

TWO DECADES LATER: Important Minskyan Lessons from the Mexican Peso Crisis*

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In this paper we analyze financial crisis that hit Mexico in 1994 in order to discover common roots and patterns of financial crises in emerging markets. As we see it, orthodox economists are not capable of providing an adequate explanation of why do financial crises erupt in emerging markets. On the other hand, Minskyan liquidity explanation of international capital movements and his Financial Instability Hypothesis adjusted for the case of developing economies tell us that the roots of crises lie in overly optimistic expectations and consequent over-indebtedness of economic units.

Key words: financial crises, emerging markets, Mexico, Minsky, financial instability hypothesis, debt.

Introduction

IN THE LAST THREE AND A HALF DECADES, CRISES have stricken predominantly emerging markets characterized by weak institutional environment, loosely regulated and non-transparent financial markets.¹ Consequences of crises in all impaired countries (except the Eastern

¹ The great debt crisis in developing economies in 1982, Peso crisis in Mexico in 1994, the great Asian crisis in 1997, crisis in Russia in 1998, Brazil in 1999, Ecuador in 1999, Turkey in 2000, Argentina in 2001-2002, Uruguay in 2002 and East Europe in 2009.

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European)² were immense and severe. Still, orthodox and heterodox analytical approaches to the phenomenon of financial crises in emerging markets are irreconcilable. Consequently, diametrically different problem diagnosis results in different prevention measures and different emergency measures in case of crisis eruption. Therefore, in order to discover common roots and patterns of financial crises in emerging markets we analyze in more detail major financial crisis that hit Mexico exactly twenty years ago. What we find is that, although appealing, orthodox explanation of the causes of international capital movements and financial crises in emerging markets in general, and Mexico in particular, is wrong. That is why we embrace Minskyan liquidity model of international capital movements and his Financial Instability Hypothesis (FIH) according to which, if let alone, endogenous market processes generate financial and economic instability in an upward phase of business cycle. Since the FIH is primarily devised to study economic behavior of closed advanced capitalistic economy, by making several amendments, it becomes applicable to the case of open emerging markets as well. We conclude that, in contrast to orthodox view, the causes of financial instability in emerging markets are not to be found in weak macroeconomic fundamentals or political uncertainty but in persistent and severe external deficits.

Orthodox Explanation of Financial Crisis in Mexico

The theory of efficient markets (Fama 1965, 1970; Malkiel 2003) is based on the assumption that economic agents are perfectly rational, perfectly informed and capable of forming rational and on average true expectations. In this view, self-regulated financial markets led by Smith's "invisible hand" are an optimal mechanism for rational and productive allocation of scant resources to the most productive uses. Market-clearing equilibrium is an aggregate outcome of choices made by myriad rational decision makers (Davidson 2009; Shleifer 2000). On the

2 Debt-deflation in East Europe was avoided thanks to massive liquidity injections in the Euro Area conducted by the European Central Bank. This provided breathing room for the foreign exchange markets and the central banks. On top of that, upon concluding stand-by arrangements with the International Monetary Fund (IMF), the most affected countries replenished their reserves. Finally, several countries benefited strongly from the "Vienna Initiative" that helped to contain the largest portion of the foreign exchange reserves within their financial sectors. For more details see: (Radonjić and Kokotović 2012, 2014).

other hand, financial crises emerge as a consequence of a sudden effect of some unanticipated exogenous shock. This is, in most cases, the interference of government in the free functioning of omniscient markets. In the open-economy model, financial crises can emerge due to a number of factors: inconsistency between the internal and external objectives of monetary authorities (Krugman 1979); a lack of credibility of the central bank's and the government's commitment to fully defend the foreign exchange rate (Obstfeld 1986); massive withdrawals from the host country due to irrational behavior on the part of lenders (Radelet and Sachs 1998); corruption and cronyism (Kang 2002) etc. According to this theory, should an unanticipated exogenous shock disrupt the normal functioning of markets, corrective forces that at least in the long run restore market clearing conditions, would be activated.

In a word, the problem is not rooted in systematic flaws in the functioning of free markets, but in the lack of freedom for market forces. Contrary to this *laissez-faire* prescriptions, in a decade that preceded booming early 1990s, Mexico was an inward-oriented economic system based on import substitution, high protective barriers and, above all, corrupted political elites. Consequently, those were the years of a deep recession. High budget and current account deficits, raging inflation, disappointing economic growth and legislatures hostile to foreign investors, kept foreign capital away from this part of the world. In the 1981–1989 period, the average rate of growth of Mexican GDP was 1.3%, well below the rate of population growth in the same period.³ Aggregate demand was depressed, mostly thanks to the very low level of investments. In 1982–1986 the average rate of growth of gross investments was negative and amounted to minus 6.5% (Cruz et al. 2006). Due to fresh and unpleasant memories of the financial breakdown in 1982 and implementation of monetary austerity (the constitutive part of the late 1987 stabilization plan), the lending policies of the banks were highly conservative, and potential borrowers, unwilling to get into debt, financed most of their investments from retained earnings. In addition, external factors contributed significantly to the Mexican slowdown. During the early and mid 1980s, the price of oil, a major Mexican export product, decreased drastically. All in all, the investment climate and economic situation in Mexico were outstandingly pessimistic and somber in the years that preceded 1988.

³ For example, real GDP per capita in 1986 was 10% below its 1981 level (Krugman 2000).

Orthodox universal prescription for reviving and stabilizing developing economies and therefore the Mexican economic system too was balanced fiscal policy, anti-inflationary monetary policy, privatization of state owned enterprises, deregulation and liberalization of financial flows and world trade and stable foreign exchange rates. According to this view, once these market-led stabilization policies implemented by developing country deliver the first positive results, investor confidence would grow, and capital inflow would gain momentum. Rational investors who seek new opportunities to earn profits, would respond to improved economic prospects in countries, which were, up to that moment, excluded from major capital centers (Pettis 2001). That is why, as this line of thinking goes, in late 1980s several internationally preferred policy changes took place in Mexico.

First, in December 1987, the *laissez-faire* oriented Mexican president Miguel de la Madrid, determined to stabilize economy and irreversibly renew investor confidence, launched a stabilization plan. Elimination of budget deficits and inflation, exchange rate stabilization, control of wages and prices (income policy), initiation of the privatization process of state-owned enterprises, relaxation of bank reserve requirements and removal of trade tariffs, necessary import licenses approved by government and strict rules concerning foreign ownership were the mainstays of his plan. In order to achieve this quite ambitious plan, de la Madrid imposed fiscal and monetary austerity, and in early 1988 adhered to a crawling-peg exchange-rate regime (in relation to the U.S. dollar). The second factor that positively influenced investors perception of the Mexican economy was the U.S. Treasury Secretary Nicholas Brady's announcement in July 1989 that Mexican debt would be converted at a discount into Brady bonds, while part of the debt would be forgiven. In the end, the Brady plan served more as a positive psychological impulse, because debt relief was modest, whereas annual transfers related to external debt service decreased to 1% of GDP annually (Carstens and Schwartz 1998). In addition, in 1989 and 1990 restrictions to foreign investments in domestic bonds and stocks were lifted. Last but not least, came an element frequently used to support and rationalize investments in Mexico, the initiative of president Carlos Salinas de Gortari⁴ to establish a regional free trade zone comprising Mexico, the USA and Canada (named the North American Free Trade Agreement – NAFTA). International investors interpreted this move by president Salinas as a definitive

56 | ⁴ Came to power in 1988 as de la Madrid's designated successor (Krugman 2000).

signal of irreversible determination on the part of the Mexican authorities to persevere in the reforms undertaken (Krugman 2000).

Again, if the rules of free market game are not fully and persistently obeyed crisis emerges. Orthodox view is that the Mexican crisis erupted as a consequence of overvalued peso. Namely, in attempt to renew investor's confidence after turbulent 1980s, the Mexican Government, determined to extinct inflation and large budget deficits, adhered to the exchange rate stabilization. However, after neoliberal reforms that resulted in dynamic surge of capital inflows had been successfully implemented (lifting of free trade and financial barriers), it was evident that economic growth was missing. In orthodox view the reason was expensiveness of Mexican goods due to stabile exchange rate coupled with roughly 10% inflation rate. Therefore, in order to expand export, the Mexican Government was advised to devalue the peso. Nonetheless, in fear of massive capital escape, Mexican political elite decisively rejected devaluation as possible option, assuring investors that the peso would stay stable (Krugman 2000). Unfortunately, the beginning of 1994 was marked by political instability which called investor's attention to a problem pushed for several years into the background – problem of Mexican high current account deficit.⁵

As soon as anxious and upset investors lost confidence in sustainability of current account deficit they launched massive capital withdrawals. Market was flushed with supply of the peso and the peso-denominated assets. Speculators aware that foreign exchange reserves were limited, started with aggressive speculative attacks in March. In December, after a rapid depletion of foreign exchange reserves, Mexican Government decided not to put up interest rates sharply (because of excessive amount of debts in the system) but to devalue the peso for 15%. Still, as Krugman (2000) pointed out, 15% devaluation was only half of what orthodox economists suggested. In expectation of further devaluations, speculators had intensified speculative attacks, and finally, on 22 December, after three days of exponential foreign exchange reserves depletion the peso was allowed to float. Consequently, markets entered vicious circle of further selling of the peso and the peso-denominated assets in expectation of further sharp devaluations. In a word, according to orthodox account, the cause of the crisis was inappropriate foreign exchange rate policy.

⁵ Equal to 7% of GDP in 1994 (World Development Indicators).

Heterodox Explanation of the Mexican Upheaval: A Minskyan View

In total opposition to the mainstream model stands the FIH, interpretation of Keynes' General Theory (1936) by the seminal post-Keynesian economist Hyman Minsky. In his Financial Instability Hypothesis, a work widely neglected by mainstream economists, Minsky (1977) argues that financial markets are the heart of modern capitalist economies, which are prone to fragility, thanks to the non-neutrality of money, division of ownership and management in big corporations and financial institutions, the ever-growing and massive debt financing of uncertain investment projects over the business cycle, continual financial innovation and fundamental uncertainty. In a word, ups and downs are natural product of unregulated free markets. Or, to put it more precisely, if let alone, endogenous market processes generate financial and economic instability in an upward phase of business cycle (Minsky 1977, 1975, 1986).

As he sees it, during a prolonged period of prosperity, conditions emerge that cause system transition from an environment of stable towards an environment of unstable financial relations. The core thesis of the FIH is that stability is destabilizing because, in an environment of fundamental uncertainty, ignorant human beings have no other choice but to extrapolate stability into infinity. Naturally, with calendar flow of time, when agents extrapolate stability into infinity they become more confident and, as their aim is to pursue ever-higher profits, they become more and more willing to increase their liabilities relative to income. Furthermore, in an environment where bankers share the optimism of borrowers, the opportunity to "make on the carry" induces speculative financing practices: "In a world dominated by hedge finance, profit opportunities exist for both borrowing units and banks to shift to a greater use of short-term debt to finance positions in capital assets and in long-term debt." (Minsky 1986, 235). Units engaged in short-term financing of long-term assets (i.e. "make on the carry") are speculatively and Ponzi financed.⁶

⁶ In order to measure the degree of financial (in)stability, Minsky delineated three kinds of debt structure: hedge, speculative and Ponzi finance. Hedge units are expected to generate cash flow that will, in at any future moment, be above operating expenses (including dividend costs) and financing costs (debt principle and interest) for an amount of margin of safety wide enough to absorb unforeseen changes either in cash inflows or in cash outflows. Speculative units are expected to generate cash flow that

The rise in market optimism might not be gradual but rather the result of some outside shock powerful enough to cause displacement of the system and consequently dramatic change in profit horizons and the expectations of agents. Such a shock might be the beginning or end of a war, an abundant or insufficient harvest, some revolutionary far-reaching invention (railway, automobile, radio, film, computers), a political event (Kindleberger and Aliber 2005) or, most frequently, expansion of liquidity in major financial centers. Expansion of liquidity might take the form of an increase in traditional measures of money or more complex changes in financial structure induced by a change in the regulatory framework or the profit-seeking activities of financial mediators (“merchants of debt”).⁷

Minsky’s theory of speculative markets and financial instability, although primarily devised to study economic behavior of closed advanced capitalistic economy, is, by making several amendments, also applicable to the case of open emerging markets, in which a period of financial robustness and optimism lead to fragile finance and instability (Arestis and Glickman 2002; Frenkel and Rapetti 2009; Kregel 1998; Pettis 2001; Wolfson 2002). In contrast to rich country case where factors that trigger boom develop endogenously, in the case of developing country, booming cycle starts with liquidity expansion in developed countries (in

will not at any future moment be sufficient to pay out debt commitments. In a word, some time in the future, generated cash flow will be sufficient to meet interest, but not the principal commitment. Ponzi units get into debt today in expectation of high profits that will be realized at some, unknown future moment (high capital gains). In other words, to keep Ponzi units afloat, prices of assets must continue to rise. In this case, during most of the time or during the whole period of life of the loan, Ponzi units are not able to meet their principle and interest obligations (Minsky 1986). Unit was named after Charles Ponzi, infamous Bostonian speculator in 1920s who invented pyramidal scheme of paying out existing depositors by funds raised from newcomers. When new depositors stop to arrive, scheme collapses.

⁷ A change in the regulatory framework such as financial deregulation and liberalization stimulates the creation of new banks and deposits, thus expanding the monetary base and therefore money supply. On the other hand, the profit-seeking activities of financial institutions end in transformation of illiquid assets into liquid (for example, the massive securitization of real estate assets that occurred over the past twenty years) or in significant increases in the turnover of some liquid assets. Acceptance of some financial innovation by a broader financial community and a rise in its turnover or simply a rise in turnover of some already existing financial asset results in an increase in liquidity and an increase in the liquidity of financial markets has the same effect as an increase in the supply of money – decline in real interest rates and consequently a rise in asset prices (Minsky 1986; Pettis 2001).

other words triggering event is exogenous).⁸ As liquidity in rich countries rises and thus turnover increase, the volatility of risky assets starts to decline which makes them a more attractive investment destination in comparison to traditional assets. In response to lower volatility, over-optimistic investors systematically underestimate risks or overestimate prospective earnings in nontraditional sectors. As, in time, investors start to exhaust local higher risk investment opportunities, some capital finds its way toward developing countries. in order to “make on the carry”.⁹

In case of Mexico, three events led to liquidity expansion in developed world. First, American savers switched their savings from the equity in their homes to stocks and bonds and especially to mortgage backed securities - financial innovations used to monetize illiquid real estate assets. Second, akin to the Asian tigers in the late 1990s, Japan (along with the other Asian countries) recycled huge trade surpluses in the early and middle 1980s by investing in foreign financial assets, primarily in U.S. Treasury debt instruments and large cap U.S. stocks. Third, Pettis (2001) assumes that Russian tycoons who had looted their country in the process of a wild and nontransparent privatization and pilfered a significant share of export earnings found safe haven for their money in the European banks. All in all, the combined effect of these liquidity displacement factors launched a massive movement of capital towards developing countries in the early 1990s.

As liquidity expanded in developed countries and real interest rates dropped (Table 1) and since Mexico had liberalized its capital account and deregulated local financial markets a window of opportunity to “make on the carry”, stimulated profit-seeking agents to direct more and more capital towards Mexico.

⁸ Although appealing, real world experiences do not support the orthodox model of international capital movements. There is little evidence that capital flows respond to desired policy decisions in developing countries (Pettis 2001). On the contrary, what can actually be seen is that the timing of capital inflows towards developing countries is virtually identical, although there is no reason to assume that different countries around the world simultaneously undergo preferable political and economic changes. Therefore, capital movements to poor countries are better explained by the “liquidity model”, which emphasizes the source, and not the destination – the spark that initiates massive capital movements towards developing countries is liquidity expansion in rich countries.

⁹ In case of open economies, “making on the carry” means borrowing short-term funds in developed low-interest rates markets and their investment at higher interest rates in developing countries.

Table 1. Interest Rates (3 Months in %)

| | | Cetes | Tesobonos | U.S. |
|------|-------------------|-------|-----------|------|
| 1989 | December | 40.19 | 15.07 | 8.01 |
| 1990 | December | 25.84 | 12 | 7.91 |
| 1991 | December | 17.33 | 9.06 | 4.54 |
| 1992 | December | 17.53 | 3.48 | 3.53 |
| 1993 | December | 11.71 | 5.09 | 3.08 |
| 1994 | January | 10.89 | 4.67 | 3.02 |
| | February | 9.13 | 4.34 | 3.21 |
| | March | 11.97 | 7.27 | 3.52 |
| | April | 16.45 | 7.75 | 3.74 |
| | May | 16.54 | 7.05 | 4.19 |
| | June | 16.48 | 6.95 | 4.18 |
| | July | 17.19 | 7.25 | 4.39 |
| | August | 13.82 | 7.24 | 4.5 |
| | September | 13.1 | 6.79 | 4.64 |
| | October | 14.35 | 6.85 | 4.96 |
| | November | 14.76 | 7.58 | 5.52 |
| | Dec. (1 st. week) | 14.58 | 7.4 | 5.65 |
| | Dec. (2 nd. week) | 14.89 | 7.5 | 5.7 |
| | Dec. (3 rd. week) | 17 | 8.26 | 5.5 |
| | Dec. (4 th. week) | 31.99 | 10.49 | 5.5 |
| 1995 | Jan. (1 St. week) | 34.99 | 12.49 | 5.55 |
| | Jan. (2nd. Week) | 44.94 | 19.5 | 5.7 |
| | Jan. (3 rd. Week) | 39 | 19.75 | 5.65 |
| | Jan. (4 th. Week) | 38 | 24.98 | 5.75 |
| | | | | |

Note: 1989-1992 Tesobono rates are for 28 days.

Source: Sachs et al. (1995).

The consequent dynamic inflow of capital made the Mexican reforms appear astonishing and admirable. During the euphoric phase that covered 1989–1990, inflation decreased from 159.1% in 1987 to 51.7% in 1988, 19.7% in 1989 and in 1990 it increased to 30%. The budget deficit fell from 14.1% of GDP in 1987 to 4.5% in 1989 and 2% in 1990. Also, the nominal interest rate saw a dramatic fall from 123% in 1987 to 55.4% in 1988, 48% in 1989 reaching 34.4% in 1990 (Cruz et al. 2006). In a word, the macroeconomic stabilization program was, it seemed at the time, more than successful. Resultantly, borrower's and lender's risk fell dramati-

cally and foreign capital started a dynamic inflow. Total capital inflow surged from 591 million US\$ in 1988 to 4.3 billion US\$ in 1989 and reached an astonishing 17 billion US\$ in 1990 (Table 2). Most of the capital inflow in 1990 was in the form of loans and deposits (65%). (Carstens and Schwartz 1998). In parallel with the dynamic capital inflow and the sharp decrease in government fiscal deficits,¹⁰ bank credit to the private sector soared from 11.1% of GDP in 1988 to 15.5% in 1989 and finally 17.4% in 1990 (73% increase in absolute terms in a two-year period). (Cruz et al. 2006). What is more, in July 1990 the Mexican authorities announced initiation of privatization of banks and allowed foreign majority ownership over domestic soon-to-be-privatized banks (Cruz et al. 2006). The Mexican market-led reforms were heralded by the international community, and the Mexican economy was seen as the world's most dynamic emerging market. Nearly half of the capital inflows to Latin America went into Mexico (Ros 2001).

Table 2. Mexico: Selected Macroeconomic Indicators

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|----------------------------------|--------|-------|--------|--------|--------|--------|--------|--------|
| GDP real growth (in %) | 1.3 | 4.1 | 5.2 | 4.2 | 3.5 | 1.9 | 4.5 | -6.2 |
| Population growth (in %) | 1.9 | 2 | 1.8 | 2 | 1.8 | 1.85 | 1.8 | 1.8 |
| Unemployment | | | | | | | | |
| rate (% of total labor force) | 3.5 | 2.9 | 2.7 | 2.7 | 2.8 | 3.4 | 3.7 | 6.2 |
| Fiscal balance (% of GDP) | -8.9 | -4.6 | -2.5 | 2.9 | 4.1 | 0.5 | 0 | -0.5 |
| Current account (% of GDP) | -1.3 | -2.6 | -2.8 | -4.7 | -6.7 | -5.8 | -7 | -0.5 |
| Bank credit to private | | | | | | | | |
| sector (% of GDP) | 11.1 | 15.6 | 17.5 | 20.9 | 28 | 31.7 | 38.7 | 29.2 |
| Total capital | | | | | | | | |
| inflow (billions of dollars) | 0.591 | 4.346 | 16.996 | 25.507 | 20.866 | 36.085 | 20.254 | 22.763 |
| Loans and deposits | | | | | | | | |
| (billions of dollars) | -3.289 | 0.819 | 10.993 | 7.992 | -1.567 | 2.777 | 1.099 | 22.952 |
| Total foreign | | | | | | | | |
| investment (billions of dollars) | 3.879 | 3.527 | 6.003 | 17.514 | 22.434 | 33.308 | 19.155 | -0.188 |
| Direct investment | | | | | | | | |
| (billions of dollars) | 2.88 | 3.176 | 2.633 | 4.762 | 4.393 | 4.389 | 10.973 | 9.526 |
| Portfolio investment | | | | | | | | |
| (billions of dollars) | 1 | 0.351 | 3.37 | 12.753 | 18.041 | 28.919 | 8.182 | -9.715 |

Sources: Capital Account of Mexico (in Carstens and Schwartz 1998), World Development Indicators (World Bank), World Economic Outlook Database (International Monetary Fund).

62 ¹⁰ A sharp decrease in fiscal deficits increased the amount of resources available for private investment.

However, as Minsky warned, stability is destabilizing: “During a boom the speculative demand for money decreases, and portfolios become more heavily weighted with debt-financed positions. ...Households and firms substitute non-money financial assets for money as their liquid reserves.” (Minsky 1975, 123, 124). In time, as the period of euphoria continues, the system becomes increasingly unstable since fragility emerges endogenously in an upward phase of the business cycle. Still, the state of euphoria and market booming phase is temporary. As Minsky argues, financing “...is often based upon an assumption ‘that the existing state of affairs will continue indefinitely’ [a quotation from Keynes, remark by authors], but of course this assumption proves false. During a boom the existing state is the boom with its accompanying capital gains and asset revaluations. During both a debt-deflation and a stagnant recession the same conventional assumption of the present always ruling is made; the guiding wisdom is that debts are to be avoided, for debts lead to disaster. ...But in truth neither the boom, nor the debt deflation, nor the stagnation, and certainly not a recovery or full-employment growth can continue indefinitely. Each state nurtures forces that lead to its own destruction.” (Minsky 1975, 126).

Consistently, in line with the FIH pattern, the structure of the Mexican capital inflow went through a dramatic mutation as short-term speculative capital ascended the throne.¹¹ Total capital inflow in 1991 amounted to 25.5 billion US\$ and in relation to 1990 increased by 50%. But over 50% of the 1991 total capital inflow was in the form of highly speculative and reversible portfolio investments. This trend continued over the next two years. In 1992 total capital inflow fell slightly (20.9 billion US\$) but the proportion of portfolio investments in total capital inflow soared to 80%.¹² In 1993, the Mexican financial market was at its height. Total capital inflow skyrocketed to 36.1 billion US\$ while the proportion of portfolio investment remained extremely high (80.3%). (Ros 2001).

11 As Keynes (1936) and Minsky (1975, 1986) noted, in the midst of a boom period, on the wings of overly optimistic expectations, agents project continuance of the boom, and consequently investment ventures previously seen as risky are now accepted as sane decisions.

12 Resultantly, the value of the Mexican stock exchange index increased sharply. The proportion of foreign investments in domestic-currency denominated securities in the total of portfolio investments was 26.7% and 45.3% in 1991 and 1992 respectively (during the several years that preceded 1991, foreign investments in domestic currency-denominated securities were non-existent). (Capital Account of Mexico in Carstens and Schwartz 1998).

In parallel with the dynamic rise in portfolio investments, the indebtedness of the domestic banking sector dramatically increased.¹³ Bank's external debts increased from 9 billion US\$ in 1989 to 23 billion US\$ in 1993 (Cypher 1996). According to Cypher (1996), the external debt of banks (mostly short-term) ranged between 25 and 38 billion US\$ in 1995, an amount in excess of the equity value of the commercial banks by factor 3.5. As a result, in 1991-1993 bank credit to the private sector reached 20.9% of GDP in 1991, 28% in 1992, 31.7% in 1993 and nearly 40% in 1994 (Cruz et al. 2006).

Furthermore, the ratio of short-term debt to long-term debt of public and private borrowers¹⁴ amounted to 2.5 in 1991, 2.8 in 1992 and 3.25 in 1993. (Cruz et al. 2006). Since, in parallel with the very high level and from 1992 onwards, the rising proportion of short-term debt, gross capital investments were also increasing,¹⁵ we can conclude that, as Minsky had warned, market participants were "making on the carry" which, in the midst of a booming period leads to a rise in the proportion of speculative and Ponzi units.

Apart from the noticeable trend of substantial increase in capital inflows in general and the proportion of short-term debt in total debt in particular, a rise in the proportion of foreign-currency denominated debt was also evident. The proportion of foreign-currency denominated securities (private and public) in total portfolio investments increased from 23.9% in 1991 to 28.3% in 1992 and to 37.3% in 1993 (Capital Account of Mexico in: Carstens and Schwartz 1998). Around 30% of liabilities of the banking sector and 30% of loans granted by the Mexican banks to local business were denominated in foreign currency (Table 3). Nearly 25% of foreign-currency denominated loans were allocated to enterprises and individuals that had no foreign-currency denominated revenue (Cypher 1996). Consequently, the ratio of foreign-currency denominated debt to the local-currency denominated debt of public and private borrowers increased from 0.8 in 1989 to 1.05 in 1990, 1.45 in 1991, 1.40 in 1992 and 1.35 in 1993 (Cruz et al. 2006).

13 The dynamic increase in domestic banks' indebtedness was facilitated by abovementioned initiation of a privatization process by president Salinas in 1991-1992 when 18 domestic banks were sold. Income generated in the process of privatization of domestic banks (12.4 billion US\$) was used to replenish foreign exchange reserves and repay foreign debt (Cruz et al. 2006).

14 Measure of financial fragility (Grabel 2003).

15 The annual rate of growth of gross investments was 10.9% in 1991, 10.8% in 1992 and - 2.5% in 1993 (Cruz et al. 2006).

Table 3. Liability Structure of the Banking System

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|------|------|-------|-------|-------|-------|
| Domestic Currency (billions of dollars) | 58.4 | 75.2 | 101.2 | 122.5 | 145.1 | 166.3 |
| % of total | 56 | 63 | 66.6 | 70 | 70 | 68.7 |
| Foreign Currency (billions of dollars) | 46 | 44.2 | 51 | 53.3 | 62.5 | 75.7 |
| % of total | 44 | 37 | 33.4 | 30 | 30 | 31.3 |
| | | | | | | |

Notes: 1989-1993 figures are for the month of December; 1994 is for the month of October.

Source: Sachs et al. (1995).

In order to reach a complete estimation of the level of Mexican financial fragility, we must now, reveal where the bulk of this dynamic capital inflow went. It is a textbook rule that if the bulk of capital inflow goes into productive capital investment, capable of generating foreign exchange income in the future, a current account deficit¹⁶ is sustainable and, in general, the perils of suffering a speculative attack subside.

It is indicative enough that the proportion of industry generated income fell from 22% in 1980 to 20% of GDP in 1993, and that from 1991-1994 Mexican exports decreased by 15%. On the other hand, in the same period the share of income generated in the financial and real-estate sector increased from 8.6% to 14.9% of GDP (Cypher 1996). The share in profits and interest income of the tradable goods sector in the total profits and interest income decreased from 25.1% in 1988 to 13.8% in 1994, whereas the share of the non-tradable goods sector increased from 31.4% to 36% in the same period (Ros 2001). Further, in 1989-1992 the combined value of the Mexican corporate stocks soared from 11% to roughly 50% of GDP (Cypher 1996). Also, after it had experienced a sharp fall in value in the first half of 1993 (near 20%), the Mexican stock index, increased by roughly 60% before the end of the year (Mishkin 1996). It is also important to note that in the 1989-1994 period, the general price level increased by a factor 3.6 while in the same period the price index of urban land in Mexico increased 17.6 times (Carstens and Schwartz 1998).

¹⁶ In 1992 and 1993 the current account deficit reached 6.7% and 5.8% of GDP respectively (World Development Indicators).

Therefore, we may safely conclude that only a minor part of the capital inflow was directed to the expansion of productive capital capacities. What is more, the bulk of feverish capital inflow went into speculative portfolio investments, the real-estate sector (highly speculative investment in office buildings and shopping centers) and consumer spending. For example, in the 1988–1994 period, credit directed into consumer durable goods was increasing 67% annually, credit card lending 31% and mortgage loans 47% (*Ibid*). Hence, the share of household credit in total credit increased from 9.6% in December 1989 to 26.7% in November 1994 (Ros 2001). In parallel, bank profits, mainly generated by financial alchemy, rose dramatically.¹⁷ As a result, “...there can be little doubt that the financial sector was draining the industrial sector of the Mexican economy of its ability to expand its productive base.” (Cypher 1996, 455). Not surprisingly, the proportion of non-performing loans in total bank loans surged from 3% in 1990 to 7% in 1993.

The other side of the coin of an expanding credit and financial sector was reflected in accumulation imbalances at the macroeconomic level. As can be seen from Table 2, in the 1988–1994 period, the rate of economic growth was well below the growth rate of total capital inflows.¹⁸ Output grew at a moderate annual rate of 3.3%, not much ahead of population growth (1.8% annually). On the other hand, in the period up to March 1994, reserves of foreign exchange grew, the real exchange rate continuously appreciated, and the current account deficit widened (Table 4).

Being fully committed to a crawling-peg exchange-rate regime and accordingly to preventing nominal appreciation of the peso, massive capital inflows ended up in foreign exchange reserves.¹⁹ On the other hand, in order to tame inflation and prevent real exchange rate appreciation of the peso and thus deterioration of competitiveness of the Mexican economy, the central bank continually sterilized capital inflows by selling peso-denominated (*Cetes*) and dollar-denominated (*Tesobonos*) short-term bonds in excess of the current account deficit, mainly to

17 Bank profits soared from 1.3 billion US\$ in 1991 to 1.9 billion US\$ in 1992 and to 2.7 billion US\$ in 1993 (Cypher 1996).

18 Annual average growth of capital inflows in the 1988–1994 period was 58.8%.

19 The nominal exchange rate is the rate at which one can trade the currency of one country for the currency of another. The real exchange rate is the nominal exchange rate adjusted for relative prices among the countries under consideration.

foreigners.²⁰ However, in this way a vicious circle had been created: continual sterilization of capital inflows drove up local interest rates which further stimulated arbitrageurs to “make on the carry”, leading in turn to ever-increasing public debt, interest rates and consequently, further deterioration of the current account deficit (Tables 1 and 4)

Table 4. Selected Macroeconomic Variables and the Components of Domestic Debt

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|-------------------------------------|--------|--------|--------|--------|--------|-------|
| Current account (% of GDP) | -2.6 | -2.8 | -4.7 | -6.7 | -5.8 | -7 |
| Reserves (billions of dollars) | 8.82 | 10.168 | 17.547 | 18.544 | 24.573 | 6.148 |
| Real exchange rate index (1988=100) | 94.6 | 89.9 | 82 | 75 | 70.8 | 73.6 |
| Cetes (billions of dollars) | 20.473 | 24.445 | 23.567 | 19.047 | 26.084 | 7.456 |
| Bondes (billions of dollars) | 21.082 | 21.903 | 18.871 | 11.827 | 5.485 | 1.562 |
| Ajustabonos (billions of dollars) | 1.221 | 4.859 | 12.696 | 11.642 | 10.849 | 5.371 |
| Tesobonos (billions of dollars) | 0.075 | 0.408 | 0.302 | 0.296 | 1.237 | 17.78 |

Note: Decrease of real exchange rate index denotes appreciation.

Sources: Sachs et al. (1995) and World Development Indicators (World Bank).

As can be seen from Table 5, the cause of widening the current account deficit lies in a decrease in domestic savings from 19.4% to 15.6% of GDP between 1988 and 1994 due to high private consumption which rose from 69.4% to 71% of GDP on the one hand and to an simultaneous increase in overall investment activity from 20.4 to 23.6% of GDP on the other hand. In other words, sources of increase in GDP were grounded in the explosion in private consumption facilitated by massive capital inflow and aggressive loan pushing by commercial banks and dynamic investment activity mainly in non-tradable sectors like construction and real estate.²¹

²⁰ The immediate consequence of massive capital inflows is a sharp rise in demand for local currency. In order to prevent nominal exchange rate appreciation, central banks intervene in the foreign exchange market, i.e. buy foreign currency and sell local currency, which, in the final instance, leads to a rise in the money supply and foreign exchange reserves. However, in order to prevent inflation driven by such a rise in the money supply, central banks often conduct a process of sterilized foreign exchange operation in money markets. For example, by selling repos, the central bank withdraws domestic currency from circulation and in such a way as to leave the monetary base and money supply intact. In that way, quasi fiscal costs simultaneously increase with the country's foreign exchange reserves.

²¹ Private gross investments increased from 14.2% to 16.6% of GDP in the period between 1988 and 1994 (Sachs et al. 1995).

Table 5. Components of the Mexican Gross Domestic Product (as % of GDP, current prices)

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|------------------------|------|------|------|------|------|------|------|
| GDP | 100 | 100 | 100 | 100 | 100 | 10 | 100 |
| Private Consumption | 69.4 | 70.3 | 70.9 | 71.8 | 72.2 | 71.5 | 71 |
| Government Consumption | 8.6 | 8.5 | 8.4 | 9 | 10.1 | 10.8 | 11.3 |
| Total Investment | 20.4 | 21.3 | 21.9 | 22.4 | 23.3 | 22 | 23.6 |
| Private investment | 14.2 | 13.3 | 13.7 | 14.9 | 16.6 | 16.2 | 16.6 |
| Public Investment | 5 | 4.8 | 4.9 | 4.6 | 4.2 | 4.2 | 4.5 |
| Change in inventories | 1.2 | 3.2 | 3.3 | 2.9 | 2.5 | 1.6 | 2.5 |
| Trade balance | 1.5 | -0.2 | -0.9 | -3.2 | -5.5 | -4.3 | -5.8 |

Source: Sachs et al. (1995).

Be this as it may, 1994 began badly for Mexico. Events that signaled growing political instability coupled with accumulated financial fragility resulted in an abrupt change in market sentiment. Armed rebellion in the rural state of Chiapas in January that brought to light ever rising inequality in income distribution,²² the decision of the U.S. Federal Reserve Board to increase interest rates in February²³ and the assassination of Donaldo Colosio, the Western-oriented presidential candidate in March pushed the system over the brink into financial instability. Excessive optimism reversed, and the accumulated financial difficulties came to the surface. Doubt in the ability of the Mexican authorities to sustain a pegged foreign exchange rate led foreign investors and wealthy Mexicans to launch a massive escape from the peso and peso-denominated assets. In the next three months, the Mexican government lost approximately 10 billion US\$ of foreign exchange reserves. In order to stop depletion of foreign exchange reserves and preserve or attract new capital inflows, the Mexican authorities increased the nominal interest rate on *Cetes* bonds from 11.97% in March to 16.45% in April (Sachs et al. 1995).²⁴ However, in fear of widespread bankruptcies of over-indebted banks, corporations and households, the Mexican government opted for preventing a further increase in interest rates. In parallel, the risk premium on peso-denominated assets

22 In the period between 1984-1992, share of 10% wealthiest and the most powerful Mexicans in total income increased from 32.8% to 38.2% (not taking into account income generated by their capital invested in developed countries). Cypher (1996).

23 Which opened possibility of reversing direction of carry trade.

68 24 Constrained policy autonomy *ex post* (Gabel 1996b).

skyrocketed. Consequently, massive capital outflow took place. Short of foreign capital, and in an attempt to resist an increase in interest rates, the Central Bank expanded domestic credit, i.e. started to buy the short-term liabilities of the private sector at interest rates below those demanded by international financiers and the dollar-indexed short-term debt of the government (*Tesobonos*). On the other hand, private borrowers used their pesos to buy dollars from the Central Bank thus additionally contributing to a precipitous fall in reserves and further widening of the current account deficit.

At the same time, aiming at replenishing reserves and slowing down the sale of dollars, the Mexican government propelled conversion of peso denominated short-term government debt (*Cetes*), peso-denominated long-term bonds (*Bondes*) and the peso-denominated inflation-indexed long-term bonds (*Ajustabonos*) into dollar-indexed short-term bonds (*Tesobonos*). In this way it seemed that investors had freed themselves of currency risk and, on the other side, the central bank borrowed funds at rates which were substantially lower than peso interest rates (Table 1). (Pettis 2001). As a result, the hemorrhaging of foreign exchange reserves temporary stopped in June, and the proportion of foreign-currency denominated debt in total debt rose sharply, which significantly increased the risks of possible sharp currency depreciation. In addition, it significantly increased the proportion of short-term debts in total debts.²⁵ As a result, a large proportion of debt was due the very next year. By November, the issuance of *Tesobonos* soared (Table 4). Consequently, as Minsky argued, as credit expands, the quality of credit declines and the system becomes progressively illiquid.

As soon as investors became aware that over-indebted business subjects, households and government, exposed to severe currency depreciation and interest rate risks, had actually been illiquid, they refused to roll over peso and dollar-denominated debt and rushed for the exit. Consequently, investor's fears of a market collapse ensured its realization (Grabel 1996a). Currency attacks began in November and finally on 22 December, the Central Bank gave up fixing the peso. From a February peak of 29 billion US\$, reserves dropped to 6 billion US\$ at the end of the year. In only two days (20-22 December), the Mexican authorities spent nearly 4 billion US\$ in a futile attempt to defend the peso. At the end of December, the ratio of the value of *Tesobonos* to foreign exchange reserves was nearly 3

²⁵ Average maturity of government bonds decreased from 306 days in April 1994 to 206 in December 1994 (Cruz et al. 2006).

and the ratio of total public debt to foreign exchange reserves was 5.3 (Sachs et al. 1995). The ratio of foreign-currency denominated debt to local-currency denominated debt reached 2.20 and the ratio of short-term debt to long-term debt reached 3.15. The ratio of foreign exchange international reserves to private and public foreign-currency denominated debt was 0.06 (Cruz et al. 2006). Simultaneously, the stock exchange fell nearly 30% from a September 1994 peak to the end of December (Mishkin 1996). In an attempt to regain investor confidence after the sharp currency depreciation had taken place, the Mexican Government increased annual interest rates on *Cetes* from 17% in December 1994 to near 40% in January 1995. As we would expect, a combination of overly pessimistic investors and sharp currency depreciation coupled with a rise in interest rates (domination of *Ponzi* units) activated a downward spiral. The system was in free fall. By April 1995, the Mexican stock exchange fell another 30% in peso terms and 65% in dollar terms (Mishkin 1996). In December 1994, the peso devaluated 40% (Grabel 1996a). By March 1995, in relation to its January 1994 value, the peso devaluated 82.9% with respect to the dollar (Cruz et al. 2006). The proportion of non-performing loans in total bank loans increased from 8.7% in 1994 to nearly 17% in 1995 (Mishkin 1996).²⁶ Furthermore, the level of non-performing loans was substantially underestimated due to the lax Mexican in comparison to U.S. accounting principles.²⁷

Panic spread to the rest of the world and particularly Latin American markets (the “tequila effect”). Economic growth, gross capital investment and consumption slumped,²⁸ a large number of workers were fired²⁹ and thousands of business entities went bankrupt (Krugman 2000). No less important, already dismal prospects were further deepened by the implementation of restrictive monetary

26 By international standards, a banking sector with overdue loans amounting to 4% of total bank loans is considered to be extremely fragile and risky (Cypher 1996).

27 Instead of the complete value of the loan (principal and interest), in the Mexican accounting standards only unpaid dues after 90 days were registered as non-performing. According to Salomon Brothers estimation (using U.S. accounting principles) the share of non-performing loans in total loans was between 30 and 40% or equivalently reached amount between 8 and 11% of GDP (Carstens and Schwartz 1998; Cypher 1996).

28 Economic growth in 1995 turned out to be negative (-6.5%), as well as gross capital investments (-29%) and consumption (- 8.4%). (Cruz et al. 2006).

29 Urban unemployment increased from 3.7% in 1994 to 6.2% in 1995 (Ros 2001). What is more, it is an astonishing fact that in early 1995 30-40% of population received minimum wages (worth only 35% of their 1978 level). Not surprisingly, in 1995 consumption and aggregate demand in general, were negative (Cypher 1996).

and fiscal policy that came in the package with the U.S. led financial support aiming at bailing-out foreign investors and socializing banks' losses.³⁰

Conclusion: Lessons to be Learned

The Mexican financial crisis in 1994 reminded us once again that self-regulated markets are not an optimal tool for rational and productive allocation of scant resources, and in the event of instability, mechanisms that will restore equilibrium, at least in the long run, will not be activated automatically. The mainstream recommendation of zealously enforced market-led policies as a universal prescription for macroeconomic stability and an essential tool in amortization of exogenous shocks has proved wrong. Foreign capital does not respond to properly implemented macroeconomic market oriented policies, i.e. improved economic conditions do not precede investment inflows as we have been taught to believe. In truth, as real world experience suggests, liquidity expansion in rich countries launches massive capital movements towards the developing world. Therefore, movements of capital towards developing countries are exogenous, i.e. the actions of developing countries do not influence the movements of international capital, which are the result of liquidity changes in the developed world. Not less important, the Mexican peso crisis, as well as numerous recent financial crises in emerging markets, unambiguously showed that causes of instability did not lie in weak macroeconomic fundamentals or political uncertainty but in persistent and severe external deficits, i.e. excessive indebtedness and unfavourable structure of the debt (Pettis 2003).³¹

Therefore, it is of crucial importance to control the increase in external debt in the first place and in the second to minimize the share of short-term debt or floating-rate debt and debt denominated in hard currency in the total debt as far as possible. There is no universal recommendation for the level of sustainable sovereign indebtedness. It depends on the earning power of the economy which is determined by its economic diversity (economies of scale, technological innovations, synergies) and the sensitivity of its economy to global business cycles. More

30 A 50 billion US\$ credit line was provided by the U.S. Treasury, the International Monetary Fund, the World Bank, the Bank of Canada, the Bank for International Settlements and the InterAmerican Bank (Carstens and Schwartz 1998; Cypher 1996).

31 Weak macroeconomic fundamentals and political instability are neither a necessary nor a sufficient conditions to explain financial crises in emerging markets.

productive, efficient industrialized economies with developed labour division have greater potential for leverage than less diversified economies specialized in low-added value products, sensitive to changes in the global business climate.³² What also matters is the debt structure. An inverted capital structure amplifies the intensity of external shock so that debt obligations balloon in the short run, whereas, in parallel, due to the dramatic increase in uncertainty, the revenues of business units enter free fall.³³ If local private business and government debt is short-term debt denominated in foreign or local currency, local currency depreciation and increase in interest rates will sharply increase the burden of debt in the short run and local business units will, in an attempt to meet their debt obligations, push strongly to exchange revenues and proceeds by selling assets for foreign currency thereby causing further decreases in the price of assets and the value of local currency. This situation leads indebted units into bankruptcy in the short run. On the other hand, in the event of a correlated capital structure, i.e. medium and long-term debt, denominated in local currency, sharp depreciations of the foreign exchange rate and ensuing inflation work to the benefit of the indebted unit, since inflation simultaneously erodes the burden of debt and nominally, in local currency terms, increases the revenues of non-tradable and tradable sectors. No less important, a weaker currency increases the competitiveness of the tradable sector in international markets. Also, a sharp rise in interest rates will not increase the debt burden, since interest rates in long-term contracts are locked in for several years (Pettis 2001).

In this sense, one of the options for minimizing the negative impacts of external shocks can be a return to capital controls. Capital controls put in place during the 1960s successfully prevented massive inflows or outflows of short-term foreign currency investments. They might prove to be an efficient policy option in

32 The country is excessively indebted when its debt trades at high credit spread which hampers new investments and the potential for rising new debt (Pettis 2003).

33 Dominant share of short-term or floating-rate debt and/or debt denominated in hard currency in total debts are examples of inverted liability structures at the sovereign level.

fighting liquidity mismatch – financing of local assets with hot money.^{34 35} Also, capital controls are capable of preventing financial contagion which is the consequence of mechanically implementing trading strategies of buying in rising and selling in declining markets.³⁶

Measures of capital controls include reserve requirements on banks' liabilities, the Tobin tax such as the taxes on short-term foreign exchange operations that were recently implemented by Brazil and Taiwan, and the outright prohibition or limitation of capital flows.³⁷ Recently, even the IMF, known as a fierce enemy of capital controls in the past, recognized that developing countries have to stand ready and use all available tools and even keep an open mind concerning capital controls, in order to stem unproductive and disruptive capital inflows, which exacerbate boom and bust cycles (Belka 2010). Kalantzis (2004) believes that the productivity gains stemming from capital inflows are the most important predictor of a future balance of payment crisis in an economy suffering from a surge in capital inflows. This implies that policy makers should assess most carefully the productivity gains to be had from any investments, especially in the non-tradable sector, and approve or support the foreign financed investment only if the productivity gain is large.

Necessary measures to reduce the credit denominated in foreign currency encompass long-standing and credible long-term policies such as the preference of public borrowing in local currencies, encouragement of foreign owned banks to borrow and lend in the local currency, deepening of the local capital market with the focus on bonds and strict bank supervision regarding foreign currency exposure and foreign currency lending to the non-tradable sector.³⁸ It is also de-

34 Hot money flows across national boundaries in search for speculative gains, precautionary purposes, shield from tax collectors and laundering illegal earnings (Davidson 1999).

35 On the other hand, Edwards (2004) finds very little proof of its efficacy since agents find ways to circumvent the restrictions, while the authorities might become too confident about restrictions and implement riskier policies than justified.

36 Margin buying, portfolio insurance, derivative contracts (Pettis 2003).

37 For the opposite opinion on potential effectiveness of the Tobin tax see Davidson (1999).

38 However, some authors claim that credible policies are not sufficient. Eichengreen et al. (2003) describe the phenomenon of "original sin", i.e. the inability of emerging and developing countries, but also developed but small economies to borrow in their own currency either on domestic or international financial markets. The main reason why

sirable to encourage large multinational corporations and international financial institutions to borrow or issue bonds denominated in emerging and developing market currencies in order to enlarge international holdings of such currencies. Borrowings or bond issues of this kind are not unheard off, and do occur from time to time.

Stronger banking sectors, which can be achieved through stronger bank supervision, would certainly enable policy makers to conduct more aggressive measures when speculations against the local currency arise. Tight bank supervision is very important before the onset of crisis, since it will help reduce the vulnerability of the country in terms of risk mismanagement, balance sheet and currency mismatches and excessive credit growth. High capital adequacy requirements, high risk weights for foreign currency denominated loans, a high provisioning requirement and debt-to-service ratios are probably the best choices for building a relatively safe and sound banking system.

Reliance on equity and direct investments instead of borrowing from abroad is one of the most important tools for policy makers in a developing country, provided they want to secure sustainable capital movements. In this case, the probability of a default is much lower, as investors accept their share of the burden in bearing whatever problems the economy is facing. Since dividends certainly do depend on the profitability of the investments, unlike interest and principle payments, capital outflows during the economic downturn will be much lower than in the case of foreign borrowings. The best reference for investors to engage in foreign direct investments and purchasing of stocks is a stable and growing economy with low interest rates and consequently high present value of corporate profits and a strong and stable currency.

Last but not least, we must never forget, as Minsky warned, that crisis prevention is never-ending job and requires as much as possible, timely updating of market regulation rules and regulating practices: "In a world of businessmen and financial intermediaries who aggressively seek profit, innovators will always outpace regulators; the authorities cannot prevent changes in the structure of port-

they cannot borrow in their own currency, at least in the sufficiently large amounts and with long maturities, is their small economic size, which fundamentally diminishes their attractiveness as a means of diversification. By comparing countries like South Korea and Chile with Indonesia or Venezuela, these authors find that credible and sustainable fiscal and monetary policies, the quality of institutions and the rule of law, have little, if any explanatory power of this phenomenon.

folios from occurring. What they can do is keep the asset-equity ratio of banks within bounds by setting equity absorption ratios for various types of assets. If the authorities constrain banks and are aware of the activities of fringe banks and other financial institutions, they are in a better position to attenuate the disruptive expansionary tendencies of our economy.” (Minsky 1986, 281).

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International Monetary Fund, World Economic Outlook Database, <http://www.imf.org/>
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Rezime:

Dve dekade kasnije: Važne Minskijanske lekcije iz Meksičke pezo krize

U radu analiziramo finansijsku krizu koja je pogodila Meksiko 1994. godine u pokušaju da ustanovimo zajedničke korene i obrasce finansijskih kriza na brzorastućim tržištima. Po našem mišljenju, ortodoksni ekonomisti nisu u stanju da ponude zadovoljavajuće objašnjenje uzroka finansijskih kriza u zemljama u razvoju. Sa druge strane, Minskijanski model likvidnosti kojim se objašnjava međunarodno kretanje kapitala od razvijenih ka zemljama u razvoju i njegova Hipoteza finansijske nestabilnosti prilagođena slučaju zemlje u razvoju nam govore da ekspanzija likvidnosti u razvijenom svetu i posledični kapitalni priliv u plitka finansijska tržišta zemalja u razvoju proizvodi pozitivne efekte samo u kratkom roku. U srednjem roku, ukoliko se eksterno zaduživanje lokalnih tržišnih učesnika ne ograničava i kontroliše, devastirajuća epizoda deflacije dugova može postati realnost.

Ključne reči: finansijske krize, brzorastuća tržišta, Meksiko, Minsky, Hipoteza finansijske nestabilnosti, dugovi

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