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**Development of Government Bonds Market in Iraq
(Application of Japan's Experiences to Iraq)**

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& With Dedication

To
My Parents & Brothers with my Best Regards
My Wife and Children with my Best Love

Abstract

Since the 2003 war and the ensuing entry of occupation forces, Iraq has suffered from utter devastation, not just economically but in every aspect of life. The economy, like everything else, requires reconstruction and rebuilding.

The Iraq's economy is currently being reconstructed, and requires development in all parts, especially the financial system and government bond (GB) market, since they are important for raising funds, Meanwhile, GBs are considered a good instrument by policymakers for improving macroeconomic variables.

Therefore, the development of the GB market will be important both for financing public expenditures and for allowing the implementation of fiscal and monetary policies to improve macroeconomic variables. The development of the GB market will encourage the overall development of the financial system.

The purpose of this study is to examine Japan's experience with the development of the financial system, particularly with regard to the GB market, and to consider its applicability to Iraq.

Activity in the GB market can effect overall investment in the economy through three channels: financing, generator, and motivation. The most important effect of the GB market will be to bring about three changes in the financial system (in addition to its effect on financing the public budget), as follow: (i) Changing the structure of financial correlations; (ii) Changing the structure of methods of financing; and (iii) Changing financial instruments.

Keywords: Government debt, Budget deficit, Government bond, Financial system, Fiscal and monetary policies, Economic financing

JEL Classification: E44, E52, E58, E62, G18, G28, H61, H62, H63

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INTRODUCTION

I. Overview of the Study

The government bonds market is at the core of the financial market in most economies. It deals with tradable debt instruments issued by the government for meeting its financing requirements.¹ The government bond (GB) market is also a guide for the investment of all financial securities and stock; it forms the backbone of a modern securities market. It contributes mostly to converting savings into investments, disseminating information, managing risk, and supporting the activity of other securities. GBs serve to implement the crucial transfer of savings in an economy.

The benefits of GBs accrue to all economic agents, but especially to the government and Central Bank. Public enterprises and local governments, banks, financial institutions, businesses, and households also benefit from GBs.

Activity in the GB market can affect overall investment in the economy through three channels:

First, the financing channel. The government has come to rely on issuing bonds to meet most of its financing needs. The GB market also provides the economy and its policies with an impetus towards economic development. On the other hand, the Ministry of Finance (MOF) is relied upon to finance the government's expenditures and budget deficit, as well as to reduce dependence on oil revenues. A deep and liquid GB market facilitates its borrowings from the market at reasonable cost. The enhanced ability of the government to raise resources from the market at market-determined rates of interest allows it to refrain from monetization of the deficit through Central Bank funding.

Second, the generator channel. The Central Bank (CB) also uses the GB market to conduct open market operations (OMO) for management of liquidity and interest rates. Hence, the GB market will generate the fiscal and monetary policies to become more powerful and effective in the economy. A developed GB market allows greater application of indirect or market-based instruments of monetary policy such as open market operation. In addition, the CB is motivated to use the GB as an instrument of fiscal policy, thus the GBs become a good tool in the hands of the fiscal policymaker. This means that both the fiscal and monetary policies grow stronger than they would if implemented separately. Thus they can play a strong role in the economy, and their

¹ Governments issue securities with maturities ranging from less than a year to a very long term, stretching up to 50 years. Typically, short-term maturities up to one year, viz., treasury bills, form a part of the money market and facilitate the government's cash management operations, while bonds with maturities of more than a year facilitate its medium to long-term financing requirements.

effect on the macroeconomic variables will be more efficient and constant in creating economic growth.

Third, the motivation channel. In addition, the GB market motivates investment particularly in private-sector instruments, including financial assets like securities and stock. This leads to strengthening the stock and all financial markets. The GB market will have a positive influence on private investment by enabling it to develop private bonds market in three ways:

1. By putting in place a basic financial infrastructure, including laws, institutions, products, services, repo and derivatives markets.
2. By building an efficient financial system and establishing credible investment in all financial assets.
3. By playing a role as an informational benchmark.

Why is Japan a base of comparison for this paper?

Japan's economy is the second-largest economy in the world after the United States. Moreover, it has a strong and effective GB market. In addition, the JGB market considers the generation and guidance of financial investments.

As Iraq's economy is potentially very rich, due to its petroleum reserves. Can it not finance revenues its public expenditures and reconstruction costs through oil exports?

It can, but as is now apparent, oil is not a perpetually sustainable resource, and the age of oil is drawing to a close,² meaning it is necessary to find other methods for financing the economy. Furthermore, the development of the GB market not just for finance, but also for generating and motivating the economy towards economic growth.

II. Background of the Study

Iraq's economy is dominated by the oil sector, which has traditionally provided about 95% of its foreign exchange earnings. Furthermore, the government budget is also dependent on this sector mainly to finance all public expenditures. In addition, the income of the oil sector relies on international variables, particularly on the market price of oil and the exchange rate value of the US Dollar. Moreover, as we said above, oil as a resource is limited.

During the last three decades, Iraq's economy has suffered from pervasive state intervention, costly militarization, three wars, and over twelve years of international sanctions. As a result, this situation has made the economy weak, while heavy debt and

² The most wildly optimistic estimates indicate worldwide oil production peak will peak between 2035 and 2050. Generally, these estimates come from government agencies such as the United States Geological Survey, oil companies, or economists who do not grasp the dynamics of resource depletion. Even if the optimists are correct, this will occur within the lifetimes of most of those who are middle-aged today. For more information see: Mall Savinar, "The Oil Age is Over," available at: <http://files.meetup.com/40852/The%20Oil%20Age%20Is%20Over.pdf>

underdevelopment act as a drag on other economic sectors.

After the 2003 War, with the occupation by American coalition forces, the Iraqi economy has suffered from complete destruction not just of the economy, but also of every aspect of life in Iraq. Everything in Iraq must be reconstructed, which requires a large amount of funding.

In fact, the Iraqi economy needs a new strategy to correct its course, and to revitalize its economic activities. This strategy should focus on correction in economic policy, particularly on fiscal policy. A strong foundation for economic growth depends on the resources provided in the economy and requires diversified financing resources.

We think the fiscal policy should depend on *traditional Keynesian policy* because of the severe economic and financial situation. This policy aims to increase public investment in infrastructure and reconstruction, and give more freedom to the private sector, as well as reduce the tax rate in order to stimulate economic growth.

Moreover, the Iraqi government should rely on a new method for financing its increasing expenditures by developing the financial system, especially the *GB market* as a source of funding. As we said above, the GB market gives a large impetus to the economy through providing financing and promoting economic policy.

In addition, Iraq's economy has a very weak and inactive *taxation system* Iraq's economy does not need to increase tax rate because it is in reconstruction mode, and the economy needs active private sector. To that end, the economy should give more opportunities and ease restrictions so the private sector may prosper particularly at this stage.

Furthermore, Iraq's economy has a big *external debt*. The exact size of Iraq's external debt obligations is unknown, but it is estimated at about USD 125 billion.

On the other hand, the assessment of immediate and medium-term *reconstruction needs* throughout Iraq's economy is estimated to be more than USD 100 billion. This figure covers security, the oil industry, physical reconstruction, technical assistance, and others.

III. The Study Hypothesis

As mentioned before, the study relies on the following general hypothesis: *“The Government Bonds Market has a positive influence on all economic activities by enabling the development of economic growth” in three ways: (i) Financing public expenditures; (ii) Generating Fiscal and Monetary policies; and (iii) Motivating financial investment.”*

IV. Objectives of the Study

For the reconstruction of Iraq's economy, all sectors must be developed, especially the financial system and GB market, because these will provide much funding for the government. Meanwhile, GBs are considered to be a good instrument to influence

macroeconomic variables.

The main goal of this study is to examine the applicability of lessons from Japan's experience with developing its financial system, particularly in regards to developing a GB market for Iraq.

To fulfill this goal, our research objectives are:

1. Discussion of Iraq's financial system and government financing trends and development
2. Evaluation and identification of current financing problems
3. Investigation of the viability of alternative sources of financing, with a focus on government bonds market
4. Formulation of policy recommendations for facilitating development of Iraq's GB market and financing through it

V. The Scope and Period of the Study

The scope of this study: This study considers Japan's postwar financial system and GB market as a model applicable to Iraq. The study of how Japan was able to reconstruct its economy after War World II is very important for reconstruction of Iraq's economy.

The period being studied: From the end of WWII to the present day.

VI. Research Methodology

This study depends on *deductive methodology* from the theoretical aspect of GB market regarding the development of Iraq's GBs through an application of Japan's experiences to Iraq. The assumption is that Japan's experiences in the GB market are instructive for Iraq's economy.

In addition, we consider the supply of GBs is a generally exogenous variable in the market and financial system, determined mainly by the fiscal policy of the Ministry of Finance (MOF) and management by CB on behalf of MOF, so CB has played a key role in developing the GB market. In that sense, GBs are an independent variable in the financial system.

On the other hand, the dependent variables are the financing of the reconstruction expenditures of government, investment in the financial market, and the fiscal and monetary policy instruments.

VII. Divisions of the Study

In order to examine the validity of this study's hypothesis, the study is divided into three chapters. *Chapter One* discusses the theoretical literature of the GB market and how it can

be built and developed. There are three subheadings; the first explaining the financing of economic activities; the second defining the effectiveness and benefits of the GB market; and the third focusing on building and developing the bond market.

Chapter Two discusses the financial sector and GB market in Japan. There are two subheadings: the first highlights the status of the Japanese financial system for the past sixty years; the second focuses on current trends in the JGB market and its mechanisms.

In Chapter Three, we suggest a strategy for the development of Iraq's financial system with a GB market. There are three subheadings: the first highlights macroeconomic indicators in Iraq's economy; the second discusses the structure of Iraq's financial system; the third, focuses on the development of Iraq's GB market by applying the experiences of Japan.

CHAPTER ONE

Financing Economic Activities and the GB Market (The Theoretical Side)

This chapter discusses the theoretical literature on GBs and the basics of building and developing a GB market.

I. Financing Economic Activities

Economic activities are usually financed in variety of ways. There are some differences between public and private financing. Public financing is usually more flexible than private financing.

In general, the main sources of government financing are through funding from (see Figure 1):

- 1). Tax revenues
- 2). Earnings from government activities
- 3). Creating money
- 4). Borrowing from internal or external sources

Each financing mechanism would incur different macroeconomic repercussions:

When a government decides to finance its expenditures from **tax revenues**, it aims to increase taxes to raise tax revenues. However, this mechanism discourages private investment, because it carries additional costs. Thus taxes become an important part of the cost side. Therefore, in this case, the private investment sector may attempt to offset part of their costs by raising the prices of its products. As a result, the rate of inflation will increase; and thus, the increase in the rate of taxes leads to a rise in the rate of inflation.

The government cannot increase **earnings from its activities**, because that would require increased public investment in these activities, and in this case, the public investment will crowd out the private investment. Thus, if the government increases involvement in economic activities, it will compete with the private sector and act as a counterweight to economic liberalization.

There is a relationship between Central Bank (CB) and public budget financing: When the government borrows from its CB to redeem its deficit and finance its expenditures, in this case the CB should **create money**, which means increases in the money supply that will affect the rate of inflation and cause a decline in the interest rate. This situation will lead to instability in the economy and give incentives for overseas capital flight of private investment.

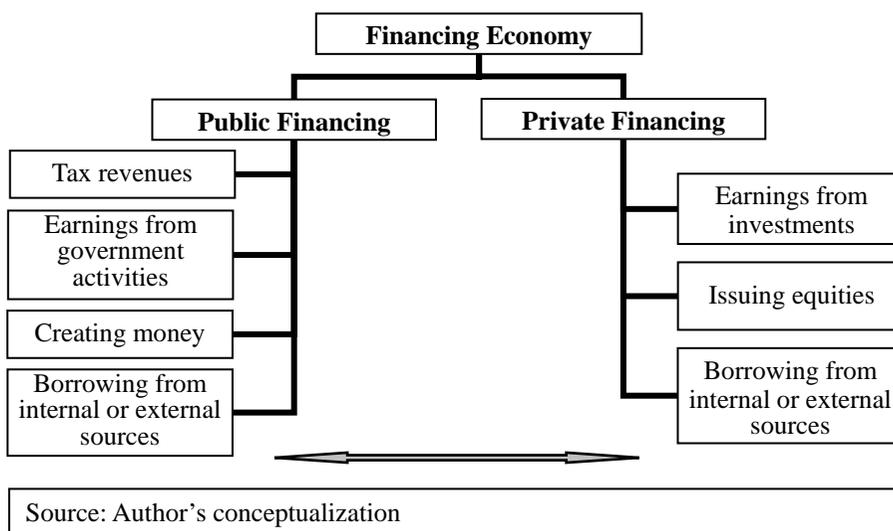
The government can **borrow** from two resources, which are:

- 1). External Debt: This is part of the total debt in a country that is owed to creditors

outside the country.³ The money created is in the form of direct loans and indirect debt through issues of bonds in foreign currencies in the international or domestic debt markets. Therefore, the increase in external debt may affect the balance of payments and lead to external debt crises.

- 2). Internal Debt forms a part of the public debt of the country. Its complement is external debt. It is a form of money creation, in which the government obtains cash not by printing it, but by borrowing. The government usually borrows by issuing securities, such as GBs and treasury bills, and sometimes borrows directly from commercial banks and other financial institutions. In this way, the expected increase in inflation due to the increase in national wealth is lower than if the government had simply printed monetary forms of wealth (i.e. money supply).

Figure 1. Financing Public and Private Activities



Some economists think that when government expands its borrowing to finance increased expenditures or cuts taxes (i.e. engages in deficit spending), the effect is that of crowding out private sector investment by way of higher interest rates. To the extent that there is controversy in modern macroeconomics on the subject, it is because of disagreements about how financial markets would react to more government borrowing. If increased borrowing leads to higher interest rates by creating a greater demand for money and loanable funds, and hence a higher price, the private sector, which is sensitive to interest rates, will likely reduce investment due to a lower rate of return. This investment is crowded out. The weakening of fixed investment and other investment-sensitive expenditure

³ The debtors can be the government, corporations or private households. The debt includes money owed to private commercial banks, other governments, or international financial institutions, such as the IMF and World Bank.

counteracts to a varying extent the expansionary effect of government deficit. More importantly, a fall in fixed investment by business can hurt long-term economic growth of the supply side.

However, this crowding-out effect is moderated by government spending, which expands the market for private sector products through the multiplier, thus stimulating (or crowding in) fixed investment (via the accelerator effect).⁴ This effect is most important when business suffers from unused industrial capacity.

Meanwhile, the private sector can secure funding to finance its investment generally from (see Figure 1):

- 1). Earnings from investments
- 2). Issuing equities
- 3). Borrowing from internal or external sources

In general, there are only two ways to fulfill funding requirements for corporate investment:

- 1). The private sector often issues equities to finance its investment, and offers them in the capital market for sale in order to raise funds. This process means the corporation offers the public a stake in its assets.
- 2). The private sector can also raise funds by issuing debt securities under various terms (short, medium, and long) in the financial market. In this case, the corporation should be paying a service charge (as in interest on its debt). The essence of debt is that you promise to make fixed payments in the future (indirect payment and repaying principal). If the corporation fails to make those payments, it will lose control of its business.

Notice that the public and private sector shares a debt mechanism to finance their activities -- bonds -- meaning they can issue debt securities in the bond market. Hence, the bond market is composed of public bonds and corporate bonds. Moreover, there is a strong relationship and correlation between them, especially in the interest rate and term of maturity, and the GB is seen for the most part as the index of market trends. In that sense, development of the GB market will lead to a similar development in the corporate bond market and, moreover, in all the financial markets in the economy. In addition, the regulatory regime for GBs provides the basic framework for bond markets and, indeed, for capital markets in general.

Therefore, how bond-financed government expenditures expand into private investment is very important, and we notice that almost all developed economies depend on this instrument to raise funds for financing economic activities, especially government expenditures.

Thus it is said that, "Government securities are the backbone of all financial markets,"

⁴ See: Emad M.A. Abdullatif, "Crowding-out and Crowding-in Effects of Government Bonds Market on Private Sector Investment" (Japanese Case Study), Institute of Developing Economies, Discussion Paper No. 74, October 2006.

as long as their turnover far surpasses that in any other financial market except the global foreign exchange market. Thus, every economy should create a bond market, or be developing theirs further.

II. Government Bond Market (Definition, Effects, and Benefits)

This section covers the definition, effects, necessary conditions for, and benefits of GBs, as follows.

1. Defining the Government Securities Market

The securities markets link issuers having long-term financing needs with investors willing to place funds in long-term, interest-bearing securities. A mature domestic bond market offers a wide range of opportunities for funding the government and the private sector, with the government bond market typically creating opportunities for other issuers.

The government securities market is defined as the market for tradable securities issued by the central government. The primary focus is on the market for bonds, which are tradable securities of longer maturity (usually one year or more). These bonds typically carry coupons (interest payments) for specified (for example, quarterly or semiyearly) periods of the maturity of the bond. The market for treasury bills (securities with a maturity of less than a year) and other special securities is considered here in the context of developing a long-term bond market.⁵ In other words, the government bond market represents an environment in which the issuance and trading of debt securities occurs. The bond market primarily includes government-issued securities and corporate debt securities, and facilitates the transfer of capital from savers to the issuers or organizations requiring capital for government projects, business expansions and ongoing operations.

GBs are the backbone of most fixed-income securities markets in both developed and developing countries. They typically are backed by the “faith and credit” of the government, not by physical or financial assets. In the private sector, however, mortgage financing often relies fully or partially on bonds backed by mortgages.

2. Necessary Conditions for a Bond Market

Government securities market development must be viewed as a dynamic process in which continued macroeconomic and financial sector stability are essential to building an efficient market and establishing the credibility of the government as an issuer of debt securities. Fundamentals for establishing an efficient government domestic currency

⁵ World Bank handbook, “**Developing Government Bond Market: An overview**,” Washington DC., July 2001, pp 2-4.

securities market include a credible and stable government; sound fiscal and monetary policies; effective legal, tax, and regulatory infrastructure; smooth and secure settlement arrangements; and a liberalized financial system with competing intermediaries. Where these basics are lacking or very weak, priority should be given to adopting and implementing a stable and credible macroeconomic policy framework, reforming and liberalizing the financial sector, and ensuring the proper pace of liberalization in different areas (for example, financial sector versus capital account measures).⁶

There are several essential components to develop a domestic bond market:

- 1). The framework of the budgetary process as well as debt management operation must support the continuing supply of bonds through operations such as automatic refinancing or refunds of maturing debt. Moreover, tools such as reopening of benchmark issues and repurchase operations of GBs are also essential for the efficient functioning of debt market operations.
- 2). There should be an adequate infrastructure, both legal and operational, to support the trade and transfer of instruments and funds. Operational infrastructure includes such things as a delivery versus payment system that is safe, rapid and efficient to ensure finality of fund transfer. An efficient bond registration system is also essential to provide legal protection of ownership of bonds. Rules and regulations to support trading and financing operations such as repurchase agreements, securities lending, short positioning, as well as hedging practices are all essential elements.
- 3). There must be a collection of market participants comprising both intermediaries such as dealers or inter-dealer brokers, as well as end-users such as mutual funds, provident and pension funds, and insurance. The end-users will provide a steady stream of long-term demands for bonds, which will complement the dealers' more traditional short-term horizon. In addition, the portfolio structure of end-users also acts as a counter-cyclical force to the one-way market of financial intermediaries, which is common to an emerging market, and helps preempt a massive panic or withdrawal of funds.⁷
- 4). There must be a deep and liquid GB market to serve as benchmarks against which corporate papers can be priced. To ensure that a GB market can continue to provide the benchmark yield curve, the system must be predictable and transparent.
- 5). In addition to an environment supporting bond markets (including macroeconomic and political stability, economic growth and low Inflation, a sufficient number of bond issues, interest rate structures, tax policies, a broader legal framework and more), additional factors supporting bond markets (including market yield curve,

⁶ Ibid, p5.

⁷ Chatu-Mongol Sonakul, "ADB Conference on Government Bond Markets and Financial Sector Development in Developing Asian Economies," in Yun-Hwan Kim, "Government Bond Market Development in Asia," Asian Development Bank, Manila, October 2001, p.xxiii-xxiv.

dealer community, elaborate trading apparatuses, clearing and settlement systems and others)⁸ are necessary.

3. The Importance of Financing by the Bond Market

Initially, the rationale for the development of a bond market rests on the fundamental thesis that long-term productive investment in any economy must be financed by long-term capital, whether in the form of equity or fixed-rate debt instruments. Investment-driven growth, which is typically what is aimed for, cannot be financed by bank deposits and short-term money alone,⁹ and this is especially true for government expenditures in infrastructure and fundamental construction of the economy.

The securities market may play an important role in the economy through greater diversification of financing, an easier process of risk transformation and a smaller concentration of financial risks. In addition, having access to swifter flows of diverse information, the financial market may check and screen financial risks more efficiently and quickly than bank credit departments, leading to more appropriate financing decisions being taken. Moreover, effective financial markets can also deepen a developing country's financial base, with far-reaching positive implications for development resource mobilization.

The development of a GB market is important to any economy for several reasons:

- 1). It helps to diversify the sources for the financing of economic development, infrastructure and reconstruction. Such financing has been overly dependent on banking institutions, involving a serious term mismatch between their short-term bank borrowing and long-term investment, inflexibility in financing methods, and high risk at the time when banks are reluctant to lend.
- 2). Developing a government securities market will help the government finance huge infrastructure development projects, many of which were canceled, delayed or reduced in the wake of the war and instability in the country.
- 3). The development of a government securities market will contribute to transforming domestic saving nationwide. It may also quite possibly convert savings by nationals outside the country as well, available mostly in short-term bank deposits, into long-term development resources.
- 4). It will contribute to enhancing public debt management, because the government securities market represents an open area for public-debt managers to move flexibly in order to control debt.
- 5). From a global perspective, bond financing will alleviate the uncertainties caused by

⁸ We will highlight all these in the following pages.

⁹ Yun-Hwan Kim, "Government Bond Market Development in Asia," Asian Development Bank, Manila, October 2001, p99.

global bank mediation. The disintermediation takes place largely due to two factors:

- i. Domestic and foreign banks are extremely cautious about providing new credit to the private sector.
- ii. Portfolio diversification and aggressive yield-seeking behavior of domestic and globalized investors have increased the opportunity cost of bank deposits.

4. Benefits of a Bond Market

The bond markets are central to the development of an efficient economic system, and there would be additional significant benefits if bond markets were developed. They provide greater investment opportunities for both public sector and private sector, and help deepen financial markets. A bond market provides a basic infrastructure for the development of the financial system and the overall economy.¹⁰

The GB market can have many economic benefits; the most important of them are below:

- 1). It allows a more efficient allocation of savings as it matches the borrowers and savers directly. Hence, it reduces the role of banks in the investment process, and reduces the amount of political interference in the allocation of credit since banks are subject to regulators such as the central bank. In addition, in view of the especially important role banks play in the payment system, any threat to a credit market that focuses entirely on the banks system is likely to have a marked effect on domestic liquidity and on the payment system. Local bond markets can help to separate these links.¹¹
- 2). The bond markets allow borrowers to use capital that is tailored to their assets and operations. Such tailoring may occur in many ways, the most important of which concerns maturity. Banks typically like to lend short because their funding sources are very short, but projects are not necessarily short term. That is why maturity mismatches have traditionally been one of the biggest sources of domestic market problems. In addition, development of a securities market can help change the financial system from a primarily bank-oriented to a multilayered system, where capital markets can complement bank financing. As government and related private sector securities markets develop, they force commercial banks to develop new products and to intermediate credit more competitively.
- 3). The economic benefit of long-term bond markets is that they provide retail and institutional investors with several high-quality and liquid domestic saving vehicles. Bonds have many characteristics that allow savers to choose their risk and maturity,

¹⁰ Ibid, pp, xxiii.

¹¹ Mickael Pettis, "The Risk Management Benefits of Bonds," Alison Harwood, ed, "**Building Local Bond Markets: An Asian Perspective**," International Finance Corporation, 2000, pp49-50.

and to develop investment funds and pension funds.¹²

- 4). The existence of a deep and liquid bond market allows financial institutions to prepare themselves better for risk management. The authority can require the banks to maintain a higher liquidity ratio, comprising both government and top-rated corporate bonds. The banks can then resolve their liquidity problem on their own by selling these bonds.¹³ On the other hand, the bond market allows banks and other financial institutions to transform their debt to debt tradable in the bond market through securitizations,¹⁴ which is to change debt to bonds.
- 5). GBs provide a pricing benchmark for the corporate sector. In fact, the corporate bond market should probably not be considered until there is a GB market, since the government is the only borrower big enough to develop a liquid market. Furthermore, since government debt tends to be the lowest risk asset within a country, all other assets can be priced off this asset.
- 6). At the macroeconomic policy level, a government securities market provides an avenue for domestic funding of budget deficits other than that provided by the central bank, and can thereby reduce the need for direct and potentially damaging monetary financing of government deficits and avoid a build-up of foreign currency-denominated debt. The existence of such a market not only can enable authorities to smooth consumption and investment expenditures in response to shocks, but if coupled with sound debt management, can also help governments reduce their exposure to interest rate, currency, and other financial risks. A shift toward market-oriented funding of government budget deficits will reduce debt-service costs over the medium to long term through development of a deep and liquid market for government securities. At the microeconomic level, also, development of a domestic securities market can increase overall financial stability and improve financial intermediation through greater competition and development of related financial infrastructure, products, and services. Development of a securities market entails creation of an extensive informational, legal, and institutional infrastructure that has benefits for the entire financial system.
- 7). The government bond markets create monetary policy instruments. Moreover, they can also strengthen the transmission and implementation of monetary policy, including the achievement of monetary targets or inflation objectives, and can enable the use of market-based indirect monetary policy instruments.
- 8). Another benefit of the bond market is that it can attract foreign investment. Foreigners can bring in funds to invest in high quality papers denominated in

¹² Ibid, p50.

¹³ Yun-Hwan Kim (2001), “**Government Bond Market Development in Asia**,” op. cit., pp, xxiii.

¹⁴ Securitization refers to the pooling of different assets and the issuing of new securities backed by those assets. In principle, these assets can be any claims that have predictable cash flows, such as real estate, financial assets, loans and others. This process does not happen without a bond market.

domestic currency. They are the ones to absorb foreign exchange risk. Without a bond market, domestic companies have no choice but to borrow abroad and bear the foreign exchange risk. From the perspective of government, securities market development and management of fiscal policies must aim at increasing the incentives of both domestic and foreign investors to invest in government securities. If a country is seen as not having the ability to manage its public expenditures or collect tax revenues, or if it has built up substantial explicit or implicit domestic or foreign debt obligations, investors will perceive a high default risk and the cost of financing government securities will rise.

III. Building a Bond Market

Financial market history offers important lessons about how fast a country can build its bond markets. In several cases, despite optimistic expectations, bursts of activity, and establishment of a new bond market infrastructure, little or no issuance or listings followed, or there were listings but no trading.¹⁵

One reason for this is that many people involved in building bond markets have operated as if creating markets is a technical, top-down, infrastructure-building exercise. You set up regulations and regulators, incorporate exchanges, introduce trading and clearing systems, and give regulators and market participants some education. Once the systems are plugged in and doors opened for business, a market will spring to life.¹⁶ Nevertheless, this “build it and they will come” approach often does not work. Doors are opened. Systems are turned on, and markets do not operate. Instead, there is often “no product,” no issuers and investor or intermediaries to transact. No market participation means no market.¹⁷

1. The Elements of the Securities Market (Activities as seen from the “four-I” perspectives¹⁸)

Generally speaking, *Issuers, Investors, and Intermediaries* (see Figure 2) will participate in a market if they see an economic benefit (better costs, better structures), are willing (have the right attitudes) and able (have the skills, regulations). *Infrastructure* is the provision of means to promote smooth transaction and ensure liquidity, such as repo (repurchase agreement: buying and selling bonds with repurchase conditions) and bond lending and borrowing transactions.

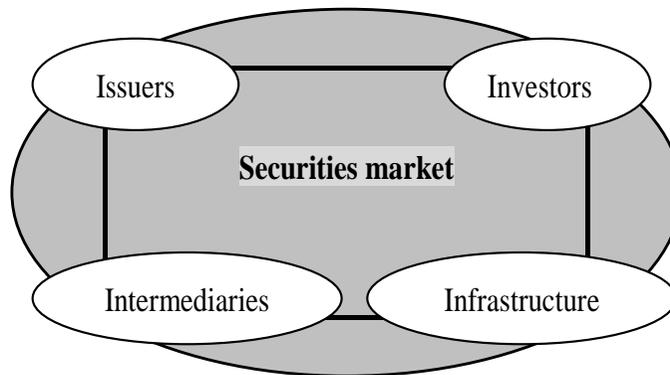
¹⁵ Alison Harwood, “Building Local Bond Markets: Some issues and action,” in Alison Harwood, “**Building Local Bond Markets: An Asian Perspective**,” International Finance Corporation, 2000, p5.

¹⁶ Building market infrastructure is a foundation for any market, but it is just a foundation.

¹⁷ Ibid. p6.

¹⁸ Masato Hirose, Takeshi Murakami, and Yutaro Oku,(2004) “Development of the Asian Bond Market and Business Opportunities,” Nomura Research Institute, **NRI paper, No.82**, Nov., pp 3-4.

Figure 2. The Four-I of the Securities Market



Source: Author's conceptualization

Clearly, the four elements of need/benefit willingness have the ability to drive one another. If the benefits are clear and significant, participants will be more willing to do “costly” activities like disclosing information. If better skilled, they will be less fearful and more willing to enter the market.

In the other word, bond markets worldwide are built on the same basic elements: A number of issuers with long-term financing needs, investors with a need to place savings or other liquid funds in interest-bearing securities, intermediaries that bring together investors and issuers, and an infrastructure that provides a conducive environment for securities transactions, ensures legal title to securities and settlement of transactions, and provides price discovery information. The regulatory regime provides the basic framework for bond markets and, indeed, for capital markets in general. A competitive market structure, low transaction costs, low levels of fragmentation, a robust and safe market infrastructure, and a high level of heterogeneity among market participants characterize efficient bond markets.¹⁹

1) Issuers: This side represents government and the private sector that have a scarcity of liquid funds for financing their activities. They issue Deficit Spending Units (DSUs). Therefore, from the “issuer” standpoint, there are two noticeable points. One concerns the beginning of government bond issuance on a large-scale and scheduled basis in many countries, which has contributed to the activities to establish benchmark yield curves. The second point relates to the gradual development of the primary market for corporate issuers.

2) Investors: This side represents parties that have surplus in liquid funds, which they

¹⁹ World Bank, “Developing a Government Bond Market,” op. cit., p4.

want to invest in successful activities with reasonable risk (Surplus Spending Units, or SSUs). Hence, from the investors' perspective, various institutional investors headed by commercial banks, insurance companies, and pension companies will participate in the bond market for diverse risk appetites (to what extent risk is willingly taken); differing investment policies has become a major policy issue. Investors should be diversified and composed of institutions such as pension funds, insurance companies, mutual funds, and other financial institutions interested in different credit risk and economic sectors.

3) Intermediaries: From the third perspective, “intermediaries,” i.e. securities firms and brokers, carry out activities that are very important in any market, especially in the securities market. They give information about current trends in the market to everyone who wants to participate (investors or issuers). Moreover, they bring together both the supply and demand sides of the investment market, market issuers and investors, in both primary and secondary markets. This process is part of a developed primary dealer system (a special system that requires government approval for participation in the primary market of GBs), which plays a key role in quoting prices not only for treasury auction in the primary market but also in the secondary market.

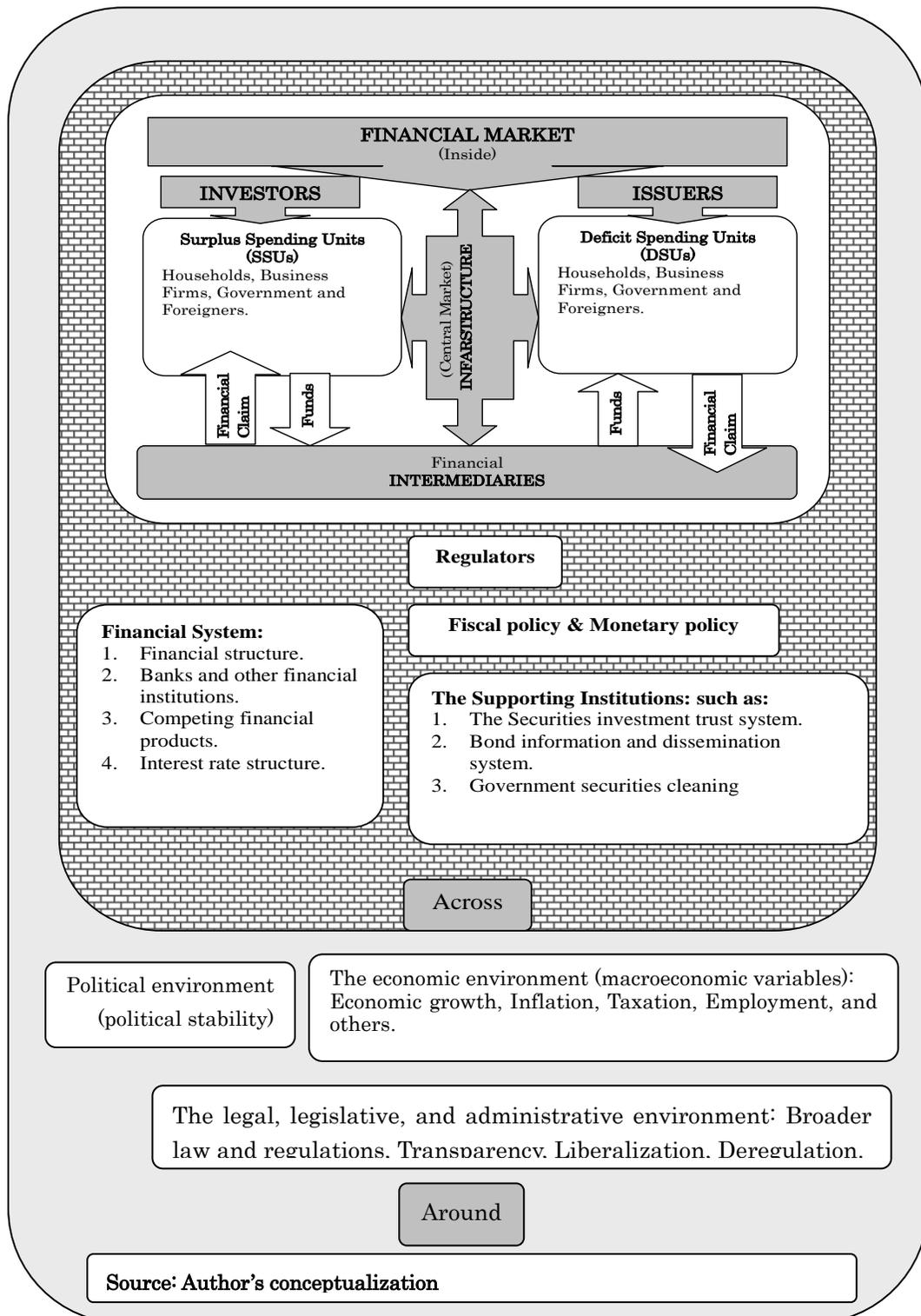
4) Infrastructure: From the last perspective, “infrastructure,” the systemization of delivery and settlement processing after bond transactions is very important in this market to make it more liquid and efficient. In almost all developing countries, bank loans still constitute a major channel of financing, which, in other words, indicates great potential for the growth of a future bond market. In particular, considering the potential economic growth of these countries, it is undoubtedly important to meet long-term and large-scale financing needs through the development of bond markets.²⁰

2. The Structure of the Securities Market

Market participation cannot be declared or forced, but **it can be encouraged by an “enabling” environment, and a “disabling” environment can discourage it.** The environment consists of a range of interactive factors around the market, across other part of the financial system, and inside the market (see Figure 3).

²⁰ Masato Hirose, Takeshi Murakami, and Yutaro Oku (2004) “Development of the Asian Bond Market,” op. cit., p4.

Figure 3. The Bond Market Environment



1) Around the Market

An enabling surrounding environment for a bond market consists of three parts (see Figure 3):

- i. The political environment includes political stability and the security status.
- ii. The economic environment includes macroeconomic variables such as economic growth that generates a sufficient number of issuers, inflation, tax policies that do not disadvantage the use of bonds, employment and others. A bond market requires a stable macroeconomic environment in which to grow. Economic growth must be strong enough to generate appropriate issuers and investors, inflation and interest rates cannot be too high or volatile. Without sufficient GNP growth, savings and investment rate, and per capita GNP, the economy might not provide the issuers and investors needed.²¹
- iii. The legal and administrative environment is a broader legal framework (securities law, bankruptcy codes, and the like) that supports a bond market, as well as regulations, transparency, liberalization and deregulations.

2) Across the Market

Across the market consists of important factors. as follows (see Figure 3):

- i. The financial system contains financial structure, banks and other financial institutions, competing financial products, and an interest rate structure. The banking sector can contribute to the market as investors, issuers, and intermediaries.
- ii. The fiscal and monetary policies; fiscal policy plays a crucial role for the bond market. In particular, public budgets can contribute to higher growth in the financial market via many mechanisms, especially, supporting a stable macroeconomic environment through sustainable public finances. Additionally, the monetary policy also performs an important role in the bond market through its open market operation (OMO).
- iii. The supporting institutions, such as the securities investment trust system, bond information and dissemination system, government securities clearing corporation, and others.
- iv. Regulators to keep the bond market moving efficiently; we believe that good regulation is good for all participation for market investors, issuers and others. Investors' confidence depends on it. When a securities infraction or fraud occurs, it damages the integrity of the entire market and all investors are hurt.

3) Inside the Market

Regulators support and are committed to developing the market. Trading, clearing, and settlement exist for equities and might be modified to support bonds. Issuers form a large enough core, are profitable enough to attract investors, and are willing to disclose

²¹ Alison Harwood, "Building Local Bond Markets: Some issues and action," op. cit., pp11-12.

information. Intermediaries are present who are capable of dealing in securities. There is a growing institutional investor base, which is not captive in other markets (or any captivity, which is present, can be removed). Privatization programs are in place that create issuers who need bond markets. The most important requirements that should be included inside a market are:

i. A legal and regulatory framework for development government securities markets

An appropriate legal framework is a key underpinning of an effective government securities market. The legal framework should grant clear government-borrowing authority and establish the process for issuance of government securities. The legal framework should also provide investors with certainty as to process, right, and responsibilities.

It should include appropriate regulation of market participants' market conduct, and rules for clearing and settlement.²²

One major prerequisite for sound government securities, market development is the legal, regulatory, and supervisory framework.

The fundamental part of the legal framework supporting an efficient domestic government securities market is usually an explicit empowerment of the government to borrow, budgetary rules for the issuance of government securities, and rules for the organization of the primary market. In addition, the role of the central bank as agent for the government, the debt management framework, rules governing issuance of government securities, and rules pertaining to the secondary market.²³

Government debt securities must be supported by a clear legal framework that grants government the authority to issue debt, binds it to meet its repayment obligations, and governs the rights and responsibilities of those who purchase and trade in government debt securities.

Because a government issuer is a public body, the process through which it issues debt should be set out in law. This law, or laws, should include:

- (i) Clear authority to issue debt and, if the issuance of debt is to be made by a government agency, ability to delegate that authority to the appropriate agency;
- (ii) A description of the process by which the legislature enables the government to issue debt, including any limitation on borrowing;
- (iii) A description of the internal management process and legal authorities with respect to issuance of government securities and management of the debt portfolio;
- (iv) The legal status of different types of government securities.

The secondary market in government securities should be supported by effective regulation through a securities regulatory authority, and rules related to market

²² World Bank, "Developing Government Bond Market: An overview," op. cit., p281.

²³ Ibid, pp 32-33.

intermediaries, market conduct, transparency requirement, and clearing and settlement.²⁴

ii. Developing a primary market for government securities

A well-functioning primary market for government securities is essential for the orderly funding of government financing requirements, the foundation for a secondary market, and a source of price (interest rate) signals in many developing markets. The government has the responsibility for establishing a primary market. Its choice of procedures will depend on economic circumstances.

The profile of government securities differs across countries in terms of:²⁵

- (i) Maturity;
- (ii) Ways of fixing coupon and principal payment;
- (iii) Methods of coupon and principal settlement;
- (iv) Investor orientation

An analysis of the evolution of various instruments in government bond markets shows that normally countries in the nascent stage of development of government bond markets preferred to concentrate exclusively on simple and standardized instruments.

Furthermore, the selection of selling procedures or distribution channels for government securities encompasses a number of policy decisions. The selection should, to the extent possible:

- (i) Ensure cost-effectiveness;
- (ii) Encourage participation from a relatively wide range of investors, including foreign institutions;
- (iii) Maximize competition;
- (iv) Minimize placement risk;
- (v) Foster transparency.

For most advanced economies, the main sales technique is typically auctions. Auctions are the common method for the sale of government securities in most domestic markets, following the pattern of treasury bill auctions, and require a number of independent bidders. Some countries have also used tap sales, either in combination with auctions or as the sole sales method, but the latter is rare. Syndication is increasingly being used in some markets (for example in the Eurozone market) to launch new products or benchmark issues or reach new investors. Moreover, for countries in the early stage of debt-market development, selling may take the form of syndication, tap sales, underwriting, or private placement.²⁶

Another element of government securities market design relates to the use of primary

²⁴ Ibid, p 282.

²⁵ Reserve Bank of India, "Government Securities Market," p174, available at <http://rbidocs.rbi.org.in/rdocs/publicationreport/pdfs/77576.pdf>

²⁶ World Bank, "**Developing Government Bond Market: An overview**," op. cit., p153.

dealers. Primary dealers are financial intermediaries selected by the government, typically to promote investment in GBs and activity in the government securities market.

Before policymakers embark on development of a full-fledged primary dealer system, they should carry out an extensive review of the most effective way to sell and distribute government securities. The review should consider:

- (i) The structure of the wholesale and retail investor base, offshore and onshore;
- (ii) The level of development of the financial system and the role of banks and the soundness of intermediaries;
- (iii) How technology might be used to create other avenues for distributing government securities more directly to end investors;
- (iv) The accounting framework for fixed-income portfolios.

The objective should be to balance the benefits of having a dedicated group of intermediaries to assist in market development with the decrease in (potential) competition that follows from limiting the number of primary dealers. It must also consider the extent to which dealers will have the instruments and techniques to manage the risks that they take in carrying an inventory of fixed-income securities.

iii. Investor base for government securities

Governments issuing securities need to understand the factors that motivate demand for their product, identify investor segments of the market, develop instruments with characteristics that match the features sought by different types of investors, and mount focused marketing campaigns. Stimulating demand for government securities is as important as developing the market infrastructure for more efficacious trading.

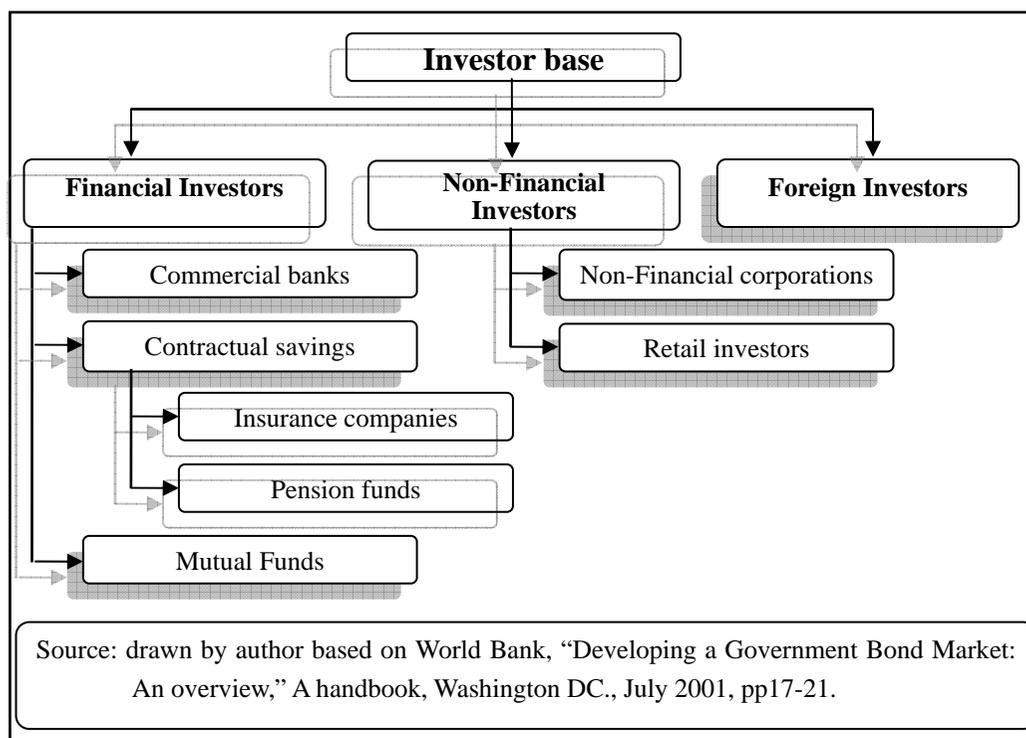
Policy issues concerning development of the investor base begin with conversion from captive to voluntary investors and include promotion of financial institutions and their active trading. These objectives can be accomplished by incorporating organizational, regulatory, and supervisory measures favorable to investment and market financial reform, taking steps to attract non-financial investors, including retail investors, to trade government securities, and allowing entry of foreign investors into the domestic government securities market.²⁷

Reliance by government on captive sources of funding, whereby financial institutions are required to purchase and hold government securities, often at below-market interest rates, is diminishing in many countries. Instead, countries are developing a diversified investor base for their government securities. Investors in developed government securities markets can range from wholesale domestic and foreign institutional investors to small-scale retail investors. In addition to commercial banks, an important investor segment in many countries is the contractual savings industry (insurance companies and pension funds). Funding of

²⁷ Ibid, p180.

government-backed pension or social security systems through specialized funds has also provided a large, stable demand for fixed-income securities in countries where such funds are active.

Figure 4. The Diversification of the Investor Base for the Securities Market



There are three general categories of potential investors in government securities instruments: domestic and foreign, and for each of these categories, financial investors (commercial banks, the contractual savings fund, and collective investment funds) and non-financial (non-financial corporations and individual investors), (see Figure 4). The contractual savings sector and collective investment funds companies are the legal entities that invest in government securities in a principal capacity. They include insurance companies and pension funds, which invest their accumulated reserves, and mutual funds, which invest pooled funds.²⁸

iv. Developing secondary market structures for government securities

The development of secondary markets adds new attributes to government securities and

²⁸ Ibid, p183.

broadens the role and importance of government securities in the financial system.

Government securities can have seed money-like properties when secondary markets facilitate rapid and low-cost conversion into cash. Bonds can become a medium of exchange for the borrowing and lending of funds. Secondary markets also open avenues for risk management through various types of transactions whose pricing can be derived from government securities markets. These unique features of government securities markets help deepen the number and type of transactions in government securities, which, in turn, help achieve the aim of establishing liquid and efficient secondary markets. The design of secondary market transactions and structure should seek to maximize such attributes, and incentives to trade, thereby encouraging the development of secondary markets.

Moreover, a strong primary market in government securities is supported by a liquid and efficient secondary market. Authorities may consider, within the context of the country's own stage of development and institutional context, the development of market structure, instrument, transaction types, trading mechanism, and market intermediaries that will support a liquid and efficient market.²⁹

Promoting a vibrant secondary market for government securities has proved to be one of the more difficult aspects of government securities markets development. Successful development of the secondary market requires the active participation of many different groups, including, investors, providers of trading and settlement infrastructure, and intermediaries. The involvement of these groups can easily be dampened by arbitrary changes in taxation, other government actions affecting the value of government securities, high inflation, economic downturns, and political instability. Without the confidence of these groups in government action and commitment to market development, countries will, even after extensive reform in many other areas, most likely end up with low levels of secondary market trading.

v. Some elements of a government securities market

There are four fundamental elements influential on a government securities market, reform of which usually requires particular attention in support of government securities market development:

- (i) Debt management: government can support the development of the GB market and enhance their credibility as an issuer of debt by building a strong institutional framework for debt management.³⁰
- (ii) Tax policy; taxation of financial instruments has significant implications for financial market development. Taxation of capital gains and income from securities

²⁹ Ibid, p217.

³⁰ Experience in many countries suggests that building credibility as an issuer of GBs and developing an efficient government bond market can be a difficult and lengthy process and require coordination across many policy fronts.

affects consumption-saving and investment decisions, influencing the general level of saving, the demand for financial assets, and investment. It also strongly affects the allocation of savings.³¹

- (iii) Money market; an active, liquid money market greatly assists the development of a well-functioning market in GBs and private sector bonds. Therefore, a money market supports the bond market by increasing the liquidity of securities, including the secondary market for treasury bills and private sector money market instruments such as commercial paper and bankers' acceptance. In addition, the equity market is also important for bond market development because it implies that the country has a capital market culture with supporting institutions, issuers with disclosure experience, and investors.
- (iv) Private bond market; development of a well-functioning GB market will often precede and facilitate development of a private sector bond market. A well-functioning government securities market provides the institutional and operational infrastructure for the private sector market.

All these factors influence the market's attractiveness to an issuer, investor, and intermediary and hence need to be considered from the outset. In addition, because the factors interact in different ways, they need to be examined simultaneously. Finally, because these are emerging markets, different components will be developing at different rates. They will rarely be in place as an entire set. That means the ultimate evolution is something of a balancing act. Sometimes one important element is strong and another is weak. Leaders will have to weigh the impact of different factors.

Recognizing that market participants are affected by such a broad range of factors makes it easy to see why developing financial markets is so difficult and time-consuming. Moreover, many of the factors go beyond technicalities and involve attitudes, cultures, and politics.³² Some matters take years to get right, such as corporate governance, which influences an investor's willingness to invest in a company, particularly its bonds, since they involve credit risk and debt servicing.

Equally important, many of the factors affecting market participation are outside the control of entities that may want to build the market, such as the local Securities and Exchange Commission (SEC).

³¹ As different saving instruments are close substitutes with each other, different tax treatment of different forms of saving are likely to have a large impact on the portfolio decisions of households - the decisions as to which saving instruments to invest in. For further information, see OECD, (1994), "**Taxation and Household Saving**," p46.

³² Developing new attitudes and behavior is the main reason why developing market takes so long. People need to learn new ways of thinking about how and with whom they do business. New cultures need to be created - for taking and managing risk, disclosing information, and maintaining quality operations and account, among other areas.

CHAPTER TWO

The Financial System and the GB Market in Japan

This chapter discusses the financial system and the Government Bond (GB) market in Japan, and it is therefore divided into two sections, the first one focusing on the status of the Japanese financial system during the second half of the last century until now, and the second section spotlighting recent trends in the Japan Government Bond (JGB) market.

I. The Status of the Japanese Financial System from the Second Half of the Twentieth Century to the Present Day

This section focuses on the Japanese financial system following WWII until the present, and consists of four parts, as follows.

1. The Japanese Financial System during the 1960s

Following World War II, the Japanese economy experienced unprecedented rates of growth, averaging about 10 percent a year during the 1960s. As a result, Japan emerged as the Western world's second largest industrial economy. A high level of investment and the competitiveness of Japanese goods in world markets led to a sharp increase in exports, raising Japan's share of world trade from 1.4 percent in 1950 to 6.8 percent by 1970. In addition, Japan switched from being a net borrower in international capital markets to being a net lender.³³

Despite Japan's growing importance in the industrial world and in international trade, its financial system remained more highly regulated and cut off from the rest of the world. Features of the system, which had been designed to support the investment-led pattern of growth, included.³⁴

- 1). A predominance of indirect financing over direct financing
- 2). Control of the quantity and distribution of credit and of interest rates, which were generally below market clearing rates.
- 3). A high degree of specialization among financial institutions

Furthermore, during the 1960s and the first half of the 1970s, Japan had a high rate of economic growth. The government enjoyed high tax revenues and could finance increased expenditures as well as reduce tax rates. However, in the second half of the 1970s the government could no longer depend on increasing tax revenues, which, in FY 1975, fell far

³³ Sena Eken, "Integration of Domestic and International Financial Markets: Japanese Experience," IMF, Staff Papers, Vol.31, No.3, Nov. 1984, p500.

³⁴ Ibid.

below the original budget estimates.³⁵ As indirect taxation declined as a percentage of total revenues from 40.8 percent in 1965 to 34 percent in 1970 and further to 26.1 percent in 1974,³⁶ the government was in a serious financial state, and bonds were issued to finance the deficit for the first time.

On the other hand, during this period, the corporate sector's financial deficit was continuously expanding. Japanese businesses were not able to generate needed capital from internal sources to finance rapid expansion. Direct financing by the corporate sector was also limited, for various reasons:

First: Because of historical experiences with securities markets, Japanese investors did not yet perceive bonds and stocks as safe assets. Due to this attitude and the tax incentives for deposit holding, the high level of household savings was predominantly channeled into the banking system.

Second: Corporate tax policies and the preference of institutional investors to buy new issues at par rather than at market prices, by increasing the cost of capital raised through the stock market, encouraged financing through bank loans.

Third: Corporations benefited from close relationships with banks, which also provided managerial expertise and marketing facilities to Japanese enterprises.

Fourth: There were restrictions on foreign issues of securities by Japanese companies and on nonresident acquisitions of Japanese equity.

Because of these factors, the securities market in Japan remained underdeveloped, and Japanese firms relied heavily on the banking system, that is, on indirect financing for funds.³⁷

Until the mid-1960s, the government pursued a balanced budget policy and issued only short-term bills to finance seasonal deficit. Since rates on these bills were fixed at a low level, private holdings were negligible, and the Bank of Japan generally purchased these bills. Hence, no secondary market for treasury bills evolved. When the government began issuing long-term bonds to finance public works in 1965,³⁸ government-fixed yields on these bonds, and the government's Trust Fund Bureau and the syndicate of financial institutions underwrote them.³⁹

³⁵ Masazo Ohkawa, "Government Bonds," in: Tokue Shibata, "Public Finance in Japan," University of Tokyo Press, Tokyo, 1986, p. 123.

³⁶ Ministry of Finance of Japan (MOF), Statistics, available at <http://www.mof.go.jp/english/budget/brief/2002/images/p170.gif>

³⁷ Sena Eken, "Integration of Domestic and International Financial Market: Japanese Experience," op. cit., pp 500-501.

³⁸ In 1965, the Japanese government issued long-term bonds for the first time since the Pacific War. Until 1978, the government did not sell its long-term bonds at auction, but instead placed them directly with a syndicate consisting of virtually all the private financial institutions of Japan, at controlled, below market prices. In addition, one year after issue, the BOJ purchased the long-term government bonds from these same financial institutions, also at controlled prices (the 1947 fiscal law prohibits the BOJ from purchasing JGBs sooner than one year after issue).

³⁹ Ibid, pp 501-502.

2. The Japanese Financial System during the 1970s

In the 1970s, the Japanese economy underwent substantial structural changes in response to a number of internal and external developments. The forces for change came largely from the surge in inflation in the early 1970s, the breakdown of the fixed exchange rate system, and the slowing of economic growth following the oil price increase. In that sense, the 1973 oil crisis triggered another turning point in the government's fiscal policy. As tax revenues stagnated in the wake of prolonged recession due to the crisis, the government passed a special law amending the Public Finance Law to permit the issuance of special deficit-financing bonds in the supplementary budget of FY 1975, thereby enabling the government to finance the gap between current (non-investment) expenditures and tax revenues for that fiscal year. However, this law authorizes the government to issue the special deficit-financing bonds only for that specific year. The government is therefore required to enact the special law each fiscal year in order to issue the special deficit-financing bonds for future fiscal years. From FY 1975, the issuance of special deficit-financing bonds based on this special law was enacted annually, and this continued until the FY 1989 budget.⁴⁰

These forces created a new economic environment that was not compatible with Japan's past financial practices. As a result, the domestic financial system has been transformed from one dependent on bank lending founded largely on deposits with officially-controlled interest rates to one with a variety of assets available to both foreign and domestic investors and in which market forces of both domestic and international origin play an increasingly important role.

In the late 1970s, the fiscal deficit expanded rapidly, with the ratio of bond issues to total expenditures reaching the first peak of 34.7%. The figure clearly shows that more than one-third of total expenditures were financed through public bonds. This was due in particular to:⁴¹

1. Stagnating tax revenues following the end of a high economic growth period,
2. The rapid expansion of expenditures following major improvements in social security services in the 1970s (FY 1973 is known as the "First Year of High Level Social Welfare"),
3. The increase in public works expenditures financed largely by government bond issues to cope with the depressing economic conditions.

⁴⁰ MOF of Japan, "Japan's Current Fiscal Position," available at <http://www.mof.go.jp/english/budget/brief/2002/2002-03.htm>

⁴¹ Ibid.

3. The Japanese Financial System during the 1980s

Faced with this serious fiscal condition, Japan had, since the FY 1980 budget, maintained the goal of reducing and eliminating the issuance of special deficit-financing bonds as soon as possible, through restraint on the expenditure side. The guidelines for budget requests, commonly known as “ceiling,” had been established with the aim of restraining the growth of general expenditures. In addition, various measures to reform the fiscal and administrative system have been implemented on the basis of a thorough review of the existing system and current policies, such as reform of the social security system, the privatization of the Japan National Railway and two other public corporations.

With these efforts and the increase in tax revenues in the latter half of the 1980s, partly as a result of the so-called “bubble economy,” Japan finally succeeded in formulating the FY 1990 budget without issuing special deficit-financing bonds for the first time in 16 years. Government bond issues, which amounted to more than one-third, 34.7%, of total expenditures in FY 1979, gradually declined in the 1980s and recorded a low of 9.5% of total expenditures in FY 1991.⁴²

4. The Japanese Financial System from the 1990s to the Present

In the early 1990s, Japan experienced a serious economic downturn. Due to this recession, tax revenue fell short compared to the previous year for four consecutive years, from 60.1 trillion yen in 1990 to 51.0 trillion yen in 1994. In addition, on a settlement basis, the Government recorded a revenue shortfall, which reached 22.6 trillion yen in 1994 compared with 9.2 trillion yen in 1990. On the other hand, Japan’s economy faced such a serious economic condition that the government initiated various economic measures, including a series of large-scale public works programs in the early 1990s, which reached 60 trillion in 1993 for public works-related expenditures. Meanwhile, in the late 1990s, the main factor for expenditure growth was the increase in social security-related expenditures accompanying the aging of Japanese society, which reached 88 trillion yen in 1999. These measures required a further issuance of bonds, and resulted in a ¥5.6 trillion increase in government bond issues in the initial budget of FY 1993.⁴³

Since November 1996, numerous reform measures have been implemented under the “Big Bang”⁴⁴ program to improve the primary and secondary market infrastructure. These

⁴² Ibid.

⁴³ Ibid.

⁴⁴ Japanese Prime Minister Hashimoto announced plans in November 1996 to accelerate and broaden financial reforms by creating “free, fair, and global” markets. He called the reforms the Japanese Big Bang, based on its similarity to Britain’s 1986 Big Bang, which enabled the London Stock Exchange to increase its share of global stock trading nearly five times by deregulating its stock market, abolishing fixed commissions on securities transactions, and opening its stock market to foreign firms.

For more information see, Bill Gordon, “Effects of Japan’s Financial Big Bang on Consumers,” October 2003, available at <http://wgordon.web.wesleyan.edu/papers/bigbang.htm>

include:⁴⁵

1. The abolition of eligibility standards for bond issuance;
2. Abolition of the securities transaction tax;
3. Deregulation of trustee, underwriting and brokerage commissions;
4. Deregulation of off-exchange trading;
5. Deregulation of cross-border transactions and foreign exchange business;
6. Entry by banks, securities and insurance companies in each other's business;
7. Replacement of the merit-based licensing system with a disclosure-based registration system for securities companies;
8. Preparation of a legal framework for loan/asset securitization

Table 1. Long-term Debt Outstanding (FY 2008 Budget)

(Trillion Yen)

	FY 1995 Settlement	FY 2000 Settlement	FY 2006 Settlement	FY 2007 Revised	FY 2008 Budget
General Government	297	491	594 (573)	607 (587)	615 (595)
General Bonds	225	368	532 (510)	547 (527)	553 (533)
Percentage of GDP	45.4%	72.9%	103.9% (99.6%)	105.9% (102.1%)	105.0% (101.2%)
Local Government	125	181	200	199	197
Percentage of GDP	25.1%	36.0%	39.1%	38.5%	37.4%
Duplication	-12	-26	-34	-34	-34
Total	410	646	761 (739)	772 (752)	778 (758)
Percentage of GDP	82.6%	128.1%	148.7% (144.4%)	149.6% (145.8%)	147.6% (143.85)

Source: MOF of Japan, "Highlights of the Budget for FY2008," December 2007, available at <http://www.mof.go.jp/english/budget/e20071224a.pdf>

Note:

1. GDP for FY 2007: estimates, FY 2008 forecast
2. Figures in parentheses exclude front-loading issuance of refunding bonds.
3. Outstanding Account of FILP Bond is around 133 trillion yen as of the end of FY2008.

In the period 2000 to 2008, the budget was extremely large, and this was reflected in government debt. As is well known, government debt depends largely on the budget deficit. As the Japanese debt outstanding increased sharply from 410 trillion yen in 1995 to 772 trillion yen in 2007, as a percentage of GDP it rose from 82.6% to 149.6%, approximately doubling despite the Big Bang program (see Table 1).

⁴⁵ Jonathan Batten, and Peter Szilagyi "Disintermediation and Bond Market Development in Japan," 2002, p20, Social Science Research Network Electronic Paper Collection: <http://papers.ssrn.com/abstract=300619>

II. The Japanese Government Bond Market (Overview, Recent Developments and Mechanism)

This section contains two parts, each of them focusing on one aspect of JGBs. One part gives an overview of JGBs and the other focuses on the mechanism of JGBs, as follows.

1. Overview of the JGB market:

This part consists of three points showing all recent trends in the JGB market, as below.

1) Recent Trends in the JGB Market:

Table 2 contains financial indicators for Japan's government during the period 1960 to 2008; it shows total public expenditures and their financing, including tax revenues and bond-financing, as well as, bond dependency (BD). We can therefore explain the contents of the table through the following points:

- i. Total public expenditures have increased continuously from 1.7 trillion yen in 1960 to 43.4 trillion yen in 1980, and then to 82.9 trillion yen. While the tax and stamp revenues could not cover these increasing expenditures, there has been a large gap between total expenditures and revenues, and this gap has been redeemed by government bond issues.
- ii. Tax and stamp revenues have also increased during the same period, but by less than expenditures have increased, especially in the first half of the 1970s. Thus, expenditures grew at a compound rate of 17.02 percent, at the same time as tax revenues grew at a compound rate of just 11.3 percent. Furthermore, tax revenues have increased from 1.6 trillion yen in 1960 to 26.8 trillion yen in 1980, and then, to 53.6 trillion yen in 2008.
- iii. As is well known, when revenue is unable to cover expenditure, a deficit appears. In the Japanese case, we can see from the third column of Table 2 that the deficit has increased generally, from 0.1 trillion yen in 1960 to 16.6 trillion yen in 1980, and then peaked at 41.8 trillion yen in 1999, and began to decrease gradually to reach 29.5 trillion yen in 2008. Further, this deficit reflected a large amount of government debt, and hence general government gross debt reached 160.5 percent of GDP in 2006, this percentage being the largest among developed countries, Japan's counterparts.
- iv. Japan's government has relied on the issuance of government bonds to gap finance. Furthermore, the government bonds issuances represent the amount of deficit in public revenues, the total of which tax revenues and non-tax revenues cannot redeem. In this situation, government bonds played a necessary role in the financial system to cover deficit. The amount of government bonds issued increased from 0.197 trillion yen in 1965 to 14.1 trillion yen in 1975, and then peaked at 37.5 trillion yen in 1999, declining gradually to reach 25.3 trillion yen in 2008.
- v. The last column in Table 2 refers to the bond dependency ratio, which shows

government bond issues as a percentage of total expenditures. This ratio has increased from 5.3 percent in 1965 to 25 percent in 1975, and peaked at 42.96 percent in 2003, declining to reach 30.44 percent in 2008.

Table 2. Trends in Public Expenditure Financing of the Japanese Government (1960-2008)
(Trillion Yen)

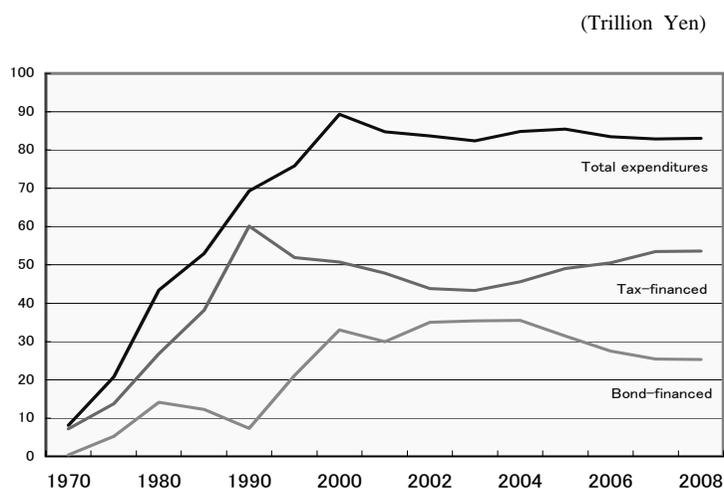
	Total expenditures (A)	Tax and Stamp revenues (B)	Deficit (A-B)	Non-tax revenues	GB issues (C)	Bond Dependency (C/A)
1960	1.7	1.6	0.1	--	--	--
1965	3.7	3.0	0.7	0.503	0.197	5.3
1970	8.1	7.2	0.9	0.553	0.347	4.28
1975	20.8	13.7	7.1	1.9	5.2	25.0
1980	43.4	26.8	16.6	2.5	14.1	32.48
1985	53.0	38.2	14.8	2.5	12.3	23.20
1986	53.6	41.9	11.7	0.4	11.3	21.08
1987	57.7	46.8	10.9	1.5	9.4	16.29
1988	61.5	50.8	10.7	3.5	7.2	11.70
1989	65.9	54.9	11.0	4.4	6.6	10.01
1990	69.3	60.1	9.2	1.9	7.3	10.53
1991	70.5	59.8	10.7	4.0	6.7	9.50
1992	70.5	54.4	16.1	6.6	9.5	13.47
1993	75.1	54.1	21.0	4.8	16.2	21.57
1994	73.6	51.0	22.6	6.1	16.5	22.41
1995	75.9	51.9	24.0	2.8	21.2	27.93
1996	78.8	52.1	26.7	4.9	21.8	27.66
1997	78.5	53.9	24.6	6.1	18.5	23.56
1998	84.4	49.4	35.0	1.0	34.0	40.28
1999	89.0	47.2	41.8	4.3	37.5	42.13
2000	89.3	50.7	38.6	5.6	33.0	34.95
2001	84.8	47.9	36.9	6.9	30.0	35.37
2002	83.7	43.8	39.9	4.9	35.0	41.81
2003	82.4	43.3	39.1	3.7	35.4	42.96
2004	84.9	45.6	39.3	3.8	35.5	41.81
2005	85.5	49.1	36.4	4.9	31.5	36.84
2006	83.5	50.5	33.0	5.5	27.5	32.93
2007	82.9	53.5	29.4	4.0	25.4	30.63
2008	83.1	53.6	29.5	4.1	25.3	30.44

Sources: MOF of Japan, Statistics, available at www.mof.go.jp/english/budget/brief/2002/images/p172.gif and MOF, "Highlights of the Budget for FY2008," December 2007, available at <http://www.mof.go.jp/english/budget/e20071224a.pdf>

Note: 2008 budget.

vi. This means that the Japanese government mainly relied on two sources for expenditure finance, tax financing and bond financing. Figure 5 compares these two methods of financing public expenditure, the curve of bond financing refers to bond dependency, the ratio at which the government financed its expenditures from bond issuance. Hence, this ratio has increased yearly, particularly from the early 1990s, from 10.5 percent of total expenditures in 1990 to 34.9 percent of total expenditures in 2000, compared with the second curve, referring to tax financing, which decreased at the same time from 86.7 percent of total expenditures to 56.7 percent of total expenditures. Nevertheless, in recent years, both bond financing and tax financing have taken opposite trends, the curve of bond financing decreasing to reach 30.4 percent of total expenditures in 2008 and the curve of tax financing increasing to reach 64.6 percent of total expenditures in 2008.

Figure 5. Comparison between Tax-financed and Bond-financed Public Expenditures in Japan (1970-2008)



Sources: Author's conceptualization based on data from Table 2.

2) Type of government bonds

Japan's government has issued mainly two kinds of bonds,⁴⁶ construction bonds (from FY 1966) and special deficit-financing bonds (from FY 1975), the first to finance public works and the other to finance non-investment expenditures.

⁴⁶ Before and during World War II, deficit-financing bonds were issued on the credit of the Bank of Japan to raise funds, principally for military purposes.

The Public Finance Law⁴⁷ allows the government to issue public bonds only for financing public works projects (e.g., construction of roads, bridges, and other facilities) which would become social infrastructure benefiting both current and future generations, and for the financing of equity participation and landing. These bonds were called “construction bonds,” and from FY 1966 to FY 1974 construction bonds were the only type of bonds that were issued.

Table 3. Trends in Government Bonds Outstanding (1966-2008)

(Trillion Yen)

	GB Outstanding	Construction bonds	Special deficit-financing bonds		GB Outstanding	Construction bonds	Special deficit-financing bonds
1966	0.9	0.9	---	1988	156.8	91.4	65.4
1967	1.6	1.6	---	1989	160.9	96.8	64.1
1968	2.1	2.1	---	1990	166.3	101.8	64.5
1969	2.5	2.5	---	1991	171.6	107.5	64.1
1970	2.8	2.8	---	1992	178.4	115.8	62.6
1971	4.0	4.0	---	1993	192.5	131.5	61.1
1972	5.8	5.8	---	1994	206.6	142.4	64.2
1973	7.6	7.6	---	1995	225.2	157.7	67.5
1974	9.7	9.7	---	1996	244.7	167.8	76.9
1975	15.0	12.9	2.1	1997	258.0	174.9	83.1
1976	22.1	16.6	5.5	1998	295.2	187.4	107.8
1977	31.9	21.6	10.3	1999	331.7	197.2	134.5
1978	42.6	28.0	14.6	2000	367.6	209.1	158.4
1979	56.3	35.2	21.1	2001	392.4	216.3	176.1
1980	70.5	42.3	28.3	2002	421.1	222.0	199.1
1981	82.3	49.4	32.9	2003	457.0	226.4	230.6
1982	96.5	56.2	40.3	2004	499.0	241.4	257.6
1983	109.7	62.6	47.1	2005	526.9	247.0	279.9
1984	121.7	68.6	53.1	2006	531.7	243.2	288.5
1985	134.4	75.2	59.2	2007	547.1	240.6	306.4
1986	145.1	81.4	63.7	2008	553.3	235.7	317.6
1987	151.8	86.5	65.3				

Source: MOF, “Highlights of the Budget for FY2008,” December 2007, available at <http://www.mof.go.jp/english/budget/e20071224a.pdf>

⁴⁷ Article IV of the Public Finance Law (Law No. 34 of 1947) prescribes that bond issuance is limited to raising funds for financing public works.

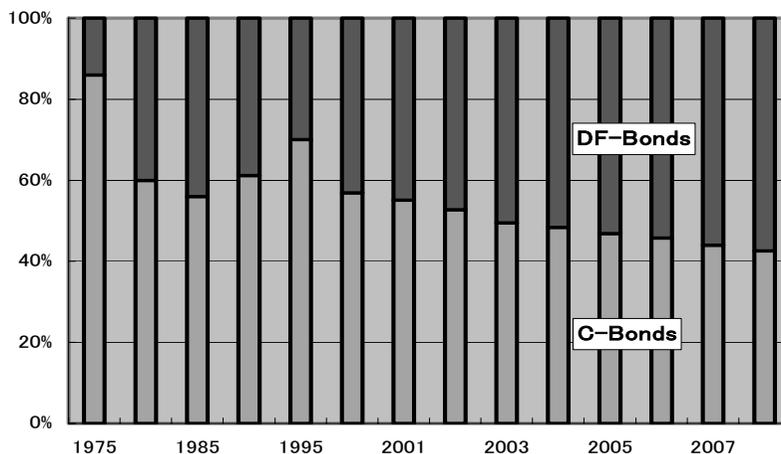
In the supplementary budget for FY 1975, however, despite the construction bond principle, special deficit-financing bonds for non-investment purposes were issued by enacting a law applying specially to the budget, in response to a drop in tax revenues caused by the recession following the first oil crisis.

The information sources provide generally two kinds of data concerning trends in GBs, as follow:

- i. Trends in accumulated GBs outstanding: The amounts of outstanding bonds have continued to climb an increasing trend due to continuous bond issuances every year, which are embodied in Table 3 above.

From FY 1966, construction bonds (C-Bonds) only were issued until 1975, since when, beside construction bonds, the Japanese government has issued special deficit-financing bonds (DF-Bonds). The amount of outstanding construction bonds at the end of FY 1966 reached 0.9 trillion yen, and continuously increased year after year to reach 12.9 trillion yen in FY 1975, when special deficit-financing bonds were issued, reaching 2.1 trillion yen, and the sum of both C-Bonds and DF-Bonds outstanding reached 15 trillion yen in the same year. Moreover, both tended to increase continuously each year to reach 134.4 trillion yen in FY 1985, then to 225.2 trillion yen in FY 1995, and then peaked at 547.1 trillion yen in FY 2007. However, in recent years, the average increase in DF-Bonds has been higher than the average increase in C-Bonds until they were exactly the same in FY 2003, since when DF-Bonds are more prevalent, as in Figure 6.

Figure 6. Comparison between C-bonds and DF-bonds (1975-2008)



Source: Author's conceptualization based on data from Table 3.

DF-Bonds outstanding reached 230.6 trillion yen and 50.46 percent of the accumulated GBs outstanding, compared with 226.4 trillion yen to C-Bonds in FY 2003, with 49.54 percent of the accumulated GBs outstanding. Further, this trend in DF-Bonds outstanding has continued, to reach 317.6 trillion yen, and 57.4 percent of the accumulated GBs outstanding, compared with 235.7 trillion yen of C-Bonds outstanding, and 42.6 percent of the accumulated GBs outstanding in FY 2008.

In addition, we should remember that DF-Bonds outstanding constituted 43.1 percent of the accumulated GBs outstanding, compared with 56.9 percent of the accumulated GBs outstanding in C-Bonds in FY2000.

- ii. The trend in the amount of GB issuance:⁴⁸ In general, the Japanese government issues bonds annually for financing public works through C-Bonds and for budget deficit through DF-Bonds. Since FY 1998, C-Bond issuance has tended to decrease, from 17.1 trillion yen to 5.2 trillion yen in FY 2007. In contrast, the DF-Bond issuance tended to increase, from 4.1 trillion yen in FY 1994 to 17 trillion yen in FY 1998, peaking at 28.7 trillion yen in FY 2003, and slightly decreasing in recent years to reach 20.2 trillion yen in FY 2007. It appears that DF-Bond issuance is taking the place of C-Bond issuance, despite the fact that total GB issuance has declined in recent years, from 35.4 trillion yen in FY 2003 to 25.4 trillion yen in FY 2007, as in Table 4.

3) General government gross debt

The situation of government expenditure finance reflects the government debt, because the government debt depends largely on the budget deficit. The general government gross debt has increased as a percentage from 87.6 percent of GDP in FY 1995, to over 136.7 percent of GDP in FY 2000, and this trend has continued to exceed 180 percent of GDP in the last two years (see Figure 7). Furthermore, the fact of the huge size of Japan's government debt becomes clear when we make a comparison with other developed economies. For example, the United States government debt reached 55.2 percent of GDP in FY 2000, and has increased to 61.8 percent of GDP in FY 2007. Likewise, in Germany, the government debt reached 60.4 percent of GDP in FY 2000, and 69.9 percent of GDP in FY 2007. Additionally, the government debt in all developed economies did not exceed one hundred percent of GDP, except for Italy, and of course, Japan.⁴⁹

⁴⁸ JGB issues represented approximately 80 percent or more of the total bond market, and in 2006 the proportion of JGBs issued reached 83.3 percent. For more information, see Japan Securities Dealers Association, "Fact Book 2007," available at: http://www.jsda.or.jp/html/pdf/factb/FB2007_E.pdf

⁴⁹ MOF, "Highlights of the Budget for FY2008," December 2007, op. cit., available at <http://www.mof.go.jp/english/budget/e20071224a.pdf>

Table 4. Trends in Japanese Government Bond Issues (1994-2007)

(Trillion Yen)

	GB issues	C-Bonds	DF-Bonds
1994	16.5	12.3	4.1
1995	21.2	16.4	4.8
1996	21.8	10.7	11.0
1997	18.5	9.9	8.5
1998	34.0	17.1	17.0
1999	37.5	13.2	24.3
2000	33.0	11.1	21.9
2001	30.0	9.1	20.9
2002	35.0	9.1	25.8
2003	35.4	6.7	28.7
2004	35.5	8.7	26.8
2005	31.5	7.8	23.5
2006	27.5	6.4	21.1
2007	25.4	5.2	20.2

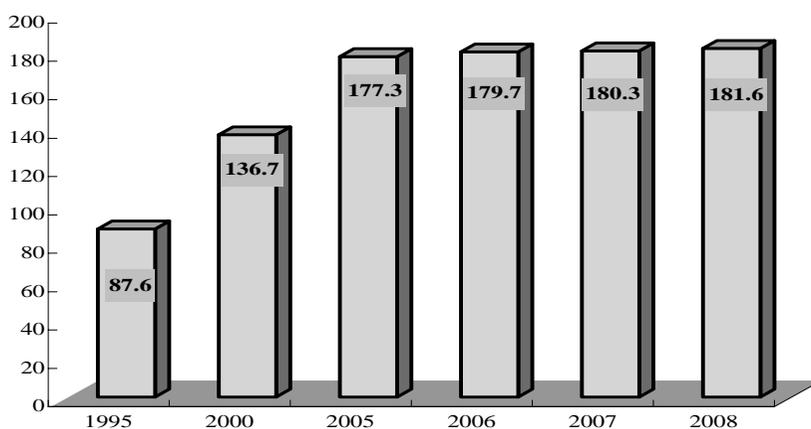
Sources: MOF of Japan, "Guide to Japanese Government Bonds 2006," available at

http://www.mof.go.jp/english/bonds/guide_to_jgb_2006e.pdf

MOF of Japan, "JGB, Quarterly Newsletter," January 2008, p3. available at

http://www.mof.go.jp/english/bonds/jgb2008_01e.pdf

Figure 7. General Government Gross Debt as Percentage of GDP (1995-2008)



Source: MOF, "Highlights of the Budget for FY2008," December 2007, available at

<http://www.mof.go.jp/english/budget/e20071224a.pdf>

2. The Mechanism of the JGB Market

This part consists of two points; one discusses the primary market for JGBs, and the other discusses the secondary market for JGBs, as well as focusing on redemption of JGBs and the regulatory mechanisms related to JGBs.

1). The primary market for JGBs

The primary market for JGBs mainly includes two parts, firstly, the issuing agencies of GBs, which represent MOF, and secondly, the GB holders, who deal in GBs and invest in them. Hence, MOF obtains information about the bond market and the total financial market needs through discussion and exchanges of ideas with market participants before initiating issuance of JGBs, followed by MOF undertaking a plan of issuance operation. We can explain of all these parts as follow:

i. Issuance

When issuing JGB's, there are basically two methods:⁵⁰

(i) Offering for the market

JGBs are principally issued in public offerings on market-based issue terms.

1. Price/yield-competitive auction is a method in which each auction participant submits a bidding price (or yield) and bidding amount in response to the issue terms (e.g. issue amount, maturity, coupon rate) presented by MOF, and the issue price and amount will then be determined based on the bids.

In this type of auction, the issuing authority starts selling first to the highest bidder in descending order (or to the lowest yield bidder in ascending order) until the cumulative total reaches the planned issue amount.

In case of Japan, the auction method varies by type of security. One is the conventional method by which each winning bidder purchases the security at his bidding price; and the other is the Dutch-style method by which all winning bidders pay the same lowest price of all of their bids regardless of their original bid.

In order to increase government bond liquidity, MOF has also started implementing the immediate reopening rule, effective from March 2001 issues. When MOF offers a new issue, both its coupon rate and principal/interest payment dates may occasionally correspond to those of a specific issue outstanding. In such a case, MOF reopens the outstanding issue additionally. As soon as this comes onto the market, the reopened issue is immediately dealt with as an outstanding issue based on the immediate reopening rule. In addition, under the new rule, a reopened issue will generate accrued interest.

2. Non-competitive auction: Besides competitive auction, 2-year, 5-year, and 10-year

⁵⁰MOF of Japan, "Guide to Japanese Government Bonds 2006," available at http://www.mof.go.jp/english/bonds/guide_to_jgb_2006e.pdf

bonds are also issued through non-competitive auction. This approach is to take into account small and medium market participants who tend to submit a smaller bid than their larger counterparts do. Bidding for non-competitive auction are offered at the same time as the price-competitive auction, and the price offered equals the weighted average accepted price of the price-competitive-auction. The maximum issuance amount is 10% of the planned issue amount. Each participant, excluding the Shinkin Central Bank, the Shinkumi Federation Bank, the Rokinren Bank, and the Norinchukin Bank, is permitted to bid up to one billion yen.

3. Non-price competitive auction (I & II): **Non-price competitive auction I** is an auction in which biddings are offered at the same time as for the price-competitive auction. The maximum issuance amount is set at 10% of the total planned issue amount and the price offered is equal to the weighted average accepted price of the price-competitive auction. Only special participants in the JGB market are eligible to bid in this auction. Each participant is allowed to bid up to the amount set based on the result of its successful bids during the preceding two quarters.

Non-price competitive auction II is an auction carried out after the competitive auction is completed. The price offered is equal to the weight average accepted price in the price-competitive auction or the lowest accepted price in a Dutch-style yield-competitive auction. Only special participants in the JGB market are eligible to bid in this auction. Each participant is allowed to bid up to 10% of their total successful bids in the competitive auction and non-price competitive auction I.

(ii) Offerings for the public sector

As with issuing in the market, offerings for the public sector is a method of issuing GBs.

1. Postal Savings: Handling of public offerings at post offices. Over-the-counter (OTC) sales of JGBs at post offices began in 1988 for broad-based marketing of the securities. At first, post offices handled only the public offering of 2-year, 5-year, and 10-year fixed-rate coupon-bearing JGBs. The product line-up was joined in FY 2002 by JGBs for individual investors. Regarding 2-year, 5-year, and 10-year fixed-rate coupon-bearing JGBs, when the amount subscribed falls short of the total amount to be offered at post offices, the law requires Japan Post to acquire the remainder.
2. Bank of Japan Switch: Underwriting by BOJ to roll over maturing bonds. While Article 5 of the Public Finance Law prohibits the Bank of Japan from underwriting GBs, a proviso to the Article allows the BOJ to extend credit to the government up to an amount authorized by the Diet, in exceptional cases.

In practice, such cases are limited to the underwriting of refunding bonds within the amount of JGBs that are held by the BOJ and have reached maturity (often referred to as “switch underwriting” or “roll-over underwriting”).

Through its market operations, the BOJ holds a large amount of GBs. If the BOJ tried to have its JGB holdings redeemed in cash, the MOF would be required to issue

refunding bonds in the market to raise the funds needed for redemption. A massive issuance of refunding bonds in the market, however, could invite a fund shortage in the amount of refunding bonds from the private sector, thus obliging the BOJ to provide the private sector with funds by purchasing a substantial amount of the refunding bonds from the private sector. To avoid such roundabout means, the BOJ is exceptionally allowed to underwrite only up to the amount necessary to roll over its maturing bonds.

3. Fiscal Loan Bonds: Transitional measures - direct underwriting by postal savings and pension funds. Regarding the Fiscal Loan Fund Special Account, the 2001 reform of the FILP (Fiscal Investment and Loan Program) ended the compulsory deposit system of postal savings and pension reserves to the Trust Fund Bureau, requiring the Account to raise funds by issuing Fiscal Loan bonds. However, taking into account the temporary impact of the reform, MOF took transitional measures to avoid an abrupt surge in the issued amount of Fiscal Loan bonds in the market. These measures allow Postal Savings, Postal Life Insurance, and Pension Reserves to directly underwrite a portion of Fiscal Loan bonds for a period of seven years (FY2001-2007).

In addition to all of this, JGBs for individual investors are also issued via handling by private sector financial institutions for public offerings.

ii. Investors

The holders of JGBs are constituted mainly from general government, financial institutions, and the central bank. Table 5 shows the amounts held by GB holders. The general government holder has increased from 144,689 billion yen at the end of March 2001 to 269,717 billion yen at the end of March 2005, which means that it almost doubled in just four years. Its proportion among total JGB holders also increased at the same time, from 35.4% to 42%.

The general government holder consists of the Fiscal Loan Fund, Postal Savings, Postal Life Insurance, and Public Pensions.

The Fiscal Loan Fund represents the largest proportion of general government holders at about 19 percent, and the Postal Savings represents the second largest, 6.4 percent at the end of March 2001. Nevertheless, at the end of March 2005, this situation had changed, the Postal Savings becoming the largest at 17.1 percent of general government holders and the Fiscal Loan Fund became the second at 7.6 percent of general government holders. It appears that Postal Savings has replaced the Fiscal Loan Fund. Moreover, the proportion held by Public Pensions has increased from 2.5 percent of general government holders at the end of March 2001 to 8.4 percent of general government holders at the end of March 2005, as Postal Life Insurance maintained its level, as in Table 5.

The financial institutions holder has increased from 158,017.4 billion yen at the end of March 2001 to 204,101 billion yen at the end of March 2005. Nevertheless, its proportion in total GB holders has decreased at the same time, from 38.6 percent to 31.8 percent. The financial institutions holder comprises domestically licensed banks, private life insurance

companies, and private non-life insurance companies. The decreasing share held by financial institutions was reflected mostly in the share held by domestically licensed banks, declining from 15.6 percent to 11.6 percent over the same period, while the private life insurance companies and private non-life insurance companies remained at around the same level, around 5.5 percent for the private life insurance companies and around 0.5 percent for private non-life insurance companies, as shown in Table 5.

Table 5. Japan Government Bonds Holders (2001-2005)

(Billion Yen, end of month)

	March-2001		March-2002		March-2003		March-2004		March-2005	
		%		%		%		%		%
General	144689.4	35.4	192052.8	40.9	224143.7	41.6	234608	41.2	269717.5	42
Fiscal Loan Fund	77265.9	18.9	70913.6	15.1	65727.6	12.2	53504.6	9.4	48790.9	7.6
Postal Savings	26216.7	6.4	54124.1	11.5	76289.1	14.2	87585.5	15.4	109699.3	17.1
Postal Life	21681.8	5.3	24059.4	5.1	27686.2	5.1	28289	5.0	35494.5	5.5
Public Pension*	10250	2.5	26007.2	5.5	31692.6	5.9	42012.1	7.4	54169	8.4
Central Bank	47627.1	11.6	70053	14.9	80934.5	15	85184.1	14.9	92087.9	14.3
Financial	158017.4	38.6	153926.5	32.8	175624.3	32.6	195108.8	34.2	204101	31.8
Domestically Licensed Banks	63776.9	15.6	54275.2	11.6	61136.5	11.3	74397.4	13.1	74367.5	11.6
Private Life Insurance companies	21681.8	5.3	24059.4	5.1	27686.2	5.1	28289	5.0	35494.5	5.5
Private Non-life Insurance companies	1266.9	0.3	1704.8	0.4	2679.4	0.5	3217	0.6	3353.1	0.5
Securities Investment Trusts	11996	2.9	8,580.4	1.8	8938.3	1.7	8638.4	1.5	7403.0	1.2
Overseas	24475.9	6.0	16682.5	3.6	18288.8	3.4	20159.6	3.5	27054.4	4.2
Securities	7155.6	1.7	8616.6	1.8	11633.7	2.2	4969.2	0.9	12037	1.9
Households	10139.8	2.5	12380.8	2.6	12682.5	2.4	14536.8	2.6	21373.8	3.3
Private Non-profit Institutions saving Households	3655.5	0.9	5599.4	1.2	5120	1.0	6063.4	1.1	7555.8	1.2
Non-financial corporations	1216.4	0.3	1313.6	0.3	1327.5	0.2	666.3	0.1	1134.8	0.2
Total	408973.1	100	469205.6	100	538693.3	100	569934.6	100	642465.5	100

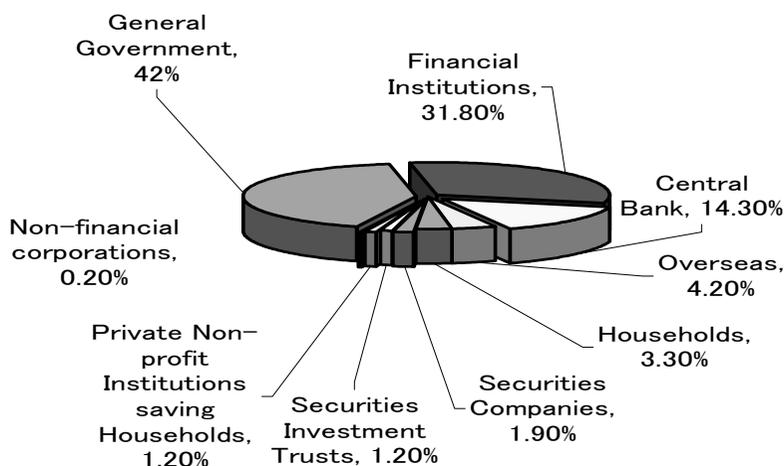
Source: MOF of Japan, "Guide to Japanese Government Bonds 2006," available at http://www.mof.go.jp/english/bonds/guide_to_jgb_2006e.pdf. * Transferred from public to private sector in 2006.

As mentioned above, the Central Bank uses the GB market to conduct open market operations for the management of liquidity of the market and the interest rate. Moreover, the GB market can strengthen the transmission and implementation of monetary policy, including the achievement of monetary targets or inflation objectives and can enable the use of market-based indirect monetary instruments. For these reasons, the Bank of Japan (BOJ) invests part of its assets in the JGB market by buying and holding some GBs. At the end of March 2001, the Central Bank held 47,627.1 billion yen in GBs, and this had increased to 92,087.9 billion yen at the end of March 2005. Its proportion among total GB holders also increased over the same period, from 11.6 percent to 14.3 percent.

However, there are limits for foreign holders of JGBs, overseas-held JGBs being only a comparatively small share. Nevertheless, as seen in Table 5, 6 percent of total GB holders were overseas holders at the end of March 2001, and this declined to 4.2 percent by the end of March 2005. JGBs have attracted increasing attention from foreign investors as the JGB share in the global index has risen along with the rapid increases in outstanding volume.⁵¹

Additionally, these categories represent the main GB holders, who at the end of March 2005 represented 92.3 percent of the total, while the remaining categories represented a relatively small share in the total GB holders, just 7.7 percent of the total in the same period.

Figure 8. JGB Holders at the End of March 2005



Source: Author's conceptualization based on data from Table 5.

⁵¹ Toshiki Tomita, "The Need for Redefining Japan's Government Debt Management Policy," *NRI Papers*, No.42, February 1, 2002, p10, available at: <http://www.nri.co.jp/english/opinion/papers/2002/pdf/np200242.pdf>

This breaks down to securities investment trusts, 2.9 percent; securities companies, 1.7 percent; households, 2.5 percent; private non-profit institutions saving households, 0.9 percent; non-financial corporations, 0.3 percent, as in Figure 8. If we sum these proportions, they equal 8.3 percent at the end March 2001. The securities investment trusts and non-financial corporations had declined by the end of March 2005, but conversely, the securities companies, households, and private non-profit institutions saving households increased slightly in the same period.

In fact, the most important thing in this case is the extremely high proportion of GBs, over 40 percent, in the hands of the general government, and that means that the government is supporting itself. At the same time, the government invests part of the assets in the general government in the GB market to maintain this market, the stock market indirectly, and also the whole financial system.

2). The secondary market for government bonds

The secondary bond market can be divided into two types of transactions:⁵²

1. Transactions that take place on the stock exchange;
2. Transactions that are made over the counter, at security companies (OTC transactions).

OTC is a predominant transaction method for bonds. Because there are so many bonds issues, their transactions and procedures tend to be cumbersome and bond transactions per se are complex. Currently, 2-year, 5-year, 10-year, 20-year, and 30-year fixed-rate JGBs are listed on the stock exchange in Tokyo, Osaka, and Nagoya, and their daily transaction volume is published.

In the OTC market, in principle, a price is concluded through a negotiation between the parties concerned. However, in order to ensure fair and smooth OTC bond transactions, the Fair Business Practice Regulations by the Japan Securities Dealer Association require each securities company to maintain the fairness of the transaction by acting in a proper manner according to a set of internal rules. Furthermore, to improve the price discovery function of the OTC market, the Association publishes reference prices for OTC bond transactions on every business day, based on reports from its member security companies and other financial institutions.

Additionally, there are When-Issued transactions (WI transactions), a transaction made during a period between an auction announcement (in principle, a week before the auction) and the day of issuance. Besides transactions during a period between an auction and the day of issuance, one prior to the auction has been made since February 2004. This makes it

⁵² In addition, there are government bonds transactions in futures, called GB futures, which represent a contract to trade a bond, either buying or selling, at a set point in the future for an agreed price. However, we do not focus on this here as it is beyond our scope. Our aim here is the development of the bond market, whereas futures transactions are an advanced process of that market.

easier for market participants to keep up with market trends, while adding to smoother pricing for new JGB issues, and hence smoother financing.

Table 6. OTC Bond Trading (Including Repos) (2000-2007)

	(Trillion Yen)							
	2000	2001	2002	2003	2004	2005	2006	11 Mon. of 2007
JGBs	3,898.0	3,863.4	3,429.8	4,836.1	6,178.6	6,428.0	8,881.7	10,958.17
(% of Total)	(95.98)	(95.20)	(93.55)	(94.63)	(95.32)	(95.11)	(97.03)	(98.28)
Others	163.4	194.9	236.4	274.4	303.1	330.2	271.3	191.09
Total	4,061.1	4,058.0	3,665.9	5,110.2	6,481.4	6,758.2	9,153.0	11,149.27

Source: JSDA, "Fact Book 2007," p19 available at http://www.jsda.or.jp/html/pdf/factb/FB2007_E.pdf

In 2007, JGBs traded on the market accounted for approximately 83 percent of the bond market on an annual issue amount basis.⁵³ In terms of transaction value, the figure goes up to 95 percent of the total bond transactions. GBs thus hold an essential position in Japan's financial and security markets.

Moreover, the total traded value of OTC transactions of bonds stayed at the high levels of the preceding year, reaching 8,881.7 trillion yen in 2006, compared with 3,898 trillion yen in 2000, an average increase of 127.85 percent. The same trend continued, reaching 10,958.17 trillion yen in just the first 11 months of 2007.

JGB trading has represented a high proportion of the total trading in the bond market, and thus GBs are considered to be the most important factor and instrument in monetary and fiscal policies, and are used to influence mostly macroeconomic variables. Looking at the details of the trading values of GBs in Table 6, this accounted for more than 95 percent of total value, and in the last two years this proportion has risen to reach over 98 percent of total trading in the bond market, thus embracing almost the whole bond market.

3). Mechanism of redemption

GB redemption retires debt by repaying its principal amount to bondholders.

Redemption can be divided into two types according to the timing of redemption; advance redemption and redemption at maturity. While redemption at maturity means to pay back the principal at a maturity date pre-fixed at issuance, advance redemption means to repay the principal at a certain date before the maturity date.

In Japan, however, advance redemption has never been practiced. This is to secure the

⁵³ Japan Securities Dealers Association, "Fact Book 2007," p6, available at: http://www.jsda.or.jp/html/pdf/factb/FB2007_E.pdf

product stability of JGBs and to ensure smooth financing.

Advance redemption resembles a buy-back program in that government debts will be resolved in the end, but differs in methods.

All the bonds issued to fund a deficit in the general account of the national budget are repaid through the Government Debt Consolidation Fund (GDCF). In addition, revenues from refunding bonds, issued through the Special Account for the Government Debt Consolidation Fund, are posted to the GDCF. Moreover, the proceeds from the sales of government-owned shares that belong to the Special Account for the Government Debt Consolidation Fund are also transferred into the GDCF. Simply put, fiscal resources for GB redemption are all funneled through the GDCF, from reception and accumulation to disbursement.

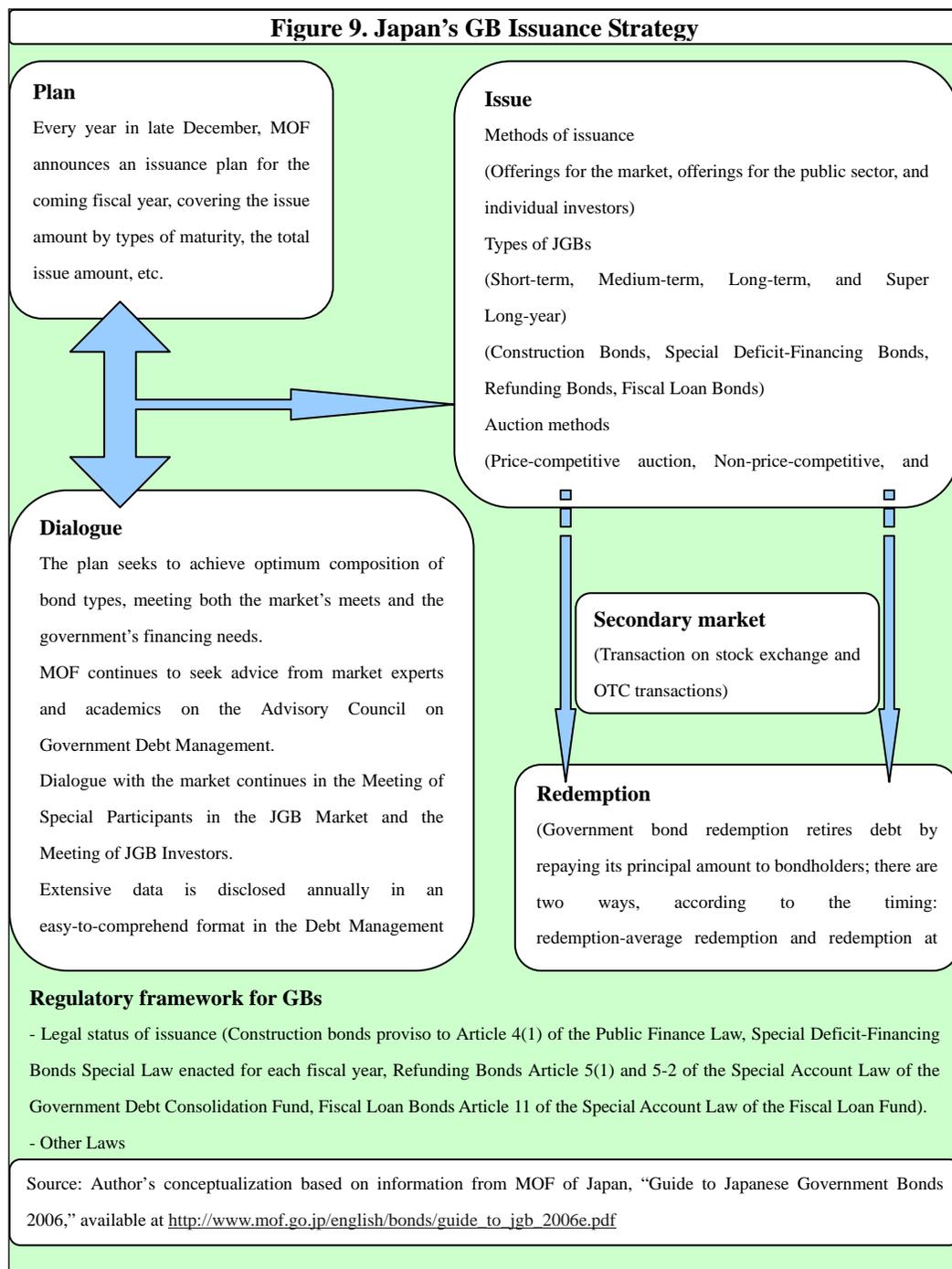
Furthermore, refunding bonds are GBs issued through the Special Account for the Government Debt Consolidation Fund to raise funds to redeem outstanding JGBs. Revenues from issued refunding bonds are directly posted to the GDCF. Unlike new financial resource bonds, the ceiling issue amount of refunding bonds is not subject to Diet approval in the form of the budget. In practice, however, the issue amount is calculated based on the amount of debt maturing regularly according to the “60-year redemption rule,” the redeeming of government bonds 60 years after issuance. The rule stands on the fact that the average economic depreciation period of the assets purchased by the construction bonds is about 60 years. Deriving from this rule is the 1.6 ratio for fixed-rate transfer for each fiscal year, which is about equivalent to one-sixtieth.

Figure 9 below briefly provides the mechanism of the primary JGB market operations. It starts from plans by MOF for issuance, which is supported by harmonizing with opinions of market participants. MOF holds meetings with special participants in the JGB market, and other regular meetings to exchange opinions with market participants and other experts with knowledge of the market. These forums enable MOF to obtain timely and accurate information on market needs and trends, which will be employed in the formulation of debt management policies.

1. Advisory Council on Government Debt Management
2. Meeting of Special Participants in the JGB Market
3. Meeting of JGB Investors
4. Debt Management Report
5. MOF Seminars on the Japanese Economy and JGBs

The methods of issues, types of JGBs, and auction methods will then arise. In this stage, the investors from both the public and private sectors will hold JGBs, as explained above. Following this, these bonds are then tradable in the secondary market until redemption at

maturity. Undoubtedly, all debt securities should be redeemed at maturity date, and the JGBs should be redeemed when the maturity date arrives.



CHAPTER THREE

Strategy for the Development of Iraq's Financial System with a GB Market

This chapter consists of three sections. Section I explains the macroeconomic indicators, which are the most important in Iraq's economy. Section II discusses the structure of the financial system and section III attempts to outline a strategy to develop both Iraq's GB market and the financial system.

I. Macroeconomic Indicators

This section is divided into two parts, as follows.

1. The Gross Domestic Product

The gross domestic product of Iraq witnessed huge increase during the period 2001-2006. Table 7 shows the GDP (at current prices) increasing from 9,911 billion ID in 2001 to 46,000 billion ID in 2005, and reaching a peak of 77,367 billion ID in 2006. Moreover, we should notice that the contributing ratio of oil products in the GDP is very large. It is approximately 65 percent of GDP, and the remainder is from non-oil products. This indicates that Iraq's economy depends on oil products and their revenues to finance all expenditures.

The gross domestic product (at Constant Prices, 1988 = 100) during the same period is similar, with little volatility. It increased from 25,689 billion ID in 2001 to 61,845 billion ID in 2006, but in 2003 it witnessed a decline to 20,562 billion ID (see Table 7).

2. The Dinar Exchange Rate, Inflation and Interest Rate

The Iraqi dinar (ID) has gradually become stable since October 2003. Table 8 shows the exchange rate of the Iraqi dinar per USD as it increased from 1,936 ID per USD in 2003,

Table 7. Iraq: Gross Domestic Product (2001-2006)
(Billion ID)

	2001	2002	2003	2004	2005	2006
GDP at current prices	9,911	41,022	29,586	47,959	46,000	77,367
GDP at constant prices (1988=100)	25,689	34,124	20,562	37,049	49,991	61,845

Source: Central Bank of Iraq, "Annual Bulletin" various years.

Table 8. Some Financial Indicators for Iraq's Economy (2003-2007)

	Market price per US\$	Auction price US\$	Interest rate %	Inflation rate%
2003	1,936	1,896	6.4	33.6
2004	1,453	1,453	6	27.0
2005	1,472	1,469	8.9	37.0
2006	1,475	1,467	16	53.2
2007 (June)	---	1,256	21	---

Source: Central Bank of Iraq, "Annual Bulletin 2006," Baghdad, 2007, p55 for exchange rate and p56 for inflation. also see:

-IMF, "Iraq, IMF Country Report," No.07/294, August 2007, p9, for interest rate.

to 1,475 ID per USD in 2006, and was almost stable for the whole year 2007 at an average of 1,250 ID per USD

Conversely, the inflation rate has increased from 33.6 percent in 2003, to over 53 percent in 2006. Moreover, this trend has continued upwards to 55 percent in 2007.

The interest rate increased from 6.4 percent in 2003 to 21 percent in 2007, as in Table 8.

II. The Structure of the Financial System of Iraq

The structure of the financial system usually consists of the public sector, which includes public finance and government debt, and the government securities market, and the private sector, which includes the stock exchange market, the banking sector, and the foreign exchange market. In any economy, there should be a strong relationship between all elements of the financial sector in order for there to be more efficiency in the economy and to assist in pushing economic growth forward. Moreover, from my viewpoint, the financial sector represents the financial market, and is composed of several markets, the government securities market, which includes government bonds, treasury notes and T-bills tradable within it, the stock exchange market, and the monetary and banking market. In addition, these markets should work together easily and smoothly like a symphony, treating one another in a consistent and symmetrical manner. In addition, if any one of them does not work well, some weak point will appear throughout the financial sector and affect the efficiency of the economy. Therefore, the elements of Iraq's financial sector are as follows.

1. Public Finance

Generally, public finance includes public expenditures, public revenues, and the budget. The main source of government revenues in Iraq comes from the proceeds of oil products and their sales. These revenues achieved from oil export depend on the variables of the international oil market. Beside this, there is little tax revenue or non-tax revenue.

Conversely, government expenditures are considered an important source of financing economic development projects in Iraq, and as an important tributary of the income, expenditure, and domestic liquidity stream at the macroeconomic level of the economy. In recent years, government expenditures have increased continuously in tandem with increasing government revenues, but the general government budget recorded a deficit for the fourth consecutive year.

Whereas government expenditures are distributed between current expenditures and investment expenditures, so the current expenditures are also distributed among salaries and pensions, goods and services (non-oil sector, including goods and services financed by donors, and overhead costs for reconstruction projects), goods and services for the oil sector, transfer expenditures, interest payments, and war reparations.⁵⁴

On the other hand, the investment expenditures are distributed between non-oil investment expenditures (which include domestically-financed reconstruction expenditure, OFFP⁵⁵-financed reconstruction expenditure, grant-financed reconstruction expenditure, and loan-financed reconstruction expenditure), and oil investment expenditures (including refineries).

1) Public Expenditures:

Table 9 presents public expenditure data. Public expenditures have increased by 23.8% on average in the period 2004-2007, whereas they increased from 45,202 billion ID in 2004 to 55,983 billion ID in 2007. The current expenditures consisted of 81.6 percent of the public expenditures, at the same time as investment expenditures consisted of just 18.4 percent of public expenditures in 2004, vis-à-vis 76% for the former and 22% for the latter in 2007. Therefore, the general trend of increase in public expenditures during this period was in investment expenditures more than in current expenditures. Investment expenditures have risen to 12,315 billion ID in 2007, increasing by 48.1% compared with the 2004 level, while the rise in current expenditures was just 15.3% when comparing 2004 and 2007.

The main components of current expenditures are described below in Figure 10, which reveals the percentage figures of those components in 2006. The goods and services for the non-oil sector constitute 30 percent, salaries and pensions is the second largest at 27 percent, and the third largest is transfer expenditures at 20 percent.

The investment expenditures consist of non-oil investment expenditures and oil investment expenditures. The non-oil investment expenditures constitute 81.4 percent of the

⁵⁴ Calculated as 5 percent of oil export as per UN Security Council Resolution 1483 to finance war reparations to Kuwait. For further information, see

<http://daccessdds.un.org/doc/UNDOC/GEN/N03/368/53/PDF/N0336853.pdf?OpenElement>

⁵⁵ Oil-for-food Program. For further information see <http://www.un.org/Depts/oip/background/index.html>

Table 9. Iraq's Public Finance Account (2004-2007)
(Billion ID)

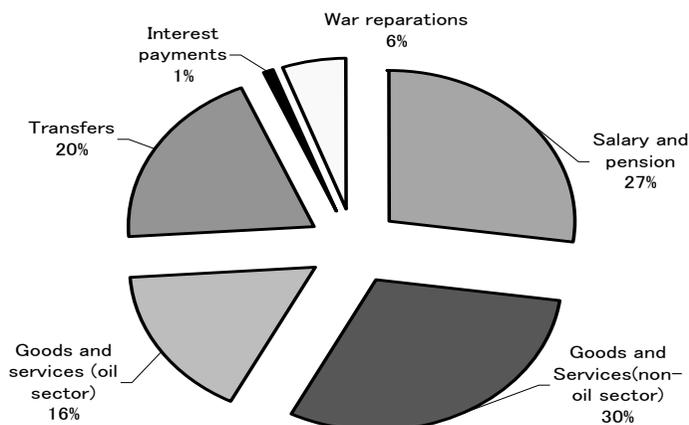
	2004	2005	2006	2007
Revenues and Grants	29,784	49,505	58,497	48,453
-Revenues	26,376	36,655	49,430	41,987
-Crude oil export revenues	25,108	33,896	43,736	35,666
-Revenues of oil-related state owned enterprises	799	1,456	3,611	4,100
-Tax revenues	160	495	585	799
-Direct taxes	78	207	345	471
-Indirect taxes	81	288	240	328
-Non-tax revenues	309	809	1,498	1,422
-Grants	3,408	12,850	9,067	6,466
Expenditures	45,202	44,497	49,756	55,983
-Current expenditures	36,887	35,560	40,188	42,531
-Investment expenditures	8,314	8,936	9,464	12,315
-Non-oil investment expenditures	6,126	6,587	7,703	11,203
-Oil investment expenditures (including refineries)	2,188	2,349	1,761	2,961
Balance (including grants)	-15,418	5,008	8,741	-7,530
<u>Balance (excluding grants)</u>	<u>-18,826</u>	<u>-7,842</u>	<u>-326</u>	<u>-13,996</u>
Change in outstanding letters of credit (+ increase)*	---	2,947		---
Financing, of which:	14,893	-2,095	-6,354	7,530
-External financing	15,426	2,721	-3,522	6,330
Assets held abroad	10,127	1,462	-2,147	6,001
Project financing	0	0	0	537
Other financing includes financing from OFFP**	5,969	1,486	458	0
Amortization	670	227	1,833	209
-Domestic financing	-533	-4,816	-2,833	1,200
Bank financing	-333	-5,124	-1,884	1,200
Non bank financing	-200	308	-949	0
Residual or Financing gap[-]/surplus [+]	-525	-34	+161	0

Source: IMF, "Iraq, IMF Country Report," No.07/301, August 2007, p26.

* LCs in the Trade Bank of Iraq, for which 100 percent down payment is customarily required

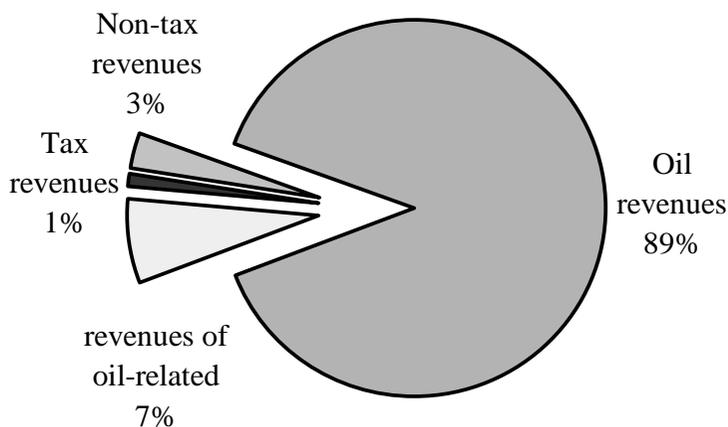
** OFFP, Oil-for-food Program

Figure 10. The Main Components of Current Expenditures by Percentage, 2006



Source: Author's conceptualization based on information from Table 9.

Figure 11. The Main Sources of Public Revenues by Percentage, 2006



Source: Author's conceptualization based on data from Table 9.

investment expenditures, whereas oil investment expenditures constituted 18.6 percent in 2006 (see Table 9). Therefore, non-oil investment expenditures constitute more than 61 percent of domestically-financed reconstruction expenditure and 33.3% of grant-financed reconstruction expenditure.

2) Public Revenues

As mentioned above, the main sources of government revenues in Iraq come from the production and export of oil, as is well known. Whereas oil export revenues constituted 89 percent, the revenues of oil-related public enterprises were 7 percent, non-tax revenues 3 percent and tax revenues represented just 1 percent of total revenues in 2006, as in Figure 11. In addition, the grants given to the Iraqi government reached a total of 9,067 billion ID in the same year.

3) The Government Budget⁵⁶ Balance

The Iraqi government budget has suffered from deficit. Table 9, sheds more light on the budget deficit during the period 2004 to 2007. It mentions that public expenditures exceeded public revenues to cause the deficit. The amount of the deficit reached 18,826 billion ID in 2004, and declined to 13,996 billion ID in 2007 due to increasing oil prices. Nevertheless, if we add the grants that the Iraqi government received from various governments, the amount of the deficit declined gradually and transformed into a surplus, especially in 2006, reaching a budget surplus of 8,741 billion ID, quickly returning to its previous deficit status, reaching 7,530 billion ID in 2007.

Here I will describe the methods for financing the government budget of Iraq. There are two methods for financing the budget, as follows.

1. External financing, including Iraqi assets held abroad, project financing, amortization and other financing.⁵⁷
2. Domestic financing, including bank financing and non-bank financing.

Figure 12-A shows the status of the budget balance during the period 2004 to 2007. The budget, excluding grants, usually suffered from a deficit in this period, particularly in 2004 and 2007. However, the budget including grants differs, and in 2005 and 2006 it witnessed a surplus (see Figure 12-B).

Figure 12-B shows the amount of financing of the budget deficit during the period 2004-2007. The Iraqi government was able to finance its deficit by both external and domestic financing, especially from external sources, which constituted 84 percent of all financing in 2007. Moreover, in 2004, for example, external financing exceeded all financing by 103.7%, but domestic financing was negative due to the Iraqi government's obligations towards domestic financial institutions, causing the budget to suffer a deficit, forming a black zone on the negative side in Figure 12-B. Contrastingly, in 2006, the budget attained a surplus exceeding financing from its revenues, which meant that external and domestic financing were negative. (This fact can be seen in figure 12-B, where the black zone is on the positive side).

⁵⁶ The budget of a government is a summary or plan of the intended revenues and expenditures of that government.

⁵⁷ Includes financing from LCs (letters of credit) previously issued under the UN oil-food program.

Figure 12-A. Status of the Budget Balance (2004-2007) (Billion ID)

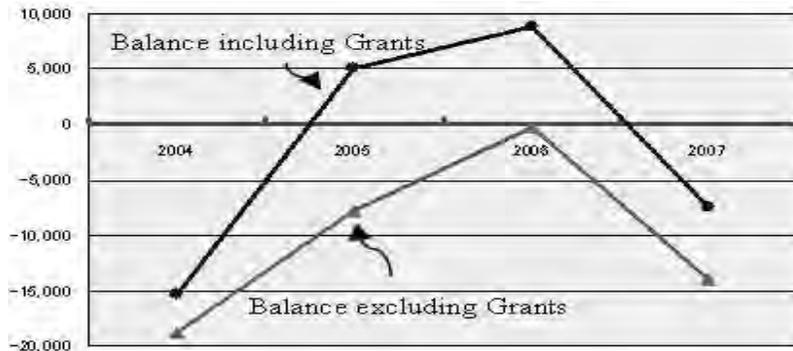
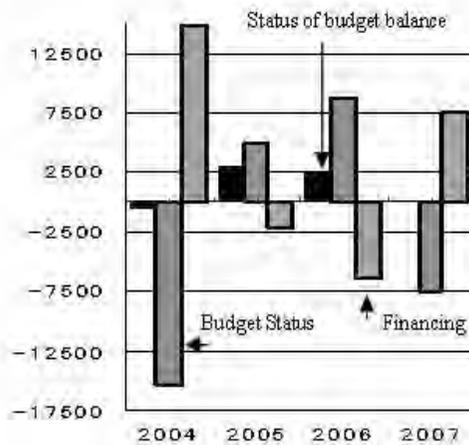


Figure 12-B. The Budget Balance with and without Grants (2004-2007) (Billion ID)



Source: Author's conceptualization based on data from Table 9.

2. Iraqi Government Debt

This part is divided into two points, as below.

1) Iraq's External Debt

The exact size of Iraq's foreign debt obligations is unknown. This is due to disagreements on what Iraq actually owes and how interest on this debt should be calculated (or if it should be counted at all).⁵⁸ Iraq's external debt following the end of the Saddam

⁵⁸ Martin A. Weiss, "Iraq's Debt Relief: Procedure and Potential Implications for International Debt Relief," Congressional Research Service, The Library of Congress, Washington, April 21, 2006, p crs2-3.

regime was estimated to be about \$125 billion. This debt comprised four components: (i) Official Paris Club bilateral creditors \$37.15 billion; (ii) Official Non-Paris Club bilateral \$67.4 billion; (iii) Commercial creditors \$20 billion; (iv) and Multilateral creditors \$0.5 billion.

Figure 13-A sheds some light on percentages of the amounts of Iraq’s external debt. The Non-Paris Club bilateral creditors constituted the major percentage, 53.9%, of the total external debt, while the Paris Club bilateral creditors constituted 29.7 percent of the total external debt, commercial creditors constituted 15.9 percent of the total external debt, and multilateral creditors constituted just 0.4 percent of the total external debt.

Figure 13-A. Percentages of Amounts of Iraq’s External Debt

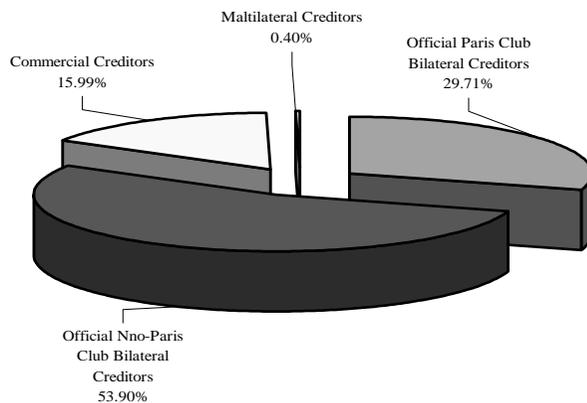
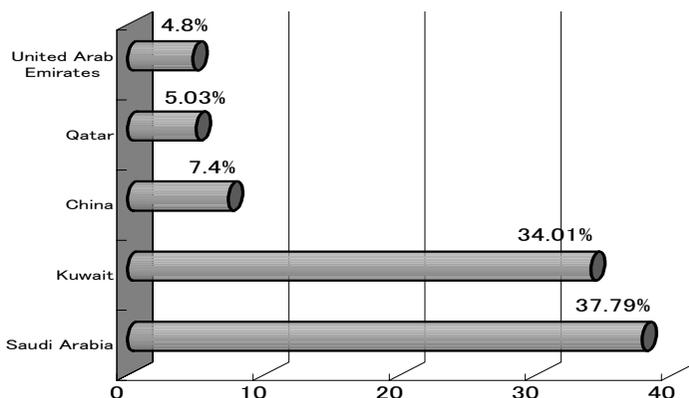


Figure 13-B. The Non-Paris Club Bilateral Creditors by Percentage



Source: Source: Martin A. Weiss, “Iraq’s Debt Relief: Procedure and Potential Implications for International Debt Relief”, Congressional Research Service ~ The Library of Congress, Washington, April 21, 2006, p crs2-3

Since 2003, debt relief negotiations have taken place on the cancellation of a significant amount of Iraq's external debt. Debt relief negotiations first led to an 80% reduction of the Paris Club debt. The Paris Club agreement also set the terms for non-Paris Club and commercial debt cancellation levels. In light of Iraq's experience, three new precedents appear to have taken shape:

- (i) A willingness by the international community to grant a stay on the enforcement of creditor rights to collect unpaid sovereign debt;
- (ii) An increased flexibility in Paris Club debt relief decisions;
- (iii) Unwillingness by successor regimes to claim their debt is odious and repudiate it.

The Non-Paris Club bilateral credits form 88.93 percent of the structure of Iraq's external debt. In addition, these arise from several countries, the most important of them being Saudi Arabia, 37.79%; Kuwait, 34.01%; China, 7.4%; Qatar, 5.03%; and the United Arab Emirates, 4.8% of the composition of the Non-Paris Club bilateral credits, as shown in Figure 13-B.

2) Internal Public Debt

In the early 1990s, the Iraqi government internal debt was at a very high level as a percentage of GDP. Table 10 includes two ratios, one for debt against GDP (at current prices) and another for treasury bills (T-bills) against GDP. The debt has decreased sharply as a percentage of GDP, declining an average 18.54 percent annually. In 1991, it reached 218 percent, and decreased to a sustainable level to reach 42.15 percent in 1998. The ratio of T-bills to GDP (at current prices) has also witnessed a decrease from 204.1 percent of GDP in 1991 to 38.56 percent in 1998.

Moreover, both the debt and T-bills as a percentage of GDP has declined in the period 2000 to 2006, the debt declining at an average of 19.96 percent annually, reaching 6.86 percent of GDP in 2006, compared with 32.6 percent of GDP in 2000. Similarly, the ratio of T-bills to GDP has also decreased sharply from 29.63 percent of GDP in 2000 to 4.5 percent of GDP in 2006, as in Table 10.

Table 10. Debt and T-bills as Percentage of GDP at Current Prices (1991-2006)

	Debt/GDP	T-bills/GDP
1991	218	204.1
1995	41.15	33.36
1998	42.24	38.56
2000	32.6	29.63
2001	35.8	32.71
2002	11.08	9.6
2003	18.73	15.66
2004	12.35	9.33
2005	9.77	6.92
2006	6.86	4.5

Source: Author's construction based on data from Appendix 1.

Here we must look at the question:

What are the features of the structure of government internal debt?

The structure of government internal debt

The internal government debt of Iraq consists of government securities, (which are formed from T-bills and a very few GBs), an overdraft at the Central Bank, and advances from commercial banks.

T-bills are an important part of internal public debt. They constituted the major percentage, averaging about 90 percent, of the internal public debt in the 1990s. Moreover, they have decreased from the end of 2003 to reach 65.7 percent of the internal public debt in 2006. While the government overdraft facility at the Central Bank of Iraq (CBI) formed only a small percentage of internal public debt in the 1990s, averaging about 9 percent annually, it has increased sharply, especially from 2003, to reach 16.4 percent and this trend has continued, to reach 34.3 percent of internal public debt in 2006.

Table 11 sheds some light on the elements of the internal public debt during the period 1991 to 2006. Treasury bills have increased sharply from 43,500 million ID in 1991 to 2,350,250 million ID in 2000 with a compound growth rate of 0.49 percent annually during the period 1991 to 2000, while this growth differed in the second part of the period, being just 0.058 percent annually in the period 2000 to 2006. Treasury bills have increased from 2,350,250 million ID in 2000 to 3,486,137 million ID in 2006, but despite this raise T-bills were reduced from 4,634,750 million ID in 2003 to 3,486,137 million ID in 2006.

The amount of overdraft has increased from 2,723 million ID in 1991 to 230,637 million ID in 2000, its growth increasing with a compound growth rate of over 0.39 percent annually in the period 1991 to 2000. This trend continued in the period 2001 to 2006 to become 1,820,871 million ID in 2006, meaning that the overdraft increased sharply during the period 1991 to 2006 with a compound growth rate reaching 0.4 percent annually.

Table 11. The Elements of Internal Public Debt (1991-2006)
(Million ID)

	Overdraft	GBs	T-bills
1991	2,723	250	43,500
1995	171,503	3,985	751,500
2000	230,637	5,000	2,350,250
2003	908,934	000	4,634,750
2004	1,448,401	000	4,476,660
2005	1,820,871	000	4,434,707
2006	1,820,871	000	3,486,137

Source: Author's compilation based on data from Appendix 2.

3. The Iraqi Government Securities Market

Iraq's Government Securities (GSs) market consists of two kinds of bills, one issued by MOF and the other issued by CBI.

1) Iraq's T-bills

The treasury system allows the government to prepare financial plans, implement an annual budget, handle cash resources, provide fiscal accounts, and ensure control and accountability. Additionally, the treasury system covers many critical elements of the public expenditure management system. Key treasury functions include allotment and cash releases of the annual budget, financial planning, control of the budgetary spending process, management of government cash flows, financial assets and liabilities, accounting, and internal audit of budget execution. Efficient public expenditure management requires that a government have robust institutions and mechanisms in place to handle these functions.

In Iraq, the role of the treasury department in fiscal policy is very important, it straightens government finances, especially in the short-term, and it covers interim public budget deficit. As mentioned above, the government budget depends greatly on the treasury to finance its deficit (see Table 11).

In this case, we can ask:

How can the treasury finance the government budget deficit?

The treasury works to issue securities, called government securities, and sells them to the Central Bank, commercial banks, other financial institutions and the private sector in order to finance government expenditures. In this case, there is a transfer process in the portfolios for the government and the buyer side, which means that financial assets are substituted for monetary assets in the buyer's side portfolios. Conversely, in the government's portfolio, monetary assets are substituted for the financial assets. The government will thus obtain the funding it requires for financing its deficit.

The government securities mainly consisted of T-bills and a few GBs in previous periods. T-bills have been issued in maturities of 28, 63 and 91 days, 91-day T-bills being the majority of these bills, which are non-tradable in the secondary market. Moreover, the Iraqi government issued bonds in maturities of between one and ten years, and more than ten years ago these were tradable in the secondary market. Since 1996, however, the Iraqi government has not issued bonds.

Table 12 shows examples of details of a T-Bill auction for the Iraqi government. It mainly consists of a uniform price auction for ID 200 million par value of bills, which was concluded on 29 October 2007. In addition, the total public valid competitive bids totaled ID 105 million and valid non-competitive bids totaled ID 0.0. Further, the cutoff yield (the highest yield of a successful bidder) determined by auction was 21%.

**Table 12. Details of T-Bills Auction for the Period 30/10/2007
to 01/29/2008, 91-Day Term**

Details (amount in Iraqi dinars)	Notes
Securities Offered	Bills
Initial Public Offering	200.000.000.000
Total Public Bidding	105.000.000.000
Uniform or Multiple Price Auction	uniform
Term of Security	91 Days
Coupon	None
Settlement Date	10-30-07
Maturity Date	01-29-08
Competitive Bidders	2
Winning Bidders	2
Total Non-Competitive Bids Awarded	0
Total Valid Competitive Bids	105.000.000.000
Total competitive Bids Awarded	105.000.000.000
Range of Yields of Valid Competitive Bids	[19.00%-21.00%]
Cutoff Yield (Highest Yield of Successful Bidder)	21.00%
Bids Received as % of Amount Offered	52.50%

Source: CBI, Government Securities Auctions, 2007, available at <http://www.cbiraq.org/cbs6a1.htm>

Who are the holders of T-bills?

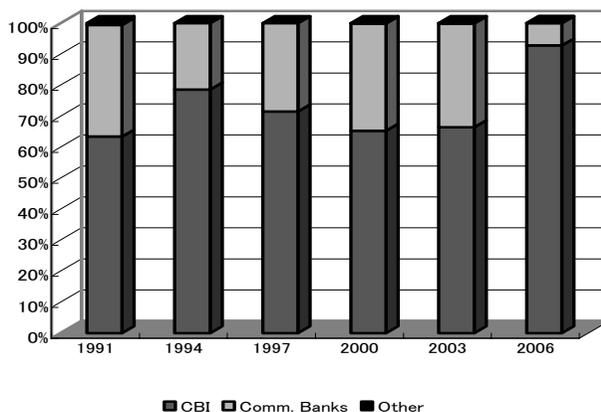
The Central Bank of Iraq is considered to be the main holder of T-bills. It held an average of about 70 percent of the T-bills in the period 1991 to 2006. However, in 2006, this jumped to 92.8 percent of the T-bills. In addition, the remaining T-bills are held by commercial banks, who held an average of about 30 percent of the T-bills in the same period, which in 2006 declined to just 7.2 percent of the T-bills (see Figure 14). In that sense, the Central Bank of Iraq and the commercial banks are partner holders of the T-bills. In addition, the Central Bank of Iraq finances the government as holders of the T-bills. In this case, the Central Bank of Iraq sustains more than 95 percent of the total internal public debt of the Iraqi government, as in Box 1.

**Box 1.
CBI finances the internal debt**

In 2006, the central bank financed 34.3% of the internal debt from overdraft. The central bank holds 92.7 percent of the treasury bills. The treasury bills comprise 65.7 percent of the internal debt.

That means the central bank finances 60.96 percent as holders of treasury bills $(92.8/100) * 65.7 = 60.96$ and 34.3% of the overdraft. Ultimately, the central bank finances the government by 95.26 percent $(60.96+34.3 = 95.26)$

Figure 14. The Main Holders of T-bills by Percentage (1991-2006)



Source: Author's conceptualization based on data from Appendix 2.

The Central Bank of Iraq therefore manages public domestic debt on behalf of the treasury. This includes contracting domestic debt through the sale of treasury bills and bonds, extending overdraft facilities to the government, maintaining a domestic debt register and making payments of domestic debt. As the banker for the government, CBI effects payments to external creditors on specific instructions from the treasury.

The accumulated amount for all auctions of 91-day T-bills, which form the largest portion of the T-bills, reached 10,134,690 million ID during the period 2004 to the end of October 2007. Moreover, the total payment to the Iraqi Ministry of Finance (MOF) reached 9,871,432 million ID, the cutoff yield averaged 10.3 percent in the same period, as in Table 13.

**Table 13. Auctioned Amounts of 91-Day Term T-bills
(18/7/2007 to end of 2007) (Million ID)**

	Accumulated amount for all auctions	Total payment to MOF	Cutoff yield	No. of Auctions
From 18/7/2004	1,674,700	1,657,898	4.16%	12
2005	5,568,800	3,828,131	6.89%	22
2006	7,220,370	1,616,070	9.16%	13
End of Oct. 2007	10,134,690	2,769,333	21%	20
2004-end of Oct. 2007	10,134,690	9,871,432	10.3%	67

Source: CBI, Government Securities Auctions, 2007, available at <http://www.cbiraq.org/cbs6a1.htm>

**Table 14. Auctioned Amounts of 63- & 28-Day Term T-bills
(16/1/2006 to 27/3/2006)**

	Term of security	Accumulated amount by all auctions (Million ID)	Cutoff yield	No. of Auctions
From 16/1/2006 to 27/3/2006	63 days	750,060	8.54%	5
From 6/2/2006 to 4/3/2006	28 days	450,050	8.33%	3

Source: CBI, Government Securities Auctions, (2007), available at <http://www.cbiraq.org/cbs6a1.htm>

In addition, there is some turbulence in the total payment to MOF during the period. Whereas, in 2004 it reached 1,657,898 million ID, then increased sharply to reach 3,828,131 million ID in 2005, at one time it declined to 1,616,070 million ID in 2006 and again increased in 2007 to reach 2,769,333 million ID. On the other hand, the cutoff yield rise continued at an annual average of from 4.16 percent to 21 percent in 2007.

Meanwhile, 63- 28-day T-bills were irregular in issuance operation. However, the accumulated amount for all auctions of 63-day T-bills reached 750,050 million ID, with an average cutoff yield of 8.54 percent during the period 16/1/2006 to 27/3/2006, as in Table 14. Similarly, the accumulated amount for all auctions of 28-day T-bills reached 450,050 million ID with an average cutoff yield 8.33 percent during the period 6/2/2006 to 4/3/2006.

Thus, the total accumulated amount for all auctions for both securities is 1,200,110 million ID, that amount is extremely small compared with the accumulated amount for all auctions for 91-day securities.

2) Central Bank of Iraq (CBI)

The most significant development has been the enactment of the Law to Govern the Central Bank of Iraq, which came into effect on March 7, 2004. CBI thus became independent of government coercion and control. Procedures are in place to assure higher levels of transparency and accountability.

The Law to Govern the Central Bank of Iraq envisages a modern Central Bank that will bring greater price stability, foster a market-based financial system and promote sustainable growth, employment and prosperity. In addition, the new law empowers CBI to:

- (i) Take charge of the country's monetary policy, including exchange rate policy.
- (ii) Act as a fiscal agent of the government, performing financial operations including the issuing and redeeming of the Ministry of Finance's securities.
- (iii) Grant government-owned commercial banks loans on the same terms as privately owned commercial banks, and
- (iv) License and supervise both state-owned and private commercial banks, including foreign banks.

Consistent with the new economic philosophy of the CPA,⁵⁹ interest rates have been liberalized (effective March 1, 2004), allowing their values to be determined by market forces. As part of the September 2003 investment law, CBI also plans to establish insurance to provide additional protection to small and medium sized depositors.

The Central Bank of Iraq has also issued securities like T-bills, but with differences in maturity period, 182 days and one year, which are non-tradable on the secondary market. CBI aims to issue securities to execute its monetary policy and to draw liquidity from the economy in order to reduce the inflation rate.⁶⁰ Moreover, most of these securities are held by the state banks (Al-Rafidain and Al-Rasheed commercial banks).

The accumulated amount for all auctions of CBI-bills with a term of 182 days, considered to form most of the issuances of the Central Bank, reached 5,791,790 million ID during the period 21/8/2006 to 6/11/2007. In addition, the total payment to CBI reached 5,285,874 million ID, the cutoff yield averaging 15.69 percent in the same period (see Table 15).

At the same time, the accumulated amount for all auctions of one-year CBI-bills during the period 30/3/2006 to 2/10/2007 reached 1,061,010 million ID. The total payment to CBI reached 926,783.7 million ID, the cutoff yield averaging 16.43 percent in the same period (see Table 16).

**Table 15. Auctioned Amounts of 182-Day Term CBI-bills
(21/8/2006 to 6/11/2007) (Million ID)**

	Accumulated amount from all auctions	Total payment to CBI	Cutoff yield	No. of auctions
From 21/8/2006 to end 2006	1,000,000	947,180	10.4	8
6/11/2007	5,791,790	4,338,694	20.99	22
From 21/8/2006 to 6/11/2007	5,791,790	5,285,874	15.69	30

Source: CBI, Auction CBI, 2007, available at <http://www.cbiraq.org/cbs6a2.htm>

**Table 16. Auctions of One-Year Term CBI-bills
(30/3/2006 to 2/10/2007) (Million ID)**

	Accumulated amount from all auctions	Total payment to CBI	Cutoff yield	No. of auctions
From 30/3/2006 to end 2006	720,000	644,823	11.87%	4
2/10/2007	1,061,010	281,960.7	21.00%	2
From 30/3/2006 to 2/10/2007	1,061,010	926,783.7	16.43%	6

Source: CBI, Auction CBI, 2007, available at <http://www.cbiraq.org/cbs6a2.htm>

⁵⁹ The Coalition Provisional Authority in Iraq

⁶⁰ The inflation rate reached a high level in the Iraqi economy, over 53 percent, in 2006. See Table 8 in this study.

The securities issued by MOF are different from the securities issued by CBI in the period of the securities, despite the fact that they are similar in interest rate, and there has been a strong correlation between, them particularly in 2007 when all the securities of both CBI and MOF had an interest rate of 21 percent. They are similar in operation, in release and in the sales from auctions This is, of course, because they are both organized by the same authority, that is CBI. Despite T-bills being issued by MOF, it is CBI who manages and promotes them on behalf of the treasury.

4. The Iraq Stock Exchange (ISX)

The Iraq Stock Exchange (formally the Baghdad Stock Exchange⁶¹), the ISX was incorporated and began operations in June 2004.⁶² It operates under the oversight of the Iraq Securities Commission,⁶³ an independent commission modeled after the U.S. Securities and Exchange Commission. The ISX is a member of the Federation of Euro-Asian Stock Exchanges and the Union of Arab Stock Exchanges and has recently completed accession procedures for membership to the World Federation of Stock Exchanges.

ISX usually held two trading sessions weekly, but this became three days a week from 1st July, 2007. Moreover, 94 companies were listed companies in 2007,⁶⁴ as in Table 17. The market includes only equities, and has no other financial assets, such as government and private bonds.

Table 17. Indicators of the Iraq Stock Exchange Market (June 2004 to 2007)

	No. of listed companies	Traded volume (Billion shares)	Traded value (Billion of ID)	Market value (Billion of ID)	No. of days of trading
June 2004	80	14.393	127.950	1715.503	48
2005	85	55.600	366.800	3160.000	94
2006	93	57.975	146.891	1949.000	92
2007	94	153.00	428.000	2129.000	119

Source: ISX, "Annual Bulletin," 2007, available at: <http://isx-iq.net/page/english/bulletin-year-main-e.htm>

⁶¹ The BSE was established in 1992 with 112 listed companies, but its performance as an engine for capital development has traditionally been extremely poor. Stock market capitalization on Dec. 31, 2000 was ID 591 billion (US \$394 million) In comparison, the Egyptian stock exchange held US \$24,335 m and the Moroccan stock exchange held US \$9,087 m on the same date.

⁶² ISX was established according to Order 74 on April 18, 2004 and began trading on June 24, 2004.

⁶³ The Iraq Securities Commission, (ISC) is an independent public commission that oversees the activities of licensed securities markets.

⁶⁴ It should be mentioned that, in 2007, the listed companies in this market were 29 industrial companies, 19 banking companies, 14 service companies, 10 tourism and hotel companies, 9 agriculture companies, 9 financial investment companies, and 4 insurance companies. See Appendix 3.

In November 2006, the Iraqi government passed a foreign investment law, which for the first time in history allowed foreigners to invest in Iraq through areas including company holders and ISX trading.

Table 17 focuses on the status of the ISX market from June 2004 to 2007. During this period the market witnessed fluctuations, where it increased at first, during the period 2004 to 2005, then decreased during 2005 and 2006, witnessing an increase in 2007 due to the market having three trading sessions a week, as mentioned above. The traded value increased from 127.950 billion ID in 2004 to 366.800 billion ID in 2005. While it dropped sharply to 146.891 billion ID in 2006, the traded value increased to 428.000 billion ID in 2007. Likewise, whereas the market value of ISX had increased from 1715.503 billion ID in 2004 to 3160.000 billion ID in 2005, once again the trend was downwards, reaching 1949.000 billion ID in 2006, but then increasing to reach 2129.000 billion ID in 2007. The particular reason for this fluctuation is the Iraqi economic and political situation, which also fluctuated at the time.

5. The Banking Market in Iraq

Iraq's banking system has very rudimentary credit facilities and a weak payments system. Despite this, before 1991, it had one of the most modern financial systems in the Arab world.⁶⁵

The banking market consists of mainly two state-owned commercial banks, Al-Rafidain and Al-Rasheed (plus other 5 state-owned banks), which control over 85 percent of banking assets. They are at best marginally capitalized and have loan portfolios with a high concentration of non-performing loans. The banks clearly lacked modern comprehensive accounting standards and systems. Despite this, they had a large network of more than 530 branches around Iraq, including 269 in Baghdad and 261 outside Baghdad, in all prefectures of Iraq in 2003, each branch operating largely as an independent unit with no real centralized management or an integrated system for making and clearing payments. In addition, there were 28 private commercial and investment banks in 2007. All of these banks practice

⁶⁵ The Rafidain Bank was the only commercial bank in the country until 1988 and it remained the predominant institution thereafter. Some analysts have questioned whether it was truly independent of the central bank. For most of their history, both were owned and controlled by the government. With assets of more than US\$17 billion in 1983, the Rafidain Bank was reportedly the largest Arab commercial bank. In 1982, according to one report, the American Banker newspaper named Rafidain the world's fastest growing bank. In early 1989, Rafidain ranked number 83 in the world, with \$54.5 billion in assets. In 1996, it had 152 local branches and nine branches abroad. Given the strength of the Iraqi economy during this period, it seems likely that much of the capital to fund the bank's operations came from government or from regime sources. For more information see:

- Jonathan E. Sanford, "Iraq's Economy: Past, Present, Future," Congressional Research Service, The Library of Congress, June 3, 2003, pp27-28.

universal banking.⁶⁶ In aggregate, the banking sector (the state-owned and private commercial banks) had only US\$2 billion in assets in 2003; the banks were marginal in the economy as providers of liquidity,⁶⁷ and in addition there were 4 foreign commercial banks. Moreover, there were 7 insurance companies, including 3 public companies and 4 private companies, as well as 9 private companies in financial investment. However, all these companies have been weak and under-developed.⁶⁸

6. The Foreign Exchange Market

The Iraqi dinar was long considered a strong currency aided by oil revenues and rising foreign exchange reserves.

CBI has controlled the exchange rate of ID through holding daily auctions. Although there is no active bond market, CBI has been forced to control the money supply (and indirectly the exchange rate) through its buying and selling of the US Dollar through daily auctions inside the Central Bank.⁶⁹ In addition, Iraq has no regular foreign exchange market besides the daily auction controlled by CBI.

The CBI objective is not to promote the free trade of Iraq's dinar, as is the case in a truly free market economy, but rather to keep the value of the ID stable. The only way the Bank can ensure the semblance of stability is by tightly controlling the exchange of ID on the market, and by ensuring that the currency cannot freely trade on the open market. For that reason, CBI has said regularly in the auction that its aim is to achieve broad exchange rate stability, in order to support domestic price stability and reduce the inflation rate.

If there were a government securities market in Iraq's economy, CBI could control the money supply and volatility of the exchange rate through the monetary policy via open market operations, and in this case, the monetary policy would become more efficient. Whereas, the bank rate and the reserve requirements did not work efficiently in Iraq's economy because the commercial banks had excess reserves, neither could they have open market operations, because there is no well-organized government securities market. This is one important reason from many reasons why we should build a government securities market, in order to increase monetary policy efficiency.

⁶⁶ Central Bank of Iraq (CBI), "The Annual Economic Report of Iraq," 2003–Beginning 2004, (Arabic Version), pp21-23.

⁶⁷ Ministry of Planning and Development Cooperation of Iraq, "National Development Strategy 2005-2007," June 2005, p23.

⁶⁸ Central Bank of Iraq (CBI), "The Annual Economic Report of Iraq," op.cit., p27.

⁶⁹ The first auction was held on 4 October 2003.

III. Development of Iraq's GB Market and the Financial System

This section attempts to examine a mechanism for the development of Iraq's financial system and GB market, and it consists of two parts, as follows.

1. An Assessment of Iraq's Financial System

As noted from the previous analysis of present trends, Iraq's financial system is characterized by weakness. There is no strong relationship between the financial elements, which are MOF, CBI, private investors, commercial banks, and other financial institutions. This means that there is no relationship between the financial market's parts, the GB market (Iraq does not have a private bonds market, and GBs are represented simply by T-bills, as noted above), the stock market, and the banking market. Therefore, Iraq's economy cannot rely on the correlation between these elements to build a strong financial system which would provide impetus to economic growth and development.

The most important reason for this situation is that there is no **common factor** between them which would lead them to work together as a single financial market, and that would make their correlation greater. Therefore, if we look at the relationship between MOF and CBI, we will find it is strong, but works in a one-way direction from CBI to MOF, because CBI has supported the government budget through being holders of T-bills and the overdraft to an average of 95%, as mentioned above.

The GB market will gather all financial extremes, MOF, CBI, banks, and private investors into a single financial market. In addition, it will support correlation between them and their markets and lead to increasing integration among them, because all these elements will invest in the bond market, especially for GBs, for the reason that it is characterized by being risk-free. Moreover, capital turnover will increase due to the large number of dealers in the market, and as a result market liquidity will also increase, while the motive for the government to issue more securities will be to finance the budget deficit, and as a result the outstanding volume of GBs will increase.

Conversely, in Japan's financial system, there is a very strong correlation among all financial members' markets, and there is greater sensitivity for any change in each of these market participants. Moreover, there is more elasticity of financing for both government and private sectors.

The effect of a GB market on the economy and on the methods of government financing is more powerful than all these markets in the financial system. Since the outstanding volume of the GBs market is generally the largest, capital turnover is faster, the number of dealers is higher, and the government itself supports it. Furthermore, development of a GB market will lead to support for and motivate investment in financial assets, which directly drive development of the stock market and motivate investors towards dealing in these assets.

On the other hand, financial intermediaries will increase because the amounts in GBs are very large, and the number of bank dealers will increase because banks are the most important element among the financial intermediaries.

Table 18 provides details of the financial markets, in the first row, and their participants in the first column.

- 1). MOF attends just the money market to issue T-bills, and does not participate in the other markets. In addition, it does not have a strong affect in them, and this situation creates fiscal policy weakness in the economy.
- 2). CBI attends the money market as a strong element from the viewpoints of both issuing CB-bills and being the largest holder of T-bills. In addition, it attends the foreign exchange market as it holds a daily auction for foreign exchange, particularly the US Dollar, as it attempts to control the exchange rate of ID.
- 3). Moreover, it attends the banking market through its monetary policy, which it is marked by weakness, because its instruments do not work smoothly and clearly.⁷⁰

The commercial banks can work without assistance from CBI. In particular they have

Table 18. The Structure of Financial System Correlations

		Money market	Bonds market	Stock exchange market	Banking market	Foreign exchange market
MOF	Status	Attend	Non-attend	Non-attend	Non-attend	Non-attend
	Kind	T-bills issue	--	--	--	--
	Degree	Strong	--	--	--	--
CBI	Status	Attend	Non-attend	Non-attend	Attend	Attend
	Kind	CB-bills issue	--	--	Monetary policy	Daily Auction
	Degree	Strong	--	--	Weak	Strong
Commercial Banks	Status	Attend	Non-attend	Attend	Attend	Attend
	Kind	Dealer	--	Dealer	Dealer	Dealer
	Degree	Strong	--	Weak	Strong	Strong
Financial Institutions	Status	Attend	Non-attend	Attend	Attend	Attend
	Kind	Dealer	--	Dealer	Dealer	Dealer
	Degree	Weak	--	Weak	Weak	Weak
Private investors	Status	Non-attend	Non-attend	Attend	Attend	Attend
	Kind	--	--	Dealer	Dealer	Dealer
	Degree	--	--	Strong	Strong	Weak

Source: Author's conceptualization

⁷⁰ This situation is similar to Japan's financial system in the 1960's

large reserves, and thus CBI's instruments are inactive, the bank rate and the reserve requirements do not have a strong affect on the commercial banks' activities, leading to an inefficient monetary policy.

- 4). Commercial banks attend the money market as a strong dealer which holds both T-bills and CB-bills as investments. The commercial banks have large reserves, so most of the investment of these reserves are in loans, held bills, deposits in other banks or CBI, and a small amount of stocks. On the other hand, they attend the stock market as a weak intermediary and investor.
- 5). There are few financial institutions in Iraq's financial system, as mentioned above, and their effect on the financial system is weak. Moreover, they are inactive in their financial operations, as intermediaries, and with investments. Additionally, they have a weak relationship with dealers and with each other. Despite this, financial institutions attend most of the financial markets, although they are marked by weakness in these markets. An important facet that should be noticed is that the financial institutions have large reserves.
- 6). There are few investors from the private sector in Iraq's financial system, but their investments are strong in the stock exchange market as speculators, and in the banking market they are also strong mainly as borrowers from commercial banks. In addition, they attend the foreign exchange market, but are weak players.

This situation is reflected in the relationship among all members in the financial system. Table 19 shows the correlation matrix between them. The first column marks the member that provides a service to each of them, and the first row marks the member who receives the service. The members in the first row clearly depend upon the members in the first column.

Table 19. Correlations Matrix among Members of the Financial System

From	To:	MOF	CBI	Commercial Banks	Financial Inst.	Private Investors
MOF			Weak	Weak	Weak	Weak
CBI		Strong		Strong	Weak	Weak
Comm. Banks		Weak	Weak		Weak	Strong
Financial Inst.		Weak	Weak	Weak		Weak
Private Investors		Weak	Weak	Strong	Weak	

Source: Author's conceptualization

- 1) MOF is distant from other members in the financial system. It simply finances public expenditures from oil export revenues. It is not interested in economic activities and the economic situation. Moreover, it does not have strong instruments to affect this system and the fiscal policy is also marked by mediocrity in the economy. This is, of course, a

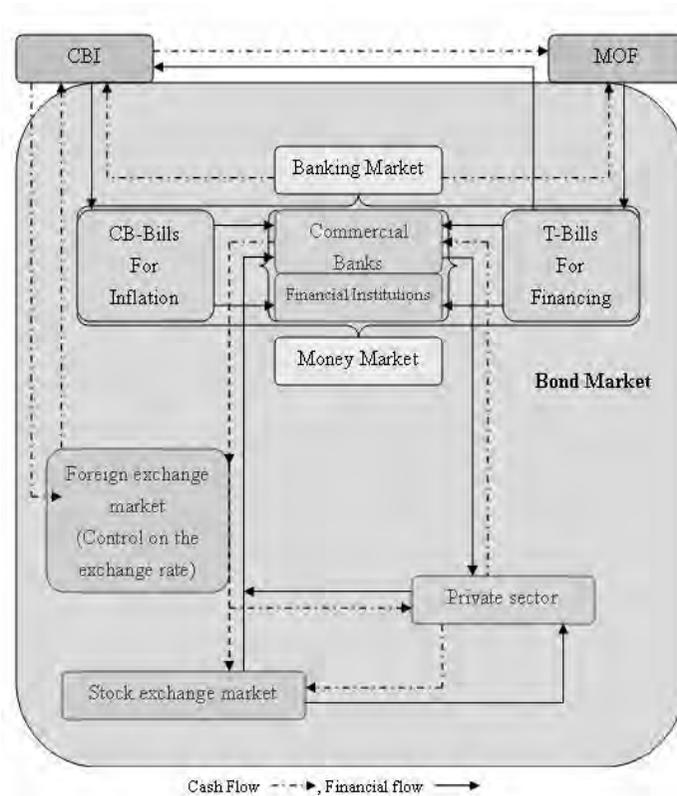
unique situation among all the economies. Therefore, the correlation between MOF and other members of the financial system is weak, the taxation policy is limited and the public expenditure is just for consumption, not for investment. Further, MOF has no active instruments with which to affect the financial system and growth economy.

- 2) Following on from the first point, Iraq's economy depends on monetary policy more than on fiscal policy to control macroeconomic variables, particularly the inflation rate, and the exchange rate of the dinar. Generally, all it does is simply issue CB-bills to treat inflation and hold a daily auction for foreign exchange through its buying and selling of US Dollars. Furthermore, the instruments of monetary policy are limited. The discount (bank) rate and the required reserve ratio (reserve requirements) do not work powerfully and smoothly, and as a result, commercial banks do not depend on CBI for returning borrowed money, since they have large reserves, as mentioned above. In addition, the open market operation (OMO) does not work because there is no bond market in Iraq's economy to enable CBI to use this instrument to affect the economy and make its policy more powerful.
- 3) For that reason, the correlation between CBI and MOF is weak. In other words, CBI does not depend on MOF, while MOF relies on CBI for finance through holding T-bills, in such a way that the correlation between MOF and CBI is strong in just one direction, from CBI to MOF, as noted in Table 19 Besides this, CBI supports the commercial banks by incorporeal standing and by increasing trust in the financial market.
- 4) In addition, the commercial banks have a strong correlation with private investors, as they support the private investors by loans and by acting as intermediaries in the stock and foreign exchange market.
- 5) Private investors have a strong correlation with commercial banks by deposits.
- 6) The financial institutions deal with all members in the financial system, and they have correlations with them, but these are marked by weakness, as mentioned above.

Finally, a strong correlation is made in the money market (T-bills market) through tradable T-bills, because the T-bills market gathers almost all the members in the financial system, excluding the private sector, as noted in Figure 15.

Through Figure 15 it is noted that almost all transactions among all members of the financial system are in cash money, only few of them being in financial assets, because there are very few tradable stocks and securities. In this situation, CBI and its policy will lose control of the money supply because almost all currency is outside its control. It is for this reason that CBI has issued bills and conducted a daily auction for currency to withdraw surplus currency from the economy. In this sense, Iraq's economy is a monetary economy, or inflation economy, not a financial economy.

Figure 15. The Transactions among All Members of Iraq's Financial System



Source: Author's conceptualization

Therefore, Iraq's economy should develop a government bonds market for both the financing of public expenditures and to create a large area in which to put into effect the fiscal and monetary policies on the macroeconomic variables.

Here, we need to ask:

What is the role the GB market plays in the financial system?

The most important effect of the GB market is that three changes will take place in the financial system, as follows.

1). Change in the Structure of Financial Correlations

The development of a GB market will motivate all members of the financial system.

MOF would use it for financing and for implementing fiscal policy effectively and powerfully. In addition, the GB market would allow the government to repay its debt in periods of relative abundance, thus reducing the welfare cost of debt financing.

From the standpoint of CBI, certain indicators for assessing inflation and interest rate

structure have normally been derived from pricing data collected in the GB market. Moreover, CBI needs to participate in the GB market for the transmission and implementation of monetary policy, including the achievement of monetary targets or inflation objectives, and to enable the use of market-based indirect monetary policy instruments.

The commercial banks benefit from the GB market from both sides, investment and borrowing, since this market is considered to be a good opportunity for commercial banks to invest in, move their monetary reserves, and borrow through issuance of private bonds by themselves to refund their investment and obligations when they wish to do so. Furthermore, development of a GB market is very important for the development of the private bonds market.

The situation for the financial institutions is similar as they have large reserves and their investment is a big problem for them because of holdbacks in investment opportunities. Therefore, they can use the GB market for investment and borrowing in a similar manner to the commercial banks.

Despite this, the private investor is the most important sector in most economies, but in Iraq's economy, this is not so. In Iraq's economy, the private sector is a small participant in the economy because of Iraq's former economic system. This has now changed and the transfer to a free market economic system is gradually taking place. The GB market will be a good arena for investment and borrowing from the market by the issuance of private bonds. At the same time, Iraq's GB market will play an important role in supporting a private bond market development.

As a result, the financial system will become much stronger through the government market, which will gather together all the elements of the financial system, and this situation will promote a correlative relationship among them. Furthermore, the private bond market will develop a reliance on the development of the GB market and the correlation between them will improve.

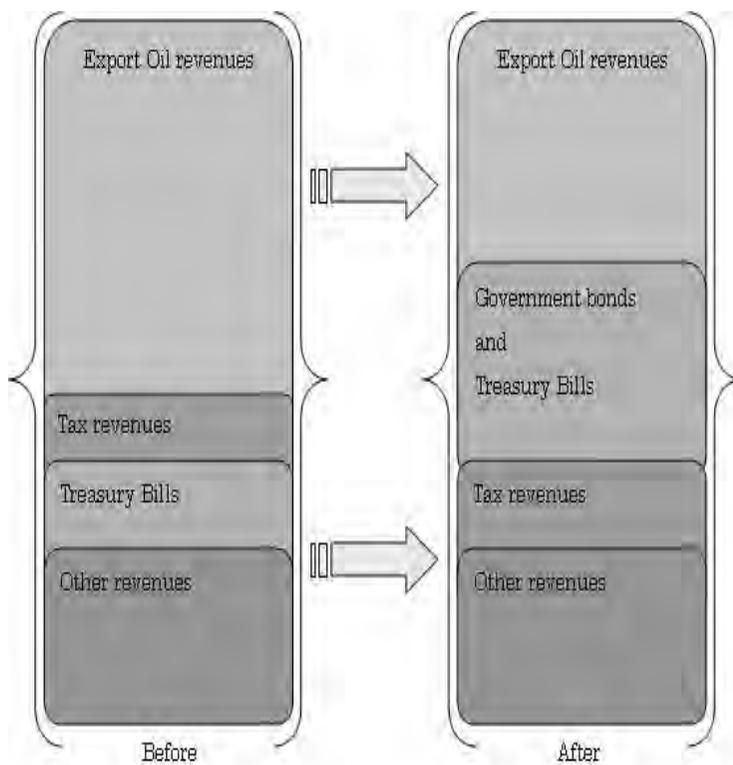
Returning to Figure 15, the GB market zone combines all the elements of a financial system in single area, leading to each element having a powerful effect on the other elements.

2). Change in the Structure of Methods of Financing

As mentioned above, Iraq's government relies on oil export revenues to finance around 85 percent of its expenditures and budget deficit, but this situation should change, and a transfer to bond finance will either gradually decrease reliance on the oil revenues or will work beside the oil revenues to cover reconstruction costs.

Figure 16 shows two cases. On the left side is the structure of methods of finance before Iraq's financial system has a bonds market. The main revenue comes from oil exports. On the opposite side, the structure includes a GB market and the percentage of all methods is

Figure 16. Change in the Structure of Methods of Financing



Source: Author's conceptualization

changed. Now, however, the GB market share in these resources will be the largest after oil resources.

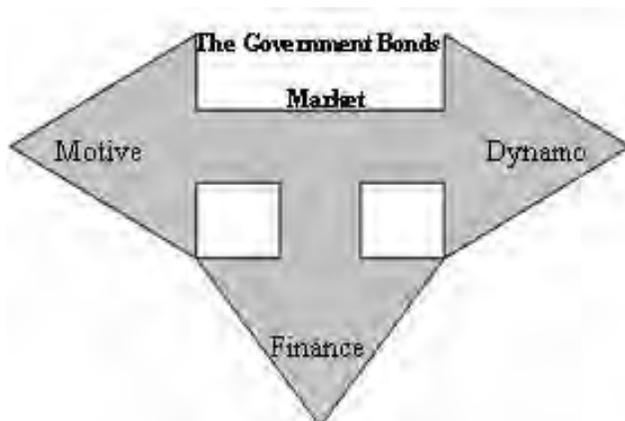
3). Change in Financial Instruments

When a GB market develops, the new instruments, GBs, will come out into the financial system. This is extremely important in any economy. In Japan's economy, the government depends on GBs for more than 30 percent of the financing of public expenditures. In addition, this financial instrument will be used by MOF, CBI, and all investors.

As a result, the GB Market has three functions, finance, motivation, and dynamism, as in Figure 17.

Finance "The GB market will provide the economy and its policies with an impetus towards economic development. MOF relies upon it to **finance** the government's expenditures and budget deficit, as well as to reduce dependency on oil revenues."

Figure 17. The Three Targets of the GB Market



Source: Author's conceptualization

Dynamo “Moreover, CBI will also use the GB market to organize open market operations (OMO) for the management of liquidity and interest rates. Hence, The GB market will **generate** fiscal and monetary policies which will become more powerful and effective in the economy, and more effective towards the macroeconomic variables and economic growth.”

Motive “The GB market is considered to provide **motivation** for investment, particularly by the private sector, in financial assets such as securities and stocks, which will lead to a strengthening of the stock market and all financial markets in general.”

2. Strategy for the Development of Iraq's GB Market

Here we attempt to draw up a strategy for the rebuilding and development of the GB market in Iraq, which starts from the question:

How can Iraq's government develop the GB Market?

The Iraqi government can develop its bonds market through the following steps (see Figure 18).

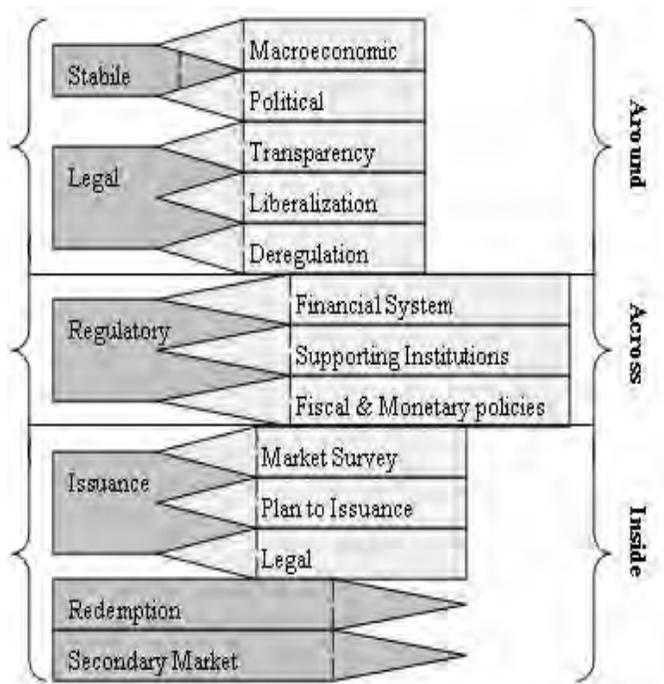
1). Strategy for the Issuance of Government Bonds

This strategy should be consistent with the macroeconomic framework, and should build on a comprehensive assessment of current debt management practices. In addition, it consists of four stages, as follows.

Stage 1: Stable Macroeconomic and Political Environment

The issuance operation of GBs and the development of the market require a fitting

Figure 18. Strategy for Development of Iraq's GB Market



Source: Author's conceptualization

economic environment, which is sustainable in terms of the macroeconomic variables such as inflation rate, economic growth, and exchange rate stability. Moreover, the development of the GB market requires a stable macroeconomic and political environment in which to grow. Economic growth must be strong enough to generate appropriate issuers and investors; inflation and interest rate should not be too high or volatile. Without sufficient GNP growth, savings and investment rate, and per capita GNP, the economy might not provide for the needs of the issuers and investors. Iraq's inflation rate is too high, and this can slow issuance by creating high and unaffordable costs. Stability in the economic and political situation is very important for building an efficient market.

Stage 2: The Legal and Regulatory Environment

The legal and regulatory environment should contain features of transparency, liberalization, and deregulation in order to make the economic system, particularly the financial system, clearer and more understandable for the public. Furthermore, transparency refers to an environment in which the objectives of policy, its legal, institutional, economic framework, policy decisions and their rationale, data and information related to monetary and financial policies, and the terms of agencies' accountability, are provided to the public

on an understandable, accessible and timely basis. Thus, the transparency practices listed focus on:

1. Clarity of roles, responsibilities and objectives of Central Banks and financial agencies;
2. The processes for the formulating and reporting of monetary policy decisions by the Central Bank and of financial policies by financial agencies;
3. Public availability of information on monetary and financial policies;
4. Accountability and assurances of integrity by the Central Bank and financial agencies

Stage 3: Regulatory framework

The regulatory framework supports and is committed to development of the market. Trading, clearing, and settlement systems exist for equities and might be modified to support bonds.

This framework consists of the financial system (including commercial banks, the financial institutions, and the intermediaries' agencies), the supporting institutions for the GBs (such as JSDA and SEC), and the fiscal and monetary policies, which motivate the development of the market. Thus, the fiscal and monetary policies are based on two main premises:

First, the effectiveness of fiscal and monetary policies can be strengthened if the public knows the goals and instruments of policy and if the authorities can make a credible commitment to meeting them. In making available more information about fiscal and monetary policies, good transparency practices promote the potential efficiency of markets.

Second, good governance calls for Central Banks and financial agencies to be accountable, particularly where the monetary and financial authorities are granted a high degree of autonomy. In cases where conflicts might arise between or within government units, transparency in the mandate and clear rules and procedures in the operations of the agencies can help in their resolution, strengthen governance, and facilitate policy consistency.

Stage 4: Issuance of GBs

This stage is the most important one in the issuance strategy. It consists of a market survey, an issuance plan, and legal arrangements for GB issuance.

I. Market survey

The Iraqi MOF should hold several meetings with all financial market participants including debt managers, fiscal policy advisors, central bankers, and private investors to obtain information about the whole financial market's needs through discussion and exchange of ideas.⁷¹

⁷¹ Naturally, the GB market requires staff with a combination of financial market skill (such as portfolio management and risk analysis) and public policy skill.

II. Issuance plan

MOF should then begin to plan issuance operations once it knows the capacity of the financial market, the kinds of holders, the maturity of securities, and determines the interest rate.

III. Legal arrangements for GB issuance

Legal and regulatory reforms must be in place before a GB market can be developed. GB issuance should rely on legal arrangements which make GBs attractive for all investors including foreign investors, and give them features of trustworthiness, as well as giving the government more credibility in the financial market.⁷² The redemption of securities as well as where funds for redemption will come from must be arranged beforehand.

From the economic viewpoint, the most important features which should be included in the GB issuance law are:

- 1.** The Minister of Finance shall chair the formed Committee with the membership of both the Minister of Planning and the Governor of CBI.
- 2.** The Committee shall have the following duties and rights:
 - 1). Establish the general framework of policies and strategies for public debt management.
 - 2). Determine clear long and short-term objectives for public debt management.
 - 3). Review the suggestions and recommendations of the concerned Government authorities and Directorates and make the appropriate decisions in this respect.
 - 4). Any other tasks deemed necessary to achieve its objectives
- 3.** The formed secondary committees are as follows:
 - 1). The formed secondary committee shall be chaired by either the Minister of Finance or his representative, with the membership of two specialists from the public banks (one from Al-Rafidain and the other from Al-Rasheed), two from the private banks (or their representatives), two from academic specialists in finance, and one from the Iraq Stock Exchange (ISX) Market.
 - 2). The formed secondary committee shall be chaired by either the Minister of Planning or his representative, with two members from the Ministry itself, two specialists from the private sector, and two academic specialists in economics.
 - 3). Either the Governor of CBI or his representative, with the membership of two Central Bankers, two academic specialists in monetary policy and one from MOF of Iraq shall chair the formed secondary committee.
- 4.** Government borrowing shall be restricted to the following objectives:
 - 1). To finance the General Budget Deficit
 - 2). To support the Balance of Payments

⁷² Building government's credibility as an issuer of GBs and developing a broad investor base for such issues requires commitment by the government to an overall market orientation supported by a suitable funding strategy and a strong institutional framework for the GB market.

- 3). To finance projects of national priority that are included in the General Budget.
- 4). To provide the necessary funds listed in the General Budget or any temporary law issued to deal with disasters and emergencies.
- 5). To restructure the internal and external debt
- 5.** MOF shall determine all features related to GB issuance for any issuance operation, such as:
 - 1). The total nominal value of any of GB issuance
 - 2). The maturity period of GBs
- 6.** The outstanding domestic public debt may not, at any time, exceed 60% of Gross Domestic Product (GDP) at current prices of the latest year for which data is available.
- 7.** Government securities shall be traded on the Iraq Stock Exchange and may be traded elsewhere.

2). Redemption

Generally, all debt securities require redemption, which means that MOF should be ready to redeem GBs according to the schedule of GB maturity, and should determine from where funds to carry this out will be obtained. MOF can redeem GBs in different ways, depending on the kind of bond:

1. Direct advance redemption
2. Gradual buy-back program
3. Indirect and gradual issuance of refunding bonds

3). Secondary Market

Usually, the secondary bond market can be divided into transactions that take place on the exchange and transactions that are made over the counter (OTC). In addition, settlements have been “T+3,” meaning that the settlement is made on the third business day from the day on which the transaction is made. For delivery of GBs and the settlement of funds, in Japan, the BOJ has a Financial Network System (BOJ-NET), and is in charge of GB settlement, but in Iraq this is difficult because the network is underdeveloped and this is carried out by hand.

- 4).** There are **further important matters**⁷³ related with the issuance of GBs in Iraq, the most important of which are as follows.

1. The Iraqi government’s credibility and trustworthiness

Iraq’s government must establish a sound and prudent debt management

⁷³ There exist substantial bodies of recommendations and advice from several international and regional organizations, which are represented as guidelines for any country that wishes to develop a bond market. These include the International Monetary Fund (IMF), the World Bank (WB), Asia-Pacific Economic Cooperation (APEC), and the International Organization of Securities Commissions (IOSCO).

operation and policy of broad market access and transparency in order to create credibility and trustworthiness. In addition, interaction between fiscal policy and debt management is very important for building overall credibility. This is a serious challenge for Iraq's GB issuance.

2. Amounts outstanding and issuance of bonds

The amount of issuance of GBs should be small, especially in the first years, so that the amounts outstanding are also small. The Iraqi government can then increase the issued amounts of GBs gradually, particularly when the government has good credibility and trustworthiness.

3. The kinds of government bonds

MOF should issue 2-year, 3-year, and 5-year fixed-rate GBs firstly, in limited issuance amounts. This operation should be carried out with the assistance of CBI and ISX Market, where CBI promotes the operation and the ISX Market supports it through trading these bonds. Additionally, MOF can gradually issue other GBs related to the inflation rate and in limited issuance, and these issuances can be increased in the future. In addition to this, MOF should not place limits on participants who may be holders of these bonds, whether from the private or public sector, and whether financial or investor institutions.

Conclusions and Summary of Recommendations:

This study has attempted to prove correct the hypothesis confirming the important role of a GB market in the economy through a study of Japanese experiences in this field. Furthermore, it has attempted to draw up a strategy for the development of and motivation for an Iraqi GB market due to its potential important role in the financing of government expenditures and budget. In addition, it considers the GB market to act as a dynamo of investment in financial markets and a motivator for all macroeconomic variables.

We can list the most important conclusions of this analysis as follows:

1. Iraq's financial system and market are characterized by weakness and inefficiency; there is no relationship among the financial elements. Therefore, Iraq's economy cannot rely on the correlation between them in order to build a strong financial system which would provide an impetus for economic growth and development. The most important reason for this situation is that there is no common factor among them which would lead them to work together as a single financial market and bring about a marked improvement in the correlation among them.
2. MOF is divorced from other members in the financial system. It simply finances public expenditures from oil export revenues. It is not interested in the economic situation and activities. Moreover, it does not have strong instruments to affect this system, and fiscal policy is also marked by mediocrity in the economy, which, of course, is a unique situation among all economies.
3. Therefore, Iraq's economy depends on monetary policy more than on fiscal policy to control macroeconomic variables, particularly the inflation rate and exchange rate.
 - (i) CB-Bills are issued for inflation adjustment;
 - (ii) Daily auctions are held for foreign exchange of the US Dollar to control the ID.
4. MOF relies on CBI for finance through holding an average of 95% of T-bills and the overdraft. Conversely, CBI does not depend on MOF.
5. Transactions among all members of the financial system are almost all in cash money, with only a few of them in financial assets. In this case, monetary policy will lose control over the money supply because almost all currency is outside its control.
6. That means that Iraq's economy is characterized as a monetary economy (or inflation economy) not a financial economy.
7. In addition, Iraq's economy originally has a problem with financing, despite the fact that it is considered to be one of the richest countries due to its large petroleum reserves. The most important of these problems are reflected by:
 - (i) High level of construction costs. The assessment estimates for reconstruction

needs and rebuilding Iraq's economy amount to US\$100 billion.

- (ii) The external debt; Iraq's economy has a large external debt, estimated at US\$125 billion.
- (iii) Iraq's economy has a very weak and inactive taxation system.

Therefore, Iraq's economy should develop a GB market for both financing public expenditures and to be a large arena for putting into effect fiscal and monetary policies concerning macroeconomic variables. The development of a GB market will motivate all members of the financial system.

The GB market will gather together all financial members and allow them to work in as a single financial market, because:

1. All these members will invest in the bond market, especially in GBs, for the reason that it is characterized as being risk-free.
2. Capital turnover will increase because there will be many dealers in the market; as a result, market liquidity will also increase, and this will be beneficial for investors.

Moreover, the most important effect of a GB market will be the three changes which will take place in the financial system (beside the effect on financing the public budget):

1. Change in the structure of financial correlations:
2. Change in the structure of methods of financing:
3. Change in financial instruments:

As a result, the financial system will become strong and more active in the economy, which will then provide both the public and private sector with funds that they need to finance their activities. Moreover, the GB market will gather together all members of the financial system in order for them to work together in one arena. This situation will promote the relationships among them, and among their markets.

The initiatives to develop a GB market in Iraq should focus on:

1. Sustaining a stable political and macroeconomic environment with low inflation and a stable exchange rate,
2. Developing a healthy GB market that would serve as a benchmark for the private bond market,
3. Strengthening the regulatory framework for the bond market,
4. Promoting the growth of investment in financial assets

The big challenge in Iraq's GB issuance is how the Iraqi government can create credibility and trustworthiness. This is a very important factor. The Iraqi government can obtain credibility from support from other governments that wish to help Iraq's economy and people.

The governments and/or donors that wish to support Iraq's government can use the GB market to achieve this. If a government wishes to give Iraq's government some amount of money as a gift or loan, it will not do so in cash money, but through guaranteeing the Iraqi

government's ability to issue GBs in the financial market. The Iraqi government will then raise the amount of this gift from the domestic market. Naturally, the amount of bonds should equal the amount of the gift. In addition, the Iraqi government will gradually obtain credibility in the financial market, especially when it formulates good economic policies and enables the economy to move to the right side of economic growth.

Appendix

Appendix 1. GDP, Public Debt, T-bills, and CPI of the Iraqi Economy (1991-2006)

(Billion ID)

	GDP at current prices	GDP at fixed prices 1988=100	Public debt	T-bills	CPI (%) 1988=100
1991	21.313	7.135	46.473	43.500	462
1992	56.814	8.964	75.318	68.750	849
1993	140.518	13.318	137.596	125.500	2611
1994	703.821	12.703	323.242	301.750	15462
1995	2252.264	10.377	926.988	751.500	69792
1996	2556.307	15.528	1271.646	1144.250	69021
1997	3286.925	18.926	1479.306	1328.500	72610
1998	4653.542	18.640	1965.807	1794.500	83335
1999	6607.664	21.562	2205.019	2043.750	93816
2000	7930.224	23.328	2585.887	2350.250	98486
2001	9911.420	25.689	3552.885	3242.500	114613
2002	41022.000	34.124	4548.284	3938.625	136762
2003	29586.000	20.562	5543.684	4634.750	181292.1
2004	47959.000	37.049	5925.061	4476.660	230175.1
2005	64000.000	49.991	6255.578	4434.707	315246.9
2006	77367.000	61.845	5307.008	3486.137	483055.8

Source: Central Bank of Iraq, "Annual Bulletin," various years, 2003-2006. available at:

http://www.cbiraq.org/Economic%20Reports_AR.pdf

<http://www.cbiraq.org/Annual%20Economic%20report%202004.pdf>

<http://www.cbiraq.org/Annual%20economic%20report%202005.pdf.pdf>

<http://www.cbiraq.org/Annual%20economic%20report%202006%20pdf.pdf>

**Appendix 2. Internal Public Debt including Government Bonds
and Treasury Bills for the Iraqi Government for the period 1991-2006**

(Million ID)

Year	Total public Debt	1.Overdrafts	2. Government Bonds			3. Iraqi Treasury Bills				
			CBI	Commercial Banks	Other	CBI	Commercial Banks	Other		
1991	46473	2723	250	21	47	182	43500	27611	15650	239
1992	75318	6318	250	0	57	193	68750	46902	21694	154
1993	137596	11846	250	3	98	149	125500	86170	39224	106
1994	323242	20242	1250	24	320	906	301750	237024	64676	50
1995	926988	171503	3985	55	1810	2120	751500	587555	163635	310
1996	1270646	117997	8402	46	2939	5417	1144250	899980	243680	590
1997	1479306	141706	9100	122	3328	5650	1328500	949579	378661	260
1998	1965807	162307	9000	1	3524	5475	1794500	1237329	556515	656
1999	2205019	153269	8000	0	3103	4897	2043750	1322842	719676	1232
2000	2585887	230637	5000	0	1562	3438	2350250	1533984	813782	2484
2001	3552885	310385	0	0	0	0	3242500	1972255	1267061	3184
2002	4798584	605334	0	0	0	0	4193250	2654074	1537067	2109
2003	5543684	908934	0	0	0	0	4634750	3079474	1553167	2109
2004	5925061	1448401	0	0	0	0	4476660	3234637	1242023	0
2005	6255578	1820871	0	0	0	0	4434707	3234637	1200272	0
2006	5307008	1820871	0	0	0	0	3486137	3234637	251500	0

Source: Central Bank of Iraq, "Annual Bulletin," various years, 2003-2006, available at:

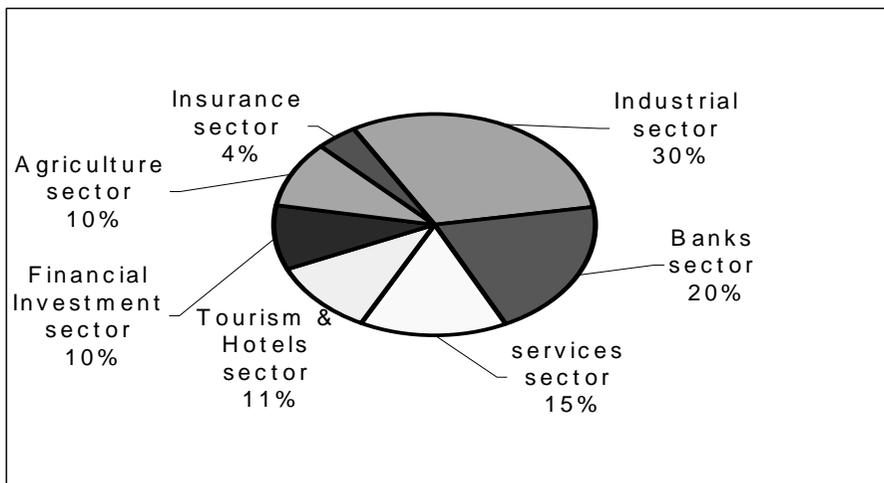
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Appendix 3. The Composition of Listed Companies on the ISX Market, 2007



Source: ISX, "Annual Bulletin," available at <http://isx-iq.net/page/english/bulletin-year-main-e.htm>

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List of Major Works

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“The Integration of International Mature Financial Markets,” (2002), Bit Alhkmah, B. A. Press, Baghdad.

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