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*The Concept of Independence
As Applied to Public Debt Management*

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Introduction

Since the beginning of the 1980's, public debt management has been facing large changes of structural, organizational and regulatory nature. Several modifications on financial markets features and, specifically, on markets for government securities have added complexity to the design and the conduct of public debt strategies and government deficit funding. During the 1990's, this process has intensified and its trends have been disseminated throughout an increasing number of countries.

Regarding changes verified on the institutional framework for public debt management, it is worth mentioning the adoption, on the part of some countries, of structures formatted exclusively for public debt management. These structures, called here, generically, Debt Management Office (or DMO), are specifically designed to deal with the more technical aspects of public debt. The institutions of this kind count, in general, with a higher than average degree of autonomy from government, and, in some cases, are formally independent.

Behind the conception of the DMO is, therefore, the proposition of attributing to public debt management a higher degree of independence from government. This is a recent discussion that has received, insofar, little attention from literature. The bibliographical references are mainly from texts analyzing related issues, as comparative analyses of institutional arrangements for monetary and public debt operationalization or generic descriptions of the several institutional aspects involved in the management of government's debt. There are, however, some papers that analyze institutional aspects of DMOs, although they concentrate mostly on bureaucratic organization or are limited to descriptive texts (with the notable exception of the ones related to New Zealand) of case studies.

The aim of the paper is to discuss the concept of independence as applied to public debt management. Although the focus is primarily on the institutional framework, the paper intends to offer a different approach, addressing how the adoption of more autonomous debt management can affect the conduct of national macroeconomic policies, with special emphasis on the relation between monetary and public debt policies.

This process can be understood as part of a conceptual change regarding public debt management. The institutional organization and the techniques applied in public financing have progressively started to adopt more active practices of debt management, including the use of derivative markets in order to change the debt profile and risk management. This contrasts with the traditionally passive approach of public debt management. The new approach emphasizes the strategic role of public debt dynamics for the conduct of national macroeconomic policies in a context of larger integration among world finance markets.

The paper is structured as follows: chapter one discusses how the changes on financial relations – related to the so-called “financial globalization” have impacted the way public debt is managed. The second chapter explains fundamental relations between monetary and public debt policies, showing how they are reflected on the institutional framework, and describes three different models of institutional arrangements for public debt management. Based on the previous discussion, chapter three defines the concept of independence implied on DMOs’ structures. In order to explore the concept, chapter four describes the recent Brazil’s public debt performance and analyses how (and if) a more independent debt management would have helped to minimize the costs of the recent 1999 Real Plan crisis. Finally, conclusions are outlined at the last part.

1. Public Debt Management and Globalization

The large changes of structural, organizational and regulatory nature regarding public debt management have added complexity to the design and the conduct of strategies and deficit funding.

The origin of these changes is related to two factors. The most general one refers to the features related to what is usually called “financial globalization.” On the other hand, some other specific factors can be stressed for contributing to increase the public debt weight over several countries finance: first, the oil crisis and the economic activity weakening during the 1970's; second, the policy of strengthening the dollar value adopted by the US in the 1980's; and, third, the increase in external exposure of emergent economies.

The chapter will focus on how the changes on the financial relations have impacted on the way public debt is managed. The main idea is that these elements have brought on a conceptual change to public debt management, enhancing its strategic role for economic policy as a whole. This has made governments' debt management more closely related to *portfolio* management practices.

1.1 Financial globalization

Financial sectors deregulation, capital flows liberalization and market internationalization have brought higher mobility and higher volatility to capital worldwide. Those characteristics have created an environment on which intensified activity of financial markets, huge rise on *portfolio* investments, sharp growth on foreign exchange transactions, expansion of financial innovations, asset prices instability, crises and speculative bubbles are mutually reinforced.

Related to these phenomena, it is possible to notice that national economies have been increasingly opened.¹ The frontiers which had delimited the different markets – i.e., money market (short term financial operations), capital market (longer term), foreign exchange market, futures market and so on – became not so rigid, creating a global financial block.² Investments gain flexibility to migrate in search of the best risk-adjusted remuneration.

The flexibility of financial relations has established expanded conditions for increasing speculative movements. Two aspects must be stressed. First, in the globalized world, foreign exchange markets have grown intensely and become the biggest *locus* of speculation, presenting the higher growth rate³ and boosting foreign exchange hedge and speculation instruments. Second, the public debt services have developed into an extremely important instrument of wealth transfer to the financial private investors, making government securities the second segment of financial markets in importance.⁴

The main factors related to the rise of government securities transactions are listed by Bröker (1993:17-18): (1) explosion in the volume of cross-border transactions; (2) emergence of interest rate futures and options markets, allowing investors to hedge their positions; and (3) increasingly sophisticated portfolio management techniques on the part of internationally operating institutional investors, allowing financial operations diversification with lower risk.

Three main changes brought by financial globalization must be understood. First, the generalization of debt securitization developed a whole new frontier of investment based on secondary transactions, which, joined with

¹ This has dramatically changed the profile of national markets. There are an expressive number of countries today whose debts are held mainly by non-residents, while their residents are free to buy securities issued by other countries. This implies a major change in the profile of these economies, and shows how they have become deeply integrated (Kalderen 1995:02).

² According to Plihon (1995:61). This is true in a wide analysis, as, obviously, markets keep some specificity.

³ It is estimated that only 3% of daily transactions in these markets are related to good and services trades (Chesnais 1996:243-244).

capital flows liberalization, has provided high flexibility to financial relations, contributing to increase exchange and interest rate volatility;⁵ second, capital movements towards securitized debt have boosted the growth of institutional investors, like pension funds, insurance companies, mutual and hedge funds, agents specialized on portfolio management and that are able to diversify their positions in several different markets and can operate high levered;⁶ and third, development of secondary transactions have been the ignition to the expansion of derivatives markets. Although derivatives have as primary objective the hedge of individual risks, they can increase systemic instability, as they provide increasing interconnection between the several markets and agents.⁷

In the context of larger volatility and instrumental sophistication of the financial globalization, efficiency needs and agents specialization have been increased. The growing professionalization of private financial agents and the increase of the capital volume of institutional investors have made speculative capital grow in importance, flowing among finance markets and influencing national and world economic dynamics.

1.1.1 National policies

The dynamics of globalization presents a restrictive nature to planning and execution of national economic policies, establishing several macroeconomic issues. The markets integration and the more flexible exchange rate regimes bring a closer movement of interest and exchange rates, making monetary, foreign exchange, fiscal and debt policies strongly interdependent.

⁴ Chesnais (1996:247-248).

⁵ For a more detailed description, see Baer *et alli* (1995).

⁶ This is mostly true to hedge funds, which can be seen as the most speculative agents among them. These agents presented a sharp growth during the 1990's. In 1990, there were 127 hedge funds with US\$ 8,5 billion in assets; in 1997 there were 1115 funds managing US\$ 109,5 billion. Their leverage, though, can reach up to 20 times their capital. For details, see, for example, Eichengreen *et alli* (1998:29-30).

⁷ See, for example, Plihon (1995) and Chesnais (1996).

The dynamics of globalized markets favors quick position changes on agents portfolios. As credit dynamics gets determined, in a greater extent, by private agents risk perception, government policies get increasingly dependent on expectations, which can be highly volatile. This increases the probability of systemic crises and speculative attacks. In such a situation, costs of keeping unsustainable policies are enlarged. Any movement away from sustainable policies might generate potentially unstable position taking from agents, which could progressively deteriorate stability conditions. This highlights the importance of the adoption of sound economic policies. In other words: in the new context, government policies are more subject to vetoes from private agents.⁸

In reference to monetary policy instruments, Plihon (1995:74-75) states that traditional instruments, like sterilization interventions, interest rate manipulation and exchange rate controls, have had their efficiency reduced. In addition, growing mobility of short term capital have led to recurrent interventions of monetary policy, determining oscillations among interest rates in several currencies and restricting utilization of fiscal policies.

Faced with speculative movements, central banks have their performance greatly conditioned by the need to keep enough external reserves in order to block pressures on currency value. So, under a fixed or administered exchange rate regime, countries may need a level of reserves much superior than would be necessary to finance the balance of payments' current account. This is specially true for emergent economies with "weak" currencies, which have pegged their currencies to a strong one (usually North-American dollar), trying to avoid monetary instability. The exchange rate policy can acquire, in those economies, a priority status, making other policies to be conducted in a way to support (directly or indirectly) currency parity.

⁸ About this idea, see, for instance, Belluzzo (1995).

In addition, such exchange rate policies must be carried out along with a balanced fiscal condition. Usually, parity defense mechanisms include high interest rates, which affects growth negatively and increases public debt costs in order to attract capital, help sustain reserve levels, and, most important of all, help keep agents' expectations of economic policy sustainability under control. This kind of strategy, therefore, generally demands intense fiscal surplus efforts in order to make fiscal accounts situation (expressed by debt/GDP ratio) compatible with agents' expectations.

The high interest rates that affect negatively economic activity can even be positive against inflation up to a certain level, but affect negatively the public deficit. It is not reasonable to believe that a recessive policy can be sustainable for a long time, and government's financing capability can deteriorate progressively in the absence of primary fiscal surpluses. Sooner or latter, the opposition of high interest rates and exchange rate stability will come up, pressured by its structural aspects. The dilemma in these economies, so, is how to promote the decrease of interest rates without generating instability of expectations and harming economic stability conditions.

1.2 Financial globalization and public debt management

From here on, the analysis will focus on the effects of financial globalization over public financing conditions⁹ and public debt management.

The answers given by national governments to the new financial environment have some common outlines. Two tendencies can be identified: the strengthening of the role of market principles in government debt management and the introduction of more active debt management elements.

⁹ Government financing includes as main components tax revenues, contractual and bonded public debt issuance, supply credits and *seigniorage*. Although, references to "government financing" in this paper refers solely to the public debt issuance component.

1.2.1 Adoption of market principles

With the deregulation of financial flows and of domestic markets, there has been strong and growing integration among them. In this context, the several national governments can be seen as “contestants” among themselves in the search for financing resources¹⁰.

The high capital mobility allows private agents to become extremely sensitive to the risk premium paid by debt issuers. With financing of governments' deficit made predominantly through bonded debt issuance, debt costs came to be determined mainly (or even exclusively) by market parameters. In other words, competition for resources and high capital mobility have hindered the imposition of financing costs by national governments and made domestic markets strongly dependent of agents' expectations. As a result, governments' debt strategy has started to increasingly adopt “market principles”, meaning arrangements and procedures that offer higher transparency, in order to ease private agents' perception of risk.

The most common arrangements are listed by Blommestein and Thunholm (1996) and Bröker (1993:17): (1) increased use of auction techniques in the primary markets, with a clear preference for multiple price auction; (2) reduction of privileged access by the government to domestic sources of finance; (3) elimination of compulsory acquisitions of government's securities; (4) reduction or abolition of the use of the central bank as a privileged source of financing.

In addition, Bröker (1993) points out that it is verified a progressive uniformization of domestic markets features. In this sense, strategies for market competitiveness follow five broad lines: (1) Homogenization of instruments;¹¹ (2)

¹⁰ The “contest” referred to here is relative, as it applies mainly for countries with similar rating.

¹¹ there are four basic types: (1) Bills (maturities up to one year); Notes (between one and ten years); Bonds (above 10 years); and non-marketable debt instruments, mainly for the retail market.

increase in average size of individual government issues, in order to answer to international demand, and an increase on issuance regularity in time;¹² (3) establishment of conditions for continuous trading, including almost the totality of the commercial schedule, and not just a few hours of the day, in order to facilitate the access of investors located in the largest possible number of time zones and commercial schedules;¹³ (4) attempt of disseminating information on government's securities, by introducing market-makers, primary dealers and commercialization agencies; and (5) introduction of more efficient clearing and settlement procedures and of more transparent regulation and supervision frameworks.

1.2.2 Active public debt management

The second identified trend seen as answer to the challenges imposed to governments' public debt management is the introduction of a more active debt management.

A passive debt management is characterized, basically, by assumption of liabilities and a bureaucratic care for their retirement. An active management, on the other hand, is described as taking *portfolio* position based in expectations and analysis concerning future behavior of markets and their fundamentals. This implies taking positions in more technical bases, and running operations seeking modifications on portfolio structure. In other words, public debt management assumes an approach closer to portfolio management,¹⁴ through assuming positions over exchange and interests movements, and/or in different market segments, with portfolio performance being measured in contrast to a

¹² Related to this issue, quite common techniques are reopenings or assimilations, consisting of issuing a security with exactly the same characteristics of other already existent. This technique allows to increase the volume of maturing securities while allows to achieve more advantageous conditions in the market in comparison to the issuance of a new security, once the market performance is already known.

¹³ Among these conditions are over-the-counter markets, working basically through phone contacts and screen-based, that can be more dynamic than the traditional transactions on the stocks exchange.

¹⁴ For an example of the techniques used in several countries, Nars (1997).

benchmark. Examples of active management operations include swaps, repurchase of government's securities and exchange offers.

Inserted in the financial globalization context, with enhanced instability potential, diversified and extremely dynamic, public debt management structure must provide to debt manager the necessary agility to respond in the most efficient way. There are two opposed effects for the debt manager: on one side, technical instruments, financing sources and types of investors are diversified, providing numerous financing options with risk-aversion mechanisms; on the other hand, however, public policies lose degrees of freedom, as they become more vulnerable to capital movements. This increases the need of maintenance of sound economic policies, under penalty of, otherwise, the country suffers a fall in credibility that might harm stability conditions.

The other derived factor of financial liberalization, which is, instrumental technical sophistication, together with the larger volatility and uncertainty, have introduced the need of higher specialization for public debt management, suggesting that it should be driven in an extremely careful way. It is possible to notice, progressively, application of more sophisticated techniques of risk management by countries, as, for instance, constant monitoring of issued securities, use of derivative instruments seeking to hedge positions, adoption of benchmark portfolios,¹⁵ definition of goals to measure debt management results and effective ways to control its execution, and, finally, several institutional adjustments in the relationship among the institution entrusted of governments' debt and the Central Bank.

In short: inserted in the context of financial globalization, public debt management is conducted increasingly through sophisticated techniques of portfolio administration. So, to the traditional debt management approach, active

¹⁵ Benchmark portfolios consist of an hypothetical portfolio that involves foreign currencies weights, fixed and flexible interest rates distribution, maturity structure and risk exposure considered "optimal", with which the portfolio performane is measured against.

management elements are summed up, through position taking seeking to reduce the size of liabilities and to increase the net value of portfolio. Public debt management is increasingly carried out based strictly on financial parameters, adopting instruments and strategies closer related to private financial agent behavior, as systematic follow up and mark-to-market pricing of government's portfolio and use of risk management techniques.

1.3 Public debt and confidence crisis

One last aspect to be stressed is the relation between public debt management and confidence crisis. A confidence crisis, as defined by Giavazzi e Pagano (1990:126), is a critical change in the expectations over the policy formulators behavior, capable of, by itself, to precipitate a policy adjustment or, at least, increase the chances of the modification to occur.

Financing through the market implies that government should try to ensure, or, at least, facilitate, its access to financial resources, what is more important as larger its rollover needs in each moment. Special attention should be given to the agents' expectation formation. As far as the debt manager can have influence, he should build reliable debtor image.

The larger the public debt and the investors perception of its lack of sustainability, the more the government will need to make use of shorter maturity periods and/or of inflation or foreign currency indexed bonds. A scenario on which the debt structure might become a problem is described by Dornbush and Draghi (1990). In general, government will offer a premium for bonds placement of longer maturities, for the uncertainties associated with the future of the inflation or exchange rates. If the government, however, doesn't have a clearly defined long-term strategy for the debt and focus costs basically in the most immediate future (for instance, for just the mandate period), there are incentives to concentrate the debt issuance on shorter periods, like the premium reduction in

the near term and, therefore, the debt services drop. This may cause an increase in agents' uncertainty degree as for the future economic sustainability, which would lead them to demand even higher compensations to absorb government securities of longer maturity. The result might be the beginning of a debt concentration process in the short-term. The process can be prolonged in a progressive way, with the debt average maturity decreasing as long as it debt becomes more concentrated in the short period and agents see this as increasing rollover risk.

With the shortening of the average maturity, the funding crisis risk shall grow gradually. The increase in risk perception implies higher yields, what can increase insolvency risk perception. Above a certain limit, agents can become government securities averse, no matter the yield being offered, as they start to believe the debt profile turned into unsustainable. This process can last until a complete rejection of government securities occurs.

The potential influence of a highly concentrated short-term maturity structure for the eruption of a confidence crises suggests that offering relatively higher yields can be of interest for the government, in order to lengthen the debt profile. In this sense, the largest premiums offered would be compensated, at least partially, by the fall of the yields to be paid as default risk premiums.

Analyzing the premiums paid by the Italian government contrasted with the premiums paid by private agents in similar securities, Alesina *et alli* (1990) notice that, as a general rule, those are higher. The conclusion is that premiums are more dependent on the issuer type than on risks related to the instrument type, i.e., exchange rate and inflation risks. The analysis also indicates that the amount of debt to expire is more important than its composition, or, in other words, the maturity structure is more important for prevention of confidence crisis than, for instance, the distribution between fixed and floating rates or the currency

composition. This could justify paying higher premiums in order to lengthen the debt profile.

The analysis of Giavazzi e Pagano (1990) reaches similar conclusions. The authors indicate that the capacity to resist a confidence crisis is strongly related to the frequency that the government needs to rollover its debt. Consequently, with high concentrated debt amount in the short-term and with rollover restricted to few dates, larger are the probabilities that, in the case of a confidence crisis, the government would be forced to meet agents' expectations. On the other hand, the smaller the debt to be rolled in certain date, larger is the flexibility to adopt measures to overcome the crisis.

These authors' models assume open economy, fixed exchange rate, free capital mobility, and imperfect information about the preferences and actions of the government. This implies that it is not possible to agents the previous knowledge of what would happen in case of a confidence crisis, what could occur even because of the fear that the government could monetize the debt or incur in a default as of a depreciation. It is assumed, in addition, a sound monetary policy in relation to the exchange rate policy and the level of external reserves are relatively comfortable.

In this scenario, an attack to the exchange rate would have, as one possible defensive movement, an increase of interest rates in order to attract capital and to strengthen the external reserves. If the maturing debt in the moment of the crisis is relatively high, the increase on interest rates can be revealed as a problem, as it would bring more pressure to the fiscal situation. In the limit, this could motivate the government to honor its liabilities through debt monetization, in order to avoid incurring in a broader deficit. However, monetization means an increase on monetary base, exactly when there is a fall in cash demand (because of the increase in interest rates). This could fuel the

attack against the exchange parity, and, as a result, the additional fiscal burden would be faced with external reserves selling.

To investors, the higher the amount of debt maturing in a certain moment, higher is the risk perception and the probability of a confidence crisis. So, higher would be the spreads and, therefore, the chances of devaluation. This recommend the adoption, by the government, of a more uniform and extended maturity profile for its debt.

The existence of limitations to overdraft between the Central Bank and the Treasury changes the analysis, as it turns less plausible the possibility of a crisis as exposed by the authors. This doesn't eliminate, however, the possibility that, indirectly, the Central Bank starts to supply liquidity to the market looking for restraining the lost of reserves, as securities could be offered with yields above those charged by the Central Bank for loans to financial institutions. This measure, obviously of doubtful effectiveness even in the short term, would seek to maintain the resources out of the exchange speculation for some time.

Factors that could increase the flexibility to the government are the possibility of foreign currency debt issuance or loans from other central banks and/or multilateral organisms, like the IMF. This alternative, however, would be relatively limited, mainly (but not only) to less developed countries. In the last years, as discussed above, debt issuance have been increasingly based on securities directed to private agents, with costs formed based by the degree of world liquidity and the agents' expectations of the country's solvency. This last one is ruled mainly by domestic and external political-economical conditions to the country. So, in any context of difficulties that indicates increase in the probability of a confidence crisis, the costs of the external capital would rise in a suitable way, making unfeasible the external issuance. The resource to the IMF, on the other hand, can signal to the investors that the government has been

having difficulties to refinance its debt and contribute to intensify negative expectations.

The discussion above suggests that governments must consider not only public debt level, but also the way it is managed, in order to keep its debt in a sustainable path. In other words, it gains increased importance to establish a defined strategy, to care for the consistence between objectives and operationalization of public debt policy and to diversify financing sources, as larger the weight of the debt and its concentration.

2. Institutional Arrangements for Public Debt Management

The institutional arrangements of a country are closely related to its social, economic, political and cultural context, in which interfere and with which should interact. For this reason, it is possible to say that, in a first approach, each country is an institutional model in itself. It is not possible to find an unique pattern on allocation of public debt functions, as well as each arrangement presents peculiarities and imposes variables to be considered. However, these “unique” models hold some similar characteristics, what allows to group them in accordance with some predefined categories, in more generic models.

One of the main distinctiveness features of these models is the way the relation between public debt and monetary policy is defined. The more fragile the separation mechanisms between them, the larger should be its interpenetration, and, as a general rule, lesser should be the specificity of each one.

The primary assumption adopted here is that the forms assumed by operational and institutional arrangements for the conduct of public debt and monetary policies, as well as the formats adopted to coordinate the relationship between both, are aspects that can affect their results, justifying the study of the several possible arrangements and their potential implications. Cukierman *et alli* (1992:353) corroborate this idea, affirming that

“institutions cannot absolutely prevent an undesirable outcome, nor ensure a desirable one, but the way they allocate decision making authority within the public sector makes some policy outcomes more probable and others less likely”.

The arrangements and structures for managing public debt implemented in a country – in other words, the way functions are distributed and how relations are defined among agents – are a result of several correlated elements. Based on literature, it is possible to define, generically, the followings aspects: stage of economic development of the country and of the financial markets, defined

objectives for the public debt, defined policies for public debt (targeted markets, types of instruments, placement techniques) and institutional relationship history. These elements establish specific needs of organization between monetary and public debt policies, imposing limits and determining a certain list of possibilities of function distribution and operational and institutional organization.

The objective of this chapter is to discuss the different institutional arrangements related to public debt management, in contrast with possible limitations to its autonomy that can be brought by its primary links with monetary policy. In spite of the systematization efforts, it cannot be forgotten that the institutional changes are conditioned by the specific historical environment of each country. The whole reason for a country to adopt one arrangement or another can only be fully understood if related to its specific context.

2.1 Connections between monetary and public debt policies

When studying debt management policies, their interrelations with other policies should be considered, especially among fiscal and monetary policy. The simplest relationship between monetary and public debt policy is given by the budget constraint equation

$$Def_t = (B_t - B_{t-1}) + (M_t - M_{t-1}) \quad (1)$$

Such equation establishes that the government's deficit, at a given moment, must be covered by two alternative ways: through increase of net public debt ($B_t - B_{t-1}$) and/or by variation in monetary base ($M_t - M_{t-1}$).

The connection between these policies, however, is derived, above all, from the fact that operationalization of both involves common variables, making the actions of one influence the other. The basic "contact points" are, on the side of monetary policy, in interest rate manipulation (a basic instrument of monetary control), because it affects government debt costs. On the side of public debt, government's financing can provoke fluctuations on monetary base.

The topics above need to be viewed in more detail. The bonded debt strategy (that involves maturity distribution, periodicity, amounts to be issued, markets to be tapped, and so on) can have several effects on: (a) the demand and offer of liquidity, when affecting liquidity preference curve; (b) the flow of funds to financial markets, as it can affect the demand structure for securities between private and public bonds; (c) the level and the structure of interest rates; and, (d) by extension, the own monetary aggregates.

On the other hand, interest rates determination and the instruments chosen by monetary policy (in particular, the use of securities to carry out monetary objectives) can have influence not only on costs, but also on strategies of public debt. The adopted strategies can generate contrary effects to those intended, as well as can be affected negatively by unexpected interest rate variations.

These “contact points” show that management of these policies is potentially conflictive. So, determination of interest rates levels is just the most obvious point of conflict, as adoption of high or low rates, depending on the degree of monetary restriction wanted, has a direct effect on public debt cost. In other words, while monetary policy can need high interest rates, to debt policy it will always be the opposite.

Concerning variables related to the external sector of the economy, there are effects on exchange rate and on international reserves, caused by the two policies, that can affect monetary and debt conditions. The exchange policy influences foreign currency debt services costs as exchange rate depreciates or appreciates, and different debt strategies should be implemented in agreement with the adopted exchange policy; on the other hand, foreign debt issuance has expansible impacts on liquidity, which can raise the adoption of sterilization measures by the Central Bank.

Several examples of potentials conflicts between monetary and public debt policies are mentioned by Wheeler (1996:05-06):

- while the Central Bank can be favorable to foreign currency debt or inflation-indexed securities issuance, seeking to signal credibility by the government of exchange or monetary policies, respectively, the institution vested with debt management can reject this, judging that exchange risk (and, therefore, potential costs of the debt policy) would increase;
- the Central Bank can be willing to use pricing of debt instruments to transmit policy signals to market, while the debt institution can want prices to be taken just in market basis. So, an operation of liquidity injection through purchase of Treasury securities could receive offers at a price that would be accepted by the debt manager, but could be rejected by the Central Bank in the intention of signaling monetary restrains;
- in pricing of indexed securities, the Central Bank could prefer a coupon to signal larger real premiums, as indication that inflationary expectations are low, while the debt institution would prefer lower rates for cost reasons;
- the debt institution should prefer a long duration¹⁶ portfolio, that offers, potentially, smaller risks and larger stability, besides favoring market development. However, the Central Bank can prefer a portfolio of lower duration, since high duration could facilitate government's debt placement or bring problems for monetary policy;
- in regard to external sector policies, if the Central Bank is entrusted of managing government's foreign currency portfolio, a conflict of interest may arise, since the management of the debt denominated in foreign

¹⁶ Duration is the sensibility of the price of a security to interest rate variations.

currency in the exchange market has impacts on the internal liquidity level, which can conflict with intervention policies of the Central Bank. The purchases and sales of exchange to honor external obligations can be confused with a signaling change in exchange policy.

In short: there are several contact points between monetary and public debt policies, which contain potentials conflicts of interests between the objectives and the execution of both. Different focuses regarding relevant variables can generate ambiguous (and, frequently, opposite) effects and harm policies' effectiveness, because intended results can be frustrated, efficiency can be set below optimal, and macroeconomic unbalances can be generated. In addition, this can create an atmosphere of uncertainty, dazzling the signals to private agents, and can produce credibility problems for the government.

The existence of contact points and of conflicts between monetary and public debt policies stress two features: first, the need of establishing, in some extent, coordination mechanisms among policies (and, consequently, among the institutions respectively entrusted by their functions); second, it highlights the potential problems that may arise when policies are conducted with less sustainable and/or subordinated objectives.

2.2 Policy coordination

Contact points between policies and their coordination occur on two different levels, strategic and tactical (or operational) policies.¹⁷ Strategic policies are referred to general design and to public debt management program implementation, including conception of instruments, primary issues, commercialization, market intervention, and of relation among issuer and investors. Given their broad nature, these policies usually need joined participation of fiscal and monetary authorities in their elaboration.

¹⁷ The concepts are defined in Carracedo and Dattels (1996:20).

Tactical or operational policies refer to debt stock management and to its composition. So, these policies involve the most technical aspects, as type of instruments to be used, market strategies, yields, maturity periods, risk measures, etc. The formulation of this level of policy depends equally on objectives and on strategies adopted as on economic and financial contexts of the country.¹⁸

Despite the existence of multiple contact points, it is possible to synthesize the tactical coordination degree between policies in two central elements: types of instruments used for monetary operations and for managing public debt and level of sophistication of financial markets.¹⁹ The larger is the interconnection of policies established by these elements, wider is the need of coordination, and, above all, more dependent are policies. These factors will influence the type of institutional arrangement adopted.

It is assumed, for analytical purposes, that the main instrument for public debt management is bonds' issuance. The operationalization of monetary policy will be restricted, analytically, to three straightforward cases: direct monetary control, secondary operations with Treasury securities and secondary operations with Central Bank securities. In this last case, it is also of interest if their maturity profile differs from those securities used for government funding.

Regarding the level of market development, it is possible to identify different development stages,²⁰ differentiated by the liquidity degree of primary and secondary markets. The more developed are the markets, more pricing

¹⁸ Carracedo and Dattels (1996:22-25) identify three general approaches related to this type of policy: (1) trade-off between risk and cost, establishing an ideal mix among instruments (as an example, among securities with fixed coupons - that pay larger premiums but have smaller risk -, and securities with floating coupons - smaller premiums in the issuance but larger risk); (2) active debt management; and (3) immunization strategy, consisting to find an exchange and maturity composition that protect the government's net wealth against exchange or interest rate fluctuations and take positions in order to reach and keep these.

¹⁹ As Quintyn (1994).

process can be taken as an effective signal for agents of market movement. This reduces the need of direct interventions of monetary authorities. Due to this, higher is the potential of covering government's financing needs through market instruments.²¹

High liquidity markets allows a clear and well defined separation between the operationalization of monetary and debt policies, with primary issuance of government securities being used solely as a debt management instrument, while monetary policy is restricted to money and secondary markets. Coordination needs at an operational level, therefore, becomes minimum.²²

Less developed markets, by contrast, present limited liquidity, which limits government financing options. For this reason, authorities can be forced to use compulsory instruments.²³ The restricted market dimension can increase contact points between policies, since without a clear separation of markets and/or instruments the possibilities of a separate operationalization are constrained. As a result, public debt can be carried out, in a great extent, indistinguishably from monetary policy operationalization. In some cases, Treasury securities are used for the execution of both politics. It is possible that, in this case, the Central Bank assumes a wider role in the process.

Therefore, as less well-developed are the markets, larger will be the needs of operational coordination and of the adoption of explicit arrangements,²⁴ and smaller should be operational independence among them.

²⁰ According to Sundararajan *et alli*. (1994).

²¹ In general, developed markets present a broad range of monetary and financial instruments, structured derivatives markets, *market-makers*, etc.

²² Sundadarajan *et alli* (1994:23)

²³ Examples of compulsory instruments are non-voluntary loans to the government or the imposition of a minimum amount of public securities on private financial institutions' portfolios.

²⁴ Coordination arrangements can be classified as: (a) formal or informal, for the coordination and change of information among the monetary and fiscal agencies; (b) explicit, or combinations accomplished directly among the institutions, and implicit, based on the signalling offered by market parameters, as interest rates, exchange rates and inflation, future markets and secondary market oscillations. To these variable serve as efficient signals, it is logically necessary that the market presents a certain development level.

2.2.1 Operational arrangements between monetary and public debt policies

Based on market development stage, in use or not of Central Bank securities and in the market (primary or secondary) tapped to execute monetary operations, it is possible to delineate some general arrangements for the operationalization between public debt and monetary policies. Three general cases are defined, with some qualifications.²⁵

In the **first** arrangement, operationalization of both monetary policy and public debt policy is executed solely through primary market, but different instruments are used. In this case, Central Bank issues its own securities, uses Treasury securities especially issued with this purpose, or accomplishes credit auctions aiming monetary regulation, while government's regular securities are restricted to cover financing needs.

In principle, use of different instruments reduces the need of daily coordination. There is the risk, however, of the Central Bank's and Treasury's securities turn competitive among themselves in the market. The institutions entitled of public debt and monetary policy operationalization, for instance, can try to issue securities in the same period, based just on their needs and in their individual evaluation about the absorption capacity of the market. As a result, there could be an offer of securities above the potential demand, elevating the premium that investors would be willing to pay to absorb the issuance, making it unfeasible, or, at least, frustrating any cost strategy. The existence of potential conflicts suggests the need of operational coordination procedures.

The characteristics of this first arrangement makes it more compatible to economies without a developed secondary market (what hinders or even

²⁵ The arrangements presented are a synthesis from those defined by Sundararajan *et alli* (1994:23-25) and Quintyn (1994:31-38).

impedes the implementation of open market policies), like less developed or economies in transition.²⁶

A common practice when securities from both the Central Bank and the Treasury are used is their differentiation by maturity. Monetary policy, in this case, tends to issue at extremely short maturities (generally, up to a week), while debt management remains with longer ones. Obviously, it is necessary that market's demand allows this sort of differentiation.

In the **second** arrangement, operationalization of debt and monetary policies is delimited by restraining the execution of each to primary and secondary markets, respectively. The most usual case is when both policies are accomplished through Treasury securities, with new debt issuance being held exclusively for deficit financing, while monetary management is done through open market operations. This is the most common case on developed countries, and is the one that demands less operational coordination, as there is a clear separation of scope of execution.

The **third** operational arrangement corresponds to the simplest existent case, and usually takes place in less developed countries. Both policies are held through Treasury securities issued in the primary market, what limits the specificity of both policies, and, consequently, this arrangement requests a larger coordination degree, because there is no prior differentiation of the instrumental and execution. Besides, this arrangement has a great risk potential to government's finance, as monetary operations seeking to limit the monetary base can induce increases in the government expenses, generating a contrary effect and, *ceteris paribus*, enlarging public deficit.²⁷

²⁶ As every institutional arrangement, though, this one is not restricted to the case where it fits best.

²⁷ An even simpler variant from this arrangement is when there is neither a specific institution to manage the public debt nor government securities. In this case, there can be a complete fusion of monetary and debt operations, carried out by the Central Bank.

It is possible to say, in fact, that the development of financial markets and the arrangements adopted are interrelated processes that are mutually reinforced, since the introduction of market-based instruments supports and stimulates the financial market, because it

“expands the opportunities for active liquidity management (for the central bank, the commercial banks, and other nonbank institutions) and provides incentives for institutional development (for example, more active asset-liability management by commercial banks or the development of new institutions to support secondary trading). In turn, the resulting increased depth and efficiency in money and government securities markets opens up additional opportunities for effective and efficient implementation of monetary and public debt policy; moreover, the growth in government securities markets serves as a catalyst for the development of markets in other more risky securities (such as enterprise bonds and stocks)” (Sundararajan *et alii* 1994:01).

2.3 Definition of public debt objectives

A clear definition of objectives has crucial importance for the assembly of the institutional framework and to determine allocation of public debt functions, delimiting the scope of monetary and public debt policies, allowing to draw operational strategies closely connected with the established goals, facilitating the evaluation of the effectiveness of the chosen instruments.

The basic objective of public debt is the covering of borrowing needs. However, it is possible to highlight several different objectives, and, usually, countries adopt several ranked goals related to public debt execution. The most common ones²⁸ are among those listed below.²⁹

- Objectives directly related to the conduct of government borrowing operations or to the management of government debt:
 1. covering government’s borrowing needs;
 2. ensuring government’s continued access to financial markets;
 3. enhancing government’s credit conditions;
 4. broadening the range and the distribution of government debt securities;

²⁸ Carracedo e Dattels (1996:15).

²⁹ The classification used here (objectives directly related to government financing and debt management and objectives aimed to give support to other policies) is based on Bröker (1993:37).

5. achieving a balanced maturity structure;
 6. attracting foreign investors, ensuring transparency, promoting liquidity and smoothing market conditions;
 7. ensuring an effective and efficient liability management with regard to costs and risks;
 8. minimizing costs volatility;
- Objectives related to other policies support:
 9. contributing to an improved functioning of financial markets;
 10. supporting monetary policy;
 11. contributing to the development of the bond market as a whole;
 12. promoting household savings;
 13. providing pricing benchmark to other state and corporate securities.

The adoption of one or more of these objectives contributes to determine the distribution of functions among the institutions, as well as the adoption of certain strategies. On the other hand, the adoption of objectives are limited by the level of institutional development, since it imposes different necessities. Objectives seeking to the assembly of a balanced maturity structure, for instance, have few chances to become effective if markets' structure does not allow the extension of government's liabilities profile.

In countries with less developed markets, or with a high inflation history, primary objectives of public debt management are usually linked to market development and to monetary policy support. This limits the possibility of separation among policies, and can favor an arrangement in which the Central Bank assumes a role of great importance in the decisions regarding public debt. Besides, a goal as minimization of costs, in this context, can take to the adoption of measures like an excessive withdrawal of resources from the Central Bank (what would be potentially inflationary) or compulsory placements to financial institutions below market rates (what could disturb the development of secondary market and move away voluntary sources of financing).

In a more developed economy, there is wider room to adopt objectives of a more "microeconomic" nature, which are related not only to covering borrowing needs and to market development, but also to more sophisticated ones, like decreasing volatility costs, market diversification, minimizing long term relation

costs-risks, or managing debt maturity profile. These objectives involve the use of more sophisticated operations and instruments, and, usually, are supported by a stricter separation among instruments and/or institutional arrangements, in order to allow a distinction of spheres of policies execution.

In short: when public debt management has, among its more important objectives, monetary or market development goals, it makes a stronger case to adopt arrangements in which many of the main debt functions are of attribution of the Central Bank. But, with more developed markets, there are room for more sophisticated and technical objectives regarding public debt, and there can be a gain of efficiency in its execution if it counts with arrangements that privilege the separation of policies.

2.4 History of institutional relationship

Political power equilibrium between Ministry of Finance and the Central Bank can be an important factor of debt functions allocation. At first, there is a conjunctural element to be highlighted, as one or the other acquires more or less influence over public debt decisions from time to time, according to the influence they have in the administration. There is, however, a structural or historic component that can make the Central Bank attain a high degree of influence in the country's public debt management, which is related to the history of development of its functions.³⁰

Central banks' functions have been evolving and changing during times. Government financing have been one of central banks' attributions from their origin, and providing credit lines to the government have been one of its most important (if not the main) funding source.³¹ Only in the recent past usual current

³⁰ Based on Castelo-Branco e Swinburne (1991:03-06).

³¹ The creation of institutions that could be called "central banks" can be dated from the second half of the 18th century. Their appearance can be related to two factors: war financing and the unification of monetary systems, protecting country's reserves of metals and providing *seignorage* to the government.

functions have been developed. Performing as the government's bank, central banks have gradually obtained role of banks' Bank and of unique monetary issuer, until attain the functions related to the sustainability of monetary system as a whole.

So, depending on the historic magnitude of the Central Bank in a country, specially related to its role in the sustainability of the economy, there is the possibility that debt functions remain, in a great measure, subordinate to it.³²

2.5 Institutional models of public debt management

At first, it is useful to differentiate the existing public debt functions:³³

a. Policy

- a.1 formulation of public debt objectives
- a.2 definition of guidelines in order to achieve the proposed objectives
- a.3 coordination with monetary policy
- a.4 debt program approval

b. Planning

- b.1 financing needs projection
- b.2 issuing program design (frequency, amounts, instruments)

c. Primary Issuance

- c.1 short term administration of the primary market, including amounts to be issued on each auction and calendar

d. Fiscal

- d.1 cashflow management
- d.2 short term cash needs estimation

e. Commercialization

- e.1 management of techniques to tap investors

³² Germany provides a good example. The country has been through two severe hyperinflations, after each World War, that have completely collapsed its monetary system. These have been seen as the result of monetary policy instruments and currency issuance used by the government in an irresponsible way, willing to obtain very short term funding during the war period. When the *Bundesbank* was created in 1957, so, there was a strong emphasis in the principle of its independence, in an attempt to avoid its use by a government with short term goals. The *Bundesbank Act* (which regulates its functions and attributions), for instance, explicitly establishes its independence, and declares that *it must support economic policy as long it does not interfere in its role of conducting monetary policy*. Besides that, government's economic policy is object of a close follow-up, to assure that it will not provoke monetary imbalances. This gives an enormous political influence to the *Bundesbank* over economic policy, including debt management issues. To a brief description of the history of central banks in Germany, see Deutsche Bundesbank (Oct. 1995).

³³ This classification is a modified version of the one by Sundararajan *et alli* (1994:26).

f. Secondary Market

- f.1 management of the debt stock held by the market
- f.2 support and development of market liquidity

g. Advisory

- g.1 public debt advise provided by debt agents

h. Issuing and Redemption

- h.1 issuance and retirement of bonds
- h.2 payment and receiving functions

i. Accountancy

- i.1 registration of debt stock and instruments

j. Risk Management

- j.1 establishment of risk limits to debt operations
- j.2 risk control on a regular basis
- j.3 risk standards approval

There is a regularly established institutional pattern, defined by practice, to debt functions allocation (as Carracedo and Dattels 1996:06). As the primary purpose of public indebtedness is budget financing, it is relatively consensual that legal responsibility over public debt should be given by the government to the institution vested with this function, which traditionally is the Ministry of Finance. As main fiscal body, this institution would be the most appropriate to provide a link among fiscal policy, budget execution and its financing sources.

It is common practice that some debt functions are delegated to other units of the government, like the Central Bank and/or the Treasury, keeping at the Ministry of Finance level only the most strategic decisions (like functions “a”, “b.1”, “d” and, eventually, “j.1” e “j.3”, listed above). This means that it is possible to find several different institutional arrangements in different countries.

The role of Central Bank in public debt management can vary considerably. Several authors,³⁴ however, share the opinion that the Central Bank presents, as a general rule, three main functions. The first is an advisory function for the Ministry of Finance, with regard to technical features of market

³⁴ See, for example, Blommestein and Thunholm (1996), Sundararajan *et alli* (1994) and Ter-Minassian *et alli* (1995).

(interest rates movements, systemic liquidity situation, monetary aggregates evolution), giving opinions on the debt program design and the debt stock structure, types and mix of instruments, demand characteristics (amounts, yields, securities characteristics). The second function is as issuance/redemption agent, which involves a series of duties: To organize rules and procedures for the sale of securities; to accomplish functions of government's cashier, in all operations regarding government's securities; to be the government's central depository; to facilitate the clearance of transactions with government's securities in the secondary market; to supervise secondary market; and to collect and to diffuse data on secondary markets. The third, the institution can act as fiscal agent, accomplishing payments and government receiving. As it will be argued ahead, however, the Central Bank can present several other debt management functions, from policy formulation to the most technical ones.

The basic justification that permeates the three above functions is that, for maintaining constant relationship with the market and very close attendance of monetary and financial variables, the Central Bank would have comparative advantages to exercise activities of more operational nature, what implies a closer and direct contact with the market.³⁵

The discussion held above in this chapter presented the main elements that can influence debt management functions allocation. Based on this, three generic institutional models are defined. These models have its most important distinctive feature on the institution – Central Bank, Ministry of Finance (or Treasury) or Debt Management Office (DMO) - vested with the main debt management functions. The focal point here is to infer the autonomy degree provided by each model's structure.

³⁵ According to Blommestein e Thunholm (1996:09), however, there would also be an implicit objective behind the role of advisor, which is, to create a favourable environment to the conduct of monetary operations.

2.5.1 Central Bank Model

In the “Central Bank Model”, the institution concentrates several debt management or debt related functions and assumes, in a substantial degree, even strategic and tactical functions, as well as several other functions of operational support. This relatively extensive list of responsibilities will give it significant discretionary power in terms of debt decisions.

In this model, the Ministry of Finance usually keeps a limited role, performing mainly as a connection between government and the Central Bank. The main attribution of the Ministry is to give the most generic lines of planning, according to the guidelines provided by government’s economic policy.

This arrangement is more common in economies where there is not a clear delimitation among monetary and debt policies. So, it is suitable mainly to less developed economies, in which fixed income markets are not mature, or to economies in transition. However, it is possible that a country with developed financial markets adopt this arrangement, as it depends on other factors than market development stage. But, according to the international experience, the relation of less developed markets and the “Central Bank Model” can be seen as most typical.

It is interesting to notice that this Model have been applied to several countries in the past, like Italy, Spain, United Kingdom and Brazil. Once markets, monetary and debt management have become more sophisticated in these countries, though, the institutional organization started to privilege a wider separation of functions and instruments. These countries present, now, structures that reflect an institutional evolution in response to the changes of their micro and macroeconomic contexts.

In some countries, some peculiar institutional features can explain a wider range of functions placed in the Central Bank. In Denmark, for instance, political and technical functions of foreign currency debt management are of attribution of the Central Bank. The reason alleged by the government for this arrangement was to improve the coordination between public debt reserves' management, as well as to reduce the exchange risk. The explanation is that the foreign currency issuance is used exclusively for recomposing external reserves, which are of responsibility of the Central Bank.³⁶

2.5.2 Ministry of Finance Model

In a broader definition, the “Ministry of Finance Model” can be seen as most typical nowadays. Most of strategic and tactical functions are located in the Ministry. The Central Bank can also assume some functions, depending on the degree of institutional separation. As a rule, however, it is of attribution of the Bank just the function of fiscal agent, assuming the most operational aspects as debt placement, sale and redemption of public securities (tasks on which the Central Bank is seen to have comparative advantages, given its closer contact with the market).

This Model can present two slightly different configurations. In the first, public debt functions are carried out by several decentralized units, directly subordinated to the Minister of Finance. The functions of these units are not necessarily limited to subjects related to the debt, they could be involved as much with technical debt subjects as with widest subjects of fiscal formulation policy. It is the case of countries as Japan and Argentina.

The second configuration comprises a formally defined subordinated unit inside the Ministry of Finance. Such unit (named generically as “Treasury”) seeks to centralize the administration of the financial resources and the government's

³⁶ This example is mentioned by Cassard and Folkerts-Landau (1997:13-14)

obligations, consolidating the fiscal functions and of debt management, among others.

The Treasury functions, usually, are not limited to public debt management. According to Ter-Minassian *et alli* (1995:02), the role of this institution involves the following aspects:

- formulation of budgetary and tax policies, within the overall framework of macroeconomic policy;
- budget preparation and execution, monitoring and controlling central and local government operations, as well as extrabudgetary funds;
- cashflow management;
- public debt and collateralized debt management;
- financial assets management (including shares of public enterprises, government stocks, etc.);
- government accountancy;
- development and maintenance of the government's financial information system.

Although existing differences from country to country, it is possible to say that the Treasury is primarily responsible for the government's financial management. In this Model, final decisions of public debt are subordinated to a hierarchical level that has other responsibilities and/or smaller contact with the technical aspects of public debt, which can make decisions to be taken based on parameters that, in first instance, are strange to the technical scope of debt management. This is potentially dangerous, as seen above, as there is always the possibility that decisions taken without a strict consideration of the debt profile increase the related risks, affect negatively agents' expectations and lead to macroeconomic imbalances.

In this second configuration, it is possible to include, for instance, Mexico, Spain and Brazil. This Model is being reviewed in several countries. The verified trend is going in the direction of accomplishing institutional changes that can be identified to the structure of a DMO.

2.5.3 Debt Management Office Model

The structure of a DMO represents the most recent development in terms of institutional organization for public debt management. All the structures in these models were implanted starting from the end of the 1980's. Among the countries that have already adopted the Model are Sweden, New Zealand, Austria, Belgium, Ireland, Portugal, Hungary, Iceland, Finland, and United Kingdom.

The Model seeks to allow larger institutional separation among fiscal, monetary and public debt policies. The general philosophy behind DMO is that, in the intention of endowing larger efficiency, it should move away from the traditional way of public administration, excessively bureaucratic and, therefore, little agile, to a structure with similar features of private financial management, without losing sight of public objectives and obligations.

A DMO, therefore, constitutes a government unit with a high autonomy degree in technical decision-taking process. This means that general guidelines of public debt policy (as annual volume, degree of risk aversion and maximum share of foreign currency debt) are defined outside the DMO (in general, by the Ministry of Finance), while it remains responsible for technical decisions or, in other words, operationalization of the goals established (decisions like pricing, auction decisions and risk management alternatives – types of instruments, timing, composition, issuance amount).

The structure has two main objectives: when looking for setting aside technical decisions, it tries to remove from government the facility to use public debt instruments as short term tools of economic policy; on the other hand, it tries to help professionalize portfolio management by removing bureaucratic limitations to active operations, seeking to increase portfolio's liquid value and to reduce debt costs.

Two simple examples of government's potential influence on debt profile, in order to use it as a short term instrument: first, the will of signaling to market the steadiness of its own exchange rate or anti-inflationary policy, by issuance of foreign currency or inflation-linked debt, respectively; and, second, the adoption of a policy seeking to reduce short term costs, through issuance of shorter maturity debt only – what can bring lower costs in principle, but presents a higher risk, especially regarding refinancing.

The autonomy of a DMO is related, therefore, just to policy's instruments, being results appraised against criteria and parameters defined out of its sphere. The largest hierarchical position of the institution should agree with a certain goal established by government, what imposes limits and objectives for its performance. The maintenance of the position DMO's main executive, in fact, can be directly attached to the attainment of established goals. In compensation, the mandate should be fixed and, preferably, non-coincident with the presidential mandate, in order to minimize the possibility of pressures on policy's operationalization.

The philosophy of a DMO overlaps passive debt management, assuming portfolio positions based on expectations and analyses concerning future behavior of markets and their fundamentals. This implies taking positions on more technical grounds, and accomplishment of operations seeking alteration of the portfolio structure.³⁷ According to this, its attributions are not restricted to elaboration and conduct of government's financing strategies, but can also include, with larger agility, secondary operations with debt stock held by the market, besides techniques of risk management. In addition, this focus suggests that the institution can be able to operate with assets. These operations would

³⁷ It is important to notice that portfolio management approach doesn't necessarily include only bonded debt, but all government's liabilities, like contractual, guaranteed and even state and municipalities debt. These obligations should be valued according to established risk parameters. In practice, however, not

include, among other, purchase and sale of exchange positions, hedge of positions through derivative instruments, and repurchase of government's securities.^{38,39}

A DMO, therefore, concentrates technical decisions of portfolio administration. Given the largest specificity of performance, this Model can supply a more appropriate structure for planning and accomplishment of complex operations, seeking debt costs minimization given a certain risk degree.

The keywords for a DMO are specialization and agility. These come into view in the lack of bureaucratic processes and in the flexibility of the work relations, as they turn closer to the molds of the private sector. The emphasis in the technical aspects turns fundamental the composition of the staff with specialized personnel. A DMO can count with an own specialized administrative section, in order to avoid the traditional bureaucratic processes that may slow and impede its actions. In general, in the countries in which it has been implemented, DMOs are not constrained by public personnel plans, and the staff can be hired as private employees. That is translated in the capacity to establish wages more freely, to supply specific training, and to be able to attract, within certain limits, skilled professionals from private financial sectors. Regarding the decision process, there is a larger attribution of individual responsibilities, with several decision functions of more current practice being delegated to inferior hierarchical levels.

In short, the adoption of a DMO is related to the following objectives:

always all country's liabilities are included in the portfolio administration, due to difficulties of liabilities' evaluation or for political problems.

³⁸ As objectives for these operations, it is possible to mention: (1) take advantage of momentaneous government debt securities lower prices; (2) swap of low liquidity securities for more liquid ones; and (3) obtain financial gains with bid/ask spreads.

³⁹ In countries where operations with financial assets are allowed, they are usually limited to short term positions and by a high risk aversion degree. The conduct of these operations can be made through an operation desk (like in Sweden and New Zealand, for instance).

- (1) to establish clear parameters of public debt management, favoring transparency and reliability;
- (2) to set aside public debt from other decisions of economic policy, which can lead to unnecessary risk taking, (once its responsibilities are limited to public debt management, a DMO can be less prone to assume a trade-off between long term objectives - as market stability and establishment of the investor's reliance - and short term objectives – like covering budget unbalances with short period or indexed debt; or, in addition, to signal to the market the reliability in government policies); and
- (3) try to achieve governmental goal of costs minimization with professional market operations (within the established limits set by the MoF)

A DMO can assume the format of a formally independent agency (as in Sweden and in Ireland) or an intermediate configuration, appended to the Treasury (as in New Zealand), with a smaller degree of formal independence but having the most technical decisions delegated to the levels responsible for their implementation.

In this Model, Central Bank's role is restricted, and even its traditional role as issuing and redemption agent can be transferred to the DMO.

In the case of countries with less developed markets, there can be difficulties to promote a strict separation among policies, and, in fact, this can even be unwanted. As argued above, in recent stages of markets' development, objectives of both policies are strongly related, and cost minimization goals can inhibit the development of liquid and efficient secondary markets. So, for the effectiveness of a DMO Model, it is necessary that institutional arrangements that favor a larger autonomy to the conduct of monetary and public debt policies - as, for instance, separation of instruments, restricted and very defined objectives and limitation of the Central Bank's influence over debt management – are presented.

3. Independence in public debt management

The main issue to be considered in the definition of Central Bank's functions is to prevent that its role in debt management creates a conflict with its monetary objectives. Blommestein and Thunholm (1996:08-09) argue that it would be beneficial to have a clear separation between attributions and instruments of monetary and of public debt policies. The main focus of this argument is to avoid that actions of monetary policy are biased for guidelines not directly related to them. The favorable arguments to the establishment of structures of public debt management with higher degree of autonomy put emphasis on the opposed side, or in the tentative of minimizing the influence of other policies – notably monetary policy – over debt management.

The more independent structures for public debt management are derived, then, from a correlated principle from the one that have inspired discussions about the central bank independence, which is, to move away formulation and operationalization of policy from the influence of another government instances and policies not directly related to it, looking for a larger efficiency on results.

So, this paper proposes that the conception of a DMO as a public debt management unit with a high autonomy degree is parallel to the discussions concerning central bank's independence. Although each of these discussions has been motivated by different economic contexts, and refers to different objects of analysis (monetary and public debt policies), the features that determines the degree of independence to the policies' conduct and the institutions can be widespread for both of them.⁴⁰

⁴⁰ The discussion of the features of a DMO is recent and littled explored, what turns difficult to find a systematization of the subject in the literature. Therefore, the discussion on the central bank's independence will be generalysed to analyse the DMO case, without disregarding, of course, its specific features.

It was only in the course of time that functions today usually attributed to a central bank have been developed, until reaching functions of lender of last resort and of sustaining monetary conditions of the economy as a whole. The discretionary monetary policy has been incorporated as a central banks' role just by the end of gold standard, as exposed by Castelo-Branco and Swinburne (1991:03-06). In the lack of a reference for monetary value, money stock of the economy have become a standard for itself, turning monetary aggregates' control a crucial concern in the search of systemic stability.

The concept of independence is even more recent and reflects the idea that strict need of monetary control could not be precisely pursued if monetary policy and instruments could be used by the government with short term objectives, not directly related to currency stability, enlarging the potential of provoking unbalances on "real" variables, thus affecting economic stability, or, at least, adopting stop-and-go policies. So, potential risks involved have enforced the idea of limiting government's influence on monetary policy.

The discussion about independence of central banks has gained significant momentum in the 1970's. On that moment, great part of the capitalist economies had been facing stagflation. With the keynesian framework apparently in check, the focus of national policies was reverted, with monetary policy of the main economies starting to concentrate on monetary aggregates' control other than the control of interest rates.

Two other related factors have also contributed to change monetary policy focus: the rupture of the Bretton Woods' system of fixed exchange rates and the growing complexity of international financial system, especially with the fast expansion of the European market. While increasing the potential instability of the global economic system, this have put larger pressure on central banks' function of maintenance of systemic stability. On the other hand, financial complexity have led to a larger integration among movements of interest and

exchange rates, turning more integrated the conduct of exchange, monetary, fiscal and public debt policies.

In the case of public debt, as seen above, largest integration among markets the increase of national public debt standards in the 1980's, new financial instruments and growing importance of institutional investors had emphasized the significance of a largest control on government's financing, which was translated, institutionally, by the adoption of structures with larger autonomy degree for debt management.

The idea of separation among policies is reinforced by an argument exposed by Wheeler (1996). According to the author, if there is not a clear separation between monetary and public debt policies, this last one usually turns subordinate to that other in some degree. This means that, without a clear separation of functions, technical decisions are ruled, primarily, for monetary management objectives. These, as seen above, can demand pricing patterns, maturity and interest rates incompatible with public debt sustainability conditions. Such fact makes unfeasible an efficient risk management and turns public debt management excessively passive.

“Without this clear separation, debt management policy will become almost inevitably submissive to monetary policy, as monetary authorities try to use debt policy as a way to reinforce the signaling of their own policy and to increase the credibility of the Central Bank.” (Wheeler 1996:04)

3.1 Goal independence *versus* instrument independence

The concept of independence as applied to public debt management must be qualified. As seen above, the base for the arguments is settled by the discussion concerning the independence of the central banks. The analysis of central banks' independence, nowadays, assumes a potential inflationary tendency of monetary policy. Cukierman (1994:1437-1439) qualifies this idea,

establishing that the rationality of independence leans on two pillars. The first is theoretical and determines that policy-makers present an inflationary bias.

“Monetary policy enables them quickly, but temporally to achieve various real objectives such as high employment, financing of the budget deficit and low interest rates. In the process, high-powered money is increased fueling inflation and inflationary expectations and creating an inflationary bias that persists long after the desirable effects of monetary expansion have disappeared.”

The second pillar for the idea of independence, of empirical nature, shows a negative correlation between inflation and degree of legal independence, as presented, for instance, by Alesina and Summers (1993).⁴¹ It is also possible to identify a negative correlation between inflation and previous announcement of monetary policy. Furthermore, some studies show no relation between growth or investment and independence degree, or, in other words, no *trade-off* between inflation and growth.

The “inflationary bias”, as states Fischer (1995), is analyzed from two different approaches, both focusing the role of the central-banker and assuming a discretionary policy conduct: the conservative-central-banker and the principal-agent.⁴² In the first,

“the central bank should be independent to ensure that its preferences rather than those of society determine monetary policy in a context in which the precommitment to optimal (low inflation) policy is impossible” (Fischer 1995:202).

So, this approach is based on the choice of a central banker more inflation-averse than agent’s average and that takes decisions based on the supposed short term *trade-off* between inflation and growth.

⁴¹ In the case of less developed countries, this relation can be inverse. This highlights the significance of differences between formal and informal independence, as, in several cases, the existence of formal independence does not implicate actual independence. Ver Cukierman (1994:1440).

⁴² For a deeper study of these Models, Fischer indicates, to the *conservative-central-banker* approach, Rogoff, K., “The Optimal Degree of Commitment to an Intermediate Monetary Target”. *Quarterly Journal of Economics*, Nov. 1985; and, to the *principal-agent approach*, Persson, T. and Tabellini, G. “Designing Institutions for Monetary Stability”. *Carnegie-Rochester Conference Series on Public Policy*, Dez. 1993, and Walsh, C. “Optimal Contracts for Central Bankers”. *American Economic Review*, Mar. 1995.

The second approach (*principal-agent*), on the other hand, is based in a different concept of independence. The central banker agrees with a goal, usually related to inflation performance, established by government. This imposes limits and objectives for monetary policy, as clear and objective parameters are settled. The position of the central banker is, in this case, formally linked to the attainment of the established orientation.

Both approaches point out to two different ideas of independence: the first is related to *goal independence*, in which the institution is allowed to determine both instruments and objectives, while the second is related to *instrument independence*, described by the control only over policy instruments, being results evaluated through criteria and performance parameters defined outside its sphere (although it can participate).

Both approaches above emphasize the degree of agents' confidence on the central banker as a key factor. In fact, one of the main points in the conception of an independent central bank is in the

“certainty that an effective monetary policy depends on the agents' confidence on the way monetary policy operates and what it intends to achieve, and that the independence of the central bank can contribute in an important way to establish and to maintain such credibility” (Castelo-Branco e Swinburne 1991:iii).

The results obtained by theoretical and empirical studies, as indicated by Fischer (1995) and Goodhart (1994), suggest that central banks should have only instrument independence. The explanation is simple: first, settlement of own objectives could provide incentives to establish relatively easy to be reached goals, which would not necessarily be suitable with stability demands; second, when defined goals are established, instruments to achieve them are given and the institution's credibility is linked to obtained results, there seems to be enough incentives for goals' achievement; third, instrumental independence allows a widespread transparency to society over policy conduct.

The idea of autonomy in DMO structures is related to the concept of instrument independence. The parallel with the discussion about central banks is relatively simple. The “bias” for public debt management is identified as the possibility for debt managers to use debt instruments with short term objectives. As discussed above, this could deteriorate the debt profile and composition, and, in consequence, increase the risk perception and precipitate confidence crises, committing sustainability of financing conditions and, for extension, of the whole economic policy.

As the primary reason of debt management is government financing, it would not be reasonable to adopt an arrangement in which all decision-making would be set aside from government. The objective, obviously, is not to remove from government the discretionary power in decisions over its financing capacity, but to avoid, insofar as possible, that public debt instruments are used in a way to excessively risk stability precepts. So, there would not be much sense to adopt a goal independence arrangement. The definition of the principal-agent, on the other hand, seems much more adapted to the objectives intended by the establishment of structures like a DMO. The settlement of clear parameters and goals to debt management performance would be of great importance to favor the transparency and the credibility in the fiscal situation, and should contribute favorably to expectations about the economic policy soundness.

3.2 Independence level factors

The independence of an institution can assume several gradations.^{43,44} The role and composition of the directorate can be of great significance in the

⁴³ As stressed above, on literature the discussion about the independence refers to the central banks, but it can be generalized.

⁴⁴ Based on Castelo-Branco and Swinburne (1991), Cukierman *et alli* (1992), Alesina and Summers (1993) and Cukierman (1994). Discussing central banks cases, the empiric studies analyze the relations among independence, inflation and “real” economy variables are based on several types of indicators. Cukierman (1994) emphasizes that the independence can be inferred through formal indicators (based mainly on the

relation between the institution and the government, as the directors can be the channel by which government influences policy decisions. It can be said that the independence degree would keep, *ceteris paribus*, an inverse relation with the degree of freedom of the government to name and to dismiss members of the directorate. So, a procedure to be adopted in order to preserve independence is to turn mandates fixed or almost fixed, being dismissal linked solely to a proven technical or administrative incompetence, usually decided by the Parliament.

Besides, the independence of the institution will be larger if the tenure of the highest hierarchical position of the institution is not tied in time to the president's tenure, in order to avoid, insofar as possible, a direct relation among the government's positioning regarding policy and the positioning of the institution, limiting the degrees of freedom for a discretionary use of the instruments.

For the institutions entrusted of the public debt, in the most common case - the "Ministry of Finance case", with or without Treasury -, the tenures, the recruiting and the dismissal of the members of the directorate are, as a rule, strongly subordinate to the government's discretionary power. In the case of DMOs, on the other hand, it is observed that contracts can be fixed, with the dismissal linked to non-attainment of established goals. This is the case of New Zealand and of Sweden, for instance.

Regarding the formal process of policy determination and conflicts resolution, it is possible to say that, in general, institutional independence is directly related to the authority to formulate its own policy and the power to resist to impositions from other instances.

analysis of the stipulated legal arrangements) or informal (obtained by direct researches that try to capture the reality of the arrangements formally stipulated). The formal indicators have the problem of just capturing legal independence, which can be different from the what is in fact verified. The informal

Some usual arrangements can be mentioned.⁴⁵ The first one is when the institution has the highest degree of independence, having enough formal and actual power to resist to pressures from the government; there is also a second case, on which independence is formally established, but there must be periodical reports to government; a third case is one on which although the institution has the authority to formulate and operationalize its policy, it must be in line with governments' policy. Government, by its turn, can interfere formally on the institutions' policy. In this case, conflicts assume a public dimension, having a relatively high transparency, what gives additional protection to the institution and is a discipline aspect for government actions; and the fourth case, on which independence is formally rejected, and government interventions do not need to be formally conducted.

Concerning the public debt management Models discussed above, the most usual one – “Ministry of Finance Model” – does not contemplate the possibility of formal independence, what is suitable to the last two arrangements described above. On the “DMO Model”, the instrumental independence avoids the extreme case of total independence. There must be periodical reports, with or without formal independence, what makes this Model suitable to the second arrangement above.

A small set of goals allows, *ceteris paribus*, a higher degree of independence, while a wider set of goals, if compatible among them, can provide a larger degree of independence than a set of incompatible ones. Multiple goals can be inconsistent to policy operationalization, what could affect policy credibility or generate undesirable economic results.⁴⁶

indicators, on the other hand, try to establish a more objective picture starting from current events related to the central bank.

⁴⁵ Based on Castelo-Branco and Swinburne (1991).

⁴⁶ It is important to notice that formal attributions are not always actually verified. Treasuries with a wide set of goals can perform basically in order to control public debt, while institutions with a narrow set of roles can be forced to address a much wider set of goals, specially if government has influence over it.

The “Ministry of Finance Model” arrangements involve, among their goals, wide statutory matters, like how to support monetary policy and to guarantee the soft markets operation. According to Wheeler (1996), most of the countries do not have very clear objectives for the the public debt management in terms of cost and risk, because of the little definition (or even disregard) of the aversion degree to the government's risk. The results, in general, are bad performances, lack of objective evaluation and waste of resources. Even when objectives are defined in terms of cost, parameters are not usually clear.

In regard to the responsibility for policy results and limits to the use of instruments, it is possible to say that public confidence is related to its perception of the degree in which the institution is committed with the goals it stands for. So, transparency appears as a factor of great relevance. In the case of central banks, according to Castelo-Branco and Swinburne (1991:27), there are not, in the legislation of most countries, mechanisms that encourage responsibility and monitoring. In several of them, this takes the form of specific goals made public.

In relation to the public debt, transparency can be stimulated through similar practices. The definition of performance goals, involving, for instance, debt maturity profile, duration, costs and exchange composition, among others, can be done by establishing benchmarks against which to compare obtained results. An additional form of control can be given by the establishment of periodical reports presented to the government or to the Parliament.

Budget autonomy has an important role for independence, as it reduces government's potential pressure in the decision-making. Budget independence is translated in a larger possibility of use of resources, in order to obtain wide administrative autonomy, reaching larger flexibility degree for recruiting specialized staff and building up work conditions. A larger budget independence

in debt management is verified only in more independent models, as in some DMOs, but is not usual to all of the institutions of this kind.⁴⁷

Cukierman *et alli* (1992:363-367) highlight that management position turnover can be a good informal indicator of independence, as a high turnover turns the institution susceptible to government's pressures and discourages long term measures. However, a low turnover does not necessarily implicate larger independence.

An important factor comes from functions delegation inside debt management structures. In the case of New Zealand, for instance, independence comes, above all, from the internal DMO structure, as several decision functions are delegated to inferior instances, bureaucratic processes are minimized and there are fixed mandates for the directorate.

⁴⁷ As, for instance, the New Zealand DMO, which used to be located inside the Treasury, with administrative functions coordinated by this institution.

4. The concept of independence and the Brazilian experience

4.1 Public debt dynamics during the 1990's

This section intends to briefly describe the main issues affecting the dynamics of public debt during the 1990's in Brazil.

The decade can be divided in two different periods: Relative fiscal stability in the first half of the decade and a return to the fiscal unbalances in the second half. There was growing participation of the portion relative to “Federal Government and Central Bank”, as well as growth of the debt of states and municipalities, while there was an accentuated fall in the debt of the state-own companies. The composition of the debt suffered substantial change, with strong growth of the domestic component in relation to the external. Finally, several sources of quasi-fiscal deficit were created.

The analysis of the evolution of the public section net debt (PSND) as proportion of GDP shows that the 1990's began with a slowing down movement up to 1993 – from around 39% of GDP in 1990 to around 30% of GDP in 1993 –, what can be explained, mainly, by the impact of Collor Plan (1990/1991) on domestic debt, as well as the efforts of larger control of public sector expenses and credit, the growth of the tax burden and the reduction of real interest rates. Soon afterwards, the dynamics of the debt was reverted, reaching 37% in 1995, and, after stabilizing around 34% of GDP in 1997, jumped to 42% in 1998, reaching the level of the second half of the 1980's.

In 1995, the operational result presented a strong deficit (around 5% of GDP), partially due to the increase of real interest rates (what explains 25% of the deficit, according to Biasoto and Mussi 1997), but mostly because of the increase on real expenses.

Regarding the public sector financing needs, while the period between 1991 and 1994 was relatively balanced, starting from 1995 the operational result was strongly deficient, reaching 7,5% of GDP in 1998. In contrast, the primary result presented a surplus between 1991 and 1995 (of 2,8% of GDP for 0,4%, respectively), small deficits in 1996/97 (0,1%,1,0% of GDP, respectively), and a small surplus in 1998 (0,01% of GDP).

From 1994 on, there was also a relative concentration of the debt in the stance of the federal Government and Central Bank. This, in part, was due to continuous Central Banks negative results, which reflected not only the direct impact caused by the reduction of inflation, reducing earnings with inflation tax and *seigniorage*, but also quasi-fiscal deficits of several character, as will be explained below.

The federal government and Central Bank's bonded debt held by the public presented accentuated growth in the decade, from little more than 3% of GDP to 36% in 1998, or, in terms of total net debt, from about 8% to 85%.⁴⁸ These numbers demonstrate that the federal domestic bonded debt has assumed increasing relevance in federal and total net debt.

These numbers suggest that the accentuated growth in the debt/GDP relation cannot be explained merely by a lack of control on public expenses. The dynamics of the second half of the decade, actually, had a strong relationship with the economic stabilization policy adopted during the Real Plan. The combination of a relatively overvalued exchange rate and high domestic interest rates had two complementary objectives: promoting recessive effects on domestic credit and attracting foreign portfolio investments to finance the Current Transactions Account deficit and to provide sustainability to the exchange rate,

⁴⁸ The increase was equally due to the increase of Treasury and of Central Bank securities. Between 1994 and 1998, the stock of Treasury securities passed from 15% of GDP to 38%, while the share held by the public (in other words, out of the Central Bank's portfolio) went from 9% to 25% of GDP. The share of Central Bank securities went from 7% to 12% of GDP, specially due to quasi-fiscal deficits financing.

by the accumulation of international reserves. The high interest rates, by its turn, put increasing pressure on the debt costs, as can be seen from the operational results shown above.

Besides that, the large influx of foreign capital imposed increasing use of sterilization operations by the Central Bank. Starting from 1992, there has been a strong increase in the accumulation of international reserves. The Central Bank needed to compensate the impacts on the monetary base by issuing BBCs, what was a decisive factor to the negative operational results, starting from 1995.⁴⁹ With the influx of foreign capital, sterilization operations reached up to 44% of the Central Bank's total assets in 1995 (against 24% in 1992), and kept expressive levels, reaching about 39% in the beginning of 1999.

In fact, the role assumed by the Central Bank during the Real Plan contributed significantly to the generation of quasi-fiscal deficits in the 1990's. This was due to the fact that the institution have assumed, increasingly, functions which were much broader than its primary function of managing monetary policy. As Biasoto and Mussi points out (1997:08), the Central Bank of Brazil started to assume commitments of economic policy and had to face the different inconsistencies of the Brazilian financial system. It is worth to say that the indirect impact of the economic stabilization had a much more powerful potential instability effect on Monetary Authority accounts than the direct impact, through the reduction of the inflation.

An important factor of quasi-fiscal deficit has been the increased issuance of Central Bank's securities, which were not subject to the fiscal budget.⁵⁰ According to Biasoto and Mussi (1997), this is explained by operations of

⁴⁹ According to Llussa (1998).

⁵⁰ The volume issued passed from R\$ 37,0 billion to R\$ 107,0 billion between 1994 and 1998, representing a shift from around 7% to 12% of the GDP. The net issuance increased from 50% of the total issued by the central government (Treasury plus Central Bank) in 1995 for 60% in 1998. This suggests a larger participation of the institution in financing the nominal fiscal deficit.

sterilization of the monetary impact of the accumulation of international reserves and operations of states' debt restructuring.

The process of states' debt restructuring implemented by the federal government was another source of quasi-fiscal debts. During the 1990's, there has been a strong increase in the states' bonded debt. With the increasing outstanding states' debt and a progressive fall in the credibility of their solvency, they have started to face problems for placement and rollover. In response, a rescue operation was put into action through the Central Bank, promoting an exchange operation of states securities for government ones (as Biasoto and Mussi 1997:25). So, states' debt have been assumed by the federal government.

Similarly, another source of quasi-fiscal deficit have been the PROER, a financial system restructuring program established in the end of 1995 to help banking institutions that have incurred deep financial unbalances. In the 1980's, financial institutions could work strongly levered, which was aimed at facilitate the rollover of public debt. The fall of inflation rates during the 1990's, however, have ended the gains with inflation tax and made explicit the real financial situation of the institutions. The financing of the program have been made through issuance of federal debt.⁵¹

Finally, the privatization process forced the recognition on the part of the government of non-registered liabilities, being, at most, securitized debt originated from liabilities of public companies being sold, creating the so-called

⁵¹ The potential of debt generation of PROER was relative, according to Barros and Almeida Jr. (1996:16), as " (...) it is not always that expenses from the PROER cause a liquidity expansion, because those loans can come to substitute a previous loan operation that the Central Bank already did to the financial institution (rediscount operation) (...). besides, if it will be or not sterilized will depend on the behavior of the other conditioning factors of the monetary base, of the monetary programming and of the liquidity level of the economy desired by the Central Bank. In other words, it is not always that expenses from the PROER are accompanied by an increase of bonded federal debt in market".

"skeletons". These liabilities actually have impact on the debt stock,⁵² but do not represent a deficit incurred in the period.

4.2 The Real Plan crisis

The Real Plan crisis can be used to illustrate how a higher degree of autonomy could impact the conduct of economic policy by the government. The stabilization plan has been based, to a great extent, on an overvalued exchange rate. One of the derived effects of this policy has been continuous and growing deficits in the Current Transactions Account. To finance this imbalance, interest rate have had to be kept high, in order to attract portfolio investments. On the other hand, this have put pressure on government debt costs.

The adoption of the exchange rate anchor model implies the existence of a sustainable fiscal situation. The reason is exactly that it often needs maintenance of high interest rates, which, sooner or later, can generate a confidence crisis and compromise currency parity. During the Real Plan, however, public deficit and debt assumed ascending tendency, due to the interest policy and the increase of government's expenses. The option, clearly, have been to sustain exchange rate parity in spite of the increasing unbalance of public and Balance of Payments accounts, postponing indefinitely the adjustment of the rest of the economy. In consequence, in the years of 1996 and 1997 inflation was under control, but public debt was in an ascending path, generating growing distrust regarding the sustainability of the exchange rate regime.

The Asian crisis, starting from the last quarter of 1997, was the ignition for a confidence crisis process, precipitating a speculative attack against currency parity. The Brazilian government answered according to "market principles",

⁵² In 1998, for instance, the balance regarding the securitization process was around 2,5% of GDP, according to data from the National Treasury.

defending the *real* using accumulated reserves and offering even higher premium for the speculative capital by increasing interest rates.

After the period of larger intensity of the crisis, little have been done to provide sustainability to the fiscal situation. The focus given by the government, so known of previous decades, was that the external crisis would be of short duration, and the level of reserves would be enough to discourage any speculative attack to the *real*. As an immediate result, starting from October of 1997, public debt profile started to present strong deterioration, presenting growing percentage of debt indexed to the dollar and with shorter maturity

In fact, one of main factors that allowed Brazil to sustain the fiscal problem during the whole year of 1998 was the possibility of financing the government increasingly through indexed instruments and of shorter period,⁵³ as a response to the confidence crisis in debt sustainability and deficit financing have progressively taken place. The cost of this policy was a predictable strong deterioration of public finance, intensifying the confidence crisis. At the end of 1998, the situation once again worsened with the Russian moratorium, but, at this time, Brazilian fiscal situation was much more fragile, as a result of the lack of adjustment. International capitals retracted, and a growing flow of capital leaving the country was verified, configuring a strong and persistent attack to the currency parity. The situation deteriorated until the beginning of 1999, catapulting the public debt for about 52,0% of GDP in February of 1999.

The result of the government's policy options was: significant depreciation of the currency (including a strong overshooting movement); new increases of

⁵³ The government was forced to adopt, predominantly, inflation- and dollar-indexed instruments. The proportion of fixed rate debt, that has reached up to 61% of the total in 1996, lowered to 3,5% in 1998. In contrast, the securities indexed to over/SELIC increased their share from 19% to 69%, in the same period, while dollar-indexed securities went from 9% to 21% of the total debt. The debt also became increasingly concentrated in the short term as, by the end of 1998, the Treasury's bonded debt up to 3 months reached 35% of the total; between 3 and 6 months, the percentage was of 32%; between 6 and 12 months, 20%; and between 1 and 3 years, 11% the total. The Central Bank's bonded debt presented an even higher

interest rates; strong economical instability, catalyzed by growing distrust in government's capacity to honor its liabilities; return to financial attendance from multilateral institutions (mainly the IMF); and an effort of fiscal control done hurriedly and with deficient focus on the real unbalance sources.

It is interesting to speculate what could have happened if the Brazilian institutional arrangements contemplated a centralized public debt management with a high degree of instrumental independence.

It should be recognized that the main objective of a debt management institution is budget financing. One should argue, therefore, that the measures undertaken as answers to the confidence crisis couldn't be very different, as they have just reflected agents' expectations, in accordance with "market principles".

However, the increasing share of dollar-linked debt and maturity concentration would have probably been against the risk standards stipulated for the debt, at the technical level. As a result, there could have been stronger resistance to a radical change of the debt profile. The trade-off between short term policy measures and long term fiscal sustainability would be explicit, as government would be obliged to ask for a change in the prior guidelines stipulates to debt management, while the debt manager could be against it, based on objective reasons. A possible result, among several, could be that the smallest freedom to rollover the growing public debt through instruments of larger risk would force, in the first years of the Plan, the adoption of fiscal measures seeking to provide larger sustainability to public accounts. The reason behind this would be exactly to maintain an economic context in accordance to the precepts of "market principles", which were inherent to the own conception of the Real Plan.

concentration, with 76% maturing up to 6 months, 15% between 6 months and 1 year, 9,5% between 1 and 2 years and only 0,6% above this period.

So, government could have been forced to adopt measures of correction for the Plan through another variables, as a controlled depreciation and/or cuts in public expenses, much before a confidence crisis of great magnitude have been generated.

Another possible result, however less effective, would be to have provoked a bigger public discussion about actions to be taken. As seen previously, this is one of the reasons presented for the adoption of more independent structures.

It is not intended here to affirm that the existence of a more independent structure for public debt management would necessarily bring the results described above. The adoption of one or another institutional structure doesn't have deterministic effects. It just turns some results more probable to occur.

It is important to notice that, although a higher control of the fiscal situation was a necessary condition (although not sufficient) for the sustainability of the economic policy of the Real Plan, the policy contradictions imposed the State to try to outset the conflicts generated from stabilization. As there has been little effort seeking to solve fiscal unbalance in a structural way, these conflicts were continually restored. Together with the need to attract external resources, this has been translated into an increasing volume of public debt, committing the capacity of intervention of the State more and more.

It is worth saying that the maintenance of the exchange rate parity has become the objective *per se* of the whole economic policy, with special relevance in what refers to public debt policy. Therefore, institutional arrangements derived from the economic policy of the *real* would not be compatible with the establishment of more rigid restrictions for government's financing, once this have acquired an essentially subordinate feature.

5. Conclusion

The debate concerning the concept of independence as applied to public debt management is relatively recent and little explored. This paper attempted to contribute to the discussion by providing some definitions and emphasizing relevant points of analysis.

The financial globalization diversified the financial techniques, the sources of funds and the types of investors, providing a vast range of funding opportunities and risk management. On the other hand, it has taken away degrees of freedom to public policies, as they have become more vulnerable to capital movements. These factors reinforced the need for maintaining sustainable public debt policies regarding economic fundamentals and carried out based on “market principles”.

The limitations set by the financial globalization context reinforce the possibility to incur in high costs in the use of the instruments of public debt for the persecution of objectives not directly related to the government's financing and not based on sound long term strategies. As an answer to these limitations, it is possible to verify, in some countries, attempts of promoting, insofar as possible, a clear separation between the most technical aspects of debt management, like the instruments and operational strategies for the public debt and the part of formulation of economic policy, which includes fiscal and monetary policies.

In this arrangement, fiscal policy is vested with only the determination of basic guidelines of the debt policy as the amount to be financed based on budget needs and fiscal forecasts. The government loses, or at least sees hindered, the ability of using public debt policy as a direct short term instrument of economic policy. The reason is to avoid public debt being used with objectives not directed related to it. For instance, seeking to give larger credibility to the government's exchange or anti-inflationary policy by debt issuance denominated in foreign

currencies or indexed to price levels. The underlying perception is that this can bring, as undesirable effect, the increase of the exposure of public liabilities to unexpected variations of exchange or interest rates, turning the fiscal situation more vulnerable and, *ceteris paribus*, leaving the economic policy more subject to changes on the agents' expectations and to confidence crises.

The adoption of structures and arrangements for public debt management with a higher than average degree of autonomy is conditioned by goals, policies and strategies implemented and, in a broader way, by the relative importance attributed to the role of public debt to economic policy as a whole. On the other hand, it is limited by the stage of development of financial markets and by political power equilibrium among institutions. Although they are not deterministic, these elements can influence the need for a higher separation of functions.

The adoption of market principles to government financing implies that public debt management should not stay away from sustainability conditions as perceived so by the market. In this context, the establishment of risk parameters and consistent long term strategies acquire crucial relevance. The immediate gains that can be provided by the use of debt instruments, however, are an undeniable incentive to adopt short term goals. From this arises a conflict of interests to debt conduct by the government. The institutional arrangements like the DMOs are an attempt to respond to this issue.

Taking the analysis to the limit, these institutional changes on debt management can be seen as a conceptual change. The focus of public debt management is moved to privilege the adoption of restricted objectives, which provide sustainability to public financing conditions and are linked to sound long term strategies. The external influences to debt financing performance should be minimized, under penalty of, otherwise, provoking imbalances that can undermine macroeconomic consistence significantly. So, there should be

mechanisms available to allow larger control on debt composition and on instruments and financing strategies used. In other words, there should be, insofar as possible, restriction on the public debt management to its technical aspects of portfolio management. This would distance it from the influences of the framework of the formulation of the other policies and from the objectives of monetary policy, in order to assure its transparency, credibility and effectiveness. These conceptions are translated into the attribution of larger autonomy of the operationalization of the public debt management for the institution entrusted with this function.

The focus of this work is the possible implications of the adoption of certain instruments and institutional arrangements for public debt management and, in a wider view, for economic policy strategies. However, it is important not to lose the perspective that, analytically, there will always be a “supremacy” of economic policies over its instruments and arrangements. In other words, without the adoption of the appropriate policies, instruments or arrangements by themselves will not be able to guarantee a sustainable path for the public debt. Instruments and coherent arrangements with the adopted policies, though, can aid in the attainment of their objectives.

Policy actions that have impacts on the debt can be, at first, justified within the most general logic of the adopted strategy. From the strict point of view of public debt sustainability, however, these strategies can offer significant risks. The difficulty, then, is to determine to what extent the risk can be justifiable in the wider context of economic policy sustainability in the long run. Certain policy actions can increase risk substantially, bringing instability to expectations and, in the limit, denying the conditions of stability for the adopted economic policies.

The first step to reduce this potential problem is to adopt a portfolio/risk management approach to debt management. However, this doesn't seem to be enough, once there is space and incentive for every type of political manipulation.

It is in this sense that the adoption of strictly defined parameters for debt conduct and the delimitation of technical aspects and of risk measurement out of the spheres of political decision assume relevance. The institutional arrangements in line with the DMO Model are an expression of these concerns.

It is necessary to notice that the DMO structure does not implicate, necessarily, to impede decisions of political nature and to turn them totally rigidified by technical considerations. The objective is only to limit the reach of these decisions through the establishment of objective criteria, seeking to aid the maintenance of sustainability and the long run coherence of the policies adopted. The fixation of goals just supplies horizon planning that, on one side, can prevent sudden changes of policies without technical considerations and, on the other, can decrease the space of speculation (as long as the defined parameters are judged as solid by the market).

Changing the focus to the Brazilian case, it must be stressed out that a larger separation among policies and a larger independence for public debt management could do little or nothing to regulate the sources of public expense. Therefore, subjects regarding the increase of expenses with personnel, social security and general costs of government operation are left out of the analysis. Also left out is the quasi-fiscal debt generated out of the Central Bank, as in the case of debt originated from the recognition of liabilities and from securitization of state-owned companies debt in the privatization process.

The adoption of a centralized and autonomous debt management could significantly contribute in the following aspects: first, in the establishment of risk and debt standards which offer limits to the discretionary use of public debt instruments; second, in the potential restriction of the use of debt instruments with short run objectives; third, in the covering of fiscal needs of the public sector, reducing costs and providing larger efficiency to government financing through a more technical management; fourth, in the accomplishment of active operations

that allow to increase the government assets' portfolio value; and fifth, in the limitation of the potential generation of quasi-fiscal debt by the Central Bank.

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