

The Structural Problem of Latin American Financial Crises

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1. Foreword¹

Monetary crises have spread from one country to another in recent years: to China at the beginning of 1994, to Mexico at the end of the year, to Thailand in the summer of 1997 followed by Indonesia, South Korea, then Russia in 1998, and Brazil in January 1999.

Through different analyses, arguments have been made about the reasons why monetary crises occur so frequently as well as their proposed remedies. The arguments have covered a variety of areas: foreign exchange rate policies of the countries facing currency crisis (problem countries), their fiscal and monetary

¹ This paper was first introduced at the National Annual Convention of The Japan Society of International Economics (JSIE) held at Osaka Sangyo University on October 24, 1999, and some adjustments have been made since then. The author thanks Professor Nishijima of Kobe University who chaired the discussion, Professor Saito of Surugadai University, Professor Mizuno of Sophia University, Professor Naito of Nagoya Bunri University, Associate Professor Kurihara of Fukuoka International University and Professor Agoh of Seinan Gakuin University for their invaluable suggestions and recommendations. The author also likes to thank Mr. Kobayashi, director of Tokyo Research International, who generously benefited with his expertise from the earliest stage. However, any misunderstandings or misinterpretation are solely the responsibility of the author and the views expressed in the paper are those of the author and don't reflect necessarily the positions of the institute.

policies and the related macro - economic policies², their banking sector, the extent of foreign capital liberalization, functions of and measures prescribed by international financial institutions.

These arguments can be divided into two schools. One school attributes the cause to the fundamentals of the problem countries, while the other school, though taking the fundamentals into account, the self-fulfilling speculative activities in the markets are put emphasis on as the main cause.

The World Bank compiles the scale of the external debt problem of the developing countries including Latin American countries, and foreign capital flows in Global Development Finance (GDF) each year. The World Bank GDF 1999 uses two main debt indicators. One indicator uses exports as the base figure, as exports are the source of foreign currency income. It compares the amount of principal and interest payment, i.e. debt service, and external debt balance to exports (export ratio). The other indicator uses the Gross National Product (GNP), which is the aggregate of income, as the basis and compares debt service and external debt balance to GNP (GNP ratio). (see: Appendix 1 of Analysis and Summary Tables on p.99 of World Bank GDF)

This paper will first evaluate the external debt balance of the problem countries by applying the export ratio and GNP ratio traditionally used by the World Bank, and then analyze capital flows by using the World Bank Aggregate Net Resource Flows and Net Transfers.

I stand on the premise that fundamentals were the key cause of financial crises in the problem countries, and question the methodology of the World Bank. I therefore would like to suggest a different method of analysis of the cash flow of foreign currency resources from the ones used by the World Bank. This is aimed at highlighting the tightness of foreign currency liquidity, which was the shared, direct cause of the monetary crisis in all problem countries. In the course of the analysis, I will reveal the extent of the tight foreign currency cash flow in major Latin American problem countries and will blame it for the monetary crises.

2. Questioning the External Debt and Resource Flow Analysis

First I would like to review the external debt balance and capital flows of the developing countries based on the figures used in the World Bank GDF.

(1) Increasing Trend of External Debt

The External Debt Total (EDT) of developing countries at the end of 1998 was 2 trillion 465.1 billion dollars, an increase of four times compared with the end of 1980 (609.5 billion dollars). EDT had increased 1.6 times (by 903.8 billion dollars)

² This includes the debate on the "impossible (irreconcilable) trinity" which states that it is impossible for foreign exchange policy, financial policy and foreign resource flow to have independent freedom simultaneously.

in the seven years between the end of 1991 (1 trillion 561.3 billion dollars) and the end of 1998.

Table 1: External Debt Total of Developing Countries by Region

(billion dollars)

	1980	1991	1994	1995	1996	1997	1998
All develop. countries	609.5	1,561.3	1,993.6	2,162.6	2,238.4	2,316.6	2,465.1
Latin Am.& Caribb.	257.3	492.4	592.6	647.9	669.2	703.7	735.8
East Asia & Pacific	94.1	322.1	484.7	559.8	607.0	654.6	697.8
Europe & Central Asia	75.5	239.7	326.5	352.8	372.7	390.6	435.4
Middle East North Afric	83.8	187.0	208.0	211.0	204.4	193.4	205.8

(source : Global Development Finance Country Table 1999)

**Only selected regions are quoted in this table and the figures do not add up to the total for all developing countries.

As seen in table 1, the only instances where external debt had decreased were in the Middle East/North African countries at the end of 1996 and 1997. But for these exceptions, EDT of developing countries shows a constant increase without any indication of a reverse trend, and, I must say, is looming large.

Table 2 : External Debt (Medium and Long-term) of Major Debtor Countries of the World

rank	country	1997 year end	rank	country	1997 year end
1	Brazil	157.6 billion dollars	6	Indonesia	1,193
2	South Korea	161.7	7	Thailand	1,130
3	China	155.1	8	Argentina	1,010
4	Mexico	140.8	9	India	969
5	Russia	118.0	10	Turkey	708

(source : OECD External Debt Statistics 1998 Table A p.9)

**Countries are ranked in order of EDT including short-term debts.

**Latin American countries are in bold

Table 2 shows the EDT of individual developing countries. The top seven countries have experienced one sort of monetary crisis or another since 1994. I believe this suggests that there is an inter - relationship between EDT and currency crises.³

(2) Questionable Debt Sustainability Analysis based on GNP and Exports

The GNP of developing countries had increased 1.5 times between 1991 and 1998, from 4 trillion 383.1 billion dollars to 6 trillion 600.9 billion dollars (Table 3). Consequently, EDT/GNP percentage, the ratio between External Debt Total and Gross National Product had barely changed from 35.6% in 1991 to 37.3 % in 1998 (Table 4).

³ It is well known that there are serious questions as to whether it is possible to continue the fixed exchange rate system (1 dollar = 1 Peso) which was applied in April 1991 in Argentina, ranked at 8th in this table.

Table 3: The GNP of All Developing Countries and Latin America (trillion dollars)

	1980	1991	1994	1995	1996	1997	1998
all developing countries	2.901	4.383	4.986	5.657	6.259	6.635	6.601
Latin America	0.740	1.116	1.553	1.632	1.779	1.963	1.994

(source: World Bank Global Development Finance, Country Table)

On the other hand, when we compare the EDT to the exports of goods and services (XGS), exports had increased from 955.0 billion dollars in 1991 to 1 trillion 685.5 billion dollars in 1998, an increase of 1.8 times. As mentioned above, the EDT had increased 1.5 times in the same period so EDT/XGS percentage had improved from 163.5 to 146.2 (Table 4).

Debt service to exports ratio had improved from 1991 to 1995, but has slightly deteriorated since.

Table 4: Debt Indicators (All Developing Countries, %)

	1980	1991	1994	1995	1996	1997	1998
EDT/GNP	21.0	35.6	40.0	38.2	35.8	34.9	37.3
EDT/XGS	85.3	163.5	161.2	142.7	133.4	129.0	146.2
TDS/XGS	13.1	17.0	16.1	16.0	16.6	17.0	17.6

(source: World Bank Global Development Finance, p.14 All Developing Countries)

The World Bank uses debt service as the standard to judge the sustainability of debt. In using these figures, we must take note that even when debt service increases, if exports increase at the same rate or more, the debt service to exports ratio will remain the same or improve and there will be no evidence of the debt balance worsening.

Table 5 shows the exports and import figures of Latin American countries. As shown in the table, in these countries imports increase following the increase of exports, and figures will either balance or will fall in the red. This shows that although exports are the key source of foreign currency inflow, foreign currency gained by exports is used to pay for imports which are indispensable for economic activities, and there are no foreign currencies left for external debt payment.

Table 5: Exports and Import Balance of Latin American Countries (trillion dollars)

	1970	1980	1991	1992	1993	1994	1995	1996	1997	1998
export (XGS)	19.1	127.4	188.4	201.5	218.0	2.53.9	303.7	333.8	368.5	363.4
import (MGS)	22.7	158.5	210.9	240.7	267.2	308.2	322.1	374.6	437.5	456.3
trade balance	-3.8	-31.1	-22.5	-39.2	-49.5	-54.3	-18.4	-40.	-69.0	-92.9

(source:WB Global Development Finance 1999 p.26)

In the 1999 World Bank GDF, indebted countries are divided into three categories. Countries whose debt service to GNP ratio exceeds 80 % or whose debt service to exports ratio exceeds 220 % are categorized as severely (or heavily) indebted. Below this category are two other categories; moderately indebted and

less indebted. Countries whose debt service to GNP ratio is more than 48% and debt service to exports ratio is more than 132%, in other words countries with ratios which are within 3/5 of the criteria for severely indebted countries, are labeled as moderately indebted. Those countries below these ratios come under the category of less indebted. Both ratios must be jointly below 3/5 to be labeled less indebted.

But I would like to question the rationale of classifying those countries with debt service to GNP ratio above 80% or debt service to exports ratio above 220% as severely indebted and then distinguishing the moderately from less indebted at the ratio 3/5 of severely indebted countries. Even more questionable is labeling those countries with debt service to GNP ratio less than 48% and debt service to exports ratio of less than 132% as less indebted. I am afraid that the World Bank's traditional review of its standard tends to favor the status quo or benign neglect and lacks credibility⁴.

Table 6: Indebtedness Classification Criteria (Debt Sustainability Analysis)

	Less indebted	Moderately indebted	Severely Indebted
PV/GNP	Less than 48%	48% (3/5) ~	80% ~
PV/XGS	Less than 132%	132% (3/5) ~	220% ~
Latin Am.	Mexico	Chile, Colombia	Argentina, Brazil

(source:Global Development Finance 1999 Analysis and Summary Tables p.99)

**PV indicates the outstanding value of debt service

(3) Questioning the Resource Flow Analysis

Let us now move on to the capital flows of developing countries. Capital flows can be divided into two definitions. Roughly speaking, the first is net transfers on debts which include long and short - term loans and flows resulting from their principal and interest payments, and second, aggregate net transfers, which are calculated by adding investment (direct and securities) to net transfers on debts. Those definitions can be described by the following formulas.

Net transfers on debts (1) – (2) (= (3)) – (4) = (5)

Aggregate net transfers (3) + (6) (= (7)) – (8) = (9)

**Net resource flows on debt (3) for net transfers on debts include short-term loans, but net resource flows on debt for aggregate net transfers include only medium to long - term loans and not short-term loans.

⁴ According to Professor Teranishi (1995, p.137), the World Debt Table of 1993 uses four, not two, criteria for a severely indebted country. First is that its external debt balance is more than 30% of its GNP, second that its external debt balance is more than 165% of its exports, third that debt service is more than 18% of exports and fourth that interest payment is more than 12% of exports. Countries which matched 3 out of these four criteria were labeled severely indebted. When we compare this standard to the current one we can see how much the standard has been eased.

Figure 1: Aggregate net resource flows and net transfers (long - term) to developing countries



(source: World Bank Global Development Finance Summary Tables, p.xxi)

By using the Summary Debt Data of the World Bank GDF, let us review the resource flows of developing countries for the year 1998. Aggregate net resource flow was 275.0 billion dollars, consisting of 82.9 billion dollars of long - term debt (i.e. net resource flows on debt), 155.0 billion dollars of FDI, 14.1 billion dollars of portfolio, and 23 billion dollars of official grants.

Table 7 shows the final figures for the two transfer definitions of resource flows. It shows that aggregate net transfers added up to be positive but figures fluctuate remarkably from year to year. Investment has come to play the major role, in place of loans, as the source of inflow since the beginning of 1990s. Other statistics from the World Bank show that the private sector has come to contribute more than 80% of total resources.

Table 7: Resource Flows of Developing Countries (in \$100 million)

	1980	1991	1994	1995	1996	1997	1998
(5) Net transfers on debt	622	-12	317	577	290	454	-165
(9) Aggregate net transfers	263	500	1,375	4,506	1,960	2,219	1,454

(source: World Bank Global Development Finance 1999)

Analysis of resources by the World Bank well grasps the characteristics mentioned above, but has the following shortcomings.

First is the fact that loan disbursements of long - term borrowings serve as the starting basis of cash flow calculation, or liquidity management starts with borrowed money. Also, the flow of short - term borrowing, which accounts for about 20% of the debt balance of developing countries, is not taken into account. In the present method only the net balance of in and out - flows of short - term borrowing is included (this is included in (3) net resource flows on debt in the net transfers on debts of figure 1) However, the share of short - term funds in the total balance is as large as about 20% and should be stressed again as regards cash flow. Realized borrowing, i.e. inflow, and repayment, i.e. outflow, should be taken into account separately. We took lessons from recent crises that abrupt reversal flows were largely of short - term.

The second major problem with this analysis is that although the figures adequately show the net in - and outflow of cash, both in net transfers on debt and aggregate net transfers, it is difficult to identify at first glance, outflow and inflow

components. The third is an absence of trade balance one of the key elements to assess foreign currency cash flow. It is critical to have a more detailed understanding of inflows and outflows, especially of Latin American countries which have a strong tendency to depend on foreign currency resources and to lack liquidity.

3. Introducing a New Model (TFN) Based on Foreign Currency Cash Flow

As I have already pointed out, in analyzing the increase of EDT, debt service ratio will not worsen as long as there is an increase of exports or GNP at the same time as an increase of debt service, and assessment of the debt situation will not change with the diagnosis saying "no change". But exports serve only as an invaluable source of foreign currency income and does not mean a foreign currency surplus, resulted from foreign currency cash flow. Further, GNP indicates the size of the country's economy expressed in its currency and, although it may be a convenient scale to compare with other countries, it is questionable whether it serves as a standard to evaluate the sustainability of external debt of a country.

Based on the fact that all currency crises are ignited by shortage of foreign currency liquidity, I would like to introduce a new analysis formula of sustainability of external debt and resource flows, which places emphasis on the foreign currency cash flow. The formula takes into account the fact that Latin American countries depend heavily on foreign currency resources, and first calculates the amount of total finance need, i.e. how much foreign currency resources a Latin American country needs for one year, and then reviews how that resources can be obtained. The figures I quote hereafter are those released by the World Bank.

In my definition of the "Total Finance Need" (TFN), I include the principal payment of medium and long - term borrowings maturing within the year, interest payment of short - term as well as medium to long - term borrowings, outward remittance of profit gained from foreign direct investment, and principal repayment of short - term borrowings maturing within one year.

Also, if the current account balance is in the red, the current account deficit, excluding the interest payment and outward remittance mentioned above, will be accounted for in the TFN calculation. Using the terminology in the Summary Debt Data in the World Bank GDF, TFN will be expressed as follows.

$$\text{TFN} = (\text{Principal repayments}) + (\text{Interest payments: INT}) + (\text{Profit remittances on FDI}) \\ + (\text{Short - term debt}) + (\text{current account deficit minus interest and dividends})$$

If we review the extent in which the calculated TFN can be financed, I believe we can judge the soundness (sustainability) of foreign currency resource flow. First of all, if TFN can be completely financed by the current account surplus, this shows that external debt service can be paid within the period, and by the foreign currency held by the country. This is a sign of supreme soundness. The second case is where a country cannot cover TFN completely by its current account surplus but can do

so by using its foreign currency reserves as well. This means eating up the foreign currency surplus accumulated in the past, but still means that the country can finance its TFN by itself and its state of health can be described as fair. The last category is where TFN is larger than the current account surplus and foreign currency reserve combined. In this case, there is a gap in the foreign currency cash flow within the country, and the country must depend on new resource inflow from abroad. This situation is low soundness and prone to crisis.

Table 8: Soundness of Foreign Currency Resource Flows

soundness	TFN status/balance	diagnosis
high	$TFN < \text{current a/c surplus}$	self - sufficient within the period
fair	$TFN < \text{current a/c surplus} + \text{international reserves}$	self - sufficient but dependent on the reserves
low	$TFN > \text{current a/c surplus} + \text{international reserves}$	dependent on new inflows

**when there is a current account deficit, the amount of deficit will be added to TFN and current a/c (account) surplus on the right side will be 0.

Let me now apply the above formula to the developing countries as a whole for the year 1998. Principal repayments account for 170.8 billion dollars, interest payments (INT) 125.3 billion dollars, profit remittances on FDI 35.3 billion dollars, short - term debt 412.2 billion dollars, current account surplus excluding interest and profits 67.7 billion dollars. Foreign currency reserves were 699.1 billion dollars. Numerical expression comes out as follows.

$$\begin{aligned} \text{TFN for all developing countries in the year 1998} &= 170.8 + 125.3 + 35.3 + 412.2 \\ &= 743.6 \text{ billion dollars} \end{aligned}$$

Consequently TFN position is $743.6 < 67.7 + 699.1 (= 766.8)$ billion dollars with a cash flow surplus of 23.2 billion dollars. This comes into the second category, having fair soundness. The positive figure, I believe, can be attributed to the rapidly growing surplus of 91 billion dollars accumulated by the East Asia and Pacific region for the year 1998, which had turned its current account to a slight surplus in 1997 from a previous large deficit in 1996.

Next I would like to apply the formula to Latin American countries as a whole. Current account deficit excluding interest payment and profits was 25.9 billion dollars and foreign currency reserve was 165.1 billion dollars.

$$\begin{aligned} \text{TFN for Latin America for the year 1998} &= 77.6 + 45.4 + 127.1 + 25.9 \\ &= 291.5 \text{ billion dollars} \end{aligned}$$

TFN position for Latin America in 1998 was $291.5 > 165.1$ with a cash flow gap of 126.4 billion dollars, coming into the category of low soundness.

Next, I would like to apply this method to assess Brazil, using the figures for 1997 which are quoted in the World Bank GDF 1999. Current account deficit excluding interest payment and profits was 19.0 billion dollars and foreign currency reserve was 51.7 billion dollars.

TFN for Brazil for the year 1997=26.5+11.6+3.3+36.1+19.0=96.5 billion dollars

TFN position comes out to be $96.5 > 51.7$ with a finance gap of 44.8 billion dollars and comes into the category of low soundness.

The next example is Argentina, with current account deficit excluding interest payment and profits of 1.1 billion dollars and foreign currency reserves of 22.4 billion dollars.

TFN for Argentina for the year 1997=12.5+7.4+1.6+18.0+1.1=40.6 billion dollars

TFN position was $40.6 > 22.4$ with a finance gap of 18.2 billion dollars. Its state of soundness is low with a shortage of foreign currency resource flows.

The last example is Mexico. It had a current account surplus after excluding interest and profits payment of 5.8 billion dollars and foreign currency reserve of 28.9 billion dollars.

TFN for Mexico for the year 1997=32.2+10.2+3.0+28.5=73.9 billion dollars

TFN position for Mexico in 1997 was $73.9 > 5.8 + 28.9$ with a finance gap of 39.2 billion dollars. It was in the state of low soundness⁵, again with a shortage of external resource flow.

These major Latin American debtor countries are suffering from huge finance gaps, and, when the TFN analysis is applied, the warning state of cash flow shortage becomes even clearer. These gaps mean that it is only possible to repay external debt with new resource inflows from abroad and that these countries are in a state of eating from hand to mouth.

4. Evaluation of TFN

I have applied the TFN model to evaluate the state of health of Latin American countries foreign currency cash flow, but just how effective is this TFN model in evaluating foreign currency cash flow?

First, although the standard used for evaluation in the model does need to be studied in more detail, the model has the advantage of being able to simply use the data released in the World Bank GDF, and calculations can be made with a little reorganizing of numbers. This means that using the model will not impose a further burden on either the reporting countries or those who use the data to make evaluations.

Second, by applying this TFN model which focuses on foreign currency cash flow, the warning situation of countries like the Latin American countries, which are constantly dependent on foreign currency resources, becomes more apparent, and the inter - relationships between this situation and currency crises will become

⁵ Bank GDF 1999 categorizes Mexico as less indebted, and Brazil and Argentina as severely indebted.

more apparent. The model will also encourage a more rapid step forward like the analysis of crises and finding their policy responses.

Third, this model will provide creditors and investors with indispensable information for credit analysis. Needless to say, creditors and investors evaluate the probability of repayment before extending loans or making investments. Foreign currency cash flow is the first aspect they scrutinize in credit analysis.

Fourth, I believe applying the TFN model as a basic standard for macro economic policy management of problem countries and using the model as a surveillance standard for international financial organizations will be a direct and effective method of preventing future currency crises. If the problem countries become more accountable and release their TFN figures periodically, that will discourage the herding behavior of investors caused by asymmetric information and speculation.

Also, if this standard is used as a basis of conditionality for problem countries, it will be an effective way to avoid dealing with politically sensitive and unsatisfactory fiscal and monetary performance, chaebol, cronyism and other dozens of problems of debtor nations, and will also be an invaluable way to avoiding unnecessary friction with international financial institutions.

Admittedly, the TFN model still needs improvement, such as taking into account the inflow, not just the outflow of resources. There are several points that should be taken into account related to the inflow of resources, such as the recent steady increase of direct investment into major Latin American countries even in post - crisis period. Also, most short - term trade financing is rolled over on due date, and the loans that have a near assured possibility of extension should be deducted from TFN.

Looking at the realizability of categories included on the inflow side, principal and interest payment comes from firm commitment made in a loan agreement and is most likely to be realized. On the other hand, although short-term trade financing is likely to be renewed, but once a country risk increases, it is clear from the example of how trade financing dried up in Asia, that the roll-over of loans is not necessarily carried out smoothly. Consequently, it is the principle of debt management to take such mindful measures as to distinguish the outflow categories with a need for foreign currency and a high possibility of realization when there is a tendency to lack foreign currency resources.

5. Resource Flow and Foreign Exchange Position

(1) Dollar Short Position

By using the TFN standard to analyze the foreign currency resource positions of major Latin American countries, it was made clear that they suffer from a considerable gap of foreign resources. This indicates a situation where a country has a much larger payment to make in foreign currency than it receives in a certain

period of time. Looking at this situation from another angle, this means that there is a lack of foreign exchange, a mismatch in the foreign exchange position. This means a shortage on both sides, not just in the quantity of resources but also in the quality, i.e. foreign currency or foreign exchange.

In Latin American countries, foreign currency equals US dollars in most cases. Consequently, being short in foreign exchange means that they are in short position (oversold position) of the dollar. In corporate finance, it is a norm to adjust a foreign exchange position with forward contracts, options, swaps or futures in order to eliminate foreign exchange risks, and to be all square in the overall position.

Because public sector debts comprise about 50% of the debts of developing countries, governments would have to play a major role in foreign exchange markets if developing countries were to adjust their position in foreign exchange. Also, since most debts are super long, foreign exchange positions cannot be effectively adjusted in general market transactions. In order to take concrete measures of adjustment to such foreign exchange positions, there are the following problems, and as a result, there is no effective method of adjustment.

First of all, even if a country is adopting a flexible foreign exchange rate system, if the government carries out hedging transactions with financial institutions at a certain exchange rate this will in effect amount to intervention by the government in the foreign exchange market. If the government buys dollars extensively (selling its national currency) in order to adjust its short position on the dollar, the government would only be accelerating the depreciation of its national currency which could have a negative effect on its monetary policy.

Second, although a flexible exchange rate system is adopted in many developed countries, they often intervene in order to stabilize the markets. As a rule, interventions are coordinated internationally and such concerted moves would not necessarily be in the same direction as the certain country's intended direction, and there could easily be a conflict between the two positions.

All in all, there is no way for developed countries as a nation, and even more so for developing countries, to solve the mismatch of foreign exchange positions created largely by the external debts of developing countries. The most that can be done is for central banks and governmental institutions to act as the counterpart of the private sector in the foreign exchange market and provide a method for the private sector to adjust its mismatch in foreign exchange, this absorbing private sector's exchange risk.⁶

(2) The Difficulties of Improving Current Account Balances

If we accept that there is a limit to managing through hedging contracts, there are only three ways to adjust foreign exchange positions. The first is to aim for a balance by increasing foreign currency asset to meet the relatively large liability,

⁶ In Chile and Brazil, the central banks issue dollar linked bonds. By having the private sector acquire these bonds, the public sector took over exchange rate risk from the private

in other words to expand to equilibrium. The second is to decrease foreign currency liability, i.e. to contract to equilibrium. The third is to give up changing the amount of outstanding debt/asset and to average out debts by maturity restructuring of the concentrated debts through market operation. Hence the debtor nation will be able to maintain smooth fund raising as well as smooth repayment of debt.

In the first way, the method to increase foreign currency is, in effect, limited to increasing of exports and increasing of home transfers from workers abroad (current transfers). It takes time for such increases to occur.

In Latin America, exports have been emphasized ever since the transition from import - substitution industrialization policies to exports - oriented policies in order to acquire the foreign exchange that is lacking. Exports of goods and services from Latin America as a whole were 363.4 billion dollars in 1998, an increase of 2.9 times compared to 1980 (127.4 billion dollars) and 1.9 times compared to 1991 (188.4 billion dollars).

Although this is an achievement worth noting, it is also true that, as shown in table 5 which shows the trade balance in goods and services, the region has not achieved a trade surplus. The figures show that although exports have increased steadily, the increase in imports has always been more than matching. This means that it has not been possible to realize a foreign currency surplus, which was the ultimate objective of the export drive. This is a reason why many specialists in the area point out that Latin American countries have not yet succeeded in accomplishing a shift to an export-oriented industrial structure.

Again, we can see from this table, the limitation of using export figures when we assess external debt sustainability analysis. It is true that the type of export goods of Latin American countries has changed drastically. The export share of primary commodities has decreased markedly and that of manufactured goods has increased. Although the domestic content of their manufactured goods is on the rise, they are still dependent on imports from abroad for major parts, and this would be one of major reasons for a continuous increase in imports.

It is also worth noting that when we look at the gross domestic expenditure of the major Latin American countries, consumption accounts for a large portion, about 80%. In other words, there is an overwhelming concentration of expenditure on consumption and not on investment which will develop into subsequent production. The ratio of consumption is high even compared with developed industries.

Trade liberalization becomes increasingly significant along with global trade expansion. WTO and the developed countries are already in the final stage of trade liberalization of goods, and there is now a serious move towards negotiations for liberalization of trade in services. Latin American and other developing countries suffer from a chronic deficit in trade in services, and if such negotiations are concluded their balance of trade in goods and services will deteriorate even further. It is easily predicted that their trade deficits will increase, and that will in turn increase

current account deficits and worsen TFN figures.⁷

There are several ways to decrease liabilities that involve the outflows of foreign currency resources—cut imports, postpone the payment maturity of external debts, negotiate a lessening of interest, carry out buy-back of debt. Major Latin American countries are choosing the time when they can more favorably raise funds on the international financial markets to pursue liability (debt) management, aimed at lengthening or smoothing out debt, cost cutting and buying-back. The basic strategy is issuing longer term bonds under more favorable conditions and are using the funds thus acquired to prepay a part of costlier borrowing or to buy back bonds in the markets.

However, it is almost impossible for governments to directly cut imports when there is a global development towards trade liberalization. Such an attempt may also harm regional economic integration, a trend that has now finally begun to roll. So the conclusion is that there seems to be no effective and fundamental policy to decrease rapidly and significantly the quantity of debt within the framework of market transactions.

(3) Dollar Short Position and High Interest Rate

As we have seen, it is extremely difficult to correct a dollar short position where foreign currency liabilities is far greater than assets, and this situation affects domestically monetary policies. In the foreign currency market, private corporations with a foreign currency resource gap maintain a strong demand for foreign currency, and borrow their home currency to buy the dollar. Increased demand for home currency borrowing inflates interest rates and invites the peaking out of the home currency market rate. Domestic interest rates, especially short - term rates will become volatile as the markets keep a keen eye on foreign exchange markets, which react sensitively to changes in international markets. This tendency makes domestic markets unsuited to provide long - term investment capital for private corporations. The markets cannot be a stable and competitive source of funds for the development of their national industries, driven out of the domestic markets to the international.

Mexico moved into a flexible exchange rate regime in 1994. Many economists welcomed this decision, predicting that under this system the government or market would not have to maintain high interest rates, and that interest rates would fall. However, although the interest rates of the Mexican peso did decline, they stopped dropping at about an annual market rate of 16 - 18% p.a. and do not seem likely to fall any further. It is highly likely that the government or market is maintaining interest rates relatively high because the inflation rate has not fallen as far as the

⁷ At the WTO Ministerial Meeting held in Seattle in the United States, the interests of the United States, EU, Japan and developing countries could not be adjusted. The meeting closed with the astonishing result of not being able to come to an agreement on a joint communique on December 4, 1999.

government's target. The reason for the high inflation rate is not just a steady surge in consumption but also the steep fall of the peso against the dollar after the 1994 December crisis. This provides evidence that maintaining a high interest rate is not unrelated to the foreign exchange rate.

Brazil moved from a fixed exchange rate to a flexible exchange rate regime in January 1999. The official interest rate of the real was increased to 45% p.a. immediately after the depreciation, then gradually dropped to less than 20% p.a. as the real demonstrated its stability in the foreign exchange market. The rate of decrease in the interest rate was substantial at the initial stage but as the interest rate neared the 20% line, stride of decline started to become quite small. Many specialists predict that the floor will be in the 18% range. Here is a situation where interest rates just would not drop when the inflation rate is moving around an annual rate of 8%, and there is a strong demand from the business sector to lower interest rates, as high interest rates dampen the recovery of the real economy. There is also the additional factor that because high interest rates inflate the interest burden on notorious domestic debts of public sector inclusive, they should be lowered as soon as possible. In other words, there is strong pressure all around to lessen the real interest rates, and such a policy would be a win - win policy domestically. However, as in Mexico, there is real concern that interest rates would not drop below the high level which is prohibitive to domestic industries. This is the market reaction to the dollar short position evidenced by TFN.

(4) Government Intervention in Markets Short of the Dollar

Since April 1991, the Convertibility Plan has been in effect in Argentina, with the Currency Board supporting a dollar pegged exchange rate system. Peso interest rates did jump up drastically, due to the Mexican Tequila shock, the Russian crisis and the Brazilian crisis, all of which occurred since the introduction of the dollar pegged exchange rate system. However, interest rates have deviated only 2% – 5% from American interest rates. This is a very different phenomenon from the situation in Mexico or in Brazil.

Here, I would like to compare the rates of price increase of these countries in 1998. Brazil had about 2%(8% in 1999), Argentina 0%, Mexico 18%. Argentina stands out, having an exceptionally low rate.

What is the reason for the low inflation and interest rates in Argentina? We already know from using the TFN model that Argentina, too, suffers from a dollar short position occurring from massive dollar debt, and that situation is not that different from that of Mexico or Brazil. The difference is that Argentina is maintaining the peso fixed exchange rate at par to the dollar. The Argentine government has a legal commitment to exchange Argentine pesos at par with the US dollar through their central bank. So although there is always a strong demand to exchange their pesos into dollars, there is no need to borrow pesos to do so. Though the supply of the dollar is always short and demand is well known to far

exceed the supply, the price of the dollar will not increase in step with supply and demand in the markets. This is because the Argentine government guarantees by law, the price, i.e. the exchange rate of the peso into the dollar, and that, again because of the law, at par.

Is it the correct policy to depend solely on market mechanisms when there is a one - sided demand because of a lack of supply of a certain commodity in the market? As the TFN model shows, the shortage of the dollar in Argentina is quite clear, and it is not temporary but chronic. When we study the “dollarization of the economy” in Argentina, we must remember that the shortage of the dollar in Argentina is historic and that preference for the dollar over their national currency is deep in the psychology of the people. Argentina came to the conclusion that when there is such a long economic and social history to the wide and deep shortage of the dollar, it is not prudent to depend on the “invisible hand” of the market and wait for the automatic adjustment mechanism to work.

The Argentine government cannot guarantee the supply of the dollar, which is the currency of a foreign country. What they can do is to guarantee the price. Stabilization of the markets which are suffering from supply and demand mismatch, can only be made possible by such responsible intervention by the government.

(5) Structural Dollar Shortage in Markets

When Brazil moved from the dollar pegged system to the flexible exchange rate system, many economists emphasized that the flexible exchange rate would bring interest rates down. To judge from the examples of Mexico and Argentina, such reasoning is unrealistic.

As was described in the case of Argentina, there must first be a recognition of the structural dollar shortage in the foreign exchange market positions of the major Latin American debtor countries. In markets where there is a chronic shortage of the dollar, the price of the dollar against the local currency will continue to increase. Every time there is an external shock, foreign exchange markets will fear depreciation of the local currency and the interest rates of those currencies will increase sharply. Because there is no structural stability in the supply and demand situation of the markets, they will become volatile when there is even a minor shock.

Conclusion

I would like to reemphasize that what triggers the frequent currency crises in developing countries is the lack of foreign currency liquidity. The key to detecting a crisis is to have an accurate picture of this situation, and I do not believe that the traditional diagnostic standards are adequate for this purpose.

The TNF model introduced in this paper is nothing dramatic nor necessarily new. On the contrary, it is the basic step in credit risk analysis. I strongly

recommend a review of the method of analysis because standards which should be used are not properly recognized, nor are they even debated publicly and figures that are available are not applied as they should be.

This paper has focused on the foreign currency resource flows of the problem countries to project the core issues of the structure of monetary crises and their remedies. I believe that if the problem countries, creditor nations (institutions) and international financial organizations cooperate to improve more detailed and transparent standards, and those standards are used more widely and frequently, that will help to avoid the repeated occurrence of monetary crises.

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