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TÍTULO DO TRABALHO

Loanable Capital Movement in Brazil and Korea: impacts on banks' portfolio and on the path of economic development[1]

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ABSTRACT

Based on a Marxist political economy, this paper discusses how central banks in key middle income countries (Brazil and Korea) through mediation of the loanable money capital (liquidity operations and public debt management) have spread the process of financialisation in both countries in the last decade. Financialisation can be understood as the rising influence of financial sphere on the path of capital accumulation. It is argued that central bank management of the process of reserve accumulation has conditioned and shaped banks' portfolio decisions during the 2000s in the Brazilian and Korean financial systems.
In this process, the loanable capital movement can also be understood as a relation between the central bank and banks' balance sheets, in which repos (or central banking bonds) are central banking liabilities and banking assets at the same time. It is shown that the central bank actions have fuelled domestic financialisation by facilitating the expansion of banks balance sheet through the issuance of their own liabilities. The main point put forward by this paper is how the development and deepening of government bonds markets, focusing on central bank interventions, has supported banks in stretching their balance sheets and further affecting the credit supply. This has mainly happened through monetary sterilisation operations which are carried out with public debt securities. From a Marxist point of view, it has reinforced the role of banks as managers of loanable capital, highlighting their power in the process of capital accumulation and, similarly to the emergence of the central banks, the role of state is also a fundamental element to the further development of the credit system.

KEYWORDS

Central Bank, Financialisation, Banks, Loanable Capital, economic development

Introduction and some theoretical considerations

The phenomenon of a higher proportion of financial operations in relation to the trade activities and also the rising share of companies' profits coming from financial operations[2] rather than from productive activities is relatively well known. (Mckinsey, 2008) In addition, in the major developed countries, the rise in the level of indebtedness among economic sectors, mainly in households is a well established fact (Palley, 2007; Foster, 2006 and 2008; Lapavitsas, 2009; Langley, 2008; Stockhammer, 2010). Changes in the role of financial system, banks in particular, have happened in the last decades in terms of its relation to non-financial companies and

[1] Trabalho em revisão. Por favor, não citar.
[2] For relevant data see Lapavitsas (2009).

households, and of its own main activities. In broad sense, it is possible to argue that finance has become even more important to the trajectory of capital accumulation.

From the perspective of the Marxist political economy, these changes in the role of the financial system in relation to development and in the relation between developed and developing countries are connected to structural changes in real production, which in turn have had effects on the circulation sphere. More important is the fact that they can be related to modifications in banks and central banking behaviour. These structural changes can be called financialisation.

Financialisation represents a profound transformation in capitalist economies based on changes in real accumulation since the early 1970s (Lapavitsas, 2009). Through this transformation, financial institutions have acquired a prominent role in the path of economic development (Epstein, 2005). Financial activities have spread into several new economic sectors and areas of daily life – housing, pensions, consumption, and so on. Growth of finance has provided fresh scope for the monetary relations (form of value) to expand, mainly in developed capitalist countries. Important elements of this process have been the privatisation of activities and capital assets that were previously under state control, as well as the deregulation of financial markets and institutions. Moreover, deregulation of labour markets has contributed to foster "financial discipline" among workers. Therefore, financialisation is a key issue in the recent relationship between finance and development, as financial operations have become crucial for the pace of capital accumulation and there has been an enlargement of the financial sphere in the economy and in daily life.

In the last decade, central banking in developing countries have had a connection with financialisation, since central banks' interventions in foreign exchange markets have been necessary in order to accumulate international reserves and, in most of these countries through interventions in money (interbank) markets, to sterilise the expansionary monetary effects in their domestic financial systems. These central banking actions are called liquidity management operations of loanable capital. In addition, this rising importance of the central banks in the last decade around the global economy has been accompanied by the increasing dissemination of the thesis of central banking independence with respect to the formulation of monetary policy, which has been implemented through a specific institutional arrangement, namely the inflation targeting regime[3]. Therefore, during the last decade, it can be established that the relationship between finance and development in developing countries have had a closer connection to international financialisation. Central banking is a fundamental element in this connection.

In this paper, the theoretical approach is based on the Marxist theory on banking and central banking. Banks are the managers of loanable capital and fundamental to the path of economic development. More important, a Marxist political economy approach stresses the central banks' connection to capital accumulation through its organic link to the banking system. According to Marx (1972: 606-7) "the banking system, so far as its formal organisation and centralisation is concerned, is the most artificial and most developed product turned out by the capitalist mode of production, and […] possesses indeed the form of universal book-keeping and distribution of means of production on a social scale, but solely the form." Historically, central banks have become fundamental in this process of distribution as there was a centralisation of banking reserves. "Banking and credit thus become the most potent means of driving capitalist production beyond its own limits, and one of the most effective vehicles of crises and swindle." (Marx: ibid) On the other hand, central banks have also become important in dealing with credit crises mainly through their role of lender of last resort. Central bank through some instruments such as the management of the interest rate and reserve requirements "can hope to avoid the devaluation of commodities at the same time as it preserves the quality of its own money". Harvey (1982: 294)

In addition, by holding the countries' foreign exchange reserves, central banks have also an international dimension. In this sense, central banks can be considered as a pivot between international and domestic spheres, being the main link to international loanable capital.

This paper is an empirical account on the loanable capital movement in key middle income countries, discussing how central bank liquidity management has affected the domestic financial system in Brazil and Korea by analysing banks' balance sheet. More specifically, attention is paid to how the central bank management of the process of reserve accumulation has conditioned and shaped banks' portfolio decisions during the 2000s in the Brazilian and Korean financial systems. In this process, the loanable capital movement can also be understood as a relation between the central bank and banks' balance sheets, in which repos are central banking liabilities and banking

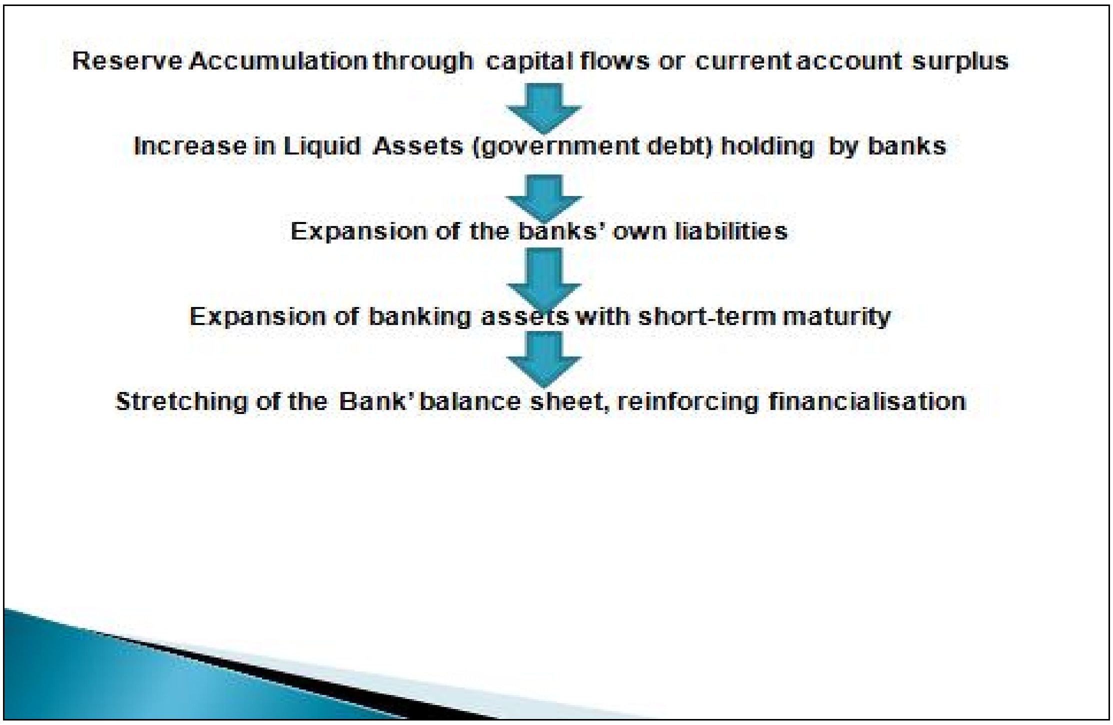
[3] On the inflation targeting regime see Bernanke and Mishkin (1997), Leiderman and Svensson (1995), Mishkin (2001) and Woodford (2007).

assets at the same time. It is argued that the central bank actions have fuelled domestic financialisation by facilitating the expansion of banks balance sheet through the issuance of their own liabilities. The main point put forward is how the development and deepening of government bonds markets, focusing on central bank interventions, has supported banks in stretching their balance sheets and further affecting the credit supply. This has mainly happened through monetary sterilisation operations which are carried out with public debt securities. From a Marxist point of view, it has reinforced the role of banks as managers of loanable capital, highlighting their power in the process of capital accumulation and, similarly to the emergence of the central banks, the role of state is also a fundamental element to the further development of the credit system.

In addition, focusing on the increasing liquidity of banking assets and liabilities, I analyse how those changes in banks' balance sheet might affect capitalist development. This paper discusses how loanable money capital, in which the relation between international and domestic spheres is present through foreign reserves, has impacted economic development. More concretely, by doing monetary sterilisation operations central banks have offered plenty of loanable capital to banks. This has affected the liquidity of their balance sheets which, in turn, can affect economic development. In this perspective, considerations are laid out on the way reserve accumulation has influenced banks' balance sheet management, the central bank acting as a key agent, and also more specifically about the possible effects the credit allocation may have on the trajectory of economic development.

This movement of loanable capital starting from reserve accumulation and ending up with the expansion of banks´ balance sheets can be seen in a summarised form through figure 1 below. In this sense, international reserve accumulation can be originated through capital flows or current account surplus. Then, in order to control (or avoid) possible macroeconomic effects of the expansion of the money supply, central banks have engaged in monetary sterilisation operations through repos or central banking bonds which in turn have been held by banks. Banks then through their portfolio management techniques have issued their banks´ own liabilities and have acquired short-term capital assets. Consequently, banks have stretched their balance sheets. Furthermore, they have reinforced financialisation as household loans have gained share in the total credit allocation.

Figure 1 – Loanable Capital and Banks´ Portfolio Management



Lastly, this paper offers an analysis of the development of the financial derivatives markets, which has also fostered domestic financialisation in Korea and Brazil, focusing mainly on those derivatives more linked to public debt securities. Financial derivatives are connected to the expansion of loanable capital in Korea and Brazil. From a Marxist perspective, financial derivatives are denominated fictitious capital, which is in turn a type of loanable capital, as those derivatives can be related to lending operations. For our purpose, those markets are mainly the Korean Treasuries bond (KTB) futures market in Korea and the interest rate (Interfinancial deposits - DI futures) futures market in Brazil.

1 – Central banks liquidity management and banks balance sheet: loanable money capital and domestic financialisation

In Painceira (2010), central bank liquidity management is analysed through the connection between international capital flows and domestic public debt. He discusses the key role of the domestic public debt in the process of reserve accumulation and the importance of central banks in its management, mainly by sterilising capital inflows. Based on this, it is possible to discuss capital flows in relation to the public debt securities' profile and the issuance of Treasuries bonds, respectively in the Brazilian and Korean experiences.

Therefore, Painceira (2010) argues that the international capital flows have had a strong influence on the domestic public debt dynamic in Korea, and mainly in Brazil. Moreover, contrary to the Brazilian experience, Korea has also had an increase in the total external debt, mainly after 2006. Painceira (2010) claims that this increase can be related to the differences in the level of financial integration among their domestic financial systems. In the next sections, the importance of this public debt behaviour to the loanable money capital in both domestic banking systems is discussed. From a Marxist perspective, loanable capital is all capital available for lending operations. Central banks through their operations can affect loanable capital. This impact has its origins mainly in the central bank's inherent function of influencing the sources of this capital, which are largely banking liabilities. Furthermore, it is shown that in spite of some differences in their banking systems, Korea and Brazil have had similar results in terms of credit allocation, which can be understood as allocation of loanable capital across the economic sectors.

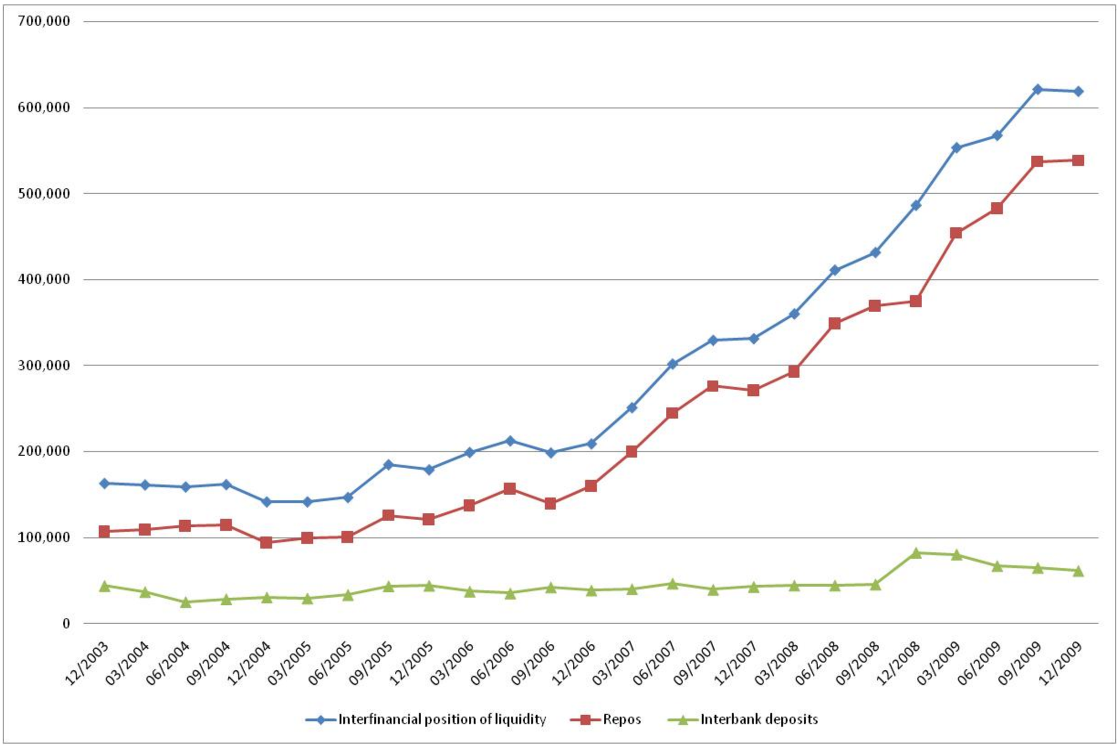
1.1 – The Brazilian experience on banks balance sheet in the 2000s: rising in liquid assets and credit allocation

Since the middle of the 2000s the Brazilian economy has experienced a surge in capital flows as analysed in Painceira (2010). In this paper, the focus is on the relation between the movement of loanable money capital and banks' balance sheet, in which the behaviour of international capital flows has shaped loanable capital by affecting the liquidity and the banks' portfolio management.

The increase in monetary sterilisation operations (repos) by the central bank has had a large impact on the banks' balance sheets. On the asset side, the main points have been the increase in the inter-financial positions (essentially, central banking repos), securities and financial derivatives, and the rise in credit operations. This chapter claims that the repos have been the main drive in the stretching of banks' balance sheet, and that the issuance of banks' own liabilities has been an important source of banking funding. Moreover, other banking assets positions have been shaped by those liquid assets and by the type of banking funding connected to these assets, as will be demonstrated later on.

Figure 2 shows that the rise in liquid assets after 2005 has essentially been driven by repos as a result of central banking monetary sterilisations. With regard to those operations, it is also worth mentioning the rise in repos with financing position relative to their own position, which has meant banks have borrowed in money markets in order to take position in repos.

Figure 2: Liquid Assets – (R$ million)



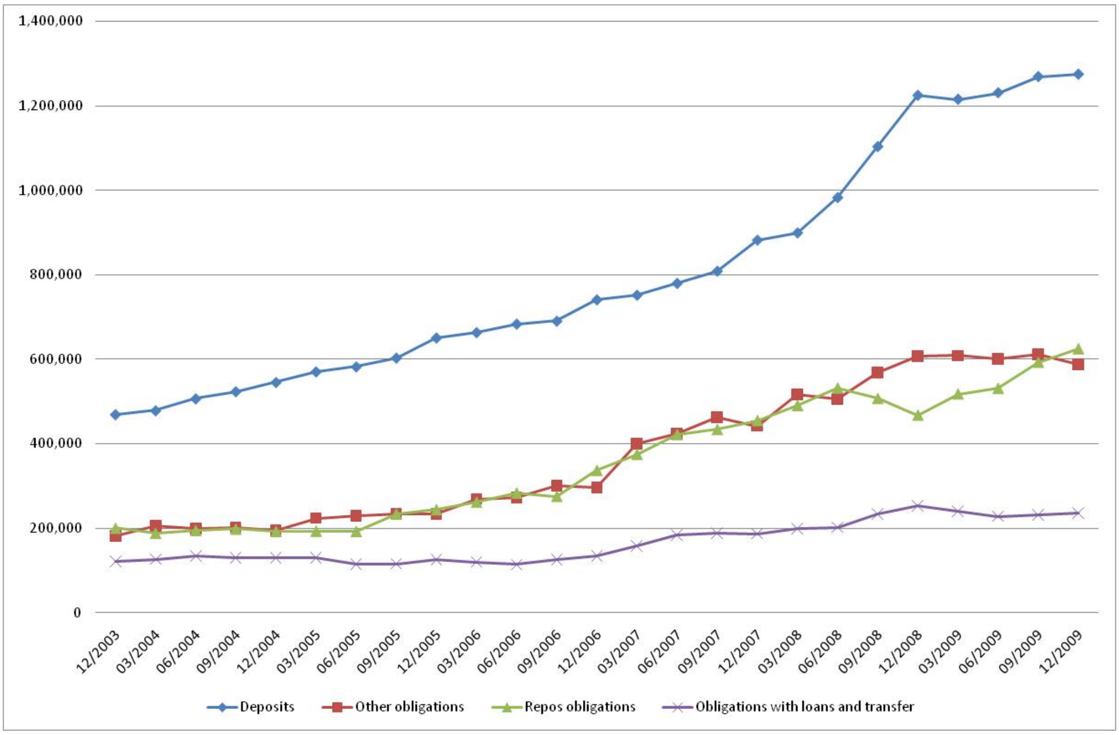
Source: BCB (2010)

As repos are nearly cash yielding interest rates, there is a powerful combination of liquidity and profitability in their holding. So there is confidence on the part of banks in repos. In Brazil, the process of confidence in their repos' portfolio has allowed banks to stretch their balance sheets through the issuance of their own liabilities (mainly, certificate of deposits). It has essentially happened because banks have confidence in their conversion into cash (bonds redemptions) with very low cost of their holding of public debt securities through central bank operations at any time.

This in turn can guarantee their liabilities, which is crucial during periods of crisis, as shown in the previous chapter.

On the banks’ liabilities side, the main points have been the increase in banking deposits, in obligations with repos and other banking obligations, as can be seen in figure 3. The main effect has been the increase in banking deposits. In relation to those deposits, the most important aspect is the increase in time deposits as shown in figure 4. Other important points are the rise in saving deposits and the jump in inter-financial deposits after 2007.

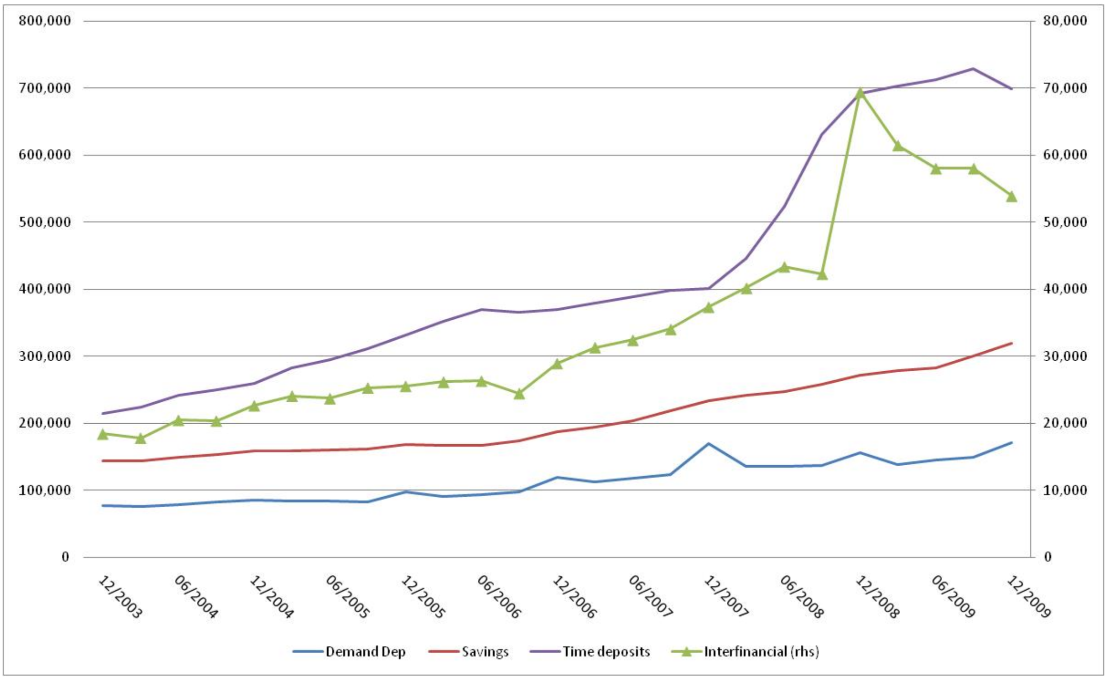
Figure 3: Brazilian banking system – main liabilities (R$ million)



Source: BCB (2010)

Time deposits are mainly composed by certificates of banking deposits. These certificates are securities issued by banks which can be classified as banks’ own liabilities. It is important to make it clear that all deposits are banking liabilities in as much as banks have obligations to them. However, only liabilities issued by banks, such as certificates of deposits or financial debentures, can be considered as banks’ own liabilities, because their issuance is primarily determined by the bank´s portfolio decision (while the other liabilities are to a large extent decided by the creditors or clients of the banks). It is particularly important to note that the surge in those deposits has followed the rise in capital inflows, and then the rise in central banks’ repos in the banks’ portfolio.

Figure 4: Banking deposits – liabilities (R$ million)

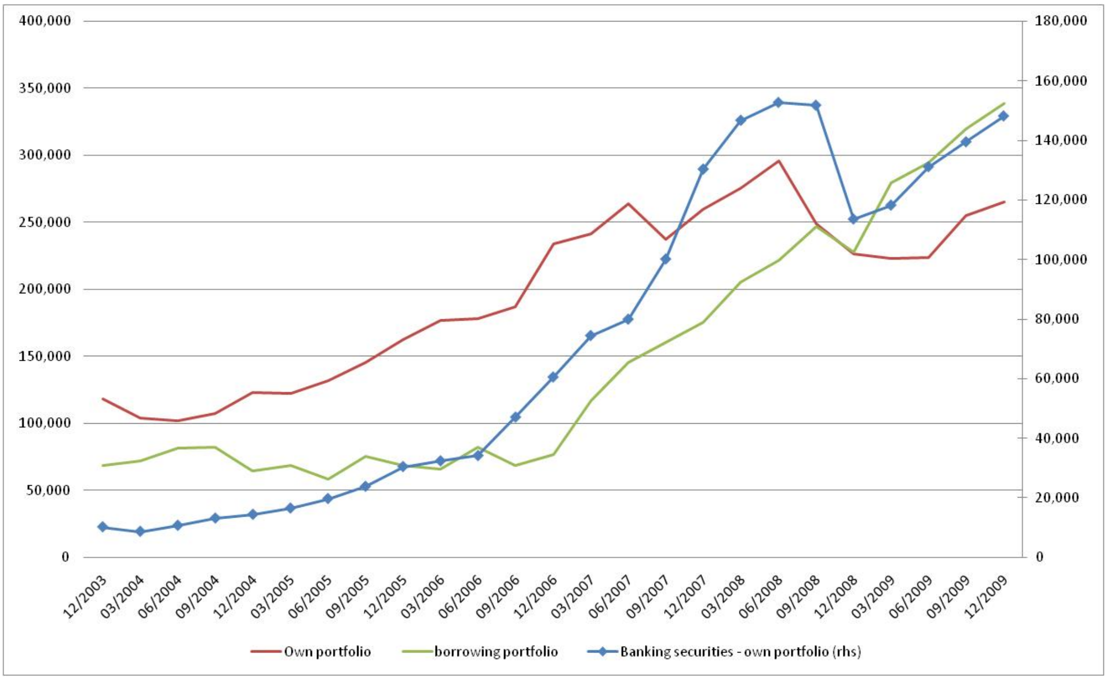


Source: BCB (2010)

Similarly to the repos in the banking asset side, there is a rise in the repos' obligations highlighting the increase in the borrowing repos' portfolio in relation to their own repos' portfolio, as can be seen in figure 5. Those liabilities are the accounting counterparts of repos asset positions. More important, Brazilian banks have not only issued their own liabilities through certificates of deposits but they have also increased their repos obligations through their own securities. Therefore, the increase in the central bank repos' portfolio has allowed banks to expand their balance sheet by issuance of their own liabilities, including by doing repos with some of them.

The main results of the movement of loanable capital on the banks' balance sheet have been the shortening in the maturity of their funding as a consequence of the increase of repos operations and a greater reliance on the banks' own liabilities as a source of funding. The later funding (time deposits) is more unstable than demand or saving deposits and also has a higher cost. Therefore, there is a reflexive movement on the banks' portfolio as, on the one hand, repos have influenced the type and maturity of banking funding and, on the other, banks' assets positions are conditioned by the shortening of their funding.

Figure 5: Liabilities with repos – (R$ million)

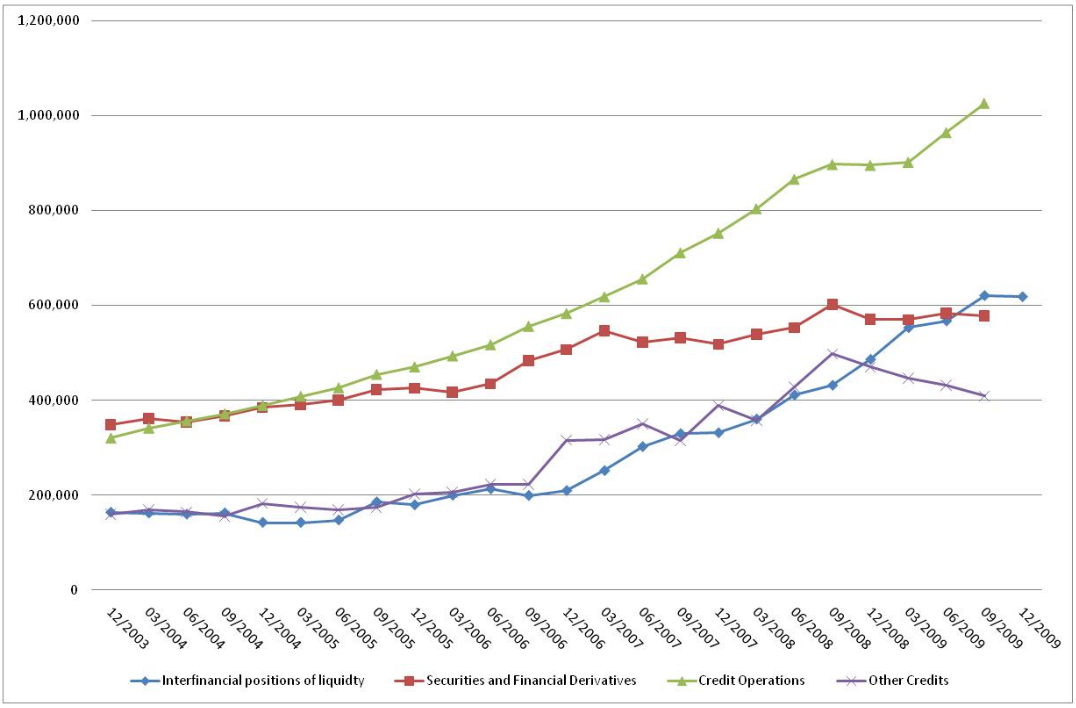


Source: BCB (2010)

During this period of time, apart from the rise in liquid assets, as discussed above, there is also an increase in banking credit operations in their balance sheet, which is, in principle, beneficial to capital accumulation (Figure 6). Traditionally, the increase in banking credit is positively related to lending operations to the productive sector as companies are the main demanders of credit.

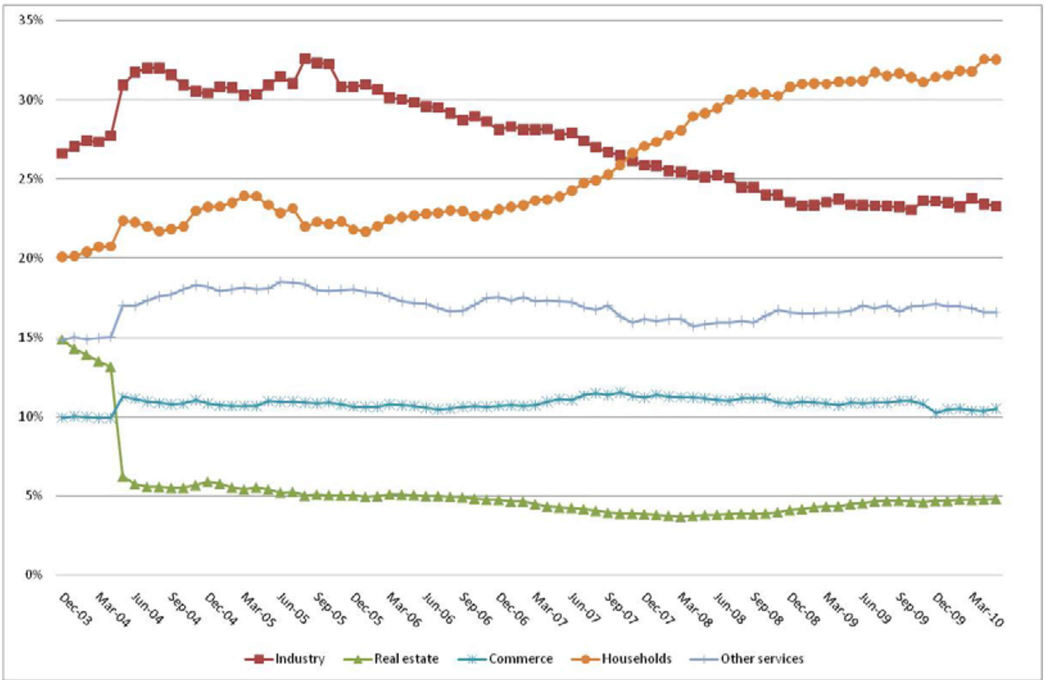
However, the main effect of the process of reserve accumulation on development has been the increase in consumption loans, as there is a dramatic change in the credit allocation in the banking system, which can be seen in Figure 7. The increase in these loans is connected to the short-term nature of banking funding in the last years as this rise has happened during the surge in capital flows and repos, and households' credit has usually a shorter maturity than manufacturing credit. So, banks have tried to match the maturity of this banking funding in their asset positions. It is claimed in this chapter that these factors are the main forces in credit allocation, but not the only ones, as there are other factors in this change such as the profitability in households' credit. In this sense, banks' asset position has been a supporting factor to the increase in household credit. This movement in credit allocation is even higher in the private banking system (see Figure 8). The increase in household credit in relation to industrial credit in the banking credit supply is one of the main aspects of financialisation[4].

Figure 6: Brazilian banking system – main assets (R$ million)



Source: BCB (2010)

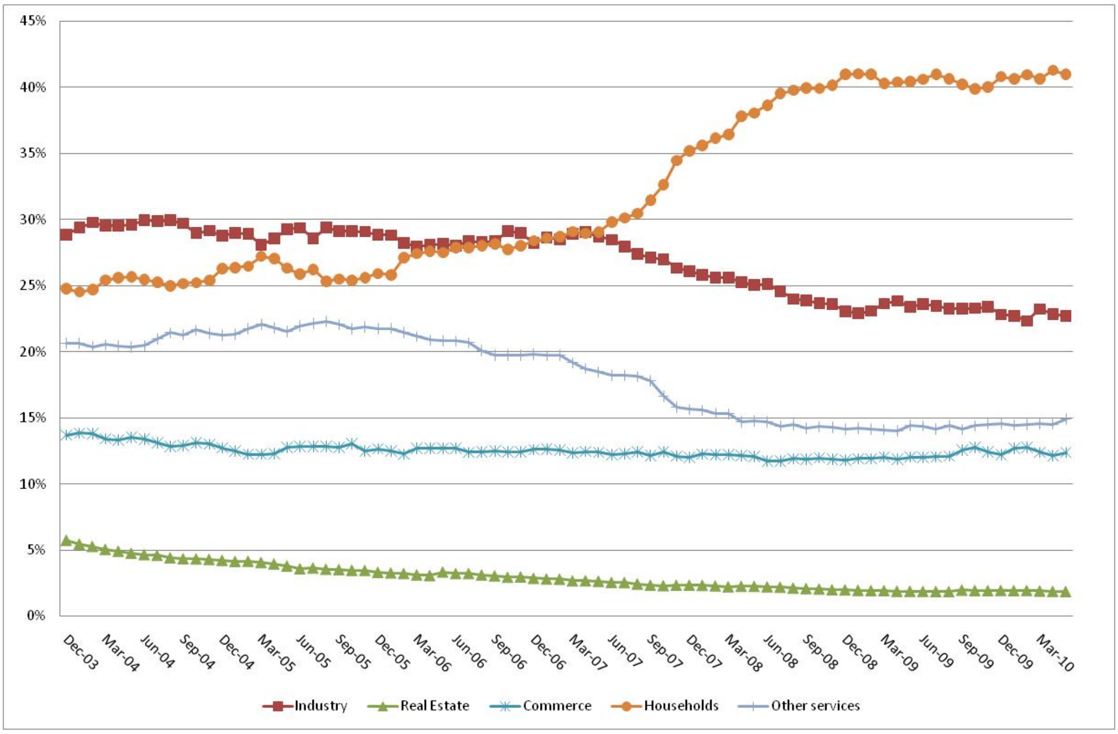
Figure 7: Brazilian financial system – credit allocation – main items (%)



Source: BCB (2010a)

[4] See Dos Santos and Lapavitsas (2008) on the unequal relation between banks and households.

Figure 8: Brazilian private banking system – credit allocation (%)



Source: BCB (2010a)

The last points that will be touched on regarding loanable capital movement in relation to the banks' balance sheet concern securities and financial derivatives, and other credits accounts. With regard to securities and financial derivatives accounts, the main points are the increase in the holding of free securities and in financial derivatives items. It is worth mentioning that the first item reflects the rise in fixed income securities, which are composed largely by domestic public debt bonds. There are also shares in domestic investment funds and investments in overseas markets classified as free securities. Regarding financial derivatives, the main topic is swap operations, reflecting a rising importance of derivatives markets in Brazil, as will be discussed in section 4. In relation to the other credit accounts, the main point is the rise in the foreign currency portfolio. On other obligations, similarly, the main aspect is the increase in foreign exchange liabilities. Both accounts reveal the rise in the financial integration of the domestic financial system.

As can be seen above, through the analysis of the Brazilian banking system's balance sheet, the banks' confidence in their public debt portfolio has allowed them to stretch their balance sheets by the issuance of their own liabilities (such as certificates of deposits) and also by doing repos with them. Furthermore, those securities are also profitable. This has happened because banks have confidence in the conversion of their holding of public debt securities into cash at any time at a very low cost, essentially through central bank operations. Therefore, the predictability of this portfolio has been important to the banking funding, mainly to the issuance of banks' own liabilities[5]. This in turn has given greater flexibility to banks in matching their outstanding liabilities[6], which is fundamental during times of crises. In the Brazilian case, the continuous roll over of central banks repos has generated this predictability for banks.

Consequently, the increase in the holding of profitable and liquid assets (repos) by banks has allowed them to have a higher degree of flexibility in their balance sheet management in the last years. It has happened because those assets facilitate banks to take position in other assets by issuance of their own liabilities. Furthermore, Brazilian banks, through the management of their public bond portfolio, can generate funding by using those securities in lending operations and also by using them as collateral in other asset positions such as financial derivatives. As far as credit allocation is concerned, monetary sterilisation operations (repos) by central banks, which are in turn directly related with the operational logic of the inflation targeting regime, have shaped the nature of the credit supply in Brazil[7]. It has happened because banks' balance sheets have become more liquid and have also presented a higher proportion of short-term funding. Banks, then, in order to match the drop in their funding maturity have mainly preferred to lend more to the household sector than to the business sector as the loans' maturity are shorter in the former sector[8].

Thus, the process of reserve accumulation in the inflation targeting regime has created a complex relation between central banking policy and banks portfolio management in the Brazilian financial system. This policy has reinforced the expansion of banks' own liabilities and fostered domestic financialisation. Then, the motivation for banks to hold a repos' portfolio are related to a combination between price and liquidity reasons. Banks through liability management have increased the financial deepening in the Brazilian banking system. It has happened fundamentally as a result of the issuance of banks' own liabilities, which is a type of financial development (financialisation).

[5] From a Marxist perspective, trust is one of the main social aspects of the credit system. For more details, see Itoh and Lapavitsas (1999) and Lapavitsas (2003).
[6] Moreover, those securities are also important in the exchange of traded derivatives, as they can be used as collateral in their operations, with high liquidity and lower volatility.
[7] This relation between international capital flows and central bank liquidity management in the inflation targeting regime is important, but it is not discussed in this paper.
[8] As mentioned before, another factor to affect this preference would be the level of profitability in lending operations to households. It is also important to note that these households loans do not include mortgage lending which are included in the item Real Estate (see figure 6).

In general terms, this phenomenon can be understood through the relation between banks' and central banks' balance sheet. Repos are interest bearing central bank liabilities and give ready access to legal tender through central bank operations. In this relation, the trust element between the monetary authority and banks is even higher, as repos should be converted in legal tender according to banks' needs. Therefore, the connection between central banks and banks can be broader than legal tender.

One may argue that monetary sterilisations are not a new phenomenon in the international monetary system, in particular in emerging countries. However, their effects on banks' balance sheet are new and have been significant due to the level of financial integration and, mainly to the size of this portfolio. In this case, it is possible to claim the existence of a dialectical relation between quantitative and qualitative effects, in the sense that the rise in the repos' portfolio has generated qualitatively different outcomes in the credit system. In other words, after reaching a certain level in the size of their portfolio, repos have produced different effects on the credit supply from the traditional restrictive effects vindicated by mainstream theory on the monetary supply. In the concrete experiences analysed in this dissertation, as the Korean case can also show later on, this expansion has had not only a positive impact on credit supply, but also it has caused changes in its composition. Therefore, the rise of the almost money yielding interest (repos) in the credit system through monetary sterilization operations, together with the rise of financial integration has caused qualitative changes on the credit supply.

On the other hand, one may raise the question of what would happen if those monetary sterilisation operations were not carried out. Apart from the possible effects on the exchange rate[9], there would be an increase in banking reserves, causing an expansion of the money supply, which in turn would put a higher pressure to lower the money market rates, causing an expansion of the monetary base. More important for this paper is the fact that an increase in cash reserves does not allow an easier expansion of banking liabilities like the holding of public debt securities does. This is because banks cannot issue their own interest bearing liabilities based on assets positions yielding zero of interest rate such as banking reserves. Otherwise, interest rates received on banking assets would be lower than rates paid on liabilities. This in turn is not possible as a principle of the management of banking assets and liabilities. This is not the case of the repos' banking portfolio.

[9] Central banks, mainly in the Brazilian experience, are also important players in foreign exchange markets, spot and derivatives markets.

1.2 – The Korean experience on banks portfolio management: liquid assets and credit allocation

Similarly to the Brazilian experience, the holding of very liquid public securities (central bank and Treasury bonds) has allowed Korean banks to stretch their balance sheets through the issuance of their own liabilities. Differently from Brazil, the Korean central bank can issue debt, called monetary sterilisation bonds (MSB). But similarly to Brazilian central bank repos, those bonds have been used to sterilise foreign capital inflows[10].

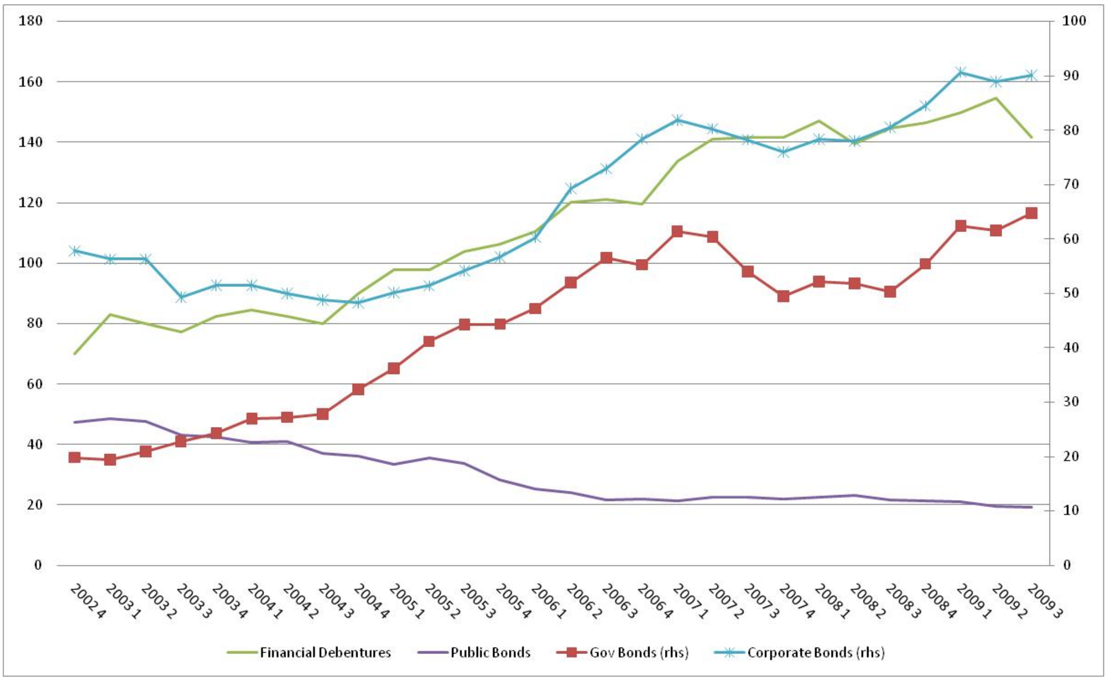
On the asset side, the main points are the increase in loans and the behaviour of the item securities other than shares. This chapter argues that the holding of very liquid assets has been the main drive in the expansion of banks' balance sheet in which the issuance of banks' own liabilities is important, as will be shown later on. It is important to establish that the rise in financial derivatives and foreign liabilities are also important to the Korean banks' behaviour. Furthermore, the increase in banks' external debt can be connected to the domestic public debt dynamic. However, as discussed in section 3, in spite of the importance of those accounts, they have had even more importance to banks' behaviour during the context of the global financial crisis.

Similarly to the Brazilian experience, this paper claims that the process of confidence in their public debt portfolio (central bank and Treasury bonds) has allowed Korean banks to stretch their balance sheets through the issuance of their own liabilities, such as financial debentures and negotiable certificates of deposits. This has happened because banks are confident in the conversion of their public debt securities to cash at any time, at a very low cost, mainly through central bank operations, even those securities not being repos like in Brazil. This can in turn guarantee their liabilities which is fundamental, mainly during periods of crisis.

[10] Differently from the Brazilian banks, which are directly taken from their balance sheet data, the sources of the Korean banks data are from the country's flow of funds.

On securities other than shares account, the main items are financial debentures and government bonds, as can be seen in figure 9. Both of them had the same trend up to 2007 when governmental bonds started to fall. This happened until September 2008, and reflected in the rise of the share of foreign investors in those bonds. As will be analysed in section 3, this is connected to the effects of the global crisis in Korea, in which the jump in the holding of public debt securities by foreign investors has been one of the main characteristics. The government and MSB bonds holdings by Korean banks can be respectively observed in figures 9 and 10[11]. In addition, there is a movement in the Korean interest yield curve which started with a flattening shape in 2006. This movement also reinforced the tendency of Korean banks to take increasingly shorter term positions as the long and short term interest rates became closer.

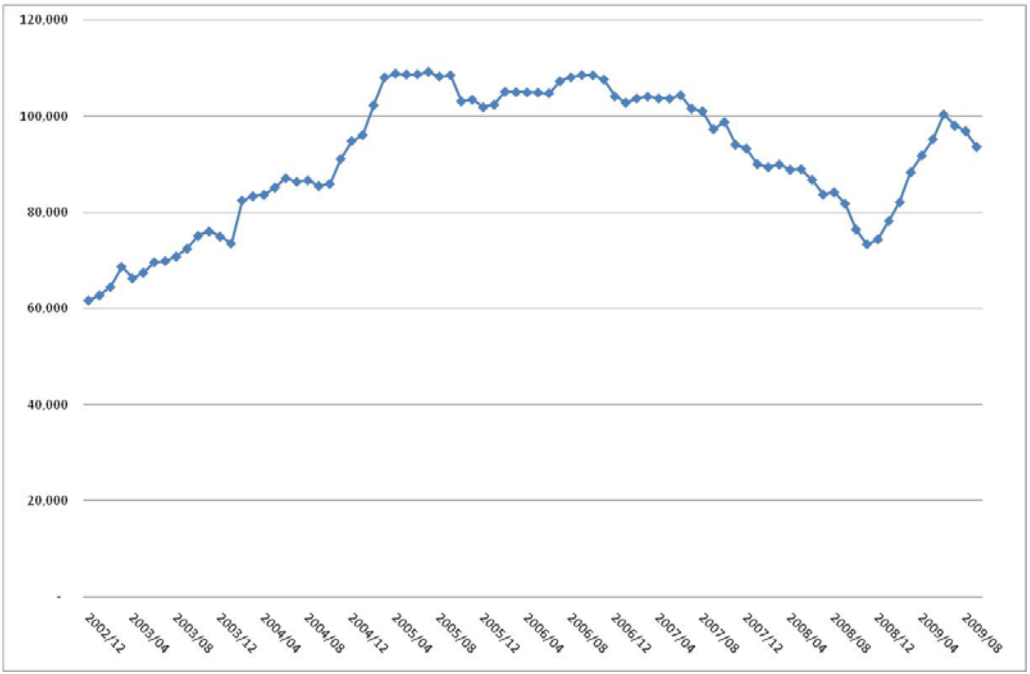
Figure 9: Banking assets – main securities (Won trillion)



Source: BOK (2010)

[11] It is important to mention that the data on banks holdings of MSB are estimated from the financial system's participation in the total governmental debt. Therefore, the MSB banks' holding is underestimated, as it is well known that banks are by far the main holders of money market instruments. For more details, see BIS (2007).

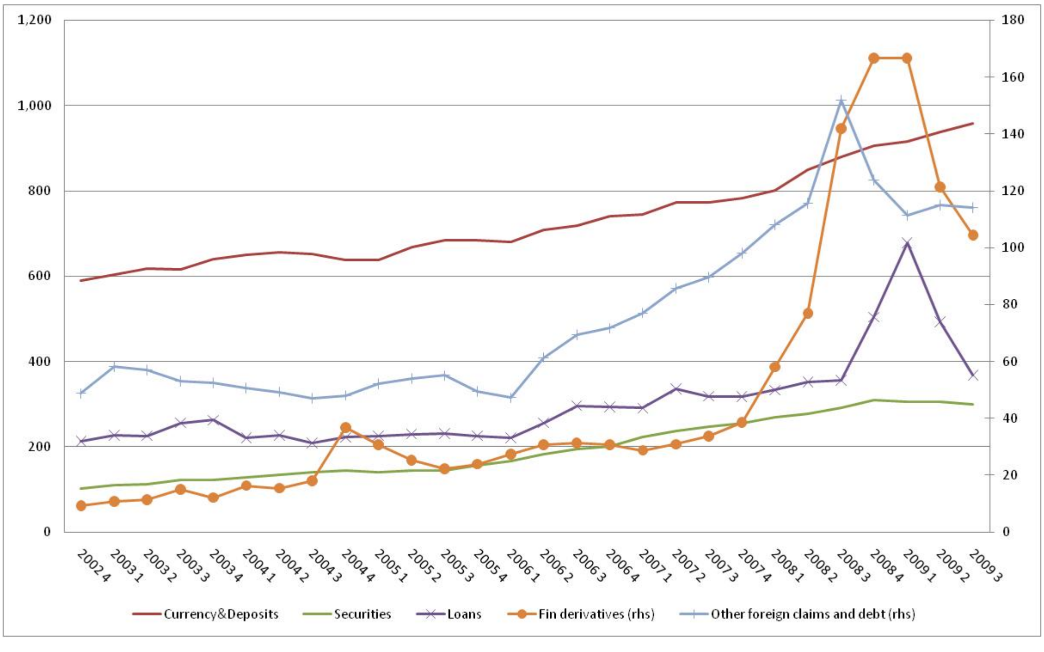
Figure 10: Monetary Stabilisation Bonds – banks holdings (Won billion)



Source: BOK (2009)

On the banks liabilities side, the main aspects are the steady increase in currency and deposits, and the issuance of securities, as can be seen in Figure 11. Despite its importance, as mentioned above, the rise in banking foreign liabilities and financial derivatives observed in the last years is more closely related to the dynamics of the crisis.

Figure 11: Korean banking system – main liabilities (Won trillion)

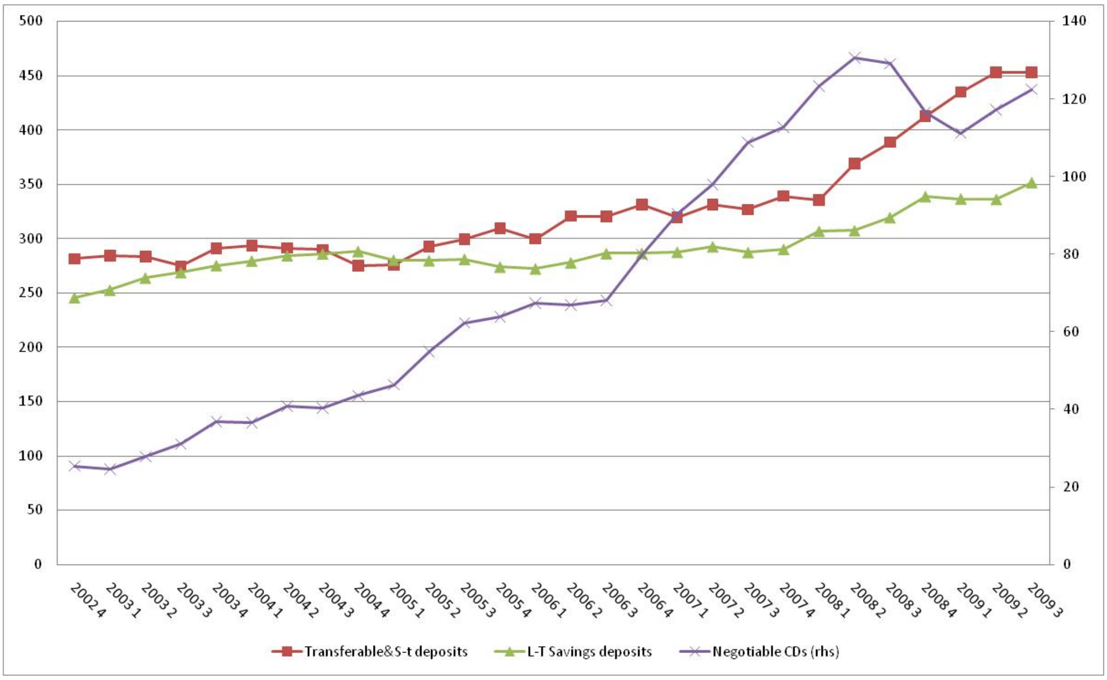


Source: BOK (2010)

In relation to banking deposits, the main items have been the constant issuance of negotiable certificates of deposit and the steady rise in transferable and short-term deposits. This has increasingly meant a reliance on banks' own liabilities as a source of banking funding. Moreover, this funding has a short-term nature, since the certificates of deposit have also a shorter maturity.

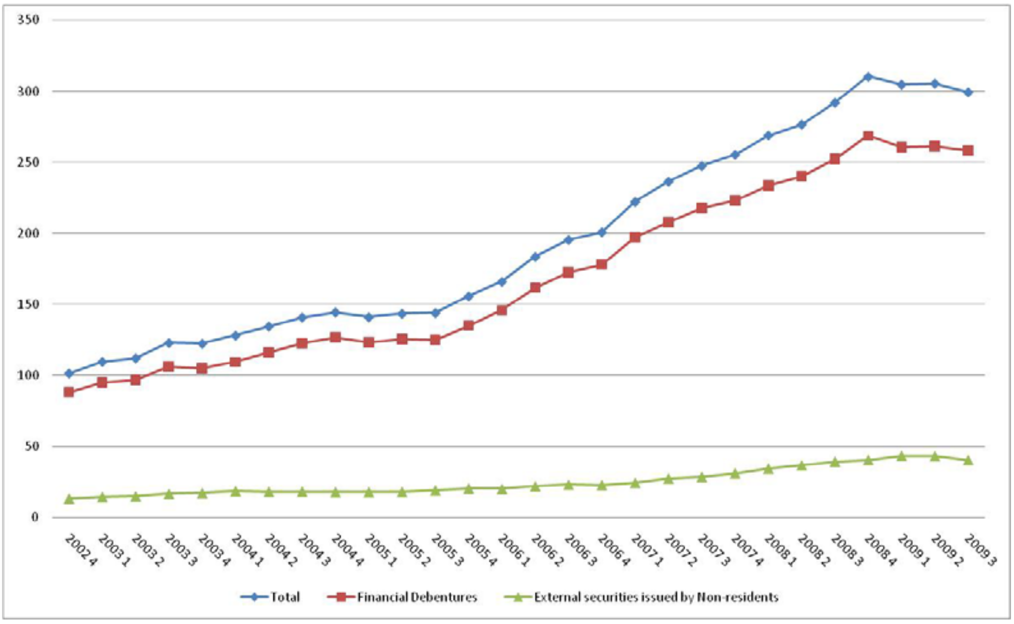
On the liabilities with securities, the main aspect that deserves our attention is the huge rise in financial debentures. The slight increase in external securities issued by non-residents can be related to the dynamic of the period of crisis, as the perspective of domestic currency (Won) appreciation created incentives to borrow in foreign currency and then to invest in domestic assets. As will be discussed in more detail in section 3, this movement can be denominated *carry trade operations*. Therefore, similarly to banking deposits, the issuance of financial debentures by banks reinforced the reliance on banks' own liabilities.

Figure 12: Banking deposits – main items (Won trillion)



Source: BOK (2010).

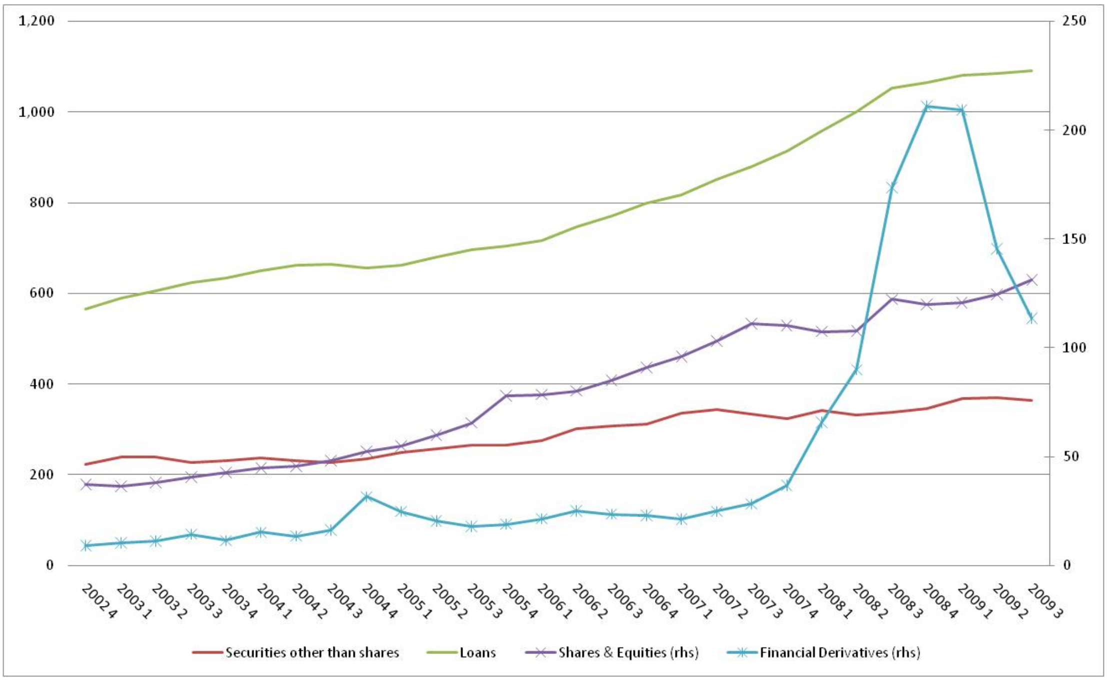
Figure 13: Securities – liabilities (Won trillion)



Source: BOK (2010).

Regarding banking assets, the principal outcome has been the rise in loans, in securities other than shares, as analysed above, and in derivatives as can be observed in Figure 14. On the financial derivatives account, the logic is the same as that of liabilities, in which foreign exchange and currency swaps increased after the summer 2007.

Figure 14: Korean banking system – main assets (Won trillion)



Source: BOK (2010)

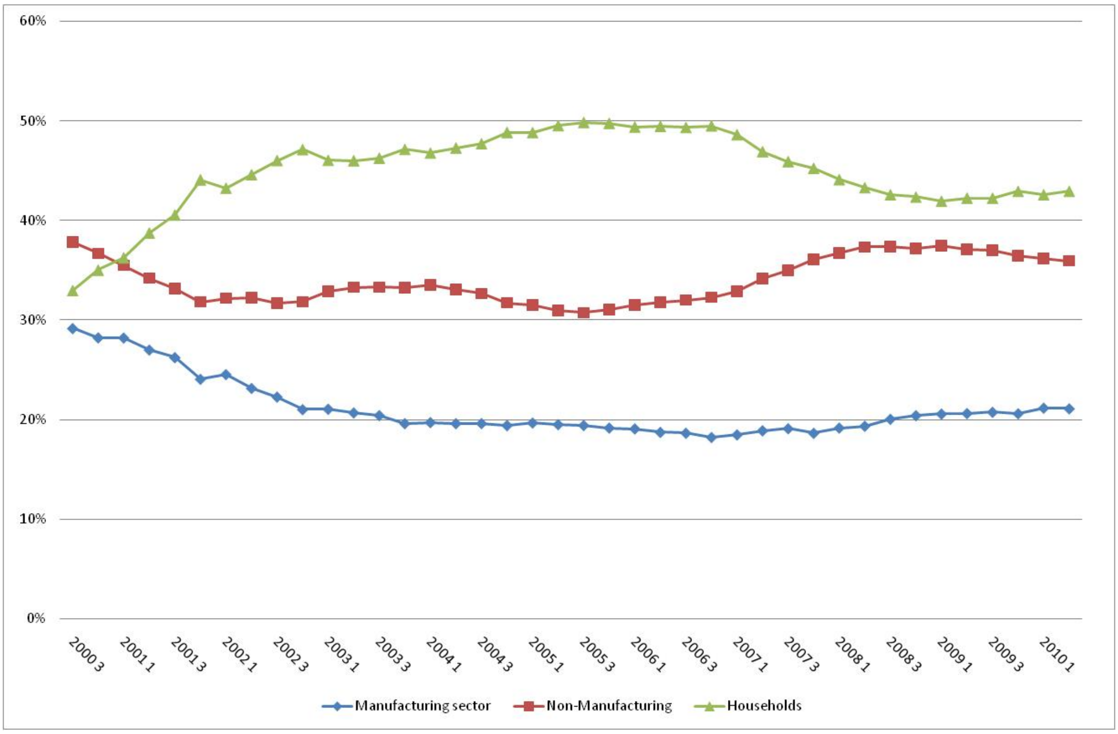
In the same vein as the Brazilian experience, the increase in banking loans' portfolio in Korea has also been connected to the nature of banking funding in the last years. The loanable capital movement through the banking system has supported a change in the credit allocation in Korea. The main result has been an increase in the proportion of households' loans from 39% in 2002 to 50% at the end of 2006, as shown in Figure 14[12]. There has been a slight change in this trend since 2007, as the participation of the household sector has dropped and that of the non-manufacturing sector has been rising. However, this drop can be more closely related to the speculative movement during the global crisis when Korean banks increased their loans to trading companies, included in the non-manufacturing sector. Furthermore, it is possible to observe an increase in the household's share since the end of 2008.

Therefore, similarly to the Brazilian experience, the rise in households' loans is connected to the short-term nature of banking funding in the last years, as this credit has usually a shorter maturity than manufacturing credit and banks have tried to match the maturity of this funding in their asset positions. Moreover, as discussed above in relation to the Brazilian experience, it is also possible to extend the same arguments on the effects of the monetary sterilisation operations on the nature of the credit allocation in Korea, as those operations are directly connected to the operational logic of the inflation targeting regime adopted in the country.

In this regime, monetary sterilisation operations would be necessary in order to avoid an expansion in money supply (banking reserves), causing a drop in the money market rates and, consequently, an increase in the banking credit supply. These operations, in turn, try to avoid inflationary pressures on the economy. However, as shown in this paper, these operations have not prevented the expansion in broad money supply (banking liabilities), generating an expansionary impact on credit supply. More important, they can be related to some distortion in credit allocation. Finally, the increase in the household credit in relation to manufacturing credit in the banking credit supply is one of the main aspects of financialisation.

[12] Between 2001 and 2007, Korean banks had also increased their share of household loans in the Korean financial system from 51.7% to 61.2%. See BOK (2009a).

Figure 15: Korean banking system – credit allocation by industry (%)



Source: BOK (2010a)

2 – Loanable money capital and banking system behaviour during the global financial crisis in Brazil and South Korea

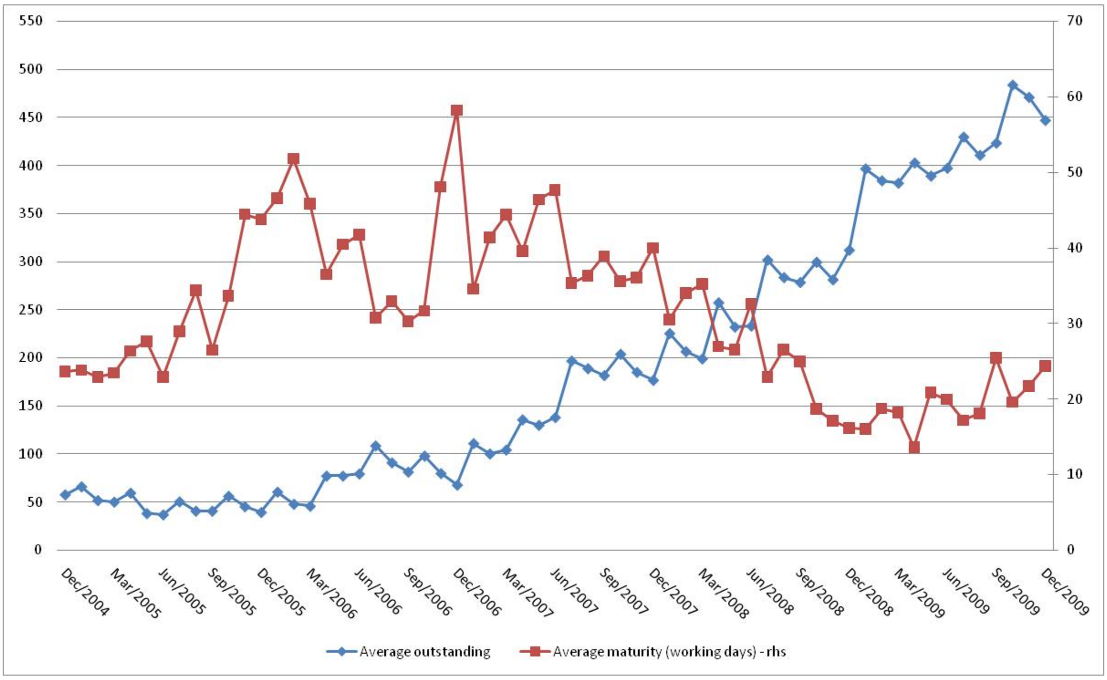
In this section I discuss how important the liquidity provided by government bonds was to the banking system in Korea and Brazil in order for them to manage their portfolio and also how the importance of public debt securities to the loanable capital movement, driven by international capital flows, was reinforced.

2.1 – The Brazilian experience: the special role of repos

This section briefly discusses the special role of repos to banks after 2007 as they have provided increasing room for manoeuvre to banks during the global financial crisis. It can be seen below that not only did the overall outstanding amount increase substantially, but there was also a marked fall in the average maturity of these securities. This in turn coincided with the beginning of the financial crisis in the developed world in the summer of 2007. As discussed in Painceira (2010), in line with the international capital flows behaviour, as uncertainty increased in international financial markets, so did the demand for increasingly liquid financial assets on the part of Brazilian banks. These very liquid assets, which created room for manoeuvre for domestic banks, were especially important given the short-term nature of the stock of foreign investment in Brazilian assets, as this could lead to an immediate rise in the demand for foreign currency by foreign investors.

By holding a repos' portfolio, Brazilian banks' could quickly access domestic currency and, then convert it into foreign currency and meet the demand from foreign investors when necessary. The short-term nature of this portfolio, offered by the central bank, has allowed this movement to happen, which was extremely important in a period of crisis. Therefore, the short-term nature of international capital flows was transmitted to domestic financial assets through repos and by their falling average maturity. This portfolio in turn allowed banks to further capture foreign resources as the maturity risk between foreign inflows and repos was falling.

Figure 16: Repos – outstanding amount (R$ billions)



Source: BCB (2010b)

Furthermore, the opportunity for Brazilian banks to hold increasingly liquid assets was not matched by a fall in these assets' yield. Therefore, Brazilian banks managed to increase their room for manoeuvre without having to take a loss on their profitability and, more important, they were able to increase the issuance of their own liabilities as discussed above. As the repos' maturity decreased, their interest rates became increasingly close to the domestic overnight money market rate, which in turn was among the highest nominal interest rates in the world. Moreover, the interest rate differential between Brazilian and American rates widened during the crisis allowing for even higher returns.

Therefore, the ability to hold very liquid assets with high return allowed banks to reduce their traditional maturity mismatch, while at the same time maintaining profitability. This is important because due to continuing regulations on the spot market and the cost of operating on the futures market, banks remain the main door to the Brazilian foreign exchange market and most of the operations of foreign investors are conducted through them. This, however, creates a currency mismatch for banks, which need to be able to honour foreign exchange demands from foreign investors at any time. This portfolio management in turn has been facilitated by the possibility of holding very short-term government debt securities and by the disposition of the central bank to convert them in foreign currency at any time through financial operations, firstly by converting those securities in cash and then by providing foreign currency liquidity.

Thus, in addition to receiving relatively high returns on government securities, the short-term nature of these securities allowed banks a quick conversion into US$ in this period of crisis, exacerbating pressures on the exchange rate. More important to our purpose is that the central bank's disposition to provide liquidity to the banking sector has meant that there was no drop in banking assets, but a change in the structure of short-term government bonds to cash[13]. This structural change however, is not observable in the available data.

2.2 – The Korean experience: rising of arbitrage operations

As discussed in Painceira (2010), the recent Korean experience on international capital flows is characterised by a higher level of capital inflow and outflow mainly through short-term investment

[13] The M2 as %GDP increased from 35% to 38% in the last quarter of 2008.

flows, but also by the huge net banking flows. Since the middle of 2006, and reinforced during the first stage of the crisis, the increase in the banking investment inflow and in the banks' short-term external debt are a reason of their counterpart position in the futures markets with shipbuilders, and of their own speculative positions in movements of the exchange and interest rates. Domestic banks, in order to match their portfolio needs, "procure these foreign currency needs via currency swap contracts with foreign bank branches and/or foreign investors wanting to exploit the arbitrage opportunity by buying Korean Treasury Bonds"[14], or use offshore funding to finance those positions and other asset positions, such as mortgages, which in turn increase their short-term external debt.

In this sense, financial derivatives markets are important markets to define the characteristic of the loanable capital, since there has been capital inflow and outflow in Korea. In relation to financial derivatives, the foreign exchange and currency swaps are the main items as can be seen above through the increasing participation of financial derivatives in Korean banks' balance sheet. The main economic agents have been shipbuilders, foreign investors and domestic banks, including domestic branches of foreign banks.

Essentially, the financial positions were: shipbuilding companies were selling long-term foreign exchange forward contracts against their futures exports' revenues in order to protect them against the US dollar depreciation; foreign investors took long position in Won and short position in US$ through foreign exchange swaps and currency swaps, which they in turn invested in public debt securities; Korean Banks were the counterparts of both agents in the futures and derivatives markets. In order to match their risk and take advantage of the currency mismatch, banks also raised foreign liabilities (external debt)[15]. Given the maintenance of the external credit lines, the objective of banks was to rise foreign funding to match their currency needs (against shipbuilders and foreign investors) in the markets and also to explore the exchange rate appreciation by investing in domestic assets, such as financial debentures.

In Korea, the carry operations have basically happened through the acquisition of public debt securities, such as monetary stabilisation and Treasury bonds, combined with foreign exchange operations in futures markets, in order to keep the exchange rate risk lower. (BoK, 2008) The

[14] Kyungsoo Kim et. al. (2009: 22).
[15] See Kyungsoo Kim et. al. (2009).

arbitrage operations have existed through the financial derivatives markets, mainly the forward exchange swap and currency swap markets, in connection to financial positions in the public debt and money markets.

It is interesting to note that those operations had an increase after the eruption of the crisis in 2007. The main factors behind it were the increase in the interest rate differential between the USA and Korean economies and the high level of financial integration of the Korean financial system. The effects on the domestic financial system were caused by

> "the continued structural imbalance between supply and demand in the domestic forward exchange market as a result of massive forward exchange sales by shipbuilders and heavy industry exporters, and overseas portfolio investors have kept the swap rate much lower than the domestic/international interest rate spread." (BoK 2008: 1)

Those foreign investors, in turn, invested in securities in the bond and money markets.

During the period of the crisis, there was an increase in the government bonds outstanding and a drop in the amount of those bonds holding by Korean banks. It reflected a higher demand from foreign investors for public debt securities and a portfolio shift from government bonds to financial debentures by banks. There is an increase in the share of foreign investors in Government bond holdings from 2% in June 2007 to over 8% just one year later[16]. This portfolio shift can be seen in figure 9 above as Korean banks reduced their holding of those bonds during this time. Moreover, there is an increase in the listed amount of government bonds in the Korean exchange traded market (KRX) and a rise in the trading volume as can be seen in figure 17.

Therefore, the government and central bank bonds are crucial for the unfolding of those operations. After 2006, Korean Treasury bonds have performed the same role of MSB, as they are as liquid as MSBs and they also have offered a higher yield than MSBs. After 2005, the issuance of MSBs has been stable, but the issuance of the KTBs has increased. Moreover, the derivatives markets have an important role in boosting the liquidity of the financial markets, mainly of the public debt securities. More importantly, the issuance of banking debt through financial debentures has jumped after 2005 as can be seen in figure 13.

[16] See Asian Bonds (2010).

However, differently from the Brazilian experience, in which there was a clear connection between capital flows and central bank liquidity management, as central bank repos was the counterpart of the enormous capital inflow, in the Korean case this relation is more subtle and complex, as there were capital inflows and outflows as well, which in turn is related to the fact that the level of financial integration of the Korean financial system is higher than the Brazilian one. Nonetheless, this connection became clear when the global crisis hit Korea in September 2008 and its central bank had to intervene in the domestic financial markets, as discussed in Painceira (2010). For example, as can be observed in figure 10 above, in the Korean case there was a substantial drop in MSBs as a consequence of capital flight at the end of 2008.

3 – Financial Derivatives Markets in Korea and Brazil: similarities and differences

The movement of loanable capital has also had an impact on the derivatives markets in Brazil and Korea. From a Marxist point of view, financial derivatives can be considered fictitious capital. More important to our purpose is the emergence of derivatives markets. Marx states that "with the development of interest-bearing capital and credit system, all capital seems to double itself, and sometimes treble itself, by the various modes in which the same capital, or perhaps even the same claim on a debt, appears in different forms in different hands. The greater portion of this 'money-capital' is purely fictitious." (Marx, 1972: 470)

The classical forms of fictitious capital analysed by Marx in the Capital are public debt and shares. "Government securities, like stocks and other securities of all kinds, are spheres of investment for loanable capital – capital intended for bearing interest. They are forms of loaning such capital." (Marx, 1972: 478) In relation to the former, this fictitious character is a result of this security being claims on the future taxation, which in fact has not happened. As for the shares, this character relates to the fact that they are claims on future appropriation of surplus value produced by a company, which in turn cannot happen.

In the contemporary capitalist system, through the development of financial innovations and the process of financial liberalisation, new instruments were created by the financial markets, chiefly banks. New forms of fictitious capital have appeared. The main forms are financial derivatives and corporate bonds. With regard to financial derivatives, the fictitious character is related to those instruments being based on capital assets which already exist, such as public debt securities. Moreover, their capital gains or appreciation are also based on the expectations of the underlying capital assets.

In the case of the Brazilian and Korean experiences, however, it is not the objective to analyse in detail the operations and participants in derivatives markets, but rather to reinforce that the rise of their importance in these markets has taken place exactly at the same time as the movement of loanable capital was being led by international capital flows and shaped by central bank operations, just as analysed above.

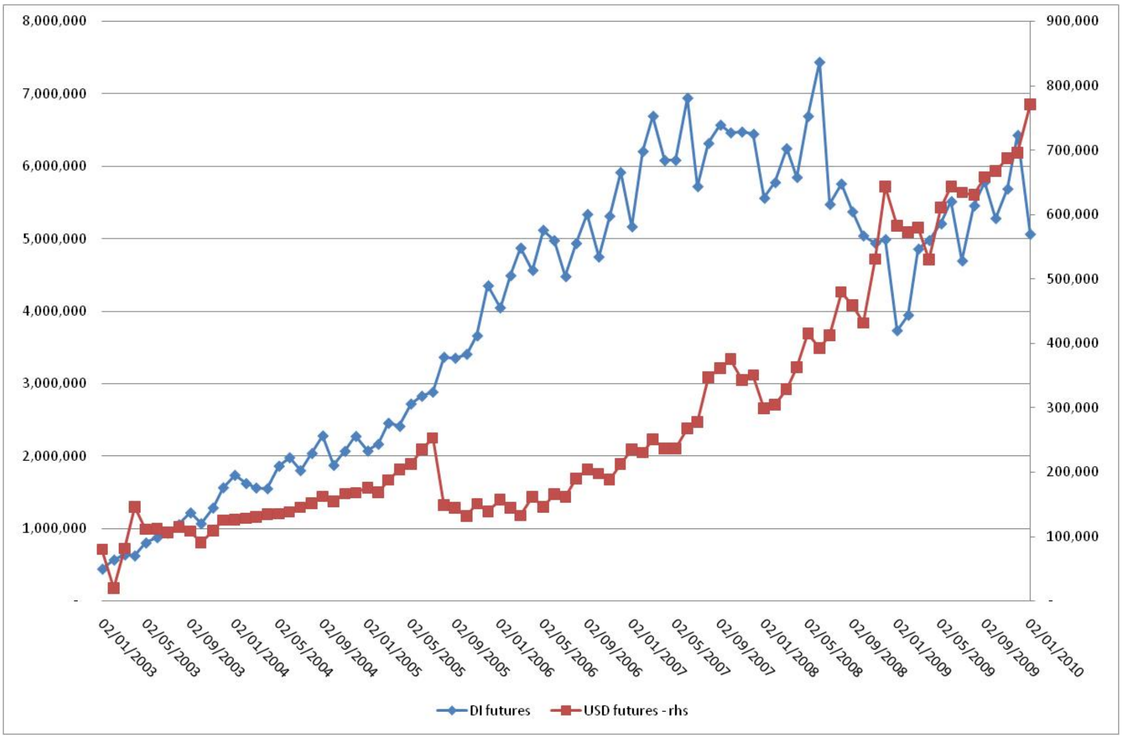
Those markets have been important to foster the process of domestic financialisation in Brazil and Korea as much as they have been important to banking operations and to improve market liquidity in government debt securities[17]. As can be seen in figures 17 to 18, financial derivatives related to the US dollar and to interest rate instruments have registered a large increase in their operations in the last years. In line with the spread of financialisation in developing countries, a recent BIS survey on derivatives markets shows that those markets in emerging markets have had a huge expansion since 2001 and more important "the relative size of the exchange-traded derivatives market is distorted by two special cases with well developed exchanges, Brazil and Korea, which together account for nearly 90% of all emerging market turnover of exchange-traded derivatives." (Mihaljek and Packer, 2010: 44-5)

In Brazil, the US dollar and interest rate (DI) futures open contracts have shown a spectacular rise since 2005, as can be seen in Figure 17[18]. In relation to this figure, it is worth highlighting the huge increase in the US dollar futures contracts between 2006 and September 2008 when the global financial crisis hit Brazil. During this time, there was an almost fivefold increase in the total of open contracts. This increase is related to the huge capital inflows after 2006, which are in turn connected to the nature of foreign reserves accumulated in the country as argued by Painceira (2010). This behaviour has created fertile space to the expansion of carry trade and

[17] On the key role of derivatives markets to improve market liquidity in Brazil, see Amante et. al. (2007).
[18] The value of each DI and US dollar future contract in the Brazilian futures market is R$100,000 and US$50,000, respectively.

speculative operations in Brazil, led by foreign investors. Therefore, there is a connection between capital flows and the expansion of financial derivatives in Brazil, in which central bank liquidity management has been fundamental.

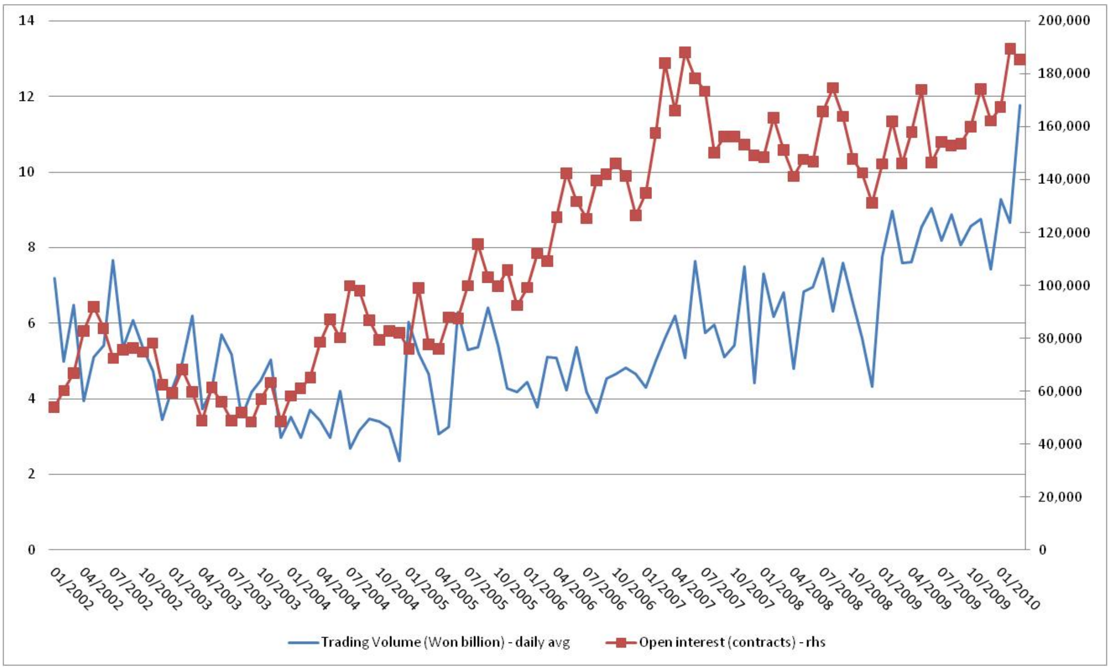
Figure 17: DI and US dollar futures contracts – total open contracts (Brazil)



Source: Bloomberg (2011).

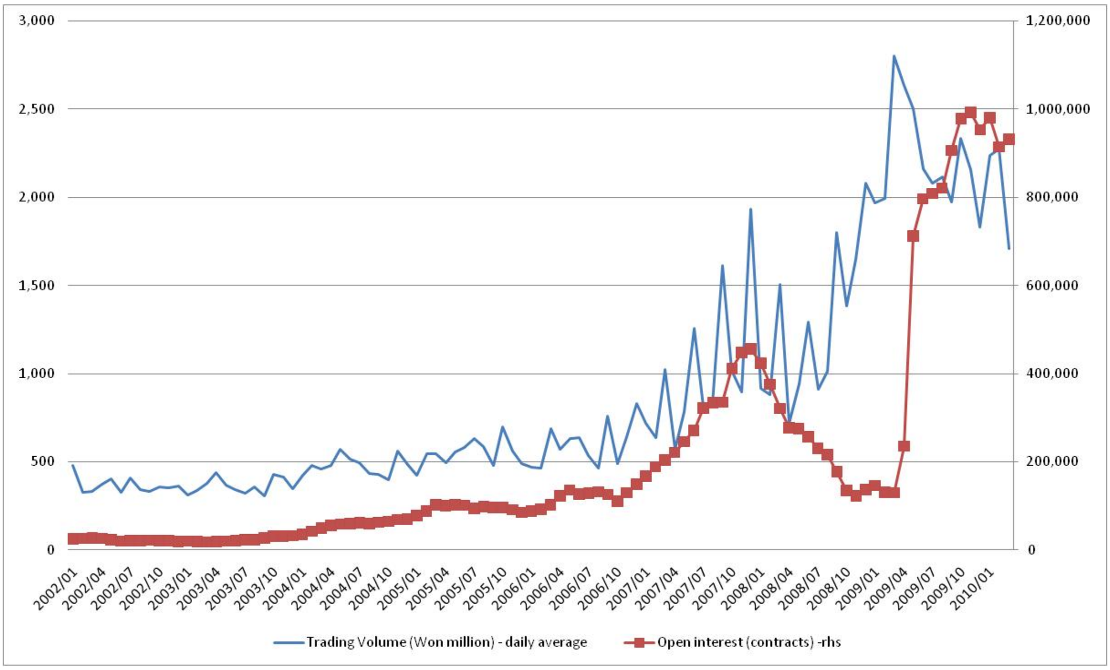
In Korea, there has been relatively the same movement in terms of magnitude as in Brazil. The main interest rate future instrument has been the Korean Treasury bond (KTB), which has a three-year-maturity and is the most liquid future bond in this market. Similarly to Brazil, there was a large increase in the US dollar futures contracts during the period of the crisis, which is connected to the loanable capital movement analysed in the previous section. There has been a large movement in the USD futures since the middle of 2009 caused by the huge increase in international liquidity, resulting from major central banks interventions to deal with the consequences of the 2007-9 global financial crisis. However, this recent movement is not part of this paper.

Figure 18: Three-year Korean Treasury Bonds (KTB) – Open interest and trading volume (daily average)



Source: KRX (2010)

Figure 19: US dollar future contracts – Open interest and trading volume (Korea)



Source: KRX (2010)

There is a crucial difference between Korean and Brazilian derivatives markets in respect to their fixed income or interest rate linked financial derivatives. While in Korea these financial derivatives have had domestic public debt securities (Monetary Stabilisation or Treasuries Bonds) as underlying assets, in Brazil they have domestic private banking securities (inter-financial deposits) as underlying assets. This has meant that whereas in Korea there has been a closer relation between the expansion of public debt securities and their denominated financial derivatives, as can be seen in the figures above, in Brazil the increase of the domestic public debt has supported the expansion of private financial derivatives.

In Brazil, among other reasons, those financial derivatives have been used by financial institutions to hedge fixed income public debt securities (mainly, LTN) against interest rate risk. In the Brazilian market, therefore, a private instrument has been working as hedge against interest rate risk in public debt securities, which is, in turn, supposed to be a free-risk asset. As a consequence, there has been a "distortion" in the Brazilian yield curve, as public debt securities have had a risk premium over private banking securities when the normal situation would be the other way around.

Conclusion

Both in the Brazilian and the Korean financial system, the holding of highly liquid interest bearing securities (public debt) has been fundamental to the expansion of banks' own liabilities and, consequently to the banks' balance sheet expansion. On the other hand, this type of banking funding has shaped banks capital assets positions. As this funding has presented a short-term nature, the expansion of banking assets has been concentrated on more short-term assets even in their lending operations. As can be seen in this chapter, in the Brazilian case, the expansion of credit has mainly occurred through consumption credit which, to a lesser extent, has happened in Korea as well.

Thus, central banking securities are the key mechanism in this process between capital flows and banks balance sheets. It has been shown that they have been the main counterparts in the increase of capital flows through monetary sterilisation operations, which in turn have been important to the expansion of financial assets in these middle income countries. The public debt holdings related to monetary sterilisation operations have reinforced this process even more, as they have had a highly favourable mix of liquidity and profitability for banks.

In this sense, central banks have been at the same time a passive and active agent in both countries in this process of spread of financialisation. In relation to the capital flows' movement, they have been passive because their interventions have been merely the counterpart of this inflow. On the other hand, central banks have been active, because those interventions have allowed banks to stretch their balance sheets, which in turn has reinforced domestic financialisation.

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