus, KRW appreciation) deserves a discussion here. One could argue that the liberalization can be understood as an extension, not a demise, of the traditional mercantilistic policy orientation. The financial opening was certainly one of the tenets of the YS government’s *Segehwa* (globalization) drive, which embodied the country’s “survival strategy” in the globalizing world (Shin 2006, 212). Here the liberalization is construed as a conduit to a broader pool of global capital that could fund the newly developing sectors, thereby maintaining the national industrial competitiveness. This narrative also resonates with the dominant discourse among the aforementioned neoclassical technocrats, now holding key policymaking positions in the 1990s (Gills 1996).

This argument has its own merit in that it highlights the legacies of the developmental

⁶It is worth noting here that the scope of liberalization the OECD membership entailed, while quite extensive in the Korean context, was by no means up to par with the Organization’s general standard. The government was actually allowed unusual leeway in fulfilling the membership requirement of financial liberalization. As Noland (2007, 494) notes, the government “used [the] exceptions remit liberally, accepting only 65 percent of the OECD’s financial system codes.”

state in some policy areas lingered well into the 1990s, if not later (Um et al. 2014). However, the argument is not necessarily at odds with the policy exhibition explanation and thus is ultimately not an ‘alternative’ to it. As Pirie (2008, 90–92) notes, the centerpiece of the liberalization, funding new projects and honing competitiveness, was geared toward assisting the expansion of the Chaebol businesses. More importantly, some analysts posit that the government’s motive for such a drive actually rested in part upon YS’s political ambitions to “develop a higher international profile” and thus “differentiate himself ... from the generals” (Pirie 2008, 94), a view consistent with the policy exhibitionism argument.

Although policy exhibitionism is such a powerful tool to explain the strong appreciative pressure on KRW in the 1990s, it does not address one puzzle: the excessive degree of overvaluation and Chaebol’s relative indifference to it. While depreciation would directly exacerbate Chaebol’s foreign debt burdens, the competitiveness-reducing effect of appreciation should have been worrisome for them given that they were still primarily large exporters. More sensible option for Chaebol would have been opting for *mild* depreciation to the point at which KRW is still overvalued, but not too drastically, such that they still had access to relatively easy foreign credits while their exporting sectors were not damaged too much. Given the newly established Chaebol-state relationship in the 1990s, such a plan should have been easily implemented. As Figure 1 indicates, that did not happen, however. Indeed KRW was even more overvalued in the mid-1990s, indicating that Chaebol appeared rather inactive at demanding some degree of depreciation.

Why would Chaebol not stop shooting in their own foot (too much)? The answer lies in the dramatic increase in the exchange rate pass through driven by the economic globalization of Korean manufacturing sectors, particularly its inclusion in the ‘global value chain’ (GVC). GVC refers to the phenomenon in which production becomes fragmented, “with components crossing numerous international borders” (Cheng et al. 2014, 4). Manufacturers in GVC, in other words, tend to import ‘semi-finished,’ intermediate goods instead of maintaining the entire production line.

This implies that competitiveness-enhancing effect of currency depreciation is nullified with the expansion of GVC. If a exporting firm uses imported intermediate goods extensively, depreciation would not really help improve its profit margins because the resultant price competitiveness those goods obtain is canceled out by hiking costs of importing intermediate goods to produce them. In this sense, it is plausible that Chaebol did not actively demand depreciation—that is, toning down the outrageous appreciation—because in the 1990s, the pass through grew large. For instance, Walter (2008, 425) observes that by 1997 the Korean economy came to focus on “technologically advanced, high value-added products” and therefore its exports were “not particularly [sensitive] to the real price effects of depreciation.”

Examining a metric that directly measures the net price effects of exchange rate

movements, namely, ‘import contents of exports’ (ICE) of the major Chaebol exporters lends a strong support to this empirical expectation.⁷ Many of the high-ICE industries were indeed the major exporters of Chaebol.

Table 2: Core Sectors of Chaebol

<i>Chaebol</i>	Core Sector
Hyundai	Automobile, Construction, Electronics, Chemical, Financial service
Samsung	Electronics, Trade, Other services
Daewoo	Automobile, Machinery
LG	Chemical, Telecommunication, Other services
SK	Chemical, Telecommunication, Construction

Source: Hwang et al. (2000). Proposed in the negotiation between the ‘Big-5’ Chaebol and the government over corporate restructuring (12.27.1998).

Table 2 presents the industries identified as the ‘core’ of the top-5 Chaebol in a series of government-business negotiation on the post-crisis work-out scheme in late 1998. As the result of this work-out would be liquidation of Chaebol’s subsidiaries in non-core sectors, the list in Table 2 is indeed what Chaebol themselves believed to be the most integral part of their businesses.

What the table reveals is that Chaebol were deeply invested in the high-ICE sectors as of the 1990s. At least two of the three high-ICE sectors (see Appendix Table A1 for details), namely, electronics, chemicals, and telecommunication, were identified to be ‘essential’ by of four of the top-5 Chaebols. Depreciation in this sense would not have engendered much net profit for these Chaebol as the cost of importing intermediate goods rise accordingly.

More important is that Chaebol’s deep involvement in these sectors was an increasing trend from the early to the late 1990s. Appendix Figure A2 depicts the growth rates of selected sectors of Chaebol between 1992 and 1997. The fact that the growth rates almost always stay positive and, when comparing the beginning and ending points, are in upward trends in the long-run indicates that not only did the size of Chaebol in these sectors keep increasing over time, but also the rate of such increase accelerated in all three high-ICEs sectors. Indeed, this is where the bulk of Chaebol’s investment during the late 1980s and early 1990s were funneled into. In other words, throughout the 1990s, the expected gains of exchange rate policies for Chaebol’s export progressively shrank and, thus, they must have grown increasingly disenchanted with the old-fashioned devalue-for-export strategies.

Given the colossal sum of foreign liabilities they were carrying, this modest to little benefit of export was simply not enough to motivate Chaebol to demand depreciation.

⁷Online Appendix A3 presents detailed discussion of the ICE data.

The result would have been too damaging to these over-leveraged firms. In effect, as the burden of foreign debt outweighed that of declining overseas sales, it was reasonable for Chaebol to fiercely resist depreciation and lobby the government for further overvaluation.

4 Conclusion

The paper is the first political economy analysis on the causes of overvaluation of KRW during the early and mid-1990s. It finds that the shifting Chaebol-state relations amid democratic transition altered the government's monetary policy priorities. Unlike the traditional developmentalist exchange rate policies focused on generating current account surplus, Chaebol's dominance over their relations with the state led to the acceleration of financial liberalization, condoning the appreciation of KRW during much of the 1990s. The inclusion of Chaebol into the global value chains also contributed to the enduring appreciation by diminishing net benefits of competitive devaluation.

The paper makes an important contribution to the political economy literature by extending the empirical domain of currency overvaluation to an unlikely region, East Asia. It has been traditionally Sub-Saharan Africa (Bates 1981) or Latin America (Steinberg 2015) where literature found the significance of overvaluation. That is, deliberate strengthening of currency was understood as a tool with which populist and/or predatory political regimes catered to the interests of strong societal groups in regions where the strong state capacity was lacking. By contrast, this paper finds that lengthy periods of overvaluation is observed in East Asia and it is precisely because there once was a strong state: The way in which a strong state that initially produced undervaluation-driven export-led development in East Asia—state financing of Chaebols—eventually undercut the relative strength of the state and when the balance was tipped, financial liberalization and overvaluation may be inevitable.

The paper also stands in line with the newly growing body of literature on the economic performance of nascent democracies. The literature depicts the leaders of these regimes as “lacking policy track record” (Keefer 2007) and thus eager to “devote resources to increasing the probability of a good [economic] outcome” (Brender and Drazen 2007, 15). The YS government's obsession with visible economic accomplishment and reliance on Chaebol, which led to financial liberalization and, in turn, overvaluation, maps neatly into this portrayal of young regimes.

The conclusion of this paper has important policy implications for emerging economies in Asia that have adopted state-led growth strategies since the 1990s. Large companies in both China and Southeast Asia have been accumulating a worrisome amount of liabilities. Similarly to Chaebol, these companies had been initially nurtured by the state and are now accounting for large portion of the national economy. As these economies' growth is slowing down due largely to the shrinking volume of export, devaluation would be a viable

short-term macroeconomic policy choice. If heavily leveraged large firms exert influence on the monetary policies, as Chaebol did in Korea, however, such a strategy would be hard to come by. And when devaluation is not feasible and the authorities cannot tame the appreciative force on their currencies, it would prove that the developmental state in these economies ultimately has come to an end.

References

- Amsden, A. (1989). *Asia's Next Giant: South Korea and Late Industrialization*. Oxford University Press, New York.
- Amsden, A. H. and Euh, Y.-D. (1993). South korea's 1980s financial reforms: Good-bye financial repression (maybe), hello new institutional restraints. *World Development*, 21(3):379–390.
- Balassa, B. (1964). The purchasing-power parity doctrine: A reappraisal. *Journal of Political Economy*, 72(6):584–596.
- Bank of Korea (2011). Bank of korea economic statistics system. <http://ecos.bok.or.kr/http://ecos.bok.or.kr/>.
- Bates, R. H. (1981). *Markets and states in tropical Africa: the political basis of agricultural policies*. University of California Press, Berkeley.
- Bearce, D. H. (2003). Societal preferences, partisan agents, and monetary policy outcomes. *International Organization*, 57:373–410.
- Beck, H., Clarke, G., Groff, A., Keefer, P., and Walsh, P. (2001). New tools in comparative political economy: Database of political institutions. *World Bank Economic Review*, 15(1):165–176.
- Bratton, M. and Lewis, P. (2007). The durability of political goods? evidence from nigeria's new democracy. *Commonwealth & Comparative Politics*, 45(1):1–33.
- Brender, A. and Drazen, A. (2007). Why is economic policy different in young democracies? affecting attitudes towards democracy. NBER Working Papers. 13457.
- Cheng, K., Rehman, S., Seneviratne, D., and Zhang, S. (2014). Reaping the benefits from global value chains. IMF Working Paper 15-204, Washington, DC.
- Chinn, M. D. and Ito, H. (2006). What matters for financial development? capital controls, institutions, and interactions. *Journal of Development Economics*, 81(1):163–192.
- Chwioroth, J. (2007). Neoliberal economists and capital account liberalization in emerging markets. *International Organization*, 61(2):443–463.
- Eichengreen, B., Perkins, D. H., and Shin, K. (2012). *From Miracle to Maturity: the Growth of the Korean Economy*. Harvard University Press, Cambridge.
- Feenstra, R. C., Inklaar, R., and Timmer, M. (2013). Penn word table 8.0 - a user guide. <http://www.rug.nl/research/ggdc/data/pwt/pwt-8.0>, Philadelphia, PA.

- Fields, K. J. (1995). *Enterprise and the State in Korea and Taiwan*. Cornell University Press, Ithaca, NY.
- Frankel, J. (2005). Contractionary currency crashes in developing countries. NBER Working Paper 11508. Available at: <http://www.nber.org/papers/w11508.pdf>.
- Frankel, J. and Rose, A. (1996). Currency crises in emerging markets: An empirical treatment. *Journal of International Economics*, 41(2):351–366.
- Frieden, J., Ghezzi, P., and Stein, E. (2001). Politics and exchange rates: A cross-country approach to latin america. In Frieden, J. and Stein, E., editors, *The Currency Game: Exchange Rate Politics in Latin America*, pages 21–63. Johns Hopkins University Press, Baltimore.
- Gills, B. K. (1996). Economic liberalisation and reform in south korea in the 1990s. *Third World Quarterly*, 17(4):667–688.
- Graham, E. M. (2003). *Reforming Korea's Industrial Conglomerates*. Peterson Institute for International Economics, Washington, DC.
- Haggard, S. and Kaufman, R. R. (1995). *The Political Economy of Deomocratic Transitions*. Princeton University Press, Princeton.
- Haggard, S. and Mo, J. (2000). The political economy of the korean financial crisis. *Review of International Political Economy*, 7:197–218.
- Haggard, S. and Moon, C.-I. (1990). Institutions and economic policy: Theory and a korean case study. *World Politics*, 42(2):210–237.
- Hwang, I., Lee, I., Seo, J., Lee, B., and Han, H. (2000). *Chaebol Guchowa Chaebol Chungchaek [Corporate Structure of Chaebol and Chaebol Policy]*. Korean Economic Research Institute, Seoul.
- Iversen, T. and Soskice, D. (2010). Real Exchange Rates and Competitiveness: The Political Economy of Skill Formation, Wage Compression, and Electoral Systems. *American Political Science Review*, 104(3):601–623.
- Ji, J. (2011). *Hankuk Shinjayujuewiewi Giwongua Hyungseong [The Origin and Formation of Korean Neoliberalism]*. Chaksesang, Seoul.
- Kalinowski, T. (2008). State-civil society synergy and cooptation: The case of the minority shareholder movement in korea. *Korea Observer*, 39(3):339–367.
- Kang, D. C. (2002). Bad loans to good friends: Money politics and the developmental state in south korea. *International Organization*, 56(1):177–207.

- Keefer, P. (2007). Clientelism, credibility, and the policy choices of young democracies. *American Journal of Political Science*, 51:804–821.
- Kim, E. M. (1997a). *Big Business, Strong State: Collusion and Conflict in South Korea Development, 1960-1990*. State University of New York Press, Albany.
- Kim, J. (2012). Gyeongje minjuhwa chaebol gaehyeok [economic democratization and chaebol reform]. *Saramgwa Jeongchaek [People and Policy]*, 3(1):10–28.
- Kim, S. (1997b). State and civil society in south korea’s democratic consolidation: is the battle really over? *Asian Survey*, 37(12):1135–1144.
- Kim, S. (2000). *The Politics of Democratization in Korea: The Role of Civil Society*. University of Pittsburgh Press, Pittsburgh, PA.
- Kong, T. Y. (2013). *The Politics of Economic Reform in South Korea: A Fragile Miracle*. Routledge, London.
- KOSIS (2016). Korean statistical information service. ‘employed’ tab. accessed 05/03/2016. http://kosis.kr/eng/statisticsList/statisticsList_01List.jsp?vwcd=MT_ETITLE&parmTabId=M_01_01.
- Lai, J. (2012). *Financial Crisis And Institutional Change in East Asia*. Palgrave Macmillan, New York.
- Lee, C. H., Lee, K., and Lee, K. (2002). Chaebols, financial liberalization and economic crisis: Transformation of quasi-internal organization in korea. *Asian Economic Journal*, 16(1):17–35.
- Lee, H.-H. (2003). A ‘stroke’ hypothesis of korea’s 1997 financial crisis. In Tcha, M. and Suh, C.-S., editors, *The Korean Economy at the Crossroads*, pages 53–68. Routledge-Curzon, New York.
- Lim, H. (2009). Democratization and the transformation process in east asian developmental states: Financial reform in kore and taiwan. *Asian Perspective*, 33(1):75–110.
- Marshall, M. G., Gurr, T. R., and Jagers, K. (2014). Polity iv project: Dataset users’ manual. <http://www.systemicpeace.org/polity/polity4.htm>, Center for Systematic Peace.
- McKay, J. (2003). The restructuring of korean economy since 1986 and the onset of the financial crisis: the industrial/financial nexus. In Tcha, M. and Suh, C.-S., editors, *The Korean Economy at the Crossroads*, pages 69–84. RoutledgeCurzon, New York.

- Narayan, R. (2013). Corruption in government-business relations in republic of korea. In Cho, H.-Y., Surendra, L., and Cho, H.-J., editors, *Contemporary South Korean Society: A critical perspective*, pages 143–156. Routledge, New York.
- Noland, M. (2007). South korea’s experience with international capital flows. In Edwards, S., editor, *Capital Controls and Capital Flows in Emerging Economies: Policies, Practices and Consequences*, pages 481–528. University of Chicago Press, Chicago.
- O’Donnell, G. A. (1973). *Modernization and Bureaucratic Authoritarianism: Studies in South American Politics*. Institute of International Studies, University of California, Berkeley.
- OECD (2013). Oecd-wto trade in value added (tiva). <http://stats.oecd.org>.
- Park, J. (2009). Hankuk yeokdaechungkownui chuyo kyungjejungchaek [economic policies of korean governments]. Policy Report 2009-06. Korean Economic Research Institute (KERI). Available at: https://www.keri.org/web/www/research_01., Seoul, Korea.
- Pham, M. B. . H. H. (2012). Developmentalism with vietnamese characteristics: The persistence of state-led development in east asia. *Journal of Contemporary Asia*, 42(4):539–559.
- Pirie, I. (2008). *The Korean Developmental State*. Routledge, New York, NY.
- Rickards, J. (2011). *Currency Wars: The Making of the Next Global Crisis*. Portfolio, New York.
- Rodrik, D. (2008). The real exchange rate and economic growth. Brookings Papers on Economic Activity, Washington D.C.
- Ross, M. (2013). Oil and gas data, 1932-2011. Dataverse: <http://hdl.handle.net/1902.1/20369>.
- Sakong, I. (1993). *Korea in the World Economy*. Peterson Institute for International Economics, Washington, DC.
- Shim, J.-S. and Lee, M. (2008). *The Korean Economic System: Governments, Big Business and Financial Institutions*. Ashgate, Hampshire.
- Shin, G.-W. (2006). *Ethnic Nationalism in Korea*. Stanford University Press, Stanford, CA.
- Son, B. (2016). Are the poor the weak link? democratic support and income levels in post-crisis south korea. *Journal of East Asian Studies*, 16(2):219–237.

- Steinberg, D. (2015). *Demanding Devaluation: Exchange Rate Politics in the Developing World*. Cornell University Press, Ithaca.
- Steinberg, D. A. and Malhotra, K. (2014). The effect of authoritarian regime type on exchange rate policy. *World Politics*, 66:491–529.
- Um, K., Lim, H.-C., and Hwang, S.-M. (2014). South korea’s developmental state at a crossroads: Disintegration or re-emergence. *Korea Observer*, 45(2):211–253.
- United States General Accounting Office (1989). Us trade deficit: Impact of currency appreciations in taiwan, south, and hong kong. Report to the Chairman, Committee on Finance, U.S. Senate. Available at <http://www.gao.gov/assets/150/147684.pdf>., Washington, DC.
- Walter, S. (2008). A new approach for determining exchange-rate level preferences. *International Organization*, 62:405–438.
- Walter, S. (2009). The limits and rewards of political opportunism: How electoral timing affects the outcome of currency crises. *European Journal of Political Research*, 48:367–396.
- Wi, P. (2014). Chaebol mit daegieupeuro gyungjeryuk jipjunggwa dontaejuk byunhwa bunseok [a dynamic analysis on economic concentration towards chaebols and big business]. Economic Reform Report 2014-02. Economic Reform Research Institute. Available at: http://www.erri.or.kr/report/report_view.php?code=economy&rpt_seq=206.
- Woo, J. (1991). *Race to the Swift: State and Finance in Korean Industrialization*. Columbia University Press, New York.
- Woo-Cummings, M. (1997). Slouching toward the market: The politics of financial liberalization in south korea. In Loriaux, M., Woo-Cummings, M., Calder, K. E., Maxfield, S., and Perez, S. A., editors, *Capital Ungoverned: Liberalizing Finance in Interventionist States*, pages 57–91. Cornell University Press, Ithaca.
- Woo-Cummings, M. (1999). The state, democracy, and the reform of the corporate sector in korea. In Pempel, T. J., editor, *The Politics of the Asian Economic Crisis*. Cornell University Press, Ithaca.
- World Bank (2014). *World Development Indicator*. The World Bank, Washington D.C.
- Zenawi, M. (2012). States and markets: Neoliberal limitations and the case for a developmental state. In Noman, A., Botchway, K., Stein, H., and Stiglitz, J. E., editors, *Good Growth and Governance in Africa*, pages 140–174. Oxford University Press, New York.

Appendix

The Mysterious Overvaluation of KRW in the 1990s

A1 Rodrik's Measure of Real Exchange Rates

Rodrik (2008) uses data on nominal exchange rates and PPP conversion factors from Penn World Tables 6.2 (this paper uses the latest version, 8.0). Based on these data, Real Exchange Rate (RER) is calculated:

$$RER_{it} = \frac{Nominal\ Exchange\ Rate_{it}}{PPP_{it}} \quad (1)$$

, where i and t represent country and year, respectively. To take into account the Balassa-Samuelson effect, natural log of RER is regressed on the natural log of Real GDP per capita ($RGDPCH$) along with year fixed effects:

$$\ln RER_{it} = \alpha + \beta \ln RGDPCH_{it} + Year\ Fixed + \varepsilon_{it}$$

, where ε is an error term and α is constant. The estimated $\ln RER$, $\widehat{\ln RER}$, is now compared with $\ln RER$ to calculate the dependent variable:

$$Value = \ln RER_{it} - \widehat{\ln RER}_{it}$$

A2 Regression Analysis

For the central variables to be used to construct an empirical model reflecting the implications of the three groups of theories above, I borrow heavily from Steinberg and Malhotra (2014), with several additional control variables that are considered necessary. The dependent variable, currency valuation ($Valuation$), follows Rodrik (2008) with its values re-ordered such that positive values indicate overvaluation, negative undervaluation.^{A1} The virtue of using Rodrik's measure as opposed to other alternatives such as real effective exchange rate index of the WDI lies in the fact that it takes into account the Balassa-Samuelson effect (Balassa 1964). That is, as price levels increase with economic development, all else equal, an RER measure that does not explicitly model a country's income level is likely biased.

The first set of explanatory variables are the levels of democracy ($Polity$), regime durability ($Durable$), and right-leaning government ($Right\ Government$) to incorporate

^{A1}Rodrik's measure, 'undervaluation', is somewhat counter-intuitive given that larger numbers represent greater degrees of *undervaluation*.

the insights of the comparative politics literature into the model such as: 1) durable autocratic regimes are more likely than others to undervalue their currencies (Steinberg and Malhotra 2014); 2) conservative governments are less likely than leftist ones to devalue (Simmons 1994). The second set of variables are trade openness (*Trade Openness*), the size of manufacturing sector (*Manufacturing Sector*) and the size of service sector (*Service Sector*) to account for findings of the ‘sectoral framework’ literature (Frieden et al. 2001). The variable to reflect RER’s role as an indicator of international competitiveness is current account balance (*Current Account*): when a country runs serious current account deficits, its currency is likely to be undervalued such that increased exports and/or decreased imports make up for them. In addition to these variables, currency crises (*Crisis*), GDP ($\log(GDP)$), natural log of foreign exchange reserves (*Reserve*), capital account liberalization (*Capital Liberalization*), nominal exchange rates (*Nominal ExRate*), inflation (*Inflation*),^{A2} oil rent (*Oil*) and real interest rates (*Real Interest Rate(%)*) are included to control for factors affecting monetary policies in general. Finally, to account for global events idiosyncratic to each year such as global financial crises, the US interest rates, wars, and oil crises, year-fixed effects are applied.

The model is estimated using an ordinary least squares (OLS) regression with panel-corrected standard errors to address heteroskedasticity (Beck and Katz 1995). Including a first-order autoregression (AR(1)) term is desirable given that temporal dependence is common in exchange rate policies and thus the serial correlation in the error term is highly expected. In particular, a panel-specific AR(1) is applied to account for heterogeneity of autoregressive processes at work in the sample composed of countries in various economic environments. To avoid endogeneity, as a standard measures, all the explanatory variables but the year dummies are lagged one year. To write it formally:

$$Value = \alpha + \beta \Sigma(Political\ Variables)_{it-1} + \beta \Sigma(Economic\ Variables)_{it-1} + f_t + \varepsilon_{it}, \quad (2)$$

where β is coefficient, f is year dummies, and ε is the error term. In addition to this baseline specification, an additional model where four Korea-decade dummies are added is estimated in order to demonstrate that this theory-based model does not effectively account for the unique overvaluation of KRW during the 1990s. Each of these dummies is coded as ‘1’ for the 1970s, 1980s, 1990s (up to the financial crisis), the ‘crisis’ period (1997-2002) and the period since 2003.^{A3} The 1980s, the period during which KRW RERs were

^{A2}Despite their relevance as determinants of devaluation, including inflation and nominal exchange rates on the right hand side of the equation risks the possibility that they unduly wipe out the significance of other variables given that they are parts of the definition of RER. This concern might not be warranted given that the level of RERs does not necessarily determine the likelihood and scope of devaluation. Besides, as shown in Table A1, these variables are not significant.. Not surprisingly, the OLS estimates were largely unchanged when these variables were dropped.

^{A3}An alternative approach would be to use a set of dummy variables for presidents. The result using this alternative, however, was virtually identical to that presented in Table A1: not only was the coefficient of the dummy for the YS government, which roughly corresponds to the early-to-mid 1990s, most strongly

presumably closest to the market equilibrium (discussed below), is the baseline indicator. To put this second model formally:

$$\begin{aligned} \text{Value} = & \alpha + \beta \Sigma(\text{Political Variables})_{it-1} + \beta \Sigma(\text{Economic Variables})_{it-1} + f_t \\ & + \beta \Sigma(\text{Korea Decade Dummies})_i + \varepsilon_{it}. \end{aligned} \quad (3)$$

The more positively significant *Korea 1990-1997*, it would be reasonable to suspect, the more likely the 1990s' overvaluation is to be explained outside of the existing theoretical frameworks discussed above.

significant, its sheer size was the largest among the those for the dummies.

Table A1: Determinants of Real Exchange Rates

	(1)		(2)	
	Baseline		Benchmark	
<u>Political Variables</u>				
Democracy	-0.002	[0.001]	-0.001	[0.001]
Durable	0.001***	[0.000]	0.001***	[0.000]
Democracy×Durable	0.000***	[0.000]	0.000***	[0.000]
Right Government	-0.008	[0.008]	-0.009	[0.008]
<u>Macroeconomic Variables</u>				
Current Balance	0.000	[0.000]	0.000	[0.000]
ln(GDP)	-0.070***	[0.010]	-0.069***	[0.010]
Trade/GDP(%)	0.000	[0.000]	0.000	[0.000]
Manufacture(%)	-0.005**	[0.002]	-0.005**	[0.002]
Service(%)	-0.000	[0.001]	-0.000	[0.001]
Reserve	0.033***	[0.005]	0.033***	[0.005]
Oil	0.021	[0.020]	0.022	[0.020]
Capital Openness	0.098***	[0.023]	0.096***	[0.022]
Currency crisis	-0.126***	[0.012]	-0.126***	[0.012]
Inflation	0.000	[0.000]	0.000	[0.000]
<u>Korea-decade dummy</u>				
Korea 70s			0.054	[0.081]
Korea 80s			0.127*	[0.054]
Korea 90s (90-97)			0.224***	[0.058]
Korea 00s			0.063	[0.061]
Constant	0.061	[0.108]	0.040	[0.106]
<i>N</i>	3127		3127	
adj. <i>R</i> ²	0.2929		0.2951	

OLS estimates with panel-corrected standard errors in brackets. Panel-specific AR(1) applied. Year-fixed effect is applied but the result is not reported to spare space. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

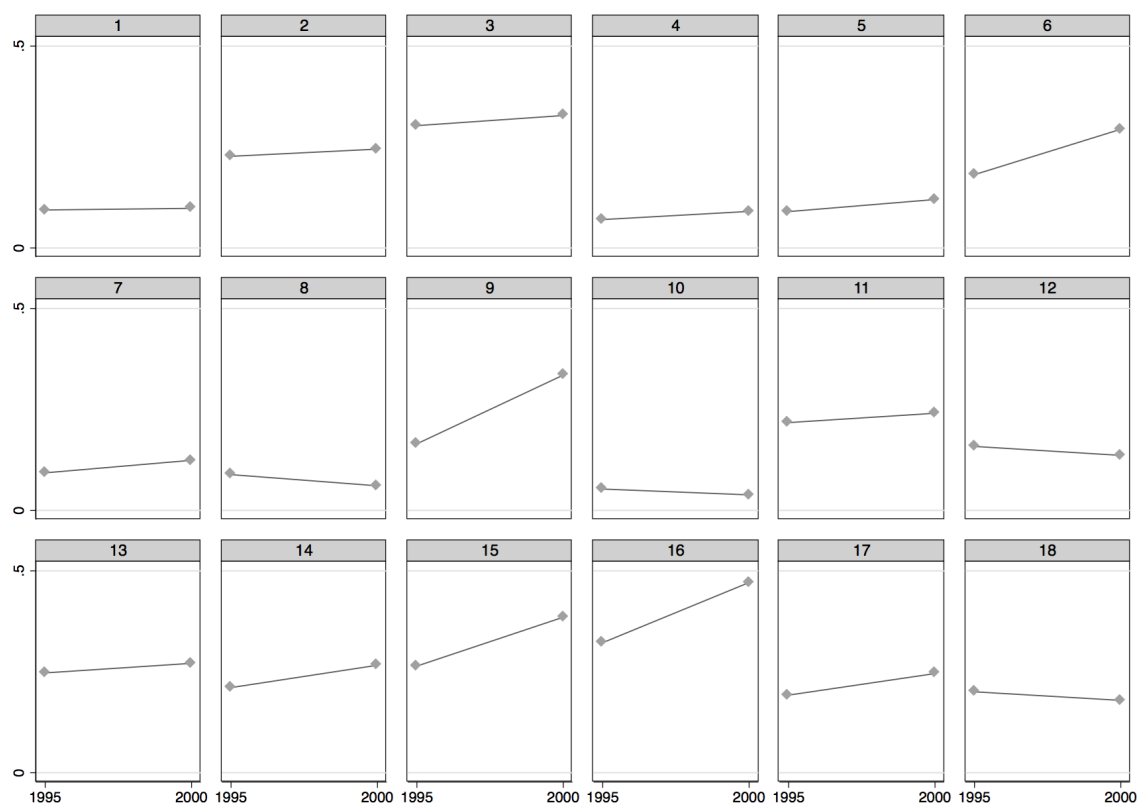
The result of the baseline model is reported in Model (1) of Table A1. The fact that the coefficients of many, though not all, of the independent variables are significant in expected directions confirms that this empirical model reasonably reflects the influential theories on RERs and suggests that the model serves the purpose of providing what the general theories would predict about the RERs of KRW over time.

Model (2) on the other hand reports the result of the Korean dummy specification. As expected, the *Korea 1990-1997* dummy is strongly and positively significant ($p=0.002$), indicating that there was an exceptionally strong upward pressure unique to KRW during this period. The fact that the coefficient is the largest in size and strongest in terms of significance among the Korea-decade dummies indicates that when compared to those of

other periods, KRW in the 1990s was the most deviant from the market equilibrium.

A3 Import Content of Export of Major Chaebol Industries

Figure A1: Import Contents of Korean Export, 1995-2000



Source: OECD. 1="Agriculture, hunting, forestry and fishing"; 2="Machinery and equipment, N.E.C."; 3="Basic metals and fabricated metal products"; 4="Wholesale and retail trade; Hotels and restaurants"; 5="Other services"; 6="Electricity, gas and water supply"; 7="Mining and quarrying"; 8="Business services"; 9="Transport and storage, post and telecommunication"; 10="Financial intermediation"; 11="Manufacturing nec; recycling"; 12="Construction"; 13="Textiles, textile products, leather and footwear"; 14="Transport equipment"; 15="Electrical and optical equipment"; 16="Chemicals and non-metallic mineral products"; 17="Wood, paper, paper products, printing and publishing"; 18="Food products, beverages and tobacco"

Figure A1 presents the 'import contents of exports' (ICE) of Korea in 1995 and 2000 (OECD 2013)^{A4} to illustrate the sectors in which vertical specialization was intense. As the name implies, higher ICEs point to greater contribution of imported intermediate goods to the final product and smaller 'quantity effect' of Marshall-Lerner Condition. The generally increasing pattern of the Korean ICE over time suggests that the net gain from depreciation for Korean exporters was increasingly diminishing during the period.

^{A4}1995 was the earliest year at which the data was available.

More importantly, Figure A1 reveals that ‘quantity effect’ was already relatively small in 1995 for several sectors. It reports that such sectors as telecommunication (9), electrical equipment (including electronic products) (15), and chemicals (16) sectors exhibit ICEs already notably higher than those of other sectors by 1995; and this was an increasing trend during period leading to 2000.^{A5} In other words, in the mid-1990s and onward, these three sectors in Korea were importing fairly large amount of intermediate goods for their exports and, therefore, the effect of depreciation on their price competitiveness would have been modest at best.

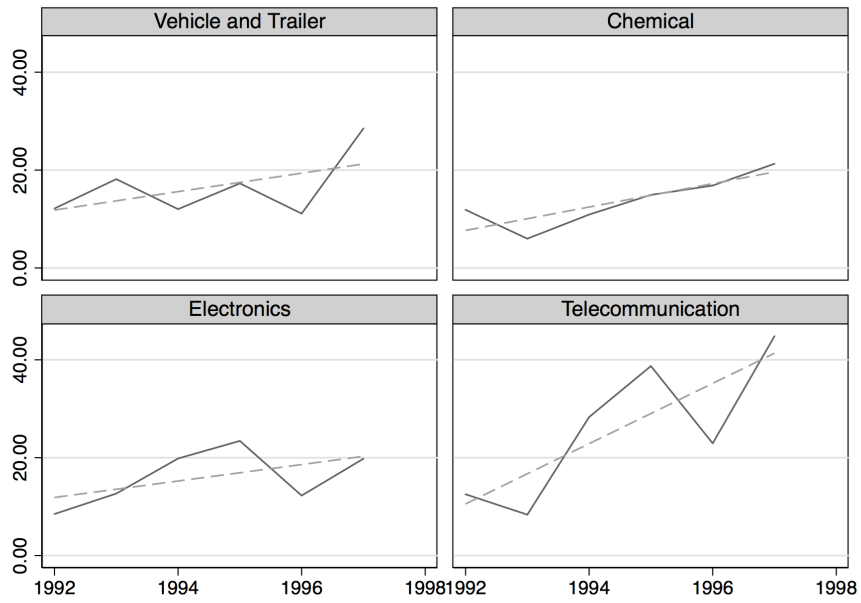
A4 Data Sources for the Regression Model

^{A5}The trend continued well into the 2000s although, with the large scale adjustment and restructuring after the crisis, some of these ICEs modestly declined in the mid-2000s and bounced back later.

Table A2: Variable Description and Sources

Variable Name	Description	Source
Polity	Level of Democracy (-10 through +10)	Marshall et al. (2014)
Durable	The number of years since the most recent regime change	Marshall et al. (2014)
Current Account	Balance of current account (% of GDP)	World Bank (2014)
Nominal ExRate	Nominal exchange rates	Feenstra et al. (2013)
log(GDP)	Natural log value of GDP	World Bank (2014)
Trade Openness	$\frac{(TotalExports+TotalImports)}{GDP}$	World Bank (2014)
Manufacturing Sector	Size of manufacturing sector, value added (% of GDP)	World Bank (2014)
Service Sector	Size of service sector, value added (% of GDP)	World Bank (2014)
Reserve	Total foreign exchange reserve, months of import	World Bank (2014)
Oil	Oil exporter dummy, 1 when net export of oil is larger than 30 per cent of GDP, 0 otherwise	Ross (2013)
Capital Account	Composite Index of capital account liberalization	Chinn and Ito (2006) updated version 2013
Right Government	Right-leaning government dummy, 1 when the ruling party is rightist, 0 otherwise	Beck et al. (2001)
Crisis	Dummy variable for currency crisis	Frankel and Rose (1996)
Inflation	Inflation, GDP deflator (%)	World Bank (2014)

Figure A2: Total Asset Growth Rate of Korean Big Business



Source: Bank of Korea (2011). The solid line represents yearly changes while the dotted line trend over time.