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Manifesting the embedded developmental state: the role of South Korea's National Pension Service in managing financial crisis

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Abstract

Financial liberalization has noticeably reduced the role of the state in effectively influencing the economy in post-developmental states. Yet many studies have found that the legacies of the developmental model continue to influence the policies, institutions, and socioeconomic challenges that are faced by the states that previously adopted the model. These studies, however, do not clearly identify when and how such legacies may be manifested in state behavior. This paper contributes to filling this gap in the literature by arguing that financial crises can serve as a trigger to more clearly reveal the structural evidence of the legacy in institutions that were previously established and utilized for developmental objectives. By conducting a rigorous case analysis using historical and market data on the crisis responses of South Korea's public pension fund, this paper finds that South Korea's developmental legacy remains passively embedded in the governance structure of the pension fund in non-crisis times but manifests against financial crises.

Keywords: Developmental state, South Korea, financial crisis, pension funds, path dependency, COVID-19

Introduction

Studies on the East Asian developmental state model have been focused on identifying the reasons behind the emergence of the model (Deyo 1987; Haggard and Moon 1990; Koo 1984; Lim 1983; Rodan 1991; Wade 1990) and whether it still persists. (Pang 2000; Hayashi 2010) Some have argued that developmental states have lost their defining characteristics as the state significantly lost its control over capital due to loss of policy space or the imposition of liberalization policies in East Asian economies after the Asian Financial Crisis (Minns 2001; Jayasuriya 2005; Kim 2005; Lee and Han 2006) while others identified clear imprints of the developmental legacy in policies and the challenges that are faced by post developmental states. (Thurbon 2016; Pirie 2016) The political economy of South Korea has been of particular interest to scholars in this debate. Both arguments seek to make sense of a situation in which, as while there are clear socioeconomic imprints of the legacy that continue to affect policymaking, the state's policy instruments are now relatively more limited, significantly constraining the extent of the legacy's impact.

In this paper, we contribute to the debate by focusing not on the day-to-day functioning of the system, but by examining the ways in which crises reveal the essence of economic systems and institutions. We find that the limitations on state capacity that followed liberalization in the late 1990s are substantially eased in the face of national emergencies, revealing the continued impact of the developmental legacy. In other words, we assert that the developmental legacy remains embedded in the financial and policy institutions of post-developmental states and more clearly manifests when triggered by emergencies. This trigger effect of crises is well-established in numerous studies in international political economy and public policy (Rosas 2005; Van Buuren et al. 2016; Kiess et al. 2020), where the path

dependency of past policy choices and institutions is found to significantly affect choices made during and after crises. Hence, observing the crisis responses of post-developmental states can more clearly identify the presence of developmental legacies and their impact. This paper finds evidence for this hypothesis by conducting a detailed analysis of the policy responses of South Korea (hereinafter, Korea) through the mobilization of its National Pension Service (NPS) to manage financial crises. Based on a rigorous case study of the developmental process of the NPS, making use of policy reports and archival data, we first identify the structural evidence of the developmental legacy that remains embedded in the NPS's governance structure. Then, we conduct an empirical analysis of the NPS's crisis response based on statistical data retrieved from Korean Statistical Information Service (KOSIS) and the NPS data archives to demonstrate that the legacy comes to the fore in financial crises, as the state goes beyond the limits of its peacetime policies to mobilize capital in its attempt to offset excessive capital outflow.

This paper is divided as follows: First, it overviews the literature on developmental states, identifies key gaps, and explains how this paper can adequately address them. Second, it conducts a retrospective analysis of the Korean pension fund reserves and Korea's developmental legacy to identify the state's enduring role in developing and managing the fund reserves and in contrast, the absence of the proactive use of this potential for policy objectives in non-crisis times. Third, it finds evidence for how the legacy is manifested during crises by assessing the pension fund's crisis responses based on historical and market data during the Global Financial Crisis (GFC) and the COVID-19 crisis. Fourth, it uses the comparative example of the Japanese Government Pension Investment Fund (GPIF), whose developmentalist legacies have been thoroughly eliminated in the last two decades, to show how the institutional design of the NPS remains fundamentally developmentalist in nature. It

ends with concluding remarks and suggestions for future research.

Persistence of the developmental state's legacy and Korea

Continued economic liberalization, democratization, and external pressure for liberal reform have significantly reduced the extent of state control over capital in most developmental states, especially since the Asian Financial Crisis. (Kim 1999) As the declinist literature finds (Minns 2001; Jayasuriya 2005; Kim 2005; Lee and Han 2006), pressures from within and abroad for liberalization weakened the features that characterized the developmental states, such as the state's ability to suppress consumption and hone control over capital to maximize comparative advantages in selected industries (Johnson 1982; Deyo 1987; Amsden 1992; Onis et al. 1991), signaling the end of the developmental state.

Others, however, have argued that in spite of the state's relative retrenchment, the legacies of the developmental state are still imprinted in the policies of post-developmental states. (Thurbon 2016; Pirie 2016; Kumar 2020; Yen 2021; Kalinowski 2020) Thurbon (2016) argues that a developmental state should not only be classified by observable measures but also by the state's strong willingness to exert influence in the market. In other words, the state's willingness to control state capital, despite its more regulatory approach, plays a significant role in guiding the policies of post-developmental states, distinctively differentiating them from states without such a legacy. Thurbon (2016) refers to this as the 'developmental mindset.' While the state has clearly retreated from making direct interventions in the market, Thurbon maintains that there has been a revival of financial activism that builds on this mindset by focusing on the investment activities of state-owned banks such as the Korea Development Bank. Under this perspective, developmentalist behavior encompasses a wider scope of

practices beyond the traditional developmentalist practices that allocate capital for focused sectoral development. Any state-led capital mobilization effort that goes against market forces, but still remains under the liberal market order for the long-term benefit of the state or the industry which the state wishes to develop or protect, therefore, should be regarded as demonstrating the traits of a developmentalist legacy. Such practices include state-driven countercyclical investments from institutional investors, as this paper observes, or the issuance of long-term, low yield policy bonds that are publicly traded by state-owned-enterprises to specific sectors or companies. (Kalinowski 2020)

In fact, Korea has been persistently extending low-interest loans to strategic industries through its state-owned policy banks, which account for a huge sum of the total loans made in the Korean financial system. In 2019, for instance, bonds issued by public financial institutions and the government accounted for 57.8% of the total bond issuance balance in Korea's fixed income market. (BOK 2019) The recent surge in ESG investments, rapidly placing Korea as one of the leading investors in ESG bonds, has also been led by policy banks in Korea following the Moon administration's policy preferences. (Lee and Grimes 2021) In other words, the "East Asian developmental states have indeed changed, but they have not transformed into neoliberal states. Rather they have adapted and evolved, but still undertake market-steering, 'societal mission' roles well beyond neoliberal limits." (Wade 2018, p.518) Pirie (2016), on the other hand, focuses on the socioeconomic ramifications of the developmental legacy rather than its effects on policy. Pirie finds that the legacy continues to "define the key economic and social challenges that contemporary South Korea faces." (Pirie 2016, p.140) In his later work, Pirie (2017) finds further validation for the argument by assessing how the legacy of labor control has been impeding Korea and Taiwan's transition into wage-led growth regimes.

While these works provide important validations for the persistence of the developmental legacy, they do not address how and when the effects of such a legacy may intensify. Identifying such conditions is important, as existing studies have found that the path dependency of past policy choices intensifies in the face of national emergencies. (Rosas 2005; Van Buuren et al. 2016; Kiess et al. 2020) For instance, the socioeconomic ramifications of the legacy identified by Pirie (2016) may become more conspicuous or deepen in times of financial distress during which there are key trade-offs to be made between the interests of households and producers, and between short-term and long-term goals. Developmental legacies in policymaking may also become more visible against such contingencies as the state would have to do “whatever it takes” against emergencies. (Stubbs et al. 2020) Focusing on the investment patterns of the NPS in crisis times, we find that Korea’s developmental legacy does indeed more clearly manifest itself in financial crises. While some previous studies on developmental states have addressed how welfare funds have been used in East Asian states as policy tools for projecting developmental policies (Estevez-Abe 2001; Park 2011), our focus differs in that we focus on *what* causes the legacies of such practices to manifest. In other words, we argue that although external and internal pressures for liberalization have reduced the Korean state’s capacity, national emergencies may bring the state back in ways that reflect developmental priorities, demonstrating the embeddedness of the developmental legacy.

There have been some previous studies that examined how national-level emergencies highlight the developmental legacies of post-developmental states; however, they focus on structural aspects of state effectiveness rather than the ways in which state institutions pivot in crises. Kumar (2021) and Park and Chung (2021) propose that the Korean

state's enduring institutional capacity significantly strengthened its resilience against the COVID-19 health crisis. By focusing on Korea's enduring strong state-society relations, Kumar argues that the state was able to effectively induce compliance and quickly mobilize institutional capacities to procure an effective response against the spread of the pandemic. Yen (2020) makes a similar argument by assessing the effective response of Taiwan against the pandemic. Yen also argues that Taiwan's state-society relations and the state's role as the central command center, which are identified as legacies of the developmental state, allowed for Taiwan's effective response to the pandemic health crisis. While these writers make a persuasive argument about how the developmental legacy positively affected Korea and Taiwan's pandemic response, their sectoral focus on the healthcare system leaves many questions unanswered, including how these states responded to the economic impacts of the pandemic, particularly the rapid shifts in capital flow that threatened financial stability and corporate access to capital. This question is a crucial one, as the most defining feature of developmental states is their ability to control and allocate capital. (Jones & SaKong 1980, Wade 1990, Woo 1991) To validate the persistence of the developmental legacy, therefore, it is essential to analyze the policy responses of institutions established for such objectives.

Our analysis also differs from those of Kumar (2021) and Yen (2020) in that we observe the variations in the intensities of the developmental legacy in pre-crisis, crisis, and post-crisis times as a lens through which to identify the embeddedness of that legacy rather than assessing states' effectiveness in managing the public health challenge. We show how the Korean state's enduring oversight over the decision-making process of the NPS remains passive and market-conforming in non-crisis times but turns to interventionist and anti-cyclical policies during crises as seen in the way the NPS's reserves have been used to protect the

domestic capital market against sudden external drains in the GFC and the pandemic financial crisis. We argue that financial crises serve as a trigger to reveal the developmental legacy embedded in Korea's institutions through proactive market stabilization efforts that are typically invisible in both pre-crisis and post-crisis times. Liberal market economies without developmental legacies have also resorted to state interventionism to guarantee liquidity to their distressed markets in the past, often through central bank operations. (Musthaq, 2021) Nevertheless, the purpose of this article is to demonstrate how developmental legacies allow for a wider range of policy options *beyond* those accessed by liberal market economies, based on the institutional legacies of state-driven capital mobilization and allocation and the state's enduring oversight over major public financial institutions. NPS funds have provided the Korean state with a flexible tool for market stabilization that neither distorts monetary policy nor requires legislation or fiscal actions that are likely to be politically challenging and protracted. The subsequent section first examines Korea's developmental legacy and its effect on the establishment of the NPS and its governance structure to provide evidence for the Korean state's sustained significant influence over the decision-making process of the NPS.

Structural evidence of the developmental legacy in the National Pension Service

Capital mobilization and control were essential in Korea to promote capital-intensive growth under capital scarcity while protecting the capital market from being dominated by foreign capital. The state employed heavy capital control measures to account for this shortcoming. Inward remittances and FDI were strictly monitored and restricted to avoid potential loss of control over the domestic capital market. (Jones & SaKong 1980, Lim 1983, Woo 1991) Foreign currency earnings by exporters were swapped into trade credits managed by the Bank

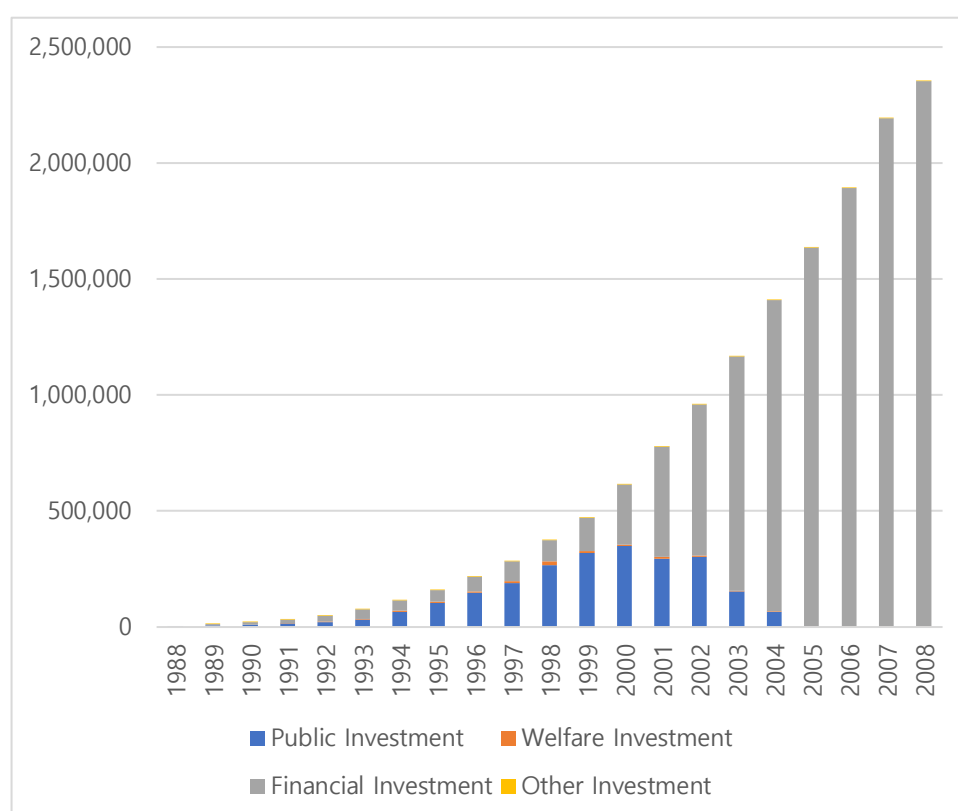
of Korea. Through this, the central bank managed foreign capital inflow, selectively providing foreign currency loans to major exporters. This implied, however, that the state was in essence responsible for settling the external balances of the domestic corporations. Increasing demand for public infrastructural projects and in many instances, the state's reliance on concessional loans from foreign creditors also put the state at higher risk of a solvency crisis. Access to additional sources of capital became essential in preparing against such solvency risks. (Harvie and Lee 2003)

The state turned to pension reserves as a potential solution. Establishing a mandatory and universal pension system was expected to be able to contribute to the policy objectives of the Korean developmental state in two ways. First, it would serve as a mechanism of mandating saving to suppress consumption as the pension payments would be automatically deducted from the employee's payments. Second, through increased savings in the newly established reserve pool, the state would be able to use this additional capital for financing debt or embarking on new infrastructural projects. This option was first considered during the Park Chung-hee administration in 1971. (Song 2003) Korea's debt-financed growth strategy had put extreme financial pressure on the economy and Park needed access to more capital to settle the foreign debt the economy had accumulated. Pension reserves naturally emerged as an attractive solution to this pressing issue.

This ambitious plan was not realized until 1988, when Korea finally established a public pension system for businesses with 10 or more employees. This scheme was later made universal to include self-employed workers as well in 1999. (Yang 2011) As Hwang (2007) further finds, however, the system's fundamental design saw little change from the original plan. The reserves were explicitly allocated for developmental purposes as Park originally

intended. Solvency risks in Korea had substantially receded by the 1980s as macroeconomic adjustments and restructuring policies saw meaningful success in addressing public debt issues. (Amsden and Hoeven 1995) Yet the NPS funds were still primarily entrusted to the government’s public spending budget and were invested in public projects. (Hwang, 2007) Figure 1 demonstrates that prior to the reforms that followed the Asian Financial Crisis (AFC), the NPS was mostly used for making public investments.

Fig.1 National Pension Service’s Investment Destinations 1988~2008 (in 100 million KRW)



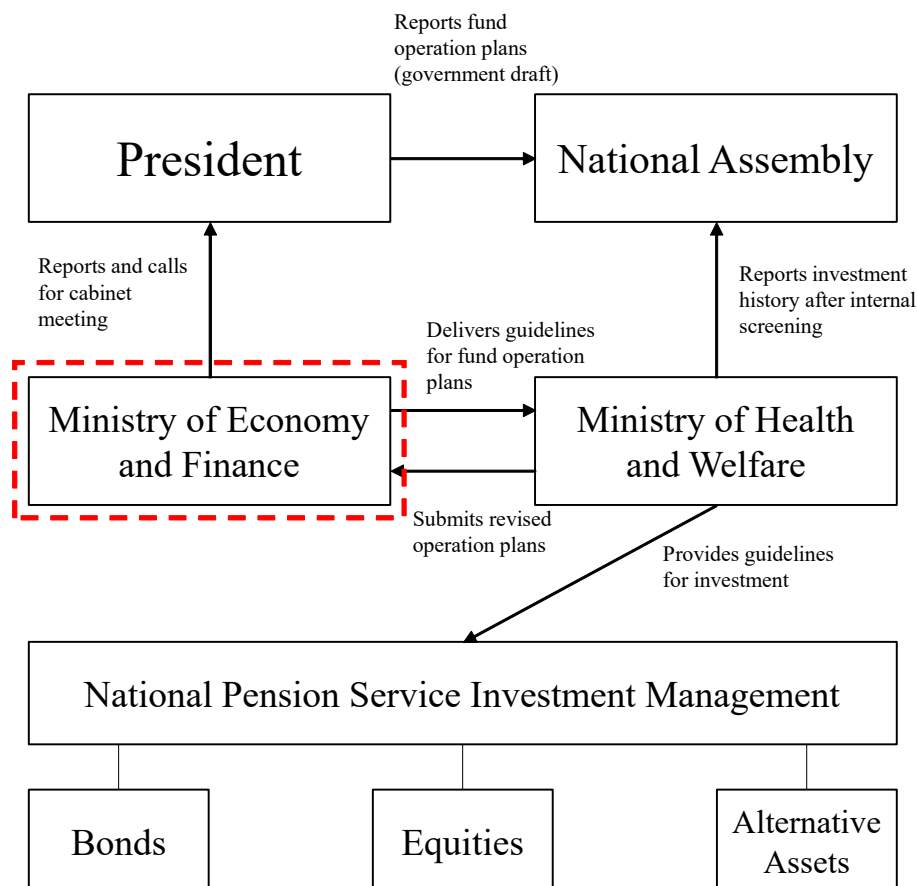
Note: Public investments refer to NPS assets that have been invested for public infrastructural or social projects mostly in the form of state-issued project bonds that are not publicly traded. Financial investments refer to investments that have been invested in publicly traded bond markets and stock markets, or other forms of alternative investments. Welfare investments refer to pension disbursements made by the NPS.

Source: KOSIS, Author compilation

After the AFC, however, the investment portfolio of the NPS went through significant

restructuring under the supervision of the IMF and the World Bank as the existing investment practices caused serious concerns about the sustainability of the pension system, since pensions eventually need to be repaid to the citizens at retirement. Hence, fund allocation to public infrastructure was gradually suspended, and investments became more profit oriented. Figure 1 clearly demonstrates the effect of such changes, where the proportion of public investments fell below that of financial investments from 2000 until they were completely suspended in 2005. These reforms, however, did not bring about significant changes to the governance structure of the NPS. Figure 2 shows evidence of the government’s sustained strong control over the NPS.

Fig.2 NPS’s investment structure



Source: NPS, Author

The NPS has its own investment management organization, but it is also under the subordination of the Ministry of Health and Welfare (MOHW). The NPS directly receives orders from the state in a top-down manner when making investment choices. Furthermore, although the NPS receives investment guidelines from the MOHW, it is not the MOHW that makes the investment choices for the NPS. The MOHW receives guidelines from the Ministry of Economy and Finance (MOEF) on investment choices and must submit a proposal for operation plans to receive approval before implementation. The MOEF then calls for a cabinet meeting with the president and the president submits the fund operation plans to the national assembly for final approval. (Jeon 2007) In other words, the NPS is mostly stripped of decision-making rights in the investment plan process. Rather, the MOEF serves as the key actor in deciding the investment directions of the pension assets and NPS management implements MOEF's choices. Considering that the MOEF is also deeply involved in managing government assets in other sectors, the management of pension funds is not only representative of providing good welfare to the payers but also part of a bigger policy agenda of the state. However, the state has not proactively used such enduring structural influence over the NPS for its policy objectives in non-crisis times, focusing instead on the state's fiduciary responsibility to future retirees. The investment practices of the NPS in non-crisis times have been more profit-oriented, passive, and less dependent on state intervention as the following section demonstrates; however, in financial crises, NPS fund management becomes part of the state's microeconomic toolkit, offering additional evidence for the trigger effect of financial crises in manifesting the impact of the developmental legacy.

Passive embeddedness of the developmental legacy

The NPS's size and impact on the Korean capital market are unparalleled. The NPS takes up the majority of the public pension reserve composition in Korea compared to other reserves such as the Government Employees Pension Service (GEPS).¹ Furthermore, since it began its asset reallocation into the financial sector, the NPS has remained the most important investor in the domestic capital market.² Full mobilization of the NPS's massive assets for policy objectives is limited, however, for several reasons. First, although its rather nascent nature has allowed it to accumulate its reserves compared to the rate of disbursements, the NPS faces clear limits in engaging with countercyclical investments. Shifting asset allocation within its asset pool will be able to supply capital to a given investment destination but will also cause a drain in another. Therefore, the NPS must invest within the monthly contributions transferred to the reserve pool plus the monthly returns from their investments in equities, bonds, and alternative assets or borrow additionally from an external source. Second, excessive investment in domestic assets to reduce foreign capital exposure in non-crisis times potentially undermines the profitability of the NPS's investments. As the subsequent sections demonstrate, the NPS assets are expected to rapidly decline in size as expenditure begins to exceed contributions due to Korea's aging demographics. Hence, capital accumulation through profit maximization is vital for the NPS's long-term sustainability. From a fiduciary perspective, the NPS's role as a policy instrument against external drains should therefore be limited in nature.

Despite such limitations, however, the NPS has gone beyond its perceived limitations

¹ The operating capital of the NPS occupies 88.9% of the total public pension schemes inclusive of the GEPS (4.2%), the Teachers' Pension (6.9%), and the Military Pension Service (0.1%), (Social Security Committee 2018) and is the 3rd largest pension fund in the world by total assets. (Pensions & Investments 2021)

² See Appendix 1 for NPS's impact on the Korean capital market

to proactively practice countercyclical lending against excessive capital outflow in times of crisis. In 2019, for instance, the NPS's average monthly income was around \$300 million, inclusive of contributions and investment earnings. (KOSIS 2021) Yet in March 2020 alone, at the peak of the pandemic crisis, the NPS made a \$1 billion net purchase of sovereign bonds in the secondary 3Y bond market. When the market sufficiently stabilized, however, it sold its purchases to reduce its sovereign bond holdings by \$1.5 billion in the next four months. (KOSIS 2020, 2021) Therefore, despite the NPS's relatively passive role in pre-crisis and post-crisis times due to its limits in expanding its investment capacities, the NPS countercyclically invested against the crisis and then quickly reverted to roughly its initial investment position. Such investment practices of the NPS were similar but even more aggressive in the GFC. The NPS momentarily changed its asset portfolio to increase its total domestic bond holdings by 6% and decrease its offshore bond holdings by approximately 3% to stabilize the capital market. When the market stabilized, the NPS quickly returned to its pre-crisis position. (Hong 2020) It is the embeddedness of the developmental legacy that has allowed for the emergence of this consistent investment pattern against crises. This was enabled by the fact that the governance structure of the NPS has not gone through substantial changes since its portfolio restructuring in the late 1990s. The state, therefore, has maintained significant control over the investment decisions of the NPS, even though the goal of financial sustainability led it to take a hands-off approach in normal times. In contrast, the NPS has momentarily gone beyond such limits to practice countercyclical investments against the global cycle in crisis times, serving as an extra policy option in supporting the state's anti-crisis operations.

To make the case for the developmental embeddedness of NPS, we must look beyond its use as a countercyclical policy tool in financial crises and examine whether it has also been

used to achieve more microeconomic goals like capital market development. For much of its history, the state has not made use of the NPS's capacity to influence the decisions of other investors—and therefore credit pricing and allocation—even where the NPS is a major shareholder, which includes the majority of major companies and institutional investors in Korea. (NPS 2020) At least in non-crisis periods, the NPS has instead adhered to the principle of non-interference unless there was a serious concern for the safety of its equity investments. This tendency is seemingly changing, however, as the NPS officially adopted the Stewardship Code in 2017, which signaled the NPS's increased intervention in the governance structure and investment practices of the corporates and investors in which the NPS invests. We acknowledge that increasing financial activism is a common trend in the pension funds of high income western economies, especially since the GFC, and therefore does not in itself demonstrate the developmentalist nature of the state. (Ingley et al. 2011) And in fact, the NPS's rate of opposition to board proposals is still lower than its western counterparts investing in Korea. (see figure 12 in KCGS 2020) Despite the NPS's increased willingness and existing influence over major domestic investors, the state has been cautious about trying to directly manipulate market prices. Its caution is perhaps due to fear that foreign investors will lose confidence in Korean capital markets especially given the massive size and impact of the NPS, since post-AFC market liberalization has led to foreign investors now occupying a significant presence in the market. (see FSC 2021) There even have been fears that if the NPS were to become an activist shareholder following the development and adoption of its own stewardship code, it may lead to a 'pension fund socialism', a potential outcome that the NPS leadership had felt compelled to explicitly reject. (Lee 2014) Hence, the adoption of the stewardship code, which ultimately differed only minutely from European models (Kang & Chun 2022), does not serve as evidence for the persistence of the developmental legacy. However, the way the Korean state

was able to induce the NPS to quickly adopt the code and the way these efforts were met by the market do reflect the structural evidence of the legacy.

For instance, when the NPS announced in 2018 that it would apply the stewardship code in its investments, it immediately brought about participation from 48 institutional investors from both the public and private sectors in the same year. (Kim & Chang 2017) This contrasts with the lukewarm response of the market when the state announced the code a year earlier. Although the stewardship code can be adopted voluntarily, the NPS's participation has induced participation from market actors due to its massive presence in the market. Nevertheless, despite such evident influence of the NPS in the Korean capital market, there has been no clear imprint of the state's policy objectives in how the NPS invests and practices voting rights. Therefore, the state's ability to quickly induce the adoption of the code from the NPS and its simultaneous reluctance against fully putting such potential into effect demonstrates that there is strong structural evidence of the developmental legacy, but that there are only subtle hints of its manifestation in non-crisis times. However, financial crises have served as triggers to revealing the impact of the structural evidence of the developmental legacy and embeddedness on multiple occasions. Thus, in the next section, we analyze historical and market data on the NPS's response to past crises to find evidence for this assertion.

Historical evidence of the NPS's anti-crisis response against financial crises

Early evidence of the developmental legacy's embeddedness can be found in the NPS's participation in the recovery phase of the AFC. The NPS had already gone through significant portfolio restructuring to pursue more profit-oriented investments under the recommendations of the IMF and the World Bank, where one of the key reforms to improve profitability was the

“elimination of directed public-sector investments.” (World Bank 2007, p.11) As the majority of the NPS’s assets were invested in the public sector, the investments were withdrawn gradually and reinvested in the private sector and sovereign bonds market. Hence, despite the often questioned role of pension funds as the stabilizer against crises as a patient investor (McCarthy et al. 2016), the NPS’s massive asset reallocation process in a relatively short period of time allowed the NPS to occupy an integral position in the early development of Korea’s bonds and stock market. As a consequence, the NPS was able to be heavily involved in establishing the Korean sovereign bonds market as part of the anti-crisis response to build the capital market’s resilience through its asset reallocation process. Such involvement was vital to the nascent Korean sovereign bonds market, as when the bond market is still small and shallow, foreign investors may dominate the capital markets in the periphery. (de Paula et al. 2017) The pre-AFC Korean corporate bonds market had already experienced adverse spillovers from foreign dominance of the market, and extensive capital investment from a domestic actor was highly demanded to create initial demand and prevent repeating the mistakes of the past. The NPS, therefore, emerged as an attractive instrument for this purpose as the liberalization of the capital market demanded a different approach from the past, one that can make the sovereign bonds market attractive to private investors as well.

The creation of a newly reformed sovereign bonds market was essential in improving the financial resilience of the Korean capital market. Prior to the AFC, the state pressured financial institutions to purchase sovereign bonds under a low-interest rate that offered poor yields. The institutions that purchased these bonds under political pressure would either hold these bonds until they expired or sell them immediately in the secondary market for a higher return. (Hwang 2007) The lack of depth and breadth of the sovereign bonds market, as a result,

led speculative investors to the more profitable corporate bonds market. These corporate bonds, which served as the benchmark bond of the Korean bonds market, were mostly hot money held by foreign investors, profit-driven, and highly sensitive to market distress. The state, therefore, lacked the means to offset the rapid and excessive capital flight during the AFC as the market was dominated by foreign investors. Corporates and institutions alike subsequently defaulted as the central bank lacked sufficient foreign reserves to absorb the shocks coming from excessive external drains. (Gyhsels and Seon 2005) Hence, a robust sovereign bonds market that plays by the market rules and is equally attractive to private investors, as well as a domestic institutional investor base, was needed to add depth to the capital market and prevent the market from being overflooded with foreign investment. With the NPS withdrawing its assets from public investments and reallocating its assets to the financial sector, the NPS's role was crucial in creating demand for the newly reformed sovereign bonds market without generating additional local reserves.

Given its massive size, participation from the NPS in the restructuring process of the sovereign bonds market attracted participation from other institutional investors, and the sovereign bonds market was able to expand in both depth and breadth, contributing to the capital market's enhanced resilience. (Kim 2015) Hence, the state was able to effectively use the NPS as an additional policy option in building the capital market's resilience even when external pressure from the IMF and the World Bank, as well as internal pressure from the liberalized capital market and reduced capacity for effective state intervention through the banking system, significantly restricted the traditional ways in which the state intervened in markets to support industrial policy goals. In particular, wholesale reforms to fix the dysfunctions of the banking system, which had previously been the main vehicle for

developmentalist policy interventions in the private sector, considerably reduced the ability of the state to use banks for developmental purposes. Despite the neoliberal intent of the IMF prescriptions, this opened the way for the developmental legacy to be re-embedded—this time in the capital markets, where the state could utilize its enduring influence over the NPS’s decision-making process to stabilize the market against crises when needed and seek to develop Korea’s financial sector as a new state priority. The state’s post-AFC actions demonstrated a new approach to market intervention, in which the NPS could serve as an additional policy option against crises for the state without significantly distorting the liberalized market. This experience was repeated in the GFC and the pandemic crisis as well.

Why, however, were anti-crisis operations through the NPS preferred over other policy options? The reasons for this preference not only come from the developmental legacy but also the effectiveness of this strategy. The positive role of pension funds in decreasing market volatility has been thoroughly discussed in the existing literature. (Chan-Lau 2005; Thomas et al. 2014) The growth of insurance or pension funds decreases the liquidity premium and helps extend the settlement dates of corporates (Impavido et al. 2003) and also increases total factor productivity. (Davis and Hu 2008) Thomas et al. (2014) have also argued that, in OECD countries, larger pension assets are associated with decreased market volatility. In Korea, pension assets loom large, with the NPS holding 15.8% of the Korean sovereign bond market and 13.8% in the aggregate fixed income market as of 2021. (KOSCOM 2021; NPS 2021) Thus, the effectiveness of its countercyclical investments is expected to be highly effective.

Furthermore, such practices do not lead to long-term market distortions, as when the market stabilizes, the NPS would revert to market-conforming practices. In comparison to direct central bank interventions, where the central bank purchases sovereign bonds by

expanding its balance sheet, the NPS's intervention serves as a preferable policy option. Unlike central bank activities, the NPS's intervention does not generate additional local reserves. In general, expanding reserves leads to inflationary pressure "unless the central bank can sterilize the reserves by raising its policy rate to a level consistent with price stability," (IMF 2022) which may be difficult due to recession fears. In this respect, "purchases undertaken for financial stability should generally be modest in scale and wound down when financial stresses ease." (*Ibid*) The state's utilization of the NPS to resolve excess supply issues in the capital market, especially during financial crises, is a rational choice from a policy perspective as it supplements central bank activity without generating excess local reserves. Since asset purchases from the central bank remain at a modest scale, NPS purchases do not contribute to inflationary pressures or require sterilization operations that may distort financial markets.

The effectiveness of this policy option against crises, therefore, serves as justification for momentarily lifting the limitations imposed on the state's capacity in non-crisis times and manifesting the impact of the developmental legacy. In other words, financial crises serve as a trigger to illuminate the presence of this embedded legacy in the NPS. The following subsection finds further evidence for the impact of the NPS's proactive participation as a countercyclical investor in the pandemic crisis by contrasting Korea's response against sudden capital outflow in the pandemic to those of other emerging market economies (EMEs).

Contrasting Korea's anti-crisis response to those of other emerging market economies

EMEs have responded to the pandemic-instigated crisis with diverse methods. The positive spillovers from the quantitative easing programs from high income economies and proactive lending from the global financial safety net (GFSN) allowed the central banks of EMEs to lower policy rates without instigating capital flight and implement quasi-quantitative easing

programs, or bond purchase programs (BPPs) to purchase local currency (LCY) denominated bonds against excessive capital outflow. (Arslan et al. 2020; Mimir and Sunel 2021) What differentiated the BPPs from quantitative easing practiced by the high income economies, however, was that it was not aimed at providing “monetary stimulus or credit support” but instead focused on addressing “market dislocations arising from investor risk aversion.” (Arslan et al. 2020, p.2)

These policies were effective in resolving excess supply issues in the EMEs’ capital markets, but they also posed major problems in the long run. (Mimir and Sunel 2021; Benigno et al. 2020) Policy rates in EMEs must be maintained higher than markets at the core economies to retain the market’s attractiveness to foreign investors. (de Paula et al. 2017) The extent of policy rate cuts for EMEs, therefore, is limited compared to that of high income economies. Issuing more bonds to counter capital outflow also piles up additional debt for the government, withering the fiscal sustainability of EMEs which often make less tax revenue due to low income. These challenges apply to both EMEs and high income economies, but are more salient in the former as EMEs often lack the sufficient buyer pool to absorb the sudden capital outflow instigated by the global cycle. (Sobrun and Turner 2015)

Korea, however, was able to minimize its use of the aforementioned policy options even at the peak of the pandemic instigated financial crisis. For instance, Turkey aggressively cut its policy rates and operated extensive BPPs to reach an inflation target of 10.4%, while Korea showed the lowest target among the EMEs observed, with a target of 0.1% as a result of the policy response against the pandemic. (Arslan et al. 2020) The central bank of Korea only proceeded with a \$3 billion purchase of sovereign bonds to stabilize the market, with the NPS contributing \$1 billion in net purchase of sovereign bonds at the peak of the pandemic

Considering the total size of the sovereign bond market, which is around \$670 billion as of 2020, the amount was surprisingly limited, especially when compared to the actions of other Asian central banks. (Roh 2020) This does not imply, however, that central bank operations were not the major driving force that stabilized the capital markets in Korea. Instead, we find that considering the aforementioned risks involved in the asset purchases of central banks during crises, NPS interventions in the market acted as a supplement that allowed such operations by the BOK to remain among the lowest among emerging market economies. (see Table 1, Arslan et al. 2020)

As the following analysis of Korea's 3Y sovereign bonds market demonstrates, institutional investors, led by the NPS, played a key role in absorbing the excess supply against abrupt capital outflow and increased supply from the government in the short run. The effects of this additional policy option, which were visibly manifested against financial crises, are reflected in the central bank's relatively modest policies against the pandemic compared to other EMEs. Drawing a contrast with the policy responses of other EMEs, therefore, further illuminates the impact of the embedded developmental legacy on the investment practices of the NPS and its effect on Korea's overall anti-crisis response. The next section observes the investment trends of institutional investors along with private and foreign investors in the 3Y sovereign bonds market during the GFC and the pandemic crisis to find empirical evidence for the manifestation of the developmental legacy against crises.

Market evidence of the NPS's proactive anti-crisis response against the GFC and the pandemic crisis

This section focuses on the domestic 3Y sovereign bonds market to trace evidence for the

manifestation of the developmental legacy against crises. The sovereign bonds market now leads the capital market in Korea as the benchmark bond and the stability of the market is essential to the state as it is held liable for the bond issuance. Thus, interventions from the state are particularly likely to be focused there. Furthermore, the NPS's investments in the sovereign bonds market accounted for 15.8% of the total volume of Korea's sovereign bonds market as of 2013. (KOSCOM 2021; NPS 2021) The effect of the NPS's investment practices, therefore, can be expected to be most salient in this market. We focus on the 3Y sovereign bond market as the market is the most liquid and has the longest history, allowing for more data observation. It is also the largest sovereign bonds market category. 10Y bonds have only recently begun to gain attention from foreign investors.

Here, we broaden our focus to consider the investment activities of institutional investors instead of solely focusing on the NPS. This is because the evidence for the NPS's substantial influence on domestic institutional investors is clear. As noted in previous sections, the NPS is the majority shareholder in most major domestic institutional investors. (NPS 2020) Although the NPS has been notably passive in practicing its voting rights with regard to the operations of the institutions, the implicit pressure on the institutional investors to prevent them from operating in ways that infringe the NPS's policy objectives is visibly stated in Article 6 (1) of the National Pension Service's Principles on Exercising Voting Rights where it is stipulated that the NPS will agree to the investment practices of the institutional investors only if the "practices do not obstruct the benefits of the NPS." (NPS 2018) Later parts of the document continue to reemphasize the importance of policy alignment of the institutional investors and the NPS when practicing voting rights. Hence, the investment trends of institutional investors strongly reflect the policy preferences of the NPS, especially in times of

crisis when the NPS steps up as a major countercyclical investor.

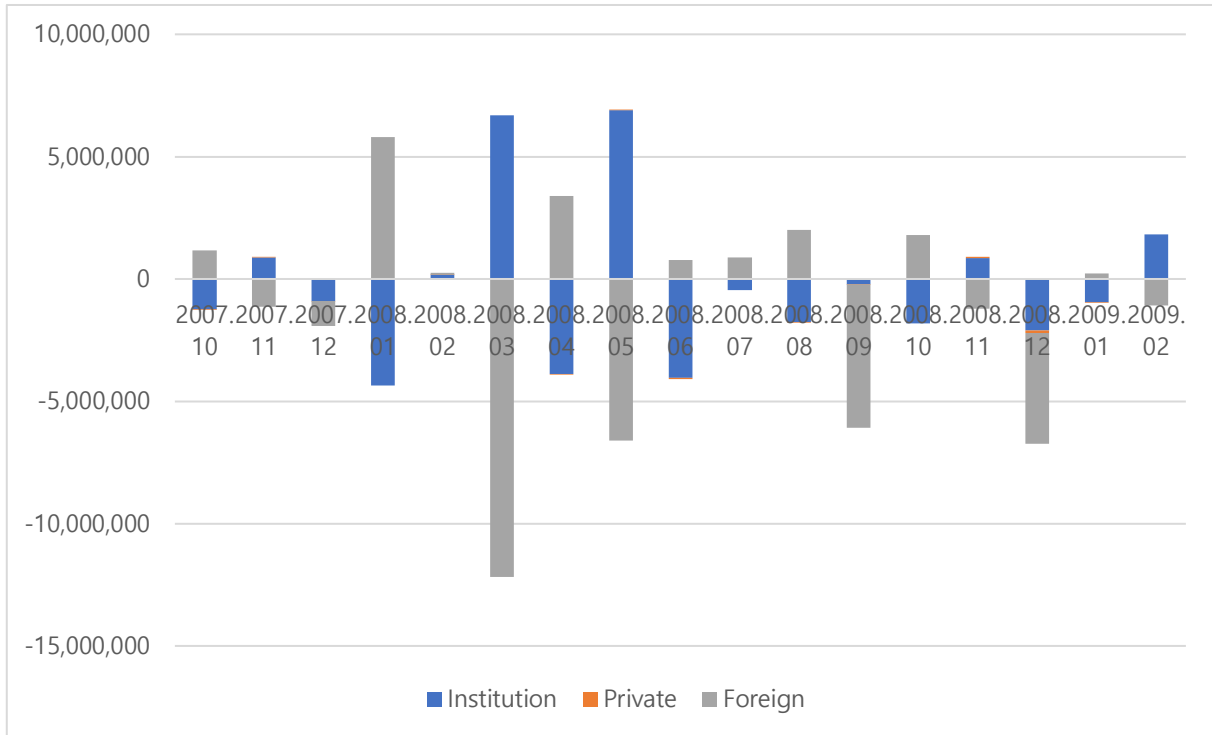
Response during the Global Financial Crisis

Comparing the responses of domestic and international institutional investors during crises is instructive. The investment trends of foreign investors during the observed timeline of figure 3 were procyclical, reflecting the market trends of the global cycle. (Robinson 2021) The investment practices of institutional investors, on the other hand, contrasted noticeably with those of foreign investors until the market rapidly stabilized when Korea officially “tied up a \$30 billion currency swap deal with the US” in October 2008 (Seo and Yoo 2008). This enabled the central bank to address capital outflows with modest purchases of only \$1 billion of the sovereign bonds issued by the government at the peak of the crisis. (Roh 2020)

Domestic institutional investors, led by the NPS, were key in allowing for this modest intervention, as their investments largely offset the foreign investors’ market exit in the short run until the market regained confidence. When the market recovered, however, they quickly dialed back their investments in the sovereign bonds market to pre-crisis levels and even moved in alignment with the foreign investors in some months. This investment pattern provides further evidence for the embeddedness of the developmental legacy. As figure 3 demonstrates, there is no clear distinction between the investment trends of foreign investors and institutional investors in both pre-crisis and post-crisis times. Yet in the face of crisis, the domestic institutional investors, operating in parallel with the NPS, proactively increased demand against the excess supply in the market that resulted from the procyclical selling of the foreign investors and additional issuance by the government. Thus, financial crises revealed the embedded developmental legacy of the NPS and the institutional investors that it leads.

Fig. 3 Net investments by Institutional, private and foreign investors (Monthly

Transactions 2007.10~2009.02) for 3Y bonds in 1 million KRW



Source: KOSIS, Author compilation

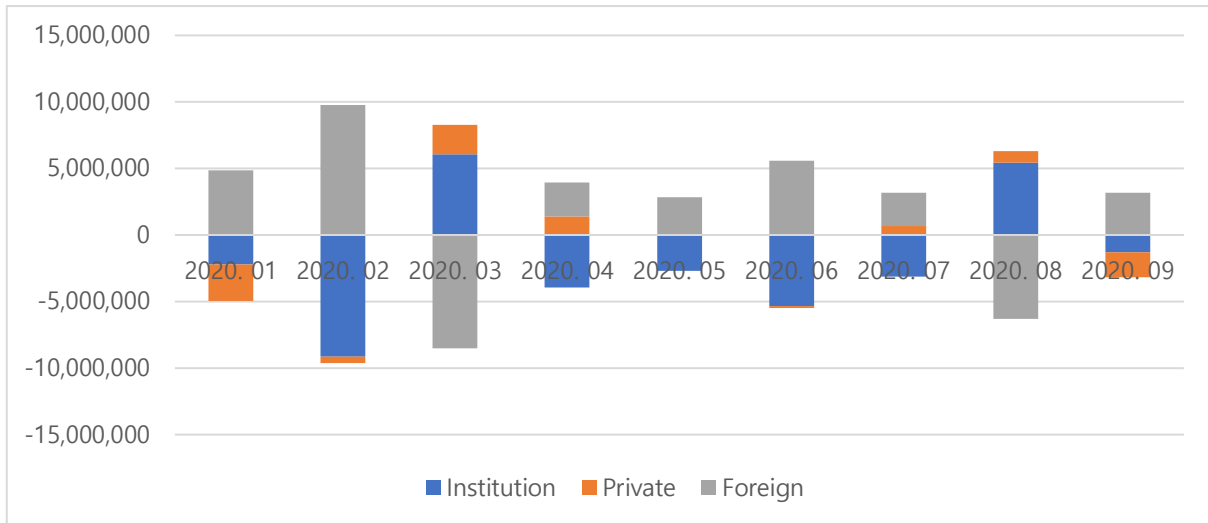
Response during the COVID-19 Crisis

The institutional investors’ pandemic response was longer lasting than their response to the GFC, in which institutional investors had quickly returned to pre-crisis positions after the US Federal Reserves (Fed) established swap lines with the Bank of Korea. Against the pandemic crisis, however, institutional investors persisted in making countercyclical investments even after swap lines were established between the Fed in March 2020. This can likely be attributed to the increased financial activism since the adoption of the Stewardship Code in 2017 and the lasting impact of the pandemic on the real economy. Yet the institutional investors also soon returned to normal trends in later months as the capital market stabilized. (Roh 2021) Hence, the investment patterns of institutional investors in the pandemic crisis and the GFC were

similar, reaffirming the role of crises as a trigger to revealing the embedded developmental legacy in the NPS and affiliated institutional investors.

Another noticeable difference in the market from that of the GFC was the enhanced role of private investors, or individual investors that are investing on their own behalf rather than as a legal entity. Unlike institutional investors, private investors did not show a clear investment pattern. At times they aligned with foreign investors, investing procyclically as figures 4 and 5 demonstrate, while at others they aligned with institutional investors in investing countercyclically. This pattern is consistent with the trigger effect of financial crises in revealing the developmental legacy. As figure 5 demonstrates, institutional investors have persistently invested countercyclically for the period observed. This coherence contrasts with the incoherent investment patterns of private investors, providing further evidence for the institutional investors' intentionality in their investment pattern. This coherent countercyclical investment by domestic institutional investors again allowed the central bank to react modestly to the pandemic shock, purchasing only \$3 billion of the sovereign bonds at the peak of the crisis. This was a three-fold increase from the numbers during the GFC, but considering that the bond market had also grown three-fold in the last decade, the magnitude was similar to that of the GFC. (Roh 2021)

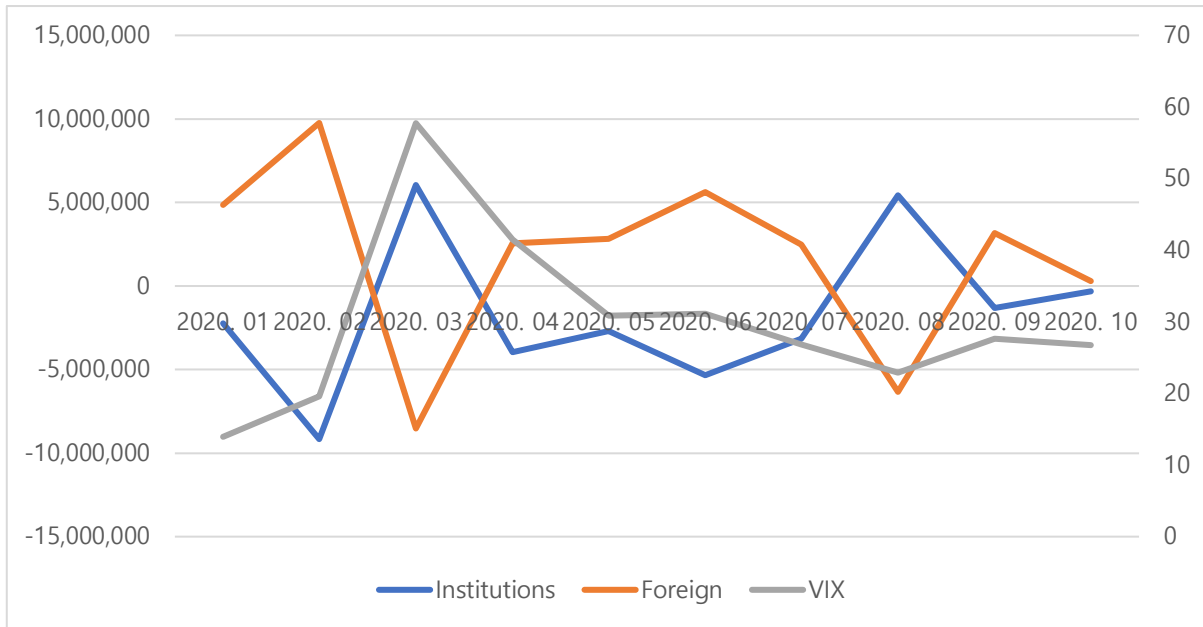
Fig. 4 Countercyclical Investment by Institutional and Private Investors (Monthly Transactions 2020.01~2020.09) for 3Y bonds in 1 million KRW



Source: KOSIS, Author compilation

Figure 5 provides further evidence of the countercyclicality of institutional investments. Higher values in the volatility index (VIX) indicate a rise in financial volatility. Hence, a procyclical reaction to rising volatility will allow investors to reallocate investments to safer, more liquid assets such as US treasury bonds or the dollar. As figure 5 shows, foreign investors have been sensitive to these hikes in volatility and have negatively reacted to the VIX trends while institutional investors reacted in opposite directions. Again, this contrasts with the investment practices of private investors in figure 4, whose investment activities did not consistently align with either domestic or foreign institutional investors, serving as further evidence of the policy-driven investment pattern of institutional investors.

Fig. 5 Foreign and institutional investment trends in the 3Y bonds market (1 million KRW) against VIX (VIX points)



Source: KOSIS and CBOE

Some caveats

It is important to bear in mind that the countercyclical investments from institutional investors were mainly aimed at preventing excessive capital outflow in the short run. The most critical factor in stabilizing the sovereign bonds market appears to have been the central bank backstop, provided through the Bank of Korea’s ad hoc access to the dollar. Renewed access to dollar liquidity was critical in both crises. Capital markets rapidly stabilized as the Fed established dollar swap lines with the Korean central bank, bringing back confidence to capital markets suffering from excess supply. Although dollar liquidity access was most critical in overcoming both crises, the short-term backstop provided by the countercyclical investments of the institutional investors played an important role by providing the central bank with policy space so that it did not have to take drastic measures to stabilize exchange markets. As we have shown, the government’s control over the NPS allowed it to effectively intervene in financial markets to protect the Korean economy. Thus, these crises serve to reveal the developmental legacy’s

embeddedness in economic institutions.

Governments propose and markets ‘follow’?

Kindleberger (1986) rightly noted that “governments propose but markets dispose,” implying that the state’s role in guiding the market is often constrained by market forces. This paper demonstrates that such limitations were significantly lifted in the Korean sovereign bonds market during financial crises even without imposing excessive capital controls, allowing the Korean state to utilize its sustained control over the NPS to expand its policy options and mobilize capital to stabilize the capital markets. This clearly contrasts with the perceived retraction of the state in influencing the NPS’s investment decisions, as evidenced by the NPS’s procyclical investment trends and passivity in exercising voting rights in normal times.

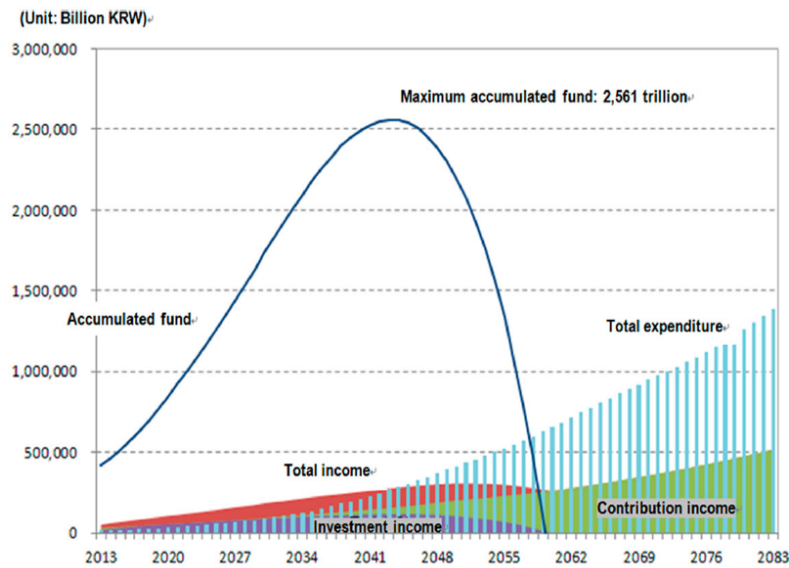
This contrast demonstrates that the developmental legacy of Korea remains embedded in the NPS and financial institutions, and manifests when triggered by financial crises. In other words, the structural evidence of the state’s sustained control over the NPS is empirically affirmed in its investment practices during crises. As the previous sections demonstrate, the developmental legacy’s manifestation was possible as the NPS was an attractive policy asset for the liberalized Korean capital market. Liberalized capital markets and greater economic openness complicate the options for developmentalist policies, as policymakers must balance short-term imperatives with the long-term goal of capital market development, calling for considerable self-restraint in non-crisis periods. Undue direct intervention by the state in its attempt to prevent excessive capital flight would degrade market confidence in the independence of the capital market, potentially aggravating the distressed market. The state’s substantial control over the NPS’s massive capital and its unparalleled influence in the market, therefore, allowed the Korean state to play by the market rules, while effectively protecting the

market against crises. This contributed to significantly lifting the limitations of the state under a liberalized market economy. However, the prospect for the sustainability of this strategy is questionable in the long run as the NPS would eventually have to disburse its accumulated capital back to its policyholders. In contrast to the highly interventionist developmental policies of the Park and Chun eras, the effectiveness of using the NPS for policy purposes is constrained by other objectives. In particular, the state must be judicious about making use of the NPS's embedded developmental legacy to move markets, given the challenge of maintaining profitability in the future.

Challenges: Learning from the Japanese example

As figure 6 demonstrates, the generous benefit formula of the NPS's defined benefit system will completely deplete the fund reserves by 2060 without significant reforms to the benefits scheme and further diversification of its asset portfolio to maximize its returns. In particular, the current asset portfolio is overly domestically biased. Prior to the pandemic crisis, the NPS had announced that it would significantly reduce its investments in the domestic bonds market by the end of 2021, but its goal has not been reached due to the crisis. (Moon 2020) It instead temporarily increased its purchase of domestic assets to stabilize the capital market. (KDI 2020)

Fig. 6 Future forecast of the National Pension Service reserves



Note: Projection is based on the 3rd actuarial projections made by the Korea Institute for Health and Social Affairs (KIHASA) in 2013 where the following projections have been taken into account: expected reforms to the pension scheme by 2028, fertility rate, life expectancy, and the resulting expected expenditure and contributions to the NPS in the years to come. Detailed breakdown of the variables can be found in KIHASA (2014)

Source: KIHASA

However, in the long run, the NPS may follow the footsteps of the Japanese Government Pension Investment Fund (GPIF) due to the continued pressure for profitability as contributions decrease. Japan has been traditionally categorized as a developmental state (Johnson 1999), and unsurprisingly, its use of pension funds for policy purposes initially resembled that of Korea. Japan first introduced a “statutory pension system for private employees in 1941 as part of forced saving to finance the war.” (Vitols, 2001, p.194) And like Korea, the legacy of using the pension system for policy purposes persisted in the subsequent decades. Pension contributions were subordinated under the Fiscal Investment and Loan Program (FILP), Japan’s so-called “second budget,” which allowed the Japanese state to use the accumulated pension reserves for public infrastructural projects, allocate capital to selected industrial sectors, and alleviate the pressure on state budget. (Park 2011) In other words, Japan’s use of the pension reserves was initially as explicitly developmental as that of Korea, and pension funds

have played a significant role in ‘spending without taxation’ as an integral part of FILP’s budget (Park, 2011). However, as Japan introduced a universal pension system at an earlier stage than Korea did, the system already reached maturity in the 1980s, and the sustainability of the pension funds became a serious concern to Japanese policymakers. To account for such concerns, along with a series of pension scheme reforms, starting in 2001 the pension funds were removed from FILP control, to be managed instead under a new independent fund management institution, the GPIF, for enhanced profitability. (Japanese Ministry of Finance 2019) Now the GPIF is highly liberalized, and the majority of its funds are managed by private sector asset managers, with only 18% of its total assets managed directly by the GPIF as of 2018. (GPIF 2018) The NPS, on the other hand, directly manages around 58% of its total assets as of 2020. (KOSIS 2021) Japan’s GPIF offers a clear contrast to Korea’s NPS, in that reforms have fully expunged its developmentalist legacy, whereas the Korean government has maintained the ability to use the NPS for sector-specific interventions. However, the Japanese example also suggests that the use of pension funds for policy purposes may not be sustainable over the long term, due to the imperative of maximizing returns to keep the system afloat.

As we demonstrate in this paper, following the AFC, Korea has turned away from using pension funds for traditional developmentalist purposes, but the structural legacies of such practices continue to manifest against national emergencies. Moreover, the NPS has been instrumental in long-term Korean capital market development, demonstrating that the state remains vitally interested in sector-specific economic interventions, in line with its developmentalist legacy.

Concluding remarks

Market liberalization has indeed significantly reduced the role of the state in effectively influencing the economy in post-developmental states. Yet many studies have found, on the contrary, that the legacies of the developmental model continue to influence the policies, institutions, and socioeconomic challenges that are faced by the states that previously adopted the model. Previous studies, however, do not clearly identify when and how the impact of such legacies may be less or more clearly manifested.

This paper makes a partial contribution to this endeavor by arguing that financial crises can serve as a trigger to more clearly reveal the ways in which the developmental legacy is embedded in institutions that were previously established and utilized for developmental objectives, allowing for a wider range of policy options compared to liberal market economies in responding to financial crises. This paper first identifies the enduring strong control of the Korean state over the governance structure of the NPS as evidence of the developmental legacy. It then contends that the legacy is not manifested in non-crisis times due to the market constraints that prevent extensive state intervention, as noted by the declinist literature. However, by analyzing the NPS's crisis response, this paper finds that such limitations are substantially lifted, as the NPS proactively participates in the state's anti-crisis response as a significant countercyclical investor. This contrast, therefore, indicates that the developmental legacy did not wane but rather remains embedded in the institutions of post-developmental states. Financial crises, which demand "whatever it takes" for an effective response, serve as a trigger to revealing this embedded legacy.

Going forward, further research on the crisis responses of the institutions of other East Asian post-developmental states would be useful to explore the phenomenon of embedded developmentalism more deeply. Although these states share similar developmental legacies,

they have walked distinctly different developmental paths based on differences in numerous factors such as economic size, state-society relations, and level of development. For instance, Japan's crisis response to the GFC and COVID-19 pandemic mainly involved increased market intervention from the central bank, or quantitative easing. In contrast, Korea's response made use of the NPS to minimize central bank participation during crises. While a deeper analysis would be necessary in accurately identifying the role of the developmental legacy in Japan's response, such differences indicate that a detailed single case analysis can potentially contribute to more clearly identifying the causes behind the variations in the intensity of the legacy's imprint on the post developmental states' institutions and policies.

Finally, from a practical perspective, the Japanese example suggests that eventually, like the GPIF, the NPS will have to become more profit-oriented, be used less as an instrument for achieving policy goals, and diversify its investment portfolio for financial sustainability. If so, the trigger effect of financial crises in revealing the embedded developmental legacy of the NPS may significantly diminish. There may be other state-controlled financial institutions, such as the Korea Post, that will be called into action in a crisis, but the NPS may not be a sustainable anti-crisis policy instrument for the long term. For now, however, the developmentalist legacy of the NPS has given the Korean state additional degrees of freedom to manage financial crises with minimum disruption of long-term policy goals.

Appendix 1

**Table 1: NPS's share (%) in top 10 Korean companies listed in domestic stock market
by market capitalization 2021**

Company Name	Share of company asset (%)	Share within NPS assets (%)
Samsung Electronics	10.7	29.5
LG Chemical	9.7	3.2
SK Hynix	11	5.4
Samsung Biologics	4.3	1.4
Naver	11.6	3.2
Hyundai	10.2	2.4
Kakao	8.6	1.7
Samsung SDI	10	2.5
Kia	8.9	1.3
KB Financial Group	9.9	1.0

Source: NPS, Companies Market Capitalization

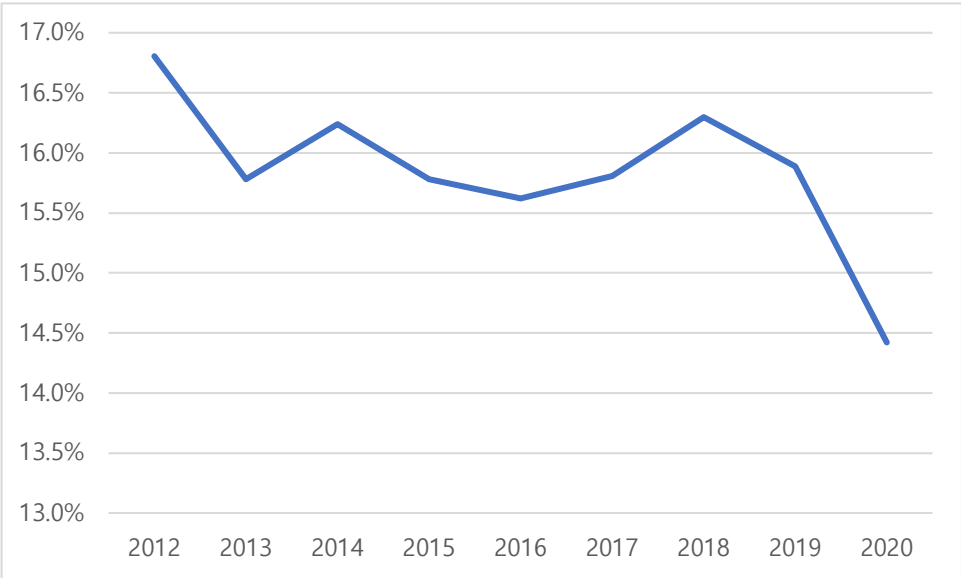
**Table 2: NPS's share (%) in major Korean institutional investors listed in domestic
stock market as of 2021**

Company Name	Share of company asset (%)	Share within NPS assets (%)
KB Financial Group	9.9	1
Shinhan Financial Group	9.8	0.9
Hana Financial Group	9.9	0.6
Samsung Life Insurance	6.4	0.6
Samsung Fire & Marine Insurance	10.7	0.5
Woori Financial Group	9.8	0.5
Korea Investment Holdings	13.5	0.3

Samsung Securities Co. Ltd.	13.4	0.3
Mirae Asset Securities	7.9	0.3
Industrial Bank of Korea	6.8	0.3
Kiwoom Securities	12.9	0.2

Source: NPS

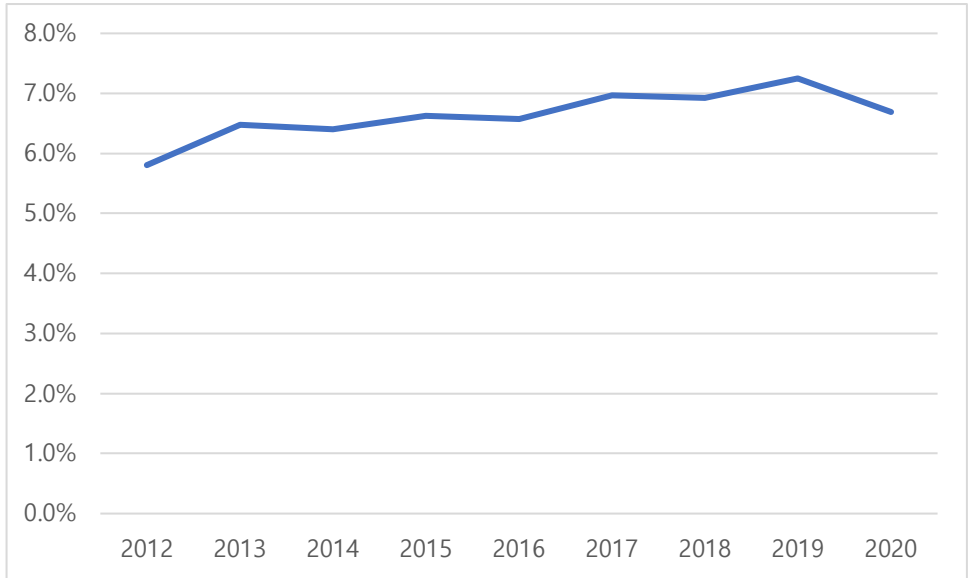
Fig. 7: NPS’s share in aggregate Korean fixed income market by % (2012-2020)



Source: KOSIS, author calculation

Note: NPS’s aggregate share in the Korean fixed income market (market inclusive of sovereign, corporate, financial, public finance, asset backed security, and more) has constantly maintained high levels for the past decade. The recent fall is related to the increased amount of bond issuances in both the sovereign and corporate sector as part of the pandemic response.

Fig. 8: NPS’s share in aggregate Korean stock market by % (2012-2020)



Source: KOSIS, author calculation

Note: This figure demonstrates the NPS's aggregate capital share in the Korean domestic stock market. For instance, in 2019, NPS held more than 7% of the total capital invested in the Korean stock market.

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