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Institutional Framework for Public Debt Management:

Brazil and the United States

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Introduction

In recent years, significant development has taken place in financial markets around the world, whether in industrialised or developing countries, or in economies in transition. Technology has had a leading role in this development, but the growing sophistication of the instruments used in these markets has also been a prominent feature.

Public debt management, in turn, has also seen its role change, as governments have become increasingly aware that more and more market-oriented principles should command the management of its liabilities, and, for that matter, its financial assets.

As a result, the institutional arrangements within which public debt is managed have had to be reviewed. The traditional civil-service structure, with its slow processes, where results are rarely measured on purely financial criteria, seems wholly inadequate to an activity that, it has been regarded, is fundamentally a financial one. The ideal debt management authority, the relationship between debt management and monetary policy, the most efficient borrowing techniques and the instruments best suited to attain debt management goals, are all issues that are present not only in the academic literature, but also in the daily discussions of government officials.

In the case of Brazil, the issues are all the more relevant, since its economy as a whole has been undergoing significant structural reform, and macroeconomic stabilisation brings with it the need to consider all available policy instruments.

The United States, on the other hand, has a long-standing tradition of independent debt management, with well-structured institutions and market-oriented procedures, often serving as an international benchmark.

The aim of this paper is to present a summary of the more relevant issues regarding the institutional and operational arrangements in public debt management, focusing particularly on the examples of Brazil and the United States. The first chapter looks at the current framework for management of public debt in Brazil, after first describing the country's recent history in debt management. In the second chapter, the arrangement in the US is presented, together with a brief analysis of its advantages to the attainment of debt management goals. The third chapter considers a number of proposals for change in Brazilian debt management, based on the US experience.

1 - Public Debt Management in Brazil

a) A Brief History

<u>a.1) During the "Brazilian Miracle"</u>

It can be said that the recent history of Brazil’s public debt began in 1964, when the national financial system was substantially reformed. Among the major changes effected, the creation of the Central Bank of Brazil and the National Monetary Council and the laying down of the foundations for the solidification of the market for public securities, including the creation of the ORTN, the Re-adjustable National Treasury Obligation. This security bore a new concept to the financial market, i.e. that of *automatic* adjustment of its value to changes in the purchasing power of the national currency.

In addition, the year of 1964 saw the creation of the monetary budget intended as a means of more effective control of money supply, in order to aid in fighting inflation. With that, the Federal Government, comprising the Executive, Legislative and Judicial Branches, in addition to the State-owned companies, operated under three different budgets: the Fiscal Budget, the Monetary Budget and the Budget for the State-owned companies.

With the operation, as from 1968, of the open market for securities in Brazil, and the creation in 1970 of the National Treasury Letter - LTN, a fixed-income security, the potential for an effective monetary policy instrument was established. Furthermore, in 1971 the Central Bank was awarded the authority and the flexibility with which to manage the federal securities debt, through the issuance and redemption of Treasury securities without budgetary constraints, with the exception of interest expenditures, which, although demanded by law, could be dispensed by the Monetary Council.

<u>a.2) After the Oil Crises</u>

Given the widely available financial resources that existed in the international market at that time, the policy instrument potential was not fully realised until the late seventies and early eighties, when, in the aftermath of the second oil crisis, external funds became scarce and costly. Hence, the LTN became the main instrument for short-term, fixed-rate operations, since the ORTN were not only floating rate securities, but their maturity was substantially larger, ranging from one to twenty years.

As a result, not only did the domestic debt suffer a marked increase, but so did the levels of inflation, in spite of the high real interest rates. The rise in domestic debt was charged to the monetary budget and State-owned companies budget, since the fiscal budget was required to be balanced. On the understanding that debt issuance was a typical monetary policy operation, the Central Bank freely issued Treasury securities not only to carry out its traditional duties, but to pay for government expenditures, all of which made it extremely difficult to impose any kind of control on the growth of the domestic debt.

a.3) The Reforms of the Late Eighties

The need to reform and reorganise Brazilian public finance procedures, in order to help combat inflation and public debt, prompted in 1986 the adoption of a series of measures, know as the Cruzado Plan, which owed its name to the new currency it introduced. Among these measures, as concerns public debt, the Cruzado Plan saw the creation of the Secretariat of the National Treasury, within the Ministry of Finance, whose responsibility it would be to manage public debt, and the extinction of the ORTN's role as index to the financial market. The monetary budget ceased to exist and the fiscal budget for that same year contemplated interest payments on the outstanding ORTN and LTN.

In addition, the fiscal budget for 1988 would see the inclusion of all the Official Credit Operations - OOC, which meant that the Executive branch - including the Central Bank - could no-longer carry out expenditure without prior authorisation from Congress. Another landmark in 1988 was the transfer to the recently created Treasury of the responsibility for the management of the domestic securities debt, including the financial control of outstanding debt, the management of the debt-limit and the defining of the type and amount of the securities to be offered at public auctions thenceforth.

The 1988 Constitution, in its Article 165, stated that the Annual Budget Law would comprise three budgets: the fiscal budget, the State-owned companies' investment budget and the social security budget, and reaffirmed in Article 167 that no payments could be made or further liabilities taken on without the authorisation through the budget. Therefore, the fiscal budget for 1990 was drawn up under the new directives, including all receipts and outlays. It is worth mentioning that not only were interest and amortisation payments included in that budget, but also expenditures resulting from the rollover of the principal (classified under "amortisation").

a.4) The Early Nineties

At the turn of the decade, the Treasury was encountering increasing difficulties in financing the public deficit through bond issuance to the market, since the Treasury Financial Letter - LFT, a floating-rate security whose nominal value was adjusted according to the average rate of daily borrowing on the overnight market, was the only instrument the market willingly accepted, and represented at that time 40% of all financial assets. As a result, whenever the Treasury borrowed from the market, it forced the overnight rate up and consequently increased the interest owed on its outstanding debt, deteriorating its finances further.

In an attempt to break the vicious cycle, the recently inaugurated Collor administration launched a fiscal plan, in March 1990, which froze 80% of the country's financial assets, including the outstanding LFT, to be paid back after eighteen months. The results looked promising, as inflation fell and revenues rose, based on temporary taxes. However, they were short-lived and a second plan, ten months later, sought to eliminate a number of indices, including the overnight rate, and created the Reference Rate - TR, which would thenceforth be the only index for contracts under one year. Furthermore, the National Treasury Notes - NTN - were created, in order to provide the Treasury with the necessary funds with which to finance its deficits or to acquire credit based on revenue-anticipation. Depending on the series of NTN, they could be adjusted according to a number of different indices.

The NTN began to be offered in late 1991, together with LFT, as the Treasury once again began market borrowing, in order to pay back the debt which had been frozen under the I Collor Plan. During the following twelve months, debt management attempted to adjust itself to the prevailing market conditions, by offering those instruments for which there would be more demand, namely the shorter term notes.

In spite of the seemingly optimistic scenarios that followed Itamar Franco's inauguration, after the impeachment of President Collor, the Treasury swayed away from the lengthening of the NTN which it had been undergoing and resorted to issuing short-term NTN and LTN. This was done in order to reduce the cost that the high rates of interest were imposing on the debt, under the notion was that the high rates of interest would not hold out for long.

a.5) The Real Plan

In the wake of the Real Plan, effected in mid-1994, consumer demand grew substantially, owing to the rise in real wages resulting from the low levels of inflation. In order to contain consumption and avoid its effects on price levels, the Central Bank opted to control liquidity through high reserve requirements. Since a reasonable portion of those requirements were complied with through public securities, the demand for Treasury papers was unusually high, providing debt management with low cost financing.

In 1995, however, the Treasury had to review its debt financing strategy, since the expectation was that reserve requirements would be de-regulated, resulting in higher costs. A number of steps were taken, seeking more adequate management, the most important of which were:

- Public auctions on a two-weekly basis, rather than on a monthly basis, as had been the standard; the reduced volume at each auction would leave the Treasury less vulnerable to unforeseen events;

- Increasing use of fixed-rate securities, with gradually longer maturities;

- Offer of the same instruments at all auctions (LTN, NTN-D and NTN-H), thereby increasing their liquidity

The debt profile gradually reflected the results of these measures. Fixed-rate securities accounted for an increasingly larger share of the debt, 56% by September 1997, when the Treasury succeeded in issuing a two-year LTN, while the LFT had ceased to figure in the outstanding debt.

Another important change in 1997, concerning the debt budget, was the separation of refinancing of principal within the fiscal budget, thereby reducing the distortions that changes in maturity caused to the volume of the budget and its proportions.

a.6) Since the Asian Crisis

The crisis originated in Southeast Asia at the end of 1997 was a setback to debt management, as concerns about Brazil's susceptibility to the crisis drew substantial volumes of capital away from the domestic market and caused rates of interest to rise sharply. The negative effects were only mitigated, even if temporarily, by the very low exposure of the domestic debt to the rates of interest, as mentioned above, caused not only by the prevalence of LTN but also by the average maturity which stood at that time at 8.13 months. To reduce the high cost of issuing longer fixed-rate LTN, the average maturity at issue was greatly reduced.

The beginning of 1998 saw the Treasury reinitiate its process of maturity lengthening, until the signs came from Russia in May of a possible second wave of financial turbulence. With that, and the ensuing rise in rates of interest, an option was made to switch to floating-rate LFT, as it was expected that rates would fall and locking into fixed-rate LTN could prove to be more costly. The result was that, as the maturing LTN were refinanced with LFT, the securities debt became ever more exposed to short term interest rates.

b) Current Framework

b.1) The Legal Structure

Brazil's Constitution, in effect since 1988, charges Congress with caring for all issues concerning public debt. Through its Article 167, it limits the total amount of government borrowing to the total amount of capital expenditures, in an attempt to avoid any debt being issued to cover current expenditures like personnel.

Annually, the Budget Directives Law sets the general ground rules for the drawing up of the actual budget for the following fiscal year. It does so by establishing priorities for government spending and revenues in accordance with the four-year plan which shall be in effect in that year, as well as stating formal technical requirements for the body of the Budget Bill and its annexes, and specifying mandatory inclusions and impediments. Based upon these guidelines, the Executive branch of government draws up its budget proposal, which is submitted to Congress for approval and/or amendment. Once the Budget Bill has passed the Legislative body, it returns to the Executive Branch, where it shall be either sanctioned or vetoed by the President.

It is worthwhile noting that the Budget Bill that results from this process is not mandatory, as is the US Government's Budget, but authoritative, that is, it sets a *ceiling* on what the Executive Branch of government is allowed to spend on each programme or activity, but does not fix a *floor* for such spending, unless explicitly stated.

b.1.i) Domestic Debt

As a result of the Constitutional limitation above, the ceiling for domestic debt issuance is equal to the forecasts for capital costs contained in the budget proposal for the financial year in question. Below such a limit, the Treasury is independent, and can freely determine the volumes and types of instruments to be used. This freedom is of course also restricted by law, and currently, a Presidential Decree details the characteristics of bonds and notes.

b.1.ii) Foreign Debt

The more general legal basis for the issuance of sovereign bonds abroad is set by Decree 1312/74. The Constitution, in its Article 52, appoints the Federal Senate as solely responsible for authorising foreign operations of a financial nature, at all levels of government, for setting limits and conditions for the awarding, by the Union, of guarantees on foreign borrowing operations. As with the domestic debt, up to the limit set by the Senate, the Treasury and the Central Bank are free to decide on the appropriate markets, volumes and timing and types of instruments.

Currently, the ceiling on foreign issuances is USD 10 billion, set by Senate Resolution 51/97, and it should be stated that this is not an *annual* limitation but a *cumulative* one, so that once the *total* amount of issuances nears that ceiling, a new Resolution would have to be passed.

<u>b.2) The Institutional Structure</u>

b.2.i) Domestic Debt

The primary objective of public domestic debt management is to finance the Treasury's deficits at the in the least costly manner. Secondly, it aims to assure a well developed market in order to guarantee the primary objective will be more easily attainable. A third goal would be to pursue compatibility with monetary policy striving for the lowest possible cost.

In Brazil, as is the case in many countries, the Central Bank alone is responsible for monetary policy, while the Ministry of Finance, through the National Treasury, is in charge of managing public debt. However, depending on whether one is examining the domestic or foreign debt, the relationship between the aforementioned institutions can be very different.

As far as the domestic debt is concerned, while the Treasury is the ultimate respondent regarding decisions on when, how much and what instruments to issue, their characteristics and maturities, the Central Bank operates as the Treasury's agent, making use of its sophisticated network to serve as locus for public securities dealings. Differently from most countries, however, the Central Bank has not only been using Treasury securities to carry out monetary policy, but more often than not, its own bills, making it necessary for strict co-ordination between it and the Treasury. The need for co-ordination is enhanced by the fact that the securities issued by both authorities are very similar, causing, it should be stressed, confusion among market participants as to the objectives of one and the other's operations.

As stated in the previous paragraph, in addition to issuing its own bonds, the monetary authority maintains in its portfolio Treasury securities that can also be used for monetary policy. Notwithstanding, owing to constitutional forbiddance of Treasury financing by the Central Bank, the latter can only make net acquisitions of the former's securities through the secondary market.

The co-ordination between monetary and fiscal policies mentioned previously is carried out by way of an informal committee which meets twice a month. On such occasions, representatives from the Treasury submit a proposal for rollover of the domestic debt and decide on the adequacy of the proposal, after hearing the considerations of the Central Bank.

b.2.ii) Foreign Debt

As for management of foreign debt, its main aims are to secure the country's position as sovereign issuer, to lengthen debt maturity, to reduce the overall cost of the debt, to create benchmarks for future public and private issuances and to contribute to maintaining foreign reserves at levels considered adequate to monetary policy.

For the foreign debt, the institutional arrangement is much the same as for the domestic debt, being the Treasury's the ultimate responsibility for issuance of sovereign bonds abroad, while the Central Bank acts as fiscal agent. However, given the monetary authority's greater experience in international financial markets, it has invariably taken the lead in issues relating to foreign-currency-denominated debt.

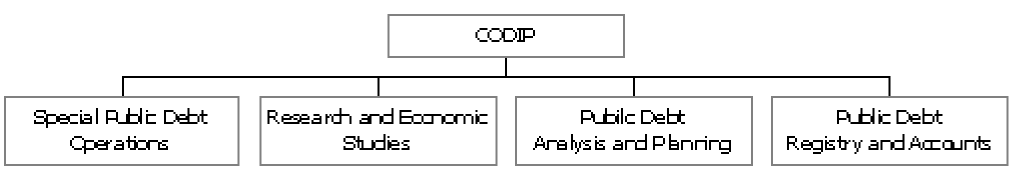
b.3) The Administrative Structure and Procedures

Firstly, it would be useful to see how the Treasury fits into the administrative structure of the Brazilian government. The Executive branch of the government, headed by the Presidency, acts through a number of Ministries, among which the Ministry of Finance, within whose structure the Treasury appears as the body charged with, among other things, managing the government's cash flows, including those pertaining to the domestic and foreign debts.

To carry out its duties, the Treasury relies upon four under-secretariats, one of which deals specifically with its debt. This under-secretariat is composed by three Co-ordinations, which we shall describe individually.

b.3.i) Public Debt (CODIP)

This office is responsible for the management of all issues regarding domestic debt, except the actual financial transfers resulting from issues and payments of securities. Within CODIP, there are specific divisions to negotiate and draw up the structure of special operations to be carried out with the use of securities, to build scenarios and to analyse and make proposals for overall debt structure, to plan the Treasury's bond auctions, to register all data regarding securities issues, in order that resources be made available for payments when due, and to draw up the annual budget proposal for the domestic debt. This structure is presented below:



It is within this structure that strategic directives regarding the domestic debt are defined. Decisions on the length of maturity, the types of securities and their characteristics, the amount to be issued and the proportions of the different bonds and notes to be used are taken by the Treasury based upon the proposals of the staff of CODIP, after consultation with the Central Bank (as mentioned in b.2.i) above).

It is also here that control of the debt's cash flows is kept, in order that the proper provisions can be made for the payment not only of the maturing debt, but of the other expenditures public debt must be used to finance (to be dealt with ahead). This is done by taking into account the cash situation at any given moment, combined with predictions about the flows within the same financial year.

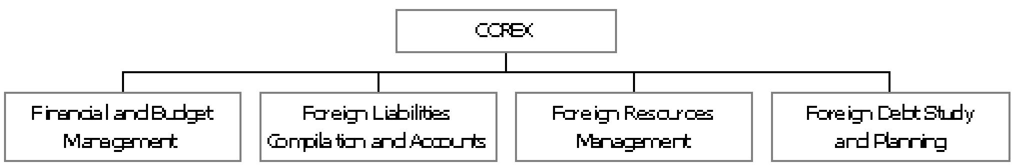
After deciding upon the kinds of securities to be issued, the expected demand for them and the yield to result from the auction, the actual auction is carried out by the Central Bank, since it has a communications system with the financial institutions. After receiving and tabulating the proposals electronically, the Central Bank sends them to the Treasury, whose decision it is as to which proposals to accept.

Brazil, like most countries that sell securities through auctions, adopts the multiple price system, whereby each successful bidder pays the price he bid in the auction. Each institution can place a maximum of five bids, and acceptance of competitive bids is made in a descending order, from the highest price down until the full amount is exhausted. Securities sold to the Central Bank are done so at the weighted average yield of the securities sold to the successful bidders.

The settlement date in Brazil is the working day following the auction.

b.3.ii) Foreign Debt (COREX)

As stated in b.2.ii) above, although it has more often than not been the Central Bank that has lead the initiative in Brazil’s foreign debt issues, the Treasury is ultimately responsible for managing sovereign liabilities in foreign currencies, for which it too relies upon four divisions, as can be seen in the following figure:



Among the more important duties charged to these units, are:

- To seek out opportunities for low-cost, longer term borrowing and propose strategies to take advantage of them;
- To follow international financial markets and assess their effects on sovereign bonds and other liabilities; and
- To keep record of liabilities and future cash flows so that all payments may be made when due.

b.3.iii) Taking over and restructuring of liabilities (COARP)

In recent years, it has been the Federal Government’s policy to acknowledge past and present liabilities and to try to deal with them in a more transparent manner. In an attempt to improve its procedures, this new office was recently created, whose duties involve analysing liabilities which are either naturally of the Union, or have been made so by law of by judicial decision, and to negotiate their structure, together with CODIP.

On a final note, it should be pointed out that the separation of domestic and foreign debt on an institutional level, as adopted by Brazil, is not common practice in more developed countries, perhaps owing to the fact that in the case of the latter, foreign debt accounts for proportionately less of total sovereign liability, when compared to Brazil.

2 – Public Debt Management in the USA

a) The Legal Framework

The United States Congress, whose responsibility it primarily is to manage public debt, delegates this duty to the Department of the Treasury, through the United States Code Annotated (USCA), which, in its Title 31, Subtitle I, Chapter 3, Subchapter II, Sec. 321 on "The General Authority of the Secretary of the Treasury", states that:

" **Sec. 321. General authority of the Secretary**

- (a) The Secretary of the Treasury shall -

  1. prepare plans for improving and managing receipts of the United States Government and managing the public debt; "

Further on, in Sec. 324:

" **Sec. 324. Disposing and extending the maturity of obligations**

- (a) The Secretary of the Treasury may -

  (1) dispose of obligations -

  (A) acquired by the Secretary for the United States Government; or

  (B) delivered by an executive agency; and

  (2) make arrangements to extend the maturity of those obligations. "

Although Congress does not limit the amount of new borrowing that can be made during any period of time, it does set a ceiling for the outstanding stock of debt. The latest amendment to Subsection 3101 of the USCA, made in 1996, set that ceiling at USD 5,500,000,000,000.00, in substitution for USD 4,900,000,000,000.00, which had stood since 1993. These limits are not directly linked either to the budget or to the government's primary balance, which may lead to the conclusion that government spending and public debt are not closely tied. However, when the amount of outstanding debt approaches the existing ceiling, it forces a debate between the Executive and Legislative Branches over the reasons for further borrowing, so that Congress, and consequently the general public, does in effect keep control of the debt's growth.

As far as the budget is concerned, at the beginning of every calendar year, the President sends his Budget Proposal to Congress, where it serves as important input to the drawing up of the budget resolution, which establishes overall spending authorisation according to functional categories for a multiyear period. There follows a long period of deliberation in the specific committee, after which a bill is passed, setting the limits for each programme. This bill can either be sanctioned or vetoed by the President, but the veto has to be in full, i.e. the President cannot veto any specific item in the bill. After it is sanctioned, the bill comes into effect on October 1st, the beginning of the Fiscal Year.

b) The Institutional Arrangement

The well-defined distribution of functions within public management, coupled with steady institutional arrangements and clear objectives has provided public debt management in the US with enormous independence. The mission of Public Debt Management is to borrow the money needed to operate the Federal Government and to account for the resulting debt. To fulfil this mission, the United States Treasury and the Federal Reserve Board have traditionally maintained a high level of independence in their respective tasks of managing public debt and conducting monetary policy, it being worth noting that, since 1981, the Treasury is not authorised to borrow directly from the Federal Reserve.

While the main debt management authority is the Treasury Department, the Federal Reserve System plays an important role as fiscal agent for the Treasury, dealing with a major part of the logistical operations. Primary dealers are also involved, as they are required actively participate in both the primary and secondary markets for government securities.

While it has the primary goal of achieving lowest cost financing for the American taxpayer, the Treasury also aims at ensuring sound cash management for the Federal Government and promoting efficient capital markets in order to help accomplish the primary goal. Five general principles guide the Treasury's management of the domestic debt, as a means of fulfilling its goals:

- Maintaining the "Risk Free" Status of Treasury Securities
- US Treasury securities are an international benchmark, and maintaining their risk free status implies directly in avoiding unnecessary cost
- Ensuring market liquidity
- By doing this, the Treasury guarantees there will be constant demand for its securities
- Maintaining the Consistency and Predictability of its primary auctions
- Another way of ensuring liquidity to its instruments and consequent lower cost
- Unitary financing
- In order to benefit from economies of scale and from the credibility that is intrinsic to being the Treasury, it caters for *all* the borrowing needs of the government.

It should be noted that monetary policy considerations do not figure among the Treasury's objectives or principles. Its only concern is debt management policy, determined independently from monetary policy, which is the sole responsibility of the Federal Reserve.

Although detailed day-to-day planning is carried out observing a one-year horizon, strategic planning is done over a much longer term, up to five years, which is the US Government's budget horizon. Since debt management involves future cash flows and generates concern not only over the specific course of the debt, but also its effects on broader government policy, the need to think ahead is integral to its efficiency.

As far as public debt management is concerned, the role of the Federal Reserve is to act as fiscal agent for the Treasury, and in this capacity to effectively carry out all auctions, collect proceeds and maintain the commercial book-entry system. On the other hand, in carrying out its own mission of conducting monetary policy, the primary tool the Federal Reserve relies upon is the purchase and sale of Treasury and other government securities.

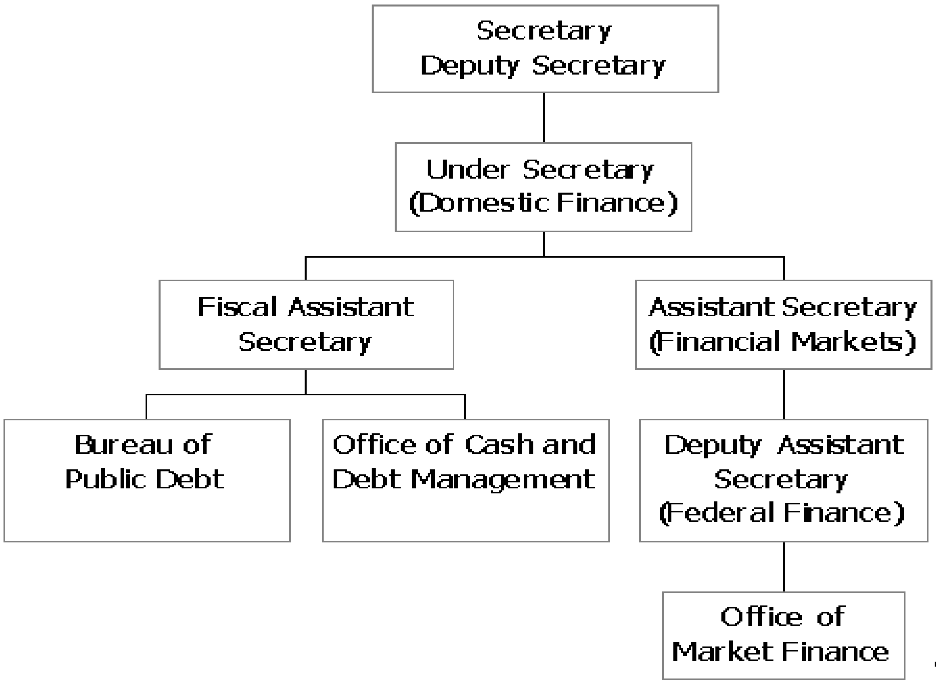
The Treasury maintains cash balances both with the Federal Reserve and the Commercial Banks (Treasury Tax & Loan Accounts – TTL accounts) Daily, the Treasury shifts balances between these two accounts in sufficient amounts to maintain its low balance at the Federal Reserve because these funds do not earn interest, while those in TTL accounts do. Therefore, while *expected* changes in reserves owing to government transactions is neutralised by the Treasury, substantial variability in reserves occurs because of *unexpected* changes in government transactions.

When this happens and the Federal Reserve considers that there is a shortage of liquidity in the money market, it injects new resources by buying a portion of the securities the commercial banks hold. Conversely, if the money market is excessively liquid, the Fed may choose to reduce such liquidity, in which case it will sell an adequate volume of securities it holds itself.

Notwithstanding the proscription on direct financing of the Treasury by the Federal Reserve, the monetary authority may replace maturing securities it holds, by purchasing new securities, which it does by submitting non-competitive tenders in Treasury auctions.

General conditions in the securities market are monitored by an inter-agency working group, of which both the Treasury and the Federal Reserve, as well as the Securities and Exchange Commission (SEC) and the Commodities Futures Trading Commission are part. Their aim is to analyse the market, detect unusual fluctuations in the prices of securities and decide upon action to be taken.

c) Administrative Structure and Procedures



The Treasury Department, as the principal debt management authority, relies upon an extensive framework of bureaux and offices to carry out separate duties related to planning, issuing, registering and paying off its debt. The figure below shows the basic structure:

The Bureau of Public Debt (BPD) is in charge of issuance of non-marketable securities and of carrying out Treasury auctions, in strict co-ordination with the Fed, as well as publishing the results of an auction (usually within an hour of the deadline for tenders). It also caters for registration of all issued securities and all the accounting of the debt, marketable and non-marketable, and regulating and monitoring the primary and secondary markets. The redemption of maturing securities is also conducted by the BPD, through the Federal Reserve.

The Office of Cash and Debt Management acts upon information from the Federal Reserve to estimate and monitor the Treasury's cash balances on a daily basis. Estimates of financing needs are prepared each month by examining expected cash balances, receipts and outlays and are published in the Daily Treasury Statement. These estimates will aid the Fed in predicting and planning any necessary intervention in the market.

Finally, it is in the Office of Market Finance that the policies for debt management are drawn up and special studies are carried out, leading to proposals for which volumes of securities to issue, their compositions and yields.

The US Treasury has regulatory authority on the government securities market. Consequently, dealers and brokers in the government securities market must be registered either with the Treasury or with the SEC and meet certain requirements regarding capital and other issues. The Federal Reserve Bank of New York carries out market surveillance and monitors the activities of all dealers, while the SEC enforces antifraud regulation under the securities act.

The amounts of securities to be issued, their terms and the method of sale are described in the Treasury Offering Circular, one of which is issued prior to each auction, informing the dates of the auction and of settlement. The availability of Treasury securities market quotes on various electronic network services also helps to enhance the transparency of the auctions.

Although separate duties and responsibilities are clearly defined, there is strict integration between the different departments, in order that information may flow smoothly and decisions are made swiftly.

c.1) Instruments and Use

In the carrying out of its debt management functions, the Treasury makes use of marketable and non-marketable securities. Marketable securities are so called because they can be bought and sold in the secondary market at prevailing market prices through financial institutions, brokers and dealers in government securities, whereas non-marketable securities cannot. With the exception of a few specific issues prior to 1985, which can be called by the Treasury, marketable Treasury securities are not redeemable before maturity.

Marketable securities consist of cash management bills (no standard maturities), Treasury bills (13, 26 and 52 weeks), Treasury notes (2, 3, 5, 7 and 10 years) and Treasury bonds (over 10 years). Bills have been issued through the auction system since their introduction in 1929, while notes and bonds have been auctioned since 1970.

Currently, all marketable instruments are issued via the auction system, generally on a yield basis, according to the multiple-price, sealed-bid system. Exception is made to 2 and 5-year notes, which are auctioned via uniform-price. Non-marketable securities are savings bonds, sold under the "tap" system, by which sales of a new issue are effected continuously, upon subscription, State and Local Government Series (SLGS) and Foreign Government Series.

There is usually a period of two weeks between the announcement of the offering of a new Treasury security and its actual issuance. During this time, an important feature of the US securities market can be observed, which is trading of those securities on a when-issued basis.

Treasury securities are issued in electronic form on a delivery-versus-payment basis, either through the Federal Reserve’s book-entry system or Treasury Direct accounts, which are managed by the BPD. Treasury Direct is designed to facilitate investment by smaller retail investors who intend to hold securities to maturity.

The Treasury neither engages in derivatives transactions to hedge market risk nor does it issue zero-coupon marketable securities. It does, however, permit its long-term notes and bonds to be stripped into their principal and interest components on the electronic book-entry system, which has increased the demand for these instruments, since it allows investors to create payment flows that best suit their individual needs. Securities that have been stripped may be reconstituted into whole securities again through the book-entry system, which once again provides investors with the flexibility to respond to conditions that favour intact securities.

All Treasury financing operations are conducted in domestic currency only.

d) How These Structures Aid in Achieving Debt Management Goals

d.1) Legal Framework

The legal framework governing public debt management and the institutional arrangements around it should provide debt managers with the capability to carry out their duties in the most efficient and unobstructed way. They should also provide the investor with the utmost security by ensuring that the government’s debt management objectives will be accomplished and the instruments issued under the authority of the country’s highest constitutional authority.

The legal authority for the Treasury to borrow, as provided in the United States Code Annotated, eliminates any uncertainty that might threaten the confidence of investors as to the authority to issue and the obligation to service and repay government debt. Although there is no legal constraint on when and for what reason debt may be issued, the limitation on the outstanding stock of debt set forth in Subsection 3101 of the USCA, combined with the provisions made annually in the Budget Resolution and subsequent bills all assist in signalling to investors.

d.2) Institutional Arrangement

The institutional arrangements that limit Federal Reserve credit to the Treasury are a highly recommended means of reducing conflict between the central bank and the finance ministry over the sources of debt financing and therefore increase the operational autonomy of the Fed. On the other hand, the unofficial but frequent meetings between Treasury and Federal Reserve authorities can play an important role in co-ordinating the volume of Treasury's debt issuance in the primary market with the Fed's monetary policy goals.

The finely tuned procedures regarding the sharing of information between the Treasury and the Federal Reserve and the forecasting of variations in the Treasury's balance at the Fed are key in helping to facilitate appropriate day-to-day adjustments of instruments and the achievement of monetary policy and debt issuance objectives.

The well-developed secondary markets for the Treasury's securities are of interest to both the Treasury and the Federal Reserve. For the former, well-functioning of the secondary markets stimulates demand and makes it easier for them to absorb relatively large issuances of securities. For the monetary authority, developed secondary markets provide a more efficient channel for the carrying out of monetary policy through open market operations.

d.3) Borrowing Techniques

Although Treasury bills have been sold through the auction system since their creation, prior to the early seventies, notes and bonds were sold via subscription offerings, exchange offerings and advance refundings. Subscription offerings involved the Treasury announcing its intention to sell its securities and fixing the interest rate at which this would be done. It would then take subscriptions for those securities at a fixed price. Exchange offerings, on the other hand, were a means whereby holders of outstanding maturing securities could exchange them for new issues at a price and coupon rate announced by the Treasury. Finally, advance refundings were an adaptation of the exchange offerings in that holders could exchange them before their maturity date.

The volatility that characterised the financial market in the early seventies revealed a fundamental problem with the subscription offerings system. It was not rare for market yields to change between the announcement of the offering and the deadline for subscriptions, making it a risky manner in which to sell securities.

Since 1974, the Treasury has been holding auctions of coupon issues on a yield basis. Under the new system, bids are made on the basis of an annual percentage yield, and the coupon rate is based on the weighted average yield of accepted competitive tenders received in the auction. As a result, the Treasury is no longer locked into a coupon rate in advance of the auction and can be certain that both the coupon rate and the resulting periodic interest payments of new issues of notes and bonds accurately reflect prevailing demand and supply conditions in the market on the day of the auction.

In a highly developed market such as the US, selling Treasury bills through auctions is generally recognised as the most effective means to achieve the primary goal of financing at the lowest possible cost, because it takes advantage of competition among a large number of investors in buying a limited supply of securities. It is of course important that the auction design be such as to fully exploit the advantages of the auction system, namely, interest rate flexibility and competition among investors.

Although the US Treasury limits the participation of investors in its auctions, awarding exclusive rights of participation to a reduced class of agents (referred to as "primary dealers"), it does so in return for services these agents provide in developing the Treasury bills market, such as commitment to actively participate in auctions and willingness to act as secondary market-makers. Whether these services offset the disadvantages of reduced competition depends on how many dealers are awarded participation rights, the more the better, and on whether those services could be provided in exchange for alternative privileges (i.e. other than by exclusive participation rights).

Risk-premium reduction and maintaining the consistency and predictability of its primary auctions are two of the guiding principles of the Treasury's management of public debt. The auction schedule is therefore an important issue in achieving the primary goal of cost reduction. The key aspects of the schedule are the frequency and timing of the auctions, and the lag between the various stages of the auction.

Frequency and timing are important for the working of the Treasury bill market and of the money market as a whole, for they allow for the development of those markets. The regularity and consequently the predictability of the auctions reduce uncertainty and provide investors with the opportunity to plan ahead.

The two-week lag between the auction announcement and the auction date, which allows for negotiating on the when-issued basis, is an important factor in providing price discovery and reducing uncertainty. Potential competitive bidders look to when-issued trading levels as a market gauge of demand to determine how to bid at an auction.

Under the title of borrowing techniques, one extremely important issue is that of the pricing system and the criteria for allocation of bids. Briefly, under the multiple price system, the Treasury ranks the yields (bank discount rates in the case of bills) that are bid from the lowest yield to the highest yield required to sell the amount offered to the public. Competitive bidders whose tenders are accepted pay the price equivalent to the yield (discount rate) that they bid. Under the single-price system, bids are placed in terms of yield, and are ranked from the lowest yield to the highest yield required to sell the amount offered. However, what differentiates this system from the multiple-price auction is that all awards are made at the highest yield.

Two main reasons are cited in the academic literature as to why financing costs may be lower under the single-price system, both of which result from the elimination of the so-called "winner's curse". Firstly, those participating in Treasury auctions may bid more aggressively in a single-price auction than in a multiple-price auction. The rationale behind this is that, since all successful tenders will ultimately pay the same price, it becomes important for them to ensure that their bid is successful. As a result, the lowest price will be higher (highest yield lower) than in the multiple-price system. Secondly, more dealers and private investors should begin to take part in the auction as the threat of paying an above-market price is eliminated. The increased number of participants, as we have seen, is a desired outcome.

Although its marketable securities have for a long time been issued under the multiple-price system, the US Treasury has recently undertaken an experiment with monthly issues of two- and five-year notes. The experiment began in September 1992 and so far, the results appear to have shown neither an increase nor a decrease in the Treasury's cost of borrowing. However, since it is impossible to measure changes in the Treasury's borrowing costs directly, because of numerous factors that may have an impact on the Treasury market and that are not related to auction format, the Treasury undertook a study in 1995 in which it compared the spread of auction yield results to yields in the when-issued market. The results of that study showed that the average spread of auction yields over when-issued yields for uniform-price auctions were smaller than those for multiple-price auctions, although the difference was not statistically significant. The single-price auction does, however, appear to have helped broaden the distribution of Treasury securities, increasing the likelihood that bidders who want the securities will have the opportunity to buy them in the auction.

3 – Proposals for Brazil

Although the realities confronting public debt managers in Brazil and in the US are different in many ways, it is still possible to draw lessons that may be of great value in assisting Brazil's achievement of debt management goals. Some of the proposals presented here involve processes that span a longer period of time, while others require measures that precede them. It should be said that Brazil has undertaken in recent years a number of structural reforms related to its economy and public management. Therefore, a few of the lessons from the debt management institutions and practices in the US may already be at different stages of implementation.

a) Institutional Arrangement and Administrative Structure

Coordinating policy objectives, instruments and institutional and operational frameworks for public debt management and monetary policy are all the more important during financial system reform and macroeconomic stabilisation. In developing economies, where financial markets are not yet mature, the progress of these markets is a common objective that brings together fiscal and monetary authorities, making it more complex for debt management and monetary policy to be separated. In this case, the institutional arrangements for debt management take on greater significance.

The development of financial markets on one hand, and good co-ordination between debt management and monetary control on the other, are mutually strengthening processes. Developing market-based instruments for monetary policy and debt management support and stimulate the deepening of money and securities markets. In return, the greater sophistication and efficiency brought about in these markets create additional opportunities for the implementation of more effective and efficient monetary and debt management policies. Furthermore, the development of government securities markets serves as a catalyst in the development of other, riskier markets, such as those for private enterprise securities.

During this interactive process, several institutional and operational aspects regarding the co-ordination between monetary control and debt management become increasingly more important. In particular, the relation between fiscal and monetary authorities and the role each one plays in the process must be very well defined, if possible, through legal requirements.

The institutional arrangement within which public debt is managed in most countries around the world generally falls under any one of three arrangements, depending on whether the key agent in public debt management is: a) the Ministry of Finance; b) the Central Bank; or c) an independent debt management agency. The broader characteristics of these arrangements are presented in the table below:

KEY AGENT	CHARACTERISTICS
MINISTRY OF FINANCE	*THE MINISTRY OF FINANCE (OR DIVISIONS WITHIN IT) UNDERTAKES A NUMBER OF DEBT MANAGEMENT FUNCTIONS, RANGING FROM STRATEGIC AND TACTICAL PLANNING, TO MORE OPERATIONAL DAY-TO-DAY TASKS. OFTEN, A TREASURY DEPARTMENT IS SPECIFICALLY CHARGED WITH MANAGING THE CENTRAL GOVERNMENT'S FINANCIAL RESOURCES, INCLUDING ITS LIABILITIES, AND CONSOLIDATING FISCAL AND DEBT MANAGEMENT FUNCTIONS. IN THIS ARRANGEMENT, THE CENTRAL BANK IS USUALLY RESPONSIBLE FOR THE MORE OPERATIONAL ASPECTS OF DEBT MANAGEMENT, SUCH AS ISSUANCE AND SETTLEMENT, AND MAINTAINING BOOK-ENTRY SYSTEMS.*
CENTRAL BANK	*THE CENTRAL BANK IS IN CHARGE OF STRATEGIC PLANNING AND SHORT-TERM MANAGEMENT OF PUBLIC DEBT, IN ADDITION TO ACTING AS ADVISOR ON LONGER-TERM DEBT POLICY. THIS ARRANGEMENT IS IDEALLY SUITED TO INSTANCES WHEN VERY CLOSE CO-ORDINATION BETWEEN MONETARY AND DEBT MANAGEMENT POLICY IS DESIRED, USUALLY IN COUNTRIES LOOKING TO DEEPEN FINANCIAL MARKETS (GERMANY IS A NOTABLE EXCEPTION).*
DEBT MANAGEMENT AGENCY	*AN INCREASING NUMBER OF COUNTRIES HAS LOOKED TO THE ESTABLISHMENT OF A DEBT MANAGEMENT AGENCY, WITH VARYING DEGREES OF INDEPENDENCE, AS A MEANS TO IMPROVE THE ABILITY OF DEBT MANAGERS TO RESPOND TO EVER-CHANGING MARKET CONDITIONS IN A MORE AGILE WAY. ALTHOUGH DEBT MANAGEMENT AGENCIES ARE USUALLY LINKED TO THE FINANCE MINISTRY, WHICH SETS BROADER DEBT MANAGEMENT OBJECTIVES, AND SUBJECT TO LEGAL LIMITATIONS SUCH AS DEBT CEILINGS, THE DAY-TO-DAY OPERATION OF THE DEBT IS LEFT TO*

THE MORE SPECIALISED DEBT MANAGERS, WHO HAVE THE FREEDOM TO SELECT THE PORTFOLIO THAT BEST SUITS THE ATTAINMENT OF THEIR OBJECTIVES.

The management of public debt in both Brazil and the US qualifies under the first example, since in both countries it is the Treasury that is responsible for planning and carrying out the day-to-day operations. However, owing to the longer tradition and more consolidated framework within which public debt is managed in the latter country, there is clearly a greater level of independence between the Treasury Department in Washington, DC, and the Fed, than there is between Brazil's National Treasury and its Central Bank.

The greater independence between the fiscal and the monetary authorities, although it has been firmly present in the US arrangement for a long time, has been strongly pursued in most other countries, regardless of their stage of development. Whether this greater independence is best achieved through the establishment of an independent debt management office, it may still be too early to say, for these offices are a fairly recent phenomenon, dating from the late 1980s, with the exception of Sweden, where such an office was created in 1789.

Notwithstanding, the high rate at which financial markets around the world have developed in recent years, with the incorporation of greater technology and the creation of ever more sophisticated instruments, coupled with the strengthening of the role of market principles in debt management, seems to suggest that a more agile administrative and institutional framework, unconstrained by civil service salary scales and other conditions of employment (of human and technical resources), could be more adequate to the accomplishment of debt management objectives.

Short of creating an independent debt management office, there is ample room in Brazil's institutional framework to increase the level of independence between debt and monetary management. One important aspect to be improved is the use, by the monetary authority, of Treasury and its own securities to carry out open market operations. As briefly commented in Chapter One, the similarity between the securities issued by the Treasury and the Central Bank makes it difficult for market participants to clearly differentiate them and identify their objectives. To avoid such confusion, the Treasury and the Central Bank should determine separate market segments within which each will operate. This can be done in one of two ways.

Firstly, the monetary authority could terminate altogether the issuance of its own securities and carry out open market operations exclusively by purchasing and selling Treasury securities in the secondary market. This has the advantage that the Treasury's issuance in the primary market is completely independent from any monetary policy concern and can therefore be fully goal-oriented. However, it does demand that a reasonably well-developed secondary market exist, so that monetary policy can be carried out effectively.

The other alternative is for the Central Bank to operate the shorter end of the primary market while the Treasury operates with medium- and longer-term instruments. This solution may be more suited to the stage at which the secondary market is not yet developed enough to allow for the first solution and would provide greater transparency to the market, allowing agents to clearly differentiate between monetary policy and debt management actions.

Whichever solution is adopted, the development of the secondary market for government securities should be sought, since, in the longer term, it stimulates demand and provides greater liquidity, making it easier to carry out policies, be they of a monetary or debt management nature. Another outcome that does not depend upon the solution chosen is the fact that greater sharing of information between the Treasury and the Central Bank regarding the government's cash flows will become an even more key factor in improving the accomplishments of both monetary policy and debt management goals.

On the issue of increasing demand for Treasury securities, the US provides another example that Brazil should consider adopting, which is that of the retail market. The possibility that private citizens may buy Treasury securities serves at least two purposes. Firstly, by increasing demand for Treasury securities, they create another liquid market in which the Treasury can operate, and in a way that is interesting for the Treasury, for private investors seek longer-term instruments as a means of saving, leading to the second point, which is that it is another mechanism for the government to stimulate private savings. It goes without saying that such a measure requires a great deal of work, especially regarding the design of an adequate security and the development of an effective system of tentacles through which the private investor can be reached.

One final institutional issue that needs to be addressed is that regarding the management of the foreign debt. As was presented in Chapter One, although the Treasury is institutionally responsible for the management of the government's foreign debt, in practice, this responsibility has been shared with the Central Bank, so that it is unclear exactly who accounts for foreign debt issuances. Though this arrangement has not so far caused any major problems, it is far from transparent and does little to promote greater independence in debt management and monetary policies. For that matter, the administrative separation of domestic and foreign debt management within the Brazilian National Treasury is also an unorthodox arrangement, which should be abolished if more efficient and market-oriented principles are to become a rule.

b) Borrowing Techniques and Procedures

As for the instruments to be used by debt management authorities in Brazil, the US Treasury Department's practice of systematically using a few standard instruments is a good example of a procedure that has been adopted by a number of countries, and that has proven successful, for it helps create a stronger, more liquid market for those particular securities.

In Chapter Two, the US's experience in single-price auctions was discussed, and it was stated that so far it has not shown any conclusive evidence that it reduces the cost of financing. Nevertheless, the suggestion that it reduces volatility may signal that it could be applied to longer-term securities, in which it is more difficult for auction participants to reach a consensus over price-formation. In this case, it would likely create an incentive for tenders to raise their bids, since what would be important for them would be to be awarded a share of the securities being offered, and they would not be concerned about paying a higher price than other participants. Moreover, the US experience seems to have shown that the single-price auction has broadened the distribution of the securities, which is in itself an attractive outcome, especially for a developing market.

One aim that is being consistently pursued by debt management authorities around the world is the reduction of the risk element, as perceived by tenders in government securities auctions. This is mostly being done through constantly pushing toward greater transparency in debt managers' dealings. In Brazil's case, one particular aspect in which greater transparency could easily be acquired is in the disclosing of a borrowing calendar, providing the market with advance information on the government's future financing requirements and enhancing its certainty as to when and how the government borrows.

There are numerous possibilities here. Some countries publish annual, semi-annual and/or quarterly calendars, in varying degrees of detail. The calendar does not necessarily have to state the exact amounts to be issued at each auction, which is in any case published in the offering circular. Publishing the minimum and maximum amounts it aims to borrow in each interval of time would already serve as a signal to market participants.

Conclusion

The discussion of public debt management in any particular country should begin with a statement on that country's debt management objectives. Once these are clear and noncontradictory, it is possible to begin to tailor the institutional and operational arrangements within which those objectives will be pursued.

Agreement is general on the view that the debt manager's basic objective is to cover the government's borrowing needs. Common primary objectives are the minimisation of cost at a given level of risk, or the minimisation of risk within acceptable cost limits. However, in developing countries such as Brazil, cost minimisation can lead the debt manager to excessive borrowing from the central bank, fueling inflation, or from captive markets, preventing the development of strong secondary markets. Developing the secondary market whilst assisting the carrying out of sound monetary policy are, therefore, also common objectives.

Brazil's recent history in debt management closely follows the pattern of evolution observed around the world. From its early stages, when it was no more than an instrument of monetary policy, through the last decade and a half, when it has struggled to achieve independence, it continues to pursue more effective forms of financing for the federal government, in less costly manners.

The institutional framework within which debt managers have operated has also evolved, although there continues to be plenty of room for further improvements. Proposals presented here for some of these improvements, specifically on the issues of greater independence of debt management in relation to monetary policy, development and strengthening of secondary markets, and more transparent procedures were derived from the example of the United States, where the Department of the Treasury's experience has shown that these institutional and operational issues play a major role in helping to achieve debt management goals.

Although it can be argued that the US example is unrealistic for Brazil, given that its debt is of a much longer-term nature, and the volatility of its market is considerably lower, examples from other developed countries tend to confirm the central idea of this paper, i.e., that more adequate maturity structure and less volatility are themselves functions of greater independence and effectiveness of debt management strategies.

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