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Primary Dealers in Government Securities: Policy Issues and Selected Countries' Experience

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Abstract

In many countries, authorities have designated a group of financial firms as the principal intermediaries in the government securities market—referred to as "primary dealers" or a "primary dealer system." This paper discusses policy issues related to the establishment of a primary dealer system for countries that may be considering taking this step. In this regard, a key issue is whether a primary dealer system fits into the overall strategy for financial market development in the country. Under a primary dealer system, the debt manager and the group of primary dealers pursue a common strategy in support of the effective functioning and development of primary and secondary markets for government securities. This paper presents results of a survey of country practices conducted in early 2001. Among the countries surveyed, there was broad agreement among authorities that a primary dealer system is to be highly recommended.

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I. Introduction and Summary

This paper discusses the role of primary dealers in the management of public debt for countries that may be considering establishing such a system. One of the goals of the paper is to provide guidance on how to design a primary dealer system in an appropriate way to meet market development needs.[2] In addition, it tries to answer the question of under what conditions would a primary dealer system make a positive contribution to the functioning and development of the government securities market. However, it is difficult to give a precise analytical answer to this question for all countries, and thus the paper will draw on practical experiences for individual countries. To provide empirical support and detailed information for the project, a survey on primary dealers practices and views was sent to 47 countries, varying widely in terms of size and stage of economic development, and responses were received from 39 of these.

Many, but by no means all, industrial countries already have primary dealer systems, although many that do have established them only in the last few years. In addition, a number of emerging market and developing countries have either adopted, or are in the process of adopting, primary dealer systems, but many others have not done so.

Essentially, a primary dealer system is an agreement between two major stakeholders in the domestic government debt market—the debt manager and a group of dealers—to pursue a common strategy in support of the functioning and development of primary and secondary markets for government securities. Primary dealers (PD) are financial intermediaries that, generally in exchange for specific privileges, agree to perform specific obligations or functions in the operation of markets for government securities. Following from this definition, the roles include

(i) acting as a **channel between debt manager and investor** in the primary market (for example, by participating in auctions);

(ii) performing as **bookmakers and distributors** by having dealers that canvass investors' interest and distribute securities ahead of auctions through when-issued markets.

(iii) acting as **providers of immediacy** of liquidity to primary and secondary markets;

(iv) acting as **providers** of **asset transformation and market-making services** by being willing to hold inventories of government securities and allowing investors to swap between various outstanding issues of government securities on a continuous basis helps bring liquidity to the market;

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[2] The operational and technical issues related to the establishment of a primary dealer system are developed in Arnone and Iden (2002).

(v) promoting **continuous markets and efficient price discovery** by organizing dealers within an appropriate market structure that can encourage efficient price discovery;

(vi) acting as **agents and relationship managers** educating investors about the attractiveness of government securities as an investment; and

(vii) being **advisors to the government** by formulating and adopting appropriate strategies for the development of products and markets.

Selection criteria for primary dealers typically include financial strength as indicated by adequate capitalization; an active role in government securities markets and financial expertise, such as skilled management and staff, together with access to appropriate technology. Obligations generally include one or more of the following: (i) participating in the primary market in a substantial and consistent manner; (ii) serving as a market maker in the secondary market by providing two-way quotes, either indicative or firm, for specified groups of securities; and (iii) providing market-related information to the public debt manager, whose main objective is to ensure that the government's financing needs and its obligations are met at the lowest possible cost, consistent with a prudent degree of risk.[3] Privileges, or supporting arrangements, which vary widely among countries, generally involve the granting of some aspect of exclusivity—for example, the exclusive right to participate in the auction for treasury bills, and/or the right to serve as a counterparty to the central bank when it conducts open market operations, and/or access to a line of credit or permission to borrow particular issues from the central bank.

Among the respondent countries in the survey, there was broad agreement that primary dealers are recommendable—that is, they make a positive contribution to the development and liquidity of government securities markets of countries that did not have primary dealer systems (10 countries). Several respondents indicated that their markets were not large enough to support a sufficient number of primary dealers to ensure competitive behavior, while some of the more advanced countries indicated that their markets were functioning well without primary dealer systems (for example, Germany and New Zealand). Regarding the issue of at which stage of development one should introduce a primary dealer system, more than half indicated that it was either always desirable or desirable to do so in the early stages of development. With respect to later introduction, however, some of the detailed comments pointed toward conditions that should be present before development of a primary dealer system, such as the existence of a legal and supervisory system, and an adequate payment system.

The remainder of the paper is organized as follows. Section II discusses the objectives and rationale for a primary dealer system. Section III describes the benefits and costs of a primary

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[3] See *Guidelines of Public Debt Management*, International Monetary Fund and World Bank, 2001; also found on http://www.imf.org/external/np/mae/pbebt/2000/eng/indes.htm

dealer system, and Section IV the necessary conditions for a primary dealer system. Section V summarizes the results of the survey questionnaire on primary dealers that was sent to 47 countries. More details on the countries' responses are provided in the two appendices.

II. Objectives and Rationale for a Primary Dealer System

The main purposes of a primary dealer system include strengthening the primary market by helping to build a stable, dependable source of demand for securities, by providing liquidity in the secondary market, devoting capital resources to underwriting (as a proprietary buyer) to absorb an occasional shortfall of liquidity, building distribution channels (to act as intermediaries) and providing market information, including prices, volumes, and spreads between bids and offers. These objectives in turn, serve the overall goals of: (i) lowering the cost and associated risk of servicing the public debt, (ii) developing financial markets, (iii) enabling the central bank to use indirect instruments of monetary policy, and (iv) encouraging saving by providing a relatively risk-free investment with attractive returns.

Development of financial markets involves a broader set of policies than just establishing a primary dealer system. In particular, some countries may have set up primary dealer systems without necessary supporting policies, including a commitment to a market-clearing outcome. Based on empirical observation, establishment of a primary dealer system can be an efficient way to develop and execute a coordinated approach to market development and thereby accelerate the development of market structure. Practical experience shows that primary dealer systems are in many cases a very helpful and efficient way to build up a market as well as maintain the functioning of the market in later stages. Other ways to set up markets, however, do exist,[4] and in the choice of different setups country specificity and historical (path-dependence), considerations might well play a role, in addition to theoretical considerations.

In addition, setting up a system of primary dealers can be interpreted as a response to a market failure, if the government perceives that the existing market structure is not performing efficiently or if the market does not yet exist or is very thin. This happens typically in many developing countries, where the rationale for primary dealers may rest not only on efficiency arguments but also on developmental reasons, as argued below. Additionally, the creation of a primary dealer system can be seen as a commitment to sound debt management practices. By selecting a specialized set of institutions, the authorities might be signaling to the financial community and the public at large their commitment to a liberalized market and a sustainable public debt strategy. Therefore, defining such a group of qualified dealers might increase investors' confidence in government securities as an investment.

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[4] See International Monetary Fund and World Bank, 2001b, *Developing Government Bond Markets—A Handbook* (Washington), Chapters 5 and 7.

In analyzing the issue of primary dealers, it is important to include considerations of securities market structure and development, and coordination of the various players involved. A decision whether to set up a primary dealer system, and the associated design, can be considered not only from a developmental point of view but also, in more advanced economies, from a market structure point of view. In this context, design of the mix of obligations and privileges must be an integral part of the strategy for developing and improving a government securities market, and the design itself can target market development (create a market, accommodate public sector borrowing requirements) and/or market structure (competition, efficiency, financial instruments).

From a developmental point of view, in the early stages of development the authorities might view the existence of a group of specialized institutions as instrumental in supporting their efforts to develop a market for government securities. These institutions would concentrate limited expertise and scarce resources in a limited number of players, thereby facilitating coordination among players and supporting a smooth market process. For instance, in the absence of liquid funding markets, a broad and well-informed investor base, available and well-developed trading platforms, and a supporting infrastructure, a primary dealer system can be a very useful platform upon which to develop the government securities market. In this context, it is clear the developmental role that a coordinated set of players can have in supporting government-borrowing strategy, while at the same time creating some of the conditions for the use of indirect instruments of monetary policy.

The design of the primary dealer system as a developmental objective should aim at a mix of obligations, privileges, and supporting arrangements that help the authorities to achieve their objectives. Equally important, other supporting markets or infrastructures are likely to be missing in this context, so there must be a commitment from the authorities to implement policies to put in place necessary infrastructure (e.g., book-entry system, DVP, and bidding technology) and to develop other markets (interbank market and local capital market, for instance). Given this background, the performance of primary dealers can be expected to be less than optimal, but mechanisms should be put in place to limit possible non-competitive behavior and moral hazard.

In more advanced economies, where developmental issues become less pressing, a market structure approach is also useful. When a country has already developed market intermediaries and infrastructures, the reasons for having a primary dealer system are different from the ones highlighted above. Arguments for specialization and economies of scale tend to prevail, and country experience in advanced economies (France, Italy) indicates that a primary dealer system accomplishes several objectives: (i) decreases market and refinancing risk, (ii) improves knowledge of the market, (iii) strengthens product and process innovations, (iv) provides better access to end investors, (v) improves promotion of debt, and (vi) provides skillful advisory support in building and following the debt management policy. One could also argue that some potential threats to an efficient market functioning must be taken into account—for instance, by selecting a preferential group of intermediaries, the authorities might reduce competitive neutrality and limit contestability. In addition, when the authorities have introduced on-line trading systems and financial markets and intermediaries

are extremely sophisticated, as in the United States, which has had a system of primary dealers for a long time, the case for a primary dealer system becomes less clear. When there are substantial fiscal deficits and financing needs, however, primary dealers may continue to play a positive role in the primary market even in developed markets.

The practice of selecting a specialized group of intermediaries for government securities can be seen as similar to the practice of private commercial borrowers that implement their financing strategy via placements through a specific group of investment banks for the same reasons highlighted above (advisory, access investors, lower market and financing risk and so forth). However, there are additional risks in taking this approach by a government with a specific group of primary dealers. One risk is increased moral hazard, or the possibility that designated primary dealers will engage in more risky behavior because they have been selected by the authorities. Also, customers may assume in error that primary dealers are guaranteed by the government or central bank. In addition, compared with the private market solution, selection by the authorities may risk reduced contestability and possible anti-competitive behavior.

Therefore, it is essential that in deciding for the adoption of a primary dealer system, the authorities design mechanisms to reduce these risks, while preserving as much of the benefits as possible. Contestability can be supported by rotating primary dealers based on performance (Mexico), while the risk of anti-competitive behavior must be addressed by strengthening supervision. The argument for moral hazard/implicit guarantees must also be addressed in the context of liquidity/crisis management policies by designing an appropriate structure of incentives and controls.

In deciding for the adoption of a primary dealer system, the authorities should simultaneously address these issues to achieve their debt management objectives while maximizing market efficiency. Countries that have fairly advanced markets and intermediaries, but that for some reason would not be able to address the negative effects induced by the introduction of a primary dealer system, should strengthen their capacity of intervention in these areas before putting the system in place, or phase in supervisory and regulatory reforms at the same time. While in developing economies the developmental aspects can outweigh downsides related to market structure, in more advanced economies the authorities should clearly evaluate whether the market would not be able to perform the same functions without introducing a selected subgroup of specialized intermediaries.

Another aspect of a primary dealers activity in the secondary market is to serve as an intermediary between the debt manager, often the central bank, and retail investors. In this regard, primary dealers are often expected to serve as partners with the debt manager and central bank in developing the institutional and retail markets. This function may include educating the public about investing in government securities.

In recent years, a number of debt managers in developed economies have been moving into direct retail sales of securities over the internet. More generally, modernization of markets and automation are making some of the functions traditionally performed by primary dealers

less important or redundant. For example, automation gives a means to handle large numbers of participants in auctions that was not previously possible. Electronic markets offer information on market conditions and prices that might formerly have been possible to have only directly from dealers. Whether this recent trend in developed economies also applies for the needs of developing countries depends on country-specific situations, given the technological possibilities and constraints that different countries face.

III. Benefits and Costs of Primary Dealer System

By selecting certain firms as primary dealers and not others, authorities concentrate market activity in a smaller number of firms, which has both positive and negative implications. On the positive side, especially in the early phases of market development, there can be important efficiencies associated with larger volumes of financial transactions, including automation and more advanced technology, and the use of specialized, highly skilled personnel. Acquiring these resources has substantial fixed costs, and spreading these costs over a larger volume makes them more economical. Competition and efficiency can also increase if foreign firms are allowed to become primary dealers, if as seems likely those firms are advanced and have an international clientele. In addition, there are advantages to the debt manager in limiting the number of institutions with which it has to deal in conducting auctions of government securities and (if it is the central bank) in its open market operations. A general benefit of a primary dealer system is that it reduces both risks and the risk management burden. The quality criteria reduce credit, execution, settlement and operational risks; and the limited number of dealers makes the administrative and credit monitoring burden more manageable.

The most significant possible problem of setting up a primary dealer system is the risk of promoting a less than efficient market structure. A primary dealer system is a dealer market structure; developing one involves choosing (by the issuer) this particular market structure for the trading and issuance of debt. If alternative market structures are more efficient or appropriate, then a primary dealer system is best avoided and a different and more appropriate country-specific strategy developed.[5]

A second drawback of a primary dealer system is that it can potentially limit competition and contribute to oligopolistic behavior. Since selection is fundamental to a primary dealer system, it can in some respects run counter to the principle of establishing a level playing field. To a considerable extent, however, these potential "negatives" can be avoided by careful design of the system, for example, by not unduly limiting the number of market participants.

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[5] For a more detailed discussion of the choice of market structure and the role of primary dealers, see Peter Dattels, 1997, "Microstructure of Government Securities Markets," in *Coordinating Public Debt and Monetary Management,* edited by V. Sundararajan and others (Washington: International Monetary Fund), pp. 209–82.

In addition, by selecting a group of financial firms to serve as primary dealers, there is a risk that the public may view them as possessing an implicit guarantee by the government. There may also be moral hazard in that guarantee, in that once selected as a primary dealer, the primary dealer may engage in more risky behavior, believing that the government would not stand by and let it fail. In this regard, the primary dealer might be induced to take on more risks than it otherwise would. Authorities should try to reduce this moral hazard by supervision and by allowing contestability. For example, periodically, authorities may reassess and reselect the group of primary dealers.

Since establishing a system of primary dealers has its pros and cons, an important question concerns whether, or under what conditions it is helpful to have such a system. In general, the answer depends on the authorities' overall strategy for developing the government securities market and the appropriate microstructure for the market. In particular, if authorities envision a secondary market structure in which there are competing dealers and market makers, then a primary dealer system may be an appropriate choice. However, authorities may opt for an auction system with direct buy and sell orders to a single location or electronic matching system, in which case a primary dealer system might not be appropriate. Or, alternatively, the secondary market may be too small to support an effective number of primary dealers, in which case the authorities may decide as a transitional measure to open a secondary window at the central bank.

The justification for establishing a system of primary dealers is that the system satisfies public goals that might otherwise not be met. One of the main goals in this regard is to maintain or enhance the liquidity of secondary markets. A liquid market may involve external benefits that accrue to other parties that are not directly involved in the government securities market.

It may be useful to consider whether the tradeoff between the advantages and the disadvantages of a primary dealer system changes during the course of economic development. In the early stages, for instance, not all of the key conditions may be present for an effective primary dealer system. In particular, there may not be enough dealers who are active in the government securities market. Moreover, in those early stages, the commercial banks, which are some of the most likely candidates for primary dealership, may have a vested interest in not developing the government securities market, since they have competing products and may profit from the scarce opportunities of their depositors. In addition, the size of the financial system, and of the government securities market in particular, may play an important role, with smaller countries finding it more difficult to justify a primary dealer system. In this context, the potential for specialization on the part of dealers in government securities is limited by the small size of the financial market. At the same time, the potential contributions of a primary dealer system—developing the primary and secondary markets and developing the retail base for government securities—are most relevant for developing and emerging-market countries.

In the latter stages of financial development, especially in large diversified financial systems (Germany or Switzerland), the need for, or potential contributions from a primary dealer

system may be less important. In many developed countries, there may be a relatively large number of active participants in the primary market; and there may be an active and highly competitive secondary market, while retail investors have a number of attractive alternatives. Thus, some industrial countries, such as Australia, Germany, Japan, New Zealand, and Switzerland, do not have primary dealer systems, while the United States with the largest and most diversified financial system in the world does have such a system. The United States, however, has reduced the privileges of primary dealers over time, and opened the system to more competition. Now, aside from being recognized as a primary dealer, the main privilege is to be one of the counterparties to the Federal Reserve when it conducts its open market operations. More generally, the role and specific features of a primary dealer system may change during the course of economic development.

IV. Necessary Conditions for a Primary Dealer System

Important prerequisites for establishing a primary dealer system include at least eight listed below:

A government must have a strategy for issuing government securities: a government must accurately plan its debt issuance strategy so as to provide a medium-term horizon for the investment strategy of primary and secondary market agents.

Interest rates should be liberalized: it is essential, that interest rates on government securities reflect actual demand and supply, in both the primary and secondary markets, to guarantee efficient price discovery.

An adequate number of end investors is necessary: this means that the government should try to estimate potential demand among individuals and the financial sector and be able to fine-tune its own supply, arising from its financing needs, to be able to meet potential demand. Preliminary discussions with banks will help the government gauge this potential absorption capacity.

A minimum set of attractively designed securities should be available: In deciding its debt strategy, the government should plan for a certain number of different types of securities, taking into account different maturities and trying to establish benchmarks. In addition, other instruments could include index-linked securities, inflation-linked securities, to mention just some simple examples that can help investors diversify their portfolios of instruments and provide instruments for risk management.

The government must be committed to secondary market development: this condition is important because it guarantees the primary dealers and other market participants that they will not compete directly with the government in the placement of securities in the retail market. The authorities should refrain from intervening directly in the market, for instance, limiting or avoiding, direct sale of securities.

The government must also be committed to market-determined outcomes: the authorities should make efforts to stimulate a setup of the primary and secondary market to allow competitive forces to play a dominant role. In this context, primary dealers should not be seen as a captive group that can be burdened with government securities, but rather as the initiators of a market or a group providing additional liquidity and transparency to the market for the purpose of better price discovery and resource allocation.

Arrangements between primary dealers and the debt managers in support of the auction system should be carefully arrived at: this is an important prerequisite, since the auction is the central mechanism for securities allocation in the primary market. The auction design must allow an efficient price discovery. Problems in auction design are bound to have a strong negative effect on subsequent segments of the market, since inefficient price discovery or inefficient allocation will impact the secondary market both at wholesale and retail level.

Sufficient debt and a potential volume of secondary market trade should be available to support a profitable group of competing dealers without subsidies for the operations: with respect to the size of the market, it is important to have an adequate number of active participants in the market, and enough volume in government securities issued to justify a primary dealer system. In addition to authorities' commitment to market-determined prices and attainment of a minimum size of the market for government securities, there are other highly desirable conditions for establishing a primary dealer system, including a legal framework for government securities, a regulatory/supervisory system for government securities dealers, and an adequate payment and settlement system. However, the primary dealers can be used as a platform and an integral part of the building of such systems. In many developing and emerging market countries for instance, primary dealers have been used as custody agents as part of the book entry system. They have been given accounts with central banks to clear and settle on a Delivery Versus Payment (DVP) basis. In addition, in some countries, the setting up of primary dealers has been the cornerstone of developing efficient primary markets.

In the early stages of development and for many small developing countries, there may not be enough participants in the government securities auctions to reduce the number further by establishing a primary dealer system. Having an adequate number of participants in the auction may be a particular problem if the authorities are trying to limit participants to commercial banks for clearing and settlement purposes. If the main objective is to be as inclusive as possible for bidding at the auctions, then limiting the numbers further in order to start a primary dealer system may be inappropriate.

Thus, one of the respondents to the questionnaire from countries without primary dealer systems said the reason the country had not set up a primary dealer system was the small size of the market (Latvia), and another (Chile) that there were too few participants for establishing a primary dealer system.

What is the minimum number of primary dealers to ensure an acceptable degree of competition? While there are no absolutes on this issue, five to seven seemed to be among the minimum numbers of primary dealers cited by respondents in the MAE survey (e.g., Mexico, Norway, Armenia, Morocco, and Sweden), although Iceland, which recently established a primary dealer system, has only five primary dealers. Chile, in particular, indicated that four to seven primary dealers were not enough—a key reason why Chile did not adopt a primary dealer system.

Based on the survey, the typical number of primary dealers for a country with a successful primary dealer system seemed to be approximately 15, and 20 to 26 primary dealers was toward the high end of the range.[6] Several respondents indicated that the number of primary dealers had been increased as the volume of dealing had grown over time (e.g., Brazil and India), while several others indicated that the number had fallen as the volume of securities issued had declined (e.g., Canada and Sweden). There were also other reasons for a trend toward declining numbers of primary dealers, including in particular, consolidation of the financial services industry. In the case of the United States, the number of primary dealers peaked in 1988 at 46, and has since declined to 25, owing largely to consolidation within the industry.

V. Survey Results

In April 2001, a survey questionnaire on primary dealers was sent to 47 countries. Of the 39 respondents, yielding a turnout rate of about 83 percent, 20 are advanced economies, 13 are emerging markets, and six are developing countries.

Among the respondents, 29 have primary dealers and 10 do not. Fourteen introduced primary dealers after 1995 (Figure 1), indicating a relatively recent trend in establishing primary dealers, but also indicating a relative degree of satisfaction with primary dealerships. Among the countries included in the survey that have not established a primary dealer system, three are advanced economies (Australia, Germany, and New Zealand), four are emerging markets (Chile, Indonesia, Latvia, Poland), and three are developing countries (Kenya, Mauritius, and Saudi Arabia).[7]

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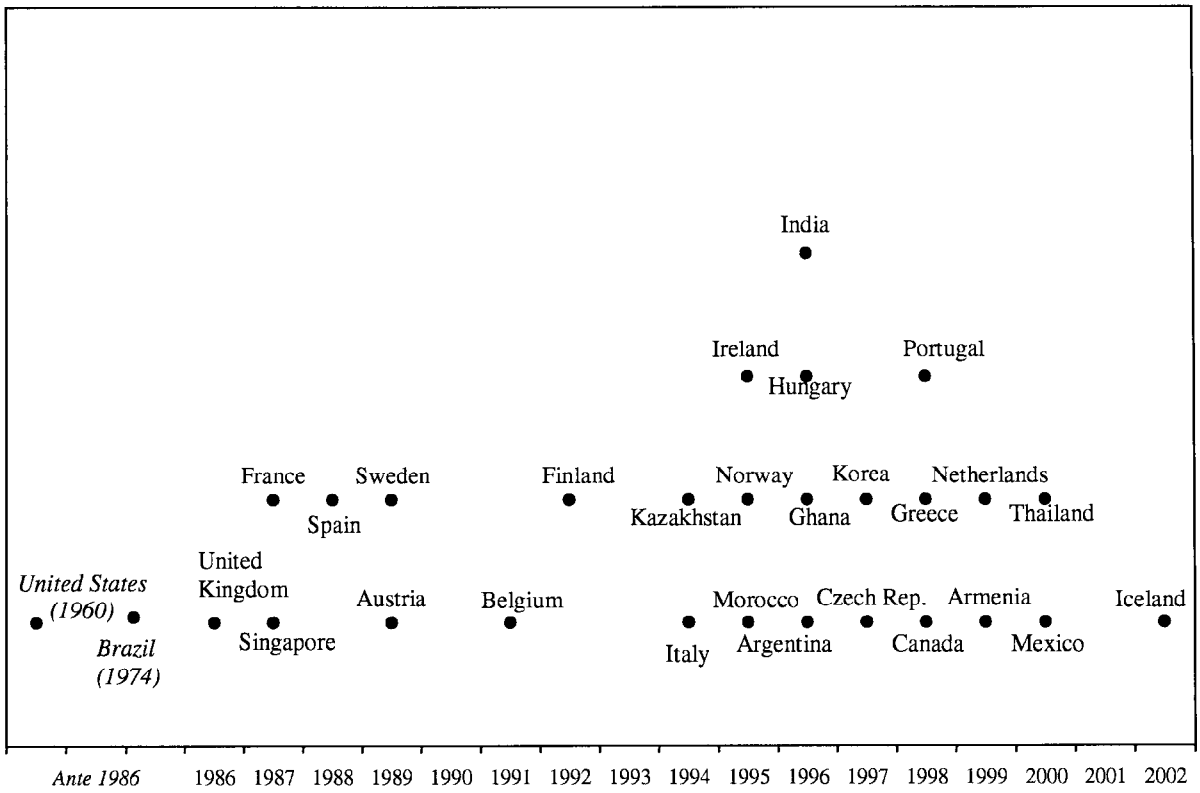
[6] Among the countries with primary dealer systems, the average number of primary dealers was 14.5, and the median number was 13. Countries in the lowest quartile (in terms of number of primary dealers) had 8 primary dealers. Austria, the Czech Republic, Ghana, and Korea had the largest number of primary dealers—each with 26, and the United States was next with 25.

[7] Informal primary dealerships might have been in place for some countries before formalizing the arrangement. Years of establishment of a primary dealer system, indicated in Figure 1 as reported in the survey of national authorities, might therefore differ depending on whether a formal, as opposed to factual, interpretation is adopted, and country-specific factors.

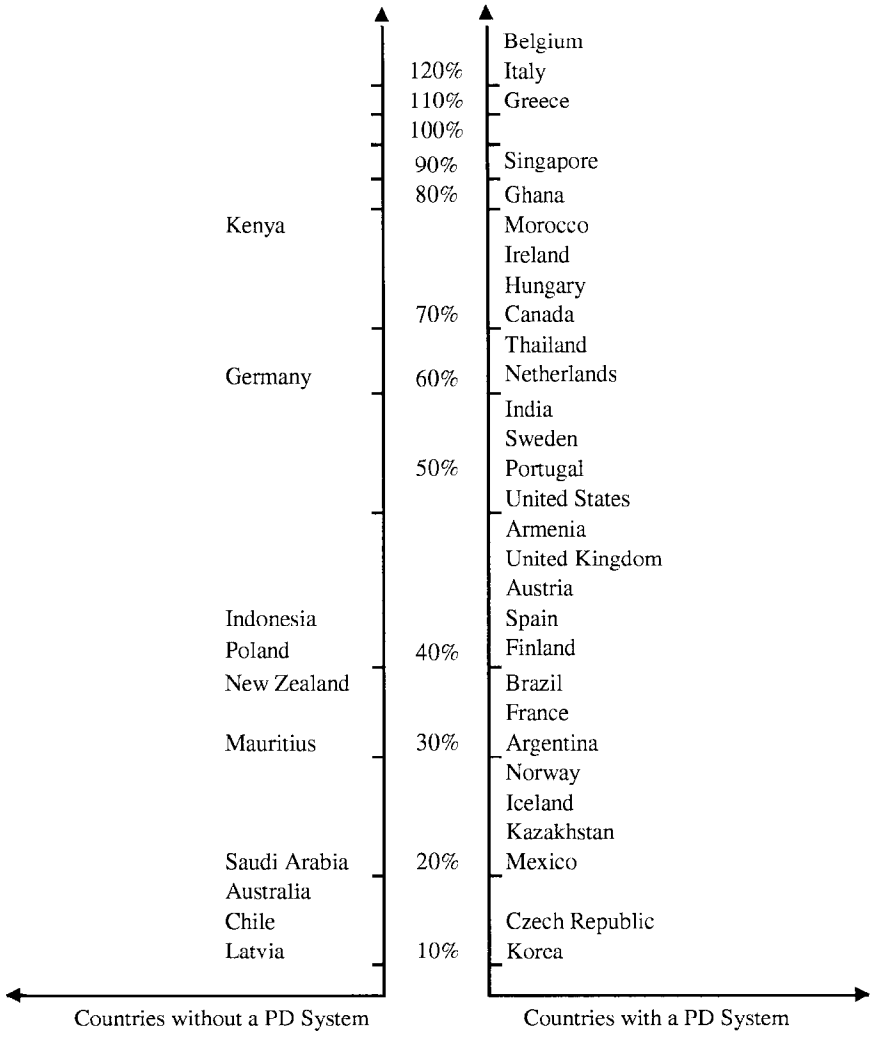
Figure 1. Year of Establishment of a Primary Dealer



Countries with a system of primary dealership have a wide range of Public Debt/GDP ratios, but a certain concentration of countries can be noted around a 35 to 50 percent ratio. Figure 2 relates the presence of PD with the size of debt relative to GDP in the initial year of primary dealership.

Fourteen (or 36 percent) of the respondents perceive a link between the size of public debt and the desirability of having a primary dealer system. Specifically, among advanced economies nine of the respondents think that there is a relationship between the size of public debt and the desirability of primary dealers, namely Belgium, Canada, Finland, Greece, Italy, Norway, Singapore, and Spain, with Australia agreeing only for small market size. Two share this view among emerging markets (India and Poland) and three among developing economies (Kenya, Mauritius, and Saudi Arabia).

Figure 2. Debt-to-GDP Ratio as of the Introduction of Primary Dealer (PD) System, or as of 1999 for Countries without Primary Dealer Systems



In reporting the most important advantages mentioned in the survey responses, we can distinguish between the primary and secondary market. In the primary market, several countries (Armenia, Australia, Canada, Ghana, India, Italy, Kenya, Spain, and Thailand) mentioned that a primary dealer system improves the coverage/underwriting of the auction and some pointed out the support that the debt manager can gather with professional market information and market-tailored securities (Hungary, Italy, Morocco, Netherlands, and Poland). In regard to the secondary market, most countries mentioned improved market liquidity; and Canada, Iceland, India, Ireland, Korea, Norway, Singapore, and Thailand mentioned the creation of market making activities. At a more general level an important contribution is the development and well functioning of the secondary market that primary

dealers can help ensure, a point made by Australia, Canada, Chile, Hungary, Indonesia, Mauritius, Saudi Arabia, Singapore, and Spain.

With respect to monetary operations, the United States, Brazil, India, Thailand, Kenya mentioned that the presence of a stable set of counterparties of the central bank facilitates the implementation of monetary policy (for those countries where primary dealers in government securities coincide with central bank counterparties for monetary operations).

Table 1. Survey of Advantages of a Primary Dealer System

DEVELOPED COUNTRIES	
Australia	Can boost liquidity and development of the market. Primary issuance can be underwritten (to some extent).
Austria	Providing permanent services.
Belgium	Reach additional investors; focus on placing and trading of debt, compensated by special rights.
Canada	Ensures a minimum level and quality of coverage at auction regardless of market conditions. Maximum auction limit and net position reporting act to prevent most squeezes. Market-making responsibilities enhance the liquidity and well functioning of the Government of Canada securities market.
Finland	Committed sales force, research, distribution of government debt.
France	Decreasing market and refinancing risk; knowledge of the market; capacity of innovation; access to a wider sales force and better promotion of the debt.
Germany	No comment.
Greece	No comment.
Iceland	Four market makers are now, together with PDs, obligated to take part in auctions and to give two-way quotes within a determined range. This leads to a better market price, increased price formation in the secondary market and enhances the treasury's access to the market. Turnover in the secondary market has increased.
Ireland	PDs reduce the cost of borrowing by providing a continuous two-way liquid market in government bonds; create certainty in secondary market; eliminate illiquidity premium cost; allow debt to be restructured; act as sounding board for changing debt strategy; facilitate closer organized contact with the investors.
Italy	Full and constant coverage of auctions. Better knowledge of market conditions in order to improve the issuance strategy in terms of cost of funding reduction and financial risk control. Higher liquidity of bonds on the secondary market. Availability of a skillful advisory support in building and following the debt management policy. Possibility of being put in contact with a much higher number of investors in order to capture at any moment convenient issuance opportunities. Availability of a competent support in designing market-tailored securities.
Netherlands	Establishes a core group of banks that compete to buy the issuer's bonds, provides information on market movements and trends.
New Zealand	No comment.

DEVELOPED COUNTRIES	
Norway	With quotes two-ways the market always has price information, and better liquidity.
Portugal	The issuer gains: access to a permanent distribution channel of debt, both domestically and internationally; a permanent secondary market; more visibility with final investors (especially foreign ones).
Singapore	PDs play a critical role in facilitating the growth and development of a young bond market with a small and limited investor base, for the following reasons: - having a group of PDs committed to making two-way prices helps provide a minimum level of liquidity that is a precondition for attracting investors into the market. - foreign PDs that are key participants in developed bond markets bring with them knowledge and expertise, which can help speed the growth and development of the bond market. - foreign PDs with a global client base would be committed to attracting their investor clients to the developing bond market.
Spain	They allow for a broad and efficient secondary market for government securities. With respect to the primary market, they ease the allocation of new issues.
Sweden	In order to have some guarantee of providing good liquidity, PDs are the best alternative. For the moment, the Swedish National Debt Office is paying fees on bonds, but not on T-bills. Some countries have systems which include fees to the PDs.
United Kingdom	More liquid market; easier to be transparent; easier auctions, and settlement, reduced credit risk monitoring, distribution of securities.
United States	Having a PD system facilitates the implementation of monetary policy by having a stable set of counterparties that are obliged to participate in open market operations and other central bank business.
EMERGING MARKETS	
Argentina	PDs' commitment ensures the allocation of an important portion of public debt. It also specializes financial institutions dedicated to local market.
Brazil	Primary Dealers help the central bank in its function of keeping market informed about the implementation of the monetary policy. They assist in the execution of open market operations (outright operations and repurchase agreements) aimed to adjust the day-to-day needs to add or drain reserves.
Chile	Better information and development of secondary markets; more liquid and deeper market for our debt instruments.
Czech Republic	Stable structure of counterparts; easier administration and communication with market; transparent and reliable channel for cash and securities distribution; higher probability to sell securities.
Hungary	Secured base for sale of government securities; supporting the secondary market of government securities; direct connection to and information exchange with market actors.
India	Underwriting and market-making abilities exclusively in government securities market will be developed. Improved liquidity for government securities. OMO could be effective and operationally simpler once PDs become exclusive counterparties for central bank's open market operations.
Indonesia	PDs can develop secondary market for government bonds and create market liquidity.
Kazakhstan	It is easy to control and systemize primary market.

EMERGING MARKETS	
Korea	Reduce the cost of government bond issue since a government does not have to pay underwriting fees; strengthen the demand base of the government bond; strengthen the stability of bond market by establishing leading market makers.
Latvia	Generates increase in liquidity and reduction in margins.
Mexico	The increase in liquidity that they offer to the market.
Poland	There are several advantages, including: - reliability of financing State Budget needs, even in single currency environment, - liquidity & transparency of the government securities market, - cost effective financing, and - the exchange of information about market and issuer policy.
Thailand	Effective channel for conducting open market operations; have active market makers to enhance the liquidity in the secondary market; ensure successful outcome in the primary market auction.
DEVELOPING COUNTRIES	
Armenia	Better participation in the auctions; higher liquidity of government securities market.
Ghana	Maximum participation in the auction is ensured. The market is relatively more competitive. It is allowing for a relatively vibrant secondary market.
Kenya	Provides a smooth transition from a direct to a fully market-based system; produces increased efficiency in the auction process and open market operations; provides secure maximum participation in auction of government securities; improves functioning of primary markets and terms of government borrowing; enhances liquidity in the secondary market; brings about greater competition and leads to cheaper dealing costs in the secondary market.
Mauritius	To activate secondary market for treasury bills. To enable buyers and sellers to transact efficiently at prices reflecting fair values.
Morocco	Organization of the bond market, promotion of treasury bills, exchange of information on available bids as well as the price levels at which the investors are ready to subscribe.
Saudi Arabia	To enhance market efficiency and liquidity along with creating active secondary market.

Source: Survey of national authorities.

The strongest disadvantage that most countries noticed of having a primary dealer system is the potential distortion of competition and the creation of uneven playing fields, giving an unfair advantage to some market participants (lack of competitive neutrality, constrained contestability and likelihood of conservatism). Canada therefore stressed the need for regular monitoring and Saudi Arabia for regulatory guidelines, while Mexico underlines the importance of a careful balance between obligations and privileges. Brazil mentions potential informational asymmetries, while Italy noticed the risk for the debt manager to be influenced by views that tend to represent the interest of the primary dealers. If competitive behavior is not assured, then Indonesia points out that price formation might not lead to a competitive market price. The USA noted that the official designation of "primary dealers" could be (erroneously) viewed as granting a special status or guaranteeing creditworthiness.

On the other side, France, Iceland, Kazakhstan, Korea, Netherlands, and Spain, indicate no disadvantages with a primary dealer system.

Table 2. Survey of Disadvantages of a Primary Dealer System

DEVELOPED COUNTRIES	
Australia	May discourage participation by some potential intermediaries not designated as PDs. Investors cannot directly purchase securities at time of primary issue.
Austria	No comment.
Belgium	A concentration of PDs is developing in the banking community all over the world, with the same PDs evident globally. The result is a certain degree of oligopoly power.
Canada	Requires regular measuring and monitoring to ensure compliance with 1998 rules.
Finland	No comment.
France	None.
Germany	No comment.
Greece	No comment.
Iceland	None so far.
Ireland	Recognition of commercial pressures that the PDs face.
Italy	Risk for the debt management policy of being sometimes influenced by views that are more biased toward PDs' own interests than on those of the sovereign issuer.
Netherlands	So far, none.
New Zealand	No comment.
Norway	The central bank must give some privileges to the PDs.
Portugal	No comment.
Singapore	In a system where PDs receive privileges in return for fulfilling their obligations, this could create an uneven level playing field vis-à-vis non-PD market participants.
Spain	We cannot see any disadvantages of having PDs.
Sweden	No comment.
United Kingdom	Administrative burden, acquisitions of cartels, requires supervision.
United States	The designation of "Primary Dealer" is often viewed as giving the institutions a special status or guaranteeing their creditworthiness.

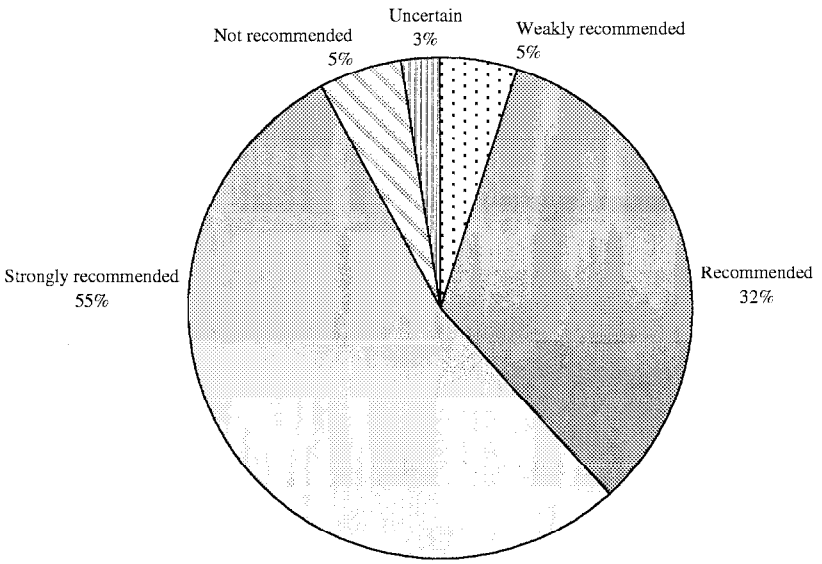
EMERGING MARKETS	
Argentina	Differences between participants (PDs) might limit competition.
Brazil	The possibility of establishing unwilling links between the trading desk and a Primary Dealer due to their daily contacts. Creation of some market inefficiencies and information asymmetry.
Chile	To leave out pension funds (AFP) and insurance company from the debt auctions. To depend on a small amount of institutions that can fulfill the demands of primary dealer.
Czech Republic	Under certain conditions other investors might be penalized for not being PDs by possible higher prices the may pay using the PDs as intermediary. But it depends on the level of development of the market and the level of competition.
Hungary	Free competition is limited in a way. Part of the debt financing depends on the performance of a limited number of market actors.
India	Highly depend on short-term funding, making the money market volatile.
Indonesia	This might be minor disadvantage: by having primary dealers, the price might not reflect the market price, so not many participants can do securities transactions. The price seems determined only by primary dealers.
Kazakhstan	There are no serious disadvantages of having PDs.
Korea	Nothing particular.
Latvia	Primary dealers should hold broad range of government securities constantly and are forced to participate in every auction of primary market.
Mexico	If obligations and benefits are not set right, the ranking index could give a competitive advantage to some intermediaries over others.
Poland	The danger of collusion when there are mainly: - fusion of banks in globalization environment - lack of competitiveness.
Thailand	If the primary dealers are not efficient, the liquidity injection and absorption of the central bank will not be successful.
DEVELOPING COUNTRIES	
Armenia	No comment.
Ghana	PDs can consolidate and influence the market. The banks, as PDs, have products which are in competition with government securities and their commitment cannot be guaranteed.
Kenya	Collusion may occur where only few firms are accepted as PDs leading to lower auction prices and high intermediation costs passed onto the end investors.
Mauritius	PDs may buy securities with attractive yields and hold them instead of trading them.
Morocco	No comment.
Saudi Arabia	Possible manipulation of prices, if the size of the capital market is small and/or if regulatory guidelines are not sufficient to ensure a fair play.

Source: Survey of national authorities.

There is broad agreement among the respondents (87 percent overall approval) that primary dealers are recommendable, with 55 percent "strongly recommending" their presence and 32 percent just "recommending" their presence in the market for government securities (see Figure 3). Five percent "weakly recommend" the adoption of primary dealerships and 5 percent of the respondents think it is "not recommendable" to have primary dealers. The remaining 3 percent are uncertain.

Among advanced economies, 16 out of 19 "recommend" or "strongly recommend" the adoption of a primary dealer system, while the remaining 3 are "uncertain" or give no answer (Australia and New Zealand) or give a negative answer (Germany). Among the latter group, the view was expressed that at advanced stages of development primary dealers are not necessary, or are possibly harmful. Among emerging market economies, 11 countries out of 13 "recommend" or "strongly recommend" primary dealers, while Chile does not answer and Latvia thinks primary dealers are not recommendable. Among developing economies, all six countries "recommend" or "strongly recommend" the adoption of a primary dealer system.

Figure 3. Recommendation of Primary Dealer System



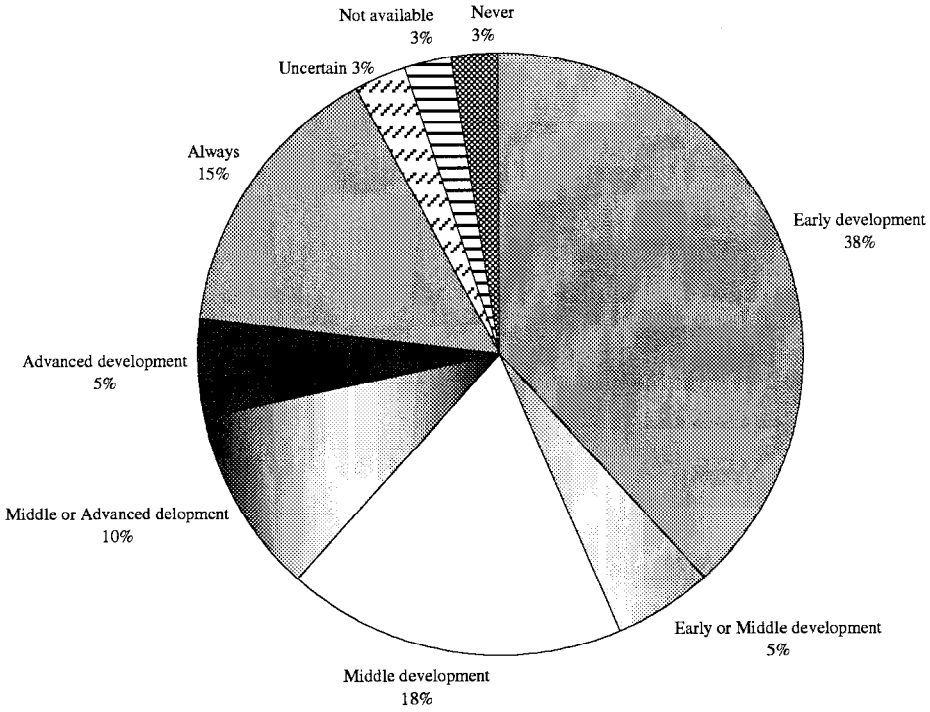
Source: Survey of national authorities.

In terms of supervision and enforcement of obligations, more that 15 countries reported the ministry of finance as main supervisor, and a few less mentioned the central bank, with several countries indicating shared responsibilities also with other agencies. Among advanced economies, nine review the primary dealer status on a 12-month basis, while Singapore, the United Kingdom, and the United States hold reviews every six months. Finland reviews the primary dealer status only when necessary; the remaining advanced

economies have review periods longer than 12 months. Among emerging market countries, Argentina, India, Kazakhstan, Korea, and Thailand review primary dealer status every year, all the others have shorter review lags. A review period of six to 12 months can be considered standard practice among surveyed countries.

On the issue of primary dealership across stages of development, there seems to be a degree of consensus related to the presence of primary dealers in various phases of a country's economic development: 38 percent of the answers indicated that it is recommendable to have primary dealers already in the early stage of economic development, and 15 percent indicated that it is always wise to have primary dealers (see Figure 4).

Figure 4. Phases of Economic Development and the Establishment of Primary Dealership



Source: Survey of national authorities.

APPENDIXES

I. SUMMARY OF PRIMARY DEALER SYSTEM CHARACTERISTICS

	Primary Dealers System	Starting Date	Number of Dealers	Number of Primary Dealers	Open Market Operations	Availability of Liquidity or Stock Facilities with the Central Bank	Supervision	Status Review
Argentina	Y	1996	12	12	Y		Ministry of Finance	Annually
Armenia	Y	1999	13	7	Y		Central Bank, Ministry of Finance	Semi-annually
Australia	N							
Austria	Y	1989	NA	26			Federal Financing Agency	Annually
Belgium	Y	1991	22	17			Ministry of Finance	Annually
Brazil	Y	1974	338	22	Y		Central Bank	Semi-annually
Canada	Y	1998	44	12	Y	Y	Central Bank, Ministry of Finance, Investment Dealer Assoc.	Bi-annually
Chile	N							
Czech Rep.	Y	1997	107	26			Central Bank	Quarterly
Finland	Y	1992	10–20	10		Y	State Treasury	As necessary
France	Y	1987	over 40	18			Ministry of Finance	Every 2 years
Germany	N							
Ghana	Y	1996	26	26	Y		Central Bank, Securities Regulatory Com	Annually
Greece	Y	1998	38	15			Central Bank, Ministry of Finance, Public Debt Mgt. Agency	Annually
Hungary	Y	1996	13	13			Government Debt Management Agency	Semi-annually
Iceland	Y	2000	around 20	3			Ministry of Finance, NDMA	Semi-annually
India	Y	1996	18 + banks	18	Y	Y	Central Bank, SEBI	Annually
Indonesia	N							
Ireland	Y	1995	7	7			NTMA/Stock Exchange	N.A.
Italy	Y	1994	120	16			Ministry of Finance	Every 2 years
Kazakhstan	Y	1994	118	16			Ministry of Finance, National Security Comm.	Annually
Kenya	N							
Korea	Y	1997	102	26			Ministry of Finance	Annually
Latvia	N							
Mauritius	N							
Mexico	Y	2000	20–25	5		Y	Central Bank, Ministry of Finance	Semi-annually
Morocco	Y	1995	123	7			Central Bank, Ministry of Finance	N.A.
Netherlands	Y	1999	dozens	13			Ministry of Finance	Annually
New Zealand	N							
Norway	Y	1995	15	6		Y	Central Bank	Annually
Poland	N							
Portugal	Y	1998	25	13		Y	The Public Debt Agency	Annually
Saudi Arabia	N							
Singapore	Y	1987	31	11	Y	Y	Central Bank	Semi-annually
Spain	Y	1988	146	21			Ministry of Finance	Annually
Sweden	Y	1989	7	7	Y		Central Bank, Finance Supervisory Inst.	Annually
Thailand	Y	2000	50	9	Y		Central Bank	Annually
United Kingdom	Y	1986	N.A.	17			Ministry of Finance/DMO, FSA	Semi-annually
United States	Y	1960	N.A.	25	Y	Y	Central Bank, Ministry of Finance	Semi-annually

II. Complete Survey Results by Country

Argentina

Dealers in government securities	12.
System established	April 1, 1996.
PD institutions	12 commercial and investment banks.
Selection criteria	Minimum capital and involvement in government securities markets.
PD obligations	Obligations to bid in the auctions; to report to the central bank, to quote firm; and obligation of achieving a certain market share in the secondary market.
Privileges	Exclusive counterparty for Secretariat of the Treasury's open market operations; participation in a second round of primary auctions; and bidding in non-competitive tranche in a maximum amount.
Supervision and enforcement	Ministry of Finance, as agreed in a Decree and a Resolution of the Secretariat of the Treasury.
Formal agreement	No, the legal support is a Decree and a Resolution of the Secretariat of the Treasury.
Revision of status	Annually.
System evolution over time	Favorable evolution since 1996; currently working on improving the distribution to new investors and the secondary market liquidity.
Relation between the size of public debt and the desirability of PDs	No, the access to Argentina primary dealer mechanism is not restricted for any financial institution in the country.
Recommendation of PD system	Strongly recommended. The PDs' system is an important ingredient for economic and financial development. We believe that it is worthwhile to apply it in any stage of development.
Advantages	The PDs' commitment ensures the allocation of an important portion of public debt. It also specializes financial institutions dedicated to local market.
Disadvantages	Differences between participants (PDs) might limit competition.

Armenia

Dealers in government securities	13.
System established	October, 1999.
PD institutions	Seven commercial banks.
Selection criteria	Minimum capital, involvement in government securities market, and since all PDs are commercial banks, they should meet all requirements set by the central bank for the commercial banks.
PD obligations	To bid in the auctions, to quote two-ways, to report to the central bank, and noncompetitive bids of the PDs should be less than 1percent of the total issue. If their noncompetitive bids exceed 1percent, their competitive bids should be five times greater than noncompetitive bids.
Privileges	Exclusive counterparty for central bank's open market operations. PDs are allowed to bid for the whole issue, while other dealers can bid only for the part of the issue. Only PDs are allowed to have noncompetitive bids.
Supervision and enforcement	Central bank and Ministry of Finance.
Formal agreement	Yes, there are regulations, setting rules for issuance, circulation and repayment of government securities; rights and obligations of the government, central bank and dealers. Besides there are separate agreements between the central bank and each of the dealers.
Revision of status	Semiannually.
System evolution over time	The system of PDs in Armenia was established in October 1999. Since then some amendments were made to the regulations ruling government securities market. The structure of PDs is periodically reviewed and some primary dealers were replaced by others. Book-entry government securities electronic trade system for primary market has been in operation since November 2000, and the pilot project of book-entry system for the secondary market is now undergoing testing.
Relation between the size of public debt and the desirability of PDs	No.
Recommendation of PD system	Strongly recommended at the early development stage. Introduction of the system of PDs in the early stage of economic and financial development can help to create more liquid primary and secondary market of government securities and bring interest rates down.
Advantages	Better participation in the auctions, higher liquidity of government securities market.
Disadvantages	N.A.

Australia

Dealers in government securities	12.
PD institutions	No primary dealers.
System evolution over time	Have not considered establishing a primary dealer system.
Relation between the size of public debt and the desirability of PDs	Yes, in relatively small undeveloped bond markets, PDs may be advantageous while in large developed markets, PDs are likely to be less advantageous.
Recommendation of PD system	In certain circumstances, there may be advantages in having PDs, while in other circumstances PDs may be unnecessary and/or may interfere with the efficient operation of the market. The answer depends on market environment/development. For some markets, PDs may be strongly recommended, while for other markets they may be unnecessary or inappropriate. For bond markets at en early stage of development, PDs can often assist with the development of the market. This can occur through a variety of channels. For example, for those dealers, which are required to quote two-way prices in the secondary market, this could encourage greater secondary market liquidity and possibly lead to more investors participating in the market than would otherwise be the case.
Advantages	- Can boost liquidity and development of the market. - Primary issuance can be underwritten (to some extent).
Disadvantages	- May discourage participation by some potential intermediaries not designated as PDs. - Investors cannot directly purchase securities at time of primary issue.

Austria

System established	1989.
Primary dealer (PD) institutions	26 investment banks and foreign institutions.
Selection criteria	Involvement in government securities market, placement power, efficient bond trading.
PD obligations	To bid in the auctions and to quote firm.
Privileges	Exclusive access to primary auctions, non-competitive bid option, good performance presents chance to lead a syndicated (or arbitrage) transaction or swaps.
Supervision and enforcement	Austrian Federal Financing Agency.
Formal agreement	Auction agreement, Debt issuance programme.
Revision of status	Annually.
System evolution over time	The system of PDs in Austria was established in 1989.
Relation between the size of public debt and the desirability of PDs	No.
Recommendation of PD system	Recommended.
Advantages	Providing permanent services.
Disadvantages	N.A.

Belgium

Dealers in government securities	22.
System established	1991.
PD institutions	17 commercial and investment banks.
Selection criteria	Involvement in government securities market and placement capacity.
PD obligations	To bid in the auctions, to quote firm and two-ways, to report to the central bank, and to promote the debt.
Privileges	Exclusive access to primary auctions and counterparty for operations with Treasury.
Supervision and enforcement	Ministry of Finance.
Formal agreement	Code of duties.
Revision of status	Annually.
System evolution over time	Internationalization of the primary dealers. Transactions with the Treasury are exclusively with the PDs, contrary to previous practice.
Relation between the size of public debt and the desirability of PDs	Yes, the greater the size of the debt, the more important the placement capacity becomes. This is where PDs help.
Recommendation of PD system	Strongly recommended at the early development stage. A modern capital market with a smooth functioning primary and secondary market is necessary, so reasonable obligations can be imposed.
Advantages	- Reach additional investors. - Provides a focus on placing and trading of debt, compensated by special privileges.
Disadvantages	A concentration of PDs is developing in the banking community the world over, with the same PDs evident globally. The result is a certain degree of oligopoly power.

Brazil

Dealers in government securities	338 financial institutions authorized to take part in public offerings of government securities. Thus, all of them are able to negotiate with government securities.
System established	Primay dealers system established in 1974.
PD institutions	22 PDs composed of commercial and investment banks, brokers, and foreign institutions.
Selection criteria	Minimum capital, compatible with the minimum capital requirements of a commercial bank; involvement in government securities primary and secondary markets; capability to remain market makers; participation in open market operations; and relationship with the trading desk.
PD obligations	The PD should be actively present when the central bank trading desk operates; keep the central bank constantly informed of the facts, which directly or indirectly affect the stability and liquidity of the market; provide daily information to the central bank about its activities; give priority to trading and to the routine or special contacts with the central bank.
Privileges	Exclusive counterparty for central bank's open market operations; participation in regular meetings with the Treasury and the central bank.
Supervision and enforcement	Central bank.
Formal agreement	No, there is no formal agreement. But the selection criteria and their obligations are listed on a formal regulation (Circular 2.993 of August 9, 2001 and Carta-Circular 2.924). The selection process is fully transparent and the partial rankings are updated monthly in the central bank's web page.
Revision of status	Semiannually.
System evolution over time	Up to 1973, the central bank operated with approximately 53 financial institutions (period before the establishment of the PD system). From 1974 to August 1992, the number of PD was 25 and there was no formal regulation although the Bank already used ranking procedures to select the PD. From August 1992 to present, the selection criteria and the PD obligations were released on a formal rule, and therefore the system became more transparent.
Relation between the size of public debt and the desirability of PDs	The number of PDs has been established in accordance with the number of dealers in government securities and considering the central bank's needs in terms of relationship with the market.
Recommendation of PD system	Recommended at all development stages.
Advantages	Primary dealers help central bank in its function of keeping market informed about the implementation of the monetary policy; and their assistance in the execution of open market operations (outright operations and repurchase agreements) aimed to adjust the day-to-day needs to add or drain reserves of the system.
Disadvantages	Creation of some information asymmetry.

Canada

Dealers in government securities	22 in marketable bonds and 22 in treasury bills.
System established	1998.
PD institutions	12 PDs of which 11 in marketable bonds and 9 in treasury bills. PDs are composed of commercial and investment banks, and brokers.
Selection criteria	Minimum capital, involvement in government securities market, and PDs must be official Government Securities Dealers (GSDs). GSDs must (1) be members, or affiliates of members, of the Investment Dealer Association (IDA) of Canada, and (2) have their core trading and sales operations for the government of Canada securities resident in Canada.
PD obligations	Obligations to bid in the auctions, to quote firm and two-ways, to report to the central bank, and obligations as indicated in the Terms of Participation in Auctions for Government of Canada securities Distributors. Also, all GSDs (and by design, PDs) must agree to comply with IDA Policy No. 5, the Code of Conduct.
Privileges	Exclusive counterparty for central bank's open market operations, along with borrowing privileges with the central bank.
Supervision and enforcement	Central bank, ministry of finance and Investment Dealer Association of Canada (IDA)—secondary markets.
Formal agreement	Terms of Participation in Auctions for Government of Canada securities Distributors and IDA Policy no. 5, the Code of Conduct.
Revision of status	Biannually.
System evolution over time	- New rules in effect in 1998. - Main goal: to ensure that the auction process is free of, and is seen to be free of, manipulation. - Primary dealers are required to maintain a certain level of activity on primary and secondary markets and to bid at a certain level at auction (both in terms of bidding limit and reasonableness of that bid), as well as to fulfill net position reporting requirements.
Relation between the size of public debt and the desirability of PDs	As government marketable debt declines, it becomes more important to maintain a system of primary dealers to ensure a well-functioning market for the Government of Canada securities.
Recommendation of PD system	Strongly recommended. A system of PDs is advisable in all stages of development.
Advantages	- Ensures a minimum level and quality of coverage at auction regardless of market conditions. - Maximum auction limit and net position reporting act to prevent most squeezes. - Market-making responsibilities enhance the liquidity and well functioning of the Government of Canada securities market.
Disadvantages	Requires regular measuring and monitoring to ensure compliance with 1998 rules (see above).

Chile

Dealers in government securities	67 (30 banks, 8 pension funds, 27 insurance companies, and 2 mutual funds).
PD institutions	No primary dealer system.
System evolution over time	The decision for not having established a primary dealer system was basically for the following reasons: a) Pension Funds (AFP) and Insurance Companies can participate in the primary market of debt instruments auctions, but their own rules do not allow them to actively participate in the development of the secondary market. Establishing a system of primary dealer would imply to leave out these institutions of the primary market or of our debt instruments. b) Due to the characteristics of the banks, a system of primary dealers and its demands would allow that only four or seven banks would be able to fulfill them, and therefore we would depend only on a limited number of institutions with similar objectives and collusion risk.
Relation between the size of public debt and the desirability of PDs	No, due to the number of institutions that participate in debt instrument auctions and to the different nature of their functions (Banks AFPs, Insurance Companies and Mutual Funds).
Recommendation of PD system	Should the conditions be favorable for the functioning of a primary dealer system, I think it would be convenient to apply it at the beginning of the economic and financial development, to encourage the participation of the institutions that can carry out such work, fostering the development of secondary markets and obtaining standard information of prices, volumes, participations, etc.
Advantages	Better information and development of secondary markets, more net and deeper for our debt instruments.
Disadvantages	Leaving out AFP and insurance companies from the debt auctions; dependence on a small number of institutions that can fulfill PD demands.

Czech Republic

Dealers in government securities	Total number of licensed securities dealers is 107.
System established	1997.
PD institutions	12 PDs for government bonds and 13 PDs for treasury bills. These PDs are commercial and investment banks, and brokers.
Selection criteria	Minimum capital; involvement in government securities market; and minimum obligations on government bonds and treasury bills.
PDs obligations	Obligation to bid in the auctions, to report to the central bank, to quote firm; to quarterly underwrite a certain amount government bonds; and to order certain amount of treasury bills per quarter.
Privileges	Exclusive access to primary auctions.
Supervision and enforcement	Central bank.
Formal agreement	Yes, "The Rules for a Primary Sale of Government Bonds" and"The Rules for a Primary Sale of Treasury Bills."
Revision of status	Quarterly.
System evolution over time	The number and names of PDs have stabilized; the trading amount has increased; the fees for taking orders from non-PDs have evaporated. Due to liquidity and suitable underlying policies, the other segments of the government securities market have developed and have become more liquid.
Relation between the size of public debt and the desirability of PDs	No.
Recommendation of PD system	Strongly recommended at the early development stage. At first, a development of a stable demand for government securities and establishment of a market allowing to trade them and later a choice of market makers who would be suitable candidates to become PDs.
Advantages	Stable structure of counterparties; easier administration and communication with market; transparent and reliable channel for cash and securities distribution; higher probability to sell securities.
Disadvantages	Under certain conditions, other investors might be penalized for not being PDs by possibly incurring higher prices for using the PDs as an intermediary. But it depends on the level of development of the market and the level of competition.

Finland

Dealers in government securities	10–20.
System established	1992.
PD institutions	10 primary dealers (PDs) composed of commercial and investment banks, and foreign institutions.
Selection criteria	Minimum capital, involvement in government securities market, and long-term commitment to dealing in this market.
PD obligations	To bid in the auctions, to quote firm and two-ways, to report to the central bank, and to sponsor the Finnish debt.
Privileges	Exclusive access to primary auctions, repo facility from State Treasury.
Supervision and enforcement	State Treasury.
Formal agreement	A binding agreement, similar to a memorandum of understanding.
Revision of status	When necessary.
System evolution over time	From domestic market, change to euro market and more offshore international PDs.
Relation between the size of public debt and the desirability of PDs	Yes, decreasing debt, but does not change business for many dealers.
Recommendation of PD system	Strongly recommended at the early development stage. In Finland's case, helped to build and develop the debt market.
Advantages	Committed sales force, research, distribution at government debt.
Disadvantages	N.A.

France

Dealers in government securities	More than 40.
System established	1987.
PD institutions	18 investment banks.
Selection criteria	Minimum capital and involvement in government securities market.
PD obligations	Obligations to bid in the auctions, to quote firm and two-ways, to report to Treasury in an advisory role, and to promote sales of debt securities.
Privileges	Regular meeting with the Treasury; most frequent but not exclusive dealer with Treasury.
Supervision and enforcement	Ministry of Finance.
Formal agreement	General framework of their activities.
Revision of status	Every two years.
System evolution over time	The composition, quality and number of PDs has changed with the market. The group is now more international and includes larger banks.
Relation between the size of public debt and the desirability of PDs	No, the desirability of primary dealers depends less on the size of the public debt and more on its permanence.
Recommendation of PD system	Strongly recommended at the early or middle development stage. The existence and interest of a PD group depends on the stability, size and constancy of a tradable debt. It is clear that even at an early development stage, to get advices and liquidity brought by several market makers on a foreign or local debt is useful. Still, it is not always easy to find banks ready to become PDs, particularly if the debt is too volatile.
Advantages	Decreasing market and refinancing risk, knowledge of the market, capacity of innovation, access to a wider sales force and better promotion of the debt.
Disadvantages	None.

Germany

PD institutions	No primary dealer system.
Relation between the size of public debt and the desirability of PDs	No.
Recommendation of PD system	Not recommended. The German authorities consider the present auction system as very effective. Due to the active trading of government securities at the stock exchange and on the electronic systems, there is no need for a PD system.
Advantages	N.A.
Disadvantages	N.A.

Ghana

Dealers in government securities	26.
System established	1996.
PD institutions	26 primary dealers (PDs) composed of commercial and investment banks, and brokers.
Selection criteria	Involvement in government securities market; must be dealers on the Ghana Stock Exchange in the case of brokerage firms; and must be Deposit Money Bank (DMB) having a reserve requirement to meet.
PD obligations	To bid in the auctions, to quote firm, and to report to the central bank. For banks acting as PDs, they must hold specified percentage of their deposits in government securities to meet secondary reserve requirement.
Privileges	Exclusive access to primary auctions, and exclusive counterparty for central bank's open market operations.
Supervision and enforcement	Central Bank and Securities Regulatory Commission.
Formal agreement	Yes. First, brokerage firms have too interviewed and licensed to operate as PDs. Second, Deposit Money Banks are granted automatic dealership to meet their secondary reserve requirement. Third, new banks and discount houses have to apply for and be granted PD status.
Revision of status	Annually and when a PD is absent from the auction on three consecutive occasions.
System evolution over time	The number of PDs and their stock of holdings have increased since being established in 1996. The government securities market is now better organized under a book-entry system ensuring delivery versus payment and allowing for secondary market activities; for example, transfers, pledging as collaterals, repos, outright sales, and similar actions.
Relation between the size of public debt and the desirability of PDs	No.
Recommendation of PD system	Recommended at the middle development stage. The basic infrastructure, regulations, code of conduct and sound practices must be in place for the effective operation of the PDs' system.
Advantages	1) Maximum participation in the auction is ensured. 2) The market is relatively more competitive. 3) The PD system makes possible a relatively vibrant secondary market.
Disadvantages	1) PDs can consolidate and influence the market. 2) The banks, as PDs, have products that are in competition with government securities and their commitment cannot be guaranteed.

Greece

Dealers in government securities	38.
System established	1998.
PD institutions	15 PDs composed of commercial and investment banks, and foreign institutions.
Selection criteria	Minimum capital and involvement in government securities market.
PD obligations	To bid in the auctions and to quote two ways.
Privileges	Exclusive access to primary auctions and on liability management.
Supervision and enforcement	Central bank, Ministry of Finance, and Public Debt Management Agency.
Formal agreement	A committee formulated the Operating Rules of Primary Dealer System and by law is approved by the Ministry of Finance and the Governor of the Bank of Greece.
Revision of status	Annually.
System evolution over time	Started in 1998 with 12 PDs; we exceeded at 15 in 2001 (5 locals, 10 foreigners).
Relation between the size of public debt and the desirability of PDs	Yes, we wish to have a very strong and small group of PDs.
Recommendation of PD system	Strongly recommended at the early development stage. At that point, there is an organized market. Also, PDs add liquidity and transparency to the market, and they have far greater control over the issue of the banks.
Advantages	N.A.
Disadvantages	N.A.

Hungary

Dealers in government securities	13.
System established	January 1996.
PD institutions	13 primary dealers (PDs) composed of commercial and investment banks, and brokers.
Selection criteria	Minimum capital; involvement in government securities market; and right to trade at Budapest stock exchange.
PDs obligations	Obligation to bid in the auctions; to quote firm and two-ways; to report to the government debt agency.
Privileges	Exclusive access to primary auctions; information and consultation with the government debt management agency.
Supervision and enforcement	Government Debt Management Agency.
Formal agreement	Yes, standardized.
Revision of status	Semiannually.
System evolution over time	The number of participants has decreased from 21 to 13; requirements have become stricter and higher; dealers are typically stronger market performers; the compulsory minimum level of the market activity has become higher; there are more and more banks involved.
Relation between the size of public debt and the desirability of PDs	No.
Recommendation of system	Recommended at the early development stage.
Advantages	Secured base for sale of government securities, supporting the secondary market of government securities, and direct connection to and information exchange with market performers.
Disadvantages	The free competition is limited in a way, and part of the debt financing depends on the performance of a limited number of market traders.

Iceland

Dealers in government securities	About 10.
System established	May 2002.
PD institutions	Five commercial banks.
Selection criteria	Minimum capital and involvement in government securities market.
PD obligations	To bid in the auctions and to quote term in and two ways on the ICEX.
Privileges	Exclusive access to primary auctions.
Supervision and enforcement	Central bank and National Debt Management Agency (NDMA).
Formal agreement	Yes, the NDMA takes full care of the system.
Revision of status	Annually.
System evolution over time	The system has operated well.
Relation between the size of public debt and the desirability of PDs	No.
Recommendation of PD system	Strongly recommended at the early development stage. Middle development in small economy with few players.
Advantages	Four market makers are now, together with PDs, obligated to take part in auctions and to give two-way quotes within a determined range. This leads to a better market price, increased price formation in the secondary market and enhances the treasury's access to the market. Turnover in the secondary market has increased.
Disadvantages	None so far.

India

Dealers in government securities	18 primary dealers (PDs) apart from banks.
System established	1996.
PD institutions	18 PDs set up as subsidiaries of scheduled commercial banks (both domestic and foreign) and financial institutions or as companies incorporated under the Indian Companies Act. They are registered as nonbanking finance companies within the supervisory and regulatory purview of the central bank.
Selection criteria	Minimum capital and involvement in government securities, track record, management, and technical expertise.
PDs obligations	Obligation to bid in the auctions, fulfill minimum bidding commitment, achieve a minimum success ratio for dated securities and treasury bills, offer firm two-way quotes; achieve a minimum turnover in government securities.
Privileges	Access to banking facilities with the central bank, exclusive borrowing privileges with the central bank; access to the call money/repo market, receipt of underwriting commission.
Supervision and enforcement	The operations of the PDs are monitored by the central bank under the overall supervision of the Board for Financial Supervision. PDs are also governed by the laws/rules and regulations of the Securities and Exchange Board of India (SEBI) when the government securities are traded on the exchanges and Department of Company Affairs, Government of India. PDs registered as investment banks/stock brokers are also supervised /regulated by SEBI for these activities.
Formal agreement	Yes, the agreement outlines the bidding commitments, minimum success ratio in the auctions and other terms and conditions such as obligation to offer firm two-way quotes for select stocks.
Revision of status	Annually.
System evolution over time	The number of PDs has gone up from 6 to 18. The benefits of the PD system are evident in the growing market turnover for government securities, increasing market absorption of government securities.
Relation between the size of public debt and the desirability of PDs	Yes, as the size of government debt has been growing, an increase in the number of PDs would enhance the absorption of government securities.
Recommendation of PD system	In the early stage, PDs should be allowed in the primary market along with the central bank, with certain privileges including borrowing facilities from the central bank. This is in order to develop and nurture the institutional framework. In the second stage, the PDs could be allowed exclusive participation in the primary market, by removing all other privileges. Finally, in the third stage, PDs could be made exclusive conduits for the central bank's open market operations.
Advantages	Underwriting and market-making abilities exclusively in government securities market will be developed; improved liquidity for government securities; open market operations could be effective and operationally simpler once PDs become exclusive counterparties for the central bank's open market operations.
Disadvantages	PDs depend highly on short-term funding and call money market. However, the central bank is developing the repo market, which could serve as main source of funds for PDs.

Indonesia

Dealers in government securities	So far, there are no dealers for government securities, just 14 brokers (7 brokers for capital markets and 7 brokers for money markets). However, these brokers are only for the central bank securities transactions called Sertifikat Bank Indonesia (SBI).
PD institutions	No primary dealers (PD) system.
System evolution over time	In 1993, primary dealers were needed to help develop the SBI secondary market. As the SBI secondary market developed, the primary dealer system was seen as unnecessary and therefore discontinued in 1998. Access to SBI was then opened to all market participants, i.e., banks, brokers, and individuals. The new regulation on SBI auction, which will be effective in October 2002, states that only banks and brokers have access to the SBI primary market.
Relation between the size of public debt and the desirability of PDs	The need for primary dealers may become imminent should the government issue treasury bills and government bonds under the new Government Securities Law passed by the Parliament in September 2002. Currently, the only existing government bonds are recapitalization bonds issued to finance the cost of the government's financial participation in commercial banks as part of the national program to restructure and revitalize the banking sector. Recapitalization bonds were issued through private placements.
Recommendation of system	Strongly recommended at Indonesia's current development stage, i.e., the middle stage. The growth of Indonesia's equity and debt market and the passage of the Government Securities Law will make the need for primary dealer system imminent. Market supporting infrastructure has also been developed. Indonesia already owns two stock exchanges, i.e., the Jakarta Stock Exchange and the Surabaya Stock exchange, a fund transfer system called the Real-Time Gross Settlement (BI-RTGS), and a Government Bond Settlement system called BI-SKRIP. Both the BI-RTGS and the BI-SKRIP are operated by the Central Bank, Bank of Indonesia. Based on this infrastructure and a Scripless Securities Settlement System currently being developed by Bank Indonesia, the Ministry of Finance and Bank Indonesia are developing a secondary market for government securities.
Advantages	PDs can develop a secondary market for government bonds and create market liquidity.
Disadvantages	A minor disadvantage might be that with primary dealers, the price of a trade might not reflect the market price, so not many participants would do securities transactions. The price seems determined only by primary dealers.

Ireland

Dealers in government securities	Seven in addition to the primary dealers (PDs), who account for 95 percent of market turnover, no agency, only brokers are authorized to deal in Irish government bonds in the Irish stock exchange. A number of foreign banks also quote.
System established	1995.
PD institutions	Seven commercial and investment banks, brokers, and foreign institutions.
Selection criteria	Minimum capital, involvement in government securities market, and ability to distribute Irish government bonds.
PD obligations	To bid in the auctions, to quote firm and two ways, and to report to National Treasury Management Agency (NTMA).
Privileges	Exclusive access to primary auctions, exclusive counterparty for NTMA repos and reverse repos, bond switching facilities and bid of last resort to PDs.
Supervision and enforcement	National Treasury Management Agency (NTMA), which is the debt manager of the Ministry of Finance and the Irish Stock Exchange.
Formal agreement	Memorandum of Understanding.
Revision of status	Newly recognized PDs after one year, thereafter at variable periods of two or three years.
System evolution over time	Since the introduction of the euro on January 1, 1999, the PD system has become more important for the successful marketing of Irish government bonds to nonresidents within the euro area.
Relation between the size of public debt and the desirability of PDs	No close relationship, but a number of benchmark bonds of seasonable size (EUR 3 to 5 million) is required to provide sufficient liquidity for a viable market.
Recommendation of PD system	Strongly recommended at the advanced development stage. A viable PD system requires a fully developed liquid capital market with a government yield curve out to at least 10 years.
Advantages	PDs reduce the cost of borrowing by providing a continuous two-way liquid market in government bonds; create certainty in the secondary market; eliminate illiquidity premium cost; allow debt to be restructured; act as sounding board for changing debt strategy, and facilitate closer organized contact with the investors.
Disadvantages	Recognition of commercial pressures that the PDs face.

Italy

Dealers in government securities	120.
PD institutions	16 primary dealers (PDs) or "specialists" including commercial and investment banks, and foreign institutions.
Selection criteria	Minimum capital, involvement in government securities market, and suitable organization to obtain a widespread and efficient placement of securities.
PD obligations	Obligation to bid in the auctions, to quote two ways, and on the secondary market consideration given only to proposals for a minimum of five hours per working day. Besides the bid-ask spread, the performance is also evaluated in terms of number of securities treated and quoted, total amount exchanged, and received applications.
Privileges	Exclusive access to noncompetitive taps, within 10 percent of the total amount offered by the Treasury in the auction. Faculty to participate, in an exclusive way, in buyback operations drawn on the "ad hoc" Government Sinking Fund.
Supervision and enforcement	Ministry of Finance.
Formal agreement	Yes. A document published by the Treasury specifying the obligations and privileges of the specialists.
Revision of status	Every two years.
System evolution over time	Established in 1994, the number of Specialists has developed over time. During the same period, the evaluation criteria have been modified in order to better monitor their performance, incentive their activity on strip and repo markets and give rise to a stronger virtual competition among them. Imposing requirements that are perceived to be too stringent by market participants can create an incentive to formally comply with the requirements but without any positive impact on the efficiency of the market. For instance, requiring a secondary market share of 2 percent could lead to "whipped cream," or a transaction between two PDs to reach the requested quota.
Relation between the size of public debt and the desirability of PDs	Yes, the PD system is a guarantee for the Treasury that numerous and frequent auctions of significant sizes are always fully covered and that the potential liquidity of bonds becomes is fully realized.
Recommendation of PD system	Strongly recommended. At the early stages of development, a country needs to issue public debt in order to set up all the basic infrastructures to start any economic development process. A PD system may help to raise those financial resources that otherwise the market would be reluctant to grant. At the middle development stage, PDs can support the sovereign issuer to find domestic and foreign final investors interested in holding the country paper even at some additional cost. Moreover, PDs are able to support the public debt manager in drafting the entire debt management policy and designing suitable debt instruments. At an advanced development stage, PDs become essential to develop a liquid and active secondary market that can help lowering the cost of funding, stabilizing the investors' demand and widening the base of investors. At the same time, PDs continue to address the role of financial consultant especially as far as the issuance policy is concerned.

Italy (Continued)	
Advantages	- Full and constant coverage of auctions; - Better knowledge of market conditions to improve the issuance strategy by reducing the cost of funding and controlling financial risk; - Higher liquidity of bonds on the secondary market; - Availability of a skillful advisory support in building and following the debt management policy; - Possibility of being put in contact with a much higher number of investors in order to capture at any moment convenient issuance opportunities; - Availability of a competent support in designing market-tailored securities.
Disadvantages	Risk for the debt management policy of being sometimes influenced by views that are more biased on PDs' own interests than on those of the sovereign issuer.

Kazakhstan

Dealers in government securities	118.
System established	1994.
PD institutions	16 primary dealers (PDs) composed of commercial and investment banks, and foreign institutions.
Selection criteria	Minimum capital and involvement in government securities market.
PDs obligations	Obligations to quote firm; to report to the central bank; and to be in "normal" position (for Kazakhstan) as regards prudential norms.
Privileges	Exclusive access to primary auctions.
Supervision and enforcement	Ministry of Finance and National Security Commission.
Formal agreement	Yes, including limitation of firm quotes.
Revision of status	Annually.
System evolution over time	System is changing according to primary and secondary market; if inflation process is stable, primary dealers prefer to trade securities in national currency, if unstable, they prefer securities that are denominated in U.S. dollars or eurobonds.
Relation between the size of public debt and the desirability of PDs	None.
Recommendation of system	System recommended at the early development stage. Without a primary dealer system it will be hard to have stability in primary market.
Advantages	It is easy to control and systemize primary market.
Disadvantages	No serious disadvantages of having PDs.

Kenya

PD institutions	No primary dealer system.
System evolution over time	The preparation of a policy paper on the regulation of the wholesale market for government securities as a way of deepening the market is currently under way.
Relation between the size of public debt and the desirability of PDs	Yes, when there is need to promote a market-oriented economy with a view to reducing the cost of government borrowing.
Recommendation of PD system	Strongly recommended at all development stages. PDs play a useful role in the transition from a planned economy to a market-oriented one, owing to their expertise and financial capabilities. At an advanced stage of development, when selecting trading counterparties in execution of monetary policy, PDs are also useful. However, highly reliable and efficient automated operating and communication systems are absolutely necessary.
Advantages	Provides a smooth transition from a direct to a fully market-based system; produces increased efficiency in the auction process and open market operations; provides secure maximum participation in auction of government securities; improves functioning of primary markets and terms of government borrowing; enhances liquidity in the secondary market; brings about greater competition and leads to cheaper dealing costs in the secondary market.
Disadvantages	Collusion may occur where only few firms are accepted as PDs, leading to lower auction prices and high intermediation costs passed onto the end investors.

Korea

Dealers in government securities	102.
System established	July 1997.
PD institutions	26 primary dealers (PDs) composed of commercial banks, brokers, foreign institutions, and merchant banks.
Selection criteria	Minimum capital and involvement in government securities market.
PDs obligations	Obligation to bid in the auctions; to quote two ways; and to trade a minimum of 2 percent of total secondary market volume.
Privileges	Exclusive access to primary auctions and noncompetitive bidding.
Supervision and enforcement	Ministry of Finance and Korea Stock Exchange (maintaining inter-dealer market).
Formal agreement	Yes, a Memorandum of Understanding between the Ministry of Finance and PDs.
Revision of status	Annually.
System evolution over time	The PD system has contributed to development of domestic bond market in both primary and secondary market.
Relation between the size of public debt and the desirability of PDs	No.
Recommendation of system	Strongly recommended at the early development stage. The role of government in developing bond market reaches its highest point when the development stage is the middle stage. When the financial market deepens, the power of the market itself can take the role efficiently.
Advantages	Reduces the cost of government bond issue since a government does not have to pay; lowers underwriting fees; strengthens the demand base of the government bond and the stability of bond market by establishing leading market makers.
Disadvantages	Nothing particular.

Latvia

Dealers in government securities	15 banks and 7 brokerage companies are licensed for intermediation in the securities markets. In the primary market of government securities all domestic banks (22 banks) and foreign financial institutions, which have accounts (in lats) with the central bank (2 foreign banks) can participate.
PD institutions	No primary dealer system.
System evolution over time	It has been discussed. The Latvian market is too small for a primary dealer system, and banks prefer no obligations in government securities market.
Relation between the size of public debt and the desirability of PDs	No, the driven force for primary dealers could be competition in the market, not the size of public debt in Latvia.
Recommendation of system	Not recommended. A system of PDs demands adequate market structure, including some sizable players and many smaller ones; then a PD system helps to organize financial system. In early development, this banking structure may not exist. Therefore, a PD system might be appropriate only at a advanced stage of financial development.
Advantages	Provides increase in liquidity and reduction in margins.
Disadvantages	Primary dealers should hold broad range of government securities constantly and are forced to participate in every auction of primary market.

Mauritius

Dealers in government securities	Approximately 40.
PD institutions	No primary dealer system.
System evolution over time	The authorities have been discussing the possible establishment of a PD system in order to develop secondary market trading, which will be instrumental in implementing monetary policy decisions. The next priority of the Bank of Mauritius is to establish a system of PDs in government securities as early as possible.
Relation between the size of public debt and the desirability of PDs	The volume of transactions and efficiency of the secondary market would influence the appointment of primary dealers.
Recommendation of PD system	Recommended at the middle development stage. Objectives of debt management would have been established. Information on demand for securities and market structure would be available. Information on macroeconomic environment would be available.
Advantages	A PD system activates secondary market for treasury bills; it also enables buyers and sellers to transact efficiently at prices reflecting fair values.
Disadvantages	PDs may buy securities with attractive yields and hold them instead of trading them.

Mexico

Dealers in government securities	Commercial banks, development banks, and brokerage houses can deal with government securities, although not all of them are active in the market. Currently, there are between 20 and 25 institutions that are active in this market.
System established	October 2000.
PD institutions	5 PDs composed of commercial banks and brokerage houses (casas de bolsa) which trade with securities; investment banks are not involved.
Selection criteria	Involvement in government securities market. Only five institutions can be primary dealers, and they are named for a period of six months. At the conclusion of that period, the institutions are selected again. A new institution has to form part of the primary dealers in substitution of an existing one. Institutions compete to be market makers based on their activity in the nominal fixed rate government securities market. The activity is measured based on a publicly known index, which takes into account their activity in the primary market, in the interbank market, and with their clients. The five institutions that show the highest index are selected as primary dealers. As mentioned before, if these institutions are the same as the ones of the previous period, the last one has to be substituted by the one finishing in the sixth place who was not a primary dealer.
PDs obligations	Obligation to bid in the auctions; to quote two ways; and to report to the central bank.
Privileges	Borrowing privileges with the central bank. Also access to a "green shoe" facility where as a group, PDs can acquire up to an additional 20 percent of the fixed-rate securities offered in the primary auction at the average price that resulted in the auction. However, a prerequisite to access to the facility is to have won part of the primary auction.
Supervision and enforcement	Ministry of Finance and the central bank.
Formal agreement	Yes, rules to become and to compete to be a primary dealer were set by the Ministry of Finance and published by the central bank. In order to compete to be a primary dealer, institutions have to send a letter to the Ministry of Finance specifying their intentions to do so. In that letter, they agree to send all information required for the measurement of the index and to comply with the rules that apply for calculating it.
Revision of status	Semiannually.
System evolution over time	Although it was adopted very recently, the experience has been very positive. Particularly, liquidity in the interbank market for nominal fixed rate securities has increased substantially.
Relation between the size of public debt and the desirability of PDs	No, currently the primary dealer figure works only for nominal fixed rate debt (treasury bills and bonds). These securities represent only around 35 percent of total government debt. To date, there has been a great deal of interest in becoming a primary dealer.
Recommendation of system	Strongly recommended at the middle development stage. It is a good way to give impetus to the market, which should have as a prerequisite a good infrastructure and certain liquidity.
Advantages	The increase in liquidity that PDs offer to the market.
Disadvantages	If obligations and benefits are not set correctly, the ranking index could give a competitive advantage to some intermediaries over others.

Morocco

Dealers in government securities	The central bank, 18 credit institutions, one broker-dealer (CDG), 103 mutual funds.
System established	August 1995.
PD institutions	Seven commercial banks, a broker-dealer (CDG), an intermediation bank (MEDIAFINANCE).
Selection criteria	Involvement in government securities market, subscription volume on primary market, and volume traded on secondary market (10 percent).
PD obligations	Obligations to bid in the auctions and to quote firm and two ways.
Privileges	Possibility to have noncompetitive bids up to 20 percent of the weighted average withholding volume.
Supervision and enforcement	Central bank and Ministry of Finance.
Formal agreement	Convention between the Treasury and I.V.I., which describe the obligations of the parties.
Revision of status	N.A.
System evolution over time	N.A.
Relation between the size of public debt and the desirability of PDs	No.
Recommendation of PD system	Recommended at the early development stage.
Advantages	Organization of the bond market, promotion of treasury bills, exchange of information on available bids as well as the price levels at which the investors are ready to subscribe.
Disadvantages	N.A.

Netherlands

Dealers in government securities	Dozens.
System established	January 1, 1999.
PD institutions	13 institutions, including commercial and investment banks, and foreign institutions.
Selection criteria	Minimum capital, involvement in government securities market, and geographical distribution of their turnover, promotion activities, commitment.
PD obligations	Obligation to bid in the auctions, to quote firm and two ways, and to report secondary market turnover to Dutch State Treasury Agency (DSTA), to act in the interest of the (DSTA), and to participate in research.
Privileges	Exclusive access to primary auctions. PDs may use the title primary dealer for Dutch State Loans. The obligation of two-way quoting (market making) applies to PDs only. It is increasingly considered a privilege by both PDs and non-primary dealers.
Supervision and enforcement	Ministry of Finance.
Formal agreement	Yes. In October of each year, a selection process is begun by which 13 PDs are selected for the 12-month period beginning January 1. Existing PDs, as well as banks that want to become PDs, submit a business plan regarding Dutch State Loans. Based on these business plans, the DSTA selects 13 dealers with whom a 12-month contract is signed.
Revision of status	Annually.
System evolution over time	Our system was established relatively recently. Our experience has been that the system has helped in attaining our objectives of supporting liquidity and promoting broad geographical coverage.
Relation between the size of public debt and the desirability of PDs	A primary dealer system seems only desirable and feasible if a state has a sufficient volume of issues, at least a few billion euros per year.
Recommendation of PD system	Strongly recommended at the middle or advanced development stage. The question is difficult to answer. One of the elements that triggered the establishment of the primary dealer system in the Netherlands was the introduction of the euro. Instead of being the largest issuer in the guilder market, the Dutch State became one of the four AAA-rated issuers in the euro area. Given this more competitive environment, a privileged relationship with a core group of local, regional, and global banks was deemed desirable. Drawing general conclusions from this experience and applying them to countries differentiated by their level of development is fraught with difficulties. For one, the development of the capital market seems equally as important as the level of economic development. It seems fair to assume that a PD system can perform several functions for a sovereign issuer. As long as the sovereign's debt management agency is competent and knows what it wants from the PDs, it seems right to assume that a PD system can be used at all stages of development. A positive aspect of PD systems may be that they help develop local capital markets in emerging economies, in the sense of obliging local banks to actively develop their sales to final investors.
Advantages	Produces a core group of banks that compete to buy the issuer's bonds; provides information on market movements and trends.
Disadvantages	So far none.

New Zealand

Dealers in government securities	There are six to eight market makers in government securities. There are no primary dealers.
Recommendation of PD system	Primary dealers are not a feature of the New Zealand government securities market. New Zealand has not found it necessary to introduce primary dealers or officially appointed market makers to assist with the distribution of securities. Instead, the New Zealand Debt Management Office (NZDMO) considers that a better outcome is market making in government securities based on commercial decisions by market participants themselves. All market participants, including end investors, may bid in auctions, subject to criteria related to creditworthiness, as assessed by the Reserve Bank of New Zealand (RBNZ). In addition, membership in Austraclear, the real-time securities and high-value payments settlement system, is effectively an acceptance criterion, as auction bidding is conducted via Austraclear's electronic tendering facility. The current arrangement has worked well, with a core group of six to eight market makers at any one time.

Norway

Dealers in government securities	7+.
System established	1995.
PD institutions	Six commercial banks and brokers.
Selection criteria	Involvement in government securities market.
PD obligations	Obligation to quote firm and two ways, and to report to the central bank.
Privileges	Borrowing privileges with central bank.
Supervision and enforcement	Central bank.
Formal agreement	Yes, agreement in writing.
Revision of status	Annually.
System evolution over time	N.A.
Relation between the size of public debt and the desirability of PDs	Yes.
Recommendation of PD system	Recommended at the middle development stage.
Advantages	With two-way quotes, the market always has price information and better liquidity.
Disadvantages	The central bank must provide some privileges to the PDs.

Poland

Dealers in government securities	It depends on type of instrument: treasury bills – 38; treasury bonds – about 12 on average.
PD institutions	No primary dealer system.
System evolution over time	There has never been a primary dealer system in Poland. The problem has been under discussion for more than five years when the Polish Central Bank had decided to establish Money Market Dealer System for money policy purposes. For the last two years, the Polish investor base has developed significantly: creation of pension funds system and privatization of certain banks. Foreign banks are also providing sizeable activity. From the point of view of public debt management, many changes took place in the structure of debt: an increase in marketable bonds, particularly fixed rate bonds, a decrease in treasury bills and non-marketable instruments. Thanks to these changes, the market of treasury bonds has become deeper and more liquid but still non-transparent. These have been the most important elements in supporting the decision to establish a primary dealers (PDs) system.
Relation between the size of public debt and the desirability of PDs	Yes. It is much easier to build a liquid debt market in the environment of large size of public debt, because only a sufficient amount of debt stock enables constant trading in securities. Consequently, it is easier to establish a primary dealership system. PDs have obligations to develop and maintain liquidity. They have also to ensure the transparency of the market, an important consideration for investors.
Recommendation of system	Strongly recommended at the middle and/or advanced development stage. Only in these cases do the advantages of PDs outweigh the disadvantages. In the case of establishing a system in the early stages of development, there are different obstacles to have profitable system: - the depth of the market is insufficient; - investor base is weak; - there is generally an inadequate structure (excess of non-marketable instruments) of debt and the value of debt; - level of competitiveness between participants in the market is undeveloped; - settlement system should be developed and liquid (a suitable RTGS should be in place); That is why it is difficult to recommend a primary dealer system, particularly in the two first cases.
Advantages	There are several advantages, including: - reliability of financing State Budget needs, even in single currency environment; - liquidity and transparency of the government securities market; - cost effective financing; and - the exchange of information about market and issuer policy.
Disadvantages	The danger of collusion when there are mainly: - fusion of banks in globalized environment; and - lack of competitiveness.

Portugal

Dealers in government securities	25.
System Established	1998.
PD institutions	13 commercial and investment banks, and foreign institutions.
Selection criteria	Involvement in government securities market and Regulation No.1/2001, Art. 6 and 16: - Capacity for subscription and placement of bonds in the competitive phase of auctions; - Participate, in a regular and significant way, in the bond secondary market; - Offer guarantees for the physical and financial settlement of bonds; and - Produce a statement signed by the dealer's Board of Directors, in which the dealer pledges to obey the rules of the Regulation.
PD obligations	Obligation to quote firm and two ways. Regulation No.1/2001, Art. 18, also requires dealers to: - bid regularly under normal market conditions and subscribe to a share not lower than 2 percent of the amount placed at the competitive phase of the auctions; - participate actively in the secondary market, ensuring liquidity; - participate in the secondary market (MEDIP) as market maker, with no less than 2 percent market's turnover share; - keep a permanently updated page showing quotations for liquid treasury bonds in a specialized remote information system of widespread dissemination; - supply the information required for the monitoring of their activity in the secondary market and to check compliance with the provisions of this regulation; - respect all rules adopted by Institute for Public Debt Management (IGCP) regarding the scope and object of the regulation; - operate as privileged consultants to the IGCP in the monitoring of financial markets; and - duly inform IGCP as to their difficulty in performing some of the duties, namely in case of anomalous or extraordinary market conditions, and await IGCP's consent of the change in the form of compliance, or of non-compliance, with any of the duties.
Privileges	Regulation No.1/2001, Art. 17: specialized primary dealers (OEVT) have a right to: - exclusive access to the non-competitive phase of bond auctions; - preference in syndicates and in other forms of placing government debt; - access to IGCP facilities to support the market, namely the repo window; - preference in carrying out transactions related to management of public debt; and - privileged hearing in matters of common interest.
Supervision and enforcement	Institute for Public Debt Management (IGCP).
Formal agreement	Regulation No.1/2001 made by the IGCP.
Revision of status	Annually.
System evolution over time	The primary dealer system started in 1998 with 6 domestic and 6 foreign PDs. Beginning in 1999, the number of foreign institutions gradually increased to 9, while the number of domestic PDs reduced to four mostly as a result of mergers between banks. The increase in the number of foreign PDs was accompanied by a sharp rise in the percentage of debt placed with foreign investors (83 percent of debt issued in 2000 was placed with foreign investors).

Portugal (Continued)	
Relation between the size of public debt and the desirability of PDs	No. It is difficult to define the optimal number of PDs for each market, although in theory, the larger the market the larger the number of PDs.
Recommendation of PD system	Strongly recommended at the middle and/or advanced development stage. The primary dealer system is a very important tool in developing an efficient, fixed interest rate domestic secondary market, which implies a sound macroeconomic situation and a developed financial system.
Advantages	Provides access to a permanent distribution channel of both domestic and international debt; opens up a permanent secondary market; and gives more visibility with final investors (especially foreign ones).
Disadvantages	N.A.

Saudi Arabia

PD institutions	No primary dealer system.
System evolution over time	The idea is being considered by the authorities but it needs further assessment.
Relation between the size of public debt and the desirability of PDs	Yes, for efficiency and liquidity reasons, the need for the PDs increases as the size of the debt becomes larger.
Recommendation of PD system	Recommended at the middle and/or advance development stage. As the size of the economy and the capital market become larger, the need for PDs and the benefit from such a system increases.
Advantages	To enhance market efficiency and liquidity along with creating active secondary market.
Disadvantages	Possible manipulation of prices if the size of the capital market is small and/or if regulatory guidelines are not sufficient to ensure a fair play.

Singapore

Dealers in government securities	31.
PD institutions	11 commercial banks.
Selection criteria	Involvement in government securities market, minimum credit rating of B/C by KBW/IBCA, staffing requirements of at least two dealers with experience in fixed income trading, and track record in other developed bond markets.
PD obligations	Obligation to bid in the auctions, to report to the central bank, to provide liquidity in the Singapore government securities (SGS) outright and repo markets by quoting two-ways, to participate in SGS auctions and underwrite issuance, to give feedback to Monetary Authority of Singapore (MAS), to assist the market development, to help fixing interbank rates, and to provide closing prices.
Privileges	Exclusive access to primary auctions and counterparty for central bank's open market operations, tax exemption on SGS trading income. Only PDs can bid for SGS at auctions. MAS holds regular meetings with the PDs to discuss market issues. MAS conducts money market operations through PDs only. Access to the MAS repo facility, which enables PDs with short positions to bid for specific SGS issues offered by MAS in exchange for other SGS issues they have. This facilitates PDs' market-making activities.
Supervision and enforcement	Central bank.
Formal agreement	Yes, candidates need to apply to the Monetary Authority of Singapore to become a PD. Upon receiving MAS's approval, applicant is required to submit a formal letter accepting responsibilities and requirements as a PD.
Revision of status	MAS conducts semi-annual PD evaluation and ranking exercise.
System evolution over time	MAS started its primary dealer system with 7 PDs in 1987 with an outstanding amount of SGS of $4.46 billion. Since then, the amount of SGS outstanding has increased by more than nine-fold to S$43.2 billion as of end-2001. This has been accompanied by an increase to 11 PDs at end-February 2001. Since 1997, MAS has been undertaking a series of market measures in consultation with PDs to improve market efficiency and liquidity. These include conducting SGS purchase operations to re-channel liquidity from illiquid off-the-run issues into the benchmark issues and building larger benchmark issues. At the same time, MAS also strengthened incentives that are given to PDs. Money market operations are conducted only with PDs and repo facility was implemented to facilitate their activities.
Relation between the size of public debt and the desirability of PDs	Yes, see reply on advantages.
Recommendation of PD system	Recommended at the early or middle development stage. Should the bond market investor base eventually become well diversified and achieve critical mass, the need for PDs becomes less severe.
Advantages	PDs play a critical role in facilitating the growth and development of a young bond market with a small and limited investor base, for the following reasons: - Having a group of PDs committed to making two-way prices helps provide a minimum level of liquidity that attracts investors into the market; - Foreign PDs, key participants in developed bond markets, bring knowledge and expertise which help speed the development of the bond market; and - Foreign PDs with a global client base would be committed to attracting their investor clients to the developing bond market.
Disadvantages	In a system where PDs receive privileges to fulfill their obligations, this could create an uneven level playing field vis-à-vis non-PD market participants.

Spain

Dealers in government securities	146 and 21 primary dealers (PDs).
System established	January 1988.
PD institutions	21 PDs, composed of domestic and foreign commercial and investment banks.
Selection criteria	Technical criteria as well as membership of the Spanish debt market, with a strong commitment in its development.
PD obligations	Auction bidding obligations, firm two-way quoting commitment subject to oversight, and to provide any information required by the Spanish Treasury concerning the public debt market and the primary dealer's trading activity in the market. Market makers are requested to send a monthly report about their activity in the primary and secondary markets.
Privileges	Advantage of an extra half hour for the submission of bids at bond auctions; exclusive access to the second round in auctions, exclusive access to stripping and reconstitution of bonds, privileged counterparties of the issuer in its overall debt management activity (swaps, foreign currency issues, and the like), access to regular meetings with the Treasury as well as input to determine debt issuance target goals at each auction.
Supervision and enforcement	Ministry of Finance.
Formal agreement	Yes. Once an institution has been granted the status of "Public Debt Dealer" and having developed one month of trading activity (during which they must have behaved almost as a PD), an application form must be sent to the General Director of the Treasury with a memorandum attached, exposing the technical and human resources to develop market making activity in the Public Debt market of the Kingdom of Spain and accepting all commitments set forth in the "Order of the Ministry of Economy of 02/10/99" (developed by Resolution of the Spanish Treasury 20/02/02). Once those requirements are fulfilled, the General Directorate of the Treasury and Financial Policy, after receiving a positive report from the Bank of Spain, will grant that institution the status of PD by publishing it on the official bulletin.
Revision of status	Oversight on a monthly basis with an intended annual revision horizon.
System evolution over time	First, the status of PDs was granted only to institutions resident in Spain. In March 1999, it was extended to nonresident institutions. Commitments and advantages have also increased.
Relation between the size of public debt and the desirability of PDs	The larger the size of debt, the greater the need for PDs.
Recommendation of PD system	Strongly recommended at the early and middle development stage. Also recommended at the advanced development stage. We think that PDs are always good for debt markets. However, in very mature and large debt markets they may not be as necessary as otherwise.
Advantages	They allow for a broad and efficient secondary market for government securities. With respect to the primary market, they ease the allocation of new issues.
Disadvantages	We cannot see any disadvantages of having PDs.

Sweden

Dealers in government securities	Seven.
System established	1989.
PD institutions	Seven PDs composed of commercial banks and brokers.
Selection criteria	Minimum capital and involvement in government securities market.
PD obligations	Obligation to bid in the auctions, to report to the central bank, and to contribute with good liquidity in the market.
Privileges	Exclusive access to primary auctions and counter party for central bank's open market operations.
Supervision and enforcement	Central bank and Finance Supervisory Institution.
Formal agreement	Yes.
Revision of status	Annually.
System evolution over time	Owing to a declining borrowing requirement over the last few years, the number of PDs has decreased from 15 to 7 during the last four years.
Relation between the size of public debt and the desirability of PDs	No.
Recommendation of PD system	Strongly recommended at the early development stage. When a country is in a buildup phase regarding development of its financial markets, a PD system gives some insurance and stability to the market's functionality.
Advantages	In order to have some guarantee of providing good liquidity, PDs are the best alternative. For the moment, the Swedish National Debt Office (SNDO) is not paying any fees or provisions in the nominal bond market. Some countries have systems which include fees to the PDs.
Disadvantages	N.A.

Thailand

Dealers in government securities	50.
System established	June 5, 2000 (First established as central bank counterparties in August 1999).
PD institutions	Nine commercial banks.
Selection criteria	Minimum capital, involvement in government securities market, risk management system, and coordination with authorities in developing the market.
PDs obligations	Obligations to quote two ways.
Privileges	Exclusive counterparty for central bank's open market operations.
Supervision and enforcement	Central bank.
Formal agreement	Memorandum of understanding.
Revision of status	Annually.
System evolution over time	After conducting transactions with primary dealers (PDs), the turnover in the secondary market has increased dramatically.
Relation between the size of public debt and the desirability of PDs	No, the numbers of primary dealers is based on the proportion of them in the secondary market.
Recommendation of system	Strongly recommended at the early development stage. To provide information about the desired direction of market development and cooperate with central bank and Debt Management Office in the development process, enhance the liquidity in the secondary market, and have commitment to participate in the auction.
Advantages	The system provides an effective channel for conducting open market operations, active market makers who will enhance the liquidity in the secondary market and ensure successful outcome in the primary market auction.
Disadvantages	If the primary dealers are not efficient, the liquidity injection and absorption of the central bank will not be successful.

United Kingdom

System established	1986.
PD institutions	17 primary dealers (PDs) composed of commercial and investment banks, and security houses.
Selection criteria	Involvement in government securities market. Members of a Recognised Investment Exchange (RIE); produce viable business plan to be approved by the DMO; Financial Services Authority (FSA) to confirm that they are content.
PD obligations	To quote firm and two ways; to report to the DMO; no obligation to quote to other PDs; obligation to report trades to LSE.
Privileges	Exclusive access to primary auctions and participation in consultation meetings, secondary market dealing with DMO, access to inter-dealer broker screens (for dealing with closed user group of PDs).
Supervision and enforcement	Ministry of Finance/DMO and Financial Sector Authority.
Formal agreement	Yes, it is a "contractual letter."
Revision of status	Semiannually.
System evolution over time	There are now fewer PDs, mostly due to bank mergers. The deal size has increased. Additional moves have been made toward e-trading. There is a closer relationship between the PDs and the authorities.
Relation between the size of public debt and the desirability of PDs	No.
Recommendation of PD system	Recommended at the early development stage. During early stages of economic development, most government borrowing will be from foreign institutions with only a small presence in one developing country. As more borrowing is carried out from domestic intermediaries, this will be more conducive to a PD system.
Advantages	More liquid market; easier to be transparent; easier auctions and settlement; reduced credit risk monitoring; distribution of securities.
Disadvantages	Administrative burden; acquisitions of cartels; requires supervision.

United States

System established	1960.
PD institutions	25 primary dealers (PDs) composed of commercial and investment banks, and foreign institutions.
Selection criteria	Minimum capital, involvement in government securities market, the institution cannot have been convicted of a felony crime. There is no specific requirement as far as the extent to involvement in the government securities market.
PD obligations	To bid in the auctions, to report to the central bank. The obligation to bid in the auctions is not contractual, and the PDs are not necessarily expected to participate in every auction. PDs are also expected to participate in the Federal Reserve's open market operations and other business activities. PDs are also expected to provide the Federal Reserve with market information and analysis.
Privileges	While an exclusive counterparty for central bank's open market operations, customers of dealers can participate through a primary dealer. Also, while dealers do not have borrowing privileges (for funds) with the central bank, they do have the ability to borrow securities from the central bank's portfolio during its daily securities lending operation.
Supervision and enforcement	Central bank, Ministry of Finance, and the Federal Reserve is primary in evaluating the performance of the PDs vis-á-vis their activities and obligations with the central bank, but does not regulate or supervise the PDs as a "regulator."
Formal agreement	There is no formal agreement between the Federal Reserve and the PDs regarding their status as primary dealers. There are some transaction-specific legal agreements.
Revision of status	Performance evaluations are held with the PDs semiannually, or more frequently if necessary.
System evolution over time	The number of PDs peaked in 1988 at 46. The number has since declined to 25, largely due to consolidation in the financial services industry. In 1992, the Federal Reserve made changes to its relationships with PDs, primarily due to the misconception that the Federal Reserve regulated the PDs and that the PD designation gave them a special status. Specific actions taken were to eliminate the one percent market share requirement and to discontinue dealer surveillance activities.
Relation between the size of public debt and the desirability of PDs	No, the two are not necessarily related.
Recommendation of PD system	Recommended. This depends on a great number of factors.
Advantages	Having a PD system facilitates the implementation of monetary policy by having a stable set of counterparties that are obliged to participate in open market operations and other central bank business.
Disadvantages	The designation of "Primary Dealer" is often viewed as giving the institutions a special status or guaranteeing their creditworthiness.

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