HIGH LIQUIDITY AND REDUCED FINANCE: AN IMPORTANT CAUSE OF ECONOMIC RECESSION IN DEVELOPING COUNTRIES.

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The industrial capitalist system is undergoing a deep economic recession that was preceded by the expansion of the financial system, whose main characteristics were higher prices of financial instruments (financial inflation), market capitalization and high liquidity, which was supposed to finance economic activity at low costs. Contrary to this expectation, finance was channeled to final consumption of goods and housing, with low levels of investment spending. An important feature of the economic growth pattern of the last thirty years is the low investment share in production and reduced wages, rather than higher productivity levels.

Massive increase in liquidity and financial wealth along with economic structures that reduced their capacity of production by lowering the investment ratio, made impossible economic expansion on the basis of higher income. Therefore finance required a greater role in sustaining economic activity. This has came along with changes in the distribution of income in favor of capital owners and lower production costs, through reduced wages, to guarantee minimum levels of profits in the productive sector. The share of labor in total income has diminished, thereby increasing inequality between classes (workers, middle and high income classes), along with higher gaps between industrial, developing economies and especially poor countries.

Inflation target policies were imposed throughout industrial and developing countries to lower productive costs (input prices and salaries), assure minimum profits in the productive sector, and maximize financial gains. In this context, institutional changes were induced to integrate world financial markets and ensure fiscal equilibrium policies, severely limiting the scope of government intervention in the economy. Tax changes became the main instruments of fiscal policies.

The present economic recession has undermined two main neoclassical myths of economic policy, namely fiscal equilibrium and money neutrality. Most of industrial countries have launched public spending programs to trigger productive sector activities and neutralize economic downturns and job losses. Although, most of thee countries have still relied heavily on tax reductions[2], the need to run fiscal deficits is generally acknowledged. Also loose monetary policies have been adopted, specifically in the form of low interest rates and credit line access to bankrupt corporations.

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[2] Se Krugman's criticism of Obama's rescue program, January, 15th, 2009, Financial times,

Although developing countries are also going through economic stagnations, they face a different type of crisis. Particularly, Latin America is experiencing industrial recessions that can induce a financial crisis. Therefore, in spite of surge in liquidity, these countries have not faced credit booms. After the Tequila crises, Latin American economies turned into export led economies, with reduced internal markets, with Mexico being the most outstanding case of this tendency in the region.

We shall argue that a major problem of developing countries, specifically Mexico, is that for long periods of time, the economy experienced low rates of economic growth due to a process of deindustrialization (stimulated by the institutional changes of the 1980s and 1990s) and low levels of finance to domestic non-financial agents. In this context, it is argued that Mexico faced increased liquidity with reduced levels of finance.

This paper concentrates in analyzing the reasons and effects of high liquidity and low credit and the way to break this vicious circle and increase finance and economic growth. Our hypothesis is that Mexico's economic crisis of 2008 differs from the contemporary crises of industrial economies and from the 1994 Tequila crisis, in that economic stagnation did not start because of financial innovation: higher credit, followed by default payments and a generalized bankruptcy of the financial system. The present crisis is due to a generalized fall of external demand (exports) with no domestic mechanism to revert this situation.

Contrary to the theories of international trade (Krugman and Obstfeld, 1999, chapters 14 and 15), exchange rate devaluations are unable to expand domestic production and reduce imports since imports are price-demand inelastic, while exports are income-demand elastic (see Mantey and Levy 2006, and Levy 2009) Consequently, domestic finance needs to increase, for which financial structures have to change to ensure provision of finance to domestic agents in order to enlarge domestic markets.

It is also argued that so far the current Mexican crisis rescue programs have not considered this issue, and continue to concentrate on stabilizing the exchange rate and further opening of the economy, to resume economic growth.

This paper is divided in four sections. In the second section, the different financial structures are discussed, followed by an analysis of the dominant financial structure in the globalization era. The third section analyzes the main institutional transformation of the Mexican economy, its impact in the working of financial markets, the provision of finance to the private non financial system, followed by a critical assessment of the Mexican 2008 rescuing programs. In the final section, conclusions and recommendations are put forward.

II. **LIQUIDITY AND FINANCIAL STRUCTURES**

The literature acknowledges two main financial structures with different combinations. The capital-based system, also named the Anglo-Saxon system, and the bank-based system, which have operated under different economic structures. In order to limit the discussion

we shall concentrate on the basic models[3] and discuss the dominant financial structure of the finance-led capitalist system.

The market based financial structure

The market based structure assumes that the financial system is ruled by capital markets and corporations dominate the productive structure. Therefore capital owners are dissociated from entrepreneurial decisions and productive activities.

The capital market is composed of two segments. In the first segment, the intermediation process takes place (*i.e.,* stocks and securities are sold for the first time); and, in the second segment, liabilities are guaranteed liquidity (*i.e.,* assets can change property) and give hints to determine new stock prices. Both market segments need to be deep and broad so that sellers can find buyers and, hence, speculation is limited to ensure that asset prices denote present value of future returns.

This financial organization is based on free mobility of production factors (capital), causing market mechanisms to dominate; commercial banks have reduced participation in the intermediation process and are differentiated from investment banks. Financial segmentation has been a key element to deter speculation.[4] For this system to operate efficiently, non-bank financial institutions need to be widely diversified (building societies, investment banks, security companies, pension funds, factoring institutions, stock exchanges houses non-bank banks, etcetera).

In this macroeconomic framework, central banks need to guarantee free capital mobility and free market conditions ought to dominate the financial market. In this context monetary policy cannot differentiate among financial institutions (commercial bank reserves policies). Central banks can assume the lender of last resort function and intervene in the financial market through buying and selling financial securities —open market operations are preferred. Governments cannot get involved in productive decisions (selective finance) through administrative mandates. Specifically the government "is prevented to modify selectively the flow of financial resources and intervene in enterprises' decisions" (Zysman, (1983, 71).

Even more, government in this financial organization is an autonomous entity; it acts in a different sphere from enterprises and banks and negotiates as an autonomous partner. The finance required for industrialization is determined by the free market forces and any government intervention requires legal (parliamentary) permits. Public intervention needs to boost private decisions and develop private property.

The capital market based structure operates under the assumption of the ex-ante saving theory, which presupposes that entrepreneurs collect savings in the capital market to finance economic expansion (investment); and, in return capital owners (families) are paid

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[3] In this discussion is omitted the various type of bank and market based system (see Zysman, 1983, Allen and Gale, 2000, Goldsmith, 1969, Demirgüc and Levine 2001). Stalling and Studart (2006) present a good critical assesment of financial structure

[4] For an ample discussion of the Glass-Steagall act that imposed financial segmentation in the USA, see Russell (2008)

dividends and interests related to the amount of the capital advanced and the risks assumed (Fabozzi, et all, 1997).

Fama (1970 and 1992) put forward the "*efficient market hypothesis*" to explain capital market functioning, which he summarizes as follows "the ideal, is a market in which prices provide accurate signal of resource allocation; that is, a market in which firms can make productive-investment decisions, and investors can choose among the securities that represent ownership of firms' activities under the assumption that security prices at any time 'fully reflects' all available information. *A market in which prices always 'fully reflect' available information is called efficient*", (Fama, 1970, p. 383, our emphasis).

Therefore efficiency is based on perfect information and perfect arbitrage, on the basis of which returns are predicted. In other words the efficient market hypothesis is based on an "equilibrium" model where notional and market values (or prices) are equal[5]; the rate of interest is a real variable since the demand of financial securities is linked to savings and the supply of securities is related to investment finance; and "correct" interest rates guarantee enough savings for full employment investment levels. There is no speculative activity (buying or selling securities for the sake modifying prices) thereby assets returns are link to dividends.

Financial depth is a central element of this institutional arrangement because it provides liquidity. Commercial bank credit expands "internal" debts, with no changes in central bank monetary base ('outside' money), in the process of financial development (in which wide monetary aggregate (M_3) grow more rapidly than narrow central bank money —M_0). Financial depth also strengthens the determination of a 'correct' rate of interest since: "The increase of the 'inside' money in relation to 'outside' money makes it more difficult to enforce the official rate of interest in the money market" (Levy and Toporowski, 2007, p. 159). In terms of capital markets, financial depth "provide ultimate lenders with the possibility of purchasing a security attractive (more liquid) that the primary securities issued by the ultimate borrowers", see Patinkin (1972) and Gurley and Shaw (1960), quoted Levy and Toporowski (2007, p. 150).

Financial development, defined as more liquid markets in short and long term securities (Gurley and Shaw 1960) requires that banks should be deregulated and credit distributed according to market mechanism, with no public intervention. Another important feature is the globalization of financial markets, which means that external capital is considered as a means of finance to domestic productive sectors. Also commercial and productive activities need to be globalize to enable free non-financial factor mobility and guaranteed market autonomy to determine 'correct' prices (of goods and services and wages).

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[5] Toporowski (2000, section 2.1) decomposes the market value (V^a) as equal to the effective value (V^e) of those securities plus the excess net of inflows (I) times the number of time that is turned over the capital market (v). V^e (the book or effective value of stock in capital market) is the nominal value of stock plus the component of net fixed capital instruments or bank debts that has been refinanced in the capital market; and the vI^e is the capital inflows that induces prices changes, thereby financial inflation or deflation.

Finally, it should be mentioned that although Keynes (1936) acknowledged capital market linkages to investment finance (funding), he argued that as "the organization of investment market improves, the risk of predominance of speculation (the activity of forecasting the psychology of the market) does, however, increase" (Keynes, 1936, p. 158). Therefore, he favored the hindrance of capital mobility and state intervention to ensure minimum levels of investment and economic growth.

Throughout the history of financial systems (before 1970s) the capital market-based financial structure developed mainly in two English speaking countries (England and the USA). Capital market based system was not followed by other countries either in the process of development or after they became industrialized. Most countries that attained development in the nineteen century and, even more in the twenty century, had a bank-based financial structure.

The bank-based system

The bank based financial system does not have a developed, strong, and deep capital markets. Commercial banks are the main providers of finance and credit is the principal source of finance. Moreover commercial bank credit is mainly of the short term variety. In this context many writers (Minsky, 1986) argue that financial instability is structurally in-built in the system. Another relevant argument is that bank credit depends on banks' liquidity preference or their willingness to lend money (Keynes, 1937), and on banks' solvency parameters (based on banks' expected returns), (Rochon, 2006).

Therefore, bank (or credit) based financial system needs government intervention to reduce instability or limit bank' expected return so as to support domestic producers with low creditworthiness or long term projects.
Alternatively, countries that require the mobilization of large amount of financial resources to 'catch up' with the developed world cannot depend on market mechanism (prices) to allocate resources and public finance is required to attain development. Hence, the bank-based system is intrinsically related to developing economies that need compensatory mechanism to boost economic growth and development. In such cases, government, private and public banks, and enterprises operate together (not as separated autonomous entities) in order to attain specific objectives.

The intervention of public institutions in the economy takes place at different levels; compensatory mechanism dominates economic decisions, prices are differentiated and mobility of productive factors, particularly capital, is deterred. The state intervention may either take the form of regulatory framework and banks' supervision within a context of strong links between non-financial corporations and government objectives (Germany) or may relate to direct intervention in economic activities, distorting prices and financial flows (Latin America, Japan and the South East Asia). The bank-based system requires active fiscal policies that determine 'priority' sectors which perform the engine function of economic growth, along with monetary policies that provide cheap and stable finance to those sectors. For instance, Mexico, during the import substitution period imposed, among others, selective credit policies, different rediscount rates and legal reserve requirements, along with development banks and trust funds (Levy, 2009b).

Such financial structure based on public intervention developed in all countries that undertook a "*catch up*" process of development and, the higher the gaps between development and underdevelopment, the greater the scope of required public intervention (Amsden, 1989). In consequence, the main premise of bank-based systems was strong relations between finance and productive sectors along with strong government intervention that involves programs to strengthen borrowers' creditworthiness and limit financial institutions' returns.

The transition to the market based system in post Bretton Wood period

In the late sixties and early seventies important institutional changes took place that weakened the bank-based system and led to deregulation and globalization of the financial system (see Eatwell and Taylor, 2000), which lift up the barriers of capital mobility and financial segmentation (in the USA, it took place officially in 1999). Therefore, as the boundaries between commercial and financial non-bank institutions were blurred, universal banks, which turned into financial supermarkets, came to occupy important position in the financial system. These universal banks did not differentiate between bank credit and other financial activities (bonds commerce, securitization, derivates contracts). Moreover, with the development of securitization, banks did not hold assets till maturity since they were turned into bonds and disseminated throughout the financial system. Also, many non-banks were strengthened to issue credit linked to special bonds that were spread throughout the system. Banks became asset creators and distributors (Kregel, 2008).

The main objective of capital mobility was financial gains that resulted from the process of gold demonetization (central bank dollar reserves ceased to be converted to gold) and exchange rate structures became flexible. This led to the creation of an international money market, which no domestic financial market could avoid. In other words, the geological limitations of money creation disappeared and the creation of debts depended on the willingness of banks to issue credits (along with their solvency criteria) and public supervision of financial institutions that, as we shall see next, became increasingly feeble as the process of financial innovation that increased liquidity and finance unfolded.

The immediate effects of the processes of deregulation and globalization were that exchange and interest rates risks shifted to the private sector, inducing a process of financial innovation that altered corporations' balance sheet, creating new sources of finance and novel forms of financial wealth (bond commerce, securitization, derivatives etcetera) that fortified the working of capital markets.

The financial innovation process took place in different moments. Derivatives became important financial instrument to limit risks of exchange and interest rate movements as well as commodity prices during the 1970s followed by the growth of securitization techniques. Initially they were used to overcome the 1980's Latin American economic crisis and bring these economies back to the international market. The *Brady bonds* transformed bad payments into bonds, sold in the financial market, allowing external capital inflows back to the Latin American region. Both techniques developed into speculation devices reaching it highest peak in the USA financial system after 2001 Enron crisis.

Latin American economies opened up their financial markets to attract financial savings (financial market globalization) for which the exchange rate was required to be stable. This was reached through different monetary policy instruments (interest rate, exchange rate bands, international reserve provisions, etc). Under these conditions, the economy underwent a process of privatization that limited public current account deficit and restricted the scope of monetary policies to price stability (central bank autonomy). The process of bank deregulation, financial globalization and economic privatization guaranteed that financial returns, after accounting for country risk criteria of private rating agencies, would be equalized throughout the world financial markets. The main result is that emerging countries were left with no domestic mechanism to revert economic downturns.

In terms of the financial structure, non-bank financial institutions developed and became widely diversified, while universal banks with no internal segmentation turned into multinational corporations out of reach of domestic supervision. International regulations (see BIS II, Guttman, 2009) could not impose regulations and rating agencies turned out to be inefficient and corrupt.

In this environment, developing countries' capital and bond markets were strengthened. Initially, through increasing public bonds' issuance to finance public spending (central banks credits to government were limited), regulate financial liquidity and, in many developing countries, to attain exchange rate stability.

Finally, institutional investors turned into dominant financial institutions and were set up to provide finance for activities previously supplied by public institutions (e.g., health, pensions, education) and financial non bank institutions diversified creating new source of finance.

The new capital based system leads to greater financialization

The continuous process of financial inflation (or deflation) modified the working of the capital market. Markets have been continuously out of equilibrium due to an ongoing process of speculation, undermining the different versions of market efficiency hypothesis put forward by Fama and the random (or white) walk of capital index prices that were suppose to guarantee market 'equilibrium'. Although market efficiency has been justified through different arguments (see Mott, 2007, section I for a good summary), it is not supported by the evidence of capital market behavior from 1987 onwards: market mechanisms do not equate supply and demand.

Following Toporowski (2000), it can be argued that from 1987 till 2008 capital markets faced a continuous influx of capital (with downturns) which increased vI^e (see page note 5), breaking the equality between V^e and V^a. There are several explanations for this disequilibrium.[6] Following the arguments of the *of financial inflation hypothesis*, we shall

[6] Keynes (1936) liquidity preference theory that assumes that capital market can divert from equilibrium positions: "Speculators may do no harm as bubbles in a steady stream of enterprises. But the position is serous when enterprises becomes the bubble a by-product on a whirlpool of speculation" (p. 159). Minsky (1986) based on Fisher (1933) price deflation theory put forward the financial instability hypothesis where he argues

defined as follows "When the demand for financial securities exceeds the amount of money that holders and issuers of those securities are prepared to take out of the market, prices rise. As prices rise, demand for those assets, far from falling off, is enhanced by a speculative demand for assets to benefit from capital gains" (Toporowski, 2008, p. 5).

The main demanders and issuers of financial securities are financial intermediaries (banks, non-bank financial institutions and institutional investors) that operate within the financial market without driving money out of the financial market (bonds are not monetized to expand finance for production or investment); financial securities remain in the market to increase financial wealth.

The private non-financial sector (*e.g.* transnational corporations—FDI or domestic corporations) also failed to withdraw financial flows from the capital market because its activities are not secluded to the productive sector. Financial securities were issued for mergers and takeovers and for balance sheet restructuring (buying and selling financial assets for repaying liabilities). Therefore, under conditions of financial inflation, long term financial securities are not related to financing productive expansion. At the same time, non-financial sector engaged in financial operations to increase the value of their company. The role of treasury department in non-financial corporations increased: "A company's value is not assessed on its future earning abilities, but by valuing its assets if it were to be dismembered and its part sold off" (Guttmann 1999, cited in Block, 2002 p, 218). Even public seniors are rewarded in stock options so that their income is not related to results of the productive activity of corporations. Sen (2008) writes "Financial de-regulation has changed considerably the mode of payments, not only for the senior executives but also for new entrants in corporate that these days are often paid in part with stock options. The latter encourages corporate managers to invest in financial securities, both to contribute to corporate profits and to add to personal incomes as are offered by the company as performance-linked bonuses and employees' stock options".

Therefore, non-financial corporations underwent a process of overcapitalization that increased their financial exposures in exchange of some important short term benefits, such as access to cheap finance. Toporowski (2008) states: "shares came to be held not just for the sake of their dividend income, which is paid by the company, but also for capital gains, which are not paid by the company but by other buyers in the market for the shares" and pre-tax profits increased because of the fall of interest cost. Furthermore, non-financial corporations did not encounter the risk of losing the corporations' governance since new institutional investors are not interested in taking over the corporations' productive activity; their sole interest is to increase their profit share.

The government sector was also not successful in withdrawing finance from financial markets since the public sector was required to balance its income and expenditure. Fiscal deficit, particularly higher public investment spending to counteract economic cycles or expand economic development, was considered inefficient since it would impose an upward pressure on interest rates (it is assumed that money supply is constant) and induce

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that business cycles are based on increased investment spending, credit booms, higher leverage, undue payments , credit crunch and price deflation.

inflation (money is neutral), followed by other negative effects (e.g., exchange rate devaluations).

Commercial bank performance also changed. They lost their most creditworthy agents (big enterprises and governments) and the finance of the most dynamic activities (investment and production); shifting to less solvent borrowers (families, small enterprises, developing countries) and less dynamic activities (consumption and housing), requiring higher credit volumes to keep demand from falling. Therefore, the unsafe borrowers (small and domestic producers) and agents not possessing financial securities were left out of the financial system.

The consequences of the new financial structure were diverse. First, the distribution of income changed in favor of agents possessing financial securities. The *rentiers'* income increased and was shared by the idle class, represented by financial intermediaries, and a wide middle class that boosted final demand (consumption and housing). The new distribution of income affected the productive activity and more importantly lowered its rate of profit. Hence, wages were reduced and inflation targeting policies were imposed, whose main objective was to prevent labor cost and intermediate inputs prices from rising (whose production was transferred to developing economies) so as to avert exchange rate devaluations.

Second, small and medium domestic enterprises were left without finance since they turned to be non solvent borrowers, unless linked to big corporations. The globalization of trade and FDI deregulation sparked-off a deindustrialization process that increased the countries' external economic dependence and left a reduced space for domestic producers.

Third, poverty increased, even in developed countries, since finance led capitalist system required to reduce workers payments and even benefits. The outsourcing scheme of production was introduced and flexible hourly contracts were imposed. On the other hand, the provision of public services by government were lowered (education, health, housing, etcetera), following the idea of fiscal equilibrium.

Fourth, the gap between developed and developing countries increased, the latter performing low value added activities with even lower wages, besides some exceptions. On the whole emerging countries reduced their growth rate (with the exception of China and India) and poor countries' performance deteriorated (Africa).

Fifth, the imposition of market mechanism and the abolishment of 'compensatory' mechanism left developing economies with no mechanism to reactivate economic growth. The external dependence increased and external demand became the main source of economic growth without any counter-cyclical policies. Fiscal deficits (with the exception of financial rescue program —bailout of banks and big corporation) were limited by law.

Within the Latin American region, Mexico was relatively late in implementing these institutional changes, but followed this agenda more closely. This discussion is held in the next section.

III. DEREGULATION, GLOBALIZATION AND FINANCIAL INNOVATION IN THE MEXICAN ECONOMY

This section analyses the changes in Mexican financial system with respect to liquidity and finance, focusing in the post-1994 period, after Nafta was enforced. Mexico adopted the United States financial system, introducing non-bank banks and pension funds. Additionally, foreign ownership of domestic financial institutions was permitted leading to a wide financial diversification (e.g., banks, insurance companies, investment banks, etcetera). The productive system became more concentrated, and came to be monopolized by (foreign and domestic) corporations, since foreign direct investment was allowed in almost all productive sectors. Also, securitization practices and derivatives in bank balance sheets increased greatly.

This section is divided in 4 sub-sections. The first sub-section outlines the major institutional changes that took place in the Mexican economy in the post Bretton Woods period. Bond and capital markets are discussed in the second section, followed by an analysis of the effects of the growing role of finance on private system, highlighting the diverse sources of finance and the most benefited sectors. The public sector is not considered since most of its financial resources have been channeled to rescue programs for the banking sector and private corporations due to the 1994 crises. Finally, rescue programs launched by the Mexican government are critically assessed.

a) The major institutional changes

Mexico's financial system has undergone important institutional changes since 1976, when banks transit from a segmented organization to a universal system. In the 1980s the economy was opened up to the international market in order to strengthen the export sector. In this context, Mexico joined the general agreement of trade and tariffs (GATT) in 1985.

The financial system underwent a process of deregulation, abolishing the *compensatory mechanisms of the ISI model*, particularly the legal reserve requirement, selective credit channels policies, differentiated rediscount facilities, interest rates caps, etcetera (Levy, 2009b). Also, the main financial institutions of the ISI period namely development banks and trust funds were weakened; the public sector was refrained from intervening in economic activity as public enterprises were privatized and public services were partially reduced (health, education, pension, and etcetera). In this context, the public pension funds scheme was privatized (1991), finalizing in 1997 its conversion to specialized private institutional funds (Siefores).

The other relevant reform took place in the financial market (bond and capital market). The Mexican central bank was unable to expand internal credit through credit issuance to the government, and public finance was funded through bonds' issuance, backed by open market operations (see Levy and Toporowski 2007) and monetary policies was based on market instruments to limit liquidity (legal reserve requirement was abolished). In addition, the capital market was globalized in 1989. Under these circumstances, the central bank was converted into a separate entity from the government and attained autonomy in 1994 to concentrate on the sole objective of stabilizing prices.

The NAFTA agreement (signed in 1993 and enforced in January 1994) was another major breaking point in the process of deregulation and globalization. Foreign direct investment was deregulated in 1993 allowing FDI in almost all productive sectors (besides oil and electricity). These flows did not differ drastically from foreign portfolio investment (once foreign capital controlled over 10% of total assets of a corporation it was considered as FDI)[7]. The dominance of big corporations (foreign or locally based) induced a process of centralization and concentration of capital that limited competition, undermining small and medium enterprises.

The financial sector was also opened up to foreign competition and although it was subjected to a transition process of ten years, the process was hastened up as a consequence of the 1994 crisis. As a result, wide variety of foreign bank institutions increased their presence in Mexico after the 1995 crisis (see Dominguez, 2006, annex 12). Also Sofoles and Sofomes (entities specialized in providing finance to multiple activities) were introduced (see Banco de Mexico, 2006, 2007). In the case of housing finance, the Sociedad Hipotecaria Federal (similar to Fannie May and Freddie Mac), came into operation to back housing financial intermediaries. Commerce with derivatives started to dominate commercial bank balance sheets in the 2000s, and securitization came into operation (see *Informe del Sistema Financiero* 2006, 2007).

b) Financial deepness: capital market, the money market and finance for private non financial sectors.

The process of financial inflation was an outcome of the Mexico's capital market globalization in 1989 that led external capital inflows surges invested in bonds (the infamous TESOONOS), inducing a positive contagion effect in the share market, see graph 1.
Between 1990 and 1994, the stock market reached historical results. In 1991, the Mexican stock index (measured by the international finance corporation index, Standard & Poor's) showed an extremely high growth rate (above 100%); the stock market capitalization was above 40%; the turnover ratio was close to 50% (1993); and the number of listed firms reached 209 (in 1991), changing the ownership structure of the Mexican productive sector.

However, the inflationary boom did not last long. In 1994, as a result of the external current account disequilibrium and higher international interest rates (along with some domestic upheavals) capital flows reversed, causing the 1994 exchange rate devaluation, followed by a deep financial deflation in the stock market (almost 40%); which showed the weakness of the capital based system in developing countries.

The second stage of financial innovation, initiated in the early 2000s, was again linked to external capital inflows (FDI), which increased the "*externalization*" of the productive sector. Although, there is no sharp difference between foreign direct and portfolio investment, the productive structure of the Mexican economy changed drastically due to

[7] Although FDI initially acquired existing assets in almost all cases fix investment increased after a period, see Martinez (2008)

growing role of FDI. The process of deindustrialization deepened and big multinationals linked to the external economy came to dominate the economy, deterring small and medium domestic enterprises to develop the internal market and increase employment. Capital centralization and concentration became the dominant feature of the Mexican economy. However, in this second stage of financial inflation, the stock market showed lower indexes in relation to the early 1990s.

Insert Graph 1

The Mexican stock market along with other countries of the region, although showed trends similar to those in the USA capital market (see Table 1), did not achieve the depth and broadness of the latter. Therefore, institutional changes in the Latin American region, especially in Mexico, which dismantled the credit based financial structure, did not lead to development of a strong capital market, which is the core of Anglo-Saxon financial system.

Insert table 1

As argued earlier, financial market depth was another major objective of the neoliberal period (Gurley & Shaw, 1960). The Mexican broad monetary aggregate (M_4 includes bank agencies foreign deposits) minus narrow money (M_1 includes notes and coins, check and debt-card accounts) in relation to GDP shows that from 1985 onwards liquidity increased constantly (graph 2). In other words, financial savings in relation to production augmented. Although this relation withholds throughout the period, with the exception of 1995, there are important changes that reveal significant information of the genesis of last two economic crises (1995 and 2008).

During the first years of the 1990s the most dynamic portion of "inside" money were bank instruments, with noticeable holdings of bonds by non-residents (the infamous Tesobonos). This means that the 1994-crisis was preceded by a credit boom that had an extremely short term effect in the expansion of economic activity since it caused disequilibrium in the external current account, inducing the exchange rate devaluation, deepened by external capital outflows from Tesobonos. This was followed by pro-cyclical monetary policies (higher interest rates) with non expansive fiscal policies. Economic growth turned negative (returning the external account back to equilibrium) and generalized bankruptcy of the Mexican banking system took place.

The second period of financial inflation witnessed a preponderance of non-bank financial instruments. This was extremely destructive because the increased financial liquidity, as we shall see, came along with lower finance to private non financial sectors. The public sector bond issuance (government, central banks for regulatory purposes and rescuing schemes) was above the needs of public finance, pressing bond prices to go up.

Insert Graph 2

The sectors that benefited most were financial intermediaries, particularly institutional investors like pension funds, which retained around 35% of total bond issuance, representing around 15% of GDP (between 1997 to 2008). It can be argued that financial instruments remained in the financial markets inducing higher prices.

The relation between financial and capital market depth and private non financial sector finance is completely opposite to what neoliberal advocates envisaged. Instead of increasing the amount of finance channeled to the private sectors, it decreased (graph 3). In 1994 the amount of finance channeled to the private non financial sector was above 60% of GDP and, by the end of 2008 it barely represented 33% of GDP, reaching the historical minimum of 28.4% of GDP in 2004. Therefore, the increased liquidity does not resemble financial intermediaries' activities of matching short term debts with long term securities.

Insert Graph 3

This means that globalization was successful in deepening the financial market, specially the bond market, without reaching its main objective, which is increasing finance to productive non financial sectors. There was no problem of crony capitalism; the reason for not increasing finance is more linked to the economic structure and quick financial gains rather than long term productive returns.

b) The main sources of finance and the most benefited activities

As was argued in section IIb, bank instruments in money aggregates fell drastically after the 1994 Mexican crisis (see graph 4a). Bank credit is the source of finance that shrank most. Between the last term of 1994 and 2008, bank credit almost halved and was not neutralized by the new sources of the global financial market. This led to shrinkage in total finance to private non-financial sectors. External finance performed poorly and remained stable at a low level, despite all the institutional changes in the economy. Also it is important to notice that the new domestic financial sources (private non-bank banks, including Infonavit —National Institute Fund of Workers' Housing[8] and domestic bond issuance) were not able to reverse the fall in bank credit.

Insert Graph 4a

Finance was increasingly channeled to the households that became the most benefited sector, with increasing consumption and especially housing finance (graph 4b). It is extremely interesting to note that in a developing country such as Mexico, financial pattern similar to the one in developed economies evolved. The reason is quite simple, domestic enterprises became non creditworthy agents due to the deindustrialization resulting from the dominance of big corporations, including the *translatinas* (Latin America based multinationals), which altogether had reduced links with the domestic indigenous sectors, repeating the Latin America's historical experience with FDI in 1960s and 1970s (Levy, 2009c). The economic activity was led by exports with high ratios of imports (as discussed latter); small and medium domestic enterprises had no place in the secondary export-led model.

Government policies overlooked this issue and more importance was placed on policies aimed to attract foreign savings and technology as exchange rate stability became a key objective to reduce inflation in the productive sector and thereby guarantee stable returns to providers of external capital.

[8] Infonavit can be regarded a social fund (non-bank bank) backed by the worker's contract social structure, which needed important legal changes to increase housing finance.

Insert graph 4b

The reasons for the decline of finance to private non financial sectors can be broadly explained on the basis of three arguments; financial specialization, reduced access of domestic medium and smaller producers to finance from financial intermediaries and high commercial bank interest rate.

First, the Mexican financial system went through a specialization process that limited competition among bank and non bank financial institutions and, even within the banking sector. Therefore, against policy makers' predictions, globalization and deregulation of the financial sector reduced competition. It can be seen from graph 4c that bank credit was channeled mainly for the purpose of consumption, representing, on average, between 60% and 90% of total finance to consumption. Non-bank banks (outstandingly Infonavit) mainly specialized in housing finance and are backed by the *Sociedad Hipotecaria Federal* that has been responsible for lowering housing finance costs through securitization. Main sources of finance for enterprises diversified from bank credit (that shrank drastically) to external finance and bonds issuance. Also play an important part of finance come from *suppliers* (*proveedores)* (suppliers) that, however, requires productive costs to be drastically reduced. External finance had lower cost because of minor external interest rates (in relation to the domestic market) and overvalued exchange rates; while domestic non-bank finance was low because of public bonds surge into the Mexican financial market increased bond prices.

Second, the growing importance of these alternative sources of finance represents an additional limitation for small and medium enterprises. There is no capital market for them and external finance (stock and bonds issuance abroad) is even more limited. Moreover, the data show that 12.1% of small, 19% of medium, 19.4% of big, and 32.3% of AAA enterprises have used commercial bank credit. Conversely, those reported to not use bank credit, according to size, amount to 81% in the case of small enterprises; 71.5%, in middle size; 70.1% in big, and 60.0% by AAA corporations.

The main reason for not using bank credit is high interest rates (around 30% in the case of small, medium and big enterprises pointed at high interest, see Banco de Mexico, the data is of the 4th term of 2007).

From the above, it can be inferred that small and medium sized firms do not demand credit because interests rate are extremely high, due to their vulnerability as producers for internal market, which is highly unstable and extremely exposed to macroeconomic changes, such as exchange rate devaluations.

The other important source of finance is suppliers (*proveedores)* with small enterprises reporting greater use of this source (71%), followed by 57.9% for medium; 54.7% for big and 35.5% for AAA enterprises. Usually, suppliers' finance is linked to a policy of reducing productive cost, which is done through different means: directly reducing wages, limiting non-income benefits, modifying workers contract from fix to flexible, or hiring workers through others firms (outsourcing). The results of these transformations are lower rates of economic growth, reduced domestic income, which diminishes the size of Mexican

internal market further. This leads to a vicious circle that impedes the overall growth of the economy.

Thirdly, on average bank credit card interest rates (mainly for consumption) are high, reaching levels above 35% between the first term of 2004 and 42% in the last two terms of 2008, (see graph 4d), in spite of the downward trend of the central bank base interest rate. It should be noted that the official data of interest rates on bank credit card is highly undervalued since it does not account for commercial bank strategies of long credit periods with reduced initial payments, VAT.

The striking fact is that housing finance costs are much smaller. The reasons are several. First, these credits are backed by the *Sociedad Hipotecaria Federal*. Second, banks only top-up the finance required by home buyers, therefore their loan and risks remain minimal. Finally, it can be argued that housing finance costs came down as a result of a political decision to increase housing demand, for which Infonavit was restructured and *Sociedad Hipotecaria Federal was created*.

Insert graph 4c and 4 d

d) Further signs of concern

The first signs of concerns are the deterioration of bank financial indices from 2007 onwards. The default rate (unpaid assets in relation to total assets) increased in 2007 and 2008, indicating higher payment dues that can induce a major financial crisis if unemployment increases, wages go down and inflation set offs (as a result of exchange rate devaluations that have been taking place since September 2008). The solvency index (total non-paid asset to net capital) is also weakening. The only positive sign that still remains, and the one that financial authorities overemphasize, is the capitalization index (Net capital to assets, considering risk of different assets). Consequently, although the roots of the 2008 Mexican economic crisis are not in the financial sector, a deep financial crisis can unfold, making the resolution of this crisis more difficult (see graph 5).

Insert graph 5

The second sign of concern of the Mexican economy, that resembles a finance-led capitalist system, is the stagnant investment coefficient, the higher export share in GDP with a deficit in current accounts and, stagnant share of private consumption in GDP in spite of increase in household finance (see graph 6). It needs to be highlighted that, against the predictions of neoliberal policy makers, the GDP growth rate diminished, although the share of exports in GDP raised and rapid financial innovation took place.

As has been argued, the main reason for this new economic structure is the deindustrialization process initiated in the 1980's as a result of the openness of trade and production. The Mexican economy could not face international competition. Therefore production of important domestic consumer goods, which included agriculture, final durable and non-durable goods, was replaced by imports. These changes took place because the main objective of the neoliberal economic policy was to attain competition and higher productivity in the short run, through reduction in prices. Without any doubt, a major

achievement of neoliberal economic policy was the control of inflation that, however, failed to induce economic growth.

The obsession to control inflation induced another extremely vicious monetary policy objective, which is exchange rate stabilization that led to long periods of overvalued exchange rate, followed by deep exchange rates devaluation. This induced further reductions in the investment ratio (in terms of GDP) and lower levels of domestic production, since imports were cheaper. In addition, exchange rate devaluation in a context of weak industrial sectors does not lead to a process of import substitution by domestically produced goods. Therefore economic stagnation took place, leaving no domestic device to counteract economic recessions.

The other relevant factor was that multinationals operating in Mexico did not link themselves strongly to indigenous production sectors since their production was based on assembling inputs (*maquilas*) hence their import coefficient was extremely high; this took place even in high technology industries

Also, it can be argued that Mexico based multinationals followed the securitization pattern of rich countries, increasing the operations of their treasury departments and, more importantly, shifting investment to dynamic external markets. Moreover, financial returns were not shifted back to the Mexican financial system, especially after speculation in rich countries increased. Thus, Mexican productive system witnessed increase in concentration and centralization of capital that failed to expand domestic economy.

In this context, private consumption spending became a buffer that accommodates extremely rapidly to macro-economic changes such as exchange rate adjustment and lower levels of income. Exports, instead of fixed investment, became the most dynamic variable of economic growth. Therefore, the domestic economic growth became dependent on external income, on which Mexico's economic policies had little influence.

Insert graph 6

The third element of concern is the fluctuation in external capital flows. External capital inflows have been extremely volatile and, in 2008 as a result of the international financial crises, foreign financial flows, especially FDI and FPI, shrank from 50,819 millions of dollars to 29,321 millions of dollars (see graph 7). Additionally, deficit on external trade and service accounts turned higher.

It needs to be highlighted that external dependency (external current account of trade and services) increased after Nafta came into operation, since Mexico could not compete with other countries (especially China). Therefore, although the Mexican economy turned into export led capitalist system, and exports were a major instrument to pull the Mexican economy out of the 1995 economic recession, the role of exports diminished after 2000 when China took the lead in the US imports, and stood only behind Canada as an exporter to US. In 1994, the export share of GDP stood at 17.2%. This figure nearly doubled in 2000 to 35.1% but by 2007 the share of exports in terms of GDP was up by only 6 percentage points to 41.7%.

Insert graph 7

We can sum up this section by stating that the most successful result of the process of deregulation and globalization was attaining financial depth, particularly in the bond segment. This was not the case in capital markets, since it remained shallow and did not increase finance, due to the increased dependence on external capital flows.

The relation between financial depth and availability of finance was weak and inefficient since finance available to non financial sectors (especially the private non financial sector) in terms of GDP fell drastically after deregulation. The reasons are diverse. On one hand banks were confronted with diverse high return activities and, on the other hand, there was no competition between non bank financial institutions and banks. In addition, consumption that turned into the main bank finance activity was highly dependent on imports, therefore its multiplier effect on economic growth turned out to be low; while housing finance was unable to stop the downward economic trend.

The big problem has been that private domestic small and medium enterprises that, although extremely important in terms of job creation and increasing the internal market, were left out of the export-led model and have become insolvent. In the next section, we examine whether anti-crisis programs consider reviving the internal market.

e. The government's anti-crisis program

Besides almost daily announcements, there are two main anti-crisis programs. The PICE (Program to increase employment and economic growth ―*Programa de impulso al crecimiento y el empleo*) announced on October, 2008 and the National agreement to support family' economies and employment ―*Acuerdo de apoyo a la economia familiar y al empleo*- announced in January 2009 (see Eclac, 2009).

The two Mexican anti-crisis programs share many features with other Latin American countries (Argentina, Brazil and Chile). They give an impression that Mexican anti-crisis policies are based on a wide range of instruments, (see table 2). A more careful analysis shows that although an array of economic policies are used, Mexican anti-crisis programs rely on market mechanism and the commitment to free mobility of production factors to reach "equilibrium" prices; government intervention in the economy is still highly limited. For instance, monetary policy in Mexico does not use flexibile bank reserves. On the fiscal front, there have been several announcement of government expenditure (see annex 1) that have not been used fully, since there are legal limitations on the verification of spending (to avoid money diversion―*i.e.,* corruption) that have not been modified by the government. For example, it is not clear whether the 6900 millions of dollars (0.7% of GDP), meant as additional fiscal stimulus for infrastructure (see annex 1), is being spent on the ground.

Insert table 2

Most important intervention from the government has taken place in the foreign exchange market, with exchange rate stability being the main purpose. To this effect, Banco de Mexico increased the availability of dollars through extraordinary sales, auctions and arrangement with investment pension funds to bring back workers' financial savings and invest them in the domestic financial market. The huge amounts of foreign currency brought into the exchange market by Central bank have not stopped devaluation of peso (around 40% and 50%, see graph 8). It should be added that to widen external commerce, instead of strengthening the internal market, Mexican authorities reduced tariffs even with countries that Mexico has no trade agreements with.

Insert Graph 8

The monetary policy has rested on the announcement of daily interest rate goals (imposed on January, 21st, 2008), which had an upward trend between January 2008 and January 2009 when it increased from 7.5% to 8.24%, and reversing to 7.75% to 7.50% by February, 2009 (see table 3). Due to the ongoing exchange rate devaluation, it is believed that interest rates should rise to stem external capital outflow and reverse the poor demand of financial securities in the stock market. Furthermore, commercial banks do not take into account the reduction of central bank interest rate goals, leaving their financial margin, fee and commissions unchanged. This means that the debt burden has not fallen sufficiently and, more importantly, the non financial sectors has not benefited.

With respect to sectoral policies, the government's willingness to spend does not appear very strong. For instance, the oil refinery that the government committed to construct last October, has been postponed several times; the target of total government purchase from small and medium domestic enterprises, instead of increasing, has fallen from 30% to 20%.

Perhaps the more striking evidence of government's unwillingness to increase the size of internal market is the program to preserve employment for which 150 million dollars were set aside initially and, another 505 million dollars were announced subsequently to support corporations that are using technical stops in order to preserve employment. The financial resources of these two programs were mainly channeled to big corporations related to the external sector while domestic manufacturing enterprises were largely ignored (see Financiero).

Additional measures such as price freeze in case of gasoline and the reduction of gas prices by 10% did not prove very useful because of strong increase in price of these items in 2008. In case of social support to unemployed workers it was announced that they may increase the capacity of retiring savings from their *own* pension fund. Also, social insurance coverage was extended from 3 to 6 months (for further information see Annex 1).

From the above discussion, it can be observed that there is no serous anti-crisis program to increase internal demand and, therefore neutralize the collapse of export demand. The Mexican government continues to rely on market mechanism, with exchange rate stability being the utmost objective. However, external capital continues to *fly* to security and exports continue to shrink, reaching higher levels than those attained in the pre-1994 crisis.

Summing up, the anti-crisis programs can be extremely expensive due to adamant policies of stabilizing the exchange rate and the support of multinationals linked to the external sector. There are no serous intentions to expand the internal market and support domestic enterprises that will expand internal supply, employment and demand. The Mexican policy makers still believe that sticking to policies of lowering productive cost and boosting international demand the will allow the economy to overcome crisis and lead to resumption of growth.

IV. CONCLUSIONS

Financial structures have undergone profound institutional changes in the last 30 years, switching from a world with limited external capital mobility, low levels of financial innovation and regulated banking sector that remained under public supervision and served to channel finance to the productive sector. The new financial organization was based on a capital market, which differed from the post-war Anglo-Saxon system, in that financial segmentation was abolished and capital was set free to move from one country to another in search of financial gain. Free capital mobility was supposed to increase competition and move economy towards "equilibrium" prices, which would guarantee enough savings to finance investment spending at levels of full employment.

However, the results differed. Capital market instead of reaching balanced positions, started to operate continuously out of equilibrium. Financial inflation became a major feature of stock markets; financial wealth increased and investment spending shrank. The striking feature was that during the last twenty years, the distribution of income was modified in favor of *rentiers* that, instead of halting economic growth, raised consumption and housing demand, spreading financial securities to a wider class of people. The new rentiers had high propensities to consume and thus check a reduction in effective demand.

The impact on developing countries was quite different. Although, they adjusted to the new financial arrangement through profound institutional changes and "modernized" their financial and real markets, the links between financial innovation (or increased liquidity) and economic growth turned out to be rather weak, as economy became ever more dependent on external flows and overvalued exchange rate.

Emerging countries such as Mexico could not confront long periods of financial inflation, because it induced deep external current account disequilibrium. In the first half of the 1990s many emerging countries (including Mexico) faced a deep financial crisis that modified the productive and financial structure of the economy. The experiment of external capital inflows, overvalued exchange rate, high capital index prices, credit booms and higher private consumption found its limits in the worsening external current account.

After the financial crises of the mid 1990s, most developing economies turned into export-led economies, with high import coefficient, and private consumption became a buffer variable. This means that external capital flows or increased current account deficit would induce exchange rate devaluation, high interest rates, income reductions (increasing distribution of income in favor of capital owners) that altogether reduced economic activity, thereby restoring external current equilibrium.

The main problem faced by emerging economies is that they were left with no economic policies to revert economic downfalls; and the banking sector was confronted with the reduction in creditworthy borrowers. Big enterprises and AAA corporations resorted to the domestic non bank institutions and to the external market; while small and medium enterprises were left with no sources of external finance (only supplier finance was available). Commercial bank credit was channeled to private consumption and due to its high risks, limited competition within the banking sector and between different segments of the financial sector, causing financial gains, commissions and fees to soar.

The remarkable feature was that housing finance increased with low and fixed interest rates (much smaller than bank credit to consumption); which was due to active government policies that reformed Infonavit (social non-bank bank) and created a development bank to assume most of the credit risks. Therefore, economic policies guaranteed stable finance to particular activities.

Considering the lack of finance to the domestic productive market and the fall of exports, there is a need to increase bank credit, backed by government guarantees to small and medium enterprises and reintroduce development banks, directly issuing credit and accepting deposits (first floor operations). In this context, fiscal policies related to industrial organization need to be reestablished to determine "priority" productive sectors that will *pull* economic growth.

Additionally, the financial system needs to be reformed in order to limit financial innovation and modify the redistribution of income. In this context banks and non bank intermediaries need to be linked to productive (non-financial) sectors, limit credit costs, through interest rates caps and constrain commissions and fees. Commercial banks need to restore provision of credit as their main activity.

Also capital mobility needs to be deterred for which issue of public bonds and supply of financial securities by big corporations needs to be limited. It can be done through imposition of capital tax and bank reserve requirement. On the demand side, institutional investors need to be re-organized by strengthening links between finance and long term investment. Also government needs to assume its basic function of providing social services such as guaranteed pensions, health and education. The rating agencies' function of risk determination ought to disappear and commercial banks need to take up this function again by evaluating borrower's creditworthiness and the solvency of the project to be financed. The central bank has to limit the return expectation of commercial banks.

Financial segmentation needs to be reintroduced to limit financial speculation. Once banks face higher capital requirements for buying and selling securities, bonds commerce will halt. In addition, government needs to regulate FDI according to the productive needs of the economy and agree to develop research and technology in the sectors in which it allows FDI. Finally, the size of commercial banks and financial groups needs to be limited so that domestic authorities can enforce regulations and monetary policy objectives.

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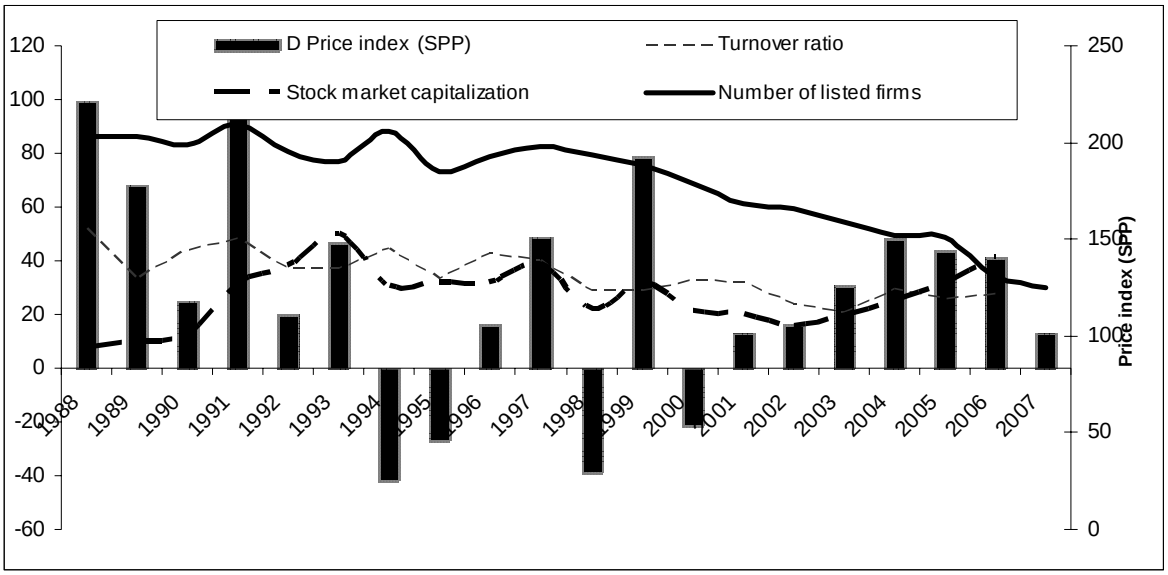
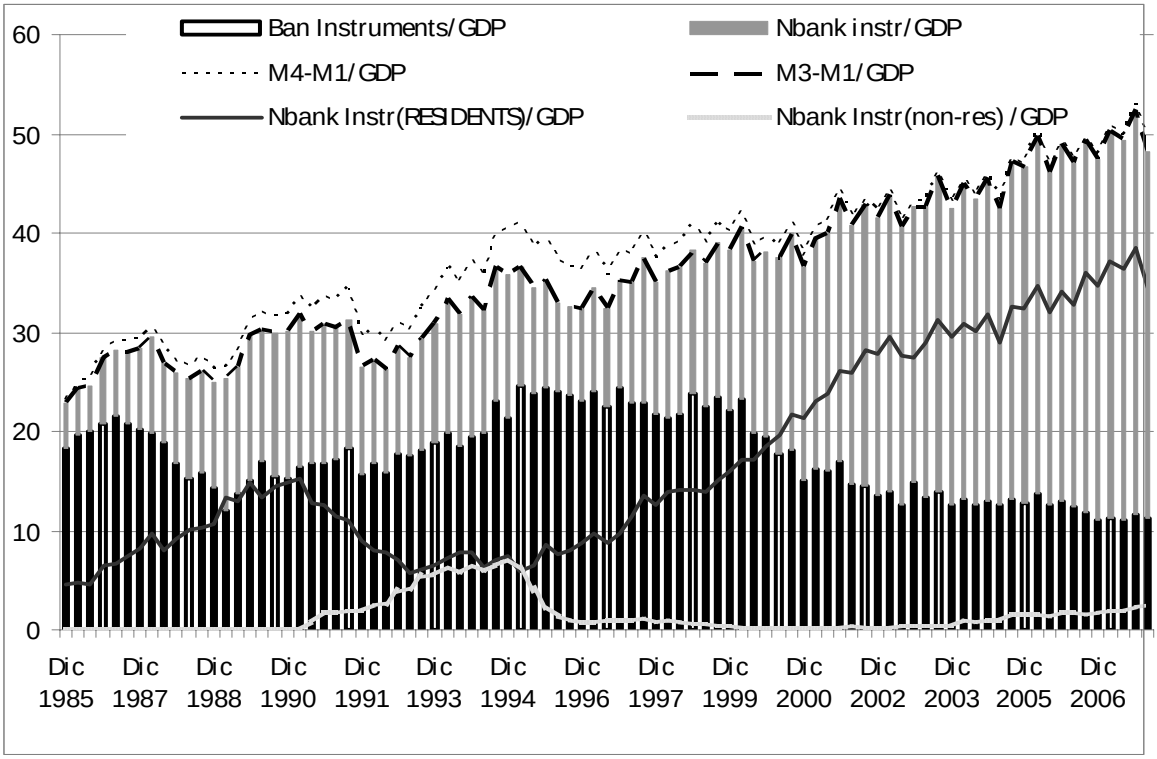
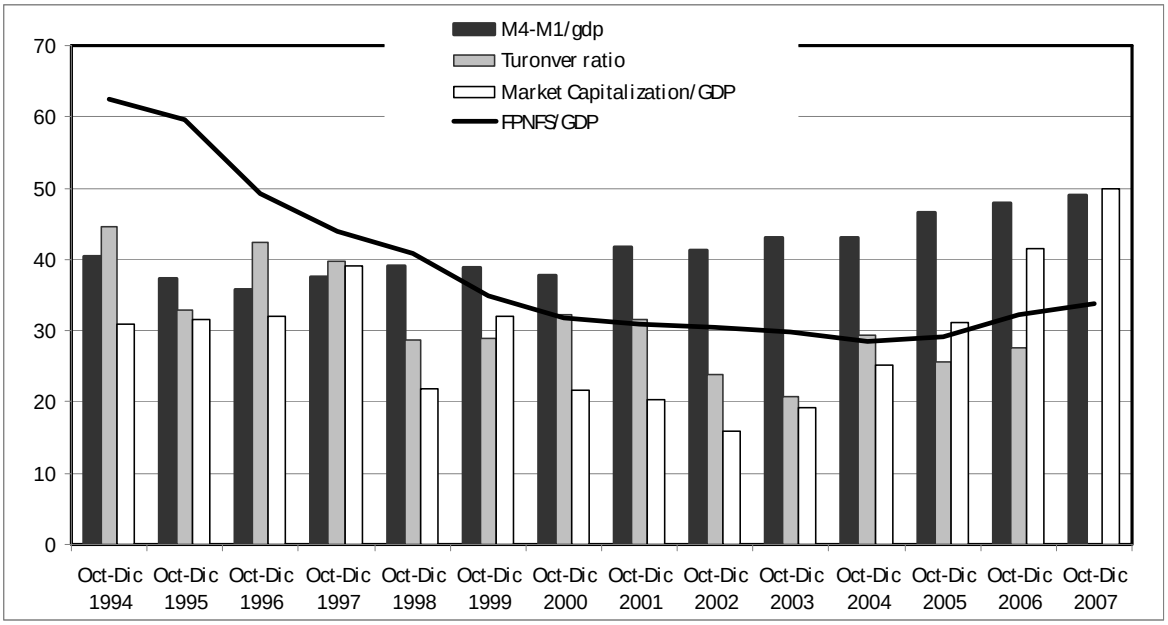
Graphs



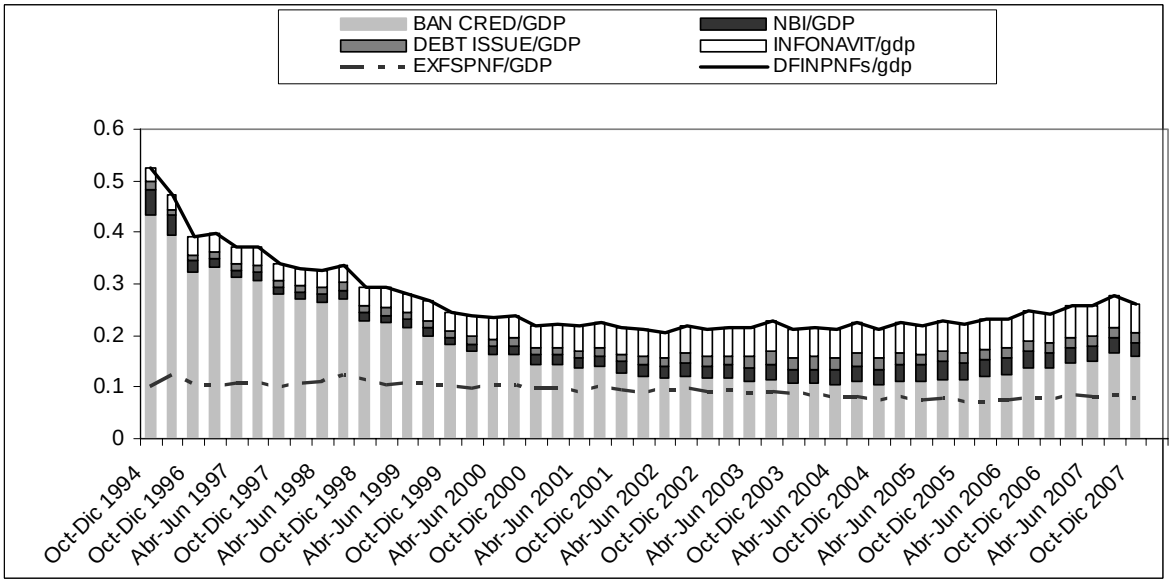
Graph 1: Mexican Stock exchange indicators
D Price index (SPP): Anual Growth rate of stock index price measured by stándar and Poors
Source: Worl bank, World Developing Indicators, CD room, 2008



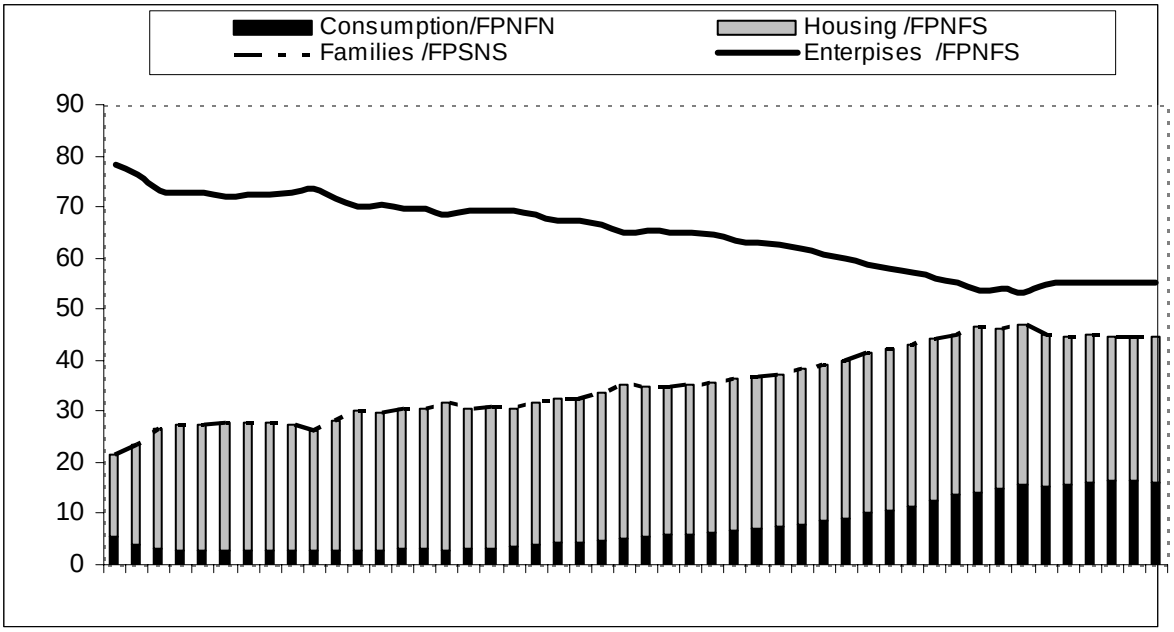
Graph 2. Financial depth
M4: Wide monetary aggregates
M1: narroe monetary aggregates
Nbank(Residents): Non bank instruments held by residentes
Nbank(non-res): Non bank instruments held by non residentes
Ban Instruments: bank instruments
GDP: Gross Domestic products
www.banxico.org.mx(estadisticas, agregados monetarios



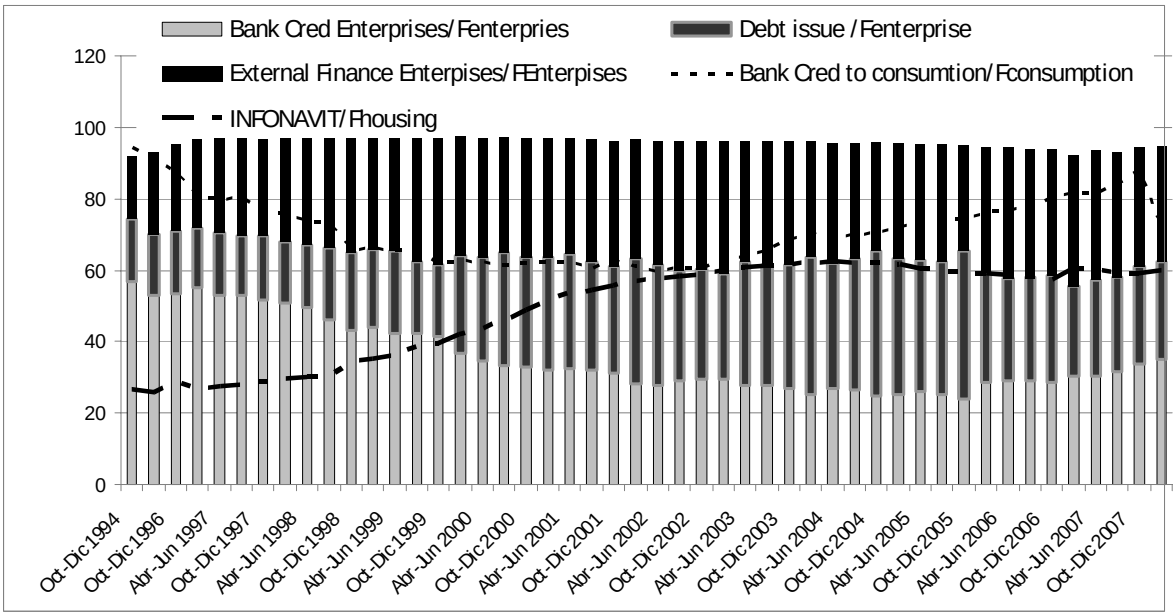
Graph 3: Financial deepness and finance to the private non financial sectors in terms of GDP
FSNF: Total Finance to private non financial al sectors
M4-M1/GDP: Financial deepness
Turover Transactions: Value of shares traded to market capitalization
Source: www.banxico.org.mx/estadisticas and World Bank indicators, CD, Room , 2008



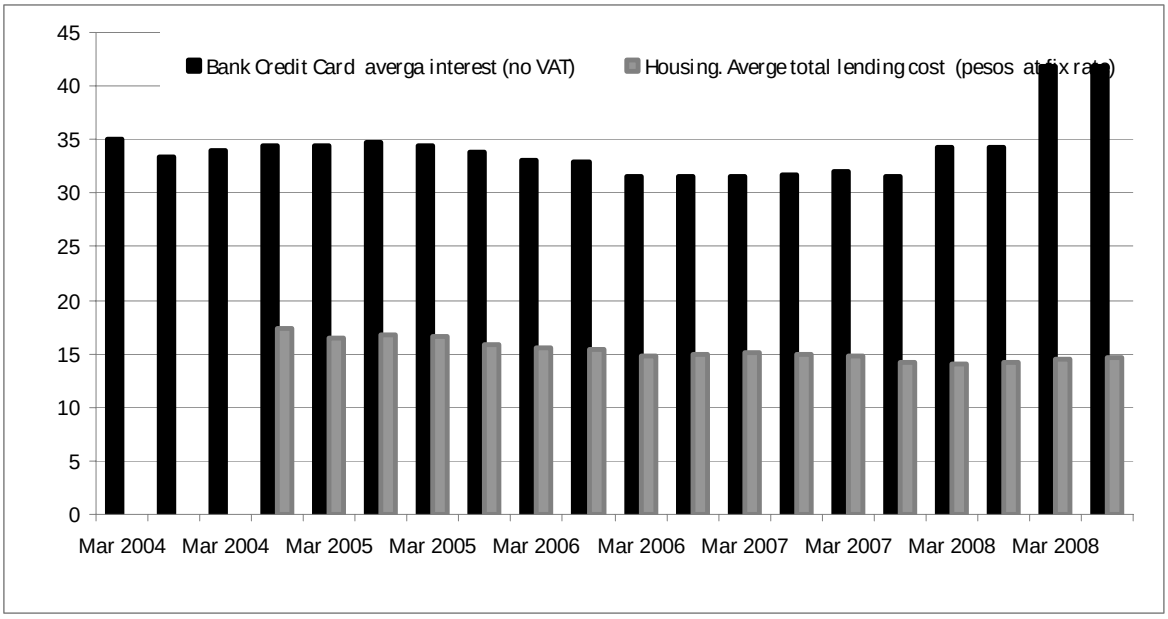
Graph 4a: The main finance sources
Ban cred/GDP: Bank credits in relation to Gross domestic product
NBI/GDP: Non bank intermediaries finance to gross domestic product
Debt issue/GDP: Debt and stock issue in terms of gross domestic productic
Infonavit/GDP: Finance by Infonavit in relation to gross domestic product
EXTSPNF/GDP: External finance to private non financial sectors in terms of GDP
Source: Own calculation, based on banco de Mexico information, www.banxico,org.mx



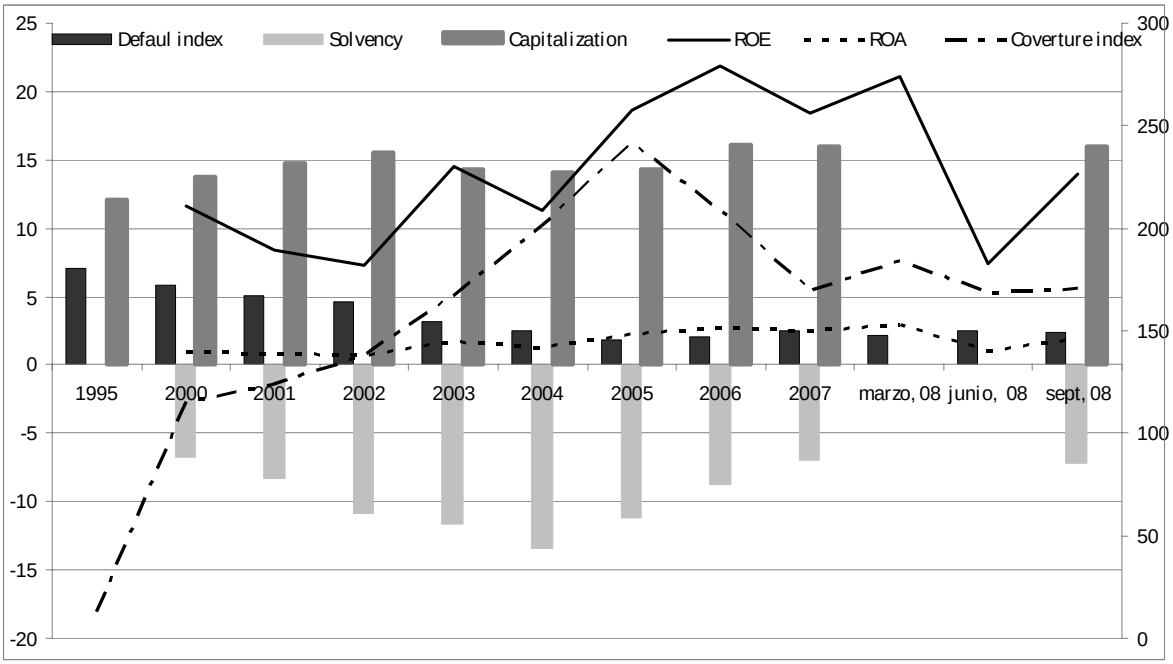
Graph 4b: Activities most benefited by finance
Own calculation, based on Banco de Mexico information, www.banxico,org.mx



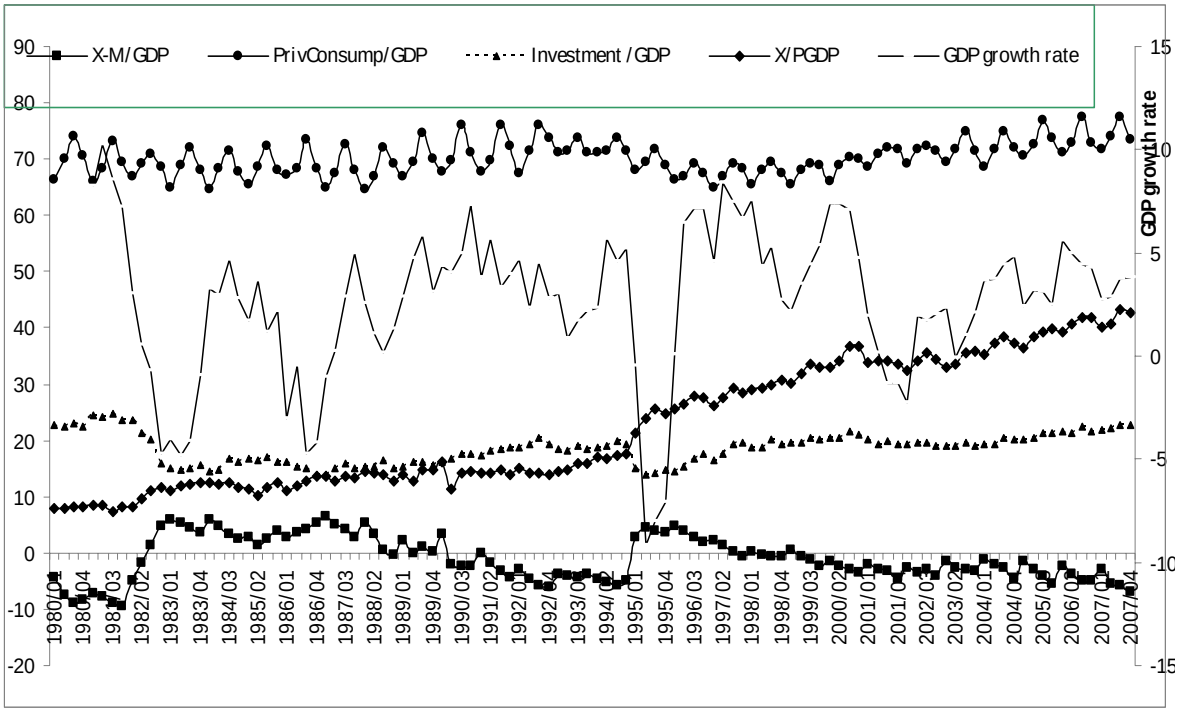
Graph 4c: Specialization of financial institutions finance
Own calculation, based on banco de Mexico information, www.banxico,org.mx



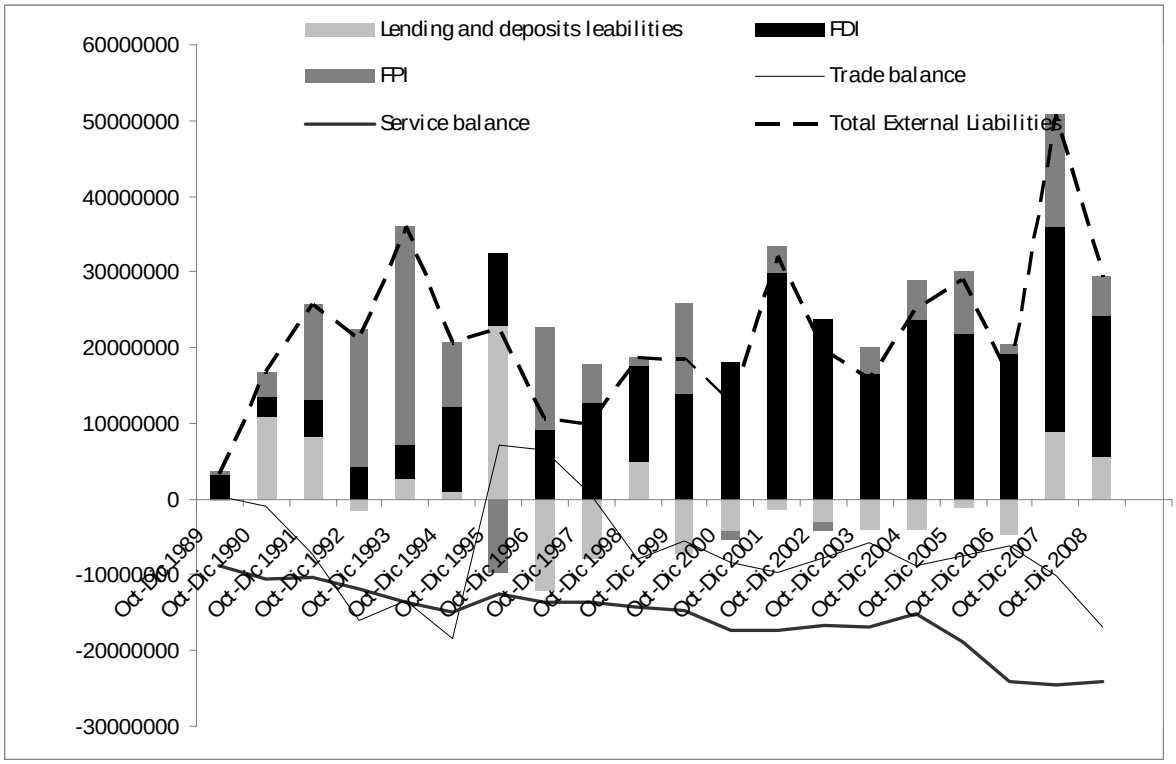
Graph 4d: Bank credit costs
Own calculation, based on banco de Mexico information, www.banxico,org.mx



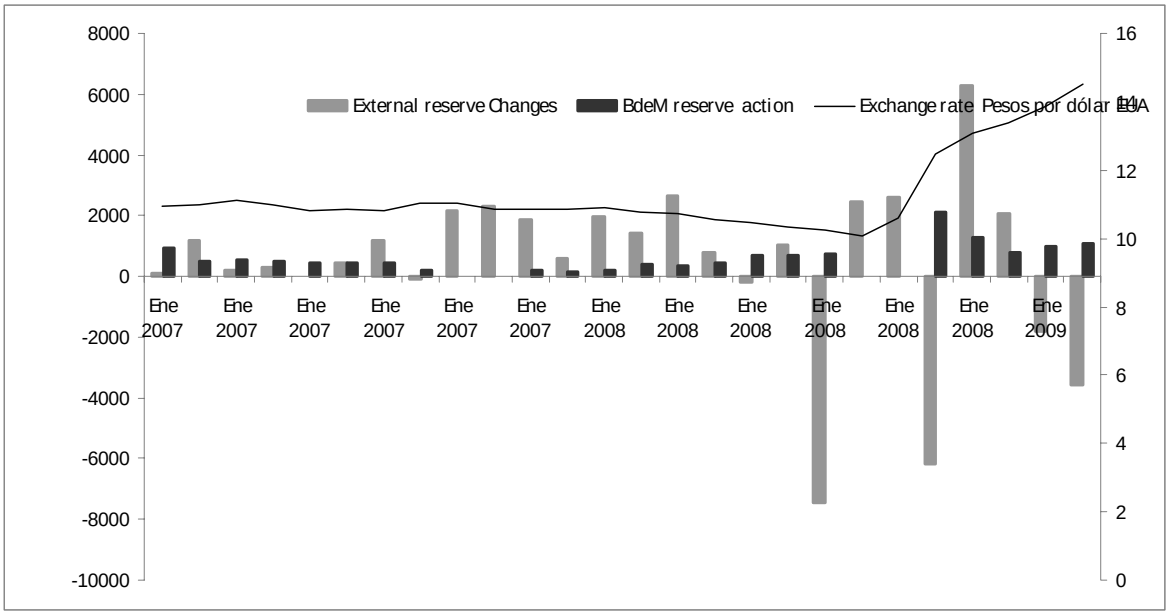
Graph 5: Bank Financial indexes
Source: Comision Nacional Bancaria y de Valores



Graph 6: The economic structure
X: exports; M: imports; PrivConump: private consumption;
www.inegi.org.mx



Graph 7: Composition of external liabilities
Source. Own calculation, based on Banco de Mexico information, www.banxico.org.mx



Graph 8: Exchange rate movement, international reserves anfd Banco de mexico action in the exchange market

Source: Own calculation, based on Banco de Mexico information, www.banxico.org.mx

Tables

Table 1: Main Capital market Indicators (1987/2007)					
Market capitalization of listed companies (% of GDP)					
	USA	Argentina	Brazil	Chile	Mexico
1990	53.2	2.3	3.6	43.1	12.4
1995	93.4	14.6	19.2	103.5	31.6
2000	154.7	58.4	35.1	79.7	21.5
2005	136.9	33.6	53.8	114.7	31.1
2006	147.6	37.2	66.6	119.7	41.5
Listed companies					
	USA*	Argentina	Brazil	Chile	Mexico
1990	6599	179	581	215	199
1995	7692	149	543	284	185
2000	7524	127	459	258	179
2005	5143	101	389	245	151
2006	5133	107	442	238	125
Turnover ratio (%)					
	USA	Argentina	Brazil	Chile	Mexico
1990	53	2	4	43	44
1995	86	15	19	104	33
2000	201	58	35	80	32
2005	129	34	54	115	26
2006	183	37	67	120	28
International finance corporation price index					
	USA	Argentina	Brazil	Chile	Mexico
1990	197.5	267.7	91.3	838.8	760.8
1995	368.3	1304.8	252.4	3175.1	1157.3
2000	789.5	1301.1	348.2	2211.5	1737.6
2005	746.4	1825.9	740.5	4476.7	4564.2
2006	848.1	2874.9	1057.3	5566.9	6432.3

Source. World Development Bank Indicators, Cd, room 2008.

	Table 2: Interest Rates	
	Interest rate central bank goal	Average interbank interest rate
21/01/2008 - 19/06/2008	7.5	7.9306
20/06/2008 - 16/07/2008	7.75	8.1727
17/07/2007 - 14/08/2008	8	7.8750
15/08/2008 - 15/01/2009	8.25	8.6392
16/01/2009 - 19/02/2009	7.75	8.0591
20/02/2009- 09/03/2009	7.5	7.908

Source. Own calculation, based on Banco de Mexico information, www.banxico.org.mx

Table 3: Anti-Crisis Programmes in Latin America

Monetary and financial policies	Argentina	Brasil	Chile	Mexico
Reduction and /or bank reserve flexibility	x	x	x	
Liquidity provision (national currency)	x	x	x	x
Fiscal policy	**Argentina**	**Brasil**	**Chile**	**Mexico**
Tax reduction/Higher subsidies	x	x	x	x
Higher or anticipated spending (infrastructure)	x	x	x	x
Exchange rate policy and external trade	**Argentina**	**Brasil**	**Chile**	**Mexico**
Liquidity provision (external currency)*	x	x	x	
Higher tariffs or import restrictions	x	x		
Lower tariffs	x	x		x
Finance to exporters	x	x	x	
Demand of credit provisions to international institutions				
Sectorial Policies	**Argentina**	**Brasil**	**Chile**	**Mexico**
Housing	x	x	x	x
Pymes	x		x	x
Agricultural		x	x	
Turoism	x			
Industries		x	x	x
Social and employment policies	**Argentina**	**Brasil**	**Chile**	**Mexico**
Employment stimulus	X		X	X
Social programs		X	X	X

* Does no include central bank selling international reserves

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Annex 1

Details of the policy measures announced by the Mexican government by February 20th, 2009 to face the international crisis

Monetary and financial policy	Fiscal policy
Additional credit lines for banking short-term financing.	Program to promote economic growth and employment (PICE), announced on October 8, 2008:
Temporal permission to banks to provide liquidity to its own investment funds. Repurchase plan to buy medium and long term government securities up to USD 3.1 billions. The Ministry of Finance and Public Credit (SHCP) and the Central bank announced a cut in the long-term debt emissions and launched an exchange mechanism of interest rates to transfer to the money markets. The central bank established a program of interest rate swaps of USD 6 billions dollars. This allowed banks exchange rate exposure from long-term fixed-rate instruments to short term variable rate securities. Banco de México announced on January 16th, 2009 a reduction of 50 basis points of its monetary policy target rate (7.75%).	Fiscal stimulus of USD 6.9 billions, equivalent to 0.7% of GDP, assigned in general terms, to an additional expenditure on infrastructure.
	Reforms to accelerate spending on infrastructure and government purchasing program for SMEs. The government bought guarantees by USD 70 per barrel against fluctuations in oil prices (the cost of such coverage was USD 1.1 billion, which would ensure 90% of exports). There are also resources from the Oil Income Stabilization Fund. The National Agreement in support of family economy and employment (ANFEFE) was announced on January 7th, 2009, includes the following subjects: In 2009 gasoline prices will remain constant and the price of liquefied petroleum gas is reduced by 10%. Also price of electricity goes down, enabling companies demanding industrial electricity to opt for fixed fee charges, during 12 months. The National Infrastructure Program will be accelerated. The investment (driven by public and private sectors) will reach USD 43.6 billions in 2009.

Exchange rate and foreign trade policy	Sectorial policy	Social and labour policies
Tariff reduction, particularly for imported products from countries which Mexico has no free trade agreements.	Productive development policies in the agricultural sector.	Subsidy programs for food and transportation.
In order to reduce exchange rate volatility, Banco de México will intervene in the market through extraordinary sales up to USD 1.06 billion. Also are used auction up to USD 400 millions through joined mechanism established by the Ministry of Finance and Public Credit and Banco de México, from February 3th to 6th. These direct interventions will continue in case of international financial volatility continues.	Agreements with the Venezuelan government within the Bolivarian Alternative for Latin America and the Caribbean (ALBA): bilateral agreement on food safety between Honduras and the Bolivarian Republic of Venezuela; loans up to USD 30 millions for farmers ; commitment of the Bolivarian Republic of Venezuela to buy Honduran bonds with a worth USD 100 millions for housing programs. The government sought, in conjunction with other governments, loans to Central American Economic Integration Bank and the IDB.	On January 2009 it was approved a new minimum wage of USD 290 per month in urban areas and USD 215 a month in rural areas.Also were increased budget for school meals, free tuition in community schools (in rural areas), basic package of health services, reforestation, several educational vouchers, and subsidies on fuel and electricity.

	Oil Comprehensive reform of the investment scheme of Petróleos Mexicanos (PEMEX). Announcement of the construction of an oil refinery (PICE).	Additional allocation (USD 505 millions in March 2008) to the national system of employment and training, that was used to expand the coverage and quality of the National Employment Service. Under the National agreement in favor of the family economy and employment there will be implemented the following measures: i) Increase of 40% with respect to the estimated of the temporary employment program of the federal government until it reach USD 170 millions in 2009. ii) Program to preserve the employment. There will be allocated USD 150 millions in order to safeguard jobs sources in the most vulnerable companies to the international environment and that are declared in stoppage. iii) Increase of the capacity of retirement savings in case of unemployment. iv) Increase of social insurance coverage for unemployed workers. v) Strengthening of the National Employment Service. For this reason, there will be spent approximately USD 96 millions.
	Transportation Program of federal support to mass transportation of USD 1.3 billion investment in 2009, supported by the National Infrastructure Fund (PICE).Under the National agreement for the family economy and employment, there will be implemented the following measures: i) Direct support or financing by USD 57 millions to enable poor families to replace their household appliances for new and more efficient items in their energy consumption. ii) Increase in credit support for purchase popular housing. iii) From 2009, the federal government will buy at least 20% of its purchase to the Mexican SMEs. iv) It will be established a trust of USD 380 millions to start the program for the development of SME that are suppliers to the national oil industry.	Program to support workers (Program to preserve the employment) that will be affected by technical stoppages in industries involved in manufacturing, assembly and repair of electrical machinery and electrical, no electrical and electronic equipment, as well as transport and auto manufacturing. The program provides support for about half a million jobs with resources for up to USD 505 millions. This program was launched on February 11th, 2009 and it is a complement of the National agreement for the family economy and employment.On February 9th, the head of the Executive sent to Congress two reform initiatives that have the purpose of reaffirming the commitments of this agreement.In the first initiative, the resolutions of the Social Security Law are reformedt in order to relax the requirements for the withdrawal of unemployment and increase the available amount for retirement. This initiative aims to: improve the access and level of

		benefits of unemployment that provides
	v) Provide technical advice and resources to Small and medium enterprises through the Trust-fund México Emprende that it will consist of USD 540 millions to generate supports for USD 19.1 billions in loans during the period 2009-2012. vi) Nacional Financiera and Bancomext will increase in 21% their direct and induced financing to enterprises, reaching it a total of USD 13.5 billions. vii) The credit for the rural sector through Financiera Rural and the Trust-funds instituted in relation to Agriculture (FIRA), will increase 10%, to reach 6.4 billions. viii) The direct credit boosted by the development banks will increase over USD 9.6 billions in 2009 (an increase of more than 26%). ix) It will registered and disseminated a new brand that contains the slogan "Made in Mexico" in order to promote the acquisition of national goods and services. x) In addition to resources already approved, Petróleos Mexicanos (PEMEX) will have an additional investment of USD 1.3 billions and the Federal entities USD 1.1 billions for investment in infrastructure. xi) The National Bank of Public Works and Services and the National Infrastructure Fund will grant loans and guarantees for more than USD 4.970 billions for the implementation of infrastructure projects with private participation planned for 2009.	the retirement savings system; to increase and to redistribute in favor of lower-income workers the social contribution paid by the federal government to the individual accounts of workers; to relax the use that workers can give to the social security contributions for obtaining a higher credit, and to increase the available resources for retirement. In the second initiative there are reformed several resolutions of the Institute of the National Housing Fund for Workers (INFONAVIT) to ease the use of contributions for housing, in order that some of these are assigned to the retirement savings. This initiative proposes: the reallocation of contributions from the employer between savings for housing and savings for retirement, coupled with greater control by workers and the reform to the law of INFONAVIT for improving their operating and financial controls ability.

Source: Economic Comission for Latin America and the Caribbean, ECLAC