SOMO

Stichting Onderzoek Multinationale Ondernemingen
Centre for Research on Multinational Corporations

South Korea's Experience with Banking Sector Liberalisation

Research report

Editors: Madhyam & SOMO

December 2010

SOMO

South Korea's Experience with Banking Sector Liberalisation

Research report

By:
Hyekyung Cho (Hallym University of Graduate Studies, South Korea)

Editors:
Kavaljit Singh (Madhyam) & Myriam Vander Stichele (SOMO)

December 2010

SOMO is an independent research organisation. In 1973, SOMO was founded to provide civil society organizations with knowledge on the structure and organisation of multinationals by conducting independent research. SOMO has built up considerable expertise in among others the following areas: corporate accountability, financial and trade regulation and the position of developing countries regarding the financial industry and trade agreements. Furthermore, SOMO has built up knowledge of many different business fields by conducting sector studies.

Colophon

South Korea's Experience with Banking Sector Liberalisation
Research report
December 2010

Author: Hyekyung Cho (Hallym University of Graduate Studies, South Korea)
Editors: Kavaljit Singh (Madhyam) and Myriam Vander Stichele (SOMO)
Layout design: Annelies Vlasblom
ISBN: 978-90-71284-77-9

Financed by:
This publication has been produced with the financial assistance of the Dutch Ministry of Foreign Affairs. The contents of this publication are the sole responsibility of SOMO and the author, and can under no circumstances be regarded as reflecting the position of the Dutch Ministry of Foreign Affairs.

Published by:

Stichting Onderzoek Multinationale Ondernemingen
Centre for Research on Multinational Corporations

Sarphatistraat 30
1018 GL Amsterdam
The Netherlands
Tel: + 31 (20) 6391291
Fax: + 31 (20) 6391321
E-mail: info@somo.nl
Website: www.somo.nl

Madhyam
142 Maitri Apartments, Plot No. 28
Patparganj, 110092 DELHI
India
Website: www.madhyam.org.in

This publication can be downloaded and used for free with due references: <http://somo.nl/publications-en/Publication_3647/view?set_language=en>

This document is licensed under the Creative Commons Attribution-NonCommercial-NoDerivateWorks 2.5 License.

SOMO

Contents

Glossary of financial terms 5
Note from the editors 7
Summary 8
Introduction 10
1. Historical and institutional context of financial liberalization 11
1.1 Beginning of banking sector liberalization in the 1980s 11
1.2 Unbalanced financial liberalization in the 1990s 12
1.2.1 Asymmetric liberalization *12*
1.2.2 Outcome of unbalanced liberalization *13*
2. The 1997 financial crisis and its aftermath 15
2.1 Banking sector restructuring 15
2.1.1 Government-led restructuring *15*
2.1.2 Banking sector consolidation making Megabanks *16*
2.1.3 Outcome of post-crisis banking sector restructuring *17*
2.2 Post-crisis financial liberalization 18
2.2.1 Full-fledge financial liberalization *18*
2.2.2 Financial development strategy: Financial hub project *19*
2.3 Foreign bank entry in Korea 20
2.4 Liberalization commitments in GATS 20
2.5 Foreign takeover of domestic banks 21
2.6 Heated political debates 22
2.6.1 Foreign Bank branches *23*
2.7 Financial supervisory and regulatory system 26
2.7.1 Reform of financial supervisory system *26*
2.7.2 Banking sector prudential regulations *26*
3. Post-crisis banking sector: Performances and risks in 1998-2008 28
3.1 Risks and Vulnerabilities in the Korean banking sector 28
3.1.1 Shift to household loans and herd behaviour *29*
3.1.2 Excessive competition for market share after the credit card bubble burst *30*
3.1.3 Shifting lending risks to borrowers and taxpayers after the credit card crisis *32*
3.2 Bank growth strategy and profitability 32
3.3 Foreign banks' behaviour differed 33
3.4 Pre-2008 crisis behaviour 36
4. Global financial crisis and the Korean banking sector 37
4.1 Impact of global financial crisis on Korean financial markets 37
4.1.1 Causes of Korea's foreign debt problem *38*
4.1.2 Government initial response to Korean financial turmoil *41*
4.2 Capital controls and regulatory dilemmas 43
4.2.1 Policy shift towards capital controls *43*
4.2.2 Policy dilemma's *44*
4.2.3 Role of foreign banks in Korea *47*
4.2.4 Civil society and social mobilization *48*
5. Conclusion 49
6. References 51

Glossary of financial terms

Basel Accords: Issued by the Basel Committee on Banking Supervision (BCBS), a set of agreements which provides an international standard for capital adequacy rules. The name for the accords is derived from Basel (Switzerland) where the Basel Committee meets. The BCBS maintains its secretariat at the BIS. The first Basel Accord (Basel I) was issued in 1988 and the second Basel Accord (Basel II) in 2004. The Basel III will be introduced in 2013.

Capital ratio: The capital ratio is a key financial tool to measure banks' capital strength. It is the ratio of a bank's capital to its risks and helps in determining whether a bank has enough capital to withstand losses. The higher the capital ratio, the more sound the bank. There are several standard measures of capital ratio including risk-adjusted capital ratio, total capital to total assets ratio, and leverage ratio. Basel accord made the concept of risk-weighted capital adequacy the international standard..

Certificate of deposit (CD): The short-term debt instrument issued by banks paying a specified rate of interest for a set period of time with a penalty imposed for premature withdrawal of the deposited funds.

Currency swap (contracts): The exchange derivative used to secure cheaper debt by borrowing at the best available rate regardless of currency and then swapping for debt in desired currency as well as to hedge against FX fluctuations. Currency swap involves the exchange of principal and interest in one currency for the same amount in another currency. Often, one party will pay a fixed interest rate, while another will pay a floating exchange rate. At the maturity of the swap, the principal amounts are exchanged back.

Deleveraging: A process through which investors reduce their financial leverage.

Derivatives: complex securities used to hedge against market fluctuation. They are financial instruments derived from underlying securities (e.g. stocks) and primarily comprise three instruments, futures, options and swaps. While their intention is to hedge against risks, derivatives are increasingly speculatively traded heightening risks substantially. The over-the-counter derivatives market notional value outstanding in 2009 was 12times the size of the global economy.

FSC: The Financial Supervisory Commission received in 2008 a combined authority for decision making of financial market-related policies and financial supervision.

FSS: The Financial Supervisory Service was established in 1999 as an executive arm of the FSC.

FX forward (forward foreign exchange contracts): The simplest exchange derivative buying or selling a certain amount of foreign currency at a specified future date and at a rate agreed today.

FX market: Foreign exchange market

FX spot transaction: Buying and selling currencies for immediate delivery at the current market rate.

FX Swaps: exchange derivative used as effective cash management tool for institutions that have assets and liabilities denominated in different currencies without incurring foreign exchange risk. FX swap is the simultaneous borrowing and lending of one currency for another and consists of two legs,

a spot transaction, and a forward transaction. These two legs are executed simultaneously for the same quantity, and therefore offset each other.

FX swap lines: During the global financial crisis of 2008, the United States Federal Reserve and central banks of other countries developed a system of reciprocal currency arrangements to overcome the shortages in the US dollar funding markets. This arrangement helped countries to provide US dollar funding to their banks and financial institutions.

FX position: the difference between assets and liabilities expressed in terms of a single currency. When assets in one currency exceed liabilities, it is called long position or overbought. When liabilities in one currency exceed assets, it is called short position or oversold. Any open position (long or short) is subject to market fluctuation, thus is needed to be closed out by a corresponding opposite transaction.

Leverage: The use of borrowed money and other financial instruments (including derivatives) to increase the return of an investment. Leverage can be created through various financial instruments including options, futures and margin. (or capital-asset ratio, or capitalization, or leverage ratio): Most common metric is the capital-asset ratio (but more sophisticated measures such as tier-1 capital to risk-weighted assets are used in practice). It is also used interchangeably to simply indicate the amount of indebtedness in the system.

LIBOR: The LIBOR is an interest rate at which banks can borrow funds from other banks in the London inter-bank market. Fixed on a daily basis by the British Bankers' Association, LIBOR is the most widely used benchmark for short-term interest rates.

Loan to value ratio: The proportion of loans in relation to its value. It is a lending risk assessment tool used by banks and lenders before approving a mortgage. The high loan to value ratios are generally considered as higher risk.

MOF: Ministry of Finance

NBFIs: Non-banking financial institutions

NPL: Non-performing loans: loans that are in default or close to being in default.

Position limits: A predetermined position level set by regulatory bodies for a specific derivative contract. Position limits are created by regulatory bodies for the smooth and stable functioning of markets. Each contract will have varying position limits.

Private Equity: Private equity is a broad term denoting any investment in assets or companies that are not listed on public stock exchanges. Shares in these companies are bought, sold and issued privately, not publicly. Private equity firms invest in companies at various stages of their development ranging from their very beginnings to their demise. Most private equity investment, however, is concentrated on companies during the later stages of their growth or when they are in distress. One of the common investment strategies in private equity is leveraged buyouts.

ROA: Return on asset

ROE: Return on equity

SME: Small and Medium Enterprise

Note from the editors

Dear readers,

In recent times, financial liberalization has almost become synonymous to financial instability and systemic risk. In the wake of series of financial crises in emerging markets and elsewhere, the doctrine of financial liberalization (both external and domestic) has come under closer scrutiny. In almost all episodes of financial crises since the late 1970s, financial liberalization preceded the crisis.

This study examines the financial liberalization policies in South Korea from a political economy perspective. It provides new insights into the role of financial deregulation and globalization policies leading to increased financial fragility through market failures and regulatory weaknesses.

The study documents the strong linkages between financial liberalization and financial crises in South Korea. It analyses key developments in the Korean banking sector before and after the 1997 financial crisis. It also provides a critical understanding of the interplay between state, big business and foreign investors in shaping the landscape of Korean financial system. The study unravels the flawed regulatory regime which led to asymmetric and unbalanced financial liberalization after 1997.
The study shed lights on the emergence of new financial risks and vulnerabilities in the Korean banking sector before and after the 2008 financial crisis. In particular, the eminent role of foreign bank branches in building of short-term foreign borrowings is highlighted.

The Korean experience offers several important policy lessons pertaining to domestic financial liberalization, capital account liberalization and foreign ownership of the banking system.

We hope that this study will further stimulate policy debates and discussions on the costs and benefits of financial reforms. We look forward to your valuable comments and inputs on the study, which can be sent to: m.vander.stichele@somo.nl

Editors,

Kavaljit Singh, Madhyam (Delhi, India)

Myriam Vander Stichele, SOMO (Amsterdam, The Netherlands)

Summary

This case-study examines the impact of banking liberalisation policies in South Korea from a historical perspective. The study provides new insights into the role of financial deregulation and globalisation policies adopted by the South Korean authorities, leading to increased financial instability and large bailouts of banks and financial institutions. The study has a special focus on the role of foreign banks and financial investors.

The strong linkages between financial liberalisation and financial crises in South Korea as well as the important role played by external actors (particularly the IMF and the OECD) in pushing unbridled financial liberalisation are documented in this case study. Key developments in the Korean banking sector before and after the 1997 financial crisis are analysed. The study also provides a critical understanding of the interplay between the state, big business and foreign financial investors (including foreign banks) in shaping the landscape of the Korean financial system.

The study unravels the flawed regulatory regime changes which led to asymmetric and unbalanced financial liberalization after 1997. "It was no surprise that the government reform policies were ambivalent and inconsistent. Government stance on financial liberalization was characterized by asymmetry and unbalance between the external and domestic sector, between the banking and non-banking sector, and between long-term and short-term markets. Implementation was haphazard and ad hoc," says the author.

The study provides a critical analysis of post-crisis banking reforms in South Korea under the influence of the IMF. The IMF-directed reforms led to a sharp increase in ownership of the Korean banking industry by foreign banks, private equity funds and foreign institutional investors. The South Korean government removed foreign ownership limits and other regulatory obstacles to enhance the entry of foreign banks in the domestic banking sector. It was expected that a large presence of foreign banks would enhance the efficiency and stability of the banking system. Not only foreign banks bought majority stakes in state-owned banks under the privatization process, they also expanded their presence through subsidiaries and branches in the Korean banking markets.

The characteristic "boom and bust" cycles of bank lending resulted in foreign banks fuelling a credit card bubble and household debt in South Korea, which imploded in 2003. Subsequently banks turned to real-estate lending largely financed by foreign sources, which abruptly came to halt in 2008 in the aftermath of global financial crisis.

Unlike domestic banks, foreign banks have been focusing their activities more on capital market-related businesses than credit business and have been generating substantial profits from risky foreign exchange and derivative trading. Foreign-owned banks charge higher interest rates and shun lending to small and medium enterprises (SMEs).

The study shed lights on the emergence of new financial risks and vulnerabilities in the Korean banking sector. In particular, the eminent role of foreign bank branches in the building of short-term foreign borrowings is highlighted. Strong foreign presence has increased the vulnerability of the Korean banking sector's to pure external shocks.

The study questions the hypothesis that foreign banks are a source of financial stability. "During the recent financial crisis, foreign banks in Korea played a significant role in transmitting global shocks and served as a source of instability," points out the author. The authorities have recently tightened regulations to stabilize won's fluctuations which were caused by foreign banks making speculative bets in derivatives markets such as non-deliverable forwards (NDF).

Of late, foreign-owned banks have come under public criticism for their alleged mis-selling of currency derivative contracts (KIKOs) to South Korea's SME exporters. The exporters suffered heavy losses from such currency derivative contracts. These trades have resulted in hundreds of cases filed by exporters against foreign-owned banks for not properly explaining the potential risks associated with such derivative contracts.

The Korean experience offers several important policy lessons pertaining to domestic financial liberalisation, capital account liberalisation and foreign ownership of banking system.

Introduction

The belief that “free finance” would be a boon for everybody, the rich and the poor as well as the developed world and the developing world, has been reshaping the global economy since the early 1980s. Unfettered capital flows, however, do not work as advertised. Recurrent financial crises with long-lasting damages are the perils that the world had to endure in the past three decades. Repeated market failures built in unfettered finance were always rescued by state’s massive bailouts. Without state’s helping hands free financial markets would have disappeared long ago. This study illustrates the path towards financial liberalization in South Korea (henceforth Korea) focusing on the banking sector. Korea’s experience provides important lessons about promises and perils of financial liberalization.

In Korea as an emerging market economy with high dependence on exports the overarching priority was to maintain currency stability. Accordingly, free capital mobility had never been a vital part of Korea’s financial policy. On the contrary “financial repression” was integral element of Korea’s economic miracle with the banking sector being a servant of the “real economy”. The underdeveloped capital markets were the cost of decades-long financial repression. Korea’s experiments with financial liberalization starting in the early 1980s have been an arduous process. To harmonize banking sector liberalization with currency stability was not an easy task. Eventually, the first experiment ended up with a twin financial crisis – currency and banking crisis – in 1997/98.

Like many other emerging market economies financial crisis served as a facilitator of unfettered finance in Korea. The 1997 crisis and the IMF intervention that followed marked a watershed event in Korea’s path towards financial liberalization and openness. Bold reforms towards full-fledged liberalization were undertaken. This led to fundamental changes in Korea’s banking sector which has increasingly become detached from real economic development. The study documents key elements in the evolution of Korean banking sector liberalization before and after the 1997 financial crisis. Particularly, the post-crisis development in the Korean banking sector will be examined.

A special focus in this study is on foreign banks which have emerged as the major player in the widely opened and liberalized banking sector in Korea. By assessing benefits and costs of Korea’s financial liberalization, it looks into to what extend unfettered finance is living up to its promise.

1. Historical and institutional context of financial liberalization

Until the end of the 1970s the banking sector in Korea was subject to extensive state controls serving as policy instrument to finance “Big-Push” investments, the cornerstone of a government-planned industrialization. Under state ownership of most commercial banks and through direct intervention in banks management, the banking sector operated as non-profit public agency and its primary mission was to provide cheap credits to the private business sector, especially family-owned big business groups called chaebol. Given low saving rates, Korea’s economy was dependent on foreign borrowing. The government controlled the allocation of foreign loans tightly to subsidize favoured industry sectors. Foreign loans were channelled through government-owned policy banks and nearly all of them were guaranteed by the government. Fuelling economic growth by directed lending and foreign borrowing the government maintained a high inflation cum negative interest rate regime. In return for low interest rates, the government explicitly and implicitly guaranteed bank loans. Since there were virtually no market disciplines, all risks associated with politically directed lending were socialized through costly bailouts of failed private companies and banks. Bank bankruptcies have been practically unknown in Korea until 1997. The state-controlled credit allocation resulted in a highly concentrated economy dominated by a small number of chaebol. The repressed banking sector was to bear financial burdens and risks incurred from the government-promoted industrialization. This growth regime, however, was teetering on the verge of collapse in face of the second oil shock in the late 1970s and the following global recession.

1.1 Beginning of banking sector liberalization in the 1980s

The first attempt to reform the state-controlled banking sector came in the early 1980s. The new military regime which came to power through a military coup in 1980 brought US-trained economists to key positions in economic policymaking. Committed to free market ideology, economic policymakers embarked on market-oriented reforms seeking to remedy structural deficiencies that resulted from decades-long state intervention in the economy. As part of an overall liberalization of the economic system, financial deregulation was initiated. One of the key reform objectives was to contain the growing share of chaebol in the economy by promoting market competition. The focus in credit policy switched from chaebol toward small- and medium-sized companies (SMEs) without abandoning the credit policy to meet overall growth targets and finance industrial upgrading. The pervasive commitment to financial opening and liberalization was clearly contradicted by the continued intervention in financial markets, particularly the banking sector.

Accordingly, it was no surprise that the government reform policies were ambivalent and inconsistent. Government’s stance on financial liberalization was characterized by asymmetry and unbalance between the external and domestic sector, between banking and nonbanking sector, and between long-term and short-term markets. It lacked a deliberate and comprehensive strategy regarding pace, scope, and sequence of reforms. Implementation was haphazard and ad hoc. Despite formal progress there was often a wide gap between de jure and de facto. Domestic financial liberalization was subordinated to the primary policy goal to provide domestic business with cheap funding. The government retained de facto controls in market interest rates through administrative guidance. Official exchange rate policies moved toward greater flexibility. Yet actual exchange rate policy was directed

by the goal to strengthen export competitiveness. Capital account liberalization was managed by financing needs both for external sector and concerns of currency appreciation. Thus, depending on the environment of current account balances, the government alternately liberalized and reregulated capital account transactions (Linder 1992; Frankel 1993).

In the early 1980 the government took important steps for domestic financial deregulation. Several state-owned commercial banks were privatized and entry barriers were relaxed. Credit ceilings for individual banks were abolished and directed lending to preferred industry sectors was reduced. Preferential interest rates on policy loans by commercial banks were removed. At the same time new regulation measures were imposed including limits on loans to chaebol and ceilings on bank ownership by non-financial corporations. Another important element was to promote non-banking financial institutions (NBFIs) and security markets as alternative corporate financing as well as a way out of the chronic non-performing loans (NPL) problem in the banking sector. In the second half of the 1980s, however, the banking sector reforms were halted. Interest rate liberalization announced in 1984, was not implemented amid acute NPL problems in the banking sector. Gradual deregulation of capital flows proposed in 1988 was also stalled. This was due to substantial trade surpluses in the second half of the 1980s largely thanks to US dollar depreciation resulting from the Plaza Accord in 1985, which put significant upward pressure on the won and inflation. In response, the government retreated from partial liberalization of capital inflows in the early 1980s and re-imposed controls on capital inflows. Furthermore, it appreciated the won in 1988 in order to ease the Bank of Korea's difficulties in managing price stability.

1.2 Unbalanced financial liberalization in the 1990s

In the early 1990s, when Korea's trade balances returned to deficit as a result of the won appreciation in the late-1980s and the global recession, the government under president Kim Young Sam resumed the reform process with a greater fervor. To encourage capital inflows for financing the growing trade deficits it pushed ahead with external liberalization. After 1990, it adopted a more market-oriented exchange rate system which allowed interbank rates to float freely wthin a specified margin and the government steadily widened the margins in the following years. In 1992 foreign investors were allowed for the first time to invest in the Korean stock market, though with ceilings on foreign holdings, up to 3% of each company per individual investors and up to 10% in aggregate. Foreign direct investment in manufacturing sector was considerably liberalized. Along with external liberalization a gradual, staged deregulation of interest rates was implemented. According to the plan, most interest rates were to be liberalized by July 1997. In mid-1990s the Kim Young Sam administration' aspiration for Korea's OECD membership accelerated the reform process. All remaining state-owned commercial banks were privatized by 1997. Entry barriers and restriction on the scope of activities in the banking and nonbanking sector were substantially relaxed. Interest rate deregulation was implemented ahead the original schedule.

1.2.1 Asymmetric liberalization

However, the announced interest rate liberalization proceeded asymmetrically. Interest rates for lending and short term debt instruments were completely liberalized by 1993/1994, while deposit rate deregulation moved slower. Furthermore, despite the formal liberalization of corporate bond rates and banks' lending rates in the early 1990s the government retained de facto controls on both rates until 1996. This was because the government continued to regard commercial banks, even after having been privatized, as policy instrument. By contrast, the government maintained hands-off stance on NBFIs, making these the biggest beneficiary of financial liberalization since the early 1980s.

The Foreign Exchange Management Act, issued in 1994 for further liberalization of the capital account and FX markets, was also characterized by an asymmetric approach to capital inflows and outflows as well as long term and short term markets. Ceilings on foreign holdings in the domestic stock market were only gradually increased and foreign participation in government securities and corporate bond issued in the domestic market was strictly controlled. In contrast, access of domestic financial and nonfinancial entities to overseas financial markets was substantially relaxed. Merchant banks were now allowed to deal in FX transactions and participate in foreign currency-denominated lending and borrowings. However, there was an asymmetry in access to long term and short term transactions. Short-term overseas borrowing by domestic banks including merchant banks was fully liberalized, whereas the government maintained substantial controls over external issuance of long-term bonds and long-term commercial loans by financial and nonfinancial firms (Cho 1997).

This asymmetric financial liberalization was one byproduct of the Kim Young Sam administration's balancing action between political and economic benefit of Korea's OECD entry and economic risks with further capital account opening. The government was reluctant about further capital account opening which would lead to a sharp increase in capital inflows given interest rate differentials. The underlying concerns were appreciation of the won which would undermine export competitiveness, rather than financial instability generated by volatile capital flows. As thanks to partial opening capital markets in the early 1990s foreign portfolio investments surged which put strong upward pressure on the won, the government let capital outflows, rather than attempting to restore balance by re-imposing controls on inflows, as might have been done in the past. As a result, outward investments dramatically increased. The policy of permitting short-term borrowing and restricting long-term flows allowed not only domestic entities to enjoy benefits of lower costs of overseas short-term borrowing. But also it allowed the government to flexibly make use of OECD rules which grant members the right to roll back previously adopted liberalization measures with respect to most short-term capital movements but not those regarding long-term movements.

1.2.2 Outcome of unbalanced liberalization

The unbalanced liberalization for interest rates caused a rapid expansion of short-term securities markets as funding instrument for banks, NBFIs, and non-financial corporations. The asymmetric capital account opening led to a sharp increase of short term overseas borrowing by banks and merchant banks. Furthermore, a dualistic structure in the financial industry has emerged consisting of the still tightly controlled banking sector lending at controlled, low interest rates on the one hand, and the relative free, unregulated NBFIs lending at higher market interest rates on the other hand.
Of the NBFIs, merchant banks were those that took full advantage of the unbalanced liberalization. They emerged as a key financing vehicle for chaebol's aggressive investment drive in domestic and overseas markets in the 1990s. Thus, the government attempts to contain chaebol's expansion by enhancing free market competition completely failed. On the contrary, the financial liberalization since the 1980s helped chaebol's becoming financially independent from the government. Already in the 1980s chaebol's rose to major players in the sector of NBFIs.[1] Already in the late 1980s the share of NBFIs in deposits and loans began to surpass that of commercial banks. As of 1988 the top 30 chaebol owned 12 security companies out of 25, 18 insurance companies out of 35, and 18 investment trust companies out of 38. In mid-1990s, when merchant banks were allowed to participate in international financial business, merchant banks have mushroomed. Twenty four new merchant banks were established between 1994 and 1996. Most of them were the former investment trust funds which just changed the name.

[1] For more details, see Lee et al (2000) Chaebol, Financial liberalization, and Economic Crisis.

Chaebol successfully countered the limited access to bank loans by shifting in their funding sources from banks to NBFIs as well as security markets (Lee & Lee 2003). Furthermore, with the government's withdrawal from active industrial policies and investment regulations in the early 1990s regulatory obstacles to chaebol's expansion disappeared, which has catalyzed chaebol's aggressive expansion. Chaebol's unimpeded expansion financed largely by NBFIs through short term domestic and overseas borrowing made the entire financial system vulnerable, leading up to the financial crisis in 1997. The first signs of the ensuing crisis emerged in the early 1997, when Hanbo Steel, the fourteen largest chaebol, went bankrupt and the government refused to bail out the company. A series of medium-sized chaebol's failure followed was evolving into a full-fledged corporate debt crisis. Foreign investors and lenders began to reassess their exposures to Korea, rushing out of Korean investments and loans.

2. The 1997 financial crisis and its aftermath

This chapter provides an overview of different policies and their effects after the 1997 crisis. The following issues are described each in their chronological order:

(1) The restructuring of the banking sector and the resulting concentration of the banking sector;
(2) The post-crisis financial liberalization;
(3) Foreign bank entry in Korea;
(4) The financial supervisory and regulatory system

2.1 Banking sector restructuring

Korea's impressive economic miracle, politically adorned with its OECD entry in 1996, came to an abrupt end in the late 1997, when the devastating tsunami of financial crises begun in Thailand reached Korea. The overseas borrowing spree by domestic entities became fatal, ending up to a twin crisis - currency and banking crisis. The panicked government asked the IMF for an emergency bail-out package in November 1997 and signed a Letter of Intent to the IMF on December 3, 1997 accepting painful structure adjustment programs (SAP) in exchange for financial support from the IMF worth of $57 billion. The swift actions for financial restructuring were followed as part of broader SAP imposed by the IMF.

The post-crisis bank restructuring can be divided in two distinct phases. The first phase between 1998 and 2000 was dominated by government efforts to avert the systemic failure of the banking sector through nationalization and injection of massive public funds. The second phase, after a basic banking stability was restored in 2001, can be characterized by strategic mergers and re-privatization of nationalized banks with facilitating further consolidation and creating financial conglomerates.

2.1.1 Government-led restructuring

The essential components of the government intervention in the early crisis years included closure of failed banks, recapitalization and clean-up of bad assets of viable banks. Applying the global regulatory measure of the Basel capital adequacy ratio, non-viable banks were identified and forced to exit (Kim 1999). In January 1998, two nation-wide commercial banks, which were technically insolvent yet regarded as systemically important, were immediately nationalized. In the midst of the crisis in 1998, five smaller commercial banks were closed. Several non-viable banks were merged with stronger ones. Viable banks were required to file detailed restructuring plans entailing recapitalization, management improvement, and downsizing. In case of failure to meet their targeted performance banks were expected with harsh punishment measures such as suspension of government support and eventually closure. The restructuring was accompanied by massive bailout programs to shore up undercapitalized banks and to purchase NPLs. As institutional vehicles for taxpayer-financed restructuring, three government agencies were set up: the Korea Asset Management Corporation (KAMCO), the Korea Deposit Insurance Corporation (KDIC), and the Financial Supervisory Commission (FSC). The FSC in concert with the Ministry of Finance conducted the restructuring process by using the full range of options, forcing liquidation, mergers and nationalization. KDIC was responsible for bank recapitalization, compensation for losses, and deposit protection. KAMCO

assumed the role of bad bank buying up and disposing banks' bad assets, which marked the first move ever to develop a market for distressed assets.

The government initial effort to restore banking stability had only limited success. In 2000, banks originally deemed viable failed rehabilitation due largely to the continued big corporate failures. The corporate bond market also collapsed. Another financial collapse loomed on the horizon. In the late 2000 the government declared six more banks technically insolvent. In contrast with the previous approach at the height of the crisis in 1998, the government shunned liquidation of insolvent banks and instead decided to keep them all alive to continue their lending operation. This policy change led to further bank nationalization during 2000. As a result of this second round of nationalization, the number of commercial banks under government control increased to eight, and state ownership in the entire banking sector including specialized banks increased from 33 percent in 1996 to 54 percent in 2000. The decisive government rescue actions freed the Korean banking system from the shackles of bad loans and allowed it to get on a recovery track, reporting net profits in 2001.

The regained stability in the banking sector came at a high cost for the Korean taxpayer. By 2001, the total fiscal support for bank restructuring amounted to 157.7 trillion won. This is equivalent to 30 percent of Korea GDP in 2000 and would be even higher if the welfare costs for laid off workers were included. This makes the Korean financial crisis one of the most expensive ones in recent history (Kalinowski & Cho 2009).

2.1.2 Banking sector consolidation making Megabanks

Given the improved conditions since 2001 the government advanced to a second round of bank restructuring consisting of strategic mergers and the re-privatization of nationalized banks. The policy objective was shifted to enhance economies of scale and scope in the Korean banking industry. The financial authorities saw the Korean banking sector "over-banked", which was believed to hamper its competitiveness, and concluded that reflecting the global trend Korea needs "mega banks doing universal banking."

The government took the lead in forming a new landscape in the Korean banking sector. Along with enacting a new Financial Holding Company Act in October 2000, the government merged four nationalized banks (Hanvit, Peace, Kwangju and Kyongnam) and several NBFIs to create Woori Finance Holding Company in April 2001, Korea's first financial holding company providing universal banking services. This was government's response to failed attempts to induce voluntary mergers among viable banks in the first phase of bank restructuring. By allowing banks to set up financial holding companies it was expected to facilitate banking sector consolidation through mergers. After the government set up Woori Finance holdings, other private-owned commercial banks followed the suit. By 2008 four domestic-controlled major commercial banks were restructured as financial holding companies.

In October 2001, the government approved the merger of Kookmin Bank (KB) and Housing Bank to form the largest commercial bank representing a roughly 30% market share in terms of assets in the commercial banking sector. That move put the remaining private commercial banks under competitive pressure to increase their size and market share. Privatization of the nationalized banks provided them with opportunity to do that. As the government offered the nationalized banks for sale, banks were vying to take them over. Seoul Bank (government's share at 100%) was sold to Hana Bank in December 2002, which was transformed to Hana Financial Group in 2004. Chohung Bank (government's share at 80%) and Cheju-bank (95.7%) were sold to Shinhan Financial Group in September 2003. After the Korea First Bank (KFB) had been sold to foreign investors in December

1999, two additional nationwide commercial banks, KorAm bank and Korea Exchange Bank (KEB), deemed unlikely to meet the capital ratio of 8% due to mounting bad loans were sold to foreign investors. While the government successfully managed to re-privatize smaller banks, it failed re-privatization of Woori financial Group. The KDIC began to dispose its shares in Woori Financial Group in 2002, which was listed on the Korean Stock Market in the same year, gradually reducing its holding from 100% to 78% as of the end of 2007. But the original plan for sale of the government's controlling stake by March 2008 was called off.

In early 2008 the newly elected government unveiled a plan for privatization of three state-owned banks, Woori Bank and two major policy banks - Korea Development Bank and SME-specialized Industry Bank of Korea. The planned privatization, however, could not proceed amid domestic financial turmoil induced from the global financial crisis.

2.1.3 Outcome of post-crisis banking sector restructuring

As a result of the ongoing restructuring the landscape of the Korean banking sector has changed dramatically. The restructuring led to a massive concentration in the banking sector. The number of commercial banks was halved from 26 in the late 1997 to 13 in 2007 – seven nation-wide and six regional banks. Of 13 commercial banks four largest commercial banks and three regional banks were put under umbrella of financial holding companies. Only three regional banks remained independent. The market share of the three largest banks by assets has more than doubled from 27% in 1997 to 58.6% in 2007. Bank employees had to pay a high price, as the number of regular employees in the banking sector was massively cut by 36%, from 114,000 in 1997 to 73,000 in 2007. Despite the radical consolidation the number of branches steadily increased from 3.705 in 1997 to 4.931 in 2007. The growing number of branches, though with a massive cut in employment, led to a sharp increase in irregular employment. The number of irregular employees dramatically increased from 1947 in 1997 to 31,000 in 2007 corresponding to more than 40% of regular employees.

Another conspicuous change was a sharp increase in foreign participation in the Korean banking industry (see table 1). Three medium-sized nationwide commercial banks are under foreign control. In terms of equity ownership structure all private-owned nationwide commercial banks or financial holding companies and two independent regional banks are foreign-owned. Only three affiliated banks of the state-owned Woori Financial Group and Jeonbuk Bank, an independent regional bank, are domestic-owned. Between 2001 and 2007 the foreign equity share in the commercial banking sector has more than doubled from 32.78 % to 64.42%. Banking sector consolidation is still underway. The Korean government's long-held dream of creating a mega-bank which has been the major driving force of bank restructuring has not yet realized. The anticipated privatization of state-owned banks including policy banks as well as sale of KEB owned by private equity fund Lone Star herald further consolidation in the Korean banking sector.

Table 1: Assets and foreign Equity Share in the nationwide commercial banks

	Foreign equity share (%)			Asset (trillion won)	Asset share (%)
	2001	2004	2007		as of end 2007
KB Finance Holdings	71.11	76.1	81.32		
Kookmin Bank				218.9	22.7
Woori Finance holdings	0	11.58	13.69		
Woori				187.9	19.5
Kyungnam				19.2	2.0
Gwangju				15.3	1.6

Shinhan Finance holdings	52.33	62.88	58.14		
Shinhan				169.1	17.5
Jeju				2.8	0.3
Hana Finance Holdings	52.14	68.3	75.11		
Hana Bank				116.9	12.1
KEB*	33.53	68.3	80.51	79.9	8.3
SC First*	50.99	48.6	100	52.9	5.5
Citi*	53.22	99.9	99.95	46.9	4.9
Daegu**	3.77	55.8	69.67	23.8	2.5
Busan**	10.64	59.2	64.21	26	2.7
Jeonbuk**	0.05	12.1	21.63	6.1	0.6
Total	**32.78**	**56.27**	**66.42**	**956.7**	**100**

Note: Total assets of Korean commercial banking sector were ca. US 1029 billion calculated by average exchange rate in 2007 US dollar worth 929 won.
*Foreign controlled banks
**Independent regional banks
Source: FSS

2.2 Post-crisis financial liberalization

After the 1997 financial crisis the Korean government took radical steps for further financial liberalization. In response to the previous unbalanced financial liberalization leading up to the crisis the government was committed to full-fledged financial liberalization and opening. This was believed to be the best prevention against another crisis as well as the best strategy to increase efficiency and competitiveness of Korea's underdeveloped banking industry. "Financial development" corresponding to the size and development level of Korea's "real economy" has become a key policy objective in the post-crisis period. The government strategy for financial development focused primarily on promoting capital markets to reduce the predominance of commercial banks in the Korean financial system. The long-term goal was to transform the bank-based financial system to a market-based one. Conventional commercial banking was regarded not only as anachronistic but also more crisis-prone. Financial supermarkets a la Citigroup were suggested as alternative business model that the Korean banking industry should pursue. For banks to become financial supermarkets it was required to diversify their asset portfolios, reducing over-reliance on lending activities and expanding capital market-related ones. Diversified banks engaging in multiple business lines were expected to better withstand credit risks and a banking crash like the 1997 crisis.

The Financial Holding Company Act enacted in 2000 allowed commercial banks to transform financial supermarkets which would reap benefits of further financial liberalization and play a major role in financial development.

2.2.1 Full-fledge financial liberalization

In pursuit of financial development the priority was given to capital account and FX market liberalization. The experience with the 1997 crisis underscored the need for developing the FX market in Korea, which had few market participants and was dominated by a few big players, by increasing market size and liquidity. Furthermore, after the introduction of a free floating FX system in December 1997 and substantial financial opening immediately after the crisis, it was feared that the financial opening would increase market volatility. Thus, the development of a larger FX market was seen as critical to better absorb external shocks without large exchange rate volatility. Extensive regulatory reforms and tax incentives were introduced to boost domestic capital markets such as the stock

exchange and derivatives markets. Given lack of capital market-related experience and expertise, foreign participation was regarded as necessary to catalyze capital market development.

After the ceiling on foreign investment in Korean stock markets was abolished and local bond market and money market were fully opened to foreign investors in May 1998, the government released a two-stage plan for FX markets liberalization. The first stage took effect on April 1999 with the introduction of the FX Transaction Act. All current account transactions by corporations and banks were fully liberalized. Regulations on capital account transactions were converted into a negative list system, allowing all capital account transactions unless specifically prohibited. Non-residents are allowed to open deposit and trust accounts in domestic currency with maturities of more than one year and engage in offshore transactions and issue won-denominated securities abroad. FX dealing was opened to all eligible financial institutions. The second stage that took effect on January 2001 dismantled the remaining restrictions on FX transactions by corporations and financial institutions. Ceilings on external payments by residents and withdrawal of domestic assets by non-residents were eliminated. Non-residents were allowed to open deposits and trusts in local currency with maturities of less than one year and to local real estate. OTC securities transactions between residents and non-residents were liberalized. Foreign currency purchase by non-residents from foreign exchange banks was liberalized.

2.2.2 Financial development strategy: Financial hub project

In 2002 liberalization of FX transactions gained a new impetus, as the Korean government under the newly elected President Roh Moo-Hyun announced a national agenda to promote Korea as a financial hub of Northeast Asia by 2010 (MOSF 2007). The financial hub project was a deliberate industry policy designating the financial industry as the key strategic sector as future growth engine for the Korean economy. As part of the financial hub project the government presented a plan for full-liberalization of FX markets by 2011, virtually removing all regulatory controls on FX markets and pursuing internationalization of the Korean won.[2] In 2005, the Roh Moo-Hyun administration rushed through the plan of full-liberalization of FX transactions by advancing its timetable from the year 2011 to the year 2009. In January 2006 capital account transaction permission system was abolished, replaced by an ex post reporting system. One reason why the government hastened FX market liberalization already underway was the free trade pact negotiations with the US set to begin in 2006. Through speeding up FX market liberalization the Korean government sought to gain leverage in bilateral free trade negotiations with the US and get more concessions from the US on economically sensitive products.

Concomitant with FX market liberalization, domestic capital market deregulation was reinforced, culminating in the promulgation of the Capital Market Consolidation Act (CMCA) in August 2007 which took effect in February 2009. The aim was to create domestic investment banks competing with big players in the global financial markets. Six capital-market related laws – securities, asset management, merchant banking, trust business, derivatives trading, futures trading - were consolidated and the combined operation of the previously separated financial investment businesses was permitted. Regarding the scope of financial products, a negative list system was introduced which expanded the range of financial services.

---

[2] Only three specific types of transactions were not liberalized. Non-residents are not permitted to buy won denominated funds including forward currency contracts that can be potentially used to attack the local currency. Foreign currency borrowing by non-viable domestic firms is not permitted. The Korean government monitors and ensures that Koreans firms that have extended credit to foreign borrowers collect their debts. Despite a full FX market liberalization the Korean government has retained the right to re-impose restrictions on capital outflows in the case of severe economic or financial emergency.

Thanks to the government capital market promotion policies the Korean stock market experienced a dramatic growth, which in turn considerably affected the banking sector business. Similar to the financial sector development prior to the 1997 crisis, the banking sector faced competition threat from NFBIs. Massive flows of private savings into the booming stock market led to decline in deposit growth. Facing difficulties in mobilizing low-cost funding, the banking sector increasingly turned to capital market products such as certificates of deposit (CDs) and bonds as well as short-term foreign borrowing to fund its aggressive expansion driven by fierce competition for market share. Like the 1997 crisis, both the financial authorities and the Korean banking industry were caught unprepared for external shocks when the global credit crunch struck in 2008.

2.3 Foreign bank entry in Korea

After the 1997 crisis there was a fundamental shift in government policy from financial protectionism towards promoting foreign entry. Particularly in the early years of the crisis the government pushed the policy favouring foreign participation in ailing domestic banks. Following the IMF proposal of a market-led bank restructuring the Korean government advocated greater foreign participation which was expected to assist and facilitate domestic banks' recapitalization and self-rehabilitation efforts. Accordingly, the Korean government moved quickly with financial opening, even faster than the IMF requested. To eliminate all regulatory obstacles that stood in the way, ceilings on foreign share holdings in domestic banks were removed and even foreign hostile takeover was allowed. This bold move resulted in easing foreign takeover of domestic banks and increasing foreign holdings in the listed domestic banks. Three of the seven nation-wide commercial banks were sold to foreign investors. Foreign holdings in stocks of all listed domestic banks jumped to 61.7% in September 2004 from 16.4% in end-1997 and started to decline at a substantial pace after a peak in 2004, as explained below. The share of assets held by foreign banks - foreign bank branches and foreign-owned commercial banks – continued to rise to 23.9% in 2008 from 4% in 1997.

2.4 Liberalization commitments in GATS

The financial sector policy shift towards promoting foreign entry through liberalisation of the financial sector has been integrated in the commitments South Korea took under General Agreement on Trade in Services (GATS), which is part of the World Trade Organisation (WTO). Up to the end of 1997, including during the 1997 Asian financial crisis, WTO members continued to negotiate more market access in financial services. Especially the US insisted to have more possibilities for its financial sector to enter lucrative emerging markets in reciprocity for the open markets the US claimed to have, and took advantage of the vulnerability of Asian countries in crisis to press for more market opening.

As part of the agreement reached by WTO members at the end of 1997, Korea made commitments to liberalize large parts of its financial sector by providing market access to those foreign financial service suppliers who wanted to establish themselves ('mode 3' in GATS jargon) in Korea and provide services mainly in the sectors of basic banking services (payments, saving, lending), securities, trust services, investment advice and insurance. However, Korea did not fully open up its markets and made some exemptions such as limiting foreign ownership or detailing the share of foreign ownership in joint ventures, and limiting the use of foreign currencies. Korea also ensured that it could maintain some regulations including mandatory lending to SMEs, capital reserves to be maintained in local branches, limitations in credit card business operations and the requirement that the maturity of certificates of deposit are more than 30 days. Apart from those exemptions, Korea has to apply GATS rules to those financial services sectors it has liberalised in its GATS commitments ('schedules'). This

means among others that it has to treat foreign financial service suppliers at least in an equal way as it treats its domestic financial sector ('national treatment') and all foreign financial service suppliers have to be treated equally ('Most Favoured Nation' clause, MFN). Also, domestic regulations have to be transparent in order to allow foreign financial firms access to all necessary information, also regarding authorisation processes.

The GATS rules contain several disciplines and restrictions on how Korea can regulate the financial sector. The GATS markets access rules (Art. XVI) prohibit Korea, except where exemptions were made, to limit the number of financial service suppliers and the total number of financial service operations. GATS also prohibit restrictions on foreign ownership or legal entity requirements. They prohibit limitations on the total value of financial transactions and the total quantity of financial services output. In addition, GATS rules on domestic regulation stipulate that qualification and licensing requirements as well as technical standards should not be more burdensome than necessary to ensure the quality of the service, not in themselves restrict the supply of the financial service and be based on "objective" criteria. The GATS Annex on financial services allows countries to take prudential measures in order to protect financial stability or the interests of clients of the financial sector, but this rule is vague and should not be applied if it could be seen as undermining GATS commitments.

GATS rules also require that all international payments and current account transfers are allowed related to committed financial services, including all incoming capital for established foreign financial sector suppliers (Art. XVI note 8), except in case of balance of payments problems after different conditions have been applied.

Apart from these GATS rules that curtail the policy space of Korea to implement financial sector and capital movement regulations, Korea made a commitment in GATS not to introduce new laws that would restrict foreign entry or breach GATS rules on market access and national treatment. Once GATS commitments are made, they cannot be withdrawn unless compensation is made as requested by the other WTO member countries. Breaches of GATS rules can be challenged by other WTO members before the WTO's dispute settlement panel.

2.5 Foreign takeover of domestic banks

Despite the government policy to promote foreign bank entry the post-crisis foreign bank entry was not straightforward. Buyout funds first entered the Korean banking sector. In December 1999 the Korean government sold a controlling stake in the KFB to the US-based private equity fund (PEF) Newbridge Capital. This was the first takeover of a major Korean commercial bank by a foreign investor. Further foreign takeovers followed. In early 2001 Carlyle Group, another US-based PEF acquired a 40.7 percent controlling stake in KorAm bank, the seventh largest commercial bank. In August 2003, Lone Star, a third U.S.-based PEF, took over a 51 percent controlling stake in KEB, the fifth largest lender.

Box 1: PEF's Takeover of Domestic Banks: The Case of Lone Star
Immediately after the 1997 crisis PEF entered the Korean banking sector buying three nationwide commercial banks. PEF's takeover deals and their activities have been a contentious issue in Korea. The case of Lone Star drew special attention leading to a years-long court battle. In October 2003 Lone Star paid for 50.5 per cent of the KEB $1.4 billion which was considered to be 20 to 30% lower than the bank's market value. The first prosecutor's accusation against Lone Star was that it had lobbied local officials to exaggerate the financial woes of KEB so that it could buy the bank at a fire-sale price. In a separate case Lone Star was accused of manipulating the stock price of the bank's credit-card arm in 2003 to acquire the unit cheaply. In February 2008 the court found Lone Star was guilty of stock manipulation and imposed fines totalling $50 million and its Korean head was sentenced to prison. Yet the appeals court in June overturned the previous guilty verdict and cleared Lone Star of the charge of stock manipulation. In December 2009 the Supreme Court ruled that Lone Star's purchase of the KEB in 2003 was legitimate and ended the Lone Star legal saga.
Lone Star also faced several tax probes due to its real estate transactions and a partial sale of KEB shares. Lone Star made huge profits estimated at estimated at 1.5 trillion won ($1.6 billion) from these transactions without paying any taxes, because Lone Star's investments in Korea were conducted by a Belgian subsidiary which is not subject to taxation under the Korea-Belgium tax treaty. As Korea's National Tax Tribunal ruled against Lone Star in July in 2007, saying that it had a permanent establishment in Korea, Lone Star took the matter to the Korean courts and closed its subsidiary in Korea in 2008. The case is still under review. Taxation on capital gains from Lone Star's planed exit would open another round of legal battle.

As PEFs sought to exit their investments in Korean banks, foreign multinational banks showed strong interests in the Korean banking sector. Suddenly, fierce bank takeover battles erupted among foreign rivals as well as between foreign and domestic bidders aggressively vying for larger market share. In April 2004, Citigroup beat out SCB and HSBC to buy KorAm Bank from the Carlyle Consortium. In April 2005, SCB won out over HSBC and bought a 51 percent stake in KFB owned by Newbridge. After then, both foreign banks secured 100 percent control by acquiring the remaining shares through subsequent tender offers. In the latest case Lone Star moved to sell off its 51 percent controlling stake in March 2006. Two domestic-controlled banks - KB and Hana - made joined bids with Citigroup and Goldman Sachs respectively. KB was appointed as the preferred bidder, but the deal was cancelled in January 2007 in the wake of criminal investigations into alleged irregularities involving Lone Star's initial acquisition of KEB in 2003. HSBC, after having repeatedly missed opportunities to take over Korean Banks, vied for buying KEB, but the Korean government still owning a 12.37 percent stake in KEB remained indecisive due to the ongoing Lone Star probe. HSBC's bid for KEB fell through in the wake of the 2008 global financial crisis. Although Lone star has been struggling to exit since 2006 it has already recouped its initial investment in KEB through series of dividend payments and share sales. The PEFs entering in the Korean banking sector after the 1997 crisis served as bridge to foreign banks' takeover of domestic banks rewarded by windfall profits.

2.6 Heated political debates

The sales of major commercial banks to foreign investors earned international accolades, but sparked a heated political debate in Korea. In the case of KFB, after having injected more than 8 trillion won to rescue and re-capitalize the bank, the government agreed with Newbridge to sell a 51 percent controlling stake for only 500 billion won ($417 million). The government also agreed to "put back option" clause in the sale contract that provided a guarantee for three years after the transaction to cover liabilities originating from the bank's old loan portfolio. Thus, the government had to continue to inject public funds into KFB, to the tune of around 18 trillion won, an amount equivalent to 36 times the

price that Newbridge Capital had paid for the takeover of the bank. The deal between the government and Newbridge provoked a public outcry over "fire sale" privatization.

Another problem was that the government supported concentrated ownership in the hands of foreign investors, saying that this would boost the banks' own incentive to restructure and help to strengthen their efficiency. The government's advocate for a concentrated ownership in case of foreign takeover of banks collided with the Korean bank core ownership regulation. That regulation limits the voting share of a non-financial company to 4 percent and implicitly calls for, thereby, a dispersed bank ownership structure. PEFs' takeover was hardly in line with the current banking ownership regulation as under the General Bank Act PEFs are classified as non-financial institution and therefore subject to the 4 percent voting share limit. Inevitably, a political controversy emerged. Critics came mainly from the opposition party and conservative press and pointed out preferential treatment of foreign investors and concomitant legal discrimination against domestic non-financial institutions. Some chaebol's joined conservative critics of "reverse discrimination" against domestic firms demanding equal treatment. This conservative criticism found a strong appeal in the public and was supported also by the nationalist wing of the Korean left. Given a nationalistic backlash against growing foreign penetration in the domestic banking sector, the focus in public discourse shifted from how to attract more foreign capital to how to limit foreign influence. Consequently, the Korean government faced a political pitfall which paralyzed privatization of state-owned banks.

2.6.1 Foreign Bank branches

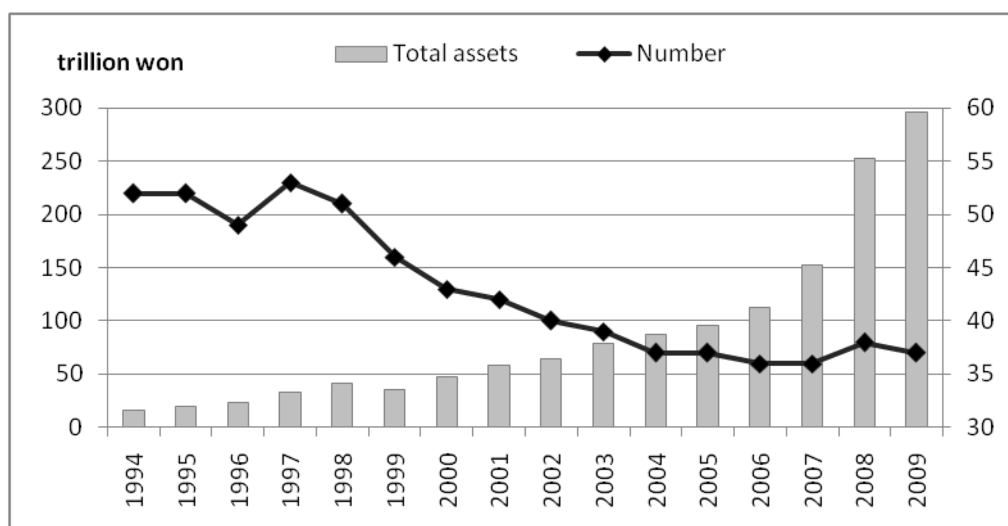
Before the 1997 financial crisis, foreign bank branches were the dominant form of foreign bank entry in Korea. Foreign bank branches are under direct control of foreign bank, which is different from foreign banks affiliates which are incorporated in the host country. Along with gradual financial deregulation and opening in the banking industry beginning in early 1980s, the number of foreign bank branches as well as assets under their management has steadily increased but remained negligible. The small presence of foreign banks in Korea was partly due to the regulatory norm based on local branch capital. The Korean government used local branch capital rather than parent bank's capital as benchmark for foreign bank branches' operations. For example, foreign banks operating in Korea were not allowed to open any new branches or to increase their capital without the permission of the government. A new branch to be approved as a separate business is required to be separately capitalized, and the capital of each local branch, not that of head office, was regarded as bank's capital. The use of FX swap lines which had been a major source of local currency funding for foreign banks was also tied to branch capital level. Given that regulation on FX swaps is based on banks' capital, the use of FX swap lines is limited due to smaller size of capital base at separated branch-level. The regulatory norm based on local branch capital considerably constrained foreign banks' funding and lending practices. The foreign branches' operations, were confined to wholesale banking which is more profitable than retail banking. Yet, given the underdeveloped financial markets with closed capital accounts and fixed FX regime in Korea, foreign banks had only a limited opportunity to expand in Korea before 1997.

After the 1997 crisis the government eased some restrictions on foreign banks' operations. For example, in 1998 position limits were abolished for FX swap lines. In addition, foreign bank branches' net borrowing from their parent banks is regarded as banks' capital. By borrowing funds from parent banks, they can increase their capital base. However, the government continued to cling to the existing regulatory norm based on local branch capital.

By the end of 2010, foreign bank branches are still not allowed to use capital from parent banks to meet regulatory lending limit requirements. Furthermore, foreign banks are still subject to the same

lending ratios as Korean banks. These lending ratios include loan limits on individual customers and big business groups as well as policy-based lending requirements to small and medium-sized enterprises. This ambivalent approach to foreign bank branches had a mixed result. The number of foreign bank branches has decreased from 53 in 1997 to 37 in 2009, whereas their equity capital and total assets have increased considerably (see figure 1).

Figure 1: The number of foreign bank branches* and total assets



*based on the number of banks
Source: FSS, Bank Management Statistics, various years

Especially since 2006 there has been a sharp increase in banks raising capital from selling shares and retained profits. The combined equity capital of foreign bank branches provided by parent banks, the owners, nearly tripled from to 5.7 trillion won in 2005 to 16.5 trillion won in 2009. During the same period assets under management of foreign bank branches saw a dramatic surge from 95.7 trillion won in 2005 to 295.8 trillion won in 2009, with surpassing the combined assets of three foreign-owned nation-wide commercial banks of 220.9 trillion won. As a result, foreign bank branches' share in Korea's total bank assets including policy banks has surged from 7.5% in 2005 to 15.3% in 2009. This was because the ongoing capital account and FX market liberalization gave foreign bank branches huge opportunities to expand their operations in securities and derivatives trading. Foreign bank branches have heavily engaged in arbitrage transactions, i.e. benefiting from differences between countries, with money borrowed from their headquarters by selling spot dollars and purchasing higher-yielding Korean sovereign bonds. Money market business with liquidity obtained through currency swaps has also considerably contributed to their asset expansion (see table 2).

Table 2: Key component in foreign bank branches' balance sheets

	1994	1995	1996	1997	1998	1999	2000	2001
Asset composition (%)								
Local currency lending	23.4	18.8	15.5	12.1	10.8	12.1	11.6	11.5
Interbank foreign currency lending	21	21.4	23.5	23.2	18.5	13.2	8.8	7.6
Offshore asset	15.5	19.2	16.3	16.4	14.8	11.2	18.2	21.4
Securities trading	N.A	N.A	N.A	N.A	16.1	20	23.6	22.6
Others*	1.9	1.4	1.2	2.1	4.2	5.3	6.4	4.7
Liability composition (%)								
Foreign borrowing	7.3	8	4.6	9.3	5.1	3.2	2.9	2.6
Call money**	2.8	2.9	2.2	1.7	4	11.2	14	18.1
Interoffice borrowing	44.4	43.9	48.7	49.9	47.8	40.7	30.9	25.8
Offshore borrowing	15.5	19.2	16.3	16.3	14.6	11.2	6.4	4.7
Others*	1.9	1.4	1.2	1.4	2.5	5.6	18.8	20.9
	2002	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Asset composition (%)								
Local currency lending	9.9	8.3	4.9	5.6	5.4	4.4	2.9	2.1
Interbank foreign currency lending	9.8	10.9	8.6	6.2	4.7	4	3.3	3
Offshore asset	3.9	2.1	1.7	1.5	1.7	1.6	1.7	1.8
Securities trading	29.3	27.6	24.9	29.8	33.3	38.4	25.4	21.4
Others*	22.5	28.2	32.5	37	39.1	36.2	53.5	60.2
Liability composition (%)								
Foreign borrowing	1.8	5.6	7.6	7.2	4.5	9.1	10	6.5
Call money**	14.4	13	20	20.8	21.6	24.1	14.5	9.9
Interoffice borrowing	30.6	29	22.2	20.2	22.1	19.5	15.8	16.5
Offshore borrowing	3.9	2.1	1.7	1.4	1.7	1.6	1.7	1.8
Others*	22.8	29	33.2	37.7	38.2	35	50.2	57.3

*mostly foreign currency related derivatives trading
** Call money is short-term inter-bank money market. Loans in call money market are very short, usually lasting no longer than a week
Source: FSS, Banking Management Statistics, various issues

The funding structure of foreign bank branches has also changed. Prior to the Southeast Asian financial crisis of 1997 crisis interoffice borrowing took the largest share, followed by offshore foreign currency borrowing. Taken together, these two sources accounted for over 65% of total funding. After 1998 derivatives instruments became the largest source of funding followed by call money. Foreign bank branches benefited from special regulatory treatment by which they were not subject to foreign exchange liquidity rules applied to domestic banks. As we will see later in Chapter 4, foreign currency derivatives instruments used by foreign bank branches served as the major transmission channel of the 2008 global financial crisis to Korea as rapid unwinding of foreign currency derivatives trading in late 2008 triggered a dramatic fall of Korean won which brought Korea to the brink of another currency crisis. The remarkable growth in foreign bank branches' assets in the recent years has been funded largely by short-term inter-bank money and derivatives instruments that have emerged as major funding sources after 1998. Foreign bank branches benefited from special regulatory treatment by which they are not subject to foreign exchange liquidity rules applied to domestic banks.

2.7 Financial supervisory and regulatory system

2.7.1 Reform of financial supervisory system

Prior to the 1997 crisis, Korea's financial supervisory system was largely fragmented, with the banking, securities, insurance, and non-bank sectors individually managed and regulated by a separate agency. Furthermore, the authority of supervision was split between two governing entities, the diverse supervisory agencies and the more powerful Ministry of Finance (MOF). Under this segregated supervisory system, the banking sector was overseen by the Bank of Korea and the MOF. As to NBFIs, the overall authority lay with the MOF, while functions of examination were delegated to the Banking Supervisory Authority within the BOK. The fragmented supervisory system was seen as one of regulatory failures which spawned the 1997 crisis. In the course of the financial regulatory reforms after the crisis four separated financial supervisory authorities – bank, securities, insurance, and other NBFIs - were consolidated into a single financial supervisory agency, the Financial Supervisory Commission (FSC) in 1998, following a recommendation by the IMF to establish an integrated financial supervisory body. The FSC is a central public administration agency is charged with decision-making of financial policies as well as supervising, sanctioning, and licensing of financial institutions.

In 1999 the Financial Supervisory Service (FSS) was established as an executive arm of the FSC. As a result of the creation of the integrated financial regulatory and supervisory system, the BOK's responsibility for bank supervision was transferred to the FSC to focus on a sole mandate of price stability. The MOF lost its previous supervisory authority for specialized banks and NBFIs.
In 2008 the conservative government under President Lee Myung-Bak merged the FSC and the financial policy-making authority under the MOF to the Financial Services Commission (FSC). The newly created FSC has a combined authority for decision making of financial market-related policies and financial supervision.

2.7.2 Banking sector prudential regulations

While the Korean government advocates a universal banking model, the regulatory principle of separation between banks and industry companies remains unchanged. On the one hand, industrial companies are allowed to acquire up to 10% of the total bank shares, but may not exercise voting rights for shares exceeding 9% of the bank's shares. On the other hand, bank's investments in long-term securities and derivatives except for sovereign bonds are not allowed to exceed 60% of bank's equity capital. Equity ownership of other companies by bank and bank holding company is limited to 15% and 5% of voting shares (FSS 2010).

The banking sector is subject to prudential regulations in respect with capital adequacy, credit concentration and liquidity.

Korea implemented the Basel II framework in January 2008. The required capital adequacy ratio against assets at risk for both domestic banks and foreign bank branches is set at an 8% minimum and the FSC/FSS takes prompt corrective action against those banks that fall below this requirement. In addition, banks of which capital-to-asset ratio is less than 5.5% are required to reserve 10% of net income in a business year.
All banks are also required to adhere with 10% capital reserves rules.
As one lesson of the 1997 crisis, credit restrictions on single borrower and large shareholders have been tightened. Banks are not allowed to expose more than 20% of its total capital in loans and credit guarantees to a single individual borrower (15% before 1999) and more than 25% of its total capital to

an inter-linked business group in loans and credit guarantees (45% before 1999). In addition, the sum of the credit extended to single individuals or inter-linked business groups that exceed 10% of the bank's total capital must be less than 500% of the bank's total capital. Credit to a large shareholder with more than 10% of the total voting shares of nationwide commercial banks is restricted up to 25% of the bank's total capital or the amount proportionate to the shareholder capital contribution in the bank.

There is a special credit support for SME loans in which the BOK set an aggregate credit ceiling for SME loans and provides low rate loans within the ceiling to financial institutions in proportion to their SME loan performance. Domestic banks are mandated to raise their credit extension to SMEs when the banks increase their overall won-denominated lending. The minimum increase for SMEs is 45% for nationwide commercial banks and 60% for regional banks. Foreign branches utilizing the Bank of Korea's discount window are also mandated to appropriate at least 35% of increase in their won-denominated loans to SMEs. The minimum for foreign branches that do not utilize the discount windows is 25%. If a bank fails to meet the obligatory ratio, the aggregate credit ceiling for the bank is reduced for one month by the amount equivalent to the shortfall.

Liquidity rules have been changing depending on market conditions. Until 2008 the won liquidity ratio based on maturity of less than three months was 100%. Amid the won-liquidity shortage during the 2008 crisis the maturity basis for the won-liquidity was loosened to one month. Foreign currency liquidity rules have been strengthened since the 1997 crisis. A minimum foreign currency liquidity ratio based on maturity of less than 90 days is currently set at 85%. Long-term foreign currency liquidity ratio was raised from over 50% to over 80% in 2009 and again to over 100% in 2010.[3] While the Korean government has imposed strict rules on liquidity risk management and internal management to domestic banks participating in FX markets, those rules are not applied to foreign bank branches. Thus, there are no specific rules or regulations that can properly monitor and supervise short-term capital flows through domestic branches of foreign banks. As a result, during the global financial crisis in 2008, foreign bank branches in Korea have been a major source of the crisis contagion.

[3] The long-term foreign borrowing ratio is calculated as foreign currency borrowing longer than one year/foreign-currency loans longer than one year. The increase in long-term borrowing ratio to over 100% is intended to reduce bank's foreign currency short-term borrowing.

3. Post-crisis banking sector: Performances and risks in 1998-2008

3.1 Risks and Vulnerabilities in the Korean banking sector

Thanks to costly bailouts in the early years of the crisis the overall performance of the Korean banking sector has markedly improved (see Table 3). After years of losses, the banking sector turned net profits in 2001. Return on Equity (ROE) and Return on Assets (ROA) generating negative over 1997 through 2000 have also recovered rapidly. Particularly, the government's financial restructuring strategy of "banks-first and NBFIs-later" led to move of private savings back way from NBFIs to banks. This enabled the commercial banking sector to expand faster than prior to the 1997 crisis. Its market share in terms of total financial sector loans rose to over 70% throughout the 2000s from 40% in 1997. NBFIs being the pre-crisis key players in credit business suffered a significant loss of market share. Consequently, the banking sector gained the dominant position in the Korean financial system after 1997. The rapid expansion of the banking sector was driven by severe competition among a small number of large banks for market share.

The post-crisis banks' battle for market dominance had three distinctive components. First, at the heart of the banking sector expansion was a rapid growth in household credits. Second, excessive competition among a few large banks for market share was accompanied with herd behavior. Third, loan growth outpaced deposit growth. Those trends presenting new risk factors significantly affected performance and stability in the banking sector. Despite general improvements in profitability and soundness since 2001 the Korean banking sector experienced a series of setbacks illustrating the underlying weaknesses.

Table 3: Key indicators in nationwide commercial banks, %

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Net profits (trillion won)	0.7	0.7	0.8	0.6	0.6	-3.4	-10.1	-5.9	-2.4
BIS ratio	10.4	10.4	10.2	9.0	9.0	6.7	8.2	10.8	10.5
NPL ratio	7.4	7.9	6.2	5.3	4.1	5.5	7.2	8.4	6.6
ROA	0.70	0.58	0.61	0.35	0.28	-1.03	-3.32	-1.55	-0.5
ROE	6.88	5.80	6.17	3.91	3.49	-14.09	-48.63	-24.73	-10.8
Loan loss provision (trillion won)	0.84	0.95	2.19	2.05	2.03	5.26	6.83	7.15	9.64
	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Net profits (trillion won)	3.3	2.9	-0.4	5.9	8.6	8.1	9.3	5.3	4.2
BIS ratio	10.8	10.5	10.3	11.3	12.5	12.4	12.0	12.8	14.6
NPL ratio	2.9	2.0	2.2	1.7	1.1	0.8	0.6	0.9	0.8
ROA	0.8	0.6	0.0	0.9	1.3	1.1	1.1	0.5	0.4
ROE	16.3	11.0	0.9	18.2	20.5	15.5	16.0	8.5	6.1
Loan loss provision (trillion won)	5.37	5.35	10.41	6.78	3.34	3.62	2.69	7.11	7.58

Source: FSS, Banking Management Statistics, various issues

3.1.1 Shift to household loans and herd behaviour

There has been a shift in banks' assets allocation strategy away from corporate lending to household credits. One important reason for this shift was deleveraging of big corporations which were forced to reduce the pre-crisis high debt level as part of the corporate restructuring program after the 1997 crisis. Since 2001 when share of corporate loans began to fall sharply, lending to large corporations witnessed the biggest drop both in relative and absolute terms. Total loans to large corporations fell from 37.1 trillion won in 1997 to a record low of 22.3 trillion won in 2006. Share of large corporations in total loans declined from 27.4% in 1997 to 4-5% throughout 2000s. Big corporations turned to internal funds and capital markets as alternative to indirect bank financing, which was also in line with the government policy to reduce banks' over-reliance on corporate lending and develop domestic capital markets.

In response to sharp decrease in large corporations' demand for bank credits banks expanded household loans, reflecting pervasive risk aversion in the bank sector trying to avoid risky corporate lending as costly lessons from the 1997 crisis. This resulted in fundamental changes in loan portfolios of commercial banks in which household loans made up the biggest chunk in total bank loans. Household lending of seven nationwide commercial banks standing at 20% of total loans in 1997 increased to over 58% in 2005 and 2006 in its peak (see table 4).

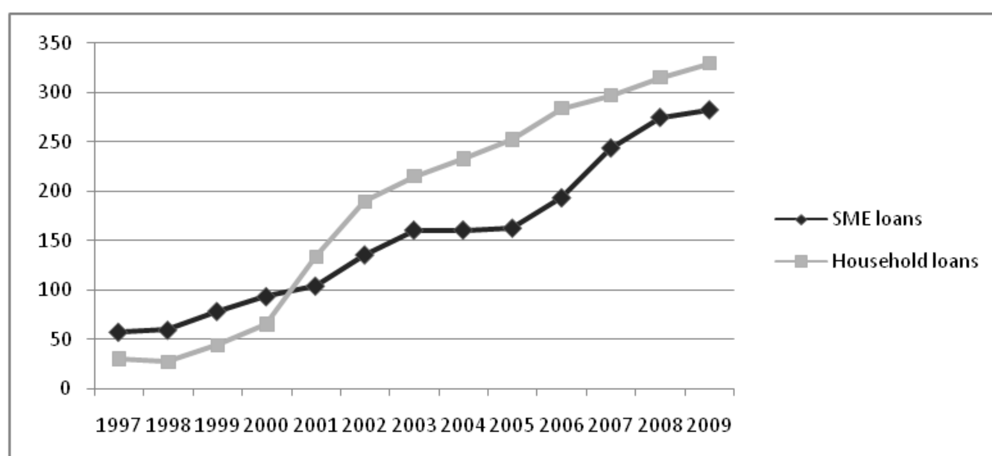
Table 4: Lending structure in the nationwide commercial banking sector

	KB	Woori	Shinhan	Hana	KEB*	SC**	Citi***	Total
Share of household loans (%)								
1997-2000	33.7	19.5	21.2	20.3	20.6	26.0	17.5	22.69
2001-2006	66.4	45.9	50.1	54.9	43.1	69.5	49.4	54.17
2007-2009	60.7	44.9	49.4	54.1	40.8	72.2	58.8	54.41
Share of SME loans (%)								
1997-2000	46.1	41.7	52.4	40.0	48.2	40.8	59.3	46.93
2001-2006	29.4	44.4	41.1	35.7	45.6	21.7	35.7	36.22
2007-2009	35.3	44.8	43.6	37.4	48.1	22.8	35.3	38.18

*Taken over by PEF Lone star in August 2003
** Former KFB, taken over by PEF Newbridge Capital in December 1999 and resold to Standard Chartered in September 2005
***Former KorAm bank, taken over by PEF Carlyle in 2001 and resold to Citibank in March 2004
Source: FSS, Banking Management Statistics, various issues

Two foreign banks, SC First and Citibank took the lead in aggressive shift to household loans. Immediately after takeover of KFB by Newbridge the share of household credits more than doubled from 21.2% as of the end 1999 to 46.7% as of the end 2000. Similar change occurred in KorAm bank after the takeover by Carlye in 2000. The surge in household credits by KorAm, however, was not as dramatic as the case of KFB. Other large commercial banks followed the suit. Between 2000 and 2001 household credits increased more than 100% from 65 trillion won to 133 trillion won. Concomitant with excessive growth in household credits, bubble-related risks increased. This resulted in a credit card bubble in 2001 and 2002. The Credit card bubble eventually burst in 2003. Almost 4 million Koreans, close to 10% of the country's population, defaulted on credit-card debt and household loans. This caused a substantial loss in major nationwide commercial banks. The government's liquidity support and rescue packages for credit card companies prevented ensuing systemic risks to the entire financial system.

Figure 2: SME and household loans in commercial banking sector, trillion won



Source: FSS, Banking Management Statistics, various issues

After the credit card bubble burst the growth rate of household credits fell sharply, but accelerated again in 2006 driven by excessive mortgage lending. As a housing prices bubble loomed on horizon caused by herd behavior of bank lending, the government responded in the same year by introducing restrictions on housing loans in nationwide commercial banks to tackle soaring housing prices. After then, the growth rate of household loans substantially weakened and the share of household loans declined. Instead, banks turned to SME and firms with low credit rating to continue lending competition (see figure 2).
After 2006, SME loans showed the highest growth rate and share of SME loans which have continuously declined since 2001 began to rise, illustrating another example of herd behavior. Aggressive lending to SMEs between 2006 and 2007 concentrated in construction and real-estate related sector. Despite growing fears of housing bubble burst large commercial banks continued to expand lending to SMEs in real-estate related sector. Parallel to rapid increase in SME loans lending of nationwide commercial banks to construction and real estate-related sector nearly doubled from 45.2 trillion won in 2005 to 88.5 trillion won in 2007 accounting for 27.3% of total corporate loans. This trend abruptly ceased in 2008 in the wake of the global financial crisis and following economic recession. The 2008 crisis had severe effects on inflated housing markets leading to corporate failures in construction and real-estate sector. The banking sector faced new wave of NPLs resulted from reckless lending during the previous years.

3.1.2 Excessive competition for market share after the credit card bubble burst

Competition among major banks for higher profit and market share faced new challenges after the credit card bubble burst in 2003. The government began to lower interest rates in response to sluggish economic growth caused by collapse of debt-driven private consumption. At the backdrop of lower interest rate environment the Korean stock market began to rally since late-2004, spurred by retail investors returning to the stock market. Consequently, the banking sector had difficulties in attracting private savings. Furthermore, the prevailing discourse at the time was that the traditional commercial banking model dependent primarily on interest income would have no future. This mirrored the government strategic goal to develop domestic capital markets and thus transform the current credit-based banking system to a market-based one. In changing financial environment commercial banks felt compelled to devise new survival strategies.

Banks’ new strategies observed since 2004 was two-fold. (1) The first strategy was to pursue greater economies of scale with actively engaging in takeover of rival banks. This was why banks suddenly became responsive to the mega-bank plan the government has long advocated. (2) The second strategy was to diversify revenue by expanding lower-risk fee-based businesses as well as capital market-related businesses. To increase fee income commercial banks began to sell diverse financial products such as insurance products and equity funds, which was allowed as a result of ongoing financial deregulation. Commercial banks have been particularly aggressive in selling instalment-type equity funds which take sums from monthly salary and invest in a basket of blue chips.

Banks’ aggressive sales of equity funds through mobilizing their nationwide branch networks sparked off frenzy in the stock market. The number of instalment-type equity funds’ accounts, investing per month a certain amount of the salary, exploded to over 17.1 million as of the end 2007, more than that of Korea’s total households of 16.4 million. Korea’s key stock market index, KOSPI jumped from around 900 in 2004 to over 2000 in its peak in October 2007. Furthermore, as a result of expansion in capital market-related business revenue structure in the banking sector underwent fundamental changes in which non-interest revenue, particularly revenue from FX and derivative trading has substantially increased since 2004 (see table 5).

Table 5: Gross revenue structure of nationwide commercial banks, %

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Interest revenue	65.2	67.1	69.3	52.7	56.6	54.5	50.8	19.6	25.2
Fee revenue	14.5	14.3	12.6	10.4	6.7	5.6	5.2	1.6	2.3
Others*	20.3	18.5	18.2	36.9	36.6	39.9	44.0	78.8	72.6

*mostly derivatives trading
Source: FSS

At the same time, banks bolstered mortgage lending amid tepid deposit growth (see table 6). Loan growth has far outpaced deposit growth, creating a funding gap. Loan to deposit ratio rose to over 100% in 2004 for the first time in the Korean banking history and has since continued to rise reaching 138% in 2008 (see table 6).

Table 6: Loan and deposit growth rate & loan to deposit ratio

	KB	Woori	Shinhan	Hana	KEB	SC	Citi	Total
Loan growth rate (%)								
2004-2005	-0.4	10.4	7.1	7.6	1.5	19.3	7.6	7.6
2006-2007	5.8	24.7	12.6	15.0	11.4	3.1	-4.1	9.8
2008-2009	13.9	12.8	11.6	11.1	10.7	4.8	-1.0	9.1
Deposit growth rate (%)								
2004-2005	-1.2	2.7	0.7	2.1	-5.2	2.1	6.9	1.2
2006-2007	-1.6	12.6	3.3	10.5	-1.2	7.3	-14.0	2.4
2008-2009	10.0	21.3	20.6	9.2	9.6	19.5	11.1	14.5
Loan/Deposit ratio in cash flows								
2002-2003	91.8	89.4	108.2	90.2	89.7	107.1	99.3	96.5
2004-2007	128.1	120.6	139.9	109.4	120.5	150.6	116.7	126.5
2008-2009	152.1	127.1	143.0	114.9	147.6	132.9	137.5	136.4

Source: FSS

3.1.3 Shifting lending risks to borrowers and taxpayers after the credit card crisis

Aggressive mortgage lending came with heightened risk aversion after the credit card crisis. To minimize credit risks, mortgage lending concentrated on households with good credit rating and income level above median income making up about 70% of total mortgage lending. To reduce exposure to interest rate risks banks moved to variable mortgage lending rates pegged to the interest rate of the certificate of deposit (CD).

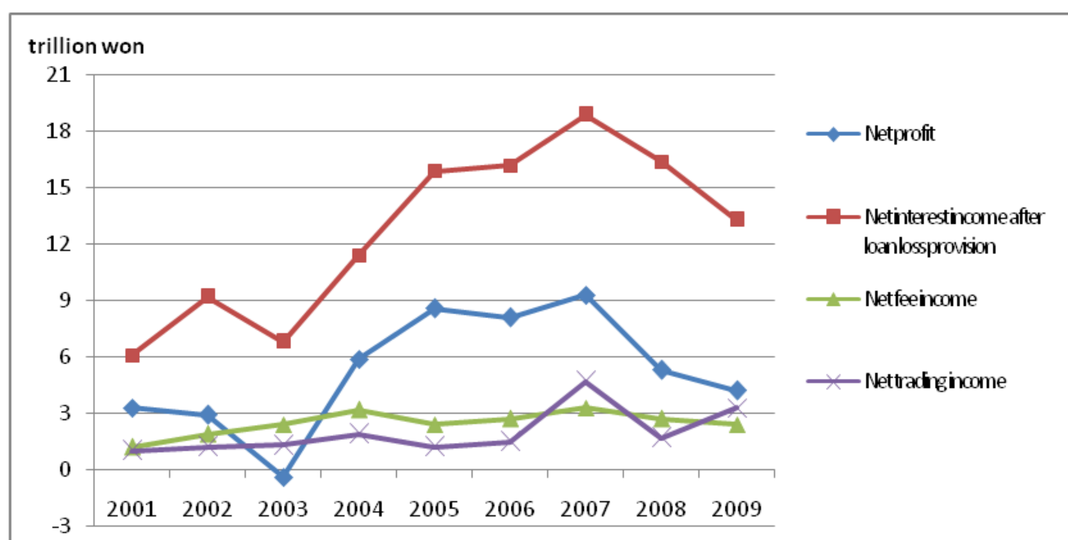
Variable mortgage lending accounted for about 90% in the late 2000s. Fixed mortgage lending rates fell to about 7% of total mortgage lending in 2008 from 36.8% in 2001. Furthermore, by adapting to restrictions on mortgage lending introduced in 2007, e.g. limiting mortgages to 60% of the property's value, banks as well as financial authorities were convinced that the banking sector would be immune to housing price shocks. In so doing, banks shifted all risks associated with their excessive mortgage lending to households. Therefore, banks could continue to expand mortgage lending without worry about housing price bubble and burst.

In addition, despite sluggish deposit growth a variety of alternative funding sources was available for unimpeded mortgage lending to fill a funding gap. CD and bond issuance of banks has surged since 2005. Net CD issuance increased from 8.2 trillion won in 2005 to 29.2 trillion won in 2007. Wholesale markets funding stood at 15% in 2003 and jumped to over 30% in 2007. This inevitably led to a rise in market interest rates. Given variable lending rates pegged to CD rates, however, the increase in funding costs automatically passed on to household borrowers.
At the same time, nationwide commercial banks' foreign currency liability including foreign borrowing, foreign currency deposit and foreign currency-denominated bonds has seen a rapid growth from 51.7 trillion won in 2005 to 76.5 trillion won in 2007. The increased dependency on capital markets and foreign borrowing in the banking sector funding structure led to acute liquidity problems during the global financial crisis in 2008. A broader government intervention was inevitable to retain stability of the banking sector.

3.2 Bank growth strategy and profitability

Bank performance since 2001 has markedly improved, as the key financial indicators exhibit. While the banking sector maintained strong capital adequacy ratio and low non-performing loans (NPL) ratio throughout 2000s, net profits have fluctuated a great deal. Although share of non-interest revenue has dramatically increased since 2004, its contribution to net income remained minimal. Bank's attempt to increase fee income has failed. Despite ever-increasing sales of diverse financial products fee income has continuously decreased. Over 85% of banks' income still stemmed from net interest income (see figure 3).

Figure 3: Sources of net income in nationwide commercial banks



Source: FSS, Banking Management Statistics, various issues

There were two major factors affecting fluctuation in banking sector profits. First, the level of net interest margin had little impact on net interest income. Rather, banks' profits have been closely related to loan growth. The net interest margin in Korean banking sector has been deteriorating due to throat cut competition. Nevertheless, net interest income showed a continuous increase until the 2008 crisis along with rapid growth of bank lending. Accordingly, herd behavior-induced setbacks as mentioned above resulting in huge increase in loan loss provisions had devastating effects on banks' profits. Loan loss provisions have been major element in fluctuating net profits. Second, given rapid expansion of capital market-related businesses the banking sector performance has been increasingly exposed to market volatility. The resulting fluctuation in net non-interest income including fee and trading income affected banks profits, however, to a lesser extent than loan loss provision expenses.

3.3 Foreign banks' behaviour differed

Performance has also varied widely across banks, whereby bank ownership per se had little impact (see table 7). Lending and business strategy of individual banks are the determining factor. Despite the general trend towards more focus on household lending and capital market-related business, some differences between foreign-controlled and domestic controlled banks could be identified. Notably three foreign-controlled banks, KEB, SC First, and Citi stayed out of battle for market share which has been intensified since 2004. They showed lower growth rate in both deposit and loans than domestic-controlled banks. Particularly the former KorAm bank has seen a continuous and substantial drop in loans and deposits since takeover by Citibank in 2005.

As a result, the market share of three foreign-controlled banks has declined after their entry in the Korean banking industry. KEB's share in total commercial bank assets decreased from 10.1% in 2003 to 9.5% in 2009. SC First's share fell to 6.5% in 2009 from 8% in 2005. Citi's share dropped more dramatically from 7.9% in 2004 to 5.0% in 2009 (see table 8).

Table 7: Performance of nationwide commercial banks

	KB	Woori	Shinhan	Hana	KEB	SC	Citi	Total
ROA, average								
2001-2004	0.34	1.35	0.9	0.95	0.29	0.37	0.54	0.68
2005-2007	1.29	1.15	1.08	1.01	1.99	0.29	0.81	1.09
2008-2009	0.43	0.27	0.55	0.27	0.88	0.54	0.62	0.51
ROE, average								
2001-2004	5.56	25.73	17.01	20.94	7.53	6.89	12.13	13.68
2005-2007	18.69	15.63	17.72	15.55	25.1	6.49	12.97	16.02
2008-2009	6.27	4.61	9.29	4.49	12.09	11.47	8.4	8.09
NPL ratio, average								
2001-2004	2.83	2.23	0.90	1.43	2.90	3.63	1.66	2.23
2005-2007	0.97	0.80	0.60	0.80	0.67	0.97	0.77	0.80
2008-2009	0.80	0.85	0.85	0.90	0.95	0.80	0.85	0.86

Source: FSS, Banking Management Statistics, various issues

Table 8: Asset share in nationwide commercial banking sector, percentage

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Koomkin	31.7	30.4	28.4	27.2	25.3	24.4	24.6	23.9	24.6
Woori	14.3	14.5	16.0	16.1	17.9	20.7	21.9	20.9	21.5
Shinhan	20.6	20.7	20.1	20.6	20.1	19.3	19.8	19.7	19.9
Hana	12.8	12.4	12.5	12.6	13.1	13.8	13.1	13.4	13.1
KEB	10.3	10.5	10.1	9.4	9.2	8.8	9.4	9.6	9.5
SC	4.9	5.3	6.1	6.3	8.0	7.0	5.9	6.8	6.5
Citi	5.4	6.1	6.7	7.9	6.4	6.0	5.2	5.7	5.0

Source: FSS

Foreign-controlled banks obviously had little interest in their market share, suggesting more risks adverse and profit-oriented strategy. Indeed, foreign-controlled banks tended to have higher interest rate on loans and lower interest rate on deposits. Unlike domestic-controlled banks which saw a continuous decline in net interest margin from higher deposit rates as a result of fierce competition for market share, net interest margin of foreign-controlled banks remained stable. Two wholly foreign-owned banks, SC First and Citi could even improve net interest margin (see table 9). Furthermore, both foreign banks had the highest share of household loans and the lowest share of SME loans. They avoided lending to SMEs, another indication for more risk adverse in credit business than rival banks. In case of Citi after takeover of KorAM bank in 2005, SME loans saw a big drop (see table 10).

Table 9: Lending rate and net interest margin

	Average interest rate on loans					Net interest margin				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
KB	7.61	7.59	7.62	7.90	6.41	3.94	3.73	3.42	2.99	2.41
Woori	6.52	6.65	6.96	7.42	5.87	2.97	2.61	2.45	2.23	1.88
Shinhan	5.79	5.68	6.63	7.10	5.46	2.64	2.22	2.32	2.13	1.76
Hana	6.34	6.63	7.02	7.61	6.0	2.42	2.4	2.31	2.05	1.68
KEB	7.73	7.71	7.76	8.14	6.71	3.23	3.44	3.23	2.9	2.39
SC	6.16	6.78	7.41	8.34	6.14	2.11	1.99	2.26	2.6	2.14
Citi	7.18	7.62	7.99	8.97	7.67	2.68	2.69	2.62	3.25	2.65

Source: FSS

Table 10: Loans to SMEs, trillion won

	2003	2004	2005	2006	2007	2008	2009
KB	38.2	35.1	32.1	36.4	49.7	60.2	62.4
Woori	28.7	29.3	31.9	40.7	51.4	58.0	61.2
Shinhan	30.2	30.5	32.1	34.8	46	52.4	52.8
Hana	16.5	17.1	17.8	24	26.9	29.8	30.8
KEB	12.5	12.0	12.9	14.7	19.1	20.7	18.8
SC	5.4	6.2	5.9	6.3	7.6	6.9	7.0
Citi	8.9	8.1	6.2	6.5	6.8	7.1	7.4

Source: FSS, Banking Management Statistics, various issues

Regarding lending and business strategy KB, the largest lender which had the highest foreign equity holdings, has been similar to foreign-controlled banks. Due to conservative growth strategy KB's market share experienced the biggest loss among nationwide commercial banks. Between 2001 and 2006 its share in total banking assets has declined from 31% to 24.4%. In case of KEB controlled by PEF Lone star since 2003, it did not join excessive lending spree, but maintained relatively high share of SME loans on which the bank traditionally had a strong focus. At the same time, SC First and Citi had the lowest share of loans and the highest share of capital market-related business in their asset management, suggesting that both banks have been more risk-taking in capital market-related business. In this sense, the business strategy of both foreign banks has increasingly resembled to that of foreign banks' branches (see table 11).

Table 11: Structure in financing sources and funds management, as of 2009

	KB	Woori	Shinhan	Hana	KEB	SC	Citi
Key funding sources (%)							
Deposit	44.7	50.8	45	49.4	30.5	33.8	28.7
CD	10.2	5.2	5.3	6.7	8.3	8.8	10.8
Bonds	13.4	10.1	11.3	8.1	8.6	5.2	5.7
Foreign borrowing	3.7	5.4	4.5	4.8	9.2	6.6	10.7
Others*	6.4	7.7	11.5	0.1	13.6	30.3	25.6
Funds management (%)							
Loans	67.3	59.9	58.2	57.2	43	40.8	34.4
Securities	13.6	12.2	15.9	12.9	11.8	15.6	21.3
Others**	6.6	8.3	11.9	13.4	14.1	30.5	27.4

*non-interest bearing funds such as non-interest bearing deposit accounts, and in case of foreign banks interoffice capital transfers.
**non-profit taking funds management.
Source: FSS, Banking Management Statistics, various issues

Given greater focus on capital markets than credit business, profits of both foreign banks were dependent largely on performance of capital market-related business, particularly FX and derivative trading. Thus, both banks' profits fluctuated from year to year, reflecting highly volatile market condition. Higher net interest margin and greater dependency on capital market-related income in both foreign banks, however, did not lead to better performance. On the contrary, they showed relatively poor performance in terms of profitability and asset quality. In terms of ROE and ROA, two foreign banks had the lowest profitability between 2001 and 2007. Although other nationwide commercial banks have also massively increased FX and derivative trading, their higher level of net interest income has served to counterbalance earnings fluctuation in FX and derivative trading. But they faced higher credit risks associated with excessive lending.

3.4 Pre-2008 crisis behaviour

In this respect it was not surprising that the state-owned Woori bank, the most aggressive player in both credit and capital market-related businesses before the 2008 crisis showed the highest profitability. When the Korean banking sector was hit by the global financial crisis, the state-owned Woori bank first fell victim to its own aggressive expansion strategy emerging as the worst performing bank. For example, between 2005 and 2007 Woori has heavily invested in US subprime mortgage derivatives totalled $1.57 billion. This accounted for 39.4% of total subprime investment of $3.98 billion from 18 local banks during the same period. Woori's subprime loss by 2009 amounted to $1.25 billion (about 1.5 trillion won) making up 55.3% of total loss of $22.6 billion. Net profits of Woori plummeted due to steep increase in loan loss provisions and investment loss in 2008.

KB suffering a dramatic loss in its market share also turned to aggressive lending strategy in 2007 by massively increasing SME loans, which led to disastrous outcome.
Other banks which followed the herd behavior in SME lending also suffered a substantial loss in net profits due to heavy burden of loan loss provision. Notably, SC First being the worst performing bank before 2008 successfully managed to weather the 2008 crisis and became the best performing bank. This was largely thanks to non-interest bearing interoffice capital transfer which has surged since 2007 with resulting in a substantial increase in net trading income (see table 12).

Table 12: Net profits, billion won

	2004	2005	2006	2007	2008	2009
KB	555	2252	2472	2773	1510	635
Woori	1996	1426	1643	1777	234	954
Shinhan	1009	1540	1431	2051	1447	748
Hana	1343	907	1045	1051	474	274
KEB	522	1929	1006	961	782	891
SC	120	65	154	280	407	433
Citi	247	461	324	468	426	311

Source: FSS

In retrospect, banks' over-dependency on household borrowing combined with conservative lending strategy appeared to reduce solvency risks by shifting these risks to household borrowers. Household debt, the major driving force of the banking sector growth since 2001 rose to 158% of disposable household income by the end of 2008. Soaring household debt has emerged as key risk factor for the Korean economy, replacing corporate debt prior to the 1997 crisis. Due to increasing dependency on capital markets and foreign liabilities to finance banks' obsessive competition for market share, however, banks made themselves vulnerable to liquidity crisis which could be only averted with government liquidity supports.

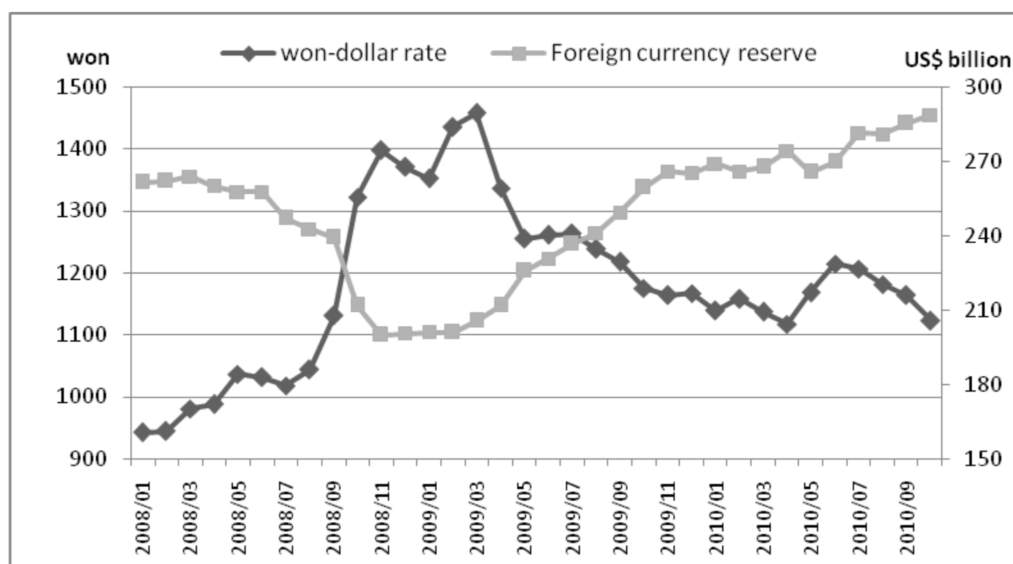
Furthermore, there has been a huge cap between the pursued growth strategy and its actual performance. The shift in growth strategy away from credit business toward capital market-related business has fundamentally changed revenue structure. But the expected positive impacts for bank performance have not materialized. On the one hand lending business still remains the key source of bank profits, while net non-interest income plays at best only a complementary role. On the other hand bank's intermediary role has considerably weakened. Despite banks' lending spree low-income households and firms with poor credit ratings have been left out, thus not improving access to finance by all. Banks increasingly look like sales agencies for diverse financial products like instalment type equity funds and insurance products offered by non-bank financial companies, but contrary to expectation, they failed to increase fee income.

4. Global financial crisis and the Korean banking sector

4.1 Impact of global financial crisis on Korean financial markets

One immediate effect of the global financial crisis was a free fall of the Korean currency. In 2008 the won depreciated 60% against US dollar through the second half of November 2008 (see figure 4).

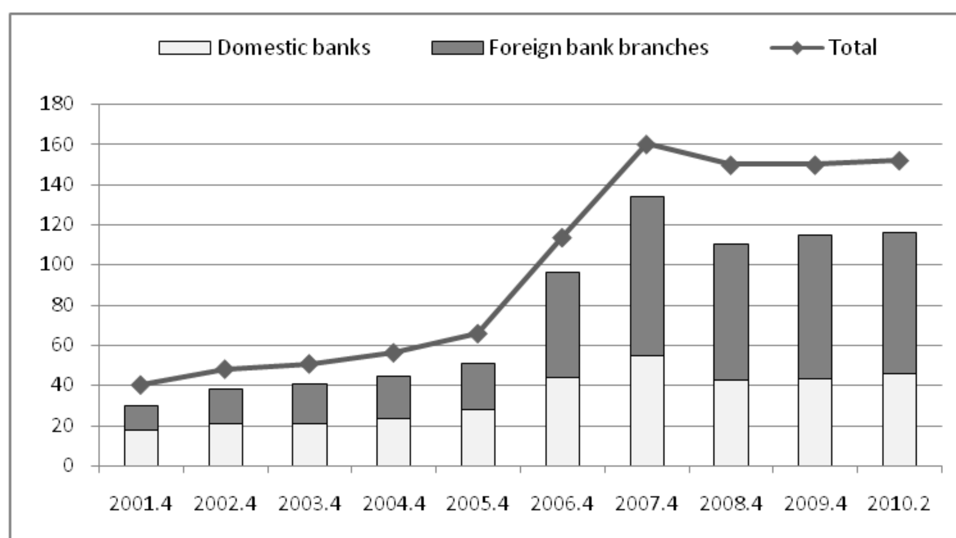
Figure 4: Nominal won-dollar exchange rate, monthly average & FX reserve



Source: BOK

The depreciation of the won was a by-product of global deleveraging that began with US subprime crisis in mid-2007 and was accelerated after the collapse of Lehman brothers in September 2008 which sparked the massive withdrawal of foreign capital from the Korean financial markets. Within four months from September 2008 and December 2009 capital outflows accounted to $69.5 billion, about 30% of ten-year capital inflows of $221.9 billion since 1998. The largest portion of capital outflows in 2008 made up rapid withdrawal of short-term foreign loans which surged in the previous years. Gross short-term foreign debt increased $94.3 billion from $65.9 billion in 2005 to $160.2 billion in 2007. The banking sector was attributable to the sudden increase in short-term foreign debt. In 2006 and 2007 the banking sector's short-term foreign borrowing totalled $74.4 billion, equivalent to over 80% of total. It is noteworthy that foreign bank branches have been the major driver of soaring short-term foreign borrowing. During the same period, net short-term foreign borrowing of foreign bank branches, which lent to Korean customers (including Korean banks), amounted to $56 billion compared to $26.7 billion of all domestic banks (see figure 5).

Figure 5: Gross short-term foreign liability, US $billion



Source: BOK

In the second half of 2008 and the first quarter of 2009 amid the unfolding global financial crisis Korea's short-term foreign debt emerged as major concerns of a potential crisis following the same pattern ending up with the 1997 crisis. Korea's short-term foreign debt-to-foreign exchange reserves ratio rose to 79.1% in the third quarter of 2008 from around 30 percent in 2005. These levels approached those prevailing at the time of the 1997 crisis. The rapid increase in foreign debt in the recent years, however, differed considerably from excessive foreign borrowing before the 1997 crisis. Substantial part of short-term foreign debt was linked to so-called bridge financing, loans extended against future foreign currency revenues. FX hedge-related bridge financing saw a rapid growth along with the appreciation of the Korean won taking place in 2004. This is because Korean exporters began to actively engage in FX hedging amid the appreciation trend of the Korean won by entering currency forward contracts with banks to avoid losses on anticipated future export revenue in dollar. Despite the central bank's stepped-up accumulation of FX reserves the won continued to rise, as both capital and current account inflows were increasing sharply. From 2000 to 2003, the value of the Korean won was maintained roughly constant on a real effective exchange rate (REER) basis. During 2004 and 2005, however, the Korean won appreciated by about 25% on a REER basis. This reflected at least two factors: a slower growth in private investment particularly after the credit card crisis in 2003 that led to large, persistent excess savings over investments as well as large inflows of FDI and portfolio investment, as ongoing structural reforms and capital account opening enhanced the attractiveness of Korea as an investment destination. The surge in balance of payments surpluses prompted the Korean government to refocus FX policy on liberalization of capital outflows in order to alleviate upward pressure on the Korean won and the cost of large-scale sterilized intervention. Yet this attempt had little effect as domestic exporting firms started to use FX derivatives not only for a hedge but also for a speculative bet against the won appreciation.

4.1.1 Causes of Korea's foreign debt problem

Korea's major exporters such as ship-builders with anticipated foreign currency export revenue inflows sold foreign exchange forward contracts to banks in order to hedge against FX risks and expected losses from the ongoing won appreciation. Domestic asset management companies involved in overseas investment did the same. Net currency forward selling by Korean firms' amounting to

USD29.2 billion in 2005 soared to USD 71.8 billion in 2007 (BOK, FX Market report 2008). Banks as currency forward purchasers proceeded with currency swap contracts with foreign bank branches to adjust their FX positions. The increase in FX risk hedging since 2005 had three effects. First, it contributed to further appreciation of the Korean won, as FX hedging strategy involved foreign borrowing and selling dollar on the spot market (see box 2). Like a chain reaction, FX risk hedging activities added upward pressure on the Korean won leading to further need for FX hedging. Second, it offered risk-less lucrative arbitrage opportunities for foreign bank branches that borrowed dollar to buy the Korean won for investments in won-denominated assets such as CDs[4] and sovereign bonds. As dollar demand for hedging purpose increased, swap rates which foreign banks paid for buying the Korean currency fell, which gave rise to profitable arbitrage opportunities. By borrowing dollar at lower LIBOR, foreign bank branches have actively engaged in arbitrage investments that rendered the BOK's monetary policy increasingly ineffective. Even though the BOK has successively raised the bench interest rates after 2006 to quell housing bubble, market interest rates were not affected and remained low thanks to increased arbitrage investments by foreigners. Banks could raise funds from capital market, profiting from low market interest rates and continue mortgage lending spree. Third, FX hedging resulted in massive increase in the banking sector's foreign borrowing (see Box 2). As of the end of June 2008, the total external debt of Korea stood at $420 billion, of which 41%, $176 billion is short-term. According to the FSC, $94 billion of Korea's total external debt has been incurred as a result of FX forwards hedging of pre-contracted future cash flows. Another $51 billion was Korean shipbuilders' FX hedge-related foreign borrowing through foreign currency contracts. When these repayment-free debts are excluded, the genuine foreign debt of the Korean economy is about $268 billion, and far less below the acclaimed $420 billion level.

Box 2: FX Hedging and Foreign Debts

Domestic banks that bought forward contracts from Korean exporters were exposed to FX risks and tried to adjust their FX position by selling the same sum in dollar on the spot market as they receive in future from exporters. That means that domestic banks entering forward contracts with exporters need dollar to be sold on the spot market. There are two ways for domestic banks to secure dollar for FX hedging. The first one is to borrow dollar at overseas markets. Domestic banks, however, do not tend to directly borrow dollar due to higher borrowing costs. Instead, they used currency derivatives – FX swap or currency swap - with foreign bank branches in Korea that have better and easier access to dollar. Through FX swap contracts domestic banks acquire dollar needed for FX hedging and foreign bank branches acquire the Korean won needed for local business. For foreign bank branches, FX swaps serve as the major channel for obtaining local currency funding.

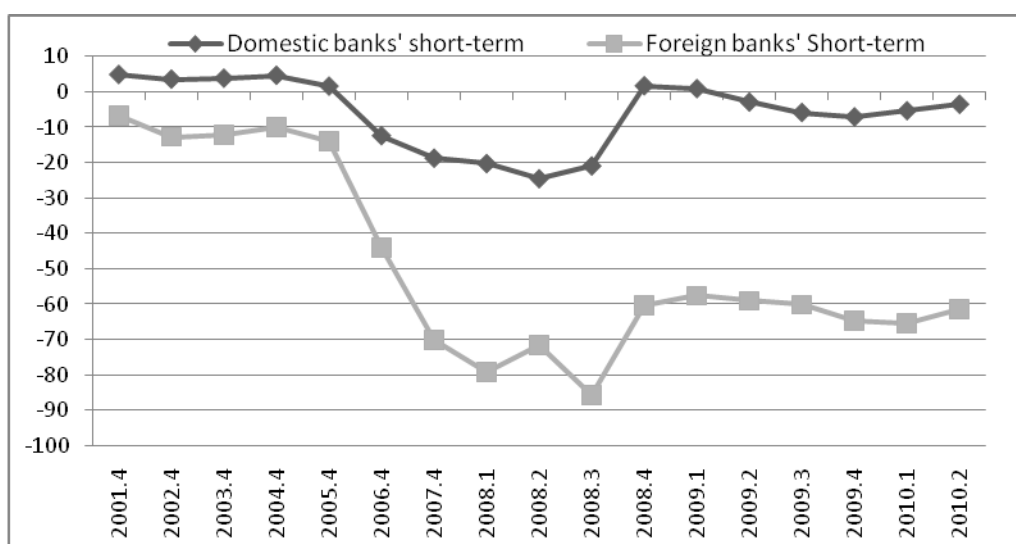
In FX swap transactions, foreign bank branches provided dollars to domestic banks by borrowing it from the London Interbank Offered Rate (LIBOR) market and received won which was invested in won-denominated assets like CD or sovereign bonds. Given higher interest rates for won-denominated assets than LIBOR, currency transactions were used by foreign bank branches for arbitrage trading without FX risks. In any case, FX hedging activities of domestic banks and Korean firms automatically led to increase in foreign borrowing. The larger part of the banking sectors' foreign debts since 2005 was related to FX hedging.

The global credit crunch after the Lehmann Brothers collapse led to unwinding of arbitrage investments. The resulting massive withdrawal of foreign loans amounted to $22 billion in the second half of 2008 of which $11 billion was channelled through foreign bank branches (see figure 6). The deleveraging continued until the first half of 2009. In addition to rapid deleveraging of the banking sector, currency forward selling by Korean firms also declined affected by the ensuing global recession. Korean shipbuilders' forward selling dropped from $53.5 billion in 2007 to $16.7 billion on

[4] As certificates of deposit interest on 91-day is used as the benchmark for floating-rate mortgage loans, CD rate is the most important money market interest rate in Korea.

2009. Consequently, the banking sector short-term debt fell sharply from the peak of $106.4 billion in the third quarter 2008 to $56.5 billion in the first quarter of 2009. Withdrawal of foreign debts combined with foreign investor's rush for the exit from the Korean stock market led to acute dollar shortage. The accompanying plunge of the Korean currency hit domestic exporters who have massively participated in speculative currency derivatives trading far exceeding the sum of future export earnings. This wrong speculative bet by some Korean exporters caused them to make huge losses of more than 3 trillion won by early 2010 (See Box 3).

Figure 6: Short-term external position by banking sector, US $billion



Source: BOK

Box 3: KIKO Scandal

KIKO (Knock In & Knock Out), a currency option product sold by banks to Korean exporters, especially SMEs. Many local companies signed KIKO contracts as a hedge against won appreciation. Under KIKO contracts, companies get a fixed exchange rate as long as the dollar trades within a set range against the won. If the dollar appreciates beyond the range, the firms are obliged to sell dollars, often a multiple of the amount of the contract below market rate. The free fall of the Korean won in 2008 moving beyond the set range caused huge losses for KIKO holders. 519 publicly-traded companies were involved in KIKO trading as of June 2008.

A striking case was the collapse of Taesan LCD Inc., the supplier to Samsung Electronics Co that posted record sales a net profit of 11.4 billion won (9.5 million U.S. dollars) in the first six months of 2008 collapsed after accumulating 80.6 billion won ($62 million) in losses on KIKO in September 2008. As the won further weakened in late 2008, hundreds of exporters faced bankruptcy and brought lawsuits seeking to have contracts invalidated. In various lawsuits the courts ruled in favour of banks rejecting the claims of the SMEs that the sale of the derivatives was conducted to benefit banks. In case of firm's failure, however, banks should assume losses. Banks bought currency option products from foreign banks then resold them to local companies, leaving them liable for their clients' losses in case of bankruptcy.

As the global financial markets returned to stability thanks to near-zero interest rates, arbitrage investments by foreign bank branches began to rise again after the second quarter of 2009. Given extreme low borrowing costs at the LIBOR market and the dollar shortage in Korea currency swap trading surged (see table 13).

Table 13: FX market volume and structure, US $100 Mio per day

	2006	2007	2008	2009	2010 2Q
Traditional FX trading	255.8	378.4	458.9	372.2	444.3
Domestic banks	146.5	218.5	245	199.3	225.7
Foreign bank branches	109.4	159.9	213.9	172.8	218.6
Spot	127.5	185.2	196.9	139.1	184.8
Forward	50.8	71.6	95.1	56.8	69.2
Currency swaps	77.5	121.6	166.9	176.2	193.3
Derivatives trading*	45.8	84.4	94.7	72.4	96.2
Domestic banks	20.0	36.0	43.2	31.2	34.8
Foreign bank branches	25.8	48.4	51.5	41.2	61.4
Total	301.6	462.8	553.6	444.6	540.5

*Interest rate- and FX-related options, futures, & credit default swaps
Source: BOK

Table 14: Foreign bank branches' incomes and net profits, billion won

	2005	2006	2007	2008	2009
Interest income*	610.5	429.3	437.8	1777.5	2647.8
Securities trading	-853.6	221.1	-714.0	1588.3	-568.3
FX and Derivatives trading	999.4	373.0	1510.0	341.2	1811.8
FX-related	55.8	1075.3	-702.5	-23162.6	2165.0
Derivatives-related	953.0	-702.4	2223.2	23447.7	-318.9
Net profit	131.0	289.5	404.6	2065.4	2431.0

*about 60% of interest revenues occurred from securities such as sovereign bonds and other bonds
Source: FSS

Foreign investor's return in Korean financial markets and Korea's rapid export recovery caused the won to appreciate. With that, the same pattern of pre-crisis FX hedging has re-emerged. Contrary to domestic banks that suffered a sharp decline in net profit in 2008 and 2009, foreign bank branches saw a massive increase in net profit since 2008 (see table 14). This was largely attributable to surge in arbitrage investments taking full advantage of record low interest rates at the LIBOR market. The financial turmoil in 2008 and following policy response in the advanced countries helped foreign banks in Korea amass unprecedented level of profits.

4.1.2 Government initial response to Korean financial turmoil

In the year to September 2008 the Korean government seemed unconcerned about capital outflows by pointing out huge amount of FX reserves and even supported the accompanying depreciation of the won, expecting positive effects on exports. In addition, given Korea's limited exposure in US subprime mortgage markets it was believed that the subprime crisis would have little effects on the Korean banking sector. It was not until the full-fledged global credit crunch followed by the Lehmann bankruptcy that the Korean government realized serious collateral damages to the Korean banking sector. Faced with wild FX markets getting out of control and sovereign credit default swap premium skyrocketing the government took emergency measures. In end-October 2008 the government announced that it would guarantee $100 billion in foreign debt and forged bilateral currency swap arrangement of up to 30 billion US dollars with the Federal Reserve to secure additional sources of foreign exchange. In December currency swap deals with Japan and China were followed. Those aggressive emergency measures since October 2008 had stabilizing effects on the won, but only temporarily, and did not help to stop massive capital outflow. Withdrawal of foreign short-term loans

has even accelerated in the last quarter of 2008 and continued until the first quarter of 2009. In early 2009 Korean won plunged again even faster than in the past months to a ten-year low in March 2009. Given the increased linkage to global financial markets the global credit crunch directly affected the Korean financial sector, heading for a full-blown meltdown. The banking sector faced double risks. Rapid withdrawal of foreign loans and a surge in domestic and global market interest rates led to an acute liquidity crisis. Credit risks were heightened with mounting NPLs incurred by a downturn of overall economy and housing market. In late 2008 banks' balance sheets deteriorated rapidly. This prompted the government to intervene introducing a wide-range of countermeasures. In early 2009 the government announced plans of additional foreign liquidity provision of $55 billion for interbank transactions, NPL Restructuring Fund of 10 trillion won, and Bank Recapitalization Fund (BRF) of 20 trillion won to prop up banks' balance sheets. Other financial stabilization measures were introduced including Bond Market Stabilization Fund of 10 trillion won, Stock Market Stabilization Fund of 500 billion won, and Corporate Restructuring Fund of 40 trillion won. These pre-emptive measures to restore overall financial stability combined with massive fiscal stimulus package of 23.3 trillion won and aggressive interest rate cuts by BOK helped the banking sector to weather shocks of the global financial crisis. Equally important was the end of global credit squeeze which eventually halted withdrawal of foreign loans in the second quarter of 2009 and resolved the liquidity crisis of the Korean banking sector.

Improved access to global and domestic credit markets made possible for banks to raise capital without tapping into BRF. BRF was unpopular among banks, because access to BRF was linked to credit extension to SMEs and other conditionality. Three foreign-controlled commercial banks showed no interest in BRF. Only domestic-controlled commercial banks and policy banks applied for BRF-support, but the total amount of BRF allocation remained meagre at 3.96 trillion won. Like in the event of credit card crisis, foreign-controlled banks declined to cooperate with the government in crisis resolution. SC First and Citibank, two wholly foreign-owned banks, refused to participate in a private-led bad bank assisted by public funds to resolve NPLs. KEB controlled by Lone Star changed its initial rejection, belatedly joining the bad bank.

Concomitant with the end of global credit squeeze the banking sector's foreign borrowing began to rise again in the second quarter of 2009. Banks' short-term bond issuance also soared. In addition, higher interest rates on saving accounts offered by banks to lure depositors led to a rapid increase in banks' deposits. In this way banks could recover from acute funding shocks during 2008. But until ar least end of 2010 credit contraction persisted. The government's appeals to nationwide commercial banks to keep lending had no success. Commercial banks remained reluctant to lend amid ailing housing markets and increased credit risks in SME loans. To encounter the problems of credit contraction, the government unwillingly dropped the plan for privatization of IBK, SME-specialized policy bank and turned to saving banks and cooperative banks by providing them with low-cost funding for loans to low-income households.

The Korean banking sector has muddled through shocks of the global financial crisis, but faces a difficult time ahead and is unlikely to repeat record profits in the recent years. The lion's share in banks' household and SME loans is related to housing market which hovers close to collapse. The government began to appreciate that the housing boom has reached a critical level which is no longer sustainable. It has already retreated from efforts to artificially prop up housing prices and is desperately looking for ways to steer the housing market toward a soft landing.

4.2 Capital controls and regulatory dilemmas

4.2.1 Policy shift towards capital controls

A faster-than-expected rebound of the Korean economy in 2009 led to a sudden reversal in capital flows. Capital inflow surged again and the Korean won began to appreciate rapidly. The government was alerted, worrying that rising won would hurt Korea's exports and a sudden shift in global market sentiment could trigger reversal in capital flows with disastrous results like the episode during late 2008 and early 2009. Indeed, FX hedging started rising again along with the appreciation of the won. Accordingly, the Korean sovereign bond market saw a surge in foreign capital inflows lured by increased opportunity for arbitrage trading. Perplexed by extreme volatility in the FX market, the Korean government has scrapped its original plan to fully liberalize the capital market by 2009 and introduced a series of measures to control destabilizing capital inflows in January 2010.
Responding to the warnings of exporters' over-hedging which has exacerbated upward pressure on the won, the Korean financial authority introduced the cap on FX forward trading by domestic exporters to 125% of underlying transactions. As to domestic banks, long-term foreign currency borrowing ratio to foreign currency loans with maturity over one year is raised from over 80% to over 90%. Domestic banks are also required to hold a certain level of safe foreign asset (2% of total foreign assets) as a buffer against foreign liquidity shocks. Furthermore, it continued to intervene in FX market to stem the won-rise. But those efforts did not work amid excessive capital influx which amounted to $81.6 billion from January 2009 to April 2010, equivalent to about 10% of Korea's GDP of $820 billion in 2009.

In June 2010, the Korean government tightened the regulatory rules introduced in January 2010 and introduced additional measures particularly targeting at foreign banks. The foreign currency liquidity rules for domestic banks have been tightened. Ratio of long-term foreign borrowing to long-term foreign lending is raised further to over 100%. The cap or position limits, on FX forward trading by domestic exporters was tightened to 100% of their export revenues.
More importantly, the government moved to impose capital controls which marked a fundamental shift in regulation on FX risks. New measures on capital controls had three components:

- First, foreign-currency loans of both domestic and foreign banks are limited for overseas use only.
- Second, foreign bank branches are recommended to establish liquidity risk management mechanisms, albeit not obligatory.
- Third, a cap on the build-up of FX derivatives is set up, which was seen as the main cause of the won fluctuation and hampered monetary policy. FX forward trading position by domestic banks is limited to 50% of their equity capital. Foreign bank branches are required to lower their positions to 250%.

According to prudential regulations on FX risks introduced in 1999 both domestic banks and foreign bank branches were required to meet ceilings on overall FX positions which referred only to net amount of forward and spot positions. Parallel with FX market liberalization the ceilings on the overall overbought and oversold position of FX have been loosened from 20% of bank's equity capital in 1999 to 30% in 2006 and to 50% in 2007 and were to be abolished by 2009. Amid the global financial crisis the Korean government tightened the ceilings on FX overall positions to 20% in 2008 and raised them again to 50% in 2009 to relieve the dollar shortage. Yet the government saw that the current regulations on overall FX positions had no effect on discouraging volatile capital flows, as banks could

expand both spot and forward positions without any changes in their overall FX positions (see table 15).

Table 15: Foreign Exchange positions of domestic and foreign banks

	FX positions ($100 Mio)			Equity capital (D)	FX positions as of equity capital (%)		
	Spot (A)	Forward (B)	Overall (C=A+B)		Spot (A/D)	Forward (B/D)	Overall (C/D)
Domestic banks	-123.5	157.6	34.1	1013.6	-12.2	15.6	3.4
Foreign bank branches	-446.5	461.2	14.7	153.1	-291.6	301.2	9.6

FX positions as of end-April, 2010, equity capital as of end-March 2010
Source: FSC

Thus, the Korean government was compelled to impose a separate control on FX forward trading which has served as a major channel for excessive short-term capital inflows to Korea in the recent years. The new rules on FX forward trading positions are implemented with a three-month grace period to avoid jolting the banking system and in exceptional cases some existing positions can be held for up to two years. These rules will affect only some foreign banks including SC First and Citi. Foreign bank branches' forward positions which averaged over 300% of their capital varied widely among banks. For example, FX forward position of BNP Paribas was 900%, whereas that of Deutsch Bank was only 236.2%. In case of Citi and SC First which are considered domestic banks due to their legal status and thus are subject to a stricter limit than other foreign bank branches it was 69.3% and 58.5% respectively. At the end of 2010, it was not clear yet whether the new regulatory rules were effective in limiting capital inflows.

4.2.2 Policy dilemma's

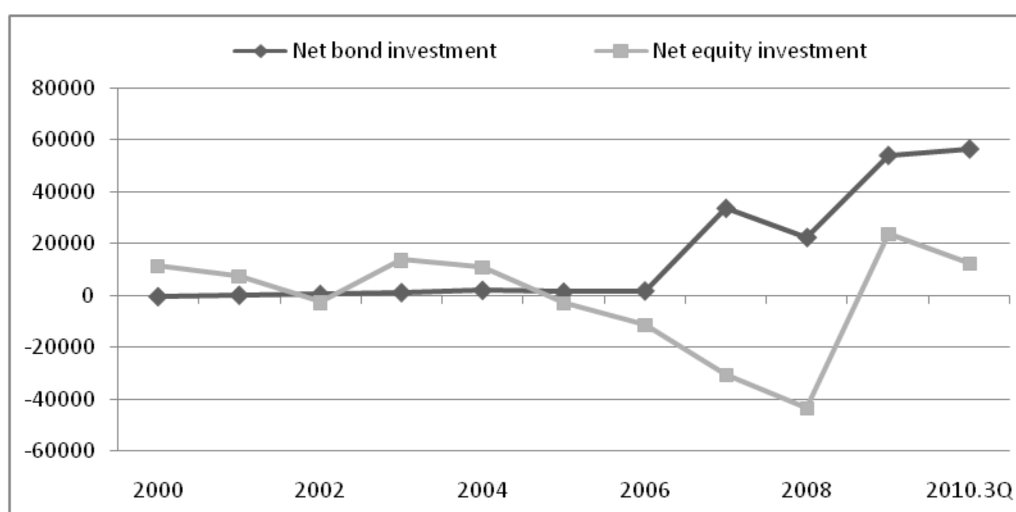
The Korean financial authority as well as the mainstream economists who have rigorously advocated for a full-fledged financial liberalization in the past decade seemed to lose their faith in its benefits and self-regulating efficiency of markets. The sudden implosion of the US financial markets which were regarded as highly-developed, mature, and sophisticated and which Korea has been emulating after the 1997 crisis, was a great shock to policy makers and proponents of neoliberal reforms in Korea. Nevertheless, the Korean government reiterated that it would go ahead with financial liberalization and opening up to develop financial markets. Even after imposing controls on capital flows the government tried to play down implication of its policy move, arguing that the new regulatory measures are only an inevitable "surgical response" intending to enhance overall soundness of the financial market, not to regulate or control it. This illustrates regulatory dilemmas that Korea faces.

The Korean FX market has grown by 24% over the past three years, between 2007 and 2009, faster than the global FX market growth rate of 20%. With $43.8 billion being traded on an average day in 2010, the Korean FX market has become larger than that of Russia, Italy, India and China and is much larger than the stock and bond market. KOSPI has a daily turnover of about one-tenth of the FX trading volume. Theoretically, the daily FX trading volume of $54.1 billion during the second quarter of 2010 is fast enough to soak up Korea's current FX reserve of $289.7 billion in less than six days. Nevertheless, the government as well as advocates for financial liberalization argues that the FX market in Korea is relatively small accounting only for 5.4% of GDP as of 2007, compared to other countries such as Japan of 10.6% and the US of 11.5% or Singapore of 256.8% and needs to further liberalization and encourage more foreign investment in the Korean financial market. This position represented by the MOF as well as the financial industry which has coined the financial policy-making in the past decade remains the mainstream. Pointing out the low level of foreign investment in the

Korean bond market, the MOF proceeded with tax incentives for foreign investors since 2007. Until 2006 a 25% withholding tax was charged to foreigner's income and capital gains from sovereign bond transactions. In 2007 it was reduced to 14%, the same level of tax charge to domestic bond investors. In June 2009 a 14% withholding tax on foreign bond investors was abolished. No wonder that foreign investment in the Korean sovereign bond market has since surged (see figure 8).

Tax exemption for foreign bond investors promoting capital influx in the sovereign bond markets stands at odd with at the ongoing desperate attempts to reduce destabilizing capital inflows. While the growth in net FDI and foreign equity investment has considerably slowed, net foreign bond investment in the year to August 2010 amounted to 53.6 trillion won, more than the previous year's total of 53.5 trillion won, and continued to increase in the following months unaffected by the new regulatory measures taking effect in October 2010. The Korean currency is destined to keep rising in 2011 when further easing of monetary policies in developed countries is occurring and no controls on capital outflows from those countries are applied. This will fuel more foreign capital inflows to Korea posing embarrassing quandary for the Korean government which until now has been neither willing to take more aggressive approach to capital controls, nor to allow the won to appreciate.

Figure 7: Foreigners' net investment in securities market, billion won



Source: FSS

Continuing GATS negotiations include financial services liberalisation

At a challenging time for policy makers in the financial sector, the GATS negotiations in the WTO are attempting to conclude in 2011. The Korean government will have to decide whether or not to further liberalise financial services and submit its regulatory regime to restrictive GATS rules (see above 2.4). The European Union (EU, through the European Commission), for instance, is pushing to get more market access to lucrative and booming markets for its struggling financial services conglomerates. Already in 2002, the EU requested South Korea to make new GATS commitments that would remove many of the restrictions on foreign financial suppliers, which Korea has maintained (see above 2.4), some of which were introduced as lessons from the Asian financial crisis. For instance, the EU requested that Korea removes the limit imposed on insurance companies of investing maximum 15% of total assets in real estate – which is a measure to avoid a real estate bubble that contributed to the financial crisis in 1997. The EU also wants to remove foreign exchange limits imposed on foreign

banks. The EU demanded to have the rule on mandatory lending to SMEs removed. The EU even requested in 2002 that Korea removed regulations which are considered in the post 2008 financial crisis era to be important such as sufficient capital requirements in local branches and restricting non-transparent over-the-counter derivative trading. Overall, the EU wanted Korea to use the GATS model for very broad liberalisation in financial services, called the GATS Understanding on commitments in financial services.

By the end of 2010, the EU had not indicated that it was willing to review or withdraw its GATS requests. Given the lack of transparency in GATS negotiations, and the continuous changes, it was not clear what new commitments Korea would be doing if the WTO and GATS negotiations would conclude in 2011. In 2005, Korea had already indicated[5] it was willing to further liberalise its financial services for instance by allowing more movement of foreign services staff and less restrictions on foreign ownership of retail banks and investment banks. However, Korea was not willing to positively respond to the requests by the EU to remove many of its regulations, e.g. regarding mandatory lending to SMEs. Korea even wants to reverse its commitment that it would not introduce new market access and national treatment laws. However, once a commitment is agreed under GATS, it can only be withdrawn if other WTO members agree and after requests for compensation have been dealt with – which shows how GATS commitments can limit policy space.

Free Trade Agreements that liberalise financial services and restrict capital controls

South Korea has also been negotiating free trade agreements (FTAs) such as the ASEAN–Korea Free Trade Area (AKFTA), in effect since 1 January 2010. The FTA with the US had many difficulties to be concluded while the FTA with the EU had difficulties to be ratified by the end of 2010. The EU–South Korea FTA includes broad liberalisation commitments by Korea in all financial services sectors, with much less exemptions than in GATS, with mainly restrictions on foreign ownership and authorisation (about which companies are allowed to operate certain banking and securities operations)[6].

The FTAs also include far reaching rules that apply to all the financial services sectors which Korea has committed to liberalise in the FTA. These rules are very similar to the GATS rules (see above 2.4) even though the GATS rules are based on the pre-crisis model of least regulation and full liberalisation, which contrasts with the lessons of the 2008 financial crisis that more regulations are needed. Also, the EU and Korea have gone ahead with liberalising financial services in a deregulatory way even if international regulatory and supervisory agreements have not been finalised or come into force, and some of the GATS/FTA rules are contrary to current EU reforms.[7] Some EU-Korea FTA rules are even more restrictive than in GATS, such as the FTA rule (Art. 7:38) that prudential measures for financial stability and protection of financial services' clients shall "not be more burdensome than necessary to achieve their aim".
The Korea measures to impose a cap on FX derivative positions and trading, and restricting bank loans in foreign currency can be considered to be against Korea's FTA commitments to fully liberalise banking and (over-the-counter) derivatives trading, as these measures are being criticised for protecting Korean exports by keeping the won low and not necessary for the stability of the financial system.

---

5 Word Trade Organisation, Revised Offer on Services - Republic of Korea, Council for Trade in Services - Special Session, document TN/S/O/KOR/Rev.1, 14 June 2005, http://docsonline.wto.org/GEN_viewerwindow.asp?http://docsonline.wto.org:80/DDFDocuments/t/tn/s/OKORR1.doc
6 For the GATS Korea commitments in (financial) services, see: http://www.wto.org/english/tratop_e/serv_e/serv_commitments_e.htm
7 For more explanation, see M. Vander Stichele, R. van Os, Business as usual?, How Free Trade Agreements Jeopardise Financial Sector Reform, SOMO paper, December 2010, <www.somo.nl/publications-en/Publication_3611>

The EU-Korea FTA further liberalizes capital movements, allowing all legal current payments between residents of the contracting parties, and prohibiting (new) restrictions on capital transfers related to foreign direct investments, credit and loans of all investors and portfolio investment transfers (Art. 8.2). Only in exceptional circumstances, when payments and capital movements between the contracting parties cause, or threaten to cause, serious difficulties[8] for the operation of monetary policy or exchange rate policy of the contracting parties, can Korea and EU take safeguard measures with regard to capital movements that are strictly necessary for a period in principle not exceeding six months. The conditions for applying safeguard measures are strict and include principles as avoiding unnecessary damage to the commercial, economic or financial interests of the other party and avoiding interference with investors' ability to earn a market rate of return. These conditions could already be contrary to the current FX restrictions by the Korean government in 2010 and restrict further measures which the government would wish to take.

4.2.3 Role of foreign banks in Korea

Korea's financial deregulation and opening since 1997 has facilitated not only foreign entry but also new market dynamics that helped foreign banks prosper. High level of foreign share holdings in domestic banks and foreign takeover of domestic banks have no doubt contributed to improvement in banking sector performance. Particularly shareholder value that had been unknown before the 1997 crisis in Korea emerged as the ultimate goal of bank management to benefit banks' shareholders. Dividend payment of nationwide commercial banks totalled 9.9 trillion won from 2000 to 2009 which was equivalent to 22% of banks' profits of 44.8 trillion won during the same period. Dividends paid to foreign investors amounted 4.6 trillion won making up for 46% of total. Banks with higher foreign holdings tend to pay out higher dividends. Benefits of foreign bank entry in other aspects were quite disappointing. Foreign-controlled banks showed lower loan growth compared to domestic rivals. So In case of Korea there was no empirical evidence supporting the hypothesis that foreign bank entry would contribute to greater stability in credits. Rather, it was obvious that foreign banks shunned lending to SMEs with increasing financial constraints of SMEs. Their extreme risk-aversion has also affected lending practices of domestic rivals. The result was excessive mortgage lending to creditworthy households and housing market bubble. Furthermore, foreign bank entry added competitive pressures fostering banking sector concentration via M&A among domestic-controlled banks. Further concentration among domestic banks that all already reached the size of "too-big-to fail" would perpetuate moral hazard. Finally although foreign subsidiaries enjoyed cost-free interoffice borrowing and cheaper access to foreign funding, their overall performance was not convincing compared to that of domestic rivals.

While foreign-controlled banks are losing market share in terms of assets, they are more active in derivatives trading which is not included on balance sheet. In this sense, foreign-controlled banks are operating like branches, depending on their parent banks in key areas ranging from funding to decision-making and risk management activities. Like foreign bank branches foreign-controlled banks tend to rely on competitive advantage in wholesale banking and capital market-related businesses seeking to maximize benefits from post-crisis financial deregulation. With strong foreign presence, the Korean banking sector's vulnerability to pure external shocks has been increased. During the recent financial crisis, foreign banks in Korea played a significant role in transmitting global shocks and served as source of instability. In episodes of financial stress such as credit card crisis in 2003 and dollar liquidity crisis in 2008 foreign subsidiaries showed unwillingness to participate in government-led

[8] The FTA specifies that "serious difficulties for the operation of monetary policy or exchange rate policy" shall include, but not be limited to, serious balance of payments or external financial difficulties, and the safeguard measures under this Article shall not apply with respect to foreign direct investments.

resolution efforts. Given their privileged position in foreign currency funding, however, foreign banks proved to be more resilient during the recent financial turbulence compared to domestic-controlled banks and could even improve profits taking full advantage of instability in FX market.

4.2.4 Civil society and social mobilization

Until the recent global financial crisis Korea's banking sector development with its huge profits and sound performance was seen as a success story. Skyrocketing share prices of banks in that foreign investors have been the major driving force seemed to be enough evidence of it. The traumatic memory of the 1997 system failure faded away with time. Given successful rehabilitation banks become one of the best paid jobs in Korea. The banking sector's well-organized trade unions also hugely benefited from banking sector expansion rewarded with fast-rising salary. Civic groups in Korea paid little attention to the banking sector issues. Their activities traditionally targeted at crony capitalist nexus between big business and politics. While seeing the banking sector as victim of the Korean crony capitalism, civic groups' concern was to liberate the banking sector from crony capitalist shackles and strengthen market discipline. It was not surprising that the first popular social mobilization was the civic movement for minority shareholder's rights. Shareholder value was advocated as a radical progressive idea and powerful instrument to end the crony capitalism (Kalinowski 2007 and 2009). Strong foreign presence in the banking sector was also expected to serve their purpose of disciplining big business. Retail investor's return to stock market gave a big boost for minority shareholder movement. So the credit card crisis in 2003 did not shatter banks' reputation. Instead, civic groups criticized government policies to promote debt-driven private spending as the main culprit of credit card bubble.

Another social mobilization came with growing discontent with foreign investors, especially PEFs (private equity funds) which was ignited by the Lone Star case after 2003. Controversy over fire-sale deals between the government and PEFs was fuelled further by huge tax-free profits made by PEFs through bank resale. In addition, resentments over overwhelming foreign presence in the banking sector surfaced due to dividend pay-outs. PEFs windfall profits and foreigner's gain from the Korean stock market sparked public anger, driven by deep-rooted economic nationalism in Korea. Conservative and progressive political circles alike complained about the drain of national wealth out of the country. Proposals such as Tobin tax and restriction on foreign holdings in key industries were put forward by some civic groups and trade unions, but did not have broad support from Korean civil society. Rather, those proposals came into collision with the minority shareholder movement. Due partly to ignorance of financial issues and partly to split over foreign investor's role, progressive civic groups and trade unions failed to raise a unified voice.

It was not until the onset of the 2008 crisis that revealed vulnerability of the Korean banking sector. Interestingly, criticism of the banking sector's reckless practices came from expert groups as well as private and public research institutes that have long advocated financial deregulation and openness. They successfully pressured the financial authorities to re-regulate the banking sector, particularly foreign banks. The current conservative government is seemingly prepared to put an end, at least temporarily, to onerous experiments with unfettered finance after the 1997 crisis, opting for currency sovereignty. The government's plan for financial re-regulation is supported widely among the conservative ruling party and expert groups, while progressive circles remains silent. It is surprising that the very financial authorities that stood at the forefront of unfettered finance in the past decade are now determined to go against free capital flows. The Korean government's move towards financial re-regulation is basically conditioned by the recent crisis situations, but reflects also disillusionment with the past attempts to imitate US-style of free financial markets. It remains to be seen, however, whether Korea's policy re-orientation brings about intended results.

5. Conclusion

Korea has seen a rapid financial development in the past decade in line with financial liberalization policies that the government rigorously pursued. The government's ambition to make Korea a financial hub in Northeast Asia supported by the self-serving financial industry pushed the financial expansion far beyond the ability of the Korean economy to deal with risks and dangers inherent in financial development. Eventually, the Korean financial sector has become the victim of its own success, suffering ill-fated overstretch.

Benefits of the financial expansion for the overall economy remain elusive. The widespread belief that financial liberalization would deliver an efficient allocation of capital and smooth external shocks proved to be an illusion. Strong foreign presence in the Korean financial markets at best helped shareholder capitalism to gain a foothold in Korea and mass enthusiasm for shares broke out that the Korean society has never seen before. Resulting stock market boom, though, has not served to promote corporate investments. The increased foreign bank entry has no doubt generated profit-oriented climate in the Korean banking sector and has played a role as trendsetters for the operations of domestic counterparts. But foreign banks' business strategy determined by their headquarters focuses on opportunities to maximize profits without reflecting the overall condition of the Korean economy, thus substantially contributing to market instability.

Furthermore, focus on profit maximization and increased market competition between domestic and foreign banks as well as between banks and NBFIs did not improve efficiency, but aggravated distortion in capital allocation. Its outcomes were household debt-driven asset bubbles and heightened FX market volatility which became major threats to the overall economy. Another novelty from the ongoing financial liberalization was that economic policies has increasingly held captive to dynamics of financial expansion, facing the government with a daunting task of managing economic trilemma.

The financial hub project, the major driving force of financial liberalization since 2004, runs increasingly encounter to the overriding objective of Korea's economic policies to maintain export competitiveness. Amid the escalating "currency war" in which Korea has been one of the most active participants, the Korean government is now compelled to choose one of both strategies and is more likely to opt for export competitiveness and currency stability tightening capital controls. This is because there is no room for reviving domestic demand due to the prolonged crisis in housing market. Recently the Korean government stepped up capital controls by restoring a tax on foreign bond purchases and imposing a levy on non-deposit foreign currency debt held by domestic and foreign bank branches. Those measures are violating commitments under the current GATS and in FTAs with US and EU which the Korean government already signed. The Korean government's determined action for capital controls was encouraged by the G20 Seoul Summit agreement in November 2010 that gave emerging markets the green light to use capital controls to deal with volatility in their currencies. It just jettisoned its commitment to current WTO rules and provisions in FTAs arguing that the G20 agreement stands above other rules.

Korea's relentless efforts in the past decade to emulate US-style financial system following neoliberal orthodoxy have failed to achieve the desired results. Negative effects of financial liberalization outweighed positive effects. Most critical was that the Korean banking sector has receded from its core function of financial intermediary. Despite rapid expansion of the banking industry with its strong and well-established nationwide branch networks a huge vacuum of financial services to marginalized

families and SMEs has emerged which could be only partly filled by the state-owned policy banks. It also brought about a different kind of crisis-prone financial system.

As a result of ongoing consolidation process commercial banks have grown too big to fail. This combined with pervasive self-serving behaviour, poses significant threat to financial stability. Paradoxically, the more progress of financial liberalization, the more government intervention is required to alleviate market deficiencies and correct market failure in crisis situation. Korea needs fundamental rethinking of financial development, shifting policy paradigm from unmanageable financial liberalization to strengthening bank's basic role of stable financial intermediation and promoting financial inclusion of marginalized families and SMEs.

6. References

Bank of Korea (BOK), Economic statistic system

Cho, Y.J. (1997), 'Financial Crisis in Korea: A Consequence of Unbalanced Liberalization?'

Demetriades, P.O., B.A. Fattouh, and K.K. Shields (2001), 'Financial Liberalization and the Evolution of Banking and Financial Risks: The Case of South Korea', No 01/1, Discussion Papers in Economics from Department of Economics, University of Leicester

Jeon, Y., S.M. Miller, and P.A. Natke (2006), 'Do foreign bank operations provide a stabilizing influence in Korea?', The Quarterly Review of Economics and Finance, 46 (1):82-109.

Financial Supervisory Services (FSS), Bank management Statistics, various issues, Korea

Financial Supervisory Services, Handbook, various issues, Korea

Frankel, J.A. (1993), 'Foreign Exchange Policy, Monetary Policy and Capital Market Liberalization in Korea', Korean-U.S. Financial Issues, U.S.-Joint Korea-U.S. Academic Symposium Volume 3, edited by Chwee Huay Ow-Taylor, Korea Economic Institute of America, Washington, D.C.

IMF (2003), The IMF and Recent Capital Account Crises. Indonesia, Korea and Brazil (http://www.ieo-imf.org/eval/complete/pdf/07282003/main.pdf)

Kim, D. (1999), 'Bank restructuring in Korea' BIS policy paper (http://www.bis.org/publ/plcy06e.pdf)

Kim, H.E., and Lee, B.Y. (2003), 'The effects of foreign bank entry on the performance of private domestic banks in Korea', CGFS (2004), central bank papers submitted by Working Group members. (http://www. bis.org/publ/cgfs22cbpapers.htm)

Kalinowski, T., and H. Cho (2009), The Political Economy of Financial Liberalization in South Korea: State, Big Business, and Foreign Investors, Asian Survey, 49 (2):221-242.

Lee, C.H., 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, Kang-Kook (2010), The Post-Crisis Changes in the Financial System in Korea: Problems of Neoliberal Restructuring and Financial Opening After 1997, TWN Global Economy Series no. 20

Linder, D. (1992), 'Foreign Policy, Monetary Policy, and Capital Market Liberalization in Korea’, Board of Governors of Federal Reserve System (No.435).

Ministry of Strategy and Finance (MOSF) (2007), Financial Hub Initiative in Korea.