

## 3 Debt Management Systems

### (1) Redemption System

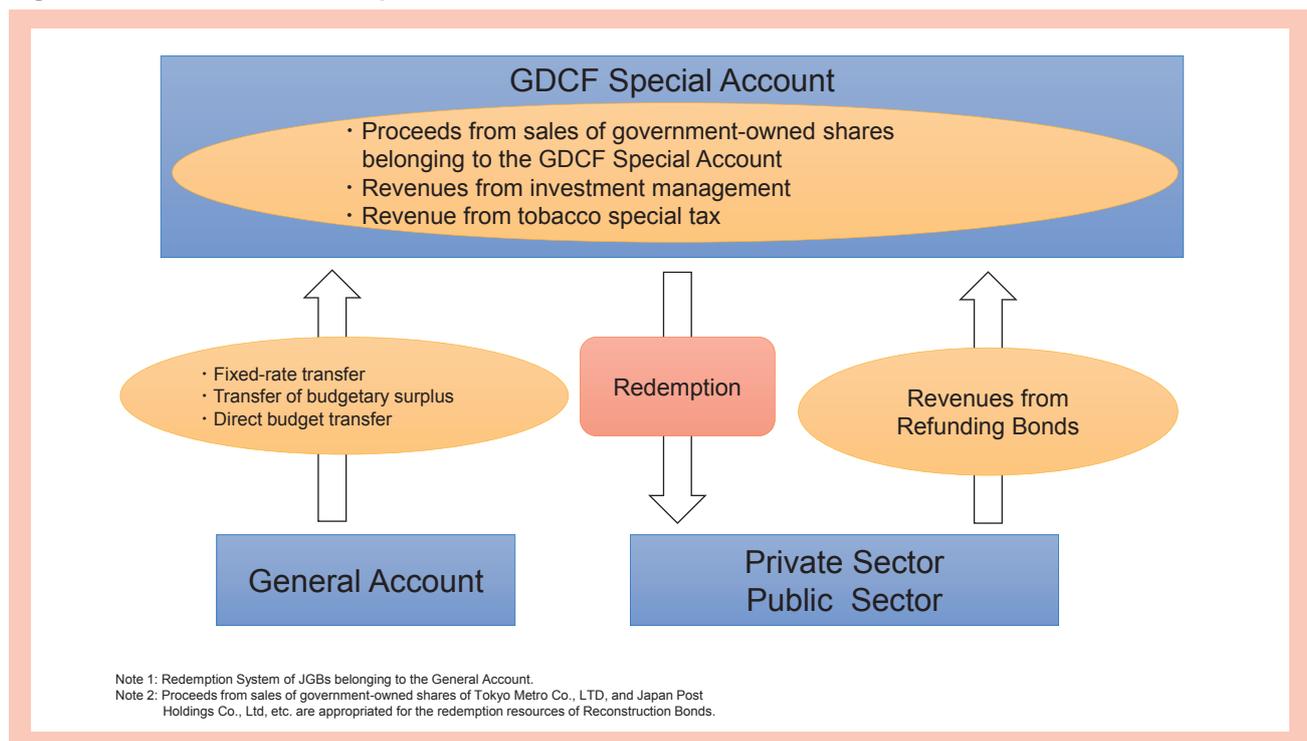
All the JGBs issued to fund a shortfall in General Account and Special Accounts of the national budget are redeemed through the Government Debt Consolidation Fund (GDCF).

To ensure stable redemption, redemption funds are transferred from the each Account to the GDCF based on certain rules. In addition, revenues from Refunding Bonds, issued through the GDCF Special Account, are posted to the GDCF. Moreover, the proceeds from the sales of government-owned shares that belong to the GDCF Special Account are also transferred into the GDCF.

Simply put, fiscal resources for government bond redemption are all funneled through the GDCF—from reception and accumulation to disbursements.

This section explains applicable redemption methods and redemption resources for each JGB category with different legal grounds. Then, it also describes the GDCF Special Account.

Fig. 2-18 Mechanism of Redemption



### A. Redemption Methods

When redeeming JGBs, redemption rules will be applicable as set forth in related legislations.

#### a. 60-Year Redemption Rule (Construction Bonds and Special Deficit-Financing Bonds)

The 60-year redemption rule is applicable to redeeming Construction Bonds and Special Deficit-Financing Bonds so that these JGBs, including Refunding Bonds, will be entirely redeemed in a 60-year period (①). Redemption of JGBs is financed with two revenue

① The rule stands on the fact that the average economic depreciation period of the assets purchased by the construction bonds is about 60 years. Deriving from this rule is the 1.6% ratio for fixed-rate transfer for each fiscal year, which is about equivalent to one-sixtieth.

sources: cash from such sources as a fixed-rate transfer from the General Account and revenues from issuing Refunding Bonds in accordance with applicable rules. The 60-year redemption rule is maintained in this way. When redeeming Special Deficit-Financing Bonds, the government will “strive to redeem these bonds as soon as possible” as set forth in its governing law.

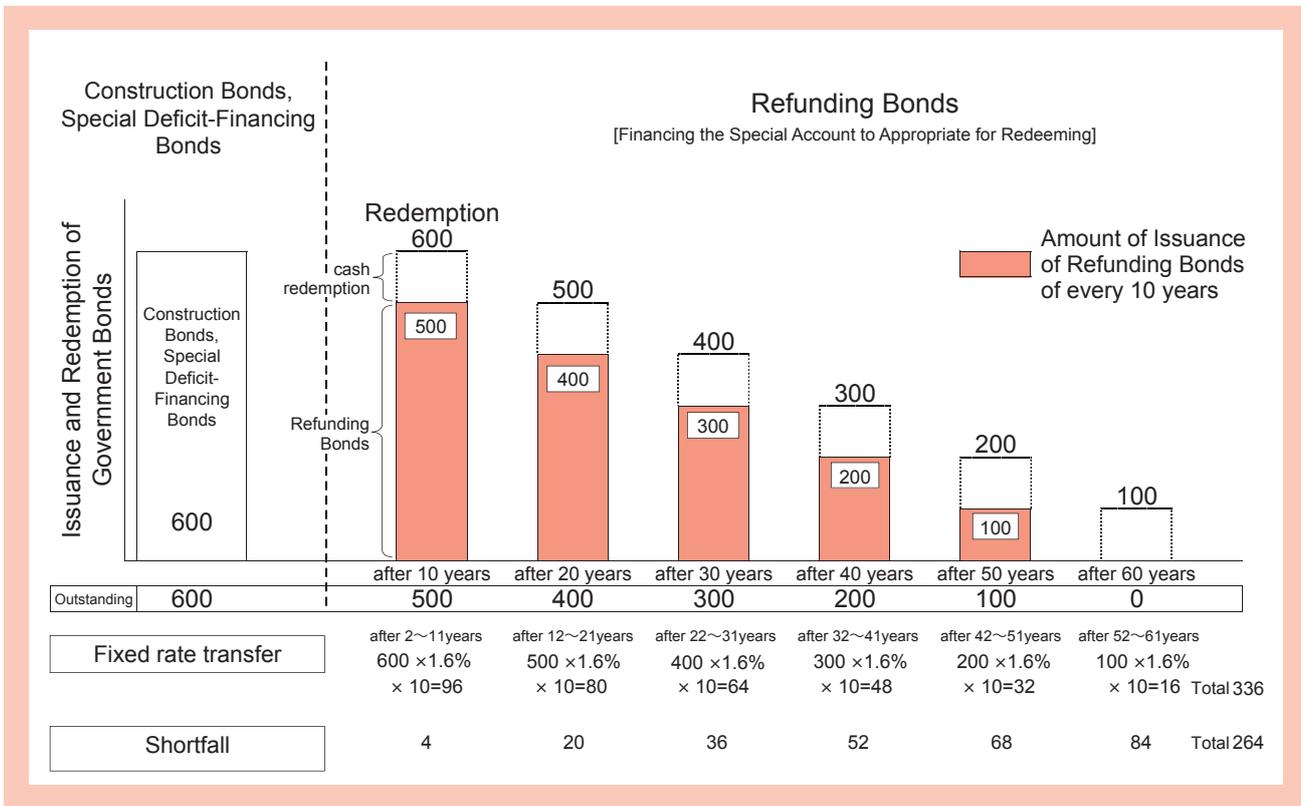
Fig.2-19 will give you an idea about how the 60-year redemption rule works.

Suppose you issue 600 billion yen of debt in fixed-rate coupon-bearing 10-year bonds, at maturity (i.e., 10 years from now) you will redeem 100 billion yen of them in cash (②) -equivalent to 1/6 of 600 billion yen- while issuing Refunding Bonds to cover the remaining 500 billion yen. Assuming that these Refunding Bonds will also be issued in fixed-rate coupon-bearing 10-year bonds, then you will redeem 100 billion yen in cash -1/6 of the initial issue amount of 600 billion yen- in another 10 years. While issuing Refunding Bonds to cover the remaining 400 billion yen. Repeat this for four more times, then, you'll be able to complete the cash redemption in 60 years from the first issuance.

As shown in the figure below, because annual fixed-rate transfer is calculated based on the JGB outstanding amount at the beginning of the previous fiscal year, it decreases along with the decrease in the JGB outstanding amount. Therefore, fixed-rate transfer will be insufficient to finance bond redemption in cash. For this reason, bond redemption will also be complemented with a surplus fund, budget fund, and proceeds from sales of government owned shares.

②The term “cash” redemption in this context means that bond redemption is not financed with issuing Refunding Bonds. From the viewpoint of individual bond holders, their JGBs will always be redeemed with cash at maturity.

Fig.2-19 Redemption via Refunding Bonds - “60-Year Redemption Rule”



### b. Redemption Methods for Reconstruction Bonds

Reconstruction Bonds, including their Refunding Bonds, will be entirely redeemed in FY2037 at the latest. The 60-year redemption rule will not be applicable to the redemption of Reconstruction Bonds. This is because “Basic Guidelines for Reconstruction in response to the Great East Japan Earthquake” states that the financial resources for recovery and reconstruction shall “basically be borne by the entire current generation, collectively sharing the financial burden by solidarity and not be left as cost of future generations” and redemption of these bonds will surely be financed with certain revenue resources.

Specifically speaking, a portion of Reconstruction Bonds redeemable each year (including Refunding Bonds for Reconstruction Bonds) will be redeemed with cash to the extent that revenues from Special Taxes for Reconstruction and profit on sales of government-owned equities are transferred to the GDCF Special Account as redemption resources, while the remaining portion will be entirely covered with Refunding Bonds. The government is planning to finish redemption of Reconstruction Bonds by repeating cash-based redemption and Refunding Bond-based redemption every fiscal year by FY2037 at the latest.

### c. Other Redemption Methods for JGBs

General Bonds subject to redemption methods other than those above include Special Deficit-Financing Bonds issued by FY1984, Gulf Special Deficit-Financing Bonds issued in FY1990, Tax Cut Special Deficit-Financing Bonds issued between FY1994 and FY1996 and Special Bonds for Covering Public Pension Funding issued in FY2012 and FY2013. As Special Deficit-Financing Bonds were prohibited from being redeemed with refinancing in the past, the 60-year redemption rule was not applicable to Special Deficit-financing Bonds issued up until FY1984. For this reason, the 60-year redemption rule did not apply to JGBs redeemable by FY1984 (☞①), but the rule becomes applicable to JGBs redeemable from FY1985 onward. In addition, Gulf Special Deficit-Financing Bonds got redeemed in 4 years ending in FY1994 as initially scheduled. Of Tax Cut Special Deficit-Financing Bonds, those set to be redeemed in 20 years (☞②) were all redeemed by FY2017. Special Bonds for Covering Public Pension Funding and relevant Refunding Bonds will be redeemed by FY2033.

Unlike ordinary JGBs that are redeemed with tax and other revenues, FILP Bonds are redeemed with such revenues as loan repayments to the Fiscal Loan Fund. In this case, the government transfers necessary redemption funds from the “Fiscal Loan Fund Special Account” to the GDCF Special Account every fiscal year to redeem FILP Bonds.

☞① All JGBs redeemable in FY1984 were redeemed by cash and the 60-year redemption rule was not applied even though they could be redeemed with refunding based on the rule.

☞② Tax Cut Special Deficit-Financing Bonds were issued in line with special income tax reduction and other measures (excluding the abolition of special corporation and automobile consumption taxes) implemented between FY1994 and FY1996 and redeemed in 20 years from FY1998 and FY2017.

## B. Redemption Resources

Redemption resources for JGBs are set forth in applicable laws. This section explains financial resources used for cash-based redemption.

### a. Redemption Resources for Construction Bonds and Special Deficit-Financing Bonds

#### ① Transfer from the General Account

For government bond redemption, there are three ways to transfer fiscal resources from the General Account to the GDCF Special Account.

## i. Fixed-rate transfer (1.6% of total government bond outstanding as of the beginning of the previous fiscal year)

The fixed-rate transfer is based on Article 42(2) of the Act on Special Accounts. Specifically, the amount equal to 1.6% of total government bonds (outstanding in face value) at the beginning of the previous fiscal year is transferred from the General Account to the GDCF Special Account on the basis of the 60-year redemption rule. Those subject to the fixed-rate transfer are limited to Public Bonds covered in the General Account (Construction Bonds, Special Deficit-Financing Bonds (excluding Special Bonds for covering Public Pension Funding)), and Borrowings (excluding Temporary Borrowings) and their Refunding Bonds (☞).

☞ When calculating the outstanding amount of discount bonds, their issuance price is regarded as the face value (Article 42(3) of the Act on Special Accounts). As to the difference between the issuance price and the face value (i.e., (the sum) equivalent to redemption profit), the difference divided by the number of years to maturity is additionally transferred to the GDCF Special Account every fiscal year (Article 42(4) of the Act on Special Accounts).

## ii. Transfer of a budgetary surplus (A minimum of half of the surplus in the General Account as a result of the settlement of the fiscal year)

Pursuant to Article 6(1) of the Public Finance Act, when surplus is generated in the General Account as a result of the settlement, at least half the surplus must be transferred to the GDCF Special Account within two years from the said fiscal year in which the surplus was generated (☞).

☞ An appendix to the Reconstruction Funding Act calls for using such surplus primarily for redeeming Reconstruction Bonds from FY2011 to FY2015.

## iii. Direct budget transfer (A discretionary transfer specified by the General Account budget when necessary)

In addition to the above transfers, to ensure smooth redemption of government bonds, Article 42(5) of the Act on Special Accounts prescribes that a discretionary transfer, which is specified by the budget can be made as needed from the General Account to the GDCF Special Account.

### ② Others

#### i. Proceeds from government-owned shares belonging to the GDCF Special Account

Proceeds from sales and dividends of government-owned shares that belong to the GDCF Special Account shall be set aside as a resource for redemption of JGBs.

A part of Nippon Telegraph and Telephone Corporation (NTT) shares, a part of shares of Japan Tobacco Inc. (JT), an equity stake in Teito Rapid Transit Authority (☞) and a part of the shares of Japan Post Holdings Co., Ltd. were transferred to the GDCF Special Account as the JGB redemption resources in FY1985, FY1985, FY1998 and FY2007, respectively. The MOF finished selling out NTT shares and JT shares (a portion held initially) in the GDCF Special Account in September 2005 and June 2004, respectively. Proceeds from the sale of shares currently belonging to the GDCF Special Account (including JT shares newly allocated to the GDCF Special Account in accordance with the Reconstruction Funding Act) will be spent for redeeming Reconstruction Bonds.

☞ As Teito Rapid Transit Authority was privatized and renamed Tokyo Metro Co., Ltd. in April 2004, Tokyo Metro shares were distributed to the government free of charge in proportion to the government's equity stake in Teito Rapid Transit Authority. Therefore, the equity stake has been replaced with shares.

#### ii. Proceeds from allocation

The surplus of the GDCF can be invested into JGBs or deposited to the Fiscal Loan Fund. The MOF pursue efficient allocation of these government bonds, while taking into account the need to secure adequate levels of liquidity in order to ensure smooth implementation of large-scale redemption and refunding. Proceeds from the allocation are credited to the GDCF Special Account to be included in its revenues.

## b. Redemption Resources for Reconstruction Bonds

### ① Revenues from Special Taxes for Reconstruction

As tax measures to finance restoration and reconstruction from the Great East Japan Earthquake, the government created Special Taxes for Reconstruction that are additional income and corporation taxes for limited durations (Special Income Tax for Reconstruction and Special Corporation Tax for Reconstruction).

Specifically, the Special Income Tax for Reconstruction is a limited-duration measure from January 2013 to December 2037 to impose an additional 2.1% income tax. The Special Corporation Tax for Reconstruction is a limited-duration measure from FY2012 to FY2014 to impose an additional 10% corporation tax. However, the special corporation tax was terminated one year ahead of schedule under the FY2014 tax reform to encourage corporations to use earnings for raising wages.

### ② Non-tax Revenues

#### i. Utilizing Reserves in the Special Account for the FILP

From reserves in the Fiscal Loan Fund Account of the FILP Special Account, an amount designated in the annual budget could be used for redeeming Reconstruction Bonds from FY2012 to FY2015. From revenues from assets in the Investment Account of the FILP Special Account, an amount designated in the annual budget can be used for the same purpose from FY2016 to FY2022.

#### ii. Proceeds from government-owned shares

Regarding JT shares (excluding the government's mandatory shareholding (☞①)), shares of Tokyo Metro Co., Ltd. (☞②) and shares of Japan Post Holdings Co., Ltd. (excluding the government's mandatory shareholding (☞③)) belonging to the GDCF Special Account, proceeds generated from the sale of those shares no later than FY2022 will be spent for redeeming Reconstruction Bonds.

### ③ Utilizing Settlement Surplus

The supplementary provisions of the Reconstruction Funding Act stipulate that, if settlement surplus in the General Account revenues and expenditures from FY2011 to FY2015 is utilized to finance redemption of Public Bonds or repayment of borrowings, the government is supposed to put a higher priority on redemption of Reconstruction Bonds.

## c. Redemption Resources for Other JGBs

### ① Special Tobacco Tax Revenues

The government has created the Special Tobacco Tax in accordance with the “Act on Special Measures for Securing Necessary Financial Resources Incidental to Transfer of Debt to General Account” in order to cover a cost increase for the General Account to take over the Japanese National Railway (JNR) Settlement Corporation’s long-term debt and the National Forest Service’s accumulated debt. Special Tobacco Tax revenues are directly transferred to the GDCF Special Account to repay principals and interests of the JNR Settlement Corporation’s long-term debt and the National Forest Service’s accumulated debt.

☞① According to the Reconstruction Funding Act, the mandatory government’s shareholding in JT has been reduced from “1/2 or more” of the total shares outstanding to “more than 1/3”. As a result, during the period from February to March 2013, the government sold a portion that could be sold (1/6 of the shares outstanding). (The amount of net proceeds from the sale is approximately 973.4 billion yen.)

☞② The government holds 53.4% of the total outstanding shares (as of the end of March 2019).

☞③ In November and December 2015, a total of about 880 million shares were sold (net proceeds at about 1,411 billion yen). In September 2017, about 1.06 billion shares were sold (net proceeds at about 1,398.5 billion yen). The government holds 56.9% of the total outstanding shares (as of the end of March 2019). The government is required to hold more than one-third of the total outstanding shares.

**② Others**

Among General Bonds, Special Bonds for Covering Public Pension Funding are set to be redeemed with a tax revenue increase through the implementation of the revised Consumption Tax Act from FY2014.

Among the other bonds, FILP Bonds are redeemed with the collection of Fiscal Loan receivable.

Ref: "FILP Report"

**C. GDCF Special Account**

The GDCF Special Account is an independent account created for the purpose of clarifying the status of the country's total debt management, centered on the government debt issued under the General Account. It is a special account for the payment of the principals and interests of JGBs, funded through fiscal transfers from the General Account and other special accounts.

A portion of funds transferred from the General Account and other Special Accounts to the GDCF Special Account at a fixed rate is accumulated as the GDCF, which will finance redemption of JGBs in accordance with redemption rules. In this context, this fund serves as a sinking fund.

**a. Basic roles**

To redeem in accordance with the 60-year redemption rule Construction Bonds and Special Deficit-Financing Bonds, which occupy most of all JGBs, this fund temporarily accumulates the future redemption resources for secure redemption purposes. In addition, by making sure steady redemption, the fund also plays a role in maintaining market confidence in JGBs.

**b. Secondary roles**

GDCF plays the secondary roles as follows.

**① Contributing to financing the National Treasury**

GDCF serves for smoothly financing the National Treasury by underwriting Financing Bills.

**② Compensating for deficit in the General Account**

GDCF will compensate for deficits in the General Account by transferring some funds to the Account Settlement Adjustment Fund. If GDCF hands over some funds to the Account Settlement Adjustment Fund, GDCF will get refunded at the same amount from the General Account in the later fiscal year to avoid a shortage of JGB redemption resources.

**D. Recent Measures for GDCF Special Account**

Recent measures for the GDCF Special Account are explained below:

**a. Reducing GDCF Balance**

The GDCF is annually accumulated in the GDCF Special Account under a certain framework to respond to lags of redemption and transfer such as fixed-rate transfer from the

General Account (1.6% of the total JGB outstanding at the beginning of the previous fiscal year).

The GDCF balance had been maintained at approximately 10 trillion yen using issuance amount of approximately one week (①) as a guide in order to prepare for operational risks and other emergencies (possibilities that Refunding Bonds cannot be issued due to reasons such as large-scale disasters or system failure) until FY2012.

The FY2013 JGB Issuance Plan stated that the government was allowed to use temporary borrowings from the BOJ for covering operational risks. As a result, the government in FY2013 reduced the GDCF balance to 3 trillion yen equivalent to the level prepared for accidental underbidding in JGB auctions (②), which cannot be covered by such borrowings, and used residual 7 trillion yen for redeeming JGBs to cut Refunding Bond issuance. The government plans to keep the GDCF balance at 3 trillion yen in FY2019.

① Maximum issuance amount of JGBs: 9.6 trillion yen per day, 9.9 trillion yen per week (both figures current as of September 2011).

② The largest ever amount offered in an auction was 2.9 trillion yen for 2-Year Bonds (FY2013).

Fig.2-20 Changes in outstanding amount of GDCF

FY2016 (Actual)	FY2017 (Actual)	FY2018 (Estimate)	FY2019 (Estimate)
3,006.2 billion yen	3,007.4 billion yen	3,002.2 billion yen	3,002.9 billion yen

**b. Revised Act on Special Accounts**

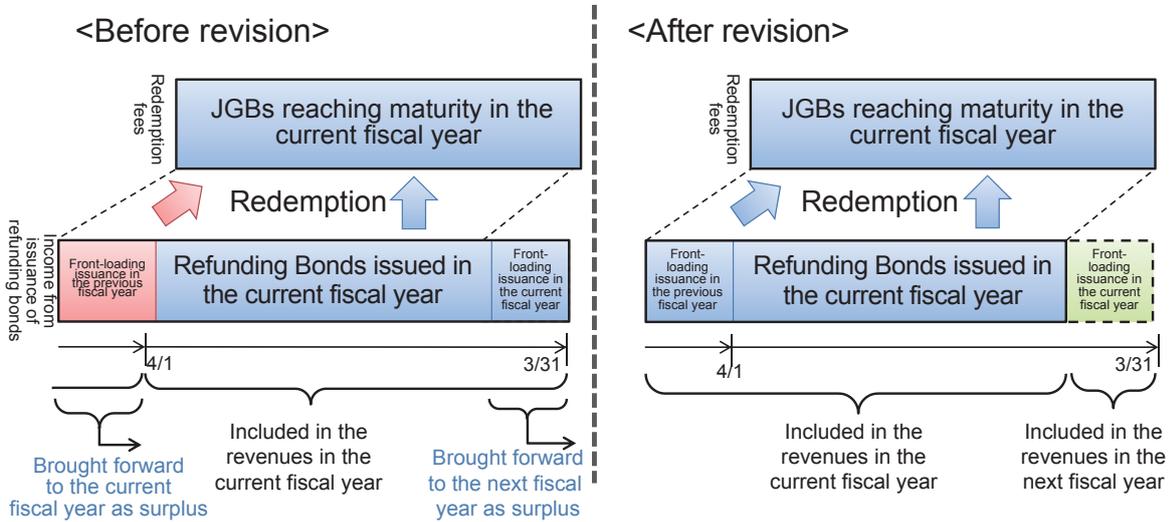
Based on a report on special account reform (as compiled by the Administrative Reform Promotion Council on June 5, 2013), the government submitted to the Diet a bill to revise part of the Act on Special Accounts on October 25, 2013, and won its passage through the legislature on November 15, 2013. The revision allows the government:

- ① To book revenues from the front-loading issuance of Refunding Bonds for the next fiscal year rather than for the issuance year instead of booking such revenues for the issuance year and carrying over them as a surplus to the next fiscal year, and
- ② To transfer relevant administrative costs to the General Account from FY2014 budget.

Ref: Chapter 1 (1) A (Reference) Front-loading issuance of Refunding Bonds (P39)

Fig.2-21 Changes in the GDCF Special Account through the revision of the Act on Special Accounts

1. Making incomes from front-loading issuance of Refunding Bonds become revenues in the next fiscal year



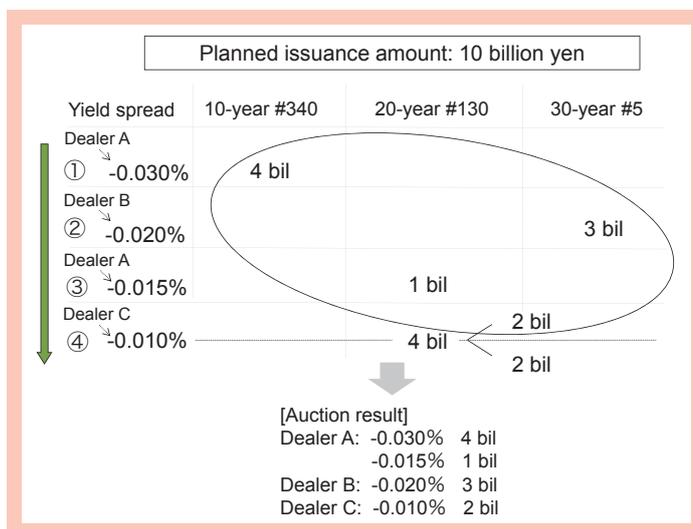
2. Transferring administrative expenses to the General Account

## (2) Liquidity Enhancement Auctions

Liquidity Enhancement Auctions are to issue JGBs for which liquidity is structurally lacking and for which liquidity is in a temporary shortfall due to rising demand. Liquidity Enhancement Auctions started in April 2006 for the purpose of supporting the maintenance and enhancement of liquidity with JGB markets and holding down the funding costs.

The yield-spread-competitive auction under the conventional method for JGB Market Special Participants is used for Liquidity Enhancement Auctions. In the auction, a bidder submits a bidding yield's spread with a standard yield (the average simple yield cited in the Reference Statistical Prices [Yields] for OTC Bond Transactions published by the Japan Securities Dealers Association on the auction day) and a bidding amount for the name and code of each target JGB issue. In principle, regardless of issues, the bidding amounts are allocated with priority placed on a smaller bidding yield spread. Applications whose bidding amounts are allocated before the issuance amount is reached are successful (Fig. 2-22).

**Fig.2-22 Image of Liquidity Enhancement Auctions**

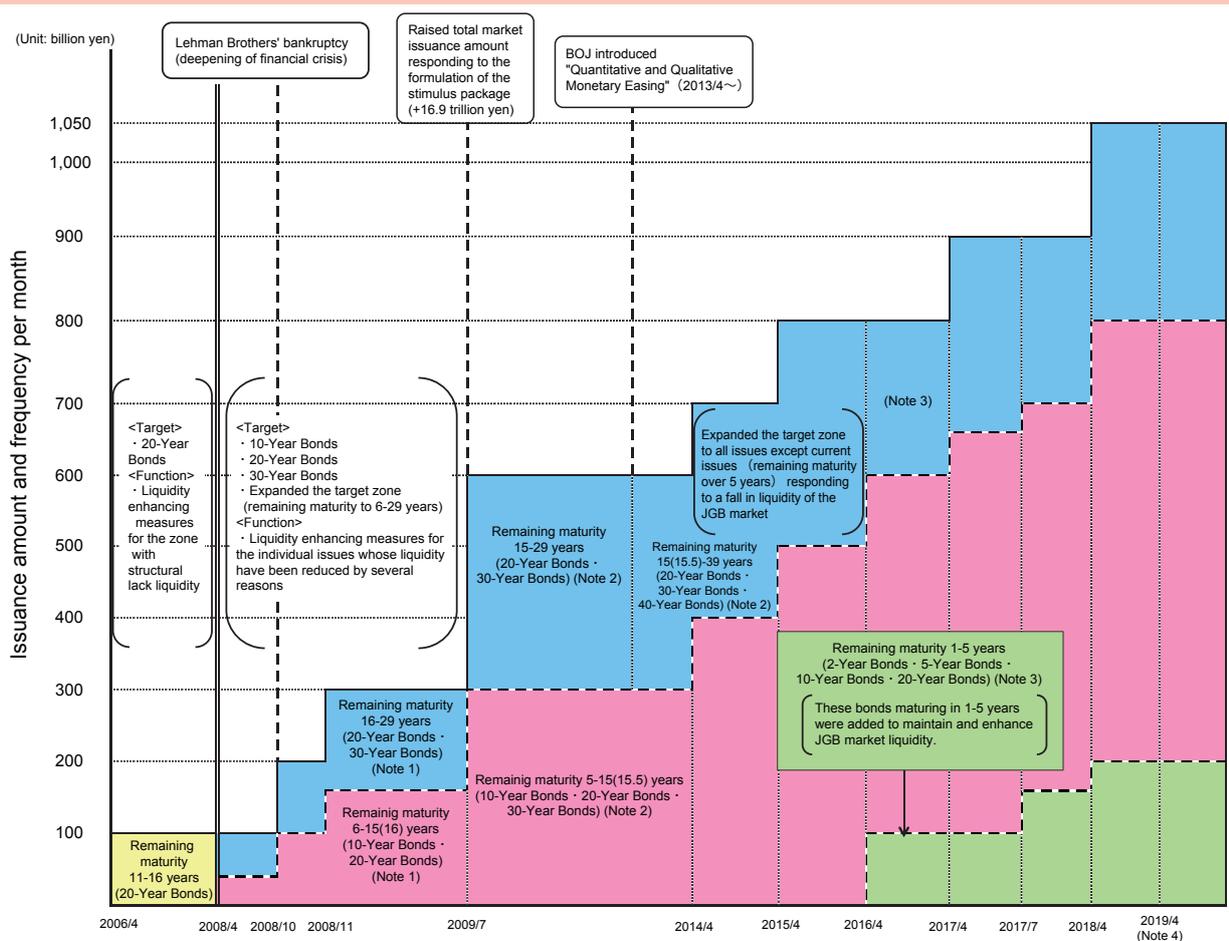


In the initial phase from the launch, the government conducted Liquidity Enhancement Auctions to issue 100 billion yen worth of bonds each month (once per month) only for small 20-Year Bond issues with 11-16 years remaining to maturity that structurally lacked liquidity. As computer systems were improved in April 2008, the coverage of Liquidity Enhancement Auctions was expanded to include 10-, 20- and 30-Year Bonds with 6-29 years remaining to maturity (5-29 years remaining to maturity from July 2009) to flexibly improve liquidity for issues whose liquidity declined due to various factors after their issuance. From the latter half of FY2008, the government increased the monthly frequency (from once to twice) and gradually expanded an auction size to meet a remarkable liquidity drop on the JGB market after the Lehman Shock and JGB issuance plan revisions accompanying budget formulation. From July 2013, 40-year issues were added to the coverage of Liquidity Enhancement Auctions. From April 2014, the coverage was expanded to all issues other than on-the-run issue. From April 2016, the coverage was further expanded to include 2-, 5-, 10- and 20-year issues maturing in 1-5 years, based on market participants' needs (Fig. 2-23). Since July 2017, new issues that have already been issued (🔒) as of the first day of an auction month and are not to be reopened in auctions other than Liquidity Enhancement Auctions have been included into the coverage.

🔒 The issuance includes reopening but excludes new OTC sales.

The FY2019 JGB Issuance Plan sets the amount for Liquidity Enhancement Auctions at the same level of 12.6 trillion yen as in the previous year. It also publishes planned zone-by-zone issuance amounts to improve transparency of the auctions. Specifically, the plan sets the issuance amount through Liquidity Enhancement Auctions at 2.4 trillion yen for 2-, 5-, 10- and 20-year issues maturing in 1-5 years, at 7.2 trillion yen for 10-, 20- and 30-year issues maturing in 5-15.5 years and at 3.0 trillion yen for 20-, 30- and 40-year issues maturing in 15.5-39 years. Actual zone-by-zone issuance amounts will be adjusted flexibly in response to the market environment and investment needs, based on discussions with market participants. For Liquidity Enhancement Auctions in the April-June 2019 quarter, the government decided to issue 600 billion yen in each month for 10-, 20- and 30-year issues with 5-15.5 years remaining to maturity, 500 billion yen each in April and June for 20-, 30- and 40-year issues with 15.5-39 years remaining to maturity, and 400 billion yen in May for 2-, 5-, 10- and 20-year issues with 1-5 years remaining to maturity, based on discussions at the Meeting of JGB Market Special Participants and the Meeting of JGB Investors.

Fig.2-23 Transition of Liquidity Enhancement Auctions



Note 1: In FY2008, durations to maturity had been divided into two groups – 6-15 years and 16-29 years. In the April-June 2009 quarter, durations to maturity had been differently classified into two groups – 6-16 years and 16-29 years.  
 Note 2: From the July-September 2009 quarter to the April-June 2013 quarter, durations to maturity had been differently divided into two groups: 5-15 years and 15-29 years. In the July-September 2013 quarter, durations to maturity had been differently classified into two groups: 5-15 years and 15-39 years. Since the October-December 2013 quarter, durations to maturity have been differently classified into two groups: 5-15.5 years and 15.5-39 years. Since the April-June 2014 quarter, 30-Year Bonds have been added to the coverage of the 5-15.5-year zone.  
 Note 3: Liquidity Enhancement Auctions for JGBs maturing in 1-5 years or 15.5-39 years (since FY2016) takes place every two months. In the figures are issuance amounts per month.  
 Note 4: Details of Liquidity Enhancement Auctions such as the allocation of issuance amount for each zone may be adjusted in a flexible manner in response to market environment and investor demands, based on discussion with market participants.

### (3) Buy-back Program

Buy-back is defined as a scheme for the government as the issuer of JGBs to retire debt by purchasing existing bonds at a price agreed upon with the respective holders willing to take part in the deals prior to maturity of the bonds (🔗).

For Buy-back, the price-spread-competitive auction under the conventional method for JGB Market Special Participants is used with the government clarifying a planned Buy-back amount in advance. In the auction, a bidder submits a bidding price's spread with a standard price (the average simple price cited in the Reference Statistical Prices [Yields] for OTC Bond Transactions published by the Japan Securities Dealers Association on the auction day) and a bidding amount for the name and code of each target JGB issue. In principle, the bidding amounts are allocated with priority placed on a smaller bidding price spread until the Buy-back amount is reached.

In the past, Buy-back program used to be implemented on very limited occasion: when JGBs are paid in kind to the government in accordance with the Inheritance Tax Act; or when JGBs deposited with the government pursuant to the Public Office Election Act are confiscated with the candidate's election loss. However, the June 2002 amendment to the Government Bond Securities Buy-back Act including the following relevant preparation entitled the issuing authorities to flexibly implement Buy-back program. Buy-back program has been conducted according to the respective objectives under Debt Management Policy as well since February 2003.

Specifically, Buy-backs for specific purposes in debt management namely to level off the concentration of JGB maturities in FY2008 and to compress the outstanding debt through transfers from the FILP Special Account were implemented. Furthermore, Buy-backs were implemented for 15-Year Floating-Rate Bonds and old Inflation-Indexed Bonds (issued in and before August 2008 without deflation floor) since the second half of FY2008 to correct the supply-demand balance to support liquidity when JGB market liquidity declined remarkably in the wake of the Lehman Shock.

When Inflation-Indexed Bonds (issued in and after October 2013 with deflation floor) were issued in October 2013, additional buying (additional Buy-backs) of old Inflation-Indexed Bonds up to an Inflation-Indexed Bond issue amount was implemented to meet demand for switching from outstanding issues to new ones. Such Buy-backs were carried out until January 2015.

In FY2015 and FY2016, Buy-backs of old Inflation-Indexed Bonds and of 15-Year Floating-Rate Bonds for which selling needs had declined were suspended based on discussions at the Meeting of JGB Market Special Participants and the Meeting of JGB Investors, respectively. However, Buy-backs started for Inflation-Indexed Bonds to improve the supply-demand balance and liquidity as market participants pointed out that a persistent supply-demand imbalance was seen and that liquidity premiums were expanding.

In FY2019, the government plans to continuously implement Buy-backs worth up to around 1 trillion yen and determine specific Buy-back methods based on opinions from market participants and market conditions. In the meantime, many market participants voice hopes to have Buy-backs continued for Inflation-Indexed Bonds. Considering that the development of the Inflation-Indexed Bond market is a key challenge for JGB Management Policy, the government has set the planned Buy-back amount at 40 billion yen for the April-June quarter of 2019.

🔗 Pre-maturity redemption, same as a scheme to retire debt, differs from Buy-back in that the government reserves an option to redeem existing bonds at the face value. The Ministry of Finance has stated on its website its vow not to implement the pre-maturity redemption of JGBs.

Fig.2-24 Mechanisms for Liquidity Enhancement Auctions and Buy-backs

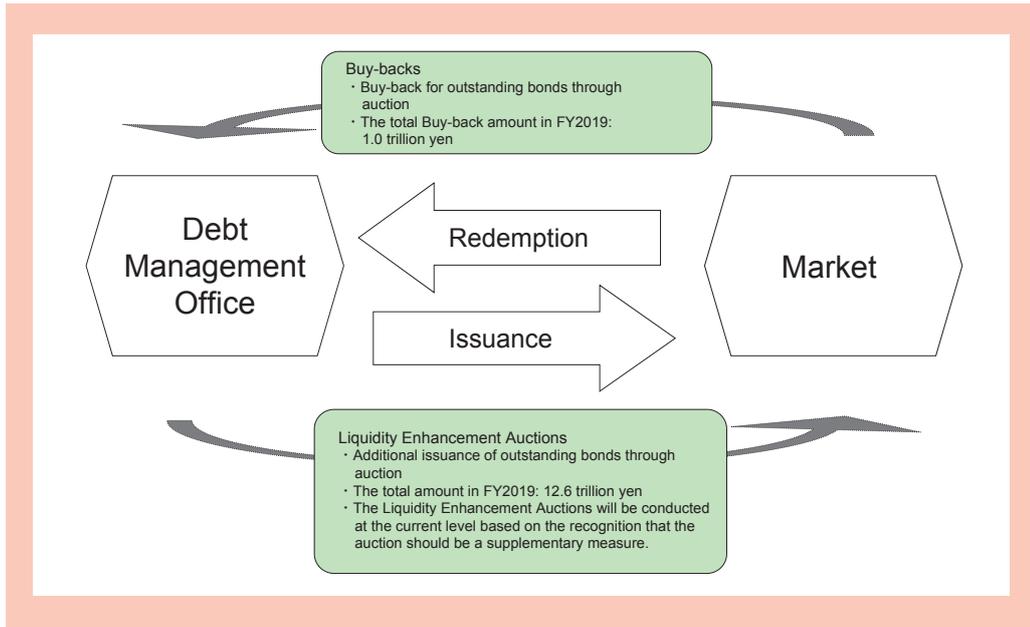
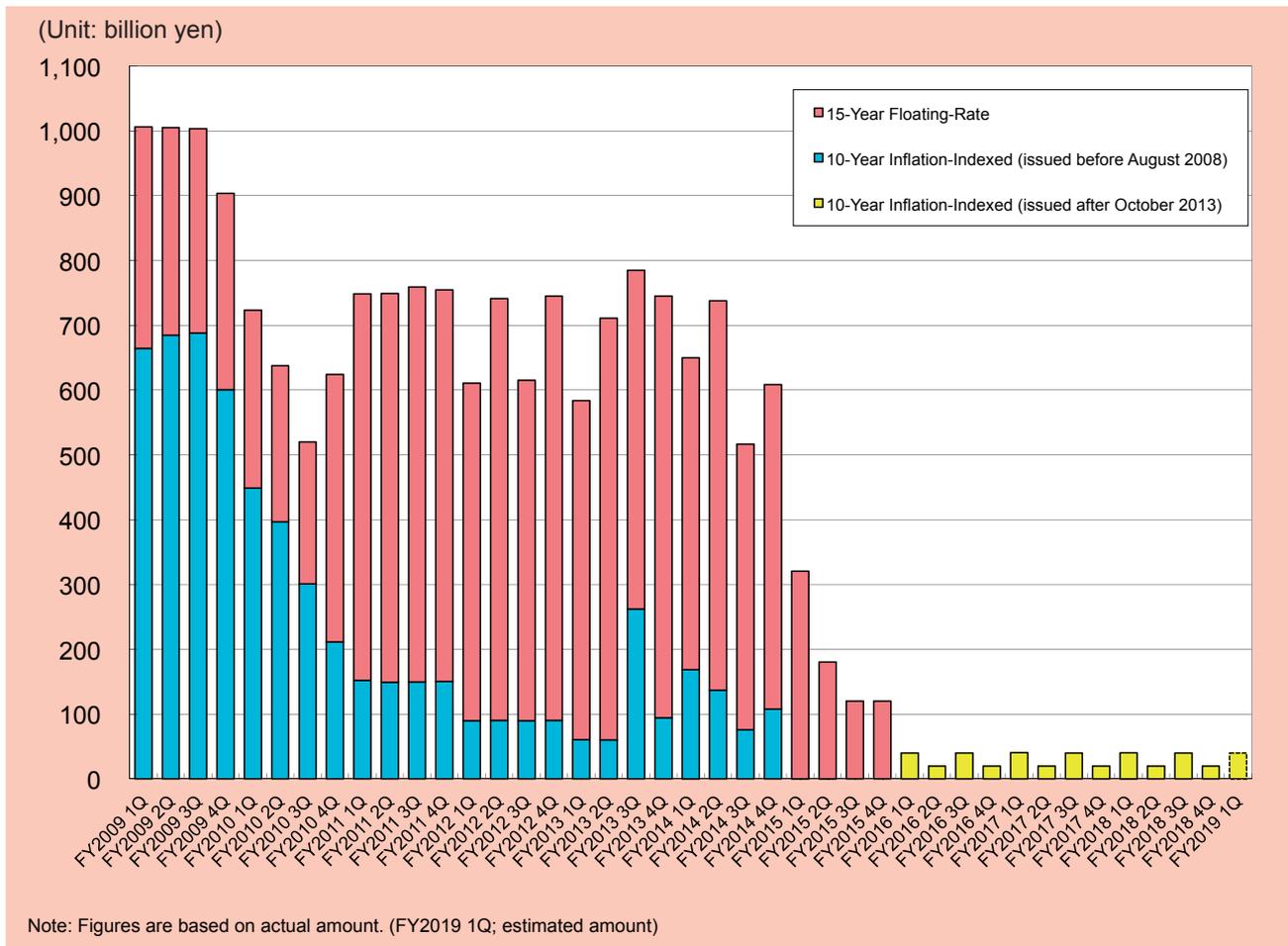


Fig.2-25 Transition of the Buy-back Program



#### (4) Interest Rate Swap Transaction

An interest rate swap transaction is a transaction in which different types of interest payments (e.g., floating-rate and fixed-rate) are exchanged for a specific period of time.

Interest rate swap transaction in connection with JGBs became possible under the Act for the Special Account for the GDCF, as amended in June 2002. In the “New Promotion of JGB Management Policy” (published in December 2003), it was stated that the government would utilize swap transactions (starting in FY2005) in order to control the duration of the outstanding JGBs, thereby managing interest rate risk.

In consideration of the above, the MOF have worked to upgrade the relevant systems, and entered into a master agreement with counterparties, most of which are JGB Market Special Participants, pursuant to the guidelines issued by ISDA (the International Swaps and Derivatives Association, Inc.). Since January 2006, swap transactions have been started. Transaction results are published on a semi-annual basis on the MOF website (in April and October).

No new transactions have been implemented since the second half of FY2009.

#### (5) Dialogue with Market Participants

In order to secure stable financing and to implement appropriate policies to enhance market liquidity of JGBs, the MOF Financial Bureau aims to promote the dialogue with market and boost confidence in Debt Management Policy through various forums including the following:

##### A. The Advisory Council on Government Debt Management

Since November 2004, the MOF has convened the Advisory Council on Government Debt Management to receive opinions and advice from private sector experts with a high degree of insight on public debt management with a focus on Debt Management Policy from a medium to long-term perspective.

The council compiled “Current Situation and Future Challenges of Debt Management Policy—Discussion Paper—” (December 16, 2009) and another report (June 18, 2014) and has widely discussed the fiscal situation, monetary policy and financial regulations involving government debt.

##### B. The Meeting of JGB Market Special Participants

Since the introduction of the JGB Market Special Participants scheme in October 2004, the MOF also has had the Meeting of JGB Market Special Participants to exchange opinions between members and the MOF concerning important topics relating to the bond market.

The MOF convenes the meeting every quarter to deal mainly with methods for implementing Liquidity Enhancement Auctions and Buy-backs and JGB market trends. In addition, the MOF calls the meeting to receive opinions from market participants for working out an annual JGB Issuance Plan toward the year-end.

##### C. The Meeting of JGB Investors

The MOF has hosted the Meeting of JGB Investors since April 2002, to directly and

continually share ideas with JGB investors. This meeting consists of major institutional investors such as banks and life insurance companies.

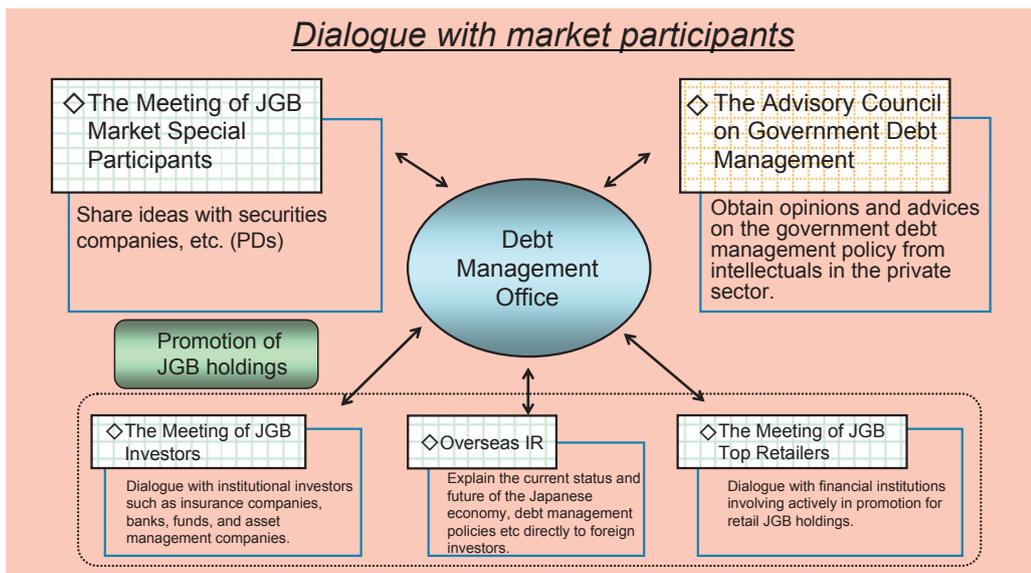
Usually, the MOF convenes the meeting to deal mainly with JGB market trends. In addition, the MOF calls the meeting to receive opinions from investors for working out an annual JGB Issuance Plan toward the year-end.

### D. The Meeting of JGB Top Retailers

From the perspective of promoting bond ownership by retail investors, in June 2007 the MOF began to hold meetings with top JGB retail brokers to express their appreciation of the performance achieved and efforts made by financial institutions that aggressively make offerings to and solicit subscriptions from retail investors. The meetings also allow for a mutual exchange of views and opinions between JGB selling agencies and the MOF on the further promotion of JGB sales to retail investors.

Since the first meeting in June 2007, the MOF has convened the meeting once or twice a year. It also publishes top sellers of JGBs for retail investors and the new OTC sales system by business category every six months.

**Fig.2-26 Dialogue with the Markets**



## Column 8 OECD Discussions on Liquidity Buffers

The OECD Working Party on Debt Management (WPDM) serves as a regular forum of government debt managers from the member countries of the Organization for Economic Cooperation and Development (OECD). Japan has been a member of the Steering Committee of the OECD WPDM. At a meeting in 2017, a survey of the OECD WPDM members about liquidity buffers was reported. The survey results were compiled as a working paper in 2018. This column introduces OECD discussions on liquidity buffers through the working paper.

### ① Working Paper on Liquidity Buffers

Debt management offices (DMOs) may face various funding risks due to factors such as a temporary loss of market access, an unexpected increase in borrowing needs, or a temporary mismatch in fiscal cash flow. When funding risks materialize, it can significantly complicate management of sovereign financing. As DMOs participate in the market as regular, predictable government debt issuers, however, they cannot easily change government debt issuance plans to meet temporary circumstantial changes.

Liquidity buffers are a means to address such funding risks. They are widely used among OECD countries as a tool to maintain and improve market confidence and enable flexible funding without damaging predictability. However, the benefits of a liquidity buffer come at a cost, depending on its size and investment policy. In practice, management of a liquidity buffer requires a number of strategic decisions on various aspects of the buffer including its target level, composition and transparency.

As some DMOs have made operational changes to existing liquidity buffer practices or introduced liquidity buffers, the OECD WPDM conducted a survey on purposes, levels and costs of liquidity buffers. The survey's results were shared among OECD DMOs at a meeting in 2017.

The working paper was prepared based on such background and the results of the survey, compiling an overview of liquidity buffers in OECD countries, their common features and cases for individual countries' DMOs. It is available at the OECD website.

### ② Analysis of Survey Results and Main Themes

The working paper analyzes survey results under several themes. The following introduces specifics under each main theme:

<Survey overview>

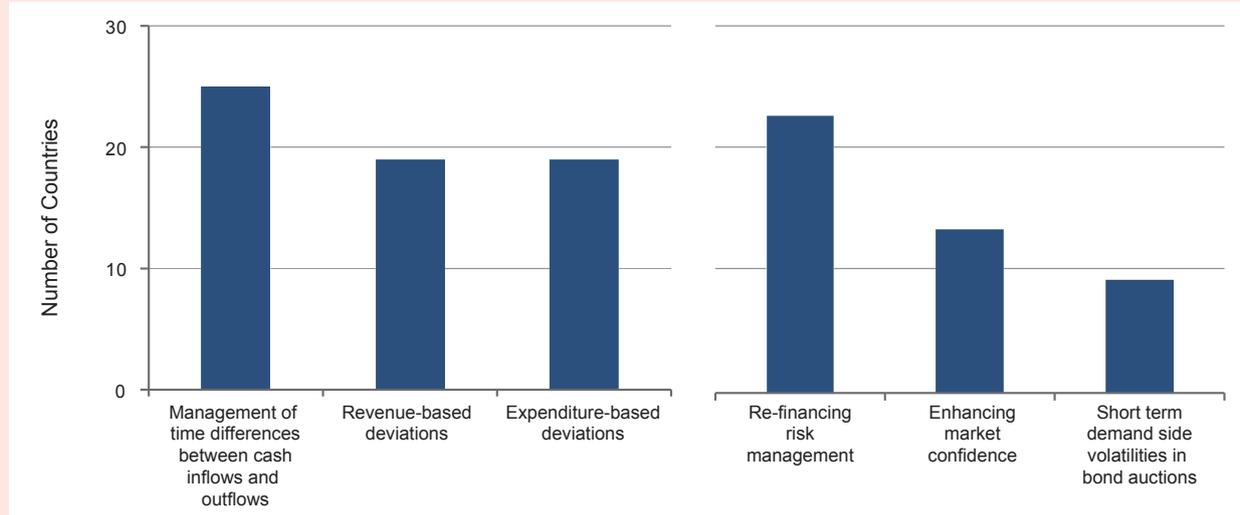
- The survey contains 31 questions regarding purposes, levels, costs, etc.
- The survey covers 35 countries participating in the OECD WPDM in 2017.
- All countries covered by the survey answered the survey questions.
- The survey found that 29 of the 35 countries maintain liquidity buffers.

#### (1) Liquidity Buffer Practice Purposes and Source of Accumulation

Maintaining a liquidity buffer that represents a certain level of liquid assets held by DMOs as a precaution for contingencies is a widespread practice among OECD countries. According to the survey results, 29 of the 35 countries covered by the survey maintain liquidity buffers mostly for cash and debt management. Frequently cited cash management motivations include the management of time differences between cash inflows and outflows, revenue-based deviations and expenditure-based deviations. Among frequently cited debt management motivations are refinancing risk management and market confidence enhancement.

A relevant comment says that being able to quickly access liquidity buffers provides stability to funding during stressed market conditions and a temporary loss of market access and avoids potential disruption to financing programs such as auction calendars, supporting predictability in public debt management.

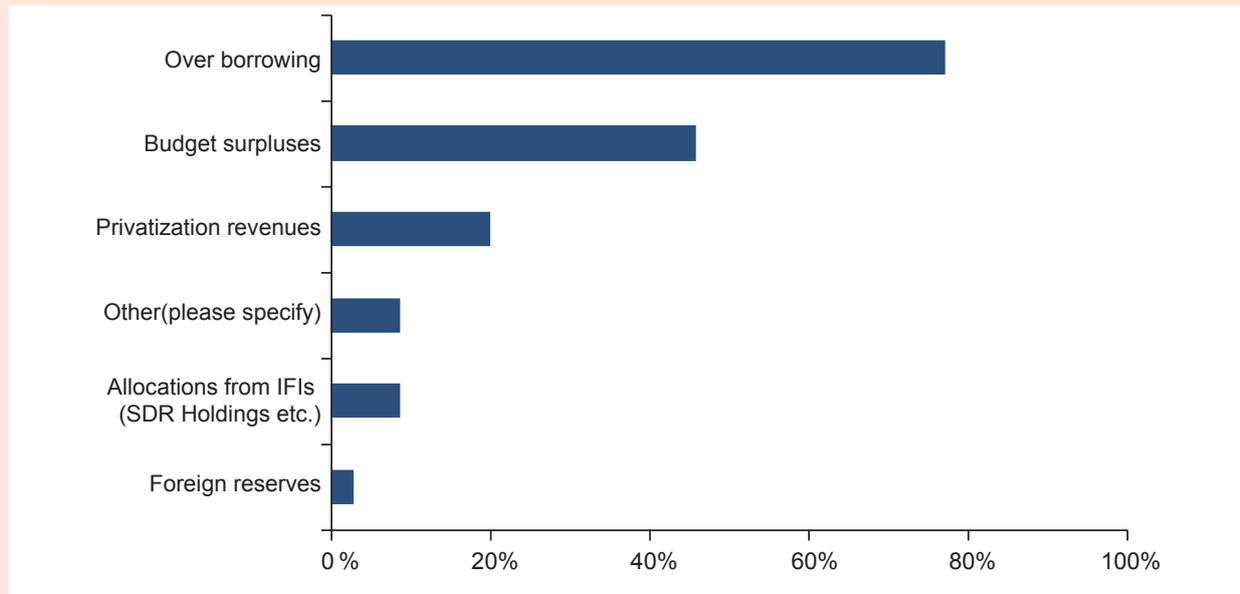
**Fig.c8-1 Cash management motivations (left) and debt management motivations (right)**



Note: Multiple responses were permitted.  
 (Source) OECD "The liquidity buffer practices of public debt managers in OECD countries"

More than 90 % of the countries holding liquidity buffers accumulate liquidity buffers through over borrowing. Half of them cite budget surpluses as a source for accumulating liquidity buffers.

**Fig.c8-2 Source for accumulating liquidity buffers**

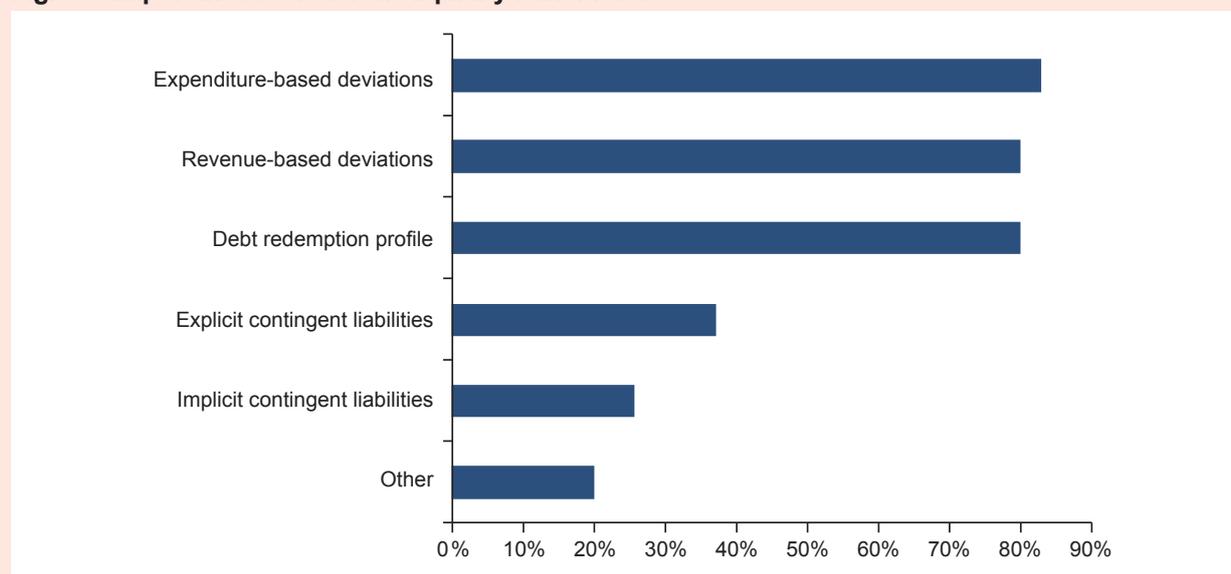


Note: Multiple responses were permitted.  
 (Source) OECD "The liquidity buffer practices of public debt managers in OECD countries"

## (2) Level and composition of liquidity buffer

Frequently cited important factors for determining the liquidity buffer level include expenditure-based deviations, revenue-based deviations and debt redemption profile.

**Fig.c8-3 Important factors for the liquidity buffer level**



Note: Multiple responses were permitted.

(Source) OECD "The liquidity buffer practices of public debt managers in OECD countries"

Most countries with a liquidity buffer define a benchmark for setting its level. Cited as a frequently used benchmark is "the number of months of financing needed to meet debt servicing costs." With respect to the amount of time that the liquidity buffer would support debt repayment needs or all budget expenditures, the survey responses show a large variation from one week to one year, depending on the economic size, financial structure, etc. The most common practice is to keep a buffer level sufficient to cover budget expenditures for one month.

Frequent answers to the question about "indicators to assess potential cash needs of a government and to determine a reasonable level for buffers" include "average volume of daily cash outflows for a certain past period," "deviations between the forecasted and actual flows" and "volatility of the cash flows." A survey finding is that countries use multiple such indicators to determine the liquidity buffer level.

Half of the countries with a liquidity buffer use only the local currency for liquidity buffers, while the most commonly used approach to determine the currency composition is asset liability management (ALM) models.

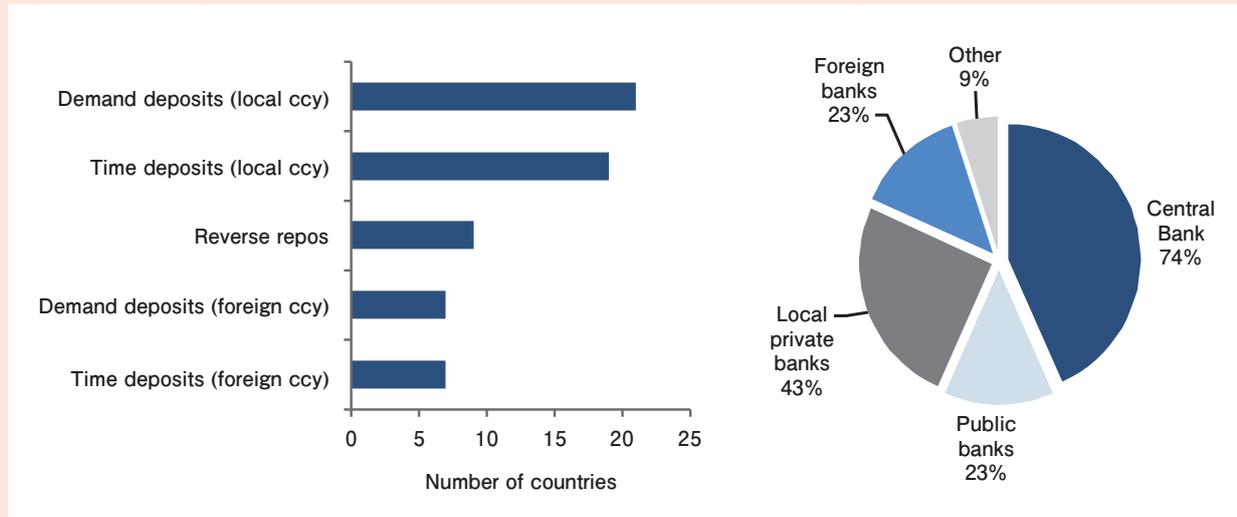
## (3) The cost of a liquidity buffer and its investment policy

Quantification of cost of a liquidity buffer, as well as its benefits, may not be a straightforward exercise. The survey shows that less than half of the countries with a liquidity buffer measure its cost. Cost measures include cost of issuance versus implied rate of return on the liquidity buffer.

The most commonly used investment products to offset cost of liquidity buffers are demand and time deposits in local currency. Only a quarter of the responding countries invest liquidity buffers in foreign currency assets. Although the interest earned on such liquidity holdings is usually less than the cost of the additional borrowing, it is pointed out that the gap should be viewed as an insurance fee. A number of respondents highlight the importance of adopting a broader perspective on cost assessments and taking into account benefits – which are often difficult to quantify. Nearly 80% of the countries with a liquidity buffer have some policies for such investment.

Investing the liquidity buffer involves credit risk management. Some 70% of the countries with a liquidity buffer mitigate credit risk by holding cash at the central bank. Half of the countries state that they impose restrictions on the amounts and period of their investments in financial institutions based on their credit ratings.

Fig.c8-4 Liquidity buffer investment products (left) and their holders (right)



Note: Multiple responses were permitted.  
 (Source) OECD "The liquidity buffer practices of public debt managers in OECD countries"

### 3 Individual DMO Cases

The working paper compiles cases of some individual DMOs in addition to an analysis of the survey results, providing in-depth specific information. Here are Danish and Portuguese DMO cases from among those subject to the survey.

Fig.c8-5 Liquidity buffers in Denmark and Portugal

	Denmark	Portugal
Purposes for keeping a liquidity buffer, etc.	<ul style="list-style-type: none"> <li>• Main purposes: (1) Expected time differences between cash inflows and outflows, (2) Forecast errors on cash inflows and outflows (size and timing), and (3) Sudden large unexpected expenditures (contingent liabilities)</li> <li>• Over borrowing is used for accumulating the liquidity buffer (for the purpose of stabilizing the annual government debt issuance amount)</li> <li>• At the time of the survey, a liquidity buffer was held in cash in local currency deposited at the central bank.</li> </ul>	<ul style="list-style-type: none"> <li>• The main purpose is to enhance market confidence.</li> <li>• Over borrowing is used for accumulating the liquidity buffer.</li> <li>• At the time of the survey, a liquidity buffer was held in cash in local currency deposited at the central bank.</li> </ul>
Size/level	<ul style="list-style-type: none"> <li>• The target range of the buffer is 75-100 billion kroner corresponding to 4–5% of GDP.</li> <li>• The target range has been published.</li> </ul>	<ul style="list-style-type: none"> <li>• The liquidity buffer reference amount is determined by the analysis of the debt redemption profile, and expectations of both revenue- and expenditure-based deviations.</li> <li>• The current indicative level is the amount that covers 40% of the gross borrowing needs of the following 12 months (excluding the rollover of T-bills).</li> <li>• This level has been published.</li> </ul>
Cost assessment	<ul style="list-style-type: none"> <li>• Denmark takes a medium-term perspective and uses the "term premium" as a measure of costs rather than short-term cost of carry.</li> <li>• Even if the term premium swells, swap transactions are used to reduce interest rate costs and risks.</li> </ul>	<ul style="list-style-type: none"> <li>• (1) the average cost of all financing transactions of the current fiscal year, (2) the overall average interest rate of the debt portfolio and (3) the average cost of the T-bill portfolio are used for assessing the cost of the liquidity buffer.</li> </ul>

Some 60% of the respondents affirm that they adapted their liquidity buffer practices in the latest five years, with 25% considering doing so in the future, although no specifics are provided. The working paper thus indicates that liquidity buffer practices are changing developmentally.