Compilation Method of Japan's Flow of Funds Accounts

Research and Statistics Department
Bank of Japan

Introduction

The Bank of Japan has been compiling the Flow of Funds Accounts Statistics (the FFA) since 1958, covering the data from 1954. The FFA is released quarterly: preliminary data is released about three months later, and final data about six months later. In principle, the FFA is revised retroactively once a year.

The FFA is a matrix showing financial transactions and corresponding stock data on financial claims and liabilities among various economic entities. It records movements of financial assets and liabilities among institutional units called sectors, such as financial institutions, corporations and households. Being extremely detailed and having wide coverage, the FFA is very useful, but on the other hand, it sometimes adopts unique principles and concepts, and has original definition of sectors and transactions items. In addition, data series exceed 9,000 series in total and as such, frequently depend upon estimation. It is also necessary to revise compilation methods to reflect changes in financial structure and to maintain accuracy. Therefore, in using the FFA, it is necessary to understand accurately its feature. With a view to fulfilling users' needs, the Research and Statistics Department publishes a booklet that offers detailed explanations on the estimation method for each sector and transaction item.

The booklet is comprised of the following chapters. The first chapter overviews the compilation method of the FFA and matters to be taken into consideration. Chapters two and three explain estimation method for sectors and transaction items respectively. Chapter three also gives further explanation on the accuracy of estimation and its relationship with other statistics for each released figure.

Throughout this booklet, explanations have been made to be read independently for each item so that the users could use the booklet as a dictionary when using the statistics.

The booklet focuses on the estimation method of each figure in the FFA, and therefore, explanation has not been made for overall concept and thinking behind the FFA, nor the definition of individual sector or item. For such purposes, please refer to "Guide to Japan's Flow of Funds Accounts."

Contact Address:
Financial Statistics Group,
Economic Statistics Division,
Research and Statistics Department
Bank of Japan (post.rsd5@boj.or.jp)

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Chapter 1. Outline of Compilation Method and Remarks

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The flow of funds accounts (FFA) is composed of a matrix system that contains 50 sectors and 57 transaction items including the number of breakdowns. There are various estimation methods to obtain figure for each cell. More often than not, different estimation method is used to obtain the same figure for preliminary release and a final report. Also, even after the release of the final report, some figures are periodically revised retroactively on an annual basis.

As such, compilation method of the FFA is diverse if seen in detail, but mainly, it could be classified into two approaches. Prior to explaining details on each sector and transaction item, this chapter provides features of the two approaches. Further, remarks for the overall matrix of the FFA which is calculated through combining various estimation methods, are outlined in view of the accuracy of estimates[1].

1. "Vertical approach" and "horizontal approach"

The FFA is compiled based on numerous statistics and data[2]. Its compilation method mainly follows two approaches: (1) identification of figure in each cell for each sector by using the financial statements by sector ("vertical approach"), and (2) identification of figure in each cell by allocating aggregate data to holding assets/liabilities of individual sectors ("horizontal approach"). In other words, the former estimates sectoral data, and the latter estimates data on transaction items.

"Vertical approach" whose figures are based on individual financial statements is generally considered to be more accurate than "horizontal approach." Therefore, in principle, estimations are based on "vertical approach," while "horizontal approach" is used to estimate figures for sectors whose financial statements cannot be obtained. In the actual process of identifying figures for the FFA, figures of sectors where "vertical approach" can be applied are first identified, followed by those for other sectors by fixing figures for each transaction item using "horizontal approach."

The sectors that are subject to "vertical approach" are financial institutions, public nonfinancial corporations, and social security funds. The sectors that are subject to "horizontal approach" are households, private nonprofit institutions serving households (NPISH), private nonfinancial corporations, central government, and local governments. Overseas sector employs mixture of two approaches that use the data on entire universe of credits and debts, and estimate each cell by allocating aggregate data.

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[1] Refer to Chapter 5 in *Guide to Japan's Flow of Funds Accounts* for overviews of the compilation methods.

[2] Should there be no available statistics and data, the Bank of Japan conducts an independent research for some of the data (such as financial statements of nonbanks, private non-life insurance companies, and standardized guarantee institutions, data on structured-financing special purpose companies and trusts, etc.).

2. Remarks for "vertical approach"

In the "vertical approach," estimation process is finalized by reclassifying various institutions' financial statements according to the FFA's transaction items. However, some figures are not directly available from the financial statements. Examples and remarks in these cases are listed as follows.

- Reconciliation between the instruments in financial statements and the transaction items in the FFA

When the instruments in financial statements and the transaction items in the FFA differ, it is required to aggregate or divide the data in financial statements, or to regard certain instruments in financial statements as certain transaction items in the FFA. For example, deposits that are held as assets by domestically licensed banks are estimated as deposits money in the financial statements, and outward direct investment and outward investments in securities that are held by private life insurance companies are estimated as breakdowns of foreign securities in the financial statements.

- Conversion from corporate accounting to social accounting

In conformance with the international standard of social accounting[3], *Gensaki* (sale and repurchase) transactions, are recorded in the FFA as lendings with bond collateral and not as securities trading. Therefore, when transfers of central government securities, treasury discount bills, and CP in *Gensaki* transaction are treated as trading in the source data[4], it is necessary to restore the situation before the transfer by estimating respective transferred amount and reorganizing the obtained data.

Since the outstanding of bonds and securities are required to be posted at a market price, the book values in the financial statements are converted to a market value basis through estimation. Conversion methods applied in the FFA are obliged to be fairly simple due to source data limitation — bonds are converted by multiplying the weighted average of market price, while shares are converted by allocating the outstanding on a market price to each sector in accordance with the outstanding on a book value. The market prices of individual bonds or shares are not considered in the FFA.

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[3] The FFA follows two international standard of social accounting: the System of National Accounts 2008 (the 2008 SNA), the Monetary and Financial Statistics Manual 2000, and Monetary and Financial Statistics Compilation Guide (the IMF Manual).

[4] According to the change in corporate accounting standards, a *gensaki* transaction has been recorded in financial statements as a fund transaction (lending of funds with bond collateral) and not as a bond transaction, since FY 2000 (formally since FY 2001 due to interim period), and thus came in line with the treatment of the FFA. However, when using the summary sheet of registered government bonds and clearing government bonds of each business and the research on registered government bonds by holder as source data, it is necessary to restore the situation before the transfer by estimating the respective transferred amount and reorganizing the obtained data. This is because these source data are recorded under the assumption that the ownership of bond transfers to buyers occurs under the *gensak*i transaction.

- Estimation of the aggregate data by using limited number of financial statements

The figures for financial institutions are basically compiled by collecting data from financial statements of all covered institutions. As for finance companies, financial statements of some of finance companies are used to estimate the figures for the sector. In addition, for corporate pensions under defined benefit schemes, financial statements mainly of listed companies are used to estimate the figures for pension entitlements of all companies including those which are unlisted.

- Estimation of quarterly data associated with the frequency and the timing in obtaining financial statements

There are many cases where the financial statements on a quarterly basis are not available (only financial statements at the end of accounting period are available), or where the timing in obtaining source data is delayed and thus, some form of estimation becomes necessary. The sectors, of which the figures are influenced relatively significantly in these cases, are 1) insurance, pension and standardized guarantees that are only calculated once a year, and 2) allowances for uncollectibles (this is used in converting loans of private financial institutions to a real value basis) which are compiled once in a half year. Respective quarterly figures for the above are estimated by using the trend in the past. The figures are revised retroactively in the following annual revision, after obtaining the data on outstanding[5].

3. Remarks for "horizontal approach"

There are various measures in "horizontal approach." Examples and remarks of major estimation measures are listed as follows.

- Data estimation for each entity by using the statistics on financial institutions by counterparty.

Deposits and loans are typical examples of using the statistics on counterparties of financial institutions. Since accurate and detailed data can be obtained from banks and Shinkin banks, and these data cover much of the "deposits and loans," the overall accuracy of estimates is high. It should be noted, however, that certain estimations are employed in cases where there is no data to distinguish, for example, "loans to corporations" from "Loans to sole proprietorships (loans to households in the FFA)" in "loans to businesses," which are estimated by allocating the figures at the estimated ratio.

- Data estimation of holding amounts for each entity by using flow data on sales

Methods to estimate holding amount of financial instruments by each entity utilizing flow data on sales of financial instruments are used for certificates of deposits and investment

[5] In principle, data are revised retroactively once a year.

trust beneficiary certificates (in part). Since flow data on these items at new issues by entity are available, approximate holding amount could be obtained. The changes in holding amount by sector caused by reselling or redemptions are not reflected in the FFA.

- Data estimation of holding amounts for each entity by using the data on financial instruments for specific entities

The total amount outstanding for some bonds designed as instruments for individuals can be specified as the holding amount of households. Such bonds include government bonds for individuals, corporate bonds for individuals, and Residential Local Government Bonds.

- Data estimation of holding amounts for each entity by using market statistics

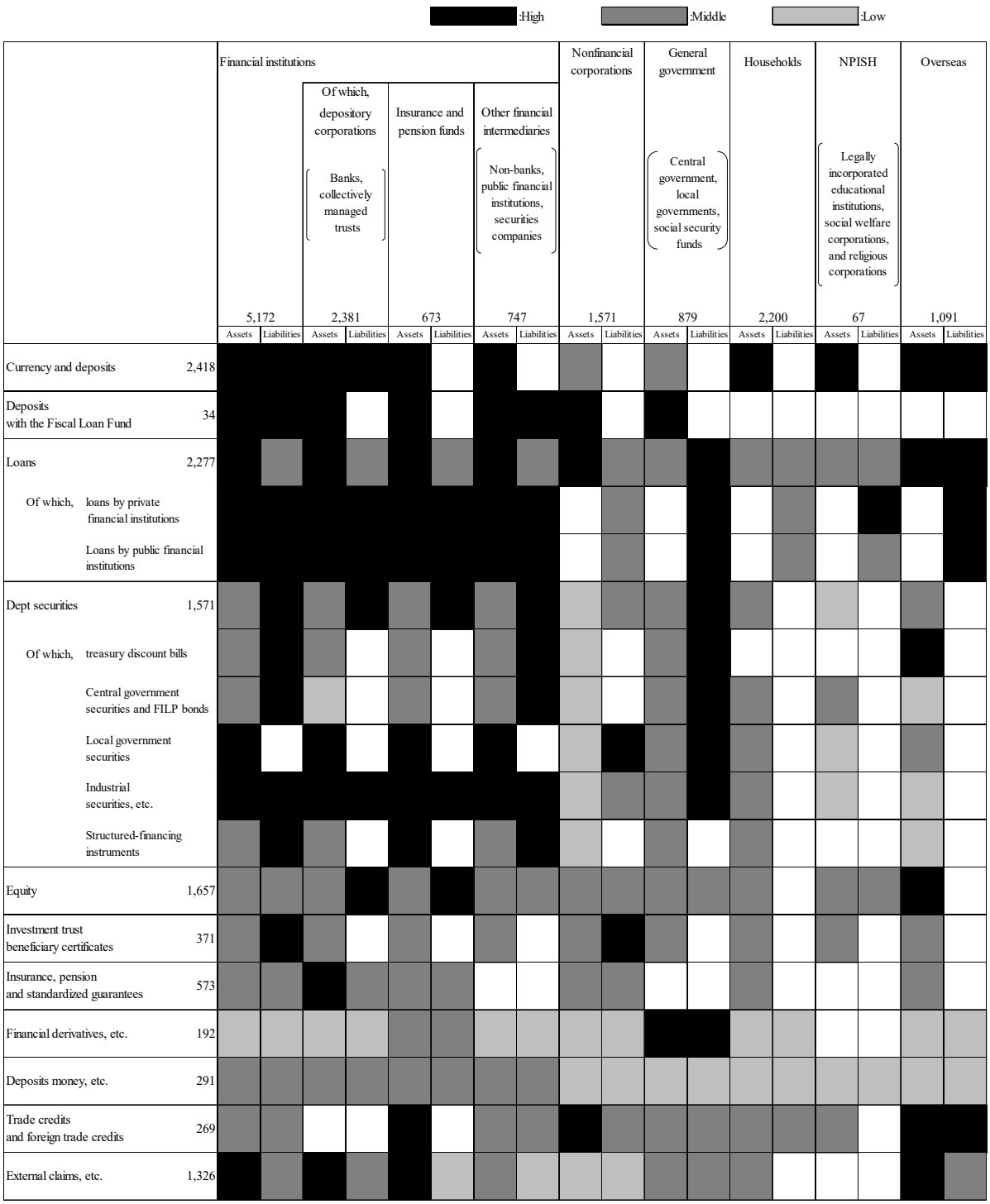
The figures for listed shares and financial derivatives are based on each market statistics. Since the degree of detail in each market statistics differs, estimations are to play a bigger role. Especially for financial derivatives, whose definitions of sectors differ from those of the FFA, and quarterly figures do no exist, estimates are calculated by employing numerous assumptions.

4. Accuracy of the estimates of the FFA

As explained above, the FFA employs various estimation methods, and thus, it is important to note the accuracy of each figure in the matrix differs. For reference, a rough sketch of the differing accuracies is illustrated on the following page. On the whole, quite accurate statistics are maintained especially of the vital factors such as deposits and loans in financial institutions. From the viewpoint of estimation method, "vertical approach" provides higher accuracy than "horizontal approach." [6]

[6] Viewing from the figures of end-March 2025, approximately 50% of total assets/liabilities in the FFA provide "high" accuracy, while approximately 5% of those provide "low" accuracy.

Accuracy of the Estimates in Assets & liabilities Table



Notes:

1. "High" indicates that the figures are compiled directly by using the original source data. "Middle" indicates that the figures are estimated by using original source data where the information on estimations is generally available. "Low" indicates that the figures are estimated where the information on estimations is not available, or where the figures are estimated residually by deducting other transaction items from the total. (Empty cells indicate that there is no figure compiled as of the end of March 2025). It is assumed that there is no timing problem in obtaining source data (in compiling final figures).

2. "Industrial securities, etc." indicates the total of "industrial securities," "bank debentures," "public corporation securities," "external securities issued by residents," and "CP." "Financial derivatives, etc." indicates "financial derivatives and employee stock options." "Deposits money, etc." indicates the total of "deposits money," "accounts receivable/payable," and "others." "external claims, etc." indicates the total of "outward direct investment," "outward investments in securities," and "other external claims and debts."
3. Each figure denotes the balance of financial assets as of the end of March 2025 (in trillion yen). The total of sectors and transaction items do not equal because of rounding off.

Chapter 2. Estimation Methods of Sectors

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1. Financial institutions

"Financial institutions" equals the sum of "central bank," "depository corporations," "securities investment trusts," "insurance and pension funds," "other financial intermediaries," "financial auxiliaries," and "public captive financial institutions."

Financial holding companies (holding companies with headquarter functions involved in management of subsidiaries whose major business is finance) are classified as "financial holding companies" which is a sub-sector of Financial auxiliaries.

1-1. Central bank

"Central bank" is mainly compiled by using the financial statement of the Bank of Japan.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Foreign currency deposits, Bank of Japan loans, call loans and bills, repurchase agreements and securities lending transactions, treasury discount bills, central government securities and FILP bonds[1], industrial securities, CP, structured - financing instruments, equity, investment trust beneficiary certificates, deposits money, accounts receivable, outward investments in securities, other external claims and debts	Deposits with the Bank of Japan, government deposits, call loans and bills, repurchase agreements and securities lending transactions, equity, deposits money, accounts payable, other external claims and debts, others
The data used in compiling each transaction item	Others	Currency

Note:

"Central government securities and FILP bonds," "industrial securities," "listed shares," "investment trust beneficiary certificates," "outward investments in securities," and "other external claims and debts" are evaluated at a market price.

Details on major transaction items in this category:

- Currency (liabilities side)

The category is the sum of banknotes in circulation from the financial statements, and coins in circulation from *Currency in Circulation*. Even though the issuer of coins is the central

[1] FILP bonds issued by the Fiscal Loan Fund Special Accounts after fiscal 2001 are included in "central government securities and FILP bonds." Here, "central government securities and FILP bonds" and "central government securities" are used interchangeably.

government, the entire amount outstanding of coins is compiled on the liability side of the central bank, considering coins and currencies are exchangeable. As a result, the central bank is recognized as having a claim equal to the amount outstanding of coins in circulation against the central government; the central bank counts this as "others" on the asset side.

- Central government securities and FILP bonds (assets side)

The figures calculated by deducting the treasury discount bills (face value) from the "market value information on central government securities held" of the financial results of the fiscal year are recorded. Since the "market value information on central government securities held" includes valuation gains/losses in both the short and long term, valuation gains/losses of treasury discount bills (recorded at face value) are included in the market value of central government securities and FILP bonds.

1-2. Depository corporations

"Depository corporations" equals the sum of "banks," "postal savings," and "collectively managed trusts."

1-2-1. Banks

"Banks" equals the sum of "domestically licensed banks," "foreign banks in Japan," "financial institutions for agriculture, forestry, and fisheries," and "financial institutions for small business."

1-2-1-1. Domestically licensed banks

"Domestically licensed banks" is mainly compiled by using the financial statements associated with domestic branch account of this sector. The transaction item that cannot be compiled by this line is alternatively compiled by using the data in *Loans and Discounts by the Bank of Japan*, the statistics on loans (*Loans and Bills Discounted by Sector*), the data on stock markets (statistics compiled by Tokyo Stock Exchange), and the data on bank debentures issued by financial institutions.

Financial holding companies, whose major subsidiaries are domestically licensed banks, are not included in this sector.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Currency, deposits with the Bank of Japan, call loans and bills, repurchase agreements and securities lending transactions, local government securities, public corporation securities, bank debentures, industrial securities, CP, structured-financing instruments, investment trust beneficiary certificates, deposits money, accounts receivable, others	Time and savings deposits, certificates of deposits, foreign currency deposits, call loans and bills, bank debentures, CP, deposits money, accounts payable, others
The data used in compiling each transaction item		Transferable deposits, Bank of Japan loans, equity, industrial securities, external securities issued by residents
Of those, estimated		
Financial statements etc. :Of which, proportional allocation is employed	[Transferable deposits, time and savings deposits, foreign currency deposits]	
Proportional allocation is employed to each sector	External securities issued by residents	
Financial statements etc.	[Certificate of deposits - CP] [Trust beneficiary rights - (other equity + investment trust beneficiary certificates)]	[Loans by private financial institutions - (Bank of Japan loans + loans by the nonfinancial sector)]
The data used in compiling each transaction item	Loans by private financial institutions, treasury discount bills, central government securities and FILP bonds, equity, financial derivatives and employee stock options, outward direct investment, outward investments in securities, other external claims and debts	Loans by the nonfinancial sector, installment credit, repurchase agreements and securities lending transactions, financial derivatives and employee stock options, claims of pension funds on pension managers, other external claims and debts

Notes:

For the items in square brackets, the total is available from financial statements.
"Loans by private financial institutions," "central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "external securities issued by residents," "equity," "investment trust beneficiary certificates," and "outward investments in securities" are evaluated at a market price (real value basis).

Details on major transaction items in this category:

- Transferable deposits, time and savings deposits, and foreign currency deposits (assets side)

The sum of these items is based on the financial statement of this sector. The amount is allocated proportionally to each instrument by using the composition ratio of deposits estimated from the statistics on deposits (*Amounts Outstanding of Deposits by Depositor* and *Deposits, Vault Cash, and Loans and Bills Discounted*).

- Certificates of deposits, and CP (assets side)

  CP is calculated by deducting the estimated amount of ABCP from the figures of commercial paper (including ABCP) held in *Deposits, Vault Cash, and Loans and Bills Discounted*.[2] "Certificates of deposits" is the residuals calculated by deducting CP (including ABCP) from the sum amount of "certificates of deposits" "commercial papers" from "monetary claims bought," and "short-term corporate bonds" in general (banking) accounts, and "other trading assets" in special accounts.

- Loans by private financial institutions (assets side)

  This category proportionally allocates the discrepancies between (1) the amount of loans by "banks" provided in the *International Investment Position of Japan* and (2) the sum of loans to nonresidents by each department of banks in accordance with the amount outstanding, and then adds these figures to the sum of loans provided in financial statements and inter-office accounts with overseas branches (recognized as loans to nonresidents). For housing loans and consumer credits, figures are based on the *Loans and Bills Discounted by Sector* where loans to companies and governments (on a real value basis) are calculated by the residual, which is the remaining after deducting housing loans and consumer credits from the total, less the allowances for individual uncollectibles. Decrease in the book value of the loans, which is caused by direct write-offs (including draw-downs on the allowances), is not recorded in the transaction flow. The difference between the term-on-term difference of amount outstanding and the transaction flow (this is relevant to the amount of direct write-off and write-downs) is posted in the Reconciliation Table.

- Repurchase agreements and securities lending transactions (assets/liabilities side)

  This category records the sum of the amount outstanding of repurchase agreements and securities lending transactions. Source data are financial statements. The residual in "securities lending transactions"—obtained from the difference between assets and liabilities of the category for all sectors—is recorded on the liability side of the domestically licensed banks sector.

- Treasury discount bills (assets side)

  This category records the residual calculated by deducing treasury discount bills held by other sectors from total issuance.

- Central government securities and FILP bonds (assets side)

  This category records the residual calculated by deducing central government securities and FILP bonds held by other sectors from total issuance.

- External securities issued by residents (assets side)

  The amount of external securities issued by residents that are held by "banks" (domestically licensed banks, financial institutions for agriculture, forestry, and fisheries, and financial institutions for small businesses) is identified based on data related to the *International Investment Position of Japan*. Subsequently, the amount held by "domestically licensed

[2] In this statistics, CP refers to 1)commercial paper in "monetary claims bought," 2)short-term corporate bonds, and 3)the commercial paper and short-term bonds in "other trading assets" in special accounts of the financial statements.

banks" is allocated proportionally by using the composition ratio of foreign securities held by domestically licensed banks among banks, based on financial statements.

- Trust beneficiary rights (assets side)

The sum of this item is based on "other securities" recorded in the financial statement minus equities invested in privately placed real estate funds[3] (excluding private REITs) and investment trust beneficiary certificates, plus pecuniary trusts.

- Equity (assets side)

This item is the sum of "listed shares," and "other equity." The amount of listed shares held by the domestically licensed banks sector is calculated as a residual by subtracting the holding amount of other sectors from the total outstanding amount. The holding amount of equities invested in privately placed real estate funds (excluding private REITs) is estimated based on market surveys on privately placed real estate funds and recorded as other equity.

- Investment trust beneficiary certificates (assets side)

For the amount outstanding at half-year end (end of March and September), the amount outstanding (at market prices) in financial statements is recorded. For the amount outstanding at the end of other quarters, the amount outstanding at market prices is recorded by compiling, on amounts outstanding at half-year end, flows (the term-on-term difference in book value) calculated from investment trusts among "other securities" recorded in the financial statement and price changes in ETFs, REITs and privately-placed investment trusts. Furthermore, it is calculated by adding part of the residual for which the holding sector is unidentifiable, which is obtained by subtracting the holding amounts of each sector from the total issue amount of investment trust beneficiary certificates.

- Financial derivatives and employee stock options (assets/liabilities side)

The amount outstanding of OTC-traded derivatives is estimated by using the *Results of the Regular Derivatives Market Statistics in Japan*, benchmarking on the figures that are taken from the *Central Bank Survey of Foreign Exchange and Derivatives Market Activity* (conducted once in three years). Since the *Results of the Regular Derivatives Market Statistics in Japan* is available only once in a half year (end of June and December), the amounts of other quarters are estimated by using the financial statement of this sector and the Exchange market data (*the Open Interest in Key Statistics for Government Bond Futures Options*) to calculate the growth of amount outstanding in each quarter.

The amount outstanding of Exchange-traded derivatives is based on the financial information of major banks. Since this information is available once in a half year (end of March and September), the amounts of other quarters are estimated by using the growth of amount outstanding of open interest.

[3] *The Survey on Private Real Estate Funds in Japan* released by the Association for Real Estate Securitization (ARES) and Sumitomo Mitsui Trust Research Institute Co., Ltd., *the Survey of ARES Members on Real Estate Private Funds* released by ARES (the data was no longer disseminated at the end of December 2018), *Changes in Assets of Privately Placed Real Estate Investment Trusts* released by the Investment Trusts Association, and *The Private REITs Quarterly* released by ARES are mainly used for estimation.

- Outward direct investment (assets side)

  The calendar year-end amount is estimated by multiplying the total amount of outward direct investments (total of equity capital and reinvestment of profit), which is estimated from the *International Investment Position of Japan*, with the composition ratio for domestically licensed banks based on data sources for the composition ratio of each investing business. As the composition ratio of each business for outward direct investment is the data at the end of the calendar year, preliminary data for the quarterly term amount outstanding is calculated by individually compiling major investment projects of domestically licensed banks. Furthermore, it is finalized by proportionally allocating part of the discrepancies between the amounts of outward direct investment and preliminary figures at the end of the calendar year to each quarter of domestically licensed banks.

- Outward investments in securities (assets side)

  This category records the sum of (1) the amount found by subtracting "external securities issued by residents" and "outward direct investment" from the amount of foreign securities in the financial statements and (2) some discrepancies of outward investments in securities calculated from two different data sources, namely "portfolio investment" in the *International Investment Position of Japan* and foreign securities in the financial statements.

- Other external claims and debts (assets/liabilities side)

  The figures on the asset side are calculated from the estimate of "other external claims and debts" of the overseas sector (liabilities side) which is multiplied by the composition ratio of domestically licensed banks. The composition ratio of domestically licensed banks is calculated by subtracting accounts receivable to overseas and the holding amount of depository corporations other than domestically licensed banks based on the financial statements from the amounts outstanding of the other accounts[4] of the deposit-taking corporations, except the central bank sector recorded in the *Balance of Payments Statistics* or the *International Investment Position of Japan.*

  On the liability side, the figure is calculated by subtracting accounts payable to overseas and the holding amount of depository corporations other than domestically licensed banks based on the financial statements from the amounts outstanding of the other accounts of the deposit-taking corporations, except the central bank sector recorded in the *Balance of Payments Statistics* or the *International Investment Position of Japan*.

- Transferable deposits and deposits money (liabilities side)

  "Transferable deposits" refers to transferable deposits recorded in the financial statement of this sector minus deposits money with the agencies of the Bank of Japan recorded in the financial statement of the Bank of Japan (assuming the recipients of such deposits are solely domestically licensed banks). "Deposits money" refers to the deposits money with the agencies of the Bank of Japan mentioned above and deposits money other than "currency and deposits".

- Loans by private financial institutions (liabilities side)

  This category is estimated residually that is calculated by the total amount recorded in the

[4] "Miscellaneous investments" does not include foreign exchange reserves.

financial statement (loans by private financial institutions, Bank of Japan loans, and loans by the nonfinancial sector) less "Bank of Japan loans" (based on the *Loans and Discounts by the Bank of Japan*) and "loans by the nonfinancial sector"[5].

- Loans by the nonfinancial sector (liabilities side)

This category proportionally allocates the discrepancies between (1) the amount of borrowings by "banks" provided in the *International Investment Position of Japan* and (2) the sum of overseas borrowings by each department of banks in accordance with the amount outstanding, and then adds these figures to the sum of borrowings from private nonfinancial corporations, social security funds, and overseas. Borrowings from private nonfinancial corporations and social security funds are the loans from trust accounts to banking accounts that are consolidated into both sectors. Of these, the part of the loans entrusted from social security funds to the trust accounts of domestically licensed banks are based on financial statements. Also, borrowings from overseas sector is calculated by deducting loans to financial institutions for agriculture, forestry, and fisheries from loans to branches domiciled in Japan which is transcribed from reports on assets and liabilities positions submitted by some banks to the Bank of Japan.

- Installment credit (liabilities side)

"Installment credit" is estimated by multiplying the holding amount of installment credits of nonbanks by the composition ratio of credits to domestically licensed banks in major finance companies.

- Industrial securities (liabilities side)

This category is calculated by taking the sum of amounts of convertible bonds in the financial statements and straight bonds on the breakdown data released by the Japan Securities Depository Center.

- Equity (liabilities side)

The total amount outstanding of listed shares is evaluated at a market price based on individual company data on number of shares and stock price. Each company other than financial holding companies is in the sector of "banks" listed on the Stock Exchange market. Transaction flow is calculated by taking the sum of amounts of equity raised by issuing new stocks, and exercised amounts of bonds with rights to reserve new stock from the data on fund raised in the stock market.

Unlisted shares issued by subsidiaries of financial holding companies are evaluated on market value by using the market price of the shares issued by the parent holding company, as its market price are regarded to be equal to those of the parent holding company.

- Others (assets/liabilities side)

When the financial surplus or deficit (the difference between the amount of fund raising and financial investment; transaction flow) estimated in the FFA does not equal the figure calculated directly from data sources such as financial statements, the difference is added to

[5] "The total of borrowings by private financial institutions, Bank of Japan loans, and loans by the nonfinancial sector" is the sum of the borrowed money, the inter-office account with overseas branch, the debit of trust accounts in trust banks.

"others" for adjustment.

1-2-1-2. Foreign banks in Japan

"Foreign banks in Japan" is mainly compiled by using the financial statement associated with the branch account of foreign banks. The transaction items that cannot be compiled by this line are alternatively compiled by using *Loans and Discounts by the Bank of Japan*.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Currency, deposits with the Bank of Japan, foreign currency deposits, call loans and bills, repurchase agreements and securities lending transactions, local government securities, public corporation securities, bank debentures, industrial securities, CP, structured-financing instruments, equity, deposits money, accounts receivable, other external claims and debts, others	Transferable deposits, time and savings deposits, certificates of deposits, foreign currency deposits, call loans and bills, repurchase agreements and securities lending transactions, deposits money, accounts payable, other external claims and debts, others
The data used in compiling each transaction item		Bank of Japan loans, industrial securities, CP
Of those, estimated		
Financial statements etc. :Of which, proportional allocation is employed	[Transferable deposits, time and savings deposits] [Trust beneficiary rights, investment trust beneficiary certificates]	
Financial statements etc.	[Certificates of deposits - CP] [Central government securities and FILP bonds - treasury discount bills]	[Loans by private financial institutions - (Bank of Japan loans + loans by the nonfinancial sector)] [External securities issued by residents - industrial securities]
The data used in compiling each transaction item	Loans by private financial institutions, treasury discount bills, outward investments in securities	Loans by the nonfinancial sector, installment credit

Notes:

For the items in square brackets, the total is available from financial statements.
"Loans by private financial institutions," "central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "equity," "investment trust beneficiary certificates," and "outward investments in securities" are evaluated at a market price (real value basis).

Details on major transaction items in this category:

- Transferable deposits and deposits money (assets side)

Based on the financial statement, this category refers to the sum of transferable deposits and deposits money allocated proportionally to each sector by using the composition ratio, estimated from the statistics on deposits (the *Amounts Outstanding of Deposits by Depositor* and the *Deposits, Vault Cash, and Loans and Bills Discounted*).

- Certificates of deposit and CP (assets side)

  This category refers to the sum of the holding amounts of these items in general (banking) accounts and special accounts of the financial statement. For the holding amount of special accounts, the amount outstanding of certificates of deposit is the total amount of "other trading assets."

- Loans by private financial institutions (assets side)

  This category proportionally allocates the discrepancies between (1) the amount of loans by "banks" provided in the *International Investment Position of Japan* and (2) the sum of loans to nonresidents by each department of banks in accordance with the amount outstanding, and then adds these figures to the sum of loans provided in financial statements and inter-office accounts between head office and overseas branches (recognized as loans to nonresidents). For consumer credits, figures are based on the *Deposits, Vault Cash, and Loans and Bills Discounted.* Loans to companies and governments (on a real value) are calculated residually, i.e. the remaining after deducting consumer credits from the total, less the allowances for individual uncollectibles. Depreciation of the book value of the loans, caused by direct write-offs (including draw-downs on the allowances), is not recorded in the transaction flow. The difference between the term-on-term difference in the amount outstanding and the transaction flow (this is relevant to the amount of direct write-off and write-downs) is posted in the Reconciliation Table. The ratio of the allowances for individual uncollectibles and direct write-offs to the amount outstanding of loans in this sector is assumed to be identical to the one in domestically licensed banks.

- Repurchase agreements and securities lending transactions (assets/liabilities side)

  This category records the sum of the amount outstanding of repurchase agreements and securities lending transactions based on financial statements.

- Treasury discount bills (assets side)

  This category is based on the summary sheet of registered government bonds and clearing government bonds of each business. Certain adjustment is conducted in order to retrieve the state before the transaction with repurchase agreements[6].

- Central government securities and FILP bonds (assets side)

  This category refers to the transaction item of central government securities and FILP bonds (including treasury discount bills) minus short sales ("trading securities sold," "securities sold," and "securities related to trading transactions sold") on the liability side and treasury discount bills that are estimated separately[7]. Figures are converted from book value basis to market value basis.

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[6] *gensaki* transaction held by this sector is estimated by allocating the total amount outstanding of *gensaki* transaction, based on the data on money market operation of the Bank of Japan, proportionally by using the composition ratio of treasury discount bills held by those who participate in the money market operation (based on the summary sheet of registered government bonds and clearing government bonds).

[7] Other than government bonds in investment securities and trading account securities, unidentifiable types of securities (securities loaned, trading securities loaned, and trading assets and securities related to trading transactions in trading accounts) are assumed to be a part of central government securities and FILP bonds.

- Trust beneficiary rights and investment trust beneficiary certificates (assets side)

  The sum of these items is based on "other securities" listed in the financial statement where the figure is allocated by a certain ratio to each item. "Trust beneficiary rights" in this category refers to the allocated amounts plus pecuniary trusts. "Investment trust beneficiary certificates" refers to the allocated amounts plus part of the residual of which the holding sector is unidentifiable, which is calculated by deducing investment trust beneficiary certificates held by individual sectors from total issuance.

- Outward investments in securities (assets side)

  This category records the sum of (1) the amount of foreign securities in the financial statements and (2) some discrepancies of outward investments in securities calculated from two different data sources, namely "portfolio investment" in the *International Investment Position of Japan* and foreign securities in the financial statements.

- Loans by private financial institutions (liabilities side)

  This category is estimated residually that is calculated by the total amount recorded in the financial statement (loans by private financial institutions, Bank of Japan loans, and loans by the nonfinancial sector) less "Bank of Japan loans (based on *the Loans and Discounts by the Bank of Japan*)" and "loans by the nonfinancial sector"[8].

- Installment credit (liabilities side)

  "Installment credit" is estimated by multiplying the holding amount of installment credits of nonbanks by the composition ratio of credits to foreign banks in Japan.

1-2-1-3. Financial institutions for agriculture, forestry, and fisheries

"Financial institutions for agriculture, forestry, and fisheries" is mainly compiled by using the financial statements associated with the domestic branch account of Norinchukin Bank, the summary data on the financial statement of Prefectural Credit Federation of Agricultural Cooperatives, Agricultural Cooperatives, Prefectural Credit Federation of Fishery Cooperatives, and Fisheries Cooperatives, and the statistics on loans (*Loans and Bills Discounted by Sector*).

[8] "The total of borrowings by private financial institutions, Bank of Japan loans, and loans by the nonfinancial sector" is the sum of the borrowed money, and the inter-office account with domestic sector.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Currency, deposits with the Bank of Japan, call loans and bills, repurchase agreements and securities lending transactions, local government securities, public corporation securities, bank debentures, industrial securities, CP, structured-financing instruments, equity, deposits money, accounts receivable, others	Transferable deposits, time and savings deposits, certificates of deposits, foreign currency deposits, Bank of Japan loans, call loans and bills, loans by private financial institutions, repurchase agreements and securities lending transactions, bank debentures, external securities issued by residents, equity, deposits money, accounts payable, other external claims and debts, others
Of those, estimated		
Proportional allocation is employed to each sector	External securities issued by residents	
Financial statements etc. :Of which, proportional allocation is employed	[Transferable deposits, time and savings deposits, and foreign currency deposits] [Trust beneficiary rights, investment trust beneficiary certificates]	
Financial statements etc.	[Certificates of deposits - CP] [Central government securities and FILP bonds - treasury discount bills]	
The data used in compiling each transaction item	Loans by private financial institutions, treasury discount bills, outward direct investment, outward investments in securities, other external claims and debts	Loans by the nonfinancial sector

Notes:

For the items in square brackets, the total is available from financial statements.
"Loans by private financial institutions," "central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "external securities issued by residents," "equity," "investment trust beneficiary certificates," and "outward investments in securities" are evaluated at a market price (real value basis).

Details on major transaction items in this category:

- Transferable deposits, time and savings deposits, and foreign currency deposits (assets side)

The sum of these items is based on the financial statement of this sector. The amount is allocated proportionally to each instrument by using the composition ratio of deposits estimated from the statistics on deposits (the *Amounts Outstanding of Deposits by Depositor* and the *Deposits, Vault Cash, and Loans and Bills Discounted*).

- Certificates of deposit and CP (assets side)

For Norinchukin Bank, the amount is calculated by taking the sum of the holding amounts of general (banking) accounts and special accounts, recorded in the financial statement. For the holding amount of special accounts, the amount outstanding of CP is the total amount of "other trading assets." It then adds other institutions' holding amounts based on each

financial statement[9].

- Loans by private financial institutions (assets side)

This category proportionally allocates the discrepancies between (1) the amount of loans by "banks" provided in the *International Investment Position of Japan* and (2) the sum of loans to nonresidents by each department of banks in accordance with the amount outstanding, and then adds these figures to the sum of loans of each institution provided in financial statements and inter-office account of Norinchukin Bank (regarding all amounts as loans to nonresidents). For housing loans and consumer credits, figures are based mainly on the *Loans and Bills Discounted by Sector* where loans to companies and governments (on a real value) are calculated residually, i.e. the remaining after deducting housing loans and consumer credits from the total, less the allowances for individual uncollectibles. Decrease in book value of the loans, which is caused by direct write-offs (including draw-downs on the allowances), is not recorded in the transaction flow. The difference between the term-on-term difference of amount outstanding and the transaction flow (this is relevant to the amount of direct write-off and write-down) is posted in the Reconciliation Table.

The institutions, of which the stock data is evaluated on a real value, are Norinchukin Bank, Prefectural Credit Federation of Agricultural Cooperatives, Prefectural and Credit Federation of Fishery Cooperatives. The ratio of the allowances for individual uncollectibles and direct write-offs to the amount outstanding of loans in these institutions is assumed to be identical to the one in domestically licensed banks.

- Repurchase agreements and securities lending transactions (assets/liabilities side)

This category records the sum of the amount outstanding of repurchase agreements and securities lending transactions based on financial statements.

- Treasury discount bills (assets side)

This category is based on the summary sheet of registered government bonds and clearing government bonds of each business. Certain adjustment is conducted in order to retrieve the state before the transaction with repurchase agreements[10].

- Central government securities and FILP bonds (assets side)

This category refers to the transaction item of central government securities and FILP bonds (including treasury discount bills) minus short sales ("trading securities sold for short sales," "securities related to trading transactions sold for short sales") and treasury discount bills that are estimated separately[11]. Figures are converted from the book value basis to the market value basis.

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[9] For Agricultural cooperatives and credit Federation of Fishery cooperatives, the total amount of CP refers to "monetary claims bought" from the financial statement.

[10] *gensaki* transaction held by this sector is estimated by allocating the total amount outstanding of *gensaki* transaction, based on the data on money market operation of the Bank of Japan, proportionally by using the composition ratio of treasury discount bills held by those who participate the money market operation (based on the summary sheet of registered government bonds and clearing government bonds).

[11] Other than government bonds loaned in investment securities and trading account securities, all unidentifiable securities (securities loaned, trading securities, and trading assets and securities related to trading transactions in trading accounts) are assumed to be a part of central government securities and FILP bonds.

- External securities issued by residents (assets side)

  The amount of external securities issued by residents that are held by "banks" (domestically licensed banks, financial institutions for agriculture, forestry, and fisheries, and financial institutions for small businesses) is identified based on data related to the *International Investment Position of Japan*. Subsequently, the amount held by "financial institutions for agriculture, forestry, and fisheries" is allocated proportionally by using the composition ratio of foreign securities held by financial institutions for agriculture, forestry, and fisheries among banks, based on financial statements.

- Investment trust beneficiary certificates (assets side)

  This category records beneficiary certificates in the financial statement plus part of the residual of which the holding sector is unidentifiable, which is calculated by deducing investment trust beneficiary certificates held by individual sectors from total issuance.

- Outward investments in securities (assets side)

  This category records the sum of (1) the amount found by subtracting "external securities issued by residents," "outward direct investment," and investments in the equity of foreign partnerships included in "other external claims and debts" from the amount of foreign securities in the financial statements and (2) some discrepancies of outward investments in securities calculated from two different data sources, namely "portfolio investment" in the *International Investment Position of Japan* and foreign securities in the financial statements. In some cases, pecuniary trusts from financial statements are used for estimation and these estimates are added to the figure for outward investments in securities (asset side).

- Other external claims and debts (assets side)

  This category records the sum of (1) the amount of investments in the equity of foreign partnerships based on data related to the *International Investment Position of Japan* and (2) the portion attributable to "financial institutions for agriculture, forestry, and fisheries" within the discrepancies between the amount of "other external claims and debts" held by domestic sectors (derived from the *International Investment Position of Japan*) and the sum of investments in the equity of foreign partnerships held by domestic sectors (estimated and aggregated by sector based on data related to the *International Investment Position of Japan*).

1-2-1-4. Financial institutions for small businesses

"Financial institutions for small businesses" is mainly compiled using financial statements associated with the domestic accounts of Shinkin Central Bank and Shoko Chukin Bank, and the breakdown data on the financial statements of *shinkin* banks, *shinkumi* banks, Labor Banks, Japan Post Bank (from the fourth quarter of 2007) and etc. The transaction items that cannot be compiled by this line are alternatively compiled using *Loans and Discounts by the Bank of Japan* and the statistics on loans (*Loans and Bills Discounted by Sector*).

With regard to the Resolution and Collection Corporation, the part of assets and liabilities

of this institution is posted under this category, assuming that they are received from the former Resolution and Collection Bank. This treatment is made due to the fact that this institution undertook the business of failed *shinkumi* banks[12].

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Currency, call loans and bills, loans by public financial institutions, repurchase agreements and securities lending transactions, local government securities, public corporation securities, bank debentures, industrial securities, CP, structured-financing instruments, equity, deposits money, accounts receivable, other external claims and debts, others	Transferable deposits, time and savings deposits, certificates of deposits, foreign currency deposits, call loans and bills, loans by private financial institutions, loans by public financial institutions, repurchase agreements and securities lending transactions, bank debentures, industrial securities, external securities issued by residents, equity, deposits money, accounts payable, other external claims and debts, others
The data used in compiling each transaction item		Bank of Japan loans
Of those, estimated		
Proportional allocation is employed to each sector	External securities issued by residents	
Financial statements etc. :Of which, proportional allocation is employed	[Transferable deposits, time and savings deposits, foreign currency deposits] [Trust beneficiary rights, investment trust beneficiary certificates]	
Financial statements etc.	[Certificates of deposits - CP] [Central government securities and FILP bonds - treasury discount bills]	
The data used in compiling each transaction item	Deposits with the Bank of Japan, loans by private financial institutions, deposits with the Fiscal Loan Fund, treasury discount bills, outward direct investment, outward investments in securities	

Notes:

For the items in square brackets, the total is available from financial statements.
"Loans by private financial institutions," "central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "external securities issued by residents," "equity," "investment trust beneficiary certificates," and "outward investments in securities" are evaluated at a market price (real value basis).

[12] The FFA treats the Resolution and Collection Corporation as a finance company. However, the assets and liabilities of those received from the former Resolution and Collection Bank are posted under this category. The items treated in this category are as follows.
Assets side: Deposits with the Bank of Japan
Liabilities side: Deposits, Bank of Japan loans

Details on major transaction items in this category:

- Deposits with the Bank of Japan (assets side)

  This category refers to the residual that is the difference between the total of deposit and the deposits with other institutions, based on the financial statement of the Bank of Japan.

- Transferable deposits, time and savings deposits, and foreign currency deposits (assets side)

  The sum of these items is based on the financial statements. The amount is allocated proportionally to each instrument by using the composition ratio of deposits estimated from the statistics on deposits (the *Amounts Outstanding of Deposits by Depositor* and the *Deposits, Vault Cash, and Loans and Bills Discounted*). For the Japan Post Bank, these items are available in the financial statements.

- Certificates of deposit and CP (assets side)

  For Shinkin Central Bank, *shinkin* banks, and Shinkumi Federation Bank, the amount (including ABCP) refers to the amount outstanding of commercial papers held from *Deposits, Vault Cash, and Loans and Bills Discounted*[13]. It then adds the amount outstanding held by other institutions based on financial statements[14], and deducts ABCP estimated separately from it.

  For Shinkin Central Bank, *shinkin* banks, and Shinkumi Federation Bank, "certificate of deposits" is the residuals calculated by deducting CP (including ABCP) from the sum of "certificates of deposits," "commercial paper" from "monetary claims bought," "dematerialized commercial paper" from general (banking) accounts, and "other trading assets" from special accounts. For other institutions, the amounts are based on individual financial statements.

- Loans by private financial institutions (assets side)

  This category proportionally allocates the discrepancies between (1) the amount of loans by "banks" provided in the *International Investment Position of Japan* and (2) the sum of loans to nonresidents by each department of banks in accordance with the amount outstanding, and then adds these figures to the sum of loans of each institution provided in financial statements and the inter-office account of Shoko Chukin Bank (regarding all amounts as loans to nonresidents). For housing loans and consumer credits, figures are based on the *Loans and Bills Discounted by Sector* where loans to companies and governments (on a real value) are calculated by the residual, which is the remaining after deducting housing loans and consumer credits from the total, less the allowances for individual uncollectibles. Decrease in book value of the loans, caused by direct write-offs (including draw-downs on the allowances), is not recorded in the transaction flow. The difference between the term-on-term difference of the amount outstanding and the transaction flow (this is relevant to the amount of direct write-off and write-downs) is posted in the Reconciliation Table.

[13] In this statistics, CP refers to 1)commercial paper in "monetary claims bought," 2)short-term corporate bonds, and 3)the commercial paper and short-term bonds in "other trading assets" in special accounts of the financial statements.
[14] For Shoko Chukin Bank, CP refers to the figures from general (banking accounts) and "other trading assets" from the special accounts.

The institutions of those that the stock data is evaluated on a real value are Shinkin Central Bank, *shinkumi* banks, Labor Banks, Shoko Chukin Bank, and *shinkin* banks. The ratio of the allowances for individual uncollectibles and direct write-offs to the amount outstanding of loans in *shinkin* banks is assumed to be identical to the one in domestically licensed banks.

- Repurchase agreements and securities lending transactions (assets/liabilities side)

This category records the sum of the amount outstanding of repurchase agreements and securities lending transactions based on financial statements.

- Treasury discount bills (assets side)

This category is based on the summary sheet of registered government bonds and clearing government bonds of each business. Certain adjustments are conducted in order to retrieve the state before the transaction with repurchase agreements[15].

- Central government securities and FILP bonds (assets side)

This category refers to the transaction item of central government securities and FILP bonds (including treasury discount bills) minus short sales ("trading securities sold," "securities sold" and "securities related to trading transactions sold") on the liability side and treasury discount bills that are estimated separately[16]. Figures are converted from the book value basis to the market value basis.

For the Japan Post Bank, the sum of these items is estimated from the financial statements.

- External securities issued by residents (assets side)

The amount of external securities issued by residents that are held by "banks" (domestically licensed banks, financial institutions for agriculture, forestry, and fisheries, and financial institutions for small businesses) is identified based on data related to the *International Investment Position of Japan*. Subsequently, the amount held by "financial institutions for small businesses" is allocated proportionally by using the composition ratio of foreign securities held by financial institutions for small businesses among banks, based on financial statements.

- Trust beneficiary rights (assets side)

The sum of this item is based on "other securities" recorded in the financial statement minus investment trust beneficiary certificates, plus pecuniary trusts.

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[15] *gensaki* transaction held by this sector is estimated by allocating the total amount outstanding of *gensaki* transaction, based on the data on money market operation of the Bank of Japan, proportionally by using the composition ratio of treasury discount bills held by those who participate the money market operation (based on the summary sheet of registered government bonds and clearing government bonds).

[16] Other than government bonds in investment securities and trading account securities, unidentifiable securities (securities loaned, trading securities loaned, and trading assets and securities related to trading transactions in trading accounts) are assumed to be a part of central government securities and FILP bonds.

- Investment trust beneficiary certificates (assets side)

  This item refers to the outstanding amount estimated from "other securities" recorded in the financial statement plus part of the residual of which the holding sector is unidentifiable, which is calculated by deducing investment trust beneficiary certificates held by individual sectors from total issuance.

- Outward investments in securities (assets side)

  This category records the sum of (1) the amount found by subtracting "external securities issued by residents" and "outward direct investment" from the amount of foreign securities (excluding domestic investment trusts) in the financial statements and (2) some discrepancies of outward investments in securities calculated from two different data sources, namely "portfolio investment" in the *International Investment Position of Japan* and foreign securities (excluding domestic investment trusts) in the financial statements.

1-2-2. Postal savings (Before the 3rd quarter of 2007)

"Postal savings" is mainly compiled by using the financial statements of postal savings in Japan Post (the former Postal Savings Special Account[17]), *the Postal Saving News* and *Postal Saving Operations*[18]. The transaction items that cannot be compiled by this line are alternatively compiled by using the summary sheet of registered government bonds and clearing government bonds of each business, and from data on the amount outstanding of deposits with the Fiscal Loan Fund (*the Monthly Report of Fiscal Loan Fund*).

The breakdown of investment assets in a trust account is estimated by using the breakdown data of operational assets of money held in trust (identifying the amount outstanding of assets including "shares" and "outward investments in securities") compiled by the Japan Post.

These source data estimate the figures prior to the consolidation, as shown in the following table.

[17] Before fiscal year 2000, "the postal savings special account" consisted of "general account (receipt of postal savings, deposits with the former Trust Fund Bureau etc.)" and "the special account for financial deregulation (loans from the former Trust Fund Bureau, management of the loan fund etc.)." Therefore, figures were estimated separately for each account, and then totaled to obtain figure for the postal savings. However, there has been no distinction between these accounts since fiscal year 2001.

[18] Before fiscal year 2002, the funds entrusted to "the Special Account for Fund-Management Operations" of the Postal Life Insurance Welfare Corporation (before fiscal year 2000, the funds were entrusted by "the special account of financial deregulation of the Postal Saving Special Accounts") are consolidated into postal savings sector by estimating the composition of investment assets of the account. For the money trusts held by the Postal Life Insurance Welfare Corporation, the entire account is consolidated into postal savings (this is the so-called "two-stage consolidation process" where the first stage is the consolidation of the designated noncollectively invested money trusts into Postal Life Insurance funds, and the second stage is the consolidation of Postal Life Insurance funds into postal savings). In fiscal year 2003, the Postal Life Insurance Welfare Corporation was dissolved and Japan Post took over its holding assets, including money trusts.

Outline of estimation methods of individual items in this sector

Source data	Asset items		Liability items
		Consolidated items	
Of those, extracted from the source data			
Financial statements etc.	Deposits with the Bank of Japan, certificates of deposits, call loans and bills, loans by public financial institutions, repurchase agreements and securities lending transactions, local government securities, public corporation securities, bank debentures, industrial securities, accounts receivable		Transferable deposits, time and savings deposits, equity, accounts payable
The data used in compiling each transaction item	Time and savings deposits, deposits with the Fiscal Loan Fund, treasury discount bills, others	Others	Loans by public financial institutions
Of those, estimated			
Financial statements etc.	[Time and savings deposits - (deposits with the Bank of Japan + certificates of deposits + currency for accounts receivable)] [Central government securities and FILP bonds - treasury discount bills]		
The data used in compiling each transaction item	Outward investments in securities	Outward investments in securities	
Others			
Consolidated data		Call loans and bills, trust beneficiary rights, equity	

Notes:

For the items in square brackets, the total is available from financial statements.
"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities" and "equity" are evaluated at a market price.

Details on major transaction items in this category:

- Transferable deposits (liabilities side)

"Transferable deposits" refers to the amount outstanding of postal money orders, postal giros, and ordinary savings obtained from the annual report of postal savings service.

- Time and savings deposits (liabilities side)

"Time and savings deposits" refers to the sum of collection savings (including housing savings and education savings), *teigaku* savings (including *teigaku* savings for wage-earner's property accumulation), and time savings less unpaid interests on postal savings obtained from the annual report of postal savings service.

- Loans by public financial institutions (liabilities side)

  Figures in this category refer to the end-of-fiscal-year (end of March) outstanding of borrowings by Fiscal Loan Fund, based on the *Fiscal Investment and Loan Program Report*, while the figures in other quarters are estimated by using the growth rate of total assets of the institution and regarding maturity of each loan (based on the annual report of postal saving).

- Central government securities and FILP bonds (assets side)

  This category refers to the holding amount of "central government securities and FILP bonds" (market value basis) in the special accounts for financial deregulation of the Postal Savings Special Accounts (including treasury discount bills), which is obtained from the annual report of postal savings service, etc., less treasury discount bills that are based on the summary sheet of registered government bonds and clearing government bonds for each business.

1-2-3. Collectively managed trusts

"Collectively managed trusts" is mainly compiled by using the financial data on trust assets in every type of accounts. The transaction items that cannot be compiled by this line are alternatively compiled by using the data on *gensaki* transaction published by the Japan Securities Dealers Association (*Balance of Bond Transactions with Repurchase Agreements <by Investor Type>*).

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Call loans and bills, loans by private financial institutions, local government securities, public corporation securities, industrial securities, equity, outward investments in securities, other external claims and debts, others	Call loans and bills, loans by private financial institutions, trust beneficiary rights
Of those, estimated		
Financial statements etc. :Of which, proportional allocation is employed	[Trust beneficiary rights, structured-financing instruments]	
Financial statements etc.	[Central government securities and FILP bonds - treasury discount bills]	
The data used in compiling each transaction item	Repurchase agreements and securities lending transactions, treasury discount bills	

Notes:

For the items in square brackets, the total is available from financial statements.
"Central government securities and FILP bonds," "local government securities," "public corporation securities," "industrial securities," and "equity" are evaluated at a market price.

Details on major transaction items in this category:

- Repurchase agreements and securities lending transactions (assets side)

  Figures in this category refer to the amount outstanding of central government securities and FILP bonds (including treasury discount bills) in *gensaki* transaction that is based on the data on *gensaki* transaction published by the Japan Securities Dealers Association (*Balance of Bond Transactions with Repurchase Agreements <by Investor Type>*)[19].

- Treasury discount bills (assets side)

  This category is based on the summary sheet of registered government bonds and clearing government bonds for each business. Certain adjustment is conducted in order to retrieve the state before the transaction with repurchase agreements[20].

- Central government securities and FILP bonds (assets side)

  This category refers to the central government securities and FILP bonds recorded in the financial statement of this sector (including treasury discount bills) less treasury discount bills that are estimated separately. Figures are converted from the book value basis to the market value basis.

1-3. Securities investment trusts

"Securities investment trusts" equals the sum of "bond investment trusts (including MMF and MRF)" and "stock investment trusts."

1-3-1. 2. Bond investment trusts and stock investment trusts

For "bond investment trusts" and "stock investment trusts," financial assets/ liabilities and breakdowns of each investment asset, which are evaluated on a market price, are based on the data on net assets of securities investment trusts and the summary data of each investment asset. Among privately-placed investment trusts, the breakdowns of some investment assets, which cannot be obtained from data on each investment asset, are estimated based on such data of publicly-placed investment trusts.

Transaction flows for bonds (central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, and industrial securities) are estimated using term-on-term differences of term-end outstanding, which is converted to face value by using a market-price-to-face-value ratio. Shares, on the other hand, are estimated mainly using the data on trading by investors in the stock market (*Volume & Value* by *Trading Types of Investors*). Besides, outward investments in securities is based on the data of outward portfolio investment by type of investors

[19] The FFA regards a part of "trust banks" in this statistics as "collectively managed trusts".
[20] *gensaki* transaction held by this sector is estimated by allocating the total amount outstanding of g*ensaki* transaction, based on the data on money market operation of the Bank of Japan, proportionally by using the composition ratio of treasury discount bills held by those who participate the money market operation (based on the summary sheet of registered government bonds and clearing government bonds).

(*Balance of Payments Statistics*), in which the amount invested by investment trust management companies is shown as one sector. The other transaction amount of assets is estimated by using the term-on-term difference of the term-end outstanding based on the aggregated data from the summary data of each investment asset.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Call loans and bills, CP, trust beneficiary rights, investment trust beneficiary certificates	Investment trust beneficiary certificates
The data used in compiling each transaction item	Repurchase agreements and securities lending transactions, equity	Repurchase agreements and securities lending transactions
Of those, estimated		
Financial statements etc. :Of which, proportional allocation is employed	[Transferable deposits, certificates of deposit, foreign currency deposits] [Treasury discount bills, central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, industrial securities, external securities issued by residents, outward investments in securities]	
The data used in compiling each transaction item	Structured-financing instruments, financial derivatives and employee stock options, accounts receivable, others	Financial derivatives and employee stock options, accounts payable

Notes:

For the items in square brackets, the total is available from financial statements.
"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "external securities issued by residents," "equity," "investment trust beneficiary certificates," and "outward investments in securities" are evaluated at a market price.

Details on major transaction items in this category:

- Repurchase agreements and securities lending transactions (assets/liabilities side)

  This category refers to the amount outstanding of central government securities and FILP bonds in g*ensaki* transaction that is based on the data on g*ensaki* transaction published by the Japan Securities Dealers Association (*Balance of Bond Transactions with Repurchase Agreements <by Investor Type>*).

- Financial derivatives and, employee stock options (assets/liabilities side)

  The amount outstanding of OTC-traded derivatives in this category is based on *the Central Bank Survey of Foreign Exchange and Derivatives Market Activity* and *the Results of the Regular Derivatives Market Statistics in Japan*. Firstly, the amount outstanding of transaction with nonfinancial institutions' customers held by domestically licensed banks is estimated, and deduct the transaction with finance companies[21]. The remainder is allocated proportionally to each of corporate pensions (pension trusts), securities investment trusts,

[21] Non-financial institution customers refer to "customers other than financial institutions (including domestically licensed banks and trust accounts)." In the FFA, these customers correspond to "corporate pensions" (pension trusts), "securities investment trusts," "finance companies," and "private nonfinancial corporations."

and private nonfinancial corporations.

The amount outstanding of Exchange-traded derivatives is estimated by multiplying the amount outstanding of financial derivatives held by domestically licensed banks by the weight of transaction volume to domestically licensed banks. The weight is calculated by using exchange market data (the *Key Statistics for Government Bond Futures & Trading of Nikkei 225 Options by Type of Investors* and the *Trading Volume and Open Interest of Options on Three-Month Euroyen Futures*).

1-4. Insurance and pension funds

"Insurance and pension funds" equals the sum of "insurance" and "pension funds."

1-4-1. Insurance

"Insurance" equals the sum of "life insurance," "nonlife insurance," and "mutual aid insurance."

1-4-1-1. Life insurance

"Life insurance" equals the sum of "private life insurance companies" and "postal life insurance."

1-4-1-1-1. Private life insurance companies (Before the 3rd quarter of 2007)[22]

Assets and liabilities prior to the consolidation are estimated mainly based on the financial statements and the summary data of investment assets, while statistics on loans (*Loans to individuals <Housing funds>*), etc. are used for estimating transaction items. "private life insurance companies" is posted as the residual of deducting the entrusted funds associated with group pension insurance (that are consolidated into the original investing entities such as employees' pension funds, the Government Pension Investment Fund, and etc.) from the financial assets and liabilities prior to the consolidation.

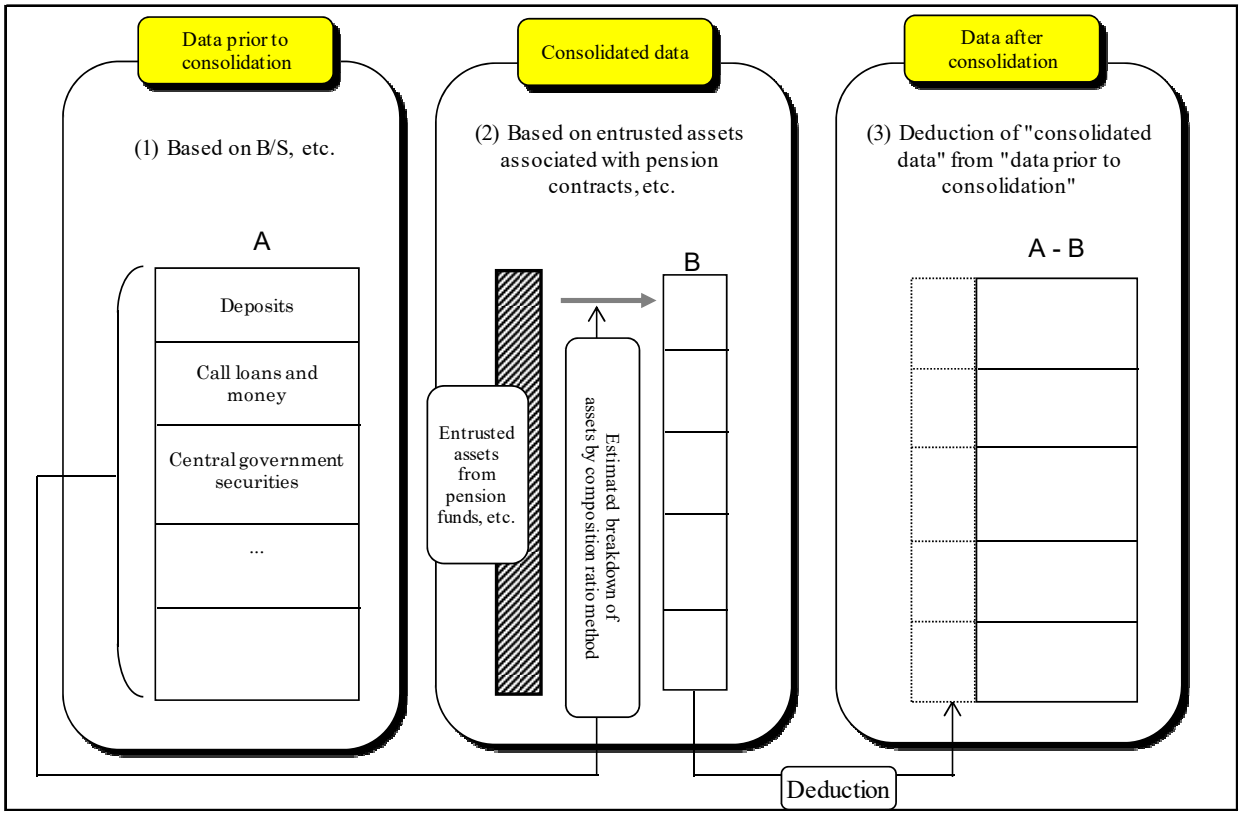
The entrusted assets subject to the consolidation are based on the data on the entrusted assets associated with pension contracts and the financial statements of each truster[23]. The breakdown of investment assets is estimated by assuming that the composition of entrusted assets is identical to the asset-mix of private life insurance companies

[22] From the fourth quarter of 2007 onward, only the sum of "private life insurance companies" and "postal life insurance" has been released.

[23] The entrusted assets subject to the consolidation in this category include defined benefit schemes (employees' pension funds, former qualified retirement pension plans, defined benefit pension), defined contribution schemes, other pensions (the National Pension Fund, The Retirement Allowance Mutual Aid Corporation of Medium and Small Enterprises of the Organization for Workers Retirement Allowance Mutual Aid, the small-scale enterprise mutual aid account of Organization for Small & Medium Enterprises and Regional Innovation, Japan, and retirement and pension benefits account of mutual aid associations), and social security funds (a part of Government Pension Investment Fund < the former pension fund account of the Pension Welfare Service Public Corporation>, employees' welfare insurance account of mutual aid associations, and transitional long-term accounts of mutual aid associations).

(composition ratio method). However, the portion entrusted from defined contribution schemes is estimated by multiplying the total value of assets entrusted to life insurance companies -- released by the Liaison Committee for Defined Contribution Pension Plan Operational Management Institution -- by the weight of each asset in the whole investment assets entrusted to institutions other than life and nonlife insurance companies (composition ratio method).

Consolidation method



Outline of estimation methods of individual items in this sector

Source data	Asset items (Consolidated items)	Liability items	
			Consolidated items
Of those, extracted from the source data			
Financial statements etc.	Currency, loans by private financial institutions, repurchase agreements and securities lending transactions, local government securities, public corporation securities, bank debentures, industrial securities, external securities issued by residents, CP, structured-financing instruments, listed shares, unlisted shares, financial derivatives and employee stock options, deposits money, accounts receivable, others	Loans by private financial institutions, repurchase agreements and securities lending transactions, CP, industrial securities, external securities issued by residents, equity, financial derivatives and employee stock options, life insurance reserves, annuity entitlements, deposits money, accounts payable, others	Annuity entitlements
The data used in compiling each transaction item	Call loans and bills		
Of those, estimated			
Financial statements etc. :Of which, proportional allocation is employed	[Transferable deposits, time and savings deposits, certificates of deposits, foreign currency deposits] [Other Equity, investment trust beneficiary certificates]		
Financial statements etc.	[Central government securities and FILP bonds - treasury discount bills] [Outward investments in securities - outward direct investment]		
The data used in compiling each transaction item	Treasury discount bills, outward direct investment, other external claims and debts	Installment credit, other external claims and debts	
Others			
Consolidated data	Trust beneficiary rights		

Notes:

For the items in square brackets, the total is available from financial statements.
"Loans by private financial institutions," "central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "external securities issued by residents," "equity," "investment trust beneficiary certificates," and "outward investments in securities" are evaluated at a market price (real value basis).

Details on major transaction items in this category:

- Transferable deposits, time and savings deposits, certificates of deposit and foreign currency deposits (assets side)

  The sum of these items is based on the financial statement. The amounts are allocated proportionally to each instrument, assuming the composition ratio of deposits in this category is identical to the one in mutual aid insurance.

- Loans by private financial institutions (assets side)

  This category is based on financial statement. Loans to companies and governments (on a real value) is calculated by the residual, which is the remaining after deducting housing loans and consumer credits (based on the *Loans to Individuals <Housing Fund>*, etc.) from the total value estimated from the financial statement, less the allowances for individual uncollectibles[24]. Decrease in book value of the loans, caused by direct write-offs (including draw-downs on the allowances), is not recorded in the transaction flow. The difference between the term-on-term difference of the amount outstanding and the transaction flow (this is relevant to the amount of direct write-off and write-downs) is posted in the Reconciliation Table.

- Repurchase agreements and securities lending transactions (assets/liabilities side)

  This category records the sum of the amount outstanding of repurchase agreements and securities lending transactions based on financial statements.

- Treasury discount bills (assets side)

  This category is based on the summary sheet of registered government bonds and clearing government bonds for each business. Certain adjustment is conducted in order to retrieve the state before the transaction with repurchase agreements[25].

- Central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, industrial securities and external securities issued by residents (assets side)

  Each category records the amount outstanding on a market value basis. The market value refers to the amount outstanding at a market price from summary sheets for the sum of treasury discount bills and central government securities and FILP bonds and for local government securities, while it is calculated by adding holding gains and losses to book value for public corporation securities, bank debentures, industrial securities and external securities issued by residents.

[24] Until end of March 2000, total allowance for individual uncollectibles of life insurance companies was estimated by using percentage of allowance for individual uncollectibles to a loan outstanding in major life insurance companies.

[25] *gensaki* transaction held by this sector is estimated by allocating the total amount outstanding of *gensaki* transaction, based on the data on money market operation of the Bank of Japan, proportionally by using the composition ratio of treasury discount bills held by those who participate the money market operation (based on the summary sheet of registered government bonds and clearing government bonds).

- Structured financing instruments (assets side)

This category records the sum of the amount outstanding of asset-backed securities, and trust beneficiary rights backed by monetary claims based on summary sheets.

- Investment trust beneficiary certificates (assets side)

This category records a part of "other securities" in financial statements plus part of the residual of which the holding sector is unidentifiable, which is calculated by deducing investment trust beneficiary certificates held by individual sectors from total issuance.

- Financial derivatives and employee stock options (assets/liabilities side)

The amount outstanding in this category is based on financial statements[26]. Since the source data is available only once in a half year (end of March, and end of September), the amounts in other quarters are estimated by using the Exchange market data (the *Trading Volume and Open Interest of Options on Three-Month Euroyen Futures*) to calculate the growth of amount outstanding of open interest in that quarter.

- Outward direct investment and Outward investments in securities (assets side)

As for "outward direct investment," the calendar year-end amount of outward direct investment is estimated by multiplying the total amount of outward direct investments (total of equity capital and reinvestment of profit), which is estimated from the *International Investment Position of Japan,* with the composition ratio for private life insurance companies based on data sources for the composition ratio of each investing business. As the composition ratio of each business for outward direct investment is the data at the end of the calendar year, preliminary data for the quarterly term amount outstanding is calculated by individually compiling major investment projects of private life insurance companies. Furthermore, it is finalized by proportionally allocating part of the discrepancies between the amounts of outward direct investment and preliminary figures at the end of the calendar year to each quarter of private life insurance companies.

"Outward investments in securities" is calculated by subtracting "outward direct investment" and investments in the equity of foreign partnerships included in "other external claims and debts" from foreign securities (on a market value basis) based on summary sheets.

- Other external claims and debts (assets side)

This category records the sum of (1) ceded policy reserves[27], etc. for reinsurance contracts assumed by foreign insurers from domestic insurance companies, (2) the amount of investments in the equity of foreign partnerships based on data related to the *International Investment Position of Japan*, and (3) the portion attributable to "private life insurance companies" within the discrepancies between the amount of "other external claims and debts" held by domestic sectors (derived from the *International Investment Position of Japan*) and the sum of investments in the equity of foreign partnerships held by domestic sectors

[26] Until 2nd quarter 2000, difference in the acquisition cost of the option premium (the amount outstanding that is not reflected by the fluctuation of market price) during the term was recorded as transaction flow.

[27] If reinsurance is effected to cover insurance contracts, it is permissible not to accumulate policy reserves corresponding to the part for which the said reinsurance is effected. Ceded policy reserves are the amount corresponding to the part provided for reinsurance effected, which is deducted in the calculation of policy reserves.

(estimated and aggregated by sector based on data related to the *International Investment Position of Japan*).

- Others (assets side)

"Others" refers to a part of the monetary claims purchased and relevant assets in other categories based on the financial statement.

- Loans by private financial institutions (liabilities side)

Equities refer to all borrowings recorded in the financial statement, assuming these are loans by private financial institutions.

- Installment credit (liabilities side)

"Installment credit" is estimated by multiplying the holding amount of installment credits of nonbanks by the composition ratio of credits to private life insurance companies.

- Equity (liabilities side)

"Unlisted shares" included in equity refer to shareholders' equities and capital reserves in life insurance companies in the form of joint-stock corporation where they are based on "capitals and basic funds" recorded in the financial statement.

- Life insurance reserves, Annuity entitlements (liabilities side)

Firstly, the sum of "life insurance reserves" and "annuity entitlement" is calculated by subtracting catastrophe loss reserves and the amount outstanding of entrusted funds associated with group pension insurance (estimated from the data on entrusted assets associated with pension contracts and the financial statement of each trustee) from the sum of policy reserves, reserves for outstanding claims, reserves for dividend to policyholders, and ceded policy reserves, etc. for reinsurance contracts assumed by foreign insurers from domestic insurance companies. And then, the part associated with personal pension insurance is classified in "annuity entitlement," while the residuals are classified in "life insurance reserves."

1-4-1-1-2. Postal life insurance (Before the 3rd quarter of 2007)

For the calculation of "postal life insurance," financial assets and liabilities prior to the consolidation are estimated by using the financial statement for Japan Post Insurance (former Postal Life Insurance Service). Subsequently, entrusted assets are consolidated into the postal life insurance sector by each item of assets[28].

More specifically, the breakdown of investment assets in trust account is estimated by

[28] Until fiscal year 2002, loans and entrusted funds to the Special Account for Fund-Management Operations in the Postal Life Insurance Welfare Corporation were consolidated into Postal life insurance sector by estimating the composition of investment assets in the account. The postal life insurance sector also includes the assets held by those other than the trust accounts of the Special Accounts (i.e. the designated noncollectively invested money trusts). In fiscal year 2003, the Postal Life Insurance Welfare Corporation was dissolved and Japan Post took over its holding assets, including money trusts.

multiplying the amount outstanding of trust beneficiary rights by the weight of each investment asset to the whole investment assets (composition ratio method), assuming the composition of investment assets in trust account is identical to the asset-mix of investment assets (the designated noncollectively invested money trusts).

The transaction items that cannot be compiled by this line are alternatively compiled by using the summary sheet of registered government bonds and clearing government bonds for each business, and the data on the amount outstanding of deposits with Fiscal Loan Fund (the *Monthly Report of Fiscal Loan Fund*).

Outline of estimation methods of individual items in this sector

Source data	Asset items		Liability items
		Consolidated items	
Of those, extracted from the source data			
Financial statements etc.	Deposits with the Bank of Japan, time and savings deposits, certificates of deposits, foreign currency deposits, loans by public financial institutions, local government securities, public corporation securities, bank debentures, industrial securities, CP, trust beneficiary rights, equity, accounts receivable, outward investments in securities, others	Time and savings deposits, loans by public financial institutions, bank debentures, industrial securities, equity, outward investments in securities, others	Life insurance reserves, annuity entitlements, accounts payable
The data used in compiling each transaction item	Deposits with the Fiscal Loan Fund, treasury discount bills		
Of those, estimated			
Financial statements etc.	[Central government securities and FILP bonds - treasury discount bills]	Central government securities and FILP bonds	
Others			
Consolidated data		Call loans and bills, trust beneficiary rights	

Notes:

For the items in square bracket, the total is available from financial statements.
"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," and "equity" are evaluated at a market price.

Details on major transaction items in this category:

- Central government securities and FILP bonds (assets side)

  This category refers to the central government securities and FILP bonds recorded in the financial statement (including treasury discount bills), less treasury discount bills that are estimated separately by using the summary sheet of registered government bonds and clearing government bonds for each business. Figures are converted from the book value basis to the market value basis.

1-4-1-2. Nonlife insurance

"Nonlife insurance" equals the sum of "private nonlife insurance companies," "other nonlife insurance," and "standardized guarantee institutions."

1-4-1-2-1. Private nonlife insurance companies

For the calculation of "private nonlife insurance companies," the figures prior to the consolidation are mainly compiled by using financial statements and the summary sheets of investment assets. Transaction items that cannot be compiled using these data are alternatively compiled by using other data sources such as the statistics on loans (*Loans to individuals* <*Housing funds*>). Then, the portion held by this sector is posted as residual after deducting the entrusted funds associated with defined contribution schemes (consolidated into the original investing entity of defined contribution schemes).

The portfolio data of entrusted assets subject to the consolidation are estimated by multiplying the total value of assets entrusted to nonlife insurance companies -- released by the Liaison Committee for Defined Contribution Pension Plan Operational Management Institution -- by the weight of each asset in the whole investment assets entrusted to institutions other than life and nonlife insurance companies (composition ratio method).

Due to the limitations of source data, as only the-end-of-fiscal half year values are available, deposits money and accounts receivable (assets side) in this category employ the same values of the previous quarters.

Outline of estimation methods of individual items in this sector

Source data	Asset items		Liability items	
		Consolidated items		Consolidated items
Of those, extracted from the source data				
Financial statements etc.	Currency, call loans and bills, loans by private financial institutions, repurchase agreements and securities lending transactions, local government securities, public corporation securities, bank debentures, industrial securities, external securities issued by residents, CP, structured-financing instruments, financial derivatives and employee stock options, deposits money, accounts receivable	Accounts receivable	Loans by private financial institutions, repurchase agreements and securities lending transactions, industrial securities, external securities issued by residents, CP, financial derivatives and employee stock options, non-life insurance technical reserves, deposits money, accounts payable	Non-life insurance technical reserves
The data used in compiling each transaction item	Treasury discount bills		Equity	
Of those, estimated				
Financial statements etc. :Of which, proportional allocation is employed	[Transferable deposits, time and savings deposits, certificates of deposits, foreign currency deposits] [Trust beneficiary rights, investment trust beneficiary certificates]	Transferable deposits, time and savings deposits, investment trust beneficiary certificates		
Financial statements etc.	[Central government securities and FILP bonds - treasury discount bills] [Outward investments in securities - outward direct investment]			
The data used in compiling each transaction item	Equity, non-life insurance technical reserves, outward direct investment, other external claims and debts, others	Others	Installment credit, other external claims and debts	

Notes:

For the items in square brackets, the total is available from financial statements.
"Loans by private financial institutions," "central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "equity," and "investment trust beneficiary certificates" are evaluated at a market price (real value basis).

Details on major transaction items in this category:

- Transferable deposits, time and savings deposits, certificates of deposit and foreign currency deposits (assets side)

  The sum of these items is based on the financial statement. The amount is allocated proportionally to each instrument by assuming that the composition ratio of deposits in this category is identical to the one in mutual aid insurance.

- Loans by private financial institutions (assets side)

  This category is based on financial statement. Loans to companies and governments (on a real value) is calculated by the residual, which is the remaining after deducting housing loans and consumer credits (based on the *Loans to individuals <Housing Fund>*, etc) from the total value estimated from the financial statement, less the allowances for individual uncollectibles[29]. Decrease in book value of the loans, caused by direct write-offs (including draw-downs on the allowances), is not recorded in the transaction flow. The difference between the term-on-term difference of the amount outstanding and the transaction flow (this is relevant to the amount of direct write-off and write-downs) is posted in the Reconciliation Table.

- Treasury discount bills (assets side)

  This category is based on the summary sheet of registered government bonds and clearing government bonds of each business.

- Central government securities and FILP bonds (assets side)

  This category refers to the sum of transaction items of those regarded as central government securities and FILP bonds (including treasury discount bills) less treasury discount bills that are estimated separately[30]. Figures are converted to a market value basis from a book value basis.

- Trust beneficiary rights and investment trust beneficiary certificates (assets side)

  The sum of these items is based on "other securities" recorded in the financial statement that is allocated proportionally to each item. "Investment trust beneficiary certificates" refers to the allocated amounts plus part of the residual of which the holding sector is unidentifiable, which is calculated by deducing investment trust beneficiary certificates held by individual sectors from total issuance.

- Financial derivatives and employee stock options (assets/liabilities side)

  The amount outstanding in this category is based on the financial statement.

[29] Until the end of March 2000, total allowance for individual uncollectibles of non-life insurance companies was estimated by using percentage of allowance for individual uncollectibles to a loan outstanding in major life insurance companies.
[30] Unidentifiable type of securities (trading securities, trading securities loaned) is assumed to be a part of central government securities and FILP bonds.

- Outward direct investment, Outward investments in securities (assets side)

As for "outward direct investment," the calendar year-end amount of outward direct investment is estimated by multiplying the total amount of outward direct investments (total of equity capital and reinvestment of profit), which is estimated from the *International Investment Position of Japan*, with the composition ratio for private nonlife insurance companies based on data sources for the composition ratio of each investing business. As the composition ratio of each business for outward direct investment is the data at the end of the calendar year, preliminary data for the quarterly term amount outstanding is calculated by individually compiling major investment projects of private nonlife insurance companies. Furthermore, it is finalized by proportionally allocating part of the discrepancies between the amounts of outward direct investment and preliminary figures at the end of the calendar year to each quarter of private nonlife insurance companies.

"Outward investments in securities" is calculated by subtracting "outward direct investment" and investments in the equity of foreign partnerships included in "other external claims and debts" from foreign securities based on the financial statements.

- Other external claims and debts (assets side)

This category records the sum of (1) ceded policy reserves, etc. for reinsurance contracts assumed by foreign insurers from domestic insurance companies, (2) the amount of investments in the equity of foreign partnerships based on data related to the *International Investment Position of Japan*, and (3) the portion attributable to "private nonlife insurance companies" within the discrepancies between the amount of "other external claims and debts" held by domestic sectors (derived from the *International Investment Position of Japan*) and the sum of investments in the equity of foreign partnerships held by domestic sectors (estimated and aggregated by sector based on data related to the *International Investment Position of Japan*).

- Others (assets side)

"Others" refers to a part of the monetary claims purchased and relevant assets in other categories based on the financial statement.

- Loans by private financial institutions (liabilities side)

This category refers to all borrowings recorded in the financial statement, assuming these are the loans by private financial institutions.

- Installment credit (liabilities side)

"Installment credit" is estimated by multiplying the holding amount of installment credits of nonbanks by the composition ratio of credits to private nonlife insurance companies.

- Equity (liabilities side)

The total amount of listed shares is evaluated at a market price based on individual company other than life insurance company or holding company data on number of shares and stock price[31]. Each company is in the sector of "insurance" listed on the Stock Exchange market.

[31] Before 2004, "insurance" in the source data, the Market Value by Types of Industry- which shows data on the total

Transaction flow is calculated by taking the sum of amounts of equity raised by issuing new stocks and exercised amounts of bonds with right to reserve new stock based on the data on fund raising in the stock market.

1-4-1-2-2. Standardized guarantee institutions

Standardized guarantee institutions are either entities providing public credit guarantees for companies and individuals, or those providing guarantees for housing loans. Entities providing public credit guarantees are compiled by individual financial statements. For those providing guarantees for housing loans, data obtained through questionnaire surveys are used.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Currency, transferable deposits, time and saving deposits, certificates of deposits, loans by private financial institutions, central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, industrial securities, equity, investment trust beneficiary certificates, non-life insurance technical reserves, accounts receivable, outward investments in securities, others	Equity, accounts payable, others
Of those, estimated		
The data used in compiling each transaction item		Provisions for calls under standardized guarantees

Note:

"Loans by private financial institutions," "central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "equity," and "investment trust beneficiary certificates" are evaluated at a market price (real value basis).

Details on major transaction items in this category:

- Provisions for calls under standardized guarantees (liabilities side)

We estimate the amounts of housing loan guarantees in the economy as a whole by using figures of housing loans in the FFA, taking into account the percentage of loans guaranteed. The amounts of provisions for call under standardized guarantees for housing loans are then estimated by multiplying the amounts of housing loan guarantees with the estimated rate of provisions for calls, obtained through questionnaire surveys on guarantee companies affiliated with banks and group financial institutions.

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amounts of shares and equities evaluated at a market value of the Stock Exchange and OTC- registered stock market, is assumed to be identical to private nonlife insurance companies. However, because source data is no longer disseminated, the compilation method has been changed by estimating the figures based on the individual company's source data.

1-4-1-2-3. Other nonlife insurance

"Other nonlife insurance" is mainly compiled by using the financial statement of each insurance special account, such as the Earthquake Reinsurance Special Account and credit insurance institutions[32].

Due to the limitations of source data, special accounts in this category employ the same values as the one of previous quarter, as only the-end-of-fiscal-year values are available.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Transferable deposits, time and savings deposits, certificates of deposits, loans by public financial institutions, central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, industrial securities, equity, trade credits and foreign trade credits, accounts receivable, outward investments in securities, others	Equity, non-life insurance technical reserves, deposits money, accounts payable, others
The data used in compiling each transaction item	Deposits with the Fiscal Loan Fund, non-life insurance technical reserves	

Note:

"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," and "industrial securities" are evaluated at a market price.

1-4-1-3. Mutual aid insurance

"Mutual aid insurance" is calculated residually by following process. First, financial assets and liabilities in this sector prior to the consolidation are estimated by using the financial statements and the breakdown data on policy reserves of each institution[33]. Then, the portion held by this sector is posted as residual after deducting the entrusted funds[34] associated with group pension insurance (that are consolidated into the original investing entity such as former qualified retirement pension plans defined benefit plans, and the National Pension Fund).

The entrusted assets subject to the consolidation are based on the micro data on policy reserves. The breakdown of investment assets is estimated by assuming that the composition of entrusted assets is identical to the asset-mix of the National Mutual

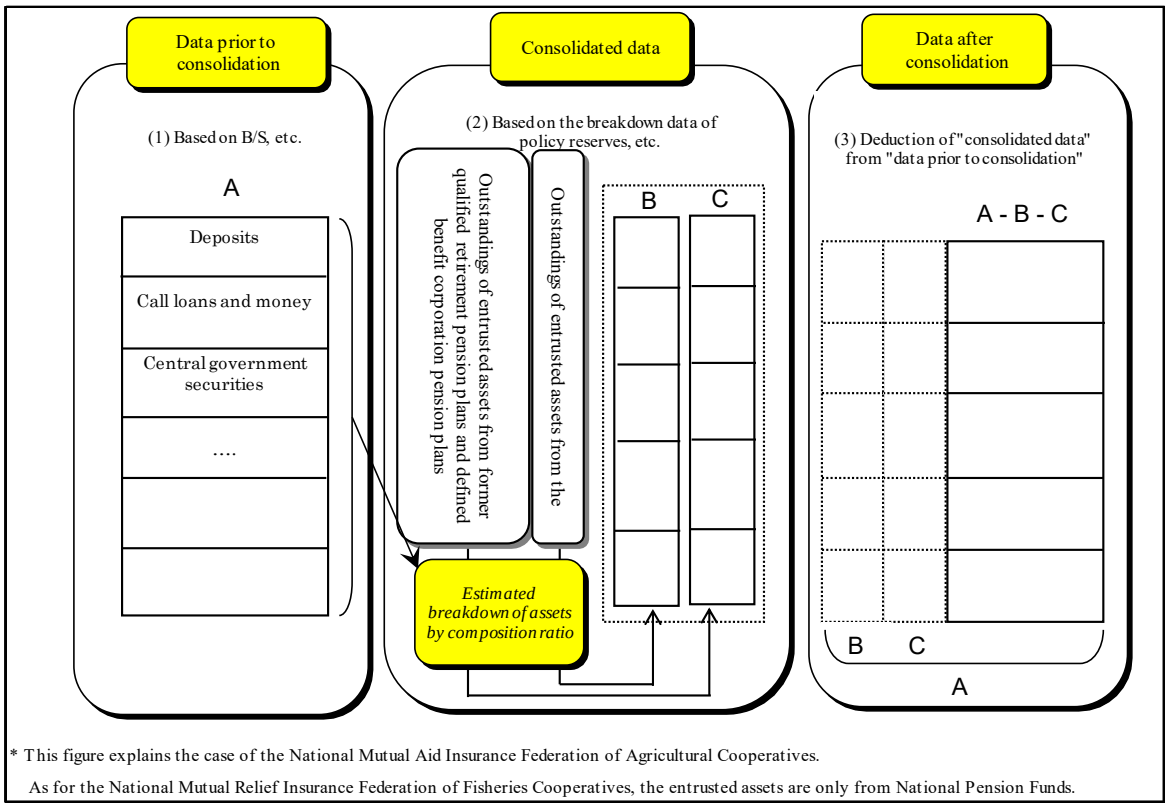
[32] Government deposits in "currency deposits" recorded in the financial statements are included in "others" in the FFA, assuming these as claims/debts to the Treasury (where the Treasury is classified in central government of the FFA).

[33] The National Mutual Aid Insurance Federation of Agricultural Cooperatives, National Mutual Relief Insurance Federation of Fisheries Cooperatives, and National Federation of Workers and Consumers Insurance Cooperatives.

[34] The National Mutual Aid Insurance Federation of Agricultural Cooperatives receives pension funds from former qualified retirement pension funds, National Pension Funds and defined benefit plans. The National Mutual Relief Insurance Federation of Fisheries Cooperatives receive pension funds from National Pension Funds.

Insurance Federation of Agricultural Cooperatives and the National Mutual Insurance Federation of Fisheries Cooperatives (composition ratio method).

Consolidation method



* This figure explains the case of the National Mutual Aid Insurance Federation of Agricultural Cooperatives.
As for the National Mutual Relief Insurance Federation of Fisheries Cooperatives, the entrusted assets are only from National Pension Funds.

Outline of estimation methods of individual items in this sector

Source data	Asset items (Consolidated items)	Liability items	
			Consolidated items
Of those, extracted from the source data			
Financial statements etc.	Currency, transferable deposits, time and savings deposits, certificates of deposits, foreign currency deposits, call loans and bills, loans by private financial institutions, central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, industrial securities, external securities issued by residents, CP, trust beneficiary rights, structured-financing instruments, equity, investment trust beneficiary certificates, deposits money, accounts receivable, outward investments in securities, others	Loans by private financial institutions, repurchase agreements and securities lending transactions, equity, non-life insurance technical reserves, annuity entitlements, deposits money, accounts payable, others	Annuity entitlements
The data used in compiling each transaction item	Treasury discount bills		
Of those, estimated			
The data used in compiling each transaction	Other external claims and debts		

Notes:

For the items in square brackets, the total is available from financial statements.
"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "equity," and "investment trust beneficiary certificates" are evaluated at a market price.

Details on major transaction items in this category:

- Treasury discount bills (assets side)

  This category is based on the summary sheet of registered government bonds and clearing government bonds of each business.

- Central government securities and FILP bonds (assets side)

  This category is calculated using several data sets such as the market value of central government bonds and FILP bonds from annual reports.

- Non-life insurance technical reserves, Annuity entitlements (liabilities side)

  The sum of "non-life insurance technical reserves" and "annuity entitlements" refers to payment reserve, liability reserve and reserve funds to be allocated to returns for contractors rebate less catastrophe loss reserves (because of reserves for insurance other than saving type), and the entrusted funds associated with the National Pension Funds[35]. Moreover,

[35] The National Mutual Aid Insurance Federation of Agricultural Cooperatives is entrusted to manage pension funds from former qualified retirement pension funds, defined benefit corporation pension funds, and the National Pension Funds, while

policy reserves associated with personal pension mutual insurance are also compiled. The figure is then deducted from the total to obtain non-life insurance technical reserves. Since the data on policy reserves is available only at the end of fiscal year, the data for other quarters are estimated respectively.

1-4-2. Pension funds

"Pension funds" equals the sum of "corporate pensions" and "other pensions."

1-4-2-1. Corporate pensions

"Corporate pensions" equals the sum of "defined benefit schemes" and "defined contribution schemes."

1-4-2-1-1. Defined benefit schemes

"Defined benefit scheme" are recorded by compiling and estimating the Employees' Pension Fund, defined benefit corporate pensions (fund-type and contract-type pensions), the former tax-qualified retirement pension plans (abolished in March 2012), and retirement benefit trusts, using the following methods:

The Employees' Pension Fund, defined benefit corporate pensions, and the former tax-qualified retirement pension plans are compiled by financial statements of companies, pension trust data, and estimates by the Cabinet Office.

Amounts outstanding of pension entitlements (on liabilities) are recorded by calculating, as source data, retirement benefit obligations in the corporate accounting based on the actuarial calculation of pensions. Transaction amounts are calculated by deducting amounts of pension payments in the period from the increase in pension entitlements acquired by employees' continued work in the same period. Namely, they are calculated by deducting the amount of pension payments from the sum of service costs and interest costs. Reconciliation amounts are recorded for the discrepancies between the term-on-term differences in amounts outstanding and transaction amounts.

Amounts outstanding of items on the assets are compiled by consolidating the portfolio of each institution's entrusted funds that is based on the financial statement of each type of ensured institutions. Among items on the assets, the differences between the total assets and liabilities in defined benefit scheme are recorded for claims of pension funds on pension managers. This item shows underfunded pension obligations of pension funds (overfunded pension obligations in the case of negative figures).

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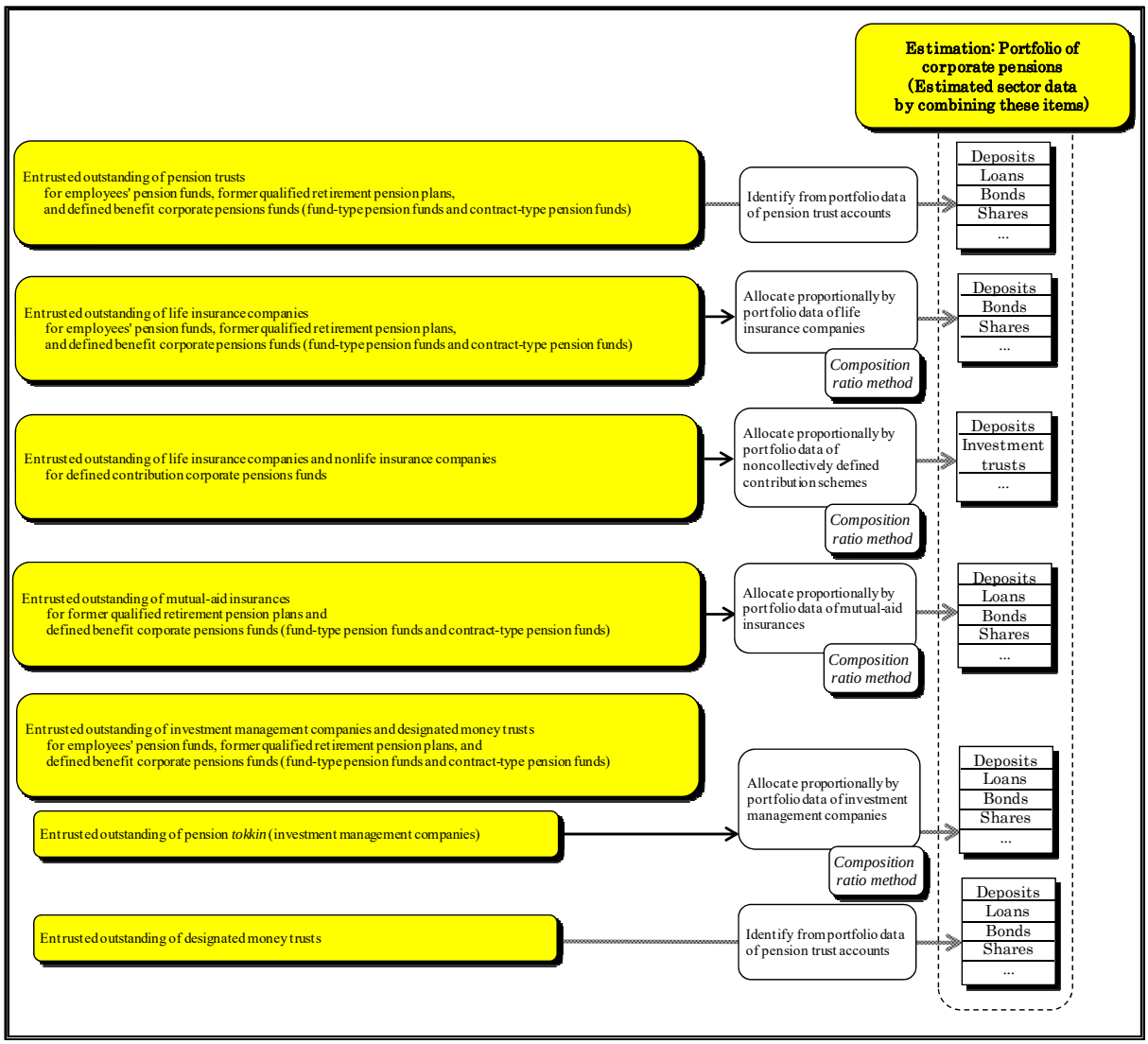
the National Mutual Relief Insurance Federation of Fisheries Cooperatives is from the National Pension Funds. These entrusted assets (and corresponding pension reserves) need to be consolidated and posted under "pension funds" and therefore, associated pension reserves are deducted from this sector.

For retirement benefit trusts, amounts outstanding (market value) obtained from trustees are recorded for Others (on the assets) due to the limitations of data sources. Term-on-term differences in amounts outstanding are recorded as reconciliation amounts.

Consolidation method



Outline of estimation methods of individual items in this sector

Source data	Asset items (Consolidated items)	Liability items
Of those, extracted from the source data		
Financial statements etc.	Claims of pension funds on pension managers	Pension entitlements
Others		
Consolidated data	Currency, transferable deposits, time and savings deposits, certificates of deposits, foreign currency deposits, call loans and bills, loans by private financial institutions, repurchase agreements and securities lending transactions, treasury discount bills, central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, industrial securities, external securities issued by residents, CP, trust beneficiary rights, structured-financing instruments, equity, investment trust beneficiary certificates, financial derivatives and employee stock options, deposits money, accounts receivable, outward investments in securities, other external claims and debts, others	Financial derivatives and employee stock options

Note:

"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "external securities issued by residents," "equity," and "investment trust beneficiary certificates" are evaluated at a market price.

Details on major transaction items in this category:

- Pension entitlements (liabilities side)

  Amounts outstanding are estimated and recorded by grossing up the compiled figures (based on outstanding retirement benefit obligations disclosed by companies in their consolidated financial statements) for retirement benefit obligations of the country as a whole, including those of companies not disclosed in their financial statements. When grossing up, we use the ratio of total amounts of pension assets, which can be identified from financial statements of companies, against the total amounts of entrusted assets for the country as a whole obtained from trustees. Transaction amounts are compiled by deducting pensions paid from the sum of service costs and interest costs. Among these, service costs and interest costs are estimated by grossing up the compiled figures obtained from financial statements of companies for the country as a whole, using the same method for retirement benefit obligations, while pensions paid are deducted using estimates by the Cabinet Office.

- All items subject to the consolidation (assets side)

  The portion entrusted to trust account of domestically licensed banks (employees' pension funds, former qualified retirement pension plans, and defined benefit corporate pensions funds <fund-type pension funds and contract-type pension funds> is based on the portfolio data of each contracts. The portion reinvested to pension investment funds[36] is estimated by

[36] Pension investment funds refer to designated money trusts that reinvest funds by collecting the investment assets from each pension trust, for the reason that the fund managements to stocks from each of trusts (former qualified retirement pension plan trusts, employees' pension fund trust accounts, defined benefit corporate pensions funds <fund-type pension funds and contract-type pension funds>, and national pension fund trust) do not create efficient returns.

using the fraction of corporate pensions in pension trusts.
The portion entrusted to private life insurance companies and the National Mutual Aid Insurance Federation of Agricultural Cooperatives is estimated by multiplying the total of entrusted assets[37] by the weight of asset-mix of the whole investment assets.
The portion entrusted to pension *tokkin* (investment management companies) is estimated by multiplying the total of entrusted assets by the weight of asset-mix of the whole investment assets.

- Claims of pension funds on pension managers

For amounts outstanding, the differences between the amounts of total assets and liabilities in the defined benefit schemes are recorded. (Negative figures indicate overfunded pension obligations.) Transaction amounts record accrued pension obligations and accrued interest which employer companies should pay for the amounts corresponding to these unfunded pension obligations. Estimates by the Cabinet Office are recorded for accrued pension obligations, while for accrued interest, estimates are calculated by multiplying underfunded pension obligations of employee companies (private nonfinancial corporations and domestically licensed banks) with the discount rates computed from interest costs in the financial statements of companies.

- Other external claims and debts (assets side)

This category records the sum of (1) the amount of investments in the equity of foreign partnerships based on data related to the *International Investment Position of Japan* and (2) the portion attributable to "defined benefit schemes" within the discrepancies between the amount of "other external claims and debts" held by domestic sectors (derived from the *International Investment Position of Japan*) and the sum of investments in the equity of foreign partnerships held by domestic sectors (estimated and aggregated by sector based on data related to the *International Investment Position of Japan*).

1-4-2-1-2. Defined contribution schemes

For pension assets of defined contribution pension schemes (corporate type) entrusted by financial institutions, breakdowns of investments outstanding and instruments invested are obtained from trustees and operational management institutions, which compile records and investment instructions for pension assets, and recorded in assets of defined contribution schemes. Moreover, payments of pensions under defined contribution schemes depend on the investment performance of pension assets, the same amount as the total amount of managed assets is recorded as pension entitlements on the liabilities.

[37] Include the portion entrusted to private insurance companies that are estimated by the surpluses during the management process.

Outline of estimation methods of individual items in this sector

Source data	Asset items		Liability items	
		Consolidated items		Consolidated items
Of those, extracted from the source data				
Financial statements etc.	Equity, investment trust beneficiary certificates, accounts receivable, others	Investment trust beneficiary certificates, accounts receivable, others	Pension entitlements	Pension entitlements
Of those, estimated				
Financial statements etc. :Of which, proportional allocation is employed	[Transferable deposits, time and savings deposits]	Transferable deposits, time and savings deposits		

Notes:

For the items in square brackets, the total is available from financial statements.

"Investment trust beneficiary certificates" is evaluated at a market price.

Details on major transaction items in this category:

- Pension entitlements (liabilities side)

  The total amount of items identified on the assets is recorded as pension entitlements on the liabilities.

- Time and saving deposits and Transferable deposits (assets side)

  Among entrusted amounts for trustees, the amounts equivalent to deposits are recorded by apportioning them according to the ratios of time deposits and ordinary deposits obtained from operational management institutions. In addition, each transaction item in this category includes the portion entrusted to private life insurance companies and private nonlife insurance companies. The portion is estimated by (1) obtaining the total value of assets entrusted to both entities from operational management institutions and (2) using the weight of each asset in the whole investment assets entrusted to institutions other than life and nonlife insurance companies (composition ratio method).

- Investment trust beneficiary certificates (assets side)

  For fiscal year-end amounts outstanding, the same amount as investment trusts outstanding obtained from operational management institutions is recorded. Other than fiscal year-end figures, quarterly term amounts outstanding are compiled by adding the term-on-term difference calculated from investment trust figures (book value) which have been originally obtained from trustees and estimates for changes in the market value of assets to the amounts outstanding at the end of the previous period. In addition, this category includes the portion entrusted to private life insurance companies and private nonlife insurance companies. The portion is estimated by (1) obtaining the total value of assets entrusted to both entities from operational management institutions and (2) using the weight of investment trust beneficiary certificates in the whole investment assets entrusted to institutions other than life and nonlife insurance companies (composition ratio method).

- Accounts receivable/payable (assets side)

  Liquid funds before settlement, provided by operational management institutions, are recorded. In addition, this category includes the portion entrusted to private life insurance companies and private nonlife insurance companies. The portion is estimated by (1) obtaining the total value of assets entrusted to both entities from operational management institutions and (2) using the weight of accounts receivable/payable in the whole investment assets entrusted to institutions other than life and nonlife insurance companies (composition ratio method).

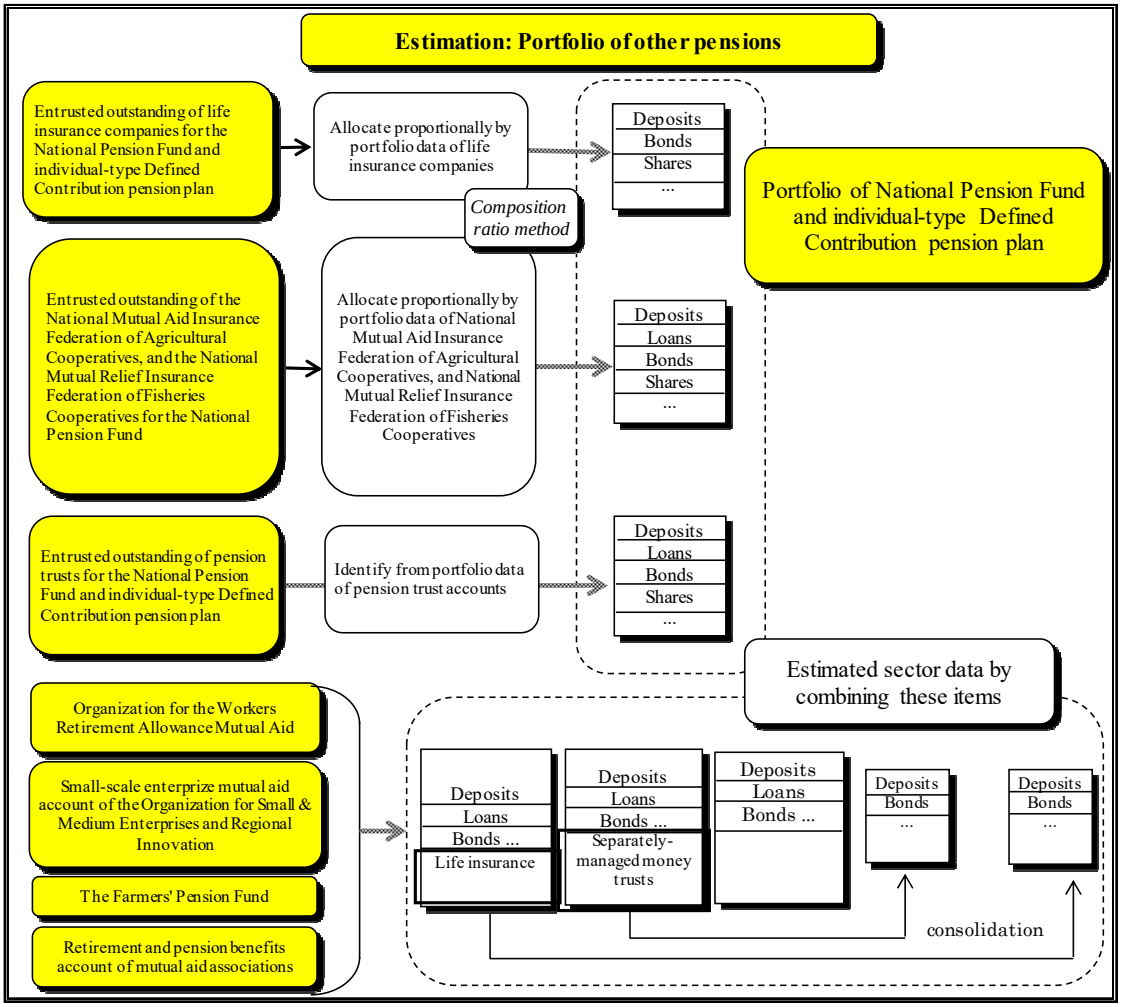
1-4-2-2. Other pensions

"Other pensions" equals the sum of (1) the National Pension Fund, individual-type Defined Contribution pension plan and (2) other institutions (the Organization for Workers Retirement Allowance Mutual Aid, the small-scale enterprise mutual aid account of the Organization for Small & Medium Enterprises and Regional Innovation, Farmers' Pension Fund, and the retirement and pension benefits account of mutual aid associations).

(1) The National Pension Fund and individual-type Defined Contribution pension plan
Figures for the National Pension Fund and the individual-type Defined Contribution pension plan on the assets side are compiled by consolidating portfolio data of each trustee, which are estimated based on their financial statements, by transaction.
For pension entitlements of the National Pension Fund, policy reserves are estimated from financial statements and posted on the liabilities side. For the individual-type Defined Contribution pension plan, the same amount as the investment assets outstanding obtained from trustees and coordinators of operational management institutions, which administer and record invested pension assets, is posted as pension entitlements on the liabilities side.

(2) The Organization for Workers Retirement Allowance Mutual Aid, the small-scale enterprise mutual aid account of the Organization for Small & Medium Enterprises and Regional Innovation, Farmers' Pension Fund, and the retirement and pension benefits account of mutual aid associations
For the institutions other than the National Pension Fund and individual-type Defined Contribution pension plan, transaction items are based on the financial statement. Designated noncollectively invested money trusts and life insurance assets, held by the Organization for Workers Retirement Allowance Mutual Aid, the small-scale enterprise mutual aid account of the Organization for Small & Medium Enterprises and Regional Innovation, and the retirement and pension benefits account of mutual aid associations are consolidated from trust companies and private life insurance companies to this sector. For the consolidation, the breakdown of each item is estimated by multiplying the amount outstanding of entrusted assets by the asset-mix that is based on the financial statement of fiduciary institutions (composition ratio method).

Consolidation method



Outline of estimation methods of individual items in this sector

Source data	Asset items		Liability items
		Consolidated items	
Of those, extracted from the source data			
Financial statements etc.	Currency, transferable deposits, time and savings deposits, certificates of deposits, call loans and bills, loans by private financial institutions, loans by public financial institutions, repurchase agreements and securities lending transactions, treasury discount bills, central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, industrial securities, trust beneficiary rights, equity, investment trust beneficiary certificates, deposits money, accounts receivable, outward investments in securities	Currency, transferable deposits, time and savings deposits, certificates of deposits, call loans and bills, loans by private financial institutions, loans by public financial institutions, repurchase agreements and securities lending transactions, treasury discount bills, central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, industrial securities, trust beneficiary rights, equity, investment trust beneficiary certificates, deposits money, accounts receivable, outward investments in securities	Loans by private financial institutions, loans by public financial institutions, repurchase agreements and securities lending transactions, public corporation securities, equity, pension entitlements, deposits money, accounts payable
The data used in compiling each transaction item	Deposits with the Fiscal Loan Fund		
Of those, estimated			
The data used in compiling each transaction item	Other external claims and debts		
Others			
Consolidated data		Foreign currency deposits, external securities issued by residents, CP, structured-financing instruments, others	

Note:

"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "external securities issued by residents," "equity," and "investment trust beneficiary certificates" are evaluated at a market price.

Details on major transaction items in this category:

- Pension entitlements(liabilities side)

For pension entitlements of the individual-type Defined Contribution pension plan, the same amount as the investment assets obtained from trustees and coordinators of operational management institutions, which administer and record invested pension assets, is posted on the liabilities side.

For institutions other than the individual-type Defined Contribution pension plan, policy reserves are estimated and posted.

- All items subject to the consolidation (assets side)

For the investment assets of the National Pension Fund and individual-type Defined Contribution pension plan, the portion entrusted to trust management companies is based on the data on breakdowns of entrusted assets. The portion reinvested to pension investment funds[38] is estimated by allocating the fraction of National Pension Trust in all pension trusts.

The portion entrusted to private life insurance companies, the National Mutual Aid Insurance Federation of Agricultural Cooperatives, and the National Mutual Relief Insurance Federation of Fisheries Cooperatives is estimated by calculating each entrusted assets by allocating the fraction of the National Pension Trust of all their assets.

The portion entrusted to investment management companies (pension *tokkin*) is estimated by multiplying the total entrusted assets by the weight of each asset in the whole investment assets.

1-5. Other financial intermediaries

"Other financial intermediaries" equals the sum of "nonbanks," "public financial institutions," and "financial dealers and brokers."

1-5-1. Nonbanks

"Nonbanks" equals the sum of "finance companies" and "structured-financing special purpose companies (SPCs) and trusts."

1-5-1-1. Finance companies

"Finance companies" equals the sum of financial assets/liabilities in (1) money lending companies, (2) the Resolution and Collection Corporation (excluding those recorded in "financial institutions for small businesses"), (3) securities finance companies, and (4) venture capitals.
Estimation method for each entity is as follows.

[38] Pension investment funds refer to designated money trusts that reinvest funds by collecting the investment assets from each pension trust, for the reason that the fund managements of each of trusts (former qualified retirement pension plan trusts, employees' pension fund trusts, defined benefit corporate pensions funds <fund-type pension funds and contract-type pension funds>, and national pension fund trust) that invest to stocks does not create efficient returns.

(1) Money lending companies

Financial assets and liabilities held by money lending companies are estimated using financial statements of the major money lending companies, except for those estimated using other sources such as statistics released by industry associations[39].

In the method using financial statements of major companies, the amount outstanding of each transaction item held by money lending companies is estimated by taking the ratio of the total loans outstanding of all companies to that of the respondents as a whole and multiplying by the amount outstanding for each transaction item reported by the respondents (instead of each business type). Meanwhile, for the transaction items for which amounts outstanding are available from other sources, data drawn from these sources are used.

It should be noted regarding the above method that the data covering all companies are updated once in a year. Hence, in compiling figures for each quarter, the amounts outstanding of institutions other than major companies are assumed to remain constant and the transaction flows record only those of major companies; these figures are retroactively revised once the annual data are obtained.

(2) The Resolution and Collection Corporation

"The Resolution and Collection Corporation" is based on the financial statement of the corporation. Part of assets and liabilities of this corporation is posted under "financial institutions for small businesses," assuming that is received from the former Resolution and Collection Bank as a result of transfers of business from the failed *shinkumi* banks. The remaining is posted under "finance companies"[40].

Preferred stocks gained by the Resolution and Collection Corporation through injection of public money, are deducted from stock on the financial statements and are posted under "other

[39] More specifically, financial assets and liabilities for which figures are estimated using financial statements of major money lending companies are as follows:

Asset side: Currency and deposits, housing loans, loans to companies and governments, installment credits, repurchase agreements and securities lending transactions, debt securities, equity, financial derivatives and employee stock options, deposits money, accounts receivable/payable.

Liability side: loans by private financial institutions, loans by the nonfinancial sector, equity, financial derivatives and employee stock options, deposits money, trade credits and foreign trade credits, accounts receivable/payable.

[40] Details are as follows.

	Asset items	Liability items
Listed under finance companies	Currency, deposits, call loans and bills, loans by private financial institutions, structured-financing instruments, local government securities, public corporation securities, bank debentures, industrial securities, trust beneficiary rights, equity, investment trust beneficiary certificates, deposits money, accounts receivable, outward investments in securities, others	Call loans and bills, loans by private financial institutions, deposits money, accounts payable, others
Listed under finance companies and financial institutions for small businesses by allocating the items proportionally	Central government securities and FILP bonds	Equity
Listed under financial institutions for small businesses	Deposits with the Bank of Japan	Deposits, Bank of Japan loans

equities" at face value.

(3) Securities finance companies

"Securities finance companies" is calculated by building up the items in each financial statement.

(4) Venture capitals

Figures for venture capitals are based on "Survey on Trends in Venture Capital Investment (available in Japanese only)" by the Venture Enterprise Center and financial statements of major venture capitals. More specifically, investments from venture capitals and related funds to venture companies are recorded as equity (assets side), while investments from investors (financial institutions, nonfinancial corporations, and households) to venture capitals and related funds are recorded as equity (liabilities side).

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Currency, call loans and bills, installment credit, repurchase agreements and securities lending transactions, local government securities, public corporation securities, financial derivatives and employee stock options, deposits money, accounts receivable, outward investments in securities, others	Bank of Japan loans, call loans and bills, loans by private financial institutions, loans by the nonfinancial sector, repurchase agreements and securities lending transactions, structured-financing instruments, deposits money, others
The data used in compiling each transaction item	Treasury discount bills	Installment credit, industrial securities, external securities issued by residents, CP, equity, financial derivatives and employee stock options
Of those, estimated		
Financial statements etc. :Of which, proportional allocation is employed	[Transferable deposits, time and savings deposits, certificates of deposits, foreign currency deposits] [Central government securities and FILP bonds, bank debentures, industrial securities, trust beneficiary rights, structured-financing instruments, equity, investment trust beneficiary certificates]	[Trade credits and foreign trade credits, accounts payable]
The data used in compiling each transaction item	Loans by private financial institutions, Outward direct investment, other external claims and debts	Other external claims and debts

Notes:

For the items in square brackets, the total is available from financial statements.
"Loans by private financial institutions," "central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "equity," and "investment trust beneficiary certificates" are evaluated at a market price (real value basis).

Details on major transaction items in this category:

- Transferable deposits, time and savings deposits and foreign currency deposits (assets side)

  Total deposits are estimated based on the financial statements of money lending companies and securities finance companies and are allocated proportionally by the proportion of the type of deposits of "nondeposit-taking institutions including money lenders and credit card companies (but excluding government financial institutions)" in *Amounts Outstanding of Deposits by Depositor.*

- Loans by private financial institutions (assets side)

  The total and figures for housing loans, consumer credits, and loans to companies and governments are based on the financial statements of money lending companies; the Resolution and Collection Corporation; and securities finance companies; and other data sources, including the statistics released by industry associations.

  Loans by money lending companies (on a real value) are calculated residually after deducting the allowances for individual uncollectibles. Transaction flow in this category refers to the change in amount outstanding.

  The consumer credit of money lending companies is estimated separately for consumer finance and for sales credit to consumers. The amount outstanding of consumer finance is estimated using data such as on outstanding loans to consumers recorded in statistics on money lending businesses released by the Financial Services Agency. The amount outstanding of sales credit to consumers is estimated using sources including shopping credit statistics published by the Japan Consumer Credit Association and statistical data on installment sales credit released by the Credit Information Center Corp.

- Repurchase agreements and securities lending transactions (assets side)

  The amount outstanding of repurchase agreements of money lending companies and securities finance companies is based on the financial statements. The amount outstanding of "securities lending transactions with cash collateral" is based on research on securities lending transactions.

- Central government securities and FILP bonds, bank debentures, industrial securities, trust beneficiary rights, structured-financing instruments, equity, investment trust beneficiary certificates (assets side)

  The total for each item is based on the financial statement of money lending companies, the Resolution and Collection Corporation, and securities finance companies. Money lending companies, of which the financial statements are available, are recorded in this category. Of these, certain money lending companies are estimated by using the ratio of each item to the holding amount of securities. It is assumed that securities finance companies hold only central government securities and FILP bonds.

  Figures for central government securities and FILP bonds, bank debentures, industrial securities, equity, and investment trust beneficiary certificates are converted to a market value basis from a book value basis. In addition, investment trust beneficiary certificates

refers to the amounts plus part of the residual of which the holding sector is unidentifiable, which is calculated by deducing investment trust beneficiary certificates held by individual sectors from total issuance.

- Equity (liabilities side)

  The total amount of outstanding is evaluated at a market price based on the individual company data on number of shares and stock price.[41] Individual companies are in the sector "other financing business" listed on the stock exchange. Transaction flows are calculated by taking the sum of amounts of equity raised by issuing new stocks, and exercised amounts of bonds with right to reserve new stock, based on data on fund raising in the stock market.

- Financial derivatives and employee stock options (assets/liabilities side)

  The amount outstanding of financial derivatives in this category is based on the financial statement of money lending companies.

- Outward direct investment (assets side)

  The calendar year-end amount of outward direct investment is estimated by multiplying the total amount of outward direct investments (total of equity capital and reinvestment of profit), which is estimated from the *International Investment Position of Japan*, with the composition ratio for finance companies based on data sources for the composition ratio of each investing business. As the composition ratio of each business for outward direct investment is the data at the end of the calendar year, preliminary data for the quarterly term amount outstanding is calculated by individually compiling major investment projects of finance companies. Furthermore, it is finalized by proportionally allocating part of the discrepancies between the amounts of outward direct investment and preliminary figures at the end of the calendar year to each quarter of finance companies.

[41] Up until 2004, "Other Financing Business"—in the "Market Value by Types of Industry" that shows data of the total amounts of shares and equities evaluated at market value in the Stock Exchange and OTC- registered stock market—was assumed to be the same as "finance companies" in the FFA. However, because the source data are no longer disseminated, the compilation method has been changed by estimating the figures based on each company's source data.

1-5-1-2. Structured-financing special purpose companies (SPCs) and trusts

"Structured-financing special purpose companies (SPCs) and trusts" records structured-financing instruments under the liabilities item, based on the market data on those instruments[42]. Assets held by this sector are estimated for each structured-financing instrument based on the data on liquidation of underlying claims by type. Underlying claims of structured-financing instruments are loans (to companies and governments), housing loans, consumer credits, installment credits, industrial securities, structured-financing instruments, accounts receivable including trade credits and foreign trade credits, and deposits money.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Transferable deposits	
Of those, estimated		
The data used in compiling each transaction item		Structured-financing instruments
Financial statements etc. :Of which, proportional allocation is employed	[Loans by private financial institutions, installment credit, industrial securities, structured-financing instruments, deposits money, trade credits and foreign trade credits]	

Note:

For the items in square brackets, the total is available from financial statements.

Details on major transaction items in this category:

- Structured-financing instruments (assets side)

  The amount of monetary claim trust beneficiary certificates issued through multiple-stage securitization is posted in this category. The amount is estimated based on the entrusted assets outstanding of financial institutions' and trust companies' financial data on entrusted assets as well as the underlying claims in *Securitization Market Trends Survey Report* released by the Japan Securities Dealers Association.

1-5-2. Public financial institutions

"Public financial institutions" equals the sum of "fiscal loan fund" and "government financial institutions."

[42] More specifically, ABCP refers to the *Outstanding Amounts of CP by Issuer's category (SPCs)* released by the Japan Securities Depository Center (JASDEC), while monetary claim trust beneficiary rights are based on the entrusted assets outstanding of financial institutions and trust companies' financial data on entrusted assets. The asset backed (AB) domestic corporate bonds are calculated by estimating the amount of those backed by monetary claim from "asset backed bonds (Public Offering and Private Offering)" in the *Issuance, Redemption and Outstanding Balance by Bonds' Category* released by the JASDEC. The amount of bonds backed by nonfinancial assets (Public Offering and Private Offering) is estimated using the same source data and is recorded in industrial securities issued by private nonfinancial corporations.

1-5-2-1. Fiscal Loan Fund

Each transaction item in "fiscal loan fund" is based on the financial statement breakdown data on the funds of the Fiscal Loan Fund, and the data on fiscal investment and loan program (*the Monthly Report of Fiscal Loan Fund*, and *the Fiscal Investment and Loan Program Report*).

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Transferable deposits, loans by public financial institutions, local government securities, public corporation securities, bank debentures, outward investments in securities	Deposits with the Fiscal Loan Fund, treasury discount bills, equity, accounts payable
The data used in compiling each transaction item	Repurchase agreements and securities lending transactions, treasury discount bills, others	Central government securities and FILP bonds, others
Of those, estimated		
Financial statements etc.	[Central government securities and FILP bonds - treasury discount bills]	

Notes:

For the items in square brackets, the total is available from financial statements.
"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," and "industrial securities" are evaluated at a market price.

Details on major transaction items in this category:

- Treasury discount bills (assets side)

  This category is based on the summary sheet of registered government bonds and clearing government bonds for each business.

- Central government securities and FILP bonds (assets side)

  This category refers to central government securities and FILP bonds (including treasury discount bills) less treasury discount bills that are estimated separately. Certain adjustment is conducted in order to retrieve the state before the transaction with repurchase agreements. Figures are converted to market value basis from book value basis.

1-5-2-2. Government financial institutions

Each transaction item in "government financial institutions" is based on each financial statement. The transaction items that cannot be compiled by this line are alternatively compiled using the data on each item such as *the Loans to individuals (Housing funds)* and the data on fiscal investment and loan program (*the Fiscal Investment and Loan Program Report*).

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Currency, deposits with the Bank of Japan, transferable deposits, time and savings deposits, certificates of deposits, foreign currency deposits, call loans and bills, loans by public financial institutions, repurchase agreements and securities lending transactions, local government securities, public corporation securities, bank debentures, industrial securities, trust beneficiary rights, equity, deposits money, accounts receivable, others	Call loans and bills, loans by private financial institutions, public corporation securities, equity, deposits money, accounts payable, others
The data used in compiling each transaction item	Deposits with the Fiscal Loan Fund, treasury discount bills	Loans by public financial institutions, repurchase agreements and securities lending transactions, external securities issued by residents, CP
Of those, estimated		
Deducting the other sector from the total	Outward investments in securities	
Financial statements etc.	[Central government securities and FILP bonds - treasury discount bills]	[Loans by the nonfinancial sector - (loans by private financial institutions + loans by public financial institutions)]
The data used in compiling each transaction item	Other external claims and debts	

Notes:

For the items in square bracket, the total is available from financial statements.
"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "equity," and "outward investments in securities" are evaluated at a market price.

Details on major transaction items in this category:

- Loans by public financial institutions (assets side)

"Loans by public financial institutions" is based on the financial statement of each institution. Loans to overseas refer to "loans" from "general government" sector in the *Balance of Payments Statistics* or the *International Investment Position of Japan*.

- Repurchase agreements and securities lending transactions (assets/liabilities side)

For the assets side, the amount outstanding of repurchase agreements is based on the financial statements. The amount on the liability side is estimated as: the outstanding amount of the "others" sector at the end of months in the *Balance of Bond Transactions with Repurchase Agreements (by investor type)*[43] released by the Japan Securities Dealers Association is allocated proportionally to each constituent sector—which includes the government financial institutions sector—according to the amount of government securities held.

[43] The "others" sector in this statistic includes the outstanding of repurchase agreements that members of the Japan Securities Dealers Association won bids for the Bank of Japan's market operations, the "purchase/sale of Japanese government securities with repurchase agreements," and this amount outstanding is excluded from "others."

- Treasury discount bills (assets side)

  This category is based on the summary sheet of registered government bonds and clearing government bonds of each business.

- Central government securities and FILP bonds (assets side)

  This category refers to central government securities and FILP bonds in the financial statement (including treasury discount bills) less treasury discount bills that are estimated separately. Figures are converted from book value basis to market value basis.

- Loans by private financial institutions, loans by public financial institutions, and loans by the nonfinancial sector (liabilities side)

  The total of these transaction items, and "loans by private financial institutions" are based on the financial statement, while "loans by public financial institutions," such as the loans by the Special Account of Fiscal Investment and Loan Program Fund and postal life insurance, is based on the financial statement of each account and the data on fiscal investment and loan program (*Fiscal Investment and Loan Program Report*). The residual in this category is regarded as "loans by the nonfinancial sector."

- Outward investments in securities (assets side)

  The amount outstanding records the residual calculated by deducting outward investments in securities held by sectors other than government financial institutions (finance companies, a part of central government, and the Fiscal Loan Fund) from "portfolio investment (Assets)" held by the "general government" sector in the *International Investment Position of Japan*.

1-5-3. Financial dealers and brokers

"Financial dealers and brokers" equals the sum of "securities companies," "*tanshi* companies (money market dealers)" and Banks Shareholdings Purchase Corporation (special account).

1-5-3-1. Securities companies

Each transaction item in "securities companies" is based on the breakdown data of financial statements. The transaction items that cannot be compiled by this line are alternatively compiled by using the market data on industrial bonds (stock exchange market data) and the financial statement of the Bank of Japan.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Certificates of deposits, call loans and bills, loans by private financial institutions, repurchase agreements and securities lending transactions, equity, financial derivatives and employee stock options, deposits money, accounts receivable, others	Repurchase agreements and securities lending transactions, financial derivatives and employee stock options, deposits money, accounts payable, others
The data used in compiling each transaction item	Deposits with the Bank of Japan, external securities issued by residents	Industrial securities, CP, equity
Of those, estimated		
Financial statements etc. :Of which, proportional allocation is employed	[Currency, transferable deposits, time and savings deposits, foreign currency deposits] [Local government securities, public corporation securities, bank debentures, industrial securities, CP, investment trust beneficiary certificates, outward investments in securities]	[Loans by private financial institutions, loans by the nonfinancial sector]
Financial statements etc.	[Central government securities and FILP bonds – (treasury discount bills + local government securities + public corporation securities + bank debentures + industrial securities + CP + external securities issued by residents + listed shares + investment trust beneficiary certificates + outward direct investment + outward investments in securities)]	[External securities issued by residents – (industrial securities + CP)]
The data used in compiling each transaction item	Treasury discount bills, outward direct investment, other external claims and debts	Bank of Japan loans, other external claims and debts
Estimated by deducting the portion held by other sectors from the total		Call loans and bills

Notes:

For the items in square brackets, the total is available from financial statements.
"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "external securities issued by residents," "equity," and "investment trust beneficiary certificates" are evaluated at a market price.

Details on major transaction items in this category:

- Deposits with the Bank of Japan (assets side)

  Until September 2012, "deposits with the Bank of Japan" refers to the special current deposits recorded in the financial statement of the Bank of Japan, assuming these are all made by securities companies. After December 2012, it refers to the figure "Of which: Securities companies" in the *BOJ Current Account Balances by Sector*.

- Currency, transferable deposits, time and savings deposits, and foreign currency deposits (assets side)

  The sum of these items is based on the financial statement. The amounts are allocated proportionally to each instrument by using the composition ratio of "currency and deposits", which is estimated from the annual securities report of major securities companies.

- Repurchase agreements and securities lending transactions (assets/liabilities side)

  This category records the sum of the amount outstanding of repurchase agreements and securities lending transactions from financial statements.

- Treasury discount bills (assets side)

  This category is based on the summary sheet of registered government bonds and clearing government bonds of each business. Certain adjustment is conducted in order to retrieve the state before the transaction with repurchase agreements[44].

- Central government securities and FILP bonds (assets side)

  These items are calculated by adding "trading securities and other" (with assets and liabilities netted out) and "investment securities" in the *Composite Balance Sheet of Securities Firms and Number of Customer Accounts, etc.* released by the Japan Securities Dealers Association less "treasury discount bills," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "commercial papers," "external securities issued by residents," "listed shares," "investment trust beneficiary certificates," "outward direct investment," and "outward investments in securities, " which are estimated separately.

- Equity (Assets side)

  These items are calculated by adding "trading securities and other" (with assets and liabilities netted out) and "investment securities" in the *Composite Balance Sheet of Securities Firms and Number of Customer Accounts, etc.* released by the Japan Securities Dealers Association, multiplied by the ratio of listed shares among total securities held in data disclosed by major securities companies.

- Equity (liabilities side)

  The total amount of outstanding listed shares on market value basis is from data of the individual companies other than holding companies on number of shares and stock price[45]. Individual companies are in the sector of "securities" listed in the stock exchange market. Transaction flows are calculated by taking the sum of amounts of equity raising by issuing new stocks, and exercised amounts of bonds with right to reserve new stock that are based

[44] *Gensaki* transaction held by this sector is estimated by allocating the total amount outstanding of g*ensaki* transaction, based on the data on money market operation of the Bank of Japan, proportionally by using the composition ratio of treasury discount bills held by those who participate the money market operation (based on the summary sheet of registered government bonds and clearing government bonds).

[45] Before 2004, "securities" in the source data, the Market Value by Types of Industry—which shows the data on the total amounts of shares and equities evaluated at a market value of the Stock Exchange and OTC- registered stock market—is assumed to be identical to securities. However, because the source data are no longer disseminated, the compilation method has been changed by estimating the figures based on individual company source data.

on data on fund raising in the stock market.

Unlisted shares issued by subsidiaries of financial holding companies are evaluated on market value by using the market price of the shares issued by the parent holding company, as its market price are regarded to be equal to those of the parent holding company.

1-5-3-2. *Tanshi* companies (money market dealers) etc[46]

Each transaction item of "*tanshi* companies (money market dealers) etc" is compiled by building up the data of individual financial statements.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Currency, deposits with the bank of Japan, transferable deposits, certificates of deposits, call loans and bills, repurchase agreements and securities lending transactions, loans by private financial institutions, local government securities, public corporation securities, bank debentures, industrial securities, CP, trust beneficiary rights, equity, investment trust beneficiary certificates, deposits money, accounts receivable, others	Call loans and bills, Bank of Japan loans, repurchase agreements and securities lending transactions, loans by private financial institutions, public corporation securities, equity, deposits money, accounts payable, others
The data used in compiling each transaction item		CP
Of those, estimated		
The data used in compiling each transaction item	Treasury discount bills	
Financial statements etc.	[Central government securities and FILP bonds - treasury discount bills]	

Notes:

For the items in square brackets, the total is available from financial statements.
"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "equity," and "investment trust beneficiary certificates" are evaluated at a market price (real value basis).

1-6. Financial auxiliaries

"Financial auxiliaries" equals the sum of "financial holding companies" and "other financial auxiliaries."

[46] After 2002, this category includes the figures of special accounts by Bank's Shareholdings Purchase Corporation other than *Tanshi* companies.

1-6-1. Financial holding companies

Financial holding companies are compiled by accumulating individual financial statements of major holding companies for insurance and securities, etc. whose figures can be obtained and the Japan Exchange Group, in addition to bank holding companies.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Transferable deposits, time and savings deposits, certificates of deposits, foreign currency deposits, loans by private financial institutions, central government securities and FILP bonds, deposits money, accounts receivable, others	CP, equity, deposits money, accounts payable, others
The data used in compiling each transaction item		External securities issued by residents
Of those, estimated		
Financial statements etc.	[Equity - outward direct investment]	[Loans by private financial institutions available from financial statements - loans by the nonfinancial sector] [Industrial securities - external securities issued by residents]
The data used in compiling each transaction item	Outward direct investment	Loans by the nonfinancial sector, other external claims and debts

Notes:

For the items in square brackets, the total is available from financial statements.
"Central government securities and FILP bonds," "industrial securities," and "equity" are evaluated at a market price.

Details on major transaction items in this category:

- Loans by private financial institutions (assets side)

The amount outstanding of this item is estimated based on the financial statements of individual financial holding companies, which are available only annually or semi-annually. For figures as of end of June and December when financial statements are unavailable, the amounts outstanding of this item held by financial holding companies of banks are estimated using the data from financial statements of subsidiary banks of financial holding companies.

- Unlisted shares (assets side)

Unlisted shares issued by subsidiaries of holding companies are recorded for "unlisted shares" by evaluating their market value using the market price of the shares issued by the parent holding company, as the market price thereof is regarded to be equal to that of the parent holding company, less outward direct investment (of overseas subsidiaries) and listed shares issued by intermediate holding companies of the parent holding company.

- Outward direct investment (assets side)

The calendar year-end amount of outward direct investment is estimated by multiplying the total amount of outward direct investments (total of equity capital and reinvestment of profit), which is estimated from the *International Investment Position of Japan*, with the composition ratio for financial holding companies based on data sources for the composition ratio of each investing business. As the composition ratio of each business for outward direct investment is the data at the end of the calendar year, preliminary data for the quarterly term amount outstanding is calculated by individually compiling major investment projects of financial holding companies. Furthermore, it is finalized by proportionally allocating part of the discrepancies between the amounts of outward direct investment and preliminary figures at the end of the calendar year to each quarter of financial holding companies.

1-6-2. Other financial auxiliaries

Each transaction item in "other financial auxiliaries" is estimated by building up data in financial statements. Due to the limitations of source data, this sector basically employs the same values as in the previous period. Only the-end-of-fiscal-year values are available for all items of the stock exchanges, financial exchanges, foreign exchange brokers, foreign exchange margin trading firms, Agricultural and Fishery Cooperative Savings Insurance Corporation, and Bank's Shareholdings Purchase Corporation (general account).

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Transferable deposits, time and savings deposits, loans by private financial institutions, loans by public financial institutions, treasury discount bills, local government securities, public corporation securities, bank debentures, industrial securities, trust beneficiary rights, equity, investment trust beneficiary certificates, non-life insurance technical reserves, deposits money, accounts receivable, others	Bank of Japan loans, loans by private financial institutions, loans by public financial institutions, public corporation securities, equity, deposits money, accounts payable
The data used in compiling each transaction item	Central government securities and FILP bonds	
Of those, estimated		
Financial statements etc.	Financial derivatives and employee stock options	
The data used in compiling each transaction item	Deposits with the Bank of Japan	Others

Note:

"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "equity," and "investment trust beneficiary certificates" are evaluated at a market price (real value basis).

1-7. Public captive financial institutions

Each transaction item in "public captive financial institutions" is estimated by building up data in financial statements.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Currency, transferable deposits, time and savings deposits, certificates of deposits, foreign currency deposits, loans by public financial institutions, installment credit, central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, industrial securities, trust beneficiary rights, equity, deposits money, accounts receivable, outward investments in securities, others	Loans by private financial institutions, public corporation securities, industrial securities, equity, deposits money, accounts payable, others
The data used in compiling each transaction item		Loans by public financial institutions, repurchase agreements and securities lending transactions, external securities issued by residents
Of those, estimated		
Financial statements etc.		[Loans by the nonfinancial sector - (loans by private financial institutions + loans by public financial institutions)]

Notes:

For the items in square bracket, the total is available from financial statements.
"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," and "industrial securities" are evaluated at a market price.

2. Nonfinancial corporations

"Nonfinancial corporations" equals the sum of "private nonfinancial corporations" and "public nonfinancial corporations."

2-1. Private nonfinancial corporations

"Private nonfinancial corporations" is compiled by using the financial statement of financial institutions, the statistics on deposits (*Amounts Outstanding of Deposits by Depositor*), the statistics on loans (*Loans and Bills Discounted by Sector*), and the data on bond/stock markets. The holding amount of currency, deposits, and securities (assets side) in this sector may include the residual acquired in the compilation process for each sector (unit).

The Ministry of Finance's *Financial Statements Statistics of Corporations by Industry*, which corresponds to the financial statement of private nonfinancial corporations, is

employed solely to the transaction items such as loans by the nonfinancial sector (assets side), central government securities and FILP bonds (assets side), and trade credits and foreign trade credits (assets side), due to difficulties in obtaining source data such as (1) the detailed breakdowns of each item are not available, (2) there are breaks in the statistics caused by the changes in samples of source data, and (3) the statistics includes a part of corporations that do not fall under the definition of private nonfinancial corporations sector.

When employing the data of the *Financial Statements Statistics of Corporations by Industry*, individual data provided by the Ministry of Finance under Article 33 of the Statistics Act are used to remove samples that do not fall under the definition of the private nonfinancial corporations sector.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
The data used in compiling each transaction item	Loans by the nonfinancial sector, non-life insurance technical reserves	Public corporation securities, equity, external securities issued by residents, investment trust beneficiary certificates
Of those, estimated		
The data used in compiling each transaction item	Call loans and bills, installment credit, repurchase agreements and securities lending transactions, treasury discount bills, central government securities and FILP bonds, unlisted shares, other equity, investment trust beneficiary certificates, provisions for calls under standardized guarantees, financial derivatives and employee stock options, deposits money, trade credits and foreign trade credits, accounts receivable, other external claims and debts, others	Loans by the nonfinancial sector, installment credit, repurchase agreements and securities lending transactions, industrial securities, claims of pension funds on pension managers, financial derivatives and employee stock options, deposits money, accounts payable, other external claims and debts, others
Proportional allocation is employed to each sector	Currency, local government securities, public corporation securities, industrial securities, listed shares	
Estimated by deducting the portion held by other sectors from the total	Transferable deposits, time and savings deposits, foreign currency deposits, certificates of deposits, bank debentures, CP, trust beneficiary rights, structured-financing instruments, outward direct investment, outward investments in securities	Loans by private financial institutions, loans by public financial institutions, CP, trade credits and foreign trade credits

Note:

"Loans by private financial institutions," "central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "equity," "investment trust beneficiary certificates," and "outward investments in securities" are evaluated at a market price (real value basis).

Details on major transaction items in this category:

- Currency (assets side)

  For the currency holding amounts of private nonfinancial corporations at the end of each fiscal year, the outstanding holding amount for industries with large cash holdings is estimated by multiplying the amount of sales based on the *Financial Statements Statistics of Corporations by Industry, Annually*, adjusted for corporations that do not fall under the definition of private nonfinancial corporations, by the ratio of currency holdings to sales of those industries based on the Ministry of Internal Affairs and Communications' *Structural Survey Report on the Unincorporated Enterprise Survey*. For the other three quarters, it is calculated by multiplying the residual, which is calculated by deducting the currency holdings by sectors other than households, private nonprofit institutions serving households (NPISH), and private nonfinancial corporations from the total currency issued, by the ratio of the currency holdings by private nonfinancial corporations to that by above three sectors at the fiscal year end.

- Installment credit (assets/liabilities side)

  Figures on the asset side are estimated using source data such as the financial statements of major companies involved in the transactions of sales credit on automobiles and major mobile phone companies. Figures on the liability side record the installment credit in the financial statements of some public nonfinancial corporations whose businesses are closely related to private nonfinancial corporations, plus the installment credit of nonbanks which is estimated by multiplying the total amount by the ratio of private nonfinancial corporations among borrowers in data for major finance companies. Figures on the liability side also include the installment credit of private nonfinancial corporations to private nonfinancial corporations, estimated using such source data as the financial statements and subtracting the amount to households.

- Repurchase agreements and securities lending transactions (assets/liabilities side)

  The amount outstanding of repurchase agreements is based on the amount of the "business corporations" sector in the *Balance of Bond Transactions with Repurchase Agreements (by investor type)* released by the Japan Securities Dealers Association. The residual of "repurchase agreements"—obtained from the difference between assets and liabilities of this item for all sectors—is recorded on the liability side of the private nonfinancial corporations sector. When the residual is negative, its absolute value is recorded on the asset side.

- Central government securities and FILP bonds (assets side)

  Figures on a book value basis are estimated by multiplying the amount of public and corporate bonds held by private nonfinancial corporations -- which is transcribed from the *Financial Statements Statistics of Corporations by Industry* -- adjusted for corporations that do not fall under the definition of the private nonfinancial corporation sector -- by the ratio of their holdings of central government securities and FILP bonds to their holdings of public and corporate bonds. Due to limitations of the source data, the holding ratio of central government securities and FILP bonds to public and corporate bonds is assumed to be the same as the ratio of outstanding central government securities and FILP bonds issued to total outstanding public and corporate bonds issued. Figures are then converted to a market value basis.

- Local government securities, public corporation securities, and industrial securities (assets side)

First, the residuals for these items are obtained by subtracting the amounts held by households and by other entities whose sources such as financial statements are available from the total issuance (amount outstanding).[47] Then figures are allocated proportionally by using the ratio calculated from bond-registering institutions' data for each holding sector in the case of local government securities and industrial securities, and the ratio estimated from the *Balance of Payments Statistics* in the case of public corporation securities (in both cases, the ratio between entities whose data cannot be obtained from sources such as financial statements). Local government securities are allocated proportionally to two sectors: private nonfinancial corporations and the NPISH. Industrial securities and public corporation securities are allocated proportionally to three sectors: private nonfinancial corporations; the NPISH; and overseas. Figures are evaluated on a market value basis.

- Equity (assets side)

Listed shares are calculated as residuals after deducting the portion held by finance companies and NPISH from the total of shares and other equities, based on the data on the distribution of shareholders (*the Shareownership Survey*).

Unlisted shares and other equity are calculated by deducting holding amounts of other sectors from total amounts where the figures are allocated proportionally with households sector by referring the ratio of distribution of shareholders of listed shares (*the Shareownership Survey*). The amount of equities invested in privately placed real estate funds (excluding private REITs) is estimated based on market surveys on privately placed real estate funds (*the Survey on Private Real Estate Funds in Japan* released by the Association for Real Estate Securitization (ARES) and Sumitomo Mitsui Trust Research Institute Co., Ltd and *the Survey of ARES Members on Real Estate Private Funds* released by ARES (the data was no longer disseminated at the end of December 2018)) and market surveys on private REITs (*Changes in Assets of Privately Placed Real Estate Investment Trusts* released by the Investment Trusts Association, and *The Private REITs Quarterly* released by ARES), then is recorded in "other equity."

- Investment trust beneficiary certificates (assets side)

The amount outstanding of ETFs and REITs held by private nonfinancial corporations is estimated by multiplying the total amount of each issuance by the composition ratio of private nonfinancial corporations, which is estimated from holding entity data published by the Tokyo Stock Exchange (*ETF Beneficiary Survey* and *REIT Investor Survey*), etc. Moreover, the amount outstanding of private REITs is estimated by multiplying the total amount of issuance by the composition ratio calculated from "business company, etc.," in *the Private REITs Quarterly* released by ARES.

- Financial derivatives and employee stock options (assets/liabilities side)

Among financial derivatives, the amount outstanding of Exchange-traded derivatives is estimated by, first, calculating percentage of trading volume compared to domestically

[47] Issue total (amount outstanding) of local government securities is based on the data on registered government bonds, the data published by the Japan Securities Depository Center (*Issuance, Redemption and Outstanding Balance by Bonds' Category*) etc. Issue total (amount outstanding) of public corporation securities and industrial securities are based on the data published by the Japan Securities Depository Center (*Issuance, Redemption and Outstanding Balance by Bonds' Category*).

licensed banks by using the Exchange market data (*the Key Statistics for Government Bond Futures & Trading of Nikkei 225 Options by Type of Investors*, and *the Trading Volume and Open Interest of Options on Three-Month Euroyen Futures*), and then multiply the estimated ratio to the amount outstanding of Exchange derivatives held by domestically licensed banks[48].

Among financial derivatives, the amount outstanding of OTC-traded derivatives on the asset side is based on the *Central Bank Survey of Foreign Exchange and Derivatives Market Activity* and the *Regular Derivatives Market Statistics in Japan*. First, the amount outstanding of transactions with "customers other than financial institutions" is estimated from which the amount outstanding of transactions with finance companies is deducted.[49] The remainder is allocated proportionally to corporate pensions (pension trusts), securities investment trusts, and private nonfinancial corporations. The amount outstanding on the liability side of private nonfinancial corporations is obtained by subtracting the amount outstanding of other sectors from the total amount.
Employee stock options are recorded by multiplying the amounts outstanding of "subscription rights to shares" in the *Financial Statements Statistics of Corporations by Industry, Quarterly* with the ratio of the number of the outstanding vested but unexercised stock options obtained from financial statements of corporations.

- Deposits money (assets/liabilities side)

"Deposits money" in this sector is the sum of each amount by origin of payment (i.e. employees' deposits to companies,[50] deposits to golf courses,[51] building tenancy guarantees,[52] deposits for withholding tax,[53] margins of foreign exchange margin transactions,[54] electronic money, prepaid cards,[55] and unallocated gold accounts[56]) plus deposits of uncertain origin.

- Trade credits and foreign trade credits (assets/liabilities side)

Figures on the asset side record the sum of (1) the total amount of accounts receivable and bills receivable of all industries except for the finance, insurance and medical/welfare sectors

[48] Until 2nd quarter 2000, difference in the acquisition cost of the option premium (the outstanding that is not reflected by the fluctuation of market price) during the term was recorded as transaction flow.
[49] "Customers other than financial institutions (including domestically licensed banks and trust accounts)" corresponds to "corporate pensions" (pension trusts), "securities investment trusts," "finance companies," and "private nonfinancial corporations" in the FFA. It is assumed that transactions with other sectors do not exist.
[50] "Employees' deposits with companies" refers to the residual that is total employees' deposits with companies, based on the data on employees' deposits, less employees' deposits with financial institutions (based on financial statements).
[51] Liabilities side in this category is based on the total deposits recorded in the *Survey of Selected Service Industries*. Assets side is based on the same source data where the figures are allocated proportionally with households by using the composition ratio of members.
[52] The liabilities side of this sector refers to the total of building guarantees, based on the data on price of fixed assets and office buildings. The assets side is the residual after deducting the portion held by financial institutions sector and public nonfinancial institution sector from the total.
[53] Based on the statistics on tax and stamp revenues (*Tax and Stamp Revenues*), deposits for withholding tax are estimated by regarding part of withholding income taxes of each quarter as tax payables of the previous quarter that are allocated proportionally with financial institution sector.
[54] The total amount of margins is calculated using data of the Financial Futures Association of Japan and Tokyo Financial Exchange. It is allocated proportionally to households and private nonfinancial corporations.
[55] The total amount outstanding of electronic money in the economy is based on "recent developments in electronic money in Japan (available in Japanese only)" released by the Bank of Japan, and that of prepaid cards is based on "The trend of the prepaid instruments (available in Japanese only)" released by the Financial Services Agency. The amount held by private nonfinancial corporations is estimated by allocating the total amount to households and private nonfinancial corporations sectors proportionally based mainly on market surveys.
[56] Obtained from individual financial statements.

provided in the *Financial Statements Statistics of Corporations by Industry, Quarterly* – excluding the amount falling into the category of installment credit (estimated from financial statements) and excluding corporations that do not fall under the definition of the private nonfinancial corporation sector, and (2) the amount outstanding of credit extended by private medical and nursing care institutions to social security funds extracted from the medical and nursing care expenditures covered by public insurance -- which are calculated based on the *Survey on the Trend of Medical Care Expenditures* and the *Survey of Long-term Care Benefit Expenditures*, etc. Figures on the liability side record the residual that is the difference between the total asset value of each sector and the corresponding total liability value, as the residual is assumed to be accounts payable pertaining to transactions between private nonfinancial corporations.

- Accounts receivable/payable (assets/liabilities side)

"Accounts receivable/payable" is the sum of estimates of several items. They include estimates of taxes (assets and liabilities side),[57] accounts payable against finance companies that are attributed to private nonfinancial corporations, unidentifiable accounts receivable/payable against the financial institutions sector that are attributed to private nonfinancial corporations (assets and liabilities side),[58] and the total of customer loyalty award credits (assets and liabilities side)[59].

Figures on the asset side are the residual after deducting accounts payable of other sectors from accounts receivable of all sectors.

- Other external claims and debts (assets/liabilities side)

Figures on the asset side record the sum of (1) the amount of investments in the equity of foreign partnerships based on data related to the *International Investment Position of Japan* and (2) the portion attributable to "Private nonfinancial corporations" within the discrepancies between the amount of "other external claims and debts" held by domestic sectors (derived from the *International Investment Position of Japan*) and the sum of investments in the equity of foreign partnerships held by domestic sectors (estimated and aggregated by sector based on data related to the *International Investment Position of Japan*). Figures on the liability side record the other accounts payable held by "others" in the *Balance of Payments Statistics* or the *International Investment Position of Japan.*

- Others (assets/liabilities side)

"Others" are based on the financial statement of financial institutions where figures are allocated proportionally with households and NPISH. In addition, unvested subscription rights to shares are included.

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[57] Based on the statistics on tax and stamp revenues (*Tax and Stamp Revenues*), paid corporate taxes are posted under accounts receivable, assuming these as tax payable at the end of the previous fiscal year or prepaid tax in the current fiscal year. Part of consumption taxes is posted under liability side, assuming that paid taxes in each quarter as taxes payable in the previous quarters.

[58] The asset side employs the weight of holding amount of deposits and bank debentures of private nonfinancial corporations, while the liability side employs the weight of borrowing amount of the sector.

[59] The total amount of customer loyalty award credits is based on the sum of allowance for point gift certificates in the financial statements of issuing companies. The amount held by private nonfinancial corporations is estimated by allocating the total amount to households and private nonfinancial corporations sectors proportionally based mainly on market surveys.

2-2. Public nonfinancial corporations

For "public nonfinancial corporations," transaction items are compiled based on the summary data of financial statements of (1) special corporations, incorporated administrative agencies, and special accounts of the central government, and (2) local public corporations and local public enterprises. Besides, transaction item are estimated using the data on the issue outstanding of bonds and the *Annual Statistics on Local Public Finance*.

(1) Special corporations, incorporated administrative agencies, and special accounts of the central government

Transaction items of "special corporations, incorporated administrative agencies, and special accounts of the central government" are compiled by building up the data recorded in the financial statements of each institution. The issue amount of bond (liabilities side) is based on the breakdown data on the issue outstanding.

(2) Local public corporations and local public enterprises

For "local public corporations and local public enterprises," the holding amounts of deposits (assets side), the holding amounts of securities (assets side), other equity (liabilities side), borrowings (liabilities side), and issue amounts of bonds (liabilities side of local public enterprises) are estimated by using financial statements. As for loans by nonfinancial sector (loans from local government, liabilities side), loans by private financial institutions of local public corporations (liabilities side), other equity owed by local public corporations (liabilities side), and amount of bonds issued by local public corporations (liabilities side), figures are estimated by using data by transaction items such as those from the *Annual Statistics on Local Public Finance*, *Loans and Bills Discounted by Sector*, *Survey of the Joint Third Sector* (available in Japanese only), and the data on book-entry bonds.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Currency, transferable deposits, time and savings deposits, certificates of deposits, foreign currency deposits, loans by the nonfinancial sector, treasury discount bills, central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, industrial securities, external securities issued by residents, CP, trust beneficiary rights, structured-financing instruments, investment trust beneficiary certificates, deposits money, accounts receivable, outward investments in securities, outward direct investment, others	Loans by private financial institutions, industrial securities, CP, equity, deposits money, accounts payable, others
The data used in compiling each transaction item	Deposits with the Fiscal Loan Fund, repurchase agreements and securities lending transactions, equity	Repurchase agreements and securities lending transactions, public corporation securities, external securities issued by residents
Of those, estimated		
The data used in compiling each transaction item	Installment credit, trade credits and foreign trade credits	Loans by public financial institutions, loans by the nonfinancial sector, installment credit, local government securities, trade credits and foreign trade credits

Note:

"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "external securities issued by residents," "equity," and "investment trust beneficiary certificates" are evaluated at a market price (real value basis).

Details on major transaction items in this category:

- Repurchase agreements and securities lending transactions (assets side)

  The amount outstanding of repurchase agreements of the public nonfinancial corporations sector is estimated as follows: the residual, after deducting the portion of sectors identifiable from financial statements, etc., from the outstanding amount of the "others[60]" sector at the end of months in the *Balance of Bond Transactions with Repurchase Agreements (by investor type)* released by the Japan Securities Dealers Association is allocated proportionally to public nonfinancial corporations and local governments according to the amount of government securities held.

- Trade credits and foreign trade credits (assets/liabilities side)

  Figures on the asset side are recorded by extracting the amount outstanding of credit extended by public medical and nursing care institutions to social security funds from the medical and nursing care expenditures covered by public insurance, which are calculated

[60] The "others" sector in this statistic includes the outstanding of repurchase agreements that members of the Japan Securities Dealers Association won bids for the Bank of Japan's market operations, the "purchase/sale of Japanese government securities with repurchase agreements," and this amount outstanding is excluded from "others. "

based on the *Survey on the Trend of Medical Care Expenditures* and the *Survey of Long-term Care Benefit Expenditures*, etc. Moreover, the amount outstanding of credit extended for waterworks charges, which are deferred payments, is also recorded.

Figures on the liability side are recorded by extracting the value of works ordered by public nonfinancial corporations from deferred payments for public works, which are estimated based on the *Integrated Statistics on Construction Works*, etc. Other accounts receivable/payable and bills receivable/payable are the sum of data based on respective financial statement.

- Loans by private financial institutions (liabilities side)

For local public corporations, figures are estimated by using loans to "real estate-related local public corporations" under *The Loans and Bills Discounted by Sector (of which domestically licensed banks)*. As for local public enterprises, estimates are based on *The Overall Financial Report of Local Public Enterprises*.

For other institutions, "loans by private financial institutions" is the sum of data based on respective financial statement.

- Loans by public financial institutions (liabilities side)

For local public corporations, estimates are based on loans by government financial institutions to local public corporations, and for local public enterprise, loans by public financial institutions are estimated by using *The Overall Financial Report of Local Public Enterprises*. For other institutions, figure is the sum of data based on respective financial statement.

- Loans by the nonfinancial sector (liabilities side)

Loans from local governments to local public enterprises are estimated based on the *Annual Statistics on Local Public Finance*.

For the institutions other than local public enterprises and local public corporations, "loans by the nonfinancial sector" is based on each source data such as the financial statements.

- Local government securities (liabilities side)

"Local government securities" issued by local public enterprises is estimated based on *the Overall Financial Report of Local Public Enterprises*.

3. General government

"General government" equals the sum of "central government," "local governments," and "social security funds."

3-1. Central government

"Central government" equals the sum of (1) central government general accounts and special accounts, and (2) some special corporations, authorized companies, and incorporated administrative agencies.

(1) Central government general accounts and special accounts

The holding amount of government deposits (assets side) is based on the *Bank of Japan Accounts*, while the issue amount of central government securities and FILP bonds and treasury discount bills is based on the data on issuing and redemption of central government securities and FILP bonds (*Issuance, Redemption, and Outstanding of Public and Corporate Bonds* released by the Bank of Japan) and the data on tax and stamp revenues (*Tax and Stamp Revenues*).

(2) Some special corporations such as special public corporations, authorized companies, and incorporated administrative agencies

Transaction items in "special corporations such as special public corporations, authorized companies, and incorporated administrative agencies" are compiled by building up the data in the financial statements of each institution. The issue amount of bond (liabilities side) is based on the data on the issue outstanding, while unlisted shares and other equity (liabilities side) are based on *Government investment corporation lists*.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Currency, transferable deposits, time and savings deposits, certificates of deposits, foreign currency deposits, loans by the nonfinancial sector, installment credit, local government securities, public corporation securities, bank debentures, industrial securities, external securities issued by residents, CP, trust beneficiary rights, equity, financial derivatives and employee stock options, deposits money, accounts receivable	Loans by private financial institutions, loans by public financial institutions, loans by the nonfinancial sector, installment credit, public corporation securities, equity, financial derivatives and employee stock options, deposits money
The data used in compiling each transaction item	Government deposits, deposits with the Fiscal Loan Fund, repurchase agreements and securities lending transactions, treasury discount bills, central government securities and FILP bonds, trade credits and foreign trade credits, outward investments in securities, other external claims and debts, others	Repurchase agreements and securities lending transactions, treasury discount bills, central government securities and FILP bonds, other external claims and debts, others
Of those, estimated		
The data used in compiling each transaction item		Trade credits and foreign trade credits, accounts payable

Note:

"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "external securities issued by residents," and "outward investments in securities" are evaluated at a market price.

Details on major transaction items in this category:

- Government deposits (assets side)

"Government deposits" is based on the *Bank of Japan Accounts*. The amounts equivalent to government deposits held by special accounts are recorded as claims and debts between the central government and special accounts through the "others" item.

- Loans by the nonfinancial sector (assets side)

"Loans by the nonfinancial sector" in general and special account is the amount of loans to private nonfinancial corporations and local governments that are based on the government's financial statements (released by the Ministry of Finance), as well as to public financial institutions and public nonfinancial corporations that are based on their financial statements. This category also covers the loans by special public corporations, etc.

- Treasury discount bills (assets side)

This category is based on the summary sheet of registered government bonds and clearing government bonds for each business.

- Financial derivatives and employee stock options (assets/liabilities side)

The value gains and losses of interest rate swap transactions of *Financial Statements by Ministries* are recorded in this category.

- Accounts receivable/payable (assets/liabilities side), deposits money (assets side)

Claims and debts against tax revenues of central government are based on the data on tax and stamp revenues (*the Tax and Stamp Revenues*). This category also includes the following items.

1. Withholdings for income tax in each quarter are posted under deposits money (assets) of the end of previous quarter, assuming these as tax receivables at the end of previous quarter.

2. Paid self-assessment income taxes and corporate taxes are posted under accounts receivable at the end of the previous fiscal year (end of first quarter) assuming that they are tax receivables at the end of the previous fiscal year, while they are posted under accounts payable at the end of the third and fourth quarters assuming that they are prepaid taxes in the current fiscal year.

3. Consumption taxes are posted under accounts receivable (assets), assuming some parts of paid taxes in each quarter as tax receivables in the previous quarter.

- Other external claims and debts (assets/liabilities side)

Figures on the asset side record the total figures including "other equity" deducted by the amount of investments in the equity of foreign partnerships by other sectors, monetary gold, and SDRs in the *Balance of Payments Statistics* or the *International Investment Position of Japan*. Figures on the liability side record the total figures including monetary gold, SDRs, and part of "other accounts payable" by the general government sector in the *Balance of Payments Statistics* or the *International Investment Position of Japan*.

- Others (assets/liabilities side)

"Others" is based on the financial statement. This category also covers the amounts equivalent to government deposits held by special accounts as claims and debts between the central government and special accounts through the "others" item. Liabilities side of this category also includes the debts against the central bank for the amount of coins in circulation.

- Loans by private financial institutions (liabilities side)

"Loans by private financial institutions" held by special public corporations, etc. is based on the financial statement, while those held by the general and special account is based on the financial statement of financial institutions and the statistics on loans (*Deposits, Vault Cash, and Loans and Bills Discounted*).

- Loans by public financial institutions (liabilities side)

This category covers loans by public financial institutions of those identifiable by using the financial statement. This category also covers the residual after deducting the portion held

by other sectors from the total loans by the Fiscal Loan Fund.

- Trade credits and foreign trade credits (liabilities side)

  This category is recorded by extracting the value of works ordered by the government from deferred payments for public works estimated based on the *Integrated Statistics on Construction Works*, etc.

3-2. Local governments

Since the financial statement is not available, with the exception of some local incorporated administrative agencies, etc., "local governments" is based on the data on each transaction. More specifically, holding amounts of deposits (assets side), borrowings (liabilities side), and issue amounts of bonds (liabilities side) are based on each source data (such as the *Deposits, Vault Cash, and Loans and Bills Discounted*, and the *Loans and Bills Discounted by Sector*). On the other hand, the amounts invested and loaned by local governments (assets side) are based on *the Annual Statistics on Local Public Finance*.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Currency, loans by the nonfinancial sector, treasury discount bills, equity, investment trust beneficiary certificates, deposits money, outward investments in securities	Installment credit
The data used in compiling each transaction item	Repurchase agreements and securities lending transactions, others	Loans by public financial institutions, repurchase agreements and securities lending transactions, external securities issued by residents, equity
Of those, estimated		
Deducting the other sector from the total	Transferable deposits, time and savings deposits, foreign currency deposits, trust beneficiary rights	
The data used in compiling each transaction item	Certificates of deposits, central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, industrial securities, trade credits and foreign trade credits, accounts receivable	Loans by private financial institutions, loans by the nonfinancial sector, local government securities, deposits money, trade credits and foreign trade credits, accounts payable

Note:

"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "equity," and "investment trust beneficiary certificates" are evaluated at a market price.

Details on major transaction items in this category:

- Transferable deposits, time and savings deposits, and foreign currency deposits (assets side)

  These transaction items are public deposits that are recorded in the statistics on deposits (*Deposits, Vault Cash, and Loans and Bills Discounted*) and the financial statement of depository corporations less the portion held by local public enterprises (based on the *Overall Financial Report of Local Public Enterprises*).

- Certificates of deposits (assets side)

  "Certificates of deposits" is estimated residually, i.e. the issue total (amount outstanding) less identified sector. The residual is regarded as the portion held by households, local governments, and private nonfinancial corporations, and is multiplied by the holding ratio of local governments to these three sectors (based on the data on the buyers of certificates of deposit). This category also includes the issue amount of Agricultural Cooperatives[61] (based on their financial statement).

- Central government securities and FILP bonds, public corporation securities, bank debentures, and industrial securities (assets side)

  The amount outstanding of each type of bond on a book value basis is estimated by multiplying the security holdings by local governments by the ratio of each type of bond to total securities. The security holdings by local governments are calculated by adding securities reserved for redemption of bullet local bonds in the sinking fund to the security holdings by funds, which are transcribed from the *Annual Statistics on Local Public Finance*. The ratio of each type of bond to total securities refers to the ratio of each type of bond to the securities managed by a part of local governments' funds. Figures are then converted to a market value basis.

- Local government securities (assets side)

  Figures on a book value basis are calculated by adding local bonds reserved for redemption of bullet local bonds in the sinking fund to the local bond holdings by funds, which are transcribed from the *Annual Statistics on Local Public Finance*. Figures are then converted to a market value basis.

- Trade credits and foreign trade credits (assets/liabilities side)

  Figures on the asset side are recorded by extracting the amount outstanding of credit extended by nursing care facilities managed by local governments to social security funds from the nursing care expenditures covered by public insurance, which are calculated based on the *Survey of Long-term Care Benefit Expenditures*, etc. The assets side also covers the amount outstanding of credit extension to deferred payments for sewer charges.

  Figures on the liability side are recorded by extracting the value of works ordered by prefectural governments and municipalities from deferred payments for public works, which are estimated based on the *Integrated Statistics on Construction Works*, etc.

[61] The issue amounts of Agricultural Cooperatives are assumed to be held all by local governments.

- Accounts receivable/payable (assets/liabilities side)

"Accounts receivable/payable" in this sector refers to those of unidentifiable sectors that are allocated proportionally[62].

- Loans by private financial institutions (liabilities side)

"Loans by private financial institutions" of each financial institution is based on the statistics on loans (*Loans and Bills Discounted by Sector*) and the financial statement.

- Loans by public financial institutions (liabilities side)

"Loans by public financial institutions" is based on the financial statement of the loan holding institutions.

- Loans by the nonfinancial sector (liabilities side)

"Loans by the nonfinancial sector" records the sum of loans by central government (including that recorded in the government's financial statements released by the Ministry of Finance, and the loans in the financial statements of each public institution which are deemed to be provided to local governments in accordance with the characteristics of its operations), by local governments, and by social security funds (loans with unidentifiable borrowers deemed to be provided to local governments).

- Local government securities (liabilities side)

"Local government securities" issued by local governments are estimated by allocating the total issuance (amount outstanding) by deducting those issued by local public enterprises (estimated by using the *Overall Financial Reports on Local Public Enterprises*), where the total issuance is based on data of registered bonds, book-entry bonds (*Book-Entry Transfer System for Corporate Bonds: Issue, Redemption and Outstanding* published by the Japan Securities Depository Center), etc.

3-3. Social security funds

"Social security funds" equals the sum of "public pensions" and "other social security funds."

3-3-1. Public pensions

Transaction items of "public pensions" are compiled using quarterly reports on investment results and detailed data sets including an annually disclosed list on every security held by respective institutions[63]. Those for special accounts are compiled using financial statements.

[62] The asset side employs the weight of holding amount of deposits and bank debentures of local governments, while the liability side employs the weight of borrowing amount of that sector.

[63] For some institutions whose pension assets are entrusted to life insurance companies and trust accounts and therefore breakdowns of these assets are not identifiable, transaction items of the pension assets are estimated using the composition ratio in the entrusted assets of life insurance companies and trust accounts (composition ratio method).

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Currency, transferable deposits, time and savings deposits, certificates of deposits, loans by the nonfinancial sector, central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, industrial securities, trust beneficiary rights, equity, investment trust beneficiary certificates, deposits money, accounts receivable, outward investments in securities, others	Loans by private financial institutions, loans by public financial institutions, other equity, deposits money, accounts payable
The data used in compiling each transaction item	Deposits with the Fiscal Loan Fund, repurchase agreements and securities lending transactions	
Of those, estimated		
The data used in compiling each transaction item	Other external claims and debts	

Note:

"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "external securities issued by residents," "equity," "investment trust beneficiary certificates," and "outward investments in securities" are evaluated at a market price.

Details on major transaction items in this category:

- Repurchase agreements and securities lending transactions (assets side)

  The amount outstanding of repurchase agreements is based on both the *Balance of Bond Transactions with Repurchase Agreements (by Investor Type)*[64] released by the Japan Securities Dealers Association and financial statements.

- Central government securities and FILP bonds (assets side)

  This category is compiled using quarterly reports on investment results and detailed data sets including annually disclosed list on every security held by respective institutions.

- Deposits money (assets side)

  This category refers to unearned social insurance premium related to Public Pension Special Account and Labor Insurance Special Account, which is estimated under a certain postulation. Specifically, a part of insurance premium contributed in a certain quarter is regarded as unearned premium of the previous quarter. Unearned insurance premium of welfare insurance are posted under deposits money (assets side) of the public pensions, and those for labor insurance are posted under deposits money (assets side) of other social security funds.

[64] The portion held by social security funds is "mutual aid associations of public institutions" of the source data.

- Other external claims and debts (assets side)

  This category records the amount of investments in the equity of foreign partnerships based on the financial statements and data related to the *International Investment Position of Japan*.

3-3-2. Other social security funds

Most of transaction items in "other social security funds" are compiled by building up the data in the financial statement of each institution such as the Labor Insurance Special Account and the health insurance associations.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Financial statements etc.	Currency, transferable deposits, time and savings deposits, certificates of deposits, loans by the nonfinancial sector, central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, industrial securities, external securities issued by residents, trust beneficiary rights, equity, investment trust beneficiary certificates, deposits money, accounts receivable, outward investments in securities, others	Loans by private financial institutions, loans by public financial institutions, loans by the nonfinancial sector, equity, deposits money, accounts payable
The data used in compiling each transaction item	Deposits with the Fiscal Loan Fund	
Of those, estimated		
The data used in compiling each transaction item		Trade credits and foreign trade credits

Note:

"Central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," and "investment trust beneficiary certificates" are evaluated at a market price.

Details on major transaction items in this category:

- Trade credits and foreign trade credits (liabilities side)

  This category records the medical and nursing care expenditures covered by public insurance, which are calculated based on the *Survey on the Trend of Medical Care Expenditures* and the *Survey of Long-term Care Benefit Expenditures*, etc.

4. Households

"Households" is based on the financial statement of financial institutions, the statistics on deposits (*Amounts Outstanding of Deposits by Depositor*, etc.), the statistics on loans (*Loans and Bills Discounted by Sector*, etc.), and the market data of bonds and stocks.

As households include sole proprietorships, trade credits and foreign trade credits and loans to companies and governments, which belong to the liabilities side of sole proprietorships (a breakdown of loans by private financial institutions), are estimated by the data on loans to firms recorded in the *Basic Survey on Small and Medium Enterprises* and the *Loans and Bills Discounted by Sector*. The holding amounts of currency, deposits, and securities (shares, bonds, outward investments in securities, etc.) are estimated for the whole households including sole proprietorships.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
The data used in compiling each transaction item	Central government securities and FILP bonds, local government securities, industrial securities, listed shares, non-life insurance technical reserves, life insurance reserves, annuity entitlements, pension entitlements	
Of those, estimated		
The data used in compiling each transaction item	Transferable deposits, time and savings deposits, foreign currency deposits, loans by the nonfinancial sector, public corporation securities, bank debentures, unlisted shares, other equity, investment trust beneficiary certificates, provisions for calls under standardized guarantees, financial derivatives and employee stock options, deposits money, trade credits and foreign trade credits, accounts receivable, outward investments in securities	Loans by private financial institutions, loans by public financial institutions, loans by the nonfinancial sector, installment credit, financial derivatives and employee stock options, trade credits and foreign trade credits, accounts payable
Proportional allocation is employed to each sector	Certificates of deposits, trust beneficiary rights, structured-financing instruments, others	Others
Estimated by deducting the portion held by other sectors from the total	Currency	

Note:

"Loans by private financial institutions," "central government securities and FILP bonds," "local government securities," "public corporation securities," "industrial securities," "bank debentures," "equity," "investment trust beneficiary certificates," and "outward investments in securities" are evaluated at a market price (real value basis).

Details on major transaction items in this category:

- Currency (assets side)

The amount outstanding of "currency," of which the holding sector is unidentifiable, is

regarded as the amount held by households.

- Transferable deposits, and time and savings deposits (assets side)

For each financial institution, personal deposits by type of deposits are based on the financial statements and the statistics on deposits (the *Amounts Outstanding of Deposits by Depositor* and the *Deposits, Vault Cash, and Loans and Bills Discounted*).

- Certificates of deposits (assets side)

"Certificates of deposits," of which the holding sector is unidentifiable, is regarded as the amount held by households, local governments, and private nonfinancial corporations. The portion held by households is acquired by multiplying this amount by the holding ratio of households out of these three sectors (based on the data on the buyers of certificates of deposit).

- Foreign currency deposits (assets side)

This category is estimated by adding -- overseas deposits directly held by individuals, which are based on foreign asset statements -- to personal deposits, which are based on the statistics on deposits (the *Amounts Outstanding of Deposits by Depositor* and the *Deposits, Vault Cash, and Loans and Bills Discounted*).

- Loans by the nonfinancial sector (assets side)

This category refers to the amount of loans by individuals directly to overseas counterparties, not through domestic financial institutions, and is calculated by using foreign asset statements.

- Central government securities and FILP bonds (assets side)

This category refers to the sum of (1) government bond certificates and inscribed central government securities and FILP bonds, which are based on the data on issuing and redemption of central government securities and FILP bonds (*Issuance, Redemption, and Outstanding of Public and Corporate Bonds*), and (2) personal holdings, which are based on the summary sheet of registered government bonds and clearing government bonds for each business and also based on research on holders of clearing government bonds. Figures are evaluated on a market value basis. However, central government securities offered to individuals in this category are recorded at face value because of the product characteristics.

- Local government securities (assets side)

Personal holdings of "local government securities" are based on the amount outstanding of Residential Local Government Bonds published by the Japan Local Government Bond Association. Figures are evaluated on a market value basis.

- Industrial securities (assets side)

Personal holdings of this transaction item are the amount outstanding of corporate bonds for individuals available from data on issued bonds of individual entities (the data are obtained

from I-N Information Systems, *Funding View*, etc.). Figures are evaluated on a market value basis.

- Bank debentures (assets side)

All discount bank debentures sold through over-the-counter of bond-issuing institutions and those sold through securities companies, and interest-bearing bank debentures sold to households are assumed to be held by households. Figures are evaluated on a market value.

- Equity (assets side)

"Listed shares" are calculated by using the data on the distribution of shareholders (*Shareownership Survey*, etc). Shares under "individuals" are all assumed to be held by households).

"Unlisted shares" and "other equity" are calculated by deducting holding amounts of other sectors from total amounts, where the figures are allocated proportionally with private nonfinancial corporation sector by using the ratio calculated from the data on the distribution of shareholders (*Shareownership Survey*).

- Investment trust beneficiary certificates (assets side)

This item refers to the sum of the total amount of issuance for publicly-placed investment trusts less identifiable amounts held by other sectors, and the amount outstanding calculated by multiplying the total amount of REIT issuance by the ratio of personal holding amounts estimated from holding entity data published by the Tokyo Stock Exchange (*REIT Investor Survey*), etc.

- Financial derivatives and employee stock options (assets/liabilities side)

The amount outstanding of forward-type instruments is calculated by deducting the amount attributable to private nonfinancial corporations from the total amount, which is estimated using the financial statements of major foreign exchange margin trading firms, etc.

The amount outstanding of option-type instruments is estimated by, first, calculating percentage of trading volume compared to domestically licensed banks by using the Exchange market data (the *Key Statistics for Government Bond Futures & Trading of Nikkei 225 Options by Type of Investors*, and the *Trading Volume and Open Interest of Options on Three-Month Euroyen Futures*), and then multiply the estimated ratio to the amount outstanding of Exchange-traded derivatives held by domestically licensed banks[65].
Employee stock options are recorded by multiplying the amounts outstanding of "subscription rights to shares" in the *Financial Statements Statistics of Corporations by Industry, Quarterly* with the ratio of the number of the amount outstanding vested but unexercised stock options obtained from financial statements of corporations.

- Insurance, pension and standardized guarantees (assets side)

Among the amounts outstanding obtained and evaluated as the liabilities of insurance and pension funds in each transaction items, the figures held by households are recorded.

[65] Until the second quarter of 2000, difference in the acquisition cost of the option premium (the amount outstanding that is not reflected by the fluctuation of market price) during the term was recorded as transaction flow.

- Deposits money (assets/liabilities side)

"Deposits money" in this sector is the sum of each figure in accordance with the origin of payments (i.e. employees' deposits with companies[66], deposits with golf courses[67], margins of foreign exchange margin transaction[68], electronic money, prepaid cards[69], and deposits in deposit accounts for public servants' mutual aid associations[70]).

- Trade credits and foreign trade credits (assets/liabilities side)

Figures on the asset side record accounts receivable of sole proprietorships, which are estimated from the *Basic Survey on Small and Medium Enterprises*. The assets side also includes figures recorded by extracting -- the amount outstanding of credit extended by private medical practitioners to social security funds -- from the medical care expenditures covered by public insurance, which are calculated based on the *Survey on the Trend of Medical Care Expenditures*, etc.
Figures on the liability side record accounts payable by sole proprietorships, which are estimated from the *Basic Survey on Small and Medium Enterprises*. The liabilities side also includes household debts, which are the sum of (1) deferred payments for public utility charges (electricity, gas, water, fixed-line phone, mobile phone) estimated from the *Final Consumption Expenditure of Households Classified by Purpose*, etc., and (2) deferred payments at the time of purchase of unfinished housing estimated from the *Integrated Statistics on Construction Works*, etc.

- Accounts receivable/payable (assets/liabilities side)

"Accounts receivable/payable" is the sum of (1) amounts that are estimated in accordance with the origin of payments (taxes[71] and customer loyalty award credits[72]), (2) accounts receivable of finance companies (assets side) that are allocated with private nonfinancial corporations, (3) unidentified accounts receivable/payable of financial institution sector that are allocated to each sector[73].

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[66] The total of "employees' deposits with companies" in household sector is posted under asset side, basing on the data on employees' deposits.
[67] This category is the total deposits (based on the *Survey of Selected Service Industries*) that are allocated proportionally with private nonfinancial corporations by using the composition ratio of members.
[68] The total margins of foreign exchange margin transactions are calculated using data of the Financial Futures Association of Japan and Tokyo Financial Exchange. They are allocated to households and private nonfinancial corporations proportionally.
[69] The total amount outstanding of electronic money in the economy is based on "Recent Developments in Electronic Money in Japan (available in Japanese only)" released by the Bank of Japan, and that of prepaid cards is based on "The trend of the prepaid instruments (available in Japanese only)" released by the Financial Services Agency. The amount held by households is estimated by allocating the total amount to households and private nonfinancial corporations sectors proportionally based mainly on market surveys.
[70] The figure is based on the financial statements in the deposit accounts of the Federation of National Public Service Personnel Mutual Aid Associations and the Pension Fund Association for Local Government Officials.
[71] Based on the statistics on tax and stamp revenues (*Tax and Stamp Revenues*), paid income taxes are posted under accounts receivable, regarding these as tax payable at the end of previous term or prepaid tax in the current term.
[72] The total amount of customer loyalty award credits is based on the sum of allowance for point gift certificates in the financial statements of issuing companies. The amount held by households is estimated by allocating the total amount to households and private nonfinancial corporations sectors proportionally based on market surveys.
[73] The asset side employs the weight of holding amount of deposits and bank debentures in households, while the liability side employs the weight of borrowing amount in that sector.

- Outward investments in securities (assets side)

Regarding outward investments in securities made through domestic financial institutions, the amount outstanding is estimated separately for foreign debt securities, foreign equities, and for foreign investment trusts. The amounts outstanding of foreign debt securities and of foreign equities are estimated using data sources such as information on assets in custody held by major securities companies for households and explanatory documents on the status of business and property of securities companies. The amount outstanding of foreign investment trusts is estimated using the amount of "investment fund shares or units" held by the "others" sector in the *International Investment Position of Japan (IIP)* and applying the following two sets of ratios. The first is the proportion of bond investment trusts and stock investment trusts in the amount outstanding of overall foreign investment trusts released by the Japan Securities Dealers Association. The ratios in the second set are obtained by dividing the amounts outstanding of foreign debt securities and of foreign equities held by households. Both are estimated separately as above, by the amounts of foreign debt securities and of foreign equities in the holdings of "others" sector in the *IIP*, respectively. With respect to outward investments in securities made directly by individuals without involving domestic financial institutions, the amount outstanding records outstanding securities obtained from the National Tax Agency's data on foreign asset statements.

- Others (assets/liabilities side)

"Others" is based on the financial statements of financial sector and public nonfinancial corporations. The amounts with unidentifiable sector are allocated with private nonfinancial corporations and NPISH.

- Loans by private financial institutions (liabilities side)

Housing loans and consumer credits are based on the *Loans and Bills Discounted by Sector* and other data sources, including the financial statements of financial institutions.

Loans to companies and governments (borrowings by sole proprietorships) are divided into two categories, those for "house and room lending by households" and the "not for house and room lending." The amount of loans for "house and room lending by households" is calculated based on *Loans and Bills Discounted by Sector* and on the financial statements of financial institutions. The amount of the other loans, "not for house and room lending" by domestically licensed banks, etc., is calculated using the estimated average amount of borrowings per sole proprietorship with actual borrowings in the Credit Risk Database of CRD Association, and the number of sole proprietorships with actual borrowings estimated from the number of enterprises using credit guarantees from Credit Guarantee Corporations. The amount of loans by "finance companies" is estimated using the results of questionnaires conducted by the Japan Financial Services Association. The amount of loans by "financial institutions for agriculture, forestry, and fisheries" is estimated using the financial statements of those institutions.

- Loans by public financial institutions (liabilities side)

The amount of loans to households is extracted from financial statements of respective institutions. As for the loans of which borrowers are unidentified, the amount of loans to households is estimated using the information on the composition of borrowers suitable for business at those institutions. Loans extended to households by the Japan Housing Finance Agency (excluding the housing loan insurance account) include both loans and purchased

loans on the financial statement. The real value of loans is not estimated in this category, while the transaction item "loans by private financial institutions" records real value estimated by using the allowances for individual uncollectibles. In calculating transaction flows, adjustments are made to separate direct write-offs from the flow[74].

- Loans by the nonfinancial sector (liabilities side)

"Loans by the nonfinancial sector" records the sum of loans by central government (including that recorded in the government's financial statements released by the Ministry of Finance, and the loans in the financial statements of each public institution which are deemed to be provided to local governments in accordance with the characteristics of its operations), by local governments (loans to households compiled in accordance with the characteristic of its operations based on *the Annual Statistics on Local Public Finance* and financial statements of local incorporated administrative agencies), by social security funds (loans based on financial statements plus trust assets), and by private nonprofit institutions serving households.

- Installment credit (liabilities side)

"Installment credit" records the installment credit of the Urban Renaissance Agency published by the Japan Housing Finance Agency. It also records sales credit provided by private nonfinancial corporations which is calculated multiplying the total amount (based on financial statements etc.) by the ratio of households among borrowers estimated using statistics released by industry associations.

5. Private Nonprofit Institutions Serving Households (NPISH)

"Private Nonprofit Institutions Serving Households (NPISH)" is estimated based on the financial statement of financial institutions, the statistics on deposits (*Amounts Outstanding of Deposits by Depositor*), the statistics on loans *(Loans and Bills Discounted by Sector*), the market data of bonds and stocks, *the Survey on Private Non-profit Institutions* released by the Cabinet Office (available in Japanese only), and *the Today's Finance of Private Schools* released by the Promotion and Mutual Aid Corporation for Private Schools of Japan (available in Japanese only). Identification of NPISH is made by the content of each business such as medical, educational, and welfare services, and by the legal standing of non-taxable corporations.

[74] For the compilation method of loans, see "C. Loans" in Chapter 3.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, estimated		
The data used in compiling each transaction item	Transferable deposits, time and savings deposits, foreign currency deposits, loans by the nonfinancial sector, repurchase agreements and securities lending transactions, central government securities and FILP bonds, bank debentures, equity, investment trust beneficiary certificates, trade credits and foreign trade credits	Loans by private financial institutions, loans by public financial institutions, loans by the nonfinancial sector, repurchase agreements and securities lending transactions, equity, deposits money
Proportional allocation is employed to each sector	Currency, certificates of deposits, local government securities, public corporation securities, industrial securities, accounts receivable, others	Accounts payable, others

Note:

"Loans by private financial institutions," "central government securities and FILP bonds," "local government securities," "public corporation securities," "industrial securities," "bank debentures," "equity," and "investment trust beneficiary certificates" are evaluated at a market price (real value basis).

Details on major transaction items in this category:

- Currency (assets side)

  Since “currency” is difficult to be specified from financial statements, etc., it is estimated by multiplying the amount outstanding of transferable deposits for NPISH by the currency ratio to transferable deposits at private nonfinancial corporations that are deemed to be relatively close to the sector in terms of business.

- Transferable deposits, time and savings deposits, and foreign currency deposits (assets side)

  For each financial institution, deposits by type of deposits are estimated based on the financial statement and the *Amounts Outstanding of Deposits by Depositor* (assuming that the amount held by NPISH is the remaining held by "institutions providing medical, health care, welfare, and educational services, and other organizations," after deducting the portion of the institutions that do not fall under the definition of NPISH from the total).

- Certificates of deposit (assets side)

  "Certificates of deposit," of which the holding sector is unidentifiable, is regarded as the amount held by households, the NPISH, and private nonfinancial corporations. The portion held by the NPISH is calculated by multiplying the identifiable amount by the holding ratio of the NPISH within the three sectors (the holding ratio of deposits other than "certificates of deposit" is applied).

- Central government securities and FILP bonds (assets side)

  The amount outstanding as of the end of March 2011 is recorded based on the data for NPISH (*the Survey on Private Non-profit Institutions* and *the Today's Finance of Private Schools)*. The quarterly outstanding other than that of the end of March 2011 is estimated

by multiplying the amount outstanding of the previous quarter by the growth rate of government security holdings of nonfinancial corporations, which are considered to have a relatively similar investment stance.

- Local government securities, public corporation securities, and industrial securities (assets side)

The figures for these items are obtained by first calculating the residual, which is obtained by subtracting the amounts held by households and by other entities whose sources such as financial statements are available from the issue total (amount outstanding)[75]. Then, the figures are allocated proportionally by using the ratio calculated from bond-registering institutions' data for each holding sector in the case of local government securities and industrial securities, and the ratio estimated from the *Balance of Payments Statistics* in the case of public corporation securities (in both cases, the ratio between entities whose data cannot be obtained from the financial statements). Local government securities are allocated proportionally with private nonfinancial corporations. Industrial securities and public corporation securities are allocated proportionally with private nonfinancial corporations and overseas. Figures are evaluated on a market value.

- Bank debentures (assets side)

The holding amount of NPISH is estimated by multiplying the total amount of discount bank debentures obtained from sources such as financial statement of bond issuing institutions by a certain ratio.

- Equity (assets/liabilities side)

"Equity" is estimated by the data for NPISH (*the Survey on Private Non-profit Institutions* and *the Today's Finance of Private Schools*). Figures are evaluated on a market value.

- Accounts receivable/payable (assets/liabilities side)

"Accounts receivable/payable" in this sector is unidentifiable accounts receivable/payable in financial institution sector that are allocated to each sector[76].

- Others (assets/liabilities side)

"Others" is based on the financial statements of financial sector and public nonfinancial corporations. The amounts with unidentifiable sector are allocated with private nonfinancial corporations and households.

- Loans by private financial institutions (liabilities side)

"Loans by private financial institutions" for each financial institution are based on the data such as the *Loans and Bills Discounted by Sector* (assuming that loans to NPISH are the total

[75] The total issuance of local government securities (amount outstanding) is estimated by using data of registered government bonds, data published by the Japan Securities Depository Center (*Issuance, Redemption and Outstanding by Bonds' Category*) etc. The total issuance of public corporation securities and industrial securities (amount outstanding) are based on the data published by the Japan Securities Depository Center (*Issuance, Redemption and Outstanding Balance by Bonds' Category*).

[76] The asset side employs the weight of holding amount of deposits and bank debentures in NPISH, while the liability side employs the weight of borrowing amount in that sector.

of loans to "education and learning support" and to "other organizations"[77] and the remaining after deducting the portion that does not fall under the definition of NPISH from loans to "medical, health care, and welfare services").

- Loans by public financial institutions (liabilities side)

"Loans by public financial institutions" to NPISH is estimated by using the composition ratio of borrowers that is calculated in accordance with the characteristic of the activity of public financial institutions.

- Loans by the nonfinancial sector (liabilities side)

"Loans by the nonfinancial sector" refers to the sum of the estimates of loans by central government (loans by public institutions to NPISH in accordance with their activities that are based on the financial statement), local governments (based on *the Annual Statistics on Local Public Finance*), social security funds (loans that are calculated by using the financial statements plus entrusted assets), and households (based on *the Today's Finance of Private Schools*).

[77] Since March 2003, the industries used in the estimation have been changed, since the classification of industries in the *Loans and Bills Discounted by Sector* was revised.

6. Overseas

"Overseas" is estimated mainly based on the *Balance of Payments Statistics*, the *International Investment Position of Japan*, and the *Gross External Debt Position of Japan.* Some of the transaction items are estimated by combining other source data to the above.

More specifically, treasury discount bills, central government securities and FILP bonds, loans by the nonfinancial sector, external securities issued by residents, equity, other external claims and debts (listed so far are on the asset side), trade credits and foreign trade credits (assets/liabilities side), foreign currency deposits, outward direct investment, and outward investments in securities (listed so far are on the liability side) are based on the *Balance of Payments Statistics,* the *International Investment Position of Japan*, and the *Gross External Debt Position of Japan.*

On the other hand, the transaction amounts of deposits (assets/liabilities side) and loans (liabilities side) are estimated by using the financial data on transactions of domestically licensed banks with overseas and the data on deposits and loans (the *Amounts Outstanding of Deposits by Depositor* and the *Loans and Bills Discounted by Sector*).

The net positions and flows of "overseas" is estimated using the *Balance of Payments Statistics* and the *International Investment Position of Japan.* This estimation method is remarkably different from that of other sectors that use the difference between the total of the asset side and that of the liability side as the net position. Specifically, the financial surplus or deficit (flow) is calculated as the sum of the current account balance and capital account balance in the *Balance of Payments Statistics.* The difference between financial assets and liabilities (stock) is calculated by reversing the sign of the total net assets less monetary gold[78] in the *International Investment Position of Japan*, after adding the outward investments in securities by households estimated from foreign asset statements. Resulting discrepancies are reconciled in the liabilities side of "other external claims and debts."

The fluctuations of stocks caused by exchange fluctuation are posted in the Reconciliation Table where it also includes other factors such as the divergences between flow and stock in the source data.

[78] In the FFA, monetary gold is treated as a financial asset that does not have corresponding liabilities in any sector, while the *International Investment Position of Japan* includes monetary gold in the net external assets. Accordingly, monetary gold needs to be deducted to calculate the difference between financial assets and liabilities (net liabilities) of overseas.

Outline of estimation methods of individual items in this sector

Source data	Asset items	Liability items
Of those, extracted from the source data		
Balance of Payments Statistics and *International Investment Position of Japan* etc.	Loans by the nonfinancial sector, treasury discount bills, local government securities, equity, trade credits and foreign trade credits, other external claims and debts	Foreign currency deposits, deposits money, trade credits and foreign trade credits, outward direct investment, outward investments in securities, other external claims and debts
The data used in compiling each transaction item	Currency, transferable deposits, time and savings deposits, certificates of deposits, foreign currency deposits, repurchase agreements and securities lending transactions, structured-financing instruments, listed shares, non-life insurance technical reserves, others	Time and savings deposits, Bank of Japan loans, loans by private financial institutions, loans by public financial institutions, loans by the nonfinancial sector, repurchase agreements and securities lending transactions, others
Of those, estimated		
Balance of Payments Statistics and *International Investment Position of Japan* etc.	Central government securities and FILP bonds	
The data used in compiling each transaction item	External securities issued by residents, public corporation securities, industrial securities, bank debentures, investment trust beneficiary certificates, financial derivatives and employee stock options, deposits money, accounts receivable	Installment credit, financial derivatives and employee stock options, accounts payable

Note:

"Loans by private financial institutions," "treasury discount bills," "central government securities and FILP bonds," " local government securities," "public corporation securities," "industrial securities," "bank debentures," "equity," "investment trust beneficiary certificates," and "outward investments in securities" are evaluated at a market price (real value basis).

Details on major transaction items in this category: [79]

- Treasury discount bills (assets side)

"Treasury discount bills" is short-term money market instruments issued by the general government sector in the *Gross External Debt Position of Japan*. Figures are evaluated at market price.[80]

- Central government securities and FILP bonds (assets side)

The amount outstanding for this item is calculated by deducting the overseas sector's holding amount of debt securities other than central government securities and FILP bonds from "portfolio investments" (on the liability side) in the *International Investment Position of*

[79] As for "currency" (assets side), data was obtainable only from the financial statements of foreign branches of domestically licensed banks until the fourth quarter of 2003. Due to limitations of source data, however, data of yen held by nonresidents including the above foreign branches are unavailable from the first quarter of 2004.

[80] Short-term money market instruments issued by the general government sector in the *Gross External Debt Position of Japan* may include short-term money market instruments other than treasury discount bills held by the overseas sector. However, because the amount of these instruments other than treasury discount bills is considered to be trivial, they are all regarded as "treasury discount bills." The figures of treasury discount bills are basically recorded on a book value basis, whereas for the overseas sector, in which the holding amount of treasury discount bills is published on a market value basis in the source data (*Gross External Debt Position of Japan*), the figures are evaluated at market price. The difference between the figures on a market value basis and that on a book value basis is considered to be trivial as well.

Japan.

- Local government securities (assets side)

The amount outstanding for this item is obtained by adding the flows of "local government bonds," in the *Portfolio Investment Liabilities by Types of Debt Securities* (*Balance of Payments Statistics*) to the amount outstanding of local government securities of the previous term. Figures are evaluated on a market value basis.

- Public corporation securities (assets side)

The amount outstanding of "public corporation securities" held by the overseas sector is estimated first by calculating the residual after deducting the amounts held by households and by other entities whose financial statements are obtainable from the issue total (amount outstanding).[81] Then, the residual is allocated proportionally to two sectors by using the ratio estimated from the *Balance of Payments Statistics* for each holding sector (ratio between entities whose data cannot be obtained from the financial statements). The two sectors include private nonfinancial corporations and the NPISH. The figure is evaluated on a market value basis.

- Industrial securities (assets side)

The amount outstanding for this item is estimated by first calculating the residual after deducting the amounts held by households and by other entities whose sources such as financial statements are obtainable from the issue total (amount outstanding).[82] Then, the residual is allocated proportionally to two sectors by using the ratio calculated from bond-registering institutions' data for each holding sector (ratio between entities whose data cannot be obtained from the financial statements). The two sectors include private nonfinancial corporations and NPISH. The figure is evaluated on a market value basis.

- External securities issued by residents (assets side)

This category records the residual calculated by deducing external securities issued by residents held by other sectors from total issuance.

- Equity (assets side)

The amount outstanding of "equity" held by the overseas sector is obtained from the sum of "equity other than reinvestment of earnings" and "reinvestment of earnings" in "direct investment" and "equity and investment fund shares" in "portfolio investment" on a market-value basis based on the *International Investment Position of Japan* minus the amount of "investment trust beneficiary certificates." The transaction flow is the sum of "equity other than reinvestment of earnings" and "reinvestment of earnings" in "direct investment" and "equity and investment fund shares" in "portfolio investment" based on the *Balance of Payments Statistics* excluding the amount of "investment trust beneficiary certificates."

The amount outstanding of "listed shares" is based on the amount held by "foreigners" in the

[81] The issue total is based on the data released by the Japan Securities Depository Center (*Issuance, Redemption and Outstanding Balance by Bonds' Category*).
[82] The issue total is based on the data released by the Japan Securities Depository Center (*Issuance, Redemption and Outstanding Balance by Bonds' Category*).

Shareownership Survey released by the TSE on a market value basis. The transaction flow is based on the sales amount of "foreigners" in the *Trading Volume & Value by Type of Investor* released by the TSE.

- Investment trust beneficiary certificates (assets side)

The amount outstanding of ETFs and REITs held by overseas is estimated by multiplying the total amount of each issuance by the composition ratio of overseas, which is estimated from holding entity data published by the Tokyo Stock Exchange (*ETF Beneficiary Survey* and *REIT Investor Survey*), etc.

- Financial derivatives and employee stock options (assets/liabilities side)

The amount outstanding of OTC-traded derivatives is estimated by allocating the holding amounts of domestically licensed banks proportionally by using the ratio of transaction with overseas (based on *the Central Bank Survey of Foreign Exchange and Derivatives Market Activity* and *the Results of the Regular Derivatives Market Statistics in Japan).*
The amount outstanding of Exchange-traded derivatives is estimated by multiplying those held by domestically licensed banks by the weight of transaction volume to domestically licensed banks by using the Exchange market data (*the Key Statistics for Government Bond Futures Options & Trading of Nikkei 225 Options by Type of Investors*, and *the Trading Volume and Open Interest of Options on Three-Month Euroyen Futures*).

- Accounts receivable/payable (assets/liabilities side)

"Accounts receivable/payable" in this sector is part of other accounts receivable and payable in the external debt position of Japan from the *Balance of Payments Statistics* and part of the unidentifiable accounts receivable/payable of the financial institution sector that are allocated to each sector[83].

- Other external claims and debts (assets side)

"Other external claims and debts" is identified by deducting the amount of accounts receivable and deposits money from "other accounts payable" on the domestic liabilities side in the *Balance of Payments Statistics* or the *International Investment Position of Japan.*

- Installment credit (liabilities side)

"Installment credit" is estimated by multiplying the holding amount of installment credits in nonbanks by the ratio of credits with overseas to total of installment credit.

- Outward investments in securities (liabilities side)

This item records (1) "portfolio investment" in the *International Investment Position of Japan* and the *Balance of Payments Statistics*, (2) foreign currency denominated securities included in the foreign currency reserves provided in the *International Reserves/Foreign Currency Liquidity*, and (3) securities in foreign asset statements.

[83] The asset side employs the weight of holding amount of deposits and bank debentures in overseas, while the liability side employs the weight of borrowing amount in that sector.

- Other external claims and debts (liabilities side)

  The amount outstanding is the total of financial assets less the financial liabilities other than those recorded in "other external claims and debts (liabilities side)" and less "difference between financial assets and liabilities." Transaction flow is the total of financial investment less financial fund raising other than those recorded in "other external claims and debts (liabilities side)" and less "financial surplus or deficit."

- Financial surplus or deficit / Difference (liabilities side)

  "Difference between financial assets and liabilities" (amounts outstanding) refers to "net external assets" in the *International Investment Position of Japan* reconciling such amount as the outstanding of monetary gold held by domestic economic entities[84], with opposite sign (i.e. post plus in FFA when the figure in IIP is minus, and minus when plus in IIP).

[84] "Net external assets" in the *International Investment Position of Japan* includes liabilities corresponding to monetary gold held by domestic economic entities, while the FFA does not record such liabilities in any sector. Therefore, in the FFA, the amount outstanding of such monetary gold holdings is reconciled from the "net external assets." In addition, since the *International Investment Position of Japan* does not record overseas securities that households invest in directly without involving domestic financial institutions, the "net external assets" is reconciled by this amount in the FFA.

Chapter 3. Estimation Methods of Transaction Items and Remarks

Chapter 3. Estimation Methods of Transaction Items and Remarks

A. Currency and deposits

"Currency and deposits" equals the sum of the breakdowns (currency, deposits with the Bank of Japan, government deposits, transferable deposits, time and savings deposits, certificates of deposits, and foreign currency deposits).

The total amount (liabilities side) is based on the financial statements of financial institutions. While holding amounts of financial institutions is based on their financial statements, those of households and private nonfinancial corporations are mainly based on the statistics on deposits (*Deposits by Depositors*).
The amount outstanding in this category is evaluated on a face value or on a book value, while the transaction flow is, in principle, recorded using term-on-term difference in that value.

A-a. Currency

"Currency" equals the sum of Bank of Japan notes and coins circulated in the market where the former is based on the financial statement of the Bank of Japan, while the later is based on the *Coins in Circulation*. All currencies, including Bank of Japan notes and coins, are regarded as those issued by the central bank[1].

Holding amounts of financial institutions, social security funds, public nonfinancial corporations, and central government are based on the financial statement of individual institutions. On the other hand, the holding amounts of private nonfinancial corporations and NPISH are estimated[2] using related statistics, etc. For households, holding amounts refer to the residual after subtracting the currency holding amount of those other than households from the total amount of cash issued.

The amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value.

Notes:
1) This category in overseas sector was only identified by using the financial statement of foreign branches of domestically licensed banks until the fourth quarter of 2003. Due to the limitations of source data, yen held by nonresidents including the above foreign branches are not covered since the first quarter of 2004.
2) Due to the change in estimation methods, there are some sectors with figures that are not

[1] Issuing entity of coins in circulation is the central government under Japan's current system. Considering the interchangeability of coins and notes, the whole currency is posted under the liabilities of the central bank. In this line, the claim between the central bank and the central government is fictionalized for the portion corresponding to coins in circulation. This fictionalized portion is posted under "other assets."

[2] For the currency holding amounts of private nonfinancial corporations at the end of each fiscal year, the outstanding holding amount for industries with large cash holdings is estimated by multiplying the amount of sales based on the *Financial Statements Statistics of Corporations by Industry, Annually*, adjusted for corporations that do not fall under the definition of private nonfinancial corporations, by the ratio of currency holdings to sales of those industries based on the Ministry of Internal Affairs and Communications' *Structural Survey Report on the Unincorporated Enterprise Survey*. For the other three quarters, it is calculated by multiplying the residual, which is calculated by deducting the currency holdings by sectors other than households, NPISH, and private nonfinancial corporations from the total currency issued, by the ratio of the currency holdings by private nonfinancial corporations to that by above three sectors at the fiscal year end. Since the currency holding amounts of NPISH is difficult to be specified from financial statements, etc., it is estimated by multiplying the amount outstanding of transferable deposits for NPISH by the currency ratio to transferable deposits at private nonfinancial corporations that are deemed to be relatively close to the sector in terms of business.

continuous between the amounts outstanding at the end of Q4 2004 and the end of Q1 2005.

A-b. Deposits with the Bank of Japan

This category refers to deposits made with the Bank of Japan by financial institutions, and the total is based on the *Bank of Japan Accounts*.

Holding amounts of individual sectors in this category (assets side) are based on the financial statements of individual financial institutions.

The amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value.

A-c. Government deposits

The total of "government deposits" (the sum of government current deposits, government special deposits, and government foreign currency deposits) is based on *the Bank of Japan Accounts*. Central government is treated fictitiously as the holding entity for all amounts, and amounts equivalent to government deposits held by special accounts are recorded as claims and liabilities through the transaction item "others" between central government and special accounts.

The amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value.

A-d. e. g. Transferable deposits, time and savings deposits, and foreign currency deposits

Deposits (transferable deposits, time and savings deposits, and foreign currency deposits) with domestic financial institutions are based on the financial statement of depository corporations and the statistics on deposits (the *Deposit by Depositors*, and *Deposits, Vault Cash, and Loans and Bills Discounted*). Residents' deposits with foreign financial institutions are based on the *Balance of Payments Statistics*, the *International Investment Position of Japan*, and foreign asset statements.

The total amount by type of deposits is based mainly on financial statements. On the other hand, the specification of the type of holding entity and the type of deposits (transferable deposits, time and savings deposits, and foreign currency deposits) is made by making overall estimate for individual financial institutions that receives these deposits (i.e. domestic financial institutions and foreign financial institutions). Then, holding deposits of entities that are available from financial statements are additionally used for further estimation as shown in the following table.

Details on Estimation Method by Type of Holding Entity and by Type of Deposit

	Estimation Method by Type of Holding Entity	**Estimation Method by Type of Deposit**	**Postal Savings**
Financial Institutions	Based on the financial statements of these institutions.	Based on the financial statements of these institutions where yen deposits of foreign deposits are regarded as time and savings deposits.	-
Private Nonfinancial Corporations	Figures are estimated residually.	Figures are estimated residually.	Figures are estimated by using the fraction of the residual.
Public Nonfinancial Corporations	Based on the financial statements of these institutions.	Based on the financial statements of these institutions.	-
Local Governments	Based on "public deposits" recorded in the *Deposits, Vault Cash, and Loans and Discounts Outstanding* less the deposits held by public nonfinancial corporations.	Based on the classification employed in the *Deposits by depositor.*	-
Central Government	Based on *International reserves / foreign currency liquidity.*	Based on the financial statements of central government where all government deposits are regarded as time and savings deposits.	-
Social Security Funds	Based on the financial statements of these institutions.	Based on the financial statements of these institutions.	-
Households	Based on "individual deposits" recorded in the *Deposits by depositor.*	Based on the classification employed in the *Deposits by depositor.*	Based on the data of "postal savings" from Japan Post.
NPISH	Based on "medical and other health services, social insurance and welfare, educational services and other organizations" recorded in the *Deposits by depositor.*	Based on the classification employed in the *Deposits by depositor.*	Figures are estimated by using the fraction of the residual.
Overseas	Based on "non-resident yen deposits" recorded in the *Deposits by depositor.*	Mainly based on the classification employed in the *Deposits by depositor.*	-

- Deposits with domestic financial institutions

The estimation in accordance with the type of deposit (transferable deposits, time and savings deposits, and foreign currency deposits) and the type of depositor is based on the *Deposits by depositor, Deposits, Vault Cash, and Loans and Bills Discounted* and the financial statement of domestic financial institutions. For the deposits with domestically licensed banks and *Shinkin* Banks (*Shinkin* Banks are included in "financial institutions for small businesses"), the type of deposit and the type of holding entity are specified by using the *Deposits by depositor* and the financial statements of these institutions.

For deposits with those other than domestically licensed banks and *Shinkin* Banks, the total of individual deposits by depositors are estimated by using the proportion of deposit

outstanding in domestically licensed banks and *Shinkin* Banks, due to the limitations of source data.

For the deposits held by certain financial institutions such as "financial institutions for small businesses," "financial institutions for agriculture, forestry, and fisheries," "private life insurance companies," and "private nonlife insurance companies," individual totals are estimated by using the proportion of deposits in "depository corporations" and other sectors because the financial statements of these institutions do not contain the breakdowns of deposit.

The amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value. However, as regards foreign currency deposits, for those outstanding available in dollar basis, term-on-term difference in the dollar basis are first calculated before exchanging to yen basis, in order to eliminate fluctuation of exchange rate from transaction flows.

Notes:

1) Due to the limitation of source data, deposit outstanding by type of deposit is estimated by using the proportion of the type of deposit in similar financial institutions.

2) The amount outstanding of foreign currency deposits fluctuates in accordance with the fluctuation of exchange rate. Although this is to be placed as a reconciliation amount, only those available in dollars are treated as reconciliation amount (for those that are not available in foreign currency basis, those fluctuation are included in transaction flows).

A-f. Certificates of deposit

The total of "certificates of deposits" is based on the financial statements of depository corporations.

Issuing entities in this category are individual sectors of banks (liabilities side).

For the holding entities in this category (assets side), the portion held by financial institutions, public nonfinancial corporations, and social security funds is based on the financial statements of individual institutions, while the portion held by local governments, households, and overseas are based on the data on sales of certificates of deposits. The residual with unidentified holding entity is regarded as the portion held by nonfinancial corporations.

The amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value.

B. Deposits with the Fiscal Loan Fund

The total of "deposits with the Fiscal Loan Fund" is based on the financial statement of the Fiscal Loan Fund.

For the holding entity (assets side) in this category is based on the financial statement of Fiscal Loan Fund and on financial statement of Special Accounts (see the following chart for the details).

The amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value.

Major Depositors in this Category

a) Nonlife insurance

- Special Accounts for Earthquake Reinsurance
- Compensation Account of Special Accounts for Motor Vehicle Safety
- Account for Measures Against Motor Vehicle Accidents of Special Accounts for Motor Vehicle Safety
- Credit Insurance Business Account of Japan Finance Corporation

b) Government financial institutions

- Fiscal Investment Account of Special Accounts for Fiscal Investment and Loan Program
- Accounts for Operations to Facilitate Crisis Responses and Specific Businesses Promotion, etc. of Japan Finance Corporation

c) Public nonfinancial corporations

- Airport Improvement Account of Special Accounts for Motor Vehicle Safety
- Special Accounts for Patent Registration

d) Social security funds: Public pensions

- Basic Pension Account of Special Accounts for Public Pension
- Employees' Pension Account of Special Accounts for Public Pension
- National Pension Account of Special Accounts for Public Pension
- Federation of National Public Service Personnel Mutual Aid Associations
- Pension Fund Association for Local Government Officials

e) Social security funds: Others

- Health Account of Special Accounts for Public Pension
- Children and Child-Rearing Support Account of Special Accounts for Public Pension
- Special Accounts for Labor Insurance

f) Central government

- Special Accounts for Energy Measures
- Special Accounts for Local Allocation and Local Transfer Tax
- Special Accounts for Foreign Exchange Fund
- Environmental Restoration and Conservation Agency of Japan
- National Agriculture and Food Research Organization

C. Loans

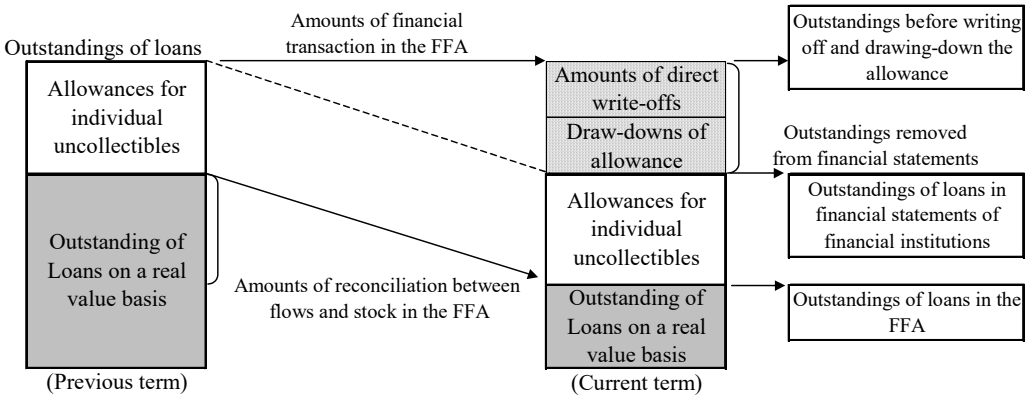
"Loans" equals the sum of the breakdowns (Bank of Japan loans, call loans and bills, loans by private financial institutions, loans by public financial institutions, loans by nonfinancial sector, installment credit, and repurchase agreements and securities lending transactions).

The breakdown data are based on the financial statements of individual institutions and the statistics on loans such as *Loans and Bills Discounted by Sector*.

To the maximum extent possible, the amount outstanding in this category is evaluated on a real-value basis except for the irrecoverable portion of loans. On the other hand, the transaction flow is recorded using term-on-term difference in the amount outstanding before the write-offs in order to record only the executed amounts and the collected amounts of loans. As a result, since the divergences between the term-on-term difference in the stock data and the transaction flow data occur, these are posted in the Reconciliation Table (see the following chart).

Estimation Method of Loan Assets on Real-value Basis

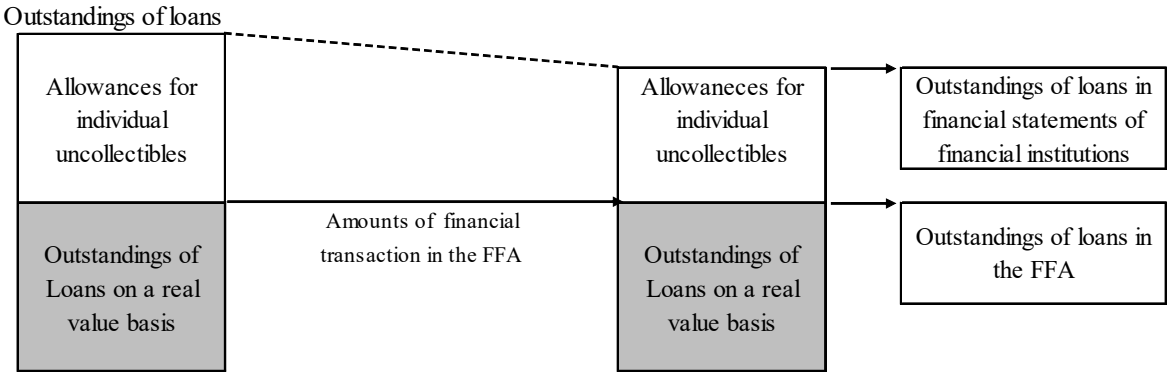
Method 1: Consideration of direct write-offs and additions/draw-downs on the allowances for individual uncollectibles, applied to "loans by private financial institutions" of banks (domestically licensed banks, foreign banks in Japan, financial institutions for agriculture, forestry, and fisheries, and financial institutions for small businesses) and insurance (private life insurance companies and private nonlife insurance companies).



(Assumes a case where there are no transactions during the current term, and the outstanding changes only because of the fluctuations in the real value.)

Transaction flow in current term	=	Amount outstanding in the current term before direct write-offs and draw-downs on the allowances for individual uncollectibles – Amount outstanding in the previous term after direct write-offs and draw-downs on the allowances for individual uncollectibles
where		
Stock before direct write-offs and draw-downs on the allowances for individual uncollectibles in current term	=	Amount outstanding of loans in financial statements + Direct write-offs in financial statements + Amount outstanding before draw-downs on the allowances for individual uncollectibles
Amount outstanding in current term	=	Amount outstanding of loans in financial statements – Amount outstanding of draw-downs on the allowances for individual uncollectibles
Reconciliation amount	=	Direct write-offs in financial statements + Addition to the allowances for individual uncollectibles

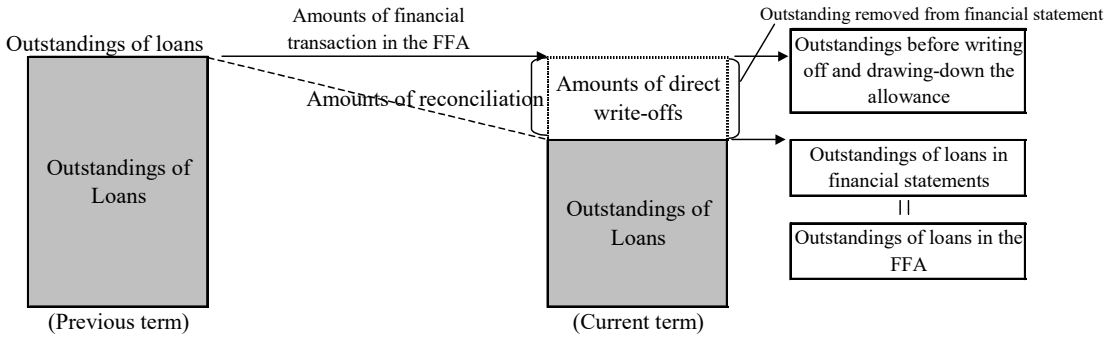
Method 2: Consideration only of the change in amount outstanding of the allowances for individual uncollectibles, applied to "loans by private financial institutions" of finance companies and "housing loans" of standardized guarantee institutions.



(Assume a case where there are no transactions and no fluctuations in the real value during the current term. The decrease in the amount outsatanding by direct write-offs and the fluctuations in the real value because of the allowances for individual uncollectibles are contained in transaction flow.)

Transaction flow in current term	=	Amount outstanding after draw-downs on the allowances for individual uncollectibles in current term – Amount outstanding after direct write-offs and draw-downs on the allowances for individual uncollectibles in previous term
where		
Amount outstanding after direct write-offs	=	Amount outstanding of loans in financial statements – Amount outstanding of the allowances for individual uncollectibles
Amount outstanding in current term	=	Amount outstanding of loans in financial statements – Amount outstanding of the allowances for individual uncollectibles

Method 3: Consideration only of direct write-offs, applied to "loans by public financial institutions" of government financial institutions.



(Assumes a case where there are no transactions during the current term, and the outstanding changes only because of the fluctuations in the real value. The fluctuations in the real value that requires accumulating allowance for uncollectibles are not concerned.)

Transaction flow in current term	=	Amount outstanding before direct write-offs in the current term – Amount outstanding in the previous term
where		
Amount outstanding in the current term before direct write-offs	=	Amount outstanding of loans in financial statements + Direct write-offs in financial statements
Amount outstanding in current term	=	Amount outstanding of loans in financial statements (= Amount outstanding after direct write-off)
Reconciliation amount	=	Direct write-offs in financial statements

C-a. Bank of Japan loans

The total of "Bank of Japan loans" is based on the *Bank of Japan Accounts*.

Concerning the borrowings by sector, the amounts borrowed by domestically licensed banks, foreign-owned banks in Japan, financial institutions for agriculture, forestry, and fisheries, financial institutions for small businesses, finance companies and financial dealers and brokers are estimated from the *Loans and Discounts by the Bank of Japan*.

The amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value.

C-b. Call loans and bills

The total of "call loans and bills" is the sum of the total of call loans and the total of bills purchased and sold[3] which are based on the financial statement of financial institutions.

Both lending entity (assets side) and borrowing entity (liabilities side) are specified by using financial statements. To keep the balance between assets and liabilities, the resulting differences between assets and liabilities is posted under the liability side of securities companies.

[3] Amount outstanding of bills purchased and sold has become almost zero since June 2009. See C-b. Call loans and bills, Chapter 4 in "Guide to Japan's Flow of Funds Accounts" for more information.

Lending entities in this category include "pension funds" and "social security funds" (assets side). This is because the fiduciary property of life insurance companies and trust accounts of domestically licensed banks, which deal with pension funds, are consolidated into pension funds sector and social security funds sector.

The amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value.

C-c. Loans by private financial institutions

"Loans by private financial institutions" equals the sum of "housing loans," "consumer credit," and "loans to companies and governments."

C-c-a. b. Housing loans and consumer credit

The amount of lending entity (assets side) of housing loans and consumer credit (breakdowns of "loans by private financial institutions") is mainly based on the *Loans and Bills Discounted by Sector*, financial statements of financial institutions, and the statistics released by industry associations. The borrowing entity (liabilities side) in this category is households.

The amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value.

Furthermore, the amount outstanding of housing loans by standardized guarantee institutions is evaluated on a real value basis and calculated by obtaining the total amount from questionnaire surveys and deducting the amount of the allowances for individual uncollectibles from the total. For these loans, the change in the amount outstanding from the previous quarter is recorded as the transaction flow.

C-c-c. Loans to companies and governments

The total of "loans to companies and governments" is estimated by accumulating the data in financial statements of individual private financial institutions (listed in the following table).

Amounts of individual borrowing entities (liabilities side) are mainly based on the statistics on loans *(Loans and Bills Discounted by Sector*) and the financial statement of individual financial institutions (including the data on loans by sector). See the details in the next page.

List of Recipients of Loans by private financial institutions

	To financial institutions	To private nonfinancial corporations	To public nonfinancial corporations	To central government	To local governments	To social security funds	To households	To NPISH	To overseas
(Borrowing sectors)	■		■	■		■			
Depository corporations									
Domestically licensed banks	■	E		■	■		E	E	E
Foreign banks in Japan		E					E		■
Financial institutions for agriculture, forestry, and fisheries									
(Norinchukin Bank)	■	E			■		E	E	■
(Prefectural Credit Federation of Agricultural Cooperatives) (Prefectural Credit Federation of Fishery Cooperatives)	■	E			■		E	E	■
(Agricultural Cooperatives) (Fisheries Cooperatives)	■	■			■		■	■	■
Financial institutions for small businesses									
Shoko Chukin Bank	■	E		■	■		E	E	E
Shinkin banks	■	E		■	■		E	E	E
Shinkin Central Bank	■	E			■		E	E	
Shinkumi banks	■	E			■		E	E	
Shinkumi Federation Bank	■	■			■		■	■	
Labor Banks	■						■		
The *Rokinren* Bank	■	■		■					
Resolution and Collection Corporation	■	■					■		
Collectively managed trusts	■	■			■		■	■	■
Insurance and pension funds									
Private life insurance companies Private nonlife insurance companies	■	■		■	■		■	■	■
Pension funds	■	■			■		■	■	■
Other financial intermediaries									
Finance companies	■	E					E		■
(Structured-financing special purpose companies and trusts)	■	■	■	■		■	■		
Securities companies	■	■					■	■	■
Financial auxiliaries	■	■							■

Notes:
Sectors with parenthesis indicate the sectors where loans are estimated by using the proportion.
Sectors with shaded area indicate the sectors where loan recipients are estimated.
"E" indicates the item where the decrease in the volume through direct write-off or write-downs are estimated.

- Loans to financial institutions, public nonfinancial corporations, and social security funds.

  Estimation is based on the financial statements of borrowing entities.

- Loans to central government and local governments.

  Estimation is based on *Loans and Bills Discounted by Sector*.

- Loans to households

  Housing loans and consumer credits are based on *Loans and Bills Discounted by Sector* and other data sources, including the financial statements of financial institutions and the statistics released by industry associations.

  Loans to companies and governments (borrowings by sole proprietorships) are divided into two categories, those for house and room lending by households and those not for house and room lending, estimated using *Loans and Bills Discounted by Sector* and financial statements of financial institutions.

- Loans to NPISH

  Estimation is based on the *Loans and Bills Discounted by Sector.* Specifically, estimation is an addition of the total of loans to "education and learning support" and to "other organizations" and the remaining after deducting the portion that does not fall under the definition of NPISH from loans to "medical, health care, and welfare services."

- Loans to overseas

  Estimation is made by adding "loans to non-residents" in offshore accounts, "claims to overseas branch = debit balance in inter-office account" (both are based on financial statements), and "loans to overseas" that are recorded in *Loans and Bills Discounted by Sector.*

- Loans to private nonfinancial corporations

  This refers to residuals calculated by deducting the amount borrowed in all sectors other than private nonfinancial corporations from the total amount of loans.

Amount outstanding of loans by private financial institutions is calculated by subtracting the amount outstanding of allowances for individual uncollectibles (accumulated indirect write-offs) from the loans outstanding recorded in financial statements.

On the other hand, transaction flow (the posting of net loans or the difference between the executed amounts and the collected amounts of loan) is calculated by either of following methods.

(1) Method 1
Calculation by contrasting "the amount outstanding before the off-balance sheet accounting by direct write-offs and draw-downs on the allowance for individual uncollectibles (of which, the allowance for individual uncollectibles are not subtracted)" with "the previous term's balance."

(2) Method 2
Calculation by contrasting "the amount outstanding after deducting the allowance for individual uncollectibles" with "the previous term's balance."

As a result, if divergences between the term-on-term difference in the stock data and the transaction flow data occur, these are posted in the Reconciliation Table[4]. In addition, the reconciliation

[4] Reconciliation amounts of households, NPISH, overseas, finance companies, and private nonfinancial corporations are allocated by the proportion of previous term's outstanding of borrowing of each sector. For the volume of lending by financial institutions and governments, it is assumed that there is no decrease of the loaned assets caused by the disability of repaying and that there is no charging-off caused by non-recoverability.

accounts include foreign exchange gains (or losses) from foreign currency loans.

Notes:

1) Real values of loan assets are complex to calculate precisely, and are estimated merely by applying prearranged definitions. Since every institution evaluates the volume of loans only on book closing days, the FFA estimates real values at the end of each quarter, except the book closing days, by considering the amount up to the previous term and the growth of amount outstanding in the previous term.

2) Amount outstanding of consumer credit and loans to companies and governments, due to the change in estimation methods, there are some sectors with figures that are not continuous between the amounts outstanding at the end of Q4 2004 and the end of Q1 2005.

C-d. Loans by public financial institutions

The total of "loans by public financial institutions" equals the sum of Japan Post Bank, Japan Post Insurance, other nonlife insurance, other pensions, financial auxiliaries (financial institutions other than intermediaries), Fiscal Loan Fund, public financial institutions, and public captive financial institutions. These loans are based on their financial statements.

The borrowing entity in individual institutions is estimated by calculating the proportion of loan recipient in accordance with the type of business for those without a clear loan recipient (see the following chart). Purchased loans receivable of the Japan Housing Finance Agency are also included in this item.

List of Main Recipients of Loans by public financial institutions

	To private financial institutions	To public financial institutions	To private nonfinancial corporations	To public nonfinancial corporations	To general government	To central government	To local governments	To social security funds	To households	To NPISH	To overseas
Japan Post Bank	■										
Japan Post Insurance	■										
Other nonlife insurance											
Other pensions											
Financial auxiliaries											
Public financial institutions											
Fiscal Loan Fund											
Government financial institutions											
Special Account for Fiscal Investment and Loan Program Funds (Investment account)											
Japan Bank for international cooperation											
Development Bank of Japan			E								
Japan Finance Corporation for Micro Business and Individual Of which, former peoples' finance corporation			E								
Of which, former environmental Sanitation Business Finance Corporation									E		
Japan Finance Corporation for Agriculture, Forestry, Fisheries and Food Business			E								
Japan Finance Corporation for Small and Medium Enterprise			E								
Japan Finance Corporation for Operations to Facilitate Crisis Responses and Specific Businesses Promotion, etc.											
Japan Housing Finance Agency									E		
Okinawa Development Finance Corporation											
Welfare and Medical Service Agency	■								E		
Former Japan National Oil Corporation											
Japan Student Services Organization											
Public captive financial institutions											
Japan Finance Organization for Municipalities											
Organization for Small & Medium Enterprises and Regional Innovation			E								
Japan Railway Construction, Transport and Technology Agency											

Notes:
"E" indicates the item where write-downs by direct write-offs are estimated.
"To public financial institutions" includes "loans to postal savings."
Sectors with black area indicate the sectors consolidated into designated noncollectively invested money trusts.
Sectors with gray area indicate the sectors where loan recipients are estimated.

The amount outstanding in this category is evaluated on a face value after direct write-offs, while transaction flow is recorded using term-on-term difference in that value before the write-offs. The amount of direct write-offs is based on financial statements of individual institutions (Method 3). As a result, since the divergences between the term-on-term difference in amount outstanding and the transaction flow data occur, these are posted in the Reconciliation Table. In addition, the reconciliation accounts include foreign exchange gains (or losses) from foreign currency loans.

Notes:

1) Since the data in financial statement of public financial institutions do not contain sufficient information on the loan recipients, for unidentified loan recipients, a certain ratio is multiplied to loans outstanding of individual institutions in order to estimate the borrowing of individual sectors. Thus, the proportion for individual sectors may be different to the actual proportion if a certain sector suddenly changes the recipients.

2) The estimation for real values of "loans by public financial institutions" by using the data on allowances for uncollectibles is complex. Therefore, decrease in the volume of loans is not estimated. Instead by grasping direct write-offs from financial statements of individual institutions, they are prevented from being included in the transaction flow. And since the amounts of direct write off in this category are acquired only by annual basis, the FFA estimates the amount of each quarter by using the amount up to the previous term and the growth of amount outstanding.

C-d-a. Housing loans

"Housing loans" (breakdown of "loans by public financial institutions") is estimated using *Loans to individuals (Housing funds)* and the financial statements of individual sectors. Borrowing entity (liabilities side) in this category is households. Purchased loans receivable of the Japan Housing Finance Agency are also included in this item.

The amount outstanding in this category is evaluated at face value after direct write-offs, while the transaction flow is recorded using the term-on-term difference in the amount outstanding before the direct write-off. Amounts of direct write-offs are estimated from each financial statement (Method 3). As a result, since the divergences between the term-on-term difference in the stock data and the transaction flow data occur, these are posted in the Reconciliation Table.

C-e. Loans by the nonfinancial sector

"Loans by the nonfinancial sector" is based on "the loans by private nonfinancial corporations" recorded in the *Financial Statements Statistics of Corporations by Industry, Quarterly*, adjusted for corporations that do not fall under the definition of private nonfinancial corporations, while the loans by public institutions (central government, local governments, social security funds, public nonfinancial corporations) are estimated by building up the government's financial statements (released by the Ministry of Finance) and the data in the financial statements of individual institutions. Loans by households are based on data such as on overseas loans recorded in foreign asset statements. Loans by nonresidents (overseas financial institutions) are based on the *Balance of Payments Statistics* and the *International Investment Position of Japan.* For the loans by nonresidents, certain adjustments are employed in order to arrange transactions with repurchase agreements and securities lending transactions.

Concerning borrowing by sector, loans by public institutions (central government, local governments, social security funds, public nonfinancial corporations) and NPISH, and loans by nonresidents are estimated from the lenders' side, while other loans are estimated from the borrowers' side. More specifically, for loans by public institutions and NPISH, the amounts are allocated proportionally to individual borrowing entities according to the type of their activities. For loans by nonresidents, estimation utilizes the data in the *Balance of Payments Statistics* and the *International Investment Position of Japan.* The borrowings from private nonfinancial corporations, on the other hand, are estimated using the *Financial Statements Statistics of Corporations by Industry, Quarterly*. More specifically, the residual of the total loans in the

Financial Statements Statistics of Corporations by Industry, Quarterly, adjusted for corporations that do not fall under the definition of private nonfinancial corporations, less the loans to other sectors (identified from financial statement of loan recipients) is regarded as loans to the private nonfinancial corporations sector. Moreover, loans to nonfinancial sector from various sectors such as public nonfinancial corporations, local governments and overseas are estimated and added to the loans of the private nonfinancial corporations sector to estimate the total borrowings.

In principle, the amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value. Reconciliation amounts in this category result from fluctuation in amount outstanding with the changes in surveyed companies of the *Financial Statements Statistics of Corporations by Industry, Quarterly* and from discrepancy between the *Balance of Payments Statistics (flow)* and the *International Investment Position of Japan (stock), which* due to fluctuation in the exchange rate.

C-f. Installment credit

The total of "installment credit" equals the sum of credits by nonbanks (finance companies, structured-financing special purpose companies and trusts), public institutions (public captive financial institutions, public nonfinancial corporations), private nonfinancial corporations, and central government. The figure is based on the financial statements of these institutions.

The borrowings of public financial institutions, nonbanks, private nonfinancial corporations, and central government are estimated separately. More specifically, for the installment credits held by public financial institutions, the amounts are allocated to private nonfinancial corporations or households in accordance with the type of business. For the installment credits held by nonbanks, the amounts are estimated using sources such as financial statements of leasing companies (breakdowns of installment credit by type of industry) and allocated to the borrowing sectors including financial institutions, private nonfinancial corporations, public nonfinancial corporations, and overseas. For the installment credits held by private nonfinancial corporations (sales credit), the amounts are estimated using source data such as the financial statements of major companies involved in the transactions of sales credit on automobiles and major mobile phone companies, and allocated to the borrowing sectors of private nonfinancial corporations or households. For the installment credits held by central government, the amounts are estimated using source data such as financial statements and allocated to the borrowing sectors of public nonfinancial corporations or local governments.
The amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value.

C-g. Repurchase agreements and securities lending transactions

The total of "repurchase agreements and securities lending transactions" is posted by summing bond *gensaki* (sale and repurchase) transaction and securities lending transactions with cash collateral.

a) Bond *gensaki* (sale and repurchase) transaction

The total of "bond gensaki (sale and repurchase) transaction" is based on the financial statements of each financial institution, the data from the Japan Securities Dealers Association (Balance of Bond Transactions with Repurchase Agreements <by investor type>) and the data on money market operations of the Bank of Japan.

The estimation for each of buyer (lending entity; assets side) and seller (borrowing entity; liabilities side) is conducted using data from each financial statement of financial institutions other than the trust account and public financial institutions. Other sectors are estimated by matching the breakdowns of investors in the data of the Japan Securities Dealers Association (*Balance of Bond Transactions with Repurchase Agreements <by Investor type>*). The correspondence of classification between this source data and the FFA is shown in the next page[5].

Sectors in the FFA		**Breakdowns by investor in the data of the Japan Securities Dealers Association**
Collectively managed trusts	⇔	Part of "Trust Banks"
Securities investment trusts	⇔	"Investment Trusts"
Government financial institutions	⇔	Part of "Others"
Private nonfinancial corporations	⇔	"Business Corporations"
Public nonfinancial corporations	⇔	Part of "Others"
Local governments	⇔	Part of "Others"
Public pensions	⇔	"Mutual Aid Association of Govt. Offices"
NPISH	⇔	"Other Corporations"

The amount outstanding of the Fiscal Loan Fund is based on data on the money market operations of the Bank of Japan and data on auctions associated with *gensaki* transactions.

The amount outstanding of *gensaki* transactions on both the liabilities and assets sides by each sector is compiled as described above. In order to balance total assets and liabilities, their difference is allocated to the liability side of "private nonfinancial corporations."When the difference is negative, its absolute value is allocated to the asset side.

b) Securities lending transactions with cash collateral

For "securities lending transactions with cash collateral," the total amount is based on the financial statements of financial institutions and data from market research on related transactions. All bonds in this category are regarded as "central government securities and FILP bonds" and "treasury discount bills." The holding amount of each entity is based on these financial statements and data from market research.

The amount outstanding in "repurchase agreements and securities lending transactions" is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value.

Note:

In principle, the amount outstanding of "repurchase agreements and securities lending transactions" on real value basis is deemed to fluctuate in accordance with the price of bonds.

[5] The "others" sector in this statistic includes the outstanding of repurchase agreements that members of the Japan Securities Dealers Association won bids for the Bank of Japan's market operations, the "purchase/sale of Japanese government securities with repurchase agreements," and this amount outstanding is excluded from "others."

Due to source data limitations, however, this type of fluctuations is not considered.

D. Debt securities

"Debt securities" equals the sum of "treasury discount bills," "central government securities and FILP bonds," "local government securities," "public corporation securities," "bank debentures," "industrial securities," "external securities issued by residents," "CP," "trust beneficiary rights," and "structured-financing instruments."

Issuing entity (liabilities side) is specified in accordance with the securities of each breakdown by using statistics on bond market.

Holding entity (assets side) is based on the financial statements of individual institutions and the data on holdings and sellings by each custodian sector (bond-registering institution).

The amount outstanding of bonds whose market prices are available are evaluated at market value, while others are evaluated on a face value or a book value basis (see following list). In some sectors, the outstanding amount of bonds at market value is publicly available and directly used, whereas in other sectors, the market value is estimated by multiplying the amount outstanding at face value by the weighted average of market prices of constituent bonds. Transaction flows of these instruments are recorded using the term-on-term difference at face value.

Evaluation methods of amount outstanding of debt securities.

Market value basis:	Central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, and industrial securities
Face value basis:	Treasury discount bills, external securities issued by residents, CP, trust beneficiary rights, and structured-financing instruments

Notes:

1) In principle, the amount outstanding of bonds is converted by using the weighted average of market prices of constituent bonds (central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, and industrial securities). Thus, the difference in prices among bonds in the same category is not recognized in the FFA. However, central government securities offered to individuals in this category are recorded at face value because of the product characteristics.

2) In principle, conversion into market value basis is made in accordance with the category of bond (central government securities and FILP bonds, local government securities, public corporation securities, bank debentures, and industrial securities). Bonds with no market transaction, such as private placement bonds, are also converted into market value basis.

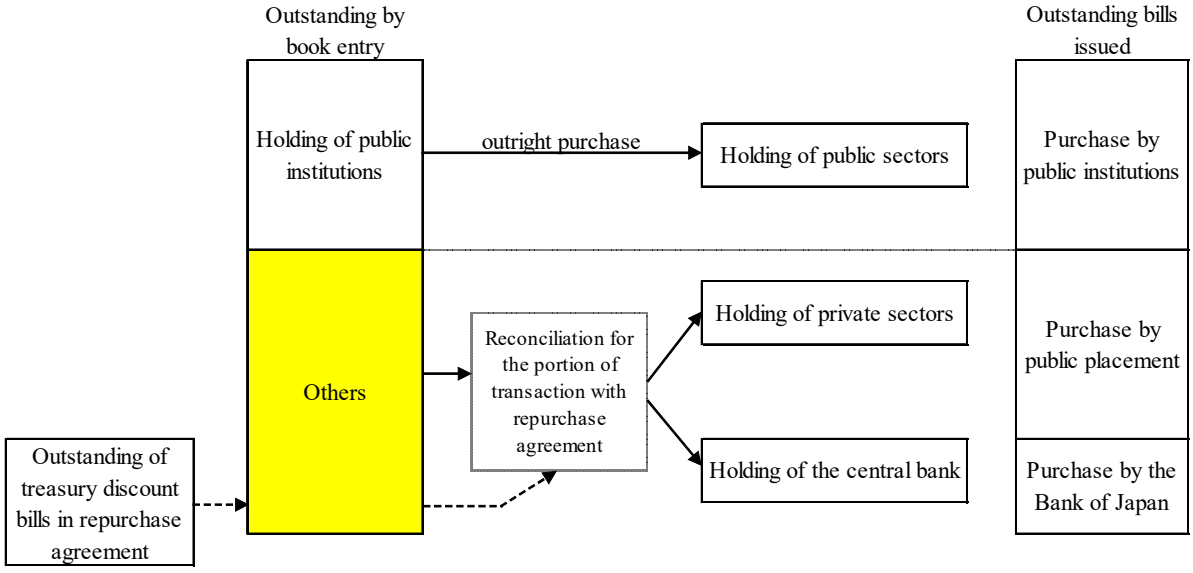
3) External securities issued by residents (asset side) is evaluated on a market value in certain sectors, depending on the source data.

D-a. Treasury discount bills

The total of "treasury discount bills" is based on the data on *Issuance, Redemption, and Outstanding of Public and Corporate Bonds*[6].

Holding amount of each sector (assets side) is based on the summary data on the registration/book-entry of central government securities and FILP bonds, on the financial statements of financial institutions and public nonfinancial corporations, the *Gross External Debt Position of Japan*, etc. All treasury discount bills held by public nonfinancial institutions (e.g. postal savings, postal life insurance, central government, government financial institutions) are regarded as outright purchases. On the other hand, treasury discount bills held by other sectors are calculated separately by estimating treasury discount bills *gensaki*, based on the reference on the registration/book-entry of central government securities[7], by retrieving the state before the transaction with repurchase agreements (see the following chart).

Estimation method of the holding amount of treasury discount bills



The amount outstanding in this category is evaluated on a face value basis, while the transaction flow is recorded using term-on-term difference in that value.

Note:
For treasury discount bills, holding amount of individual sectors are posted by retrieving the state before the transaction with repurchase agreements. Outstanding *gensaki* transactions in individual sectors are estimated proportionally using holding amounts of treasury discount bills, where *gensaki* transactions are treated as change of ownership by sector.

[6] "Financing bills" was renamed "treasury discount bills" in the FFA, reflecting the integration of "financing bills" and "treasury bills" to form "treasury discount bills" from the first auction in February 2009. Since "financing bills" were included in "treasury discount bills" prior to the integration (before the fourth quarter of 2008), classifications of "treasury discount bills" in the FFA differ before and after the integration (after the first quarter of 2009). All Treasury discount bills except Fiscal Loan Fund securities issued by Fiscal Loan Fund Special accounts are regarded as those issued by the central government.

[7] In the reference on the registration/book-entry of central government securities, it is recorded assuming that the bond ownership transfers according to the *gensak*i transaction.

D-b. Central government securities and FILP bonds

This item is the sum of ordinary government securities[8] (interest-bearing super long-term government bonds, interest-bearing long-term government bonds, discount medium-term government bonds, interest-bearing medium-term government bonds, and treasury bills issued before January 2009), government bonds converted and FILP bonds issued by the Special Account of Fiscal Investment and Loan Program Fund based on the reference on issuing and redemption of government securities (*Issuance, Redemption, and Outstanding of Public and Corporate Bonds*)[9].

Out of holding amounts by sectors, amounts held by domestic sectors are estimated by the summary sheet of registered government bonds and clearing government bonds, the research on the holders of clearing government bonds, and financial statements, etc. Amounts held by overseas are estimated by the *Balance of Payments Statistics* and the *International Investment Position of Japan*.

Estimation of holding entity is also made for each type of bond. For instance, all amounts of government bonds for individuals, excluding those held by the central government, are regarded as being held by households. Besides, adjustments, such as for transaction with repurchase agreements and securities lending transaction, are applied to the sectors other than households (where the adjustment treats government securities in transaction with repurchase agreements and securities lending transaction as collateral). Estimations for individual types of bonds are described as follows.

The amount outstanding is evaluated on a market value. Regarding issuers, the market value is calculated by multiplying the market price of central government securities by the total face value. However, in the case of central government securities with a current maturity of less than one year and those offered to individuals, the face value of outstanding bonds is recorded. Regarding holders, the amount outstanding in individual sectors on a book value (that is subject to certain reevaluations) based on individual financial statements are converted into face value basis, and then converted into market value basis by multiplying the market price of government securities. Next, by comparing the total amount outstanding in financial statements based on a book value basis and the totals with the registered government bonds and clearing government bonds held by the corresponding sectors under the book-entry system, divergence ratios between the book value and the face value are calculated[10]. Then, the amount outstanding on a book value basis in individual sectors which holding amounts on face value basis are not available is converted into face value basis by using the divergence ratios. Finally, the amount outstanding is converted into the market value basis by multiplying the amount on a face value by the market price of government securities (see the following chart for details).

Transaction flow in this category is recorded using term-on-term difference in the face value. In doing so, in the case of central government securities with a current maturity of less than one year and those offered to individuals, the face value of outstanding bonds is recorded. The divergence between the term-on-term difference in the stock data on a market value and the transaction flow data is posted as a reconciliation amount.

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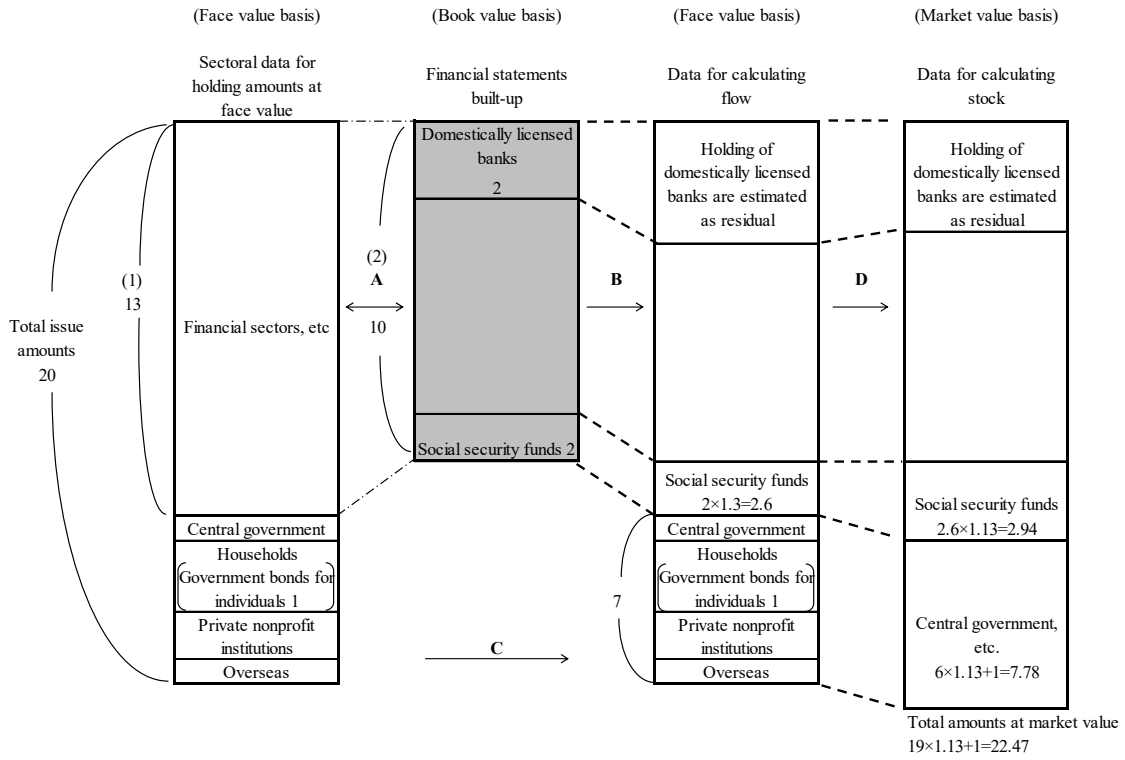
[8] Government bonds for individuals since March 2003 and inflation indexed bonds since March 2004 are included.

[9] Deferred payment bonds are not posted under "central government securities and FILP bonds" in the FFA. For details, please refer to chapter 4 of *Guide to Japan's Flow of Funds Accounts.*

[10] In order to calculate the divergence ratio between the book value and the face value of financial institutions more adequately, the holding amount of nonresidents on a face value, which is estimated from the *Balance of Payments Statistics* and the *International Investment Position of Japan*, is also used in the ratio.

Reconciliation of central government securities and FILP bonds



(1) Face value after subtracting those held by central government etc., from total value issued (face value holdings of financial institutions).
(2) Book value summed up from financial statements of financial institutions,. etc. (book value holdings of financial institutions).

A: Calculate the face value/book value ratio (13/10)
B: Multiply financial statements data build up for each sector by the face value/book value ratio (e.g. Social security funds: 2*1.3=2.6)
C: Post the same amounts
D: Multiply the market price index (1.13: Index calculated by regarding the price of central government securities with a current maturity of less than one year as 1)

Notes:

(1) As shown above, the conversion of the amount outstanding on a book value basis into a face value basis for individual sectors employ a certain divergence ratio, which is calculated by comparing the total of central government bonds held by financial institutions, etc. in book value basis, the total acquired from financial statements, and those in face value basis which are the total of registered data of the same institutions. Thus, the FFA does not reflect the differences of book values among individual sectors. The holding amount of government securities by Fiscal Loan Fund regards a book value and a face value the same.

(2) The FFA regards "repurchase agreements and securities lending transactions with cash collateral" as "transfer of funds backed by government securities and treasury discount bills" and treats the ownership of government securities does not change. In the corporate accounting, the treatment of gensaki transactions changed from trade transaction to financial transaction since fiscal year 2000/2001, and thus became in line with the treatment of the FFA. On the other hand, the summary sheet of registered government bonds and clearing government bonds and the research on registered government bonds by holder have changed the name of government securities by this transaction, and thus the holding amount of government securities are different from the amount of each sector in the FFA. In addition, there may be certain estimation errors due to lack or limitation in data and the differences of the definitions between the data.

D-c. Local government securities

"Local government securities" is the sum of local government bonds issued by ordinary accounts (classified under local governments) and local public enterprises accounts of local governments (classified under public nonfinancial corporations). The total amount is calculated by aggregating the amounts of registered, book-entry, and bearer bonds. The amount of registered bonds is based on the annual data of the balance of the registered bonds. The amount of book-entry bonds is based on the *Issue, Redemption and Outstanding* published by the Japan Securities Depository Center. The amount of bearer bonds is assumed to be proportional to the amount of registered and book-entry bonds.

For the issuing entity (amount outstanding on the liability side), the amount issued by local public enterprises is estimated using the *Overall Financial Report of Local Public Enterprises.* The rest are regarded as those issued by local governments.

For the holding entity (assets side), the holding amounts of financial institutions and public nonfinancial corporations are based on the financial statements of these institutions; the holding amount of households is based on data of the amount outstanding of Residential Local Government Bonds published by the Japan Local Government Bond Association. The holding amounts of private nonfinancial corporations and the NPISH are estimated using data from bond-registering institutions.

The amount outstanding is converted to market value by multiplying the acquired source data (assuming all figures are evaluated on a face value) by the market price of local government securities. The transaction flow, on the other hand, is recorded using term-on-term difference on face value. The difference between the term-on-term difference in the stock data and the transaction flow data, for the portion caused by the conversion into the market value basis, is posted in the Reconciliation Table[11].

Note:
Because the total issuing amount of local government securities are estimated under a certain postulation, as mentioned above, it is necessary to note that estimates may entail inaccuracies.

[11] The outstanding amounts of local government securities (assets) of the "securities investment trusts" and "postal savings" sectors (from the first quarter of 2003 to the third quarter of 2007) are recorded from data on a market value basis due to the availability. Transaction flows of these sectors are posted using the term-on-term difference of the term-end outstanding—which is converted to a face-value basis— by using a market-price-to-face-value ratio.

D-d. Public corporation securities

The total of "public corporation securities" is based on the *Issuance, Redemption and Outstanding Balance by Bonds' Category* released by the Japan Securities Depository Center (JASDEC).

Issued amounts by sector (liabilities side) are based on the list of bonds issued compiled by the JSDA and the financial statements of bond issuing entities.

Of the holding entity in this category (assets side), the holding amount of financial institutions and public nonfinancial corporations is based on the financial statement of these institutions, while the holding amount of nonresidents (overseas sector), private nonfinancial corporations, and NPISH is estimated from the *Balance of Payments Statistics*. Public corporation bond certificates (unregistered bonds) are estimated by taking the difference between the total of bond issued and the bond registration data that are regarded as the holding of households.

The amount outstanding on a market value is posted by multiplying the acquired source data (assuming all figures are evaluated on a face value) by the market price index. The transaction flow, on the other hand, is recorded using term-on-term difference on face value. The divergence between the term-on-term difference in the stock data and the transaction flow data, for the portion caused by the conversion into the market value basis, is posted in the Reconciliation Table[12].

D-e. Bank debentures

For "bank debentures," each of discount bond and interest-bearing bond is mainly based on the financial statements of bond issuing institutions. The total amount (liabilities side) in this category is based on the issued amounts by each institution.

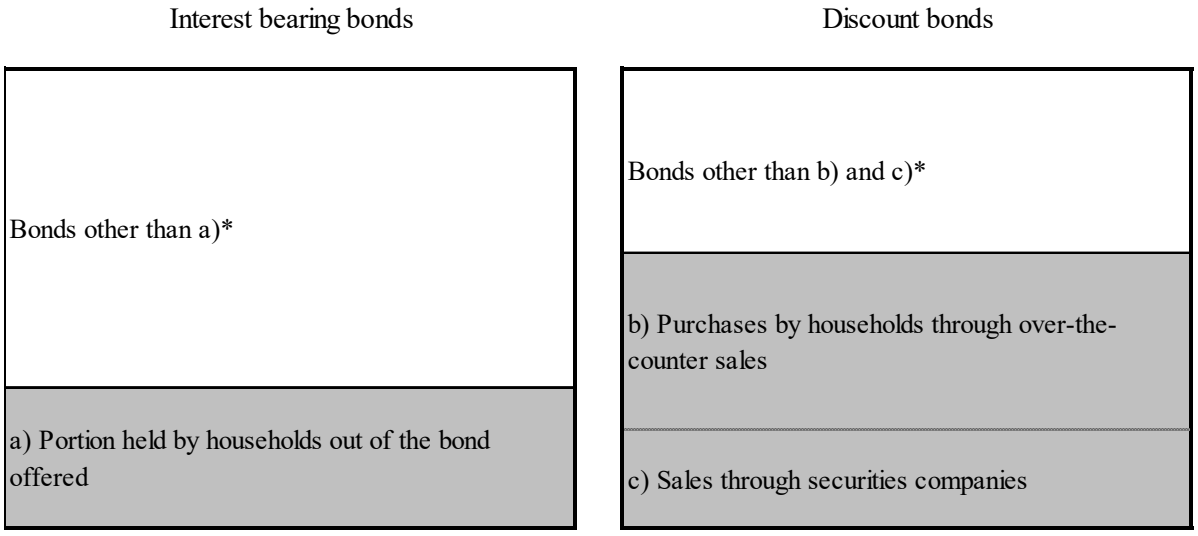
Of the holding entities (assets side) in this category, the holding of financial institutions and public nonfinancial corporations are based on the financial statements of these institutions, while the holding of nonresidents (overseas sector), local governments, private nonfinancial corporations, and NPISH are estimated from the data from bond-registering institutions.

The holding amount of households includes: (1) interest-bearing bonds that are bought by households through the over-the-counter sales of bond-issuing financial institutions,[13] (2) discount bonds that are sold through securities companies, and (3) interest bearing bonds sold to households (majority of underlying bonds). See the following chart for the explanation. In addition, the residuals with no specific holding sector are regarded as the holding amount of private nonfinancial corporations.

[12] The outstanding amount of public corporation securities (assets) of the "postal savings" sector (from the first quarter of 2003 to the third quarter of 2007) is recorded from data on a market value basis due to the availability. Transaction flows of this sectors is posted using the term-on-term difference of term-end outstanding— which is converted to a face-value basis—, by using a market-price-to-face-value ratio.

[13] When the financial instruments are traded frequently, the estimation for the holding amount at a certain time is not necessary appropriate. The FFA, however, employs this approach only for the interest-bearing bonds in households, assuming that households normally keep the bonds until the maturity.

Estimation of households' holding amount of bank debentures



Shaded area indicates the portion held by households (a+b+c).

* The holding amounts of financial institutions, nonfinancial corporations, and nonresidents (overseas), etc. are estimated from the financial statements of these sectors and the data from bond-registering institutions etc.

The amount outstanding evaluated on a market value is calculated by multiplying the acquired data source (regarding all are evaluated on a face value basis) by the market price of bank debentures. The transaction flow, on the other hand, is recorded using term-on-term difference on a face value. The divergence between the term-on-term difference in the stock data and the transaction flow data, for the portion caused by the conversion into the market value basis, is posted in the Reconciliation Table.

D-f. Industrial securities

As for "industrial securities," bonds and convertible bonds with share options issued domestically by corporations are mainly based on the *Issuance, Redemption and Outstanding Balance by Bonds' Category* released by the Japan Securities Depository Center (JASDEC). In addition, domestically issued bonds backed by nonfinancial assets are estimated based on "Asset Backed Bonds (Public Offering and Private Offering)" released in the same source by the JASDEC.

The issue amount by sector (amount outstanding on the liability side) is based mainly on the *Issuing, Redemption and Outstanding Amounts of Bonds* compiled by the JSDA and the financial statements of bond issuing entities.

For holding entity (assets side), the holding amounts of financial institutions and public nonfinancial corporations are based on the financial statement of these institutions, while the holding amounts of nonresidents (overseas), private nonfinancial corporations, and NPISH are estimated from the data of bond-registering institutions.

The amount outstanding evaluated on a market value is calculated by multiplying the acquired source data (regarding all are evaluated on a face value) by the market price of industrial securities. The transaction flow, on the other hand, is recorded using term-on-term difference on face value.

The divergence between the term-on-term difference in the stock data and the transaction flow data, for the portion caused by the conversion into the market value basis, is posted in the Reconciliation Table.

D-g. External securities issued by residents

The total value of straight bonds in "external securities issued by residents" is the sum of the estimated issue amounts of individual sectors. Foreign-currency denominated source data is converted into Japanese yen, based on the period end rates.

For an issuing entity (amount outstanding on the liabilities side), (1) the issue amounts of foreign banks in Japan, securities companies, and financial holding companies of securities companies are estimated based on financial statements excluding the amounts of the domestically issued industrial bonds based on the data such as published by JASDEC, (2) the issue amounts of other financial institutions (domestically licensed banks, insurance companies, finance companies, and financial holding companies of banks and insurance companies etc.) and private nonfinancial corporations are based on individual entity bond data (data are obtained from I-N Information Systems' "Funding View" and the Dealogic database, etc.), (3) the issue amounts of public nonfinancial corporations, local governments, public financial institutions, and public captive financial institutions are based on data on government-guaranteed external bonds and information on the issue amounts released by issuers, (4) the issue amounts of private nonfinancial corporations are the amount of nonfinancial corporations based on the Debt securities statistics (*International debt securities by residence of issuer*) published from the Bank for International Settlements (BIS) less the amount issued by public nonfinancial corporations.

For holding entity, the amounts held by insurance and pension funds and general government are estimated from the financial statements, and the amounts held by banks and securities companies are estimated using data related to the *International Investment Position of Japan*. The residual with no specific holding entity is posted as the portion held by overseas.

Foreign currency-denominated outstanding on face value basis is converted into yen-denominated outstanding by each currency, while transaction flow is recorded using yen conversion of term-on-term difference of the foreign currency-denominated outstanding. The divergence between the term-on-term difference in the stock data and the transaction flow data, which is caused by the yen conversion by using the end-of-term exchange rate (for stocks) and the average exchange rate or the issue date exchange rate (for transaction flows), is posted in the Reconciliation Table.

D-h. Commercial paper

The total amount of "commercial paper (CP)" is calculated by deducting the amount outstanding of the ABCP and the amount outstanding of the CP issued by overseas from the total issue amounts of CP in the book-entry transfer system whose data are released by the Japan Securities Depository Center.

For issuing entity (liabilities side), the issue amounts of private nonfinancial corporations are the total amount of CP less the issue amounts of financial institutions (domestically licensed banks, insurance companies, nonbanks, financial dealers and brokers, and financial holding companies) and public nonfinancial corporations that are mainly based on the financial statements of these institutions.

For a holding entity (assets side), the holding amounts of financial institutions (banks, securities Investment trusts, insurance companies, and financial dealers and brokers etc.), central government, social security funds, and public nonfinancial corporations are based on the financial statements of these institutions and on *Deposits, Vault Cash, and Loans and Bills Discounted*. The residual with no specific holding entity is posted as the portion held by private nonfinancial corporations.

The amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value.

D-i. Trust beneficiary rights

Figures for "trust beneficiary rights" are estimated by accumulating "collectively managed designated money trusts" plus "loan trusts" (both trusts are recorded in collectively managed trusts sector)[14].

Issuing entity (liabilities side) in this category is "collectively managed trusts."

For holding entity (assets side), the holding amounts of financial institutions (banks, collectively managed trusts, insurance companies, finance companies, government financial institutions etc.), social security funds and central government (some of special corporations, authorized corporations, and incorporated administrative agencies) are based on the financial statement of these institutions. The holding amounts of local governments are estimated by the characteristics of instruments and the data from trust banks. The residual with no specific holding entity is apportioned between private nonfinancial institutions and households.

The amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value.

Note:
Under "trust beneficiary rights," the amount of designated noncollectively invested money trusts and specified money trusts less the consolidated amounts was recorded prior to the revision of sectoral classification in March 2007. In line with this revision, the "non-collectively managed trusts" sector was eliminated and the assets of "designated non-collectively invested money trusts" and "specified money trusts" were consolidated with the original investors. Thus "trust beneficiary rights" covers only "collectively managed designated money trusts" plus "loan trusts."

D-j. Structured-financing instruments

The total of "structured-financing instruments" is estimated in accordance with the type of instrument. More specifically, the ABCP is based on the *Outstanding Amounts of CP by Issuer's Category* released by the Japan Securities Depository Center (JASDEC) and monetary claim trust beneficiary rights are estimated using data on fiduciary assets of trust beneficiaries of financial institutions and financial data on entrusted assets by trust companies. AB (asset-backed) domestic corporate bonds are calculated by estimating the amounts backed by monetary claim from "Asset Backed Bonds (Public Offering and Private Offering)" in the *Issue, Redemption and Outstanding* released by the JASDEC.[15] Total amounts of mortgage securities (the amount outstanding is zero

[14] Trust beneficiary rights associated with investment trusts are not posted under this category, but under "investment trust beneficiary certificates" issued by securities investment trusts sector.
[15] The amounts backed by nonfinancial assets are estimated by using the same source data and are recorded in industrial securities issued by private nonfinancial corporations.

from the first quarter of 2012) are obtained from the amount outstanding of sales of mortgage securities compiled and disseminated by the Japan Mortgage Securities Association[16] and the financial statements of mortgage securities companies.

For holding entity (assets side) of structured-financing instruments other than mortgage securities, the holding amounts of financial institutions such as banks, insurance companies, and finance companies, and social security funds are based on the financial statement of these institutions. On the other hand, the holding amounts of nonresidents are estimated by multiplying a certain ratio calculated from past questionnaire survey to securities companies. The residual with no specific holding entity is posted as the portion held by private nonfinancial institutions. For holding entity (assets side) of mortgage securities, the holding amounts of financial institutions such as banks (financial institutions for agriculture, forestry, and fisheries), insurance and pension funds are based on the financial statement of these institutions, while the holding amounts of private nonfinancial corporations and households are estimated by taking the difference between the total of mortgage securities and the holding amounts of financial institutions, multiplied by a certain ratio.

The amount outstanding in this category is evaluated either on a face or book value basis, while the transaction flow is recorded using the term-on-term difference in that value.

E. Equity and investment fund shares

"Equity and investment fund shares" equals the sum of "equity" and "investment trust beneficiary certificates."

E-a. Equity

"Equity" equals the sum of "listed shares," "unlisted shares," and "other equity."

E-a-a. Listed shares

The total of "listed shares" is based on the data on the market value outstanding estimated from the number of shares listed, stock price of individual companies and the capital raised data (*Equity Financing by Publicly Held Companies*).

The amount outstanding and the transaction flow in this category are estimated independently. The estimation of transaction flow is conducted separately by the new issues of shares (data are obtained from I-N Information Systems, "Funding View" etc.) and the trade in existing shares (see the following table).

[16] The association was dissolved in June 2005.

Components covered

	Stocks listed on a Stock Exchange
Amount outstanding of shares	Total amounts of stock issues (market value)
Transaction flow of the new issues of shares	• Amounts of equity raising by issuing new stocks • Exercised amounts of bonds with right to reserve new stock • Stocks newly listed on a Stock Exchange
Transaction flow of the trade of existing shares	Amounts traded
Shares acquired by the issuing company (minus flows)	Estimated are made only for those whose source data is available

Estimations for individual sectors are as follows.

- Amount Outstanding

Amount outstanding of issuing entity (liabilities side) in the FFA corresponds to the amount outstanding at market price, estimated from the number of shares listed and the stock price of individual companies[17].

For holding entity, holding amounts of each sector are estimated by using the *Shareownership Survey*, while the amount outstanding of the breakdown of financial institutions is based on financial statements of individual financial institutions.

- Issues and subscription of stocks

Amounts issued by sector (liabilities side) are based on the accumulation of "amounts of fund raising by mean of issuing new stocks" and "exercised amounts of bonds with right to reserve new stock."

Amounts subscribed by sectors (assets side) are estimated by allocating the transaction flow proportionally to individual sectors by multiplying the ratio of holding amounts of each sector respectively. Large-denomination equity raisings with specifiable subscribing entity, such as privatization of public corporation and injection of public money into financial institutions and direct investments by nonresidents, are specified individually for both issuing entity and receiving entity.

- Trades of existing shares

Amounts traded are mainly based on the data on the trading in the Stock Exchange market (Volume & Value by *Trading by Types of Investors*). Due to the limitations of source data, transaction flows are allocated proportionally to the breakdown of financial institutions by using the changes in amount outstanding on a book value that are based on financial

[17] Amount outstanding of shares listed of issuing entity (liabilities side) posted on the FFA was based on the monthly statistics report of the Tokyo Stock Exchange until 2004. Total amount outstanding was based on the total market value outstanding and amount outstanding of individual sectors was based on the total market value outstanding by industry. Each correspondence is listed as follows. We have started estimating the amount outstanding at market price from the number of shares listed and the stock price of individual companies, since the monthly statistics report was no longer aggregated.

The amount outstanding at market price by sector		**The FFA**
"Banking industries"	⇒	Domestically licensed banks
"Securities industries"	⇒	Securities companies
"Insurance industries"	⇒	Private life insurance companies and Private nonlife insurance companies
"Other financial industries"	⇒	Finance companies

statements.

The amount outstanding in this category is evaluated at market price. The divergence between the term-on-term difference in the stock data and the transaction flow data, which corresponds to the portion caused by price change, occurs due to the separate estimation of the stock and the transaction flow data. This divergence is treated as a reconciliation amount that is allocated proportionally to individual sectors in accordance with their previous term outstanding.

End-of-quarter outstanding, except end of March, in individual sectors are calculated by taking the sum of transaction flow of the sector, reconciliation amounts allocated to the sector, and amount outstanding of the sector in the previous term.

Notes:

(1) The calculation of transaction flow in the breakdowns of financial institutions is based on the change in the amount on a book value that is acquired from the financial statements of individual sectors. The difference between its total and the total of sale/purchase amounts of the financial sector, which is based on the data on trading in Stock Exchange market (Volume & Value by *Trading by Types of Investors*), is allocated proportionally to individual sectors in accordance with their previous term outstanding. Thus, the transaction flows may be overestimated if the book values rise due to, say, cross trading.

(2) Since the data on distribution of shares is limited to fiscal year-end outstanding, the estimation for quarterly term-end outstanding by sector employs the accumulation of transaction flow and reconciliation amount. Thus, the statistical discrepancies occurring when allocating transaction flows and reconciliation amounts to individual sectors may be contained in term-end outstanding. The discrepancies may also be contained in reconciliation amounts of the first quarter when next annual data are reflected.

(3) Although treasury purchase (shares acquired by the issuing company) should be reflected as transaction flows that decrease amount outstanding of shares, only some are posted due to limitation of source data. Those that are not posted in the transaction flows, are posted in Reconciliation Table as a decrease in amount outstanding that are not caused by financial transactions.

E-a-b. c. Unlisted shares and Other equity

The total amount of "unlisted shares" and "other equity" is calculated by estimates using detailed data on issuers and holders obtained from individual financial statements and the *Financial Statements Statistics of Corporations by Industry*, etc.

For amounts issued by private nonfinancial corporations, equities invested in privately placed real estate funds (excluding private REITs) are recorded, in addition to shareholders' equity, etc. For shareholders' equity, etc., the contributed capital (shareholders' equity and capital surpluses) based on the *Financial Statements Statistics of Corporations by Industry* adjusted for corporations that do not fall under the definition of private nonfinancial corporations is regarded as the sum of "unlisted shares" and "other equities," and their amounts on a market equivalent value basis[18] are divided into "unlisted shares" and "other equities," using the ratio of shareholders' capital issued by stock companies estimated from the *Economic Census*. The book-value-based total amount of equities invested in privately placed real estate funds (excluding private REITs) is obtained from surveys on

[18] Its market equivalent value is estimated by comparing profit, net assets and dividends of listed companies of similar business type and by the market price listed on the stock exchange.

privately placed real estate funds[19] and the source data on private REITs[20], and is recorded in "other equities[21]." Transaction amounts are calculated based on increases and decreases in the contributed capital outstanding based on the *Financial Statements Statistics of Corporations by Industry, Annually* adjusted for corporations that do not fall under the definition of private nonfinancial corporations as well as increases and decreases in equities invested in privately placed real estate funds (excluding private REITs).

The amounts of "unlisted shares" issued by affiliated subsidiaries of banks, insurance companies, and financial dealers and brokers are posted as having the same market value of listed shares issued by their holding companies. The amounts of “unlisted shares” and “other equities” issued by other financial institutions having no holding companies are posted in the amount of shareholders’ equity or contributed capital.

"Other equities" of public financial and nonfinancial corporations who have capital contribution from central government or local governments and of special accounts of the central government are recorded in the same value of their net assets, referring to the SNA. The amounts issued by general government is obtained from individual financial statements, etc. For preferred stocks of domestically licensed banks, etc. by injection of public funds, issued amounts are compiled, and amounts outstanding less redemptions are recorded in "unlisted shares." However, its market-equivalent value is not estimated due to limitations of the source data.

For holding amounts by entity, each sector's holding amount is estimated based on individual financial statements, *Government investment corporation lists*, the *Annual Statistics on Local Public Finance*, and the *International Investment Position of Japan*, etc. Residuals for which holding sectors cannot be specified are apportioned between private nonfinancial corporations and households, referring to holding ratios obtained from the *Shareownership Survey* on listed shares.

E-b. Investment trust beneficiary certificates

The total of "investment trust beneficiary certificates" is derived from data on investment trusts (*Changes in Assets of Publicly Offered Investment Trusts of Contractual Type, etc.*) compiled by the Investment Trusts Association, the aggregate market price of REIT published by the Tokyo Stock Exchange, and other sources.

Issuing entities (liabilities side) in this category are stock investment trusts, bond investment trusts, MMF, MRF, and private nonfinancial corporations. Amounts are classified into each sector in accordance with the characteristics of the instrument.

For holding entity (assets side), the holding amounts of financial institutions, general government, and public nonfinancial corporations are based on the financial statement of these institutions, while the holding amounts of private nonfinancial corporations, households NPISH, and overseas are based on holding entity data published by the Tokyo Stock Exchange (*ETF Beneficiary Survey* and *REIT Investor Survey*), the data on amounts of sales by sector published by the Investment Trusts Association (*Distribution of Beneficial Certificate Holders (Initial Offering)* etc.), and the data of private REITs published by the Association for Real Estate Securitization (*Private REITs, quarterly*), etc. The residual with no specific holding entity is allocated proportionally to some

[19] *The Survey on Private Real Estate Funds in Japan* released by the Association for Real Estate Securitization (ARES) and Sumitomo Mitsui Trust Research Institute Co., Ltd and *the Survey of ARES Members on Real Estate Private Funds* released by ARES (the data was no longer disseminated at the end of December 2018) are mainly used for estimation.
[20] The *Changes in Assets of Privately Placed Real Estate Investment Trusts* released by the Investment Trusts Association and the *Private REITs, quarterly* released by the Association for Real Estate Securitization (ARES) are used for estimation.
[21] The contributed amounts of each sector are estimated by using source data on the attributes of equity investors, etc.

financial institutions.

Basically, the amount outstanding in this category is evaluated at the market price. For the transaction amounts, changes in assets (sales-repurchases-redemptions) of each product category are summed, and for the category of stock investment trusts, income gains are estimated, added[22] and distributions of this category are deducted. For the calculation of income gains of publicly offered stock investment trusts (excluding ETFs), the ratio of income gains to distributions is estimated based on individual data (of highly-ranked funds in terms of total net assets) in publicly offered open-type stock investment trusts, and then the ratio is multiplied by "amounts of distributed earnings" of all publicly offered stock investment trusts (excluding ETFs) published by the Investment Trust Association. For the calculation of income gains of privately placed stock investment trusts, sources including the *Balance of Payments Statistics* and the *International Investment Position of Japan* are used to estimate income gains by asset type. For the amount of distributions deducted, data for the profit distributions of the publicly offered stock investment trusts (excluding ETFs) and of the privately placed stock investment trusts, published by the Investment Trust Association, are used. For ETFs, the amount of distributions are assumed to be the same as the income gains.

Discrepancies arising between changes in amounts outstanding and transaction amounts on a market value basis are recorded as reconciliation amounts.

F. Insurance, pension and standardized guarantees

"Insurance, pension and standardized guarantees" equals the sum of "non-life insurance technical reserves," "life insurance reserves," "annuity entitlements," "pension entitlements," "claims of pension funds on pension managers," and "provisions for calls under standardized guarantees."

F-a. Non-life insurance technical reserves

"Non-life insurance technical reserves" is based on policy reserves, reserves on mutual contract, reserves for outstanding claims, and unearned premium reserves etc. recorded in the financial statements of the institutions in nonlife insurance and mutual aid insurance. Figures are posted under the liabilities side of the nonlife insurance sector and the mutual aid insurance sector. The holding entities in this category are corporations and financial institutions that hold non-life insurance products, and financial institutions that subscribe to reinsurance, in addition to households.

In this item, the reserves on saving-type insurance are posted under financial assets/liabilities, and reserves on term-type insurance are excluded. More specifically, the parts that are not refunded on policy reserves (earthquake insurance and mandatory vehicle liability insurance) and catastrophe loss reserves (reserves for risks) are deducted from policy reserves for private insurance companies, and added ceded policy reserves[23], etc., for reinsurance contracts assumed by foreign insurers from domestic insurance companies.

[22] Due to source data limitations, only data from the third quarter of 2012 onward are recorded.

[23] If reinsurance is effected to cover insurance contracts, it is permissible not to accumulate policy reserves corresponding to the part for which the said reinsurance is effected. Ceded policy reserves are the amount corresponding to the part provided for reinsurance effected, which is deducted in the calculation of policy reserves.

F-b. Life insurance reserves

"Life insurance reserves" is based on policy reserves, etc. recorded in the financial statements of the institutions in life insurance. Figures are posted under the liabilities side of the life insurance sector. Holding entity of this category is households.

In this item, the reserves on saving-type life insurance are posted under financial assets/liabilities, and reserves on term-type insurance are excluded. For reserves for dividend to policyholders, since these are accumulated to provide dividends to employees (policyholders) based on provision and insurance clause, a part related to life insurance contract is posted under life insurance reserves[24]. More specifically, the sum of "life insurance reserves" and "annuity entitlement" is firstly calculated by subtracting catastrophe loss reserves[25] and the amount outstanding of entrusted funds associated with group pension insurance (estimated from the data on entrusted assets associated with pension contracts and the financial statement of each trustee) from the sum of policy reserves, reserves for outstanding claims, reserves for dividend to policyholders, and ceded policy reserves, etc. for reinsurance contracts assumed by foreign insurers from domestic insurance companies. And then, the part associated with personal pension insurance is classified in "annuity entitlement," while the residuals are classified in "life insurance reserves."

The amount outstanding in this category is evaluated on a book value basis, while the transaction flow is recorded using term-on-term difference in that value. However, regarding the insurance reserves in the life insurance sector, changes in policy reserves generated by capital gains and losses associated with fluctuations in the market value of assets or with foreign exchange valuation, are recorded as reconciliation amounts[26].

F-c. Annuity entitlements

"Pension insurance entitlements" are reserves which entities included in the life insurance and mutual-aid insurance sectors accumulate for future payment of personal pension insurance. Policy reserves, etc. of personal pension insurance in financial statements are compiled, and obligations of each life insurance sector and mutual-aid insurance sector are recorded on the liability side. Holding entity of this category is households.

Notes:

1) Since financial statements provide data on insurance company policy reserves only at the end of the fiscal year, the quarterly flow data are estimated by dividing the yearly flow data into quarters. Until the yearly flow data are available, the preliminary quarterly flow data are replaced with that of previous year. After the yearly data are available, all the four quarterly flow data are replaced with the previous year's data, which are retrospectively revised annually.

2) Due to the change in estimation methods, there are some sectors with figures that are not continuous between the amounts outstanding at the end of Q4 2004 and the end of Q1 2005.

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[24] For reserves for dividend to policyholders, fiction is created that insurance companies first pay its surplus to the policyholders as claims paid, and then it is reinvested in the insurance reserves by the policyholders. This fiction is reflected in the transaction flows of household sector.

[25] For life insurance products, since there are various types of products that are mixtures of saving-type and term-type insurance, the calculation of policy reserves on saving-type insurances without including term-type insurance is not an easy undertaking. This extraction is assumably done by excluding catastrophe reserves from policy reserves.

[26] Profits and losses for individual insurance in the separate accounts of life insurance companies as well as changes in policy reserves due to foreign exchange valuation for instruments invested from general accounts are estimated by using data released by the Life Insurance Association of Japan and financial statements of each life insurance company.

F-d. Pension entitlements

For pension entitlements, amounts of pensions expected to be received by policyholders in the future from each entity classified as corporate pensions or other pension funds, are compiled and estimated, and recorded in the liabilities side of the corporate pensions sector or other pensions sector. The holding entities are all households.

Regarding the recording of amounts outstanding for defined benefit schemes in corporate pensions, based on the compiled figures of retirement benefit obligations obtained from financial statements of companies, figures estimated for the whole country are recorded. Specifically, after compiling retirement benefit obligations in published consolidated financial statements, by grossing up such obligations with the ratio (grossing up ratio) between the compiled figures for pension assets in such financial statements and the total amount of pension assets for the whole country obtained from entrustment data, the total amount of retirement benefit obligations on a country basis are estimated, including companies whose obligations and pension assets are not disclosed in their financial statements. For defined contribution schemes, total amounts of managed assets are recorded on a market value basis.

In "other pensions," for individual-type Defined Contribution pension plan, the total amounts of entrusted assets are estimated and recorded as the amounts outstanding of pension entitlements. For other institutions and accounts in this sector, policy reserves are estimated and recorded as the amounts outstanding of pension entitlements.

For defined benefit schemes in corporate pensions, transaction amounts are compiled by deducting the amounts of pensions paid from the sum of service costs and interest costs. Specifically, transaction amounts are calculated by compiling service costs and interest costs in consolidated financial statements, multiplying them with the grossing up ratio used for estimation of amounts outstanding, and deducting amounts of pensions paid to be obtained separately. On the other hand, for defined contribution schemes, the total amounts of transaction flows of pension assets are directly used as the transaction amounts of pension entitlements since the amount of pension to be received in the future depend on investment performance. For other pensions, term-on-term differences of amounts outstanding on a book value basis are used as transaction amounts.

Discrepancies between term-on-term differences of outstanding pension entitlements and transaction amounts are recorded as reconciliation amounts for defined benefit schemes. For defined contribution schemes, changes in market value for pension assets are recorded as reconciliation amounts.

Notes:

1) Pension entitlements under defined benefit schemes are compiled figures grossed up for the whole country, including companies not disclosing them, based on the compiled figures of companies disclosing retirement benefit obligations in their financial statements. As a result, they include some estimation errors.

2) The financial data of companies on pension entitlements (retirement benefit obligations) is obtained from consolidated financial statements. Therefore, theoretically, the data does not include pension entitlements for resident employees of a foreign company group, but includes pension entitlements for nonresidents subscribing to the pension scheme of companies whose consolidated financial statements are available. In estimating household pension entitlements, they are deemed to be offsetting each other.

3) For pension entitlements under defined benefit schemes, source data are available only on a fiscal-year basis in most cases. Accordingly, for quarterly flows and reconciliation amounts, one-fourth of the yearly flows and reconciliation amounts are recorded. The amount for the current quarter without fiscal year data is estimated by assuming that it is unchanged from the most recent actual quarterly figure. For other pensions (excluding the individual-type Defined Contribution pension plan), the flow is estimated in the same way because most of

the financial data are also available only on a fiscal-year basis. For defined contribution schemes, investment assets outstanding at quarter end are estimated and the same amount is posted as pension entitlements.

4) Profits earned by investing pension assets, which are reserved in fiduciary institutions, are included in pension entitlements. Undistributed profits from trust account of mother funds are also included in the reserves of individual pension funds, such as employees' pension funds, former qualified retirement pension plans, and national pension fund, in accordance with the investment outstanding to mother funds.

5) Due to the change in the standards upon which the FFA is based, from 93SNA to 08SNA, there are some sectors with figures that are not continuous between the amounts outstanding at the end of Q4 2004 and the end of Q1 2005.

F-e. Claims of pension funds on pension managers

For claims of pension funds on pension managers, amounts outstanding are calculated as the difference between the total liability and total asset items excluding claims on pension managers in the defined benefit schemes sector. Since this item is the claim pension funds demand against pension managers such as companies, the total amount is recorded as an asset in the defined benefit schemes sector, while the corresponding liability is recorded in the sectors to which the employer companies belong[27].
If the total liabilities including pension entitlements in the defined benefit schemes sector exceed pension assets, the item represents "underfunded pension obligations," with positive amounts outstanding to be recorded. On the other hand, if the former falls below the latter, the item represents "overfunded pension obligations," with negative amounts outstanding to be recorded as liabilities that should be refunded to pension managers.
Transaction amounts are recorded by obtaining and estimating property income belonging to employer companies concerning underfunded pension entitlements and pension obligations belonging to employer companies.

Note:
Due to the change in the standards upon which the FFA is based, from 93SNA to 08SNA, there are some sectors with figures that are not continuous between the amounts outstanding at the end of Q4 2004 and the end of Q1 2005.

F-f. Provisions for calls under standardized guarantees

Provisions for calls under standardized guarantees provided as public credit guarantees to businesses are obtained from individual financial statements of respective guarantors, while provisions for calls under standardized guarantees on housing loans are estimated. First, the amount of housing loan guarantees in the economy as a whole are estimated by using the figures of housing loans in the FFA, taking into account the percentage of loans guaranteed, and then the amount is multiplied with the estimated rate of provisions for calls based on questionnaire surveys of guarantee companies affiliated with banks and group financial institutions.

[27] For convenience, they are recorded in the domestically licensed banks sector and the private nonfinancial corporations sector. While there are companies with defined benefit schemes in other sectors, these two major sectors are chosen as corresponding accounts, due to restraints on data in usable forms.

G. Financial derivatives and employee stock options

"Financial derivatives and employee stock options" equals the sum of "forward-type instruments," "option-type instruments," and "employee stock options."

G-a. b. Forward-type instruments and Option-type instruments

"Financial derivatives" is based on the financial statement of financial institutions etc. and statistics related to financial derivatives. Exchange-traded derivatives and OTC-traded derivatives are estimated individually by using financial statements, the Exchange market data (the *Key Statistics for Government Bond Futures & Trading of Nikkei 225 Options by Type of Investors* and the *Trading Volume and Open Interest of Options on Three-Month Euroyen Futures*), the report on derivative transaction (*Results of the Regular Derivatives Market Statistics in Japan*) etc. This category does not include the Exchange-traded forward-type instruments.

The components estimated in financial derivatives

	Transactions in Stock Exchange	OTC Transaction
Forward-type (market price)	Not included, due to market-to-market settlements on daily basis	Included: forward rate agreements (FRAs), interest rate swaps, currency swaps, exchange contracts, foreign exchange margin transactions etc.
Option-type (market price; Change in the amount outstanding of option premiums)	Included: government bond options, short-term yen interest futures options, stock price index options (TSE Stock Price Index options, and Nikkei Stock Average options).	Included: bond options, currency options, interest rate options, caps, floors etc.

Assuming that OTC-traded derivatives transactions are made mainly via domestically licensed banks, the estimation is conducted in a manner that amount outstanding of domestically licensed banks are allocated proportionally to insurance and pension funds, securities investment trusts, nonbanks, securities companies, private nonfinancial corporations, and overseas (this is made to specify the holders of assets/liabilities in banks). More specifically, holding amounts of domestically licensed banks are based on the financial statement and the report on derivative transaction (*Results of the Regular Derivatives Market Statistics in Japan*), while the holding amounts of insurance companies, nonbanks, securities companies, and central government are based on the financial statements of individual institutions. Holding amount of other financial institutions and overseas is estimated using the outstanding ratio by counterparties acquired from the *Foreign Exchange and Derivatives Survey* (conducted once in three years). Residuals are regarded as the portion held by private nonfinancial institutions. The amount outstanding of foreign exchange margin transactions is estimated by using the financial statements of major foreign exchange margin trading firms, etc. and is allocated to households and private nonfinancial corporations.

Exchange-traded derivatives are based on the financial statements of the institutions stated above and the Exchange market data (the *Key Statistics for Government Bond Futures & Trading of Nikkei 225 Options by Type of Investors* and the *Trading Volume and Open Interest of Options on Three-Month Euroyen Futures*).

The amount outstanding in this category is evaluated at the market price. Settlement of market value that cause change in cash should be posted as transaction flow, but due to limitation of source

data, they are not posted for both the forward- and option-type[28], and all term-on-term differences of amount outstanding are posted as reconciliation amounts.

Notes:

(1) For OTC-traded derivatives, the data organized on a residency basis (in which the transaction parties are distinguished by residents/nonresidents) are unavailable, while the only available source data is the data on a consolidated basis (in which overseas sectors are consolidated into the sectors in Japan where transaction parties are not distinguished by residents/nonresidents). Accordingly, the residents-nonresidents ratio, which is acquired from the *BIS Financial Derivatives Survey* of 1995, is used as a benchmark. Those market data do not cover the scope of whole financial derivatives.

(2) Financial statements data are used for estimating the amount outstanding of forward-type and option-type instruments. In many cases, however, only half-year data (end of March, and September) are available. For the unavailable quarters (end of June and December), data are estimated based on changes in the total amount at market value and changes in contractual obligations related to financial derivative transactions.

(3) Although real amounts (settlement price) of market value and the amount of option premium of the option type instruments are to be recorded as transaction flow, these are posted as reconciliation amounts together with the change in market price, due to the limitations of source data. Although the real amounts of transaction between residents and nonresidents (cross border transaction) are available from the *Balance of Payments Statistics*, the amounts have not been posted currently in the FFA.

G-c. Employee stock options

Employee stock options are recorded[29] by estimating amounts outstanding of exercisable rights to purchase shares from "subscription rights to shares" in the *Financial Statements Statistics of Corporations by Industry*. Specifically, the number of the outstanding unvested stock options and the number of the outstanding vested but unexercised stock options are obtained from financial statements of companies, the ratio of the number of vested but unexercised stock options accumulating these is calculated, and using such a ratio the amounts of subscription rights to shares are then apportioned. Stock options in the vesting period, corresponding to the number of unvested stock options, are recorded in the item "others" by treating them as if they are.

All assets by entity are deemed to be held by households, while liabilities are recorded in the private nonfinancial corporations sector. While they are issued in sectors other than private nonfinancial corporations such as the financial institutions sector, the amounts are minimal; thus all amounts are recorded as issued by private nonfinancial corporations.

Amounts outstanding are recorded on a book value basis. This is because under corporate accounting in Japan, amounts recorded on balance sheets are the market price on the grant date, and reevaluation is not conducted for changes in price after the grant date. In addition, there is no source data on changes in market prices until the date of exercise.

Transaction amounts are calculated and recorded using term-on-term differences in amounts outstanding. The reconciliation amounts record discrepancies due to changes in source data, i.e., samples of the *Financial Statements Statistics of Corporations by Industry, Quarterly*.

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[28] However, until the second quarter of 2000, only the term-on term difference in the acquisition cost of the option premium (the amount outstanding that is not reflected by the fluctuation of market price) is posted as transaction flow.

[29] Subscription rights to shares can include convertible bonds with warrants (former convertible bonds), and bonds with warrants other than convertible bonds with warrants (former warrant bonds). However, since the former is generally recorded in corporate bonds, and the latter is not currently issued, all amounts of subscription rights to shares can be regarded as employee stock options.

H. Deposits money

In "deposits money," deposits with evident origin of payment are recorded -- such as margins, deposits to agents, building tenancy guarantees, deposits to golf courses, employees' deposits to companies, deposits for withholding tax, electronic money, prepaid cards, outstanding amount of monetary donations related to the Great East Japan Earthquake which has yet to be distributed to sufferers, and unallocated gold accounts -- based on individual source data including *Report on Property Tax* (Ministry of Internal Affairs and Communications), *Survey of Selected Service Industries* (Ministry of Economy, Trade and Industry), *Report on Intra-Company Deposits* (Ministry of Health, Labour and Welfare), *Recent Developments in Electronic Money in Japan* (Bank of Japan, available in Japanese only), *The trend of the prepaid instruments* (Financial Service Agency, available in Japanese only), *Distribution situation of the monetary donation* (Cabinet Office, available in Japanese only)[30] and the *Balance of Payments Statistics* (Bank of Japan). Deposits to financial institutions record deposits shown in the financial statements of these institutions. Withholding income tax data are based on the *Taxes and Stamp Revenues* and is regarded as deposits money of the central government to financial institutions and nonfinancial corporations, where it is assumed that income taxes are paid by households but kept at corporations as of the previous quarter-end.

For deposits with evident origin of payment, issuing entity (liabilities side) and holding entity (assets side) are specified by the origin of payment. On the other hand, deposits with uncertain origin, which is recognizable from the financial statement of financial institutions, are regarded as deposits with private nonfinancial corporations.

The transaction flow is recorded using term-on-term difference in the amount outstanding. However, the transaction flow of unallocated gold accounts for overseas is obtained from the *Balance of Payments Statistics.*

I. Trade credits and foreign trade credits

Regarding trade credits and foreign trade credits, accounts and bills receivable to be recorded on the asset side of private nonfinancial corporations are transcribed from the *Financial Statements Statistics of Corporations by Industry, Quarterly* excluding finance, insurance and medical/welfare industries, adjusted for corporations that do not fall under the definition of private nonfinancial corporations and for the amounts to be classified as installment credits of private nonfinancial corporations. Trade receivables/payables of sole proprietorships are estimated from the *Basic Survey on Small and Medium Enterprises* compiled by the Small and Medium Enterprises Agency. Deferred payment for public utility charges (electricity, gas, water, fixed-line phone, and mobile phone) is regarded as credit extended by public service providers (private nonfinancial corporations, public nonfinancial corporations, and local governments) to households. Expenditure for public services is estimated from the *Final Consumption Expenditure of Households by Purpose*, etc. provided in the System of National Accounts and then converted into the amount for the average credit term (one month) for recording. Medical and nursing care expenditures covered by public insurance are considered to be credit extended by medical and nursing care facilities to social security funds until the payment is made two months after the service was provided. The figure is estimated from various statistics compiled by the Ministry of Health, Labour and Welfare for recording[31]. Deferred payment for public works, which is considered to be credit extended by

[30] Source data before fiscal year 2012 are *About the monetary donation* (Ministry of Health, Labour and Welfare, available in Japanese only).

[31] The total medical expenditure is transcribed from the *Survey on the Trend of Medical Care Expenditures* and the *Estimates of National Medical Care Expenditure*, and the amount is allocated proportionally among the private nonfinancial corporations sector, the public nonfinancial corporation sector, and the household sector (doctors in private practice, etc.)

construction companies (private nonfinancial corporations) to clients of public works (public nonfinancial corporations, central government, and local governments), is estimated by multiplying a certain deferred payment ratio on outstanding and completed portions of public works provided in the *Integrated Statistics on Construction Works* compiled by the Ministry of Land, Infrastructure, Transport and Tourism. The amount is then recorded by allocating proportionally according to the type of client using the *Public Works Advanced Securities Statistics* compiled by East Japan Construction Surety. Deferred payment at the time of sale of unfinished housing, which is considered to be credit extended by construction companies to households, is estimated by multiplying a deferred payment ratio on outstanding orders of private sector housing, which is provided in the *Integrated Statistics on Construction Works*. Also, the difference between the grand sum of figures on the asset side and that on the liability side is considered to be credit among enterprises and is recorded in the private nonfinancial corporations sector (on the liability side). Regarding assets and liabilities in the overseas sector, the figure is transcribed from the *International Investment Position of Japan* or the *Balance of Payments Statistics*.

The amount outstanding in this category is evaluated on a face value, and the transaction flow is recorded using term-on-term difference in that value. Reconciliation amount in this category results from the change in the sample of the *Financial Statements Statistics of Corporations by Industry*, and from the deviation between the *Balance of Payments Statistics* (flow) and the *International Investment Position of Japan* (stock).

Note:
Due to the change in estimation methods, there are some sectors with figures that are not continuous between the amounts outstanding at the end of Q4 2004 and the end of Q1 2005.

J. Accounts receivable/payable

In this category, the total of tax receivable/payable is based on the statistics on tax and stamp revenue (*Taxes and Stamp Revenues)*, while the total of interest receivable/payable is based on the financial statement of financial institutions. The total of customer loyalty award credits is based on the allowance for point gift certificates in the financial statements of issuing companies. Of these, income tax (the portion of final return), consumption tax, and corporate tax, of those already delivered, are based on the statistics on tax and stamp revenue (*Taxes and Stamp Revenues*). In accordance with each due date, each tax is recorded as receivable/payable of central government[32].

The estimation specifies the original contractors of receivable/payable for each type of receivable/payable.

- Taxes

  The total of tax receivable/payable of central government is allocated proportionally to households, nonfinancial corporations, and financial institutions, based on the financial

using data for the national fee schedule by type of management entities. In addition, based on the understanding that medical facilities pay a part of the bills for medicines and medical equipment after receipt of payment from insurance (credit being extended from pharmaceutical manufacturers, etc. to medical facilities), half of the corresponding asset is recorded as liability. Regarding nursing care expenditures, those by type of nursing care services excluding co-payments, which are covered by public insurance, are specified by using the *Survey of Long-term Care Benefit Expenditures*. The corresponding asset is then apportioned among sectors (private nonfinancial corporations, public nonfinancial corporations, local governments, and NPISH) using the number of facilities by type of management entities which is provided in the *Survey of Institutions and Establishments for Long-term Care*.

[32] Tax payables are recorded as accounts receivable of central government and as accounts payable of taxpayers (i.e. households and NPISH), while prepaid taxes are recorded as accounts receivable of taxpayers and as accounts payable of central government.

statement of these institutions, with focusing on the type of taxpayer.

- Interests

  The total of interest receivable/payable of financial institutions is allocated proportionally to households and private nonfinancial corporations, assuming interests accrue in accordance with the loans and deposits outstanding.

- Customer loyalty award credits

  The total of customer loyalty award credits is based on the sum of allowance for point gift certificates in the financial statements of issuing companies. It is allocated proportionally to holding sectors (households and nonfinancial corporations) based mainly on market surveys.

The amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded using term-on-term difference in that value.

Notes:

1) Since tax receivable/payable is based on the delivered tax, unpaid tax receivable/payable (e.g. unpaid consumption tax of private nonfinancial corporations) is not concerned in the FFA. Because of limitations of source data, the tax concerned in this category is only national taxes, while local taxes are basically not included.

2) Due to the change in the standards upon which the FFA is based, from 93SNA to 08SNA, there are some sectors with figures that are not continuous between the amounts outstanding at the end of Q4 2004 and the end of Q1 2005.

K. Outward direct investment

The total of "outward direct investment," which is posted under the overseas sector (liabilities side), is based on the sum of "equity other than reinvestment of earnings," and "reinvestment of earnings" of outward direct investment that is recorded in the *Balance of Payments Statistics* and the *International Investment Position of Japan.*

First, for outward direct investment by the financial institutions sector, the amount outstanding by investing entity at the end of calendar years is estimated by multiplying the total amount of outward direct investment by the composition ratio based on source data for the composition ratio of each investing business, such as finance companies and financial holding companies. Since the composition ratio of each business for outward direct investment is data at the end of the calendar year, for the other quarters of each business, preliminary figures are calculated by compiling major investment projects individually. Furthermore, they are finalized by proportionally adding the discrepancies between outward direct investment at the end of the calendar year and preliminary figures to each quarter. Investments by public nonfinancial corporations are based on the financial statements. Residuals—of which the investing entity is neither identified nor estimated—are regarded as investments by private nonfinancial corporations.

The amount outstanding in this category is evaluated at face value. For financial institutions, transaction amounts are estimated by multiplying the total amount of outward direct investment by the ratio of finance and insurance businesses in direct investment flows by industry in the *Balance of Payments Statistics*. Amounts outstanding for public nonfinancial corporations are calculated by using the term-on-term differences. For private nonfinancial corporations, transaction amounts are estimated by deducting the amounts of direct investment by financial institutions and public

nonfinancial corporations estimated above from the total amount recorded on the liability side of overseas. The reconciliation amount in this category results from the discrepancy between the cumulative flows of the *Balance of Payments Statistics* and the *International Investment Position of Japan* (stock).

L. Outward investments in securities

The total of "outward investments in securities" (posted under the liabilities side of the overseas sector) is specified from the sum of securities investments recorded in the *Balance of Payments Statistics* and the *International Investment Position of Japan*, foreign currency denominated securities included in the foreign currency reserves based on the Ministry of Finance's data on foreign currency reserves (*International Reserves/Foreign Currency Liquidity*), and securities based on the National Tax Agency's data on foreign asset statements.

Each amount of investment by sector is estimated using the financial statements of individual institutions, the *Balance of Payments Statistics* and the *International Investment Position of Japan.* More specifically, the "deposit-taking corporations, except the central bank" sector in the *Balance of Payments Statistics* and the *International Investment Position of Japan* corresponds to the banks sector in the FFA; the "general government" sector in those statistics corresponds to the finance companies sector as well as a part of the central government sector and the public financial institutions sector in the FFA. The residual after subtracting each amount by investing entity, which is estimated or obtained using such sources as financial statements, is recorded under the "private nonfinancial corporations" sector.

The amount outstanding in this category is evaluated on a market value basis[33]. The transaction flow is recorded separately for some sectors by using data such as the *Portfolio Investment Assets by Types of Investors* in the *Balance of Payments Statistics*. The reconciliation amount in this category is obtained from the discrepancy between the cumulative flows of the *Balance of Payments Statistics* and the *International Investment Position of Japan* (stock), and from the change in the yen-converted amount reflecting exchange rate fluctuations (foreign currency denominated securities included in foreign currency reserves).

Note:
Due to the change in estimation methods, there are some sectors with figures that are not continuous between the amounts outstanding at the end of Q4 2004 and the end of Q1 2005.

M. Other external claims and debts

"Other external claims and debts" is compiled mainly based on the *Balance of Payments Statistics* and the *International Investment Position of Japan*.

For the overseas sector, the total amount outstanding of this item posted under the liabilities side is calculated by deducting the sum of all the other items on the liability side of the sector and the "difference between financial assets and liabilities[34]" from the total assets of the sector. Likewise, the transaction flow of this item posted under the liabilities side is calculated by deducting the sum

[33] Strictly speaking, the market value basis is not employed for "outward investments in securities" as a whole because the source data are financial statements that are regularly evaluated at face value. Also a market-value approach is not realized completely in the overseas sector as the quarterly based end-term outstandings are made by building-up flows.
[34] The item in the overseas sector is calculated as the total net assets in the *International Investment Position of Japan* less monetary gold after adding the outward investments in securities by households estimated from foreign asset statements.

of all the other items on the liability side of the sector and the "financial surplus or deficit[35]" from the total financial investment of the sector.

"Difference between financial assets and liabilities" and "financial surplus or deficit" of overseas are based on the *International Investment Position of Japan* and the *Balance of Payments Statistics*. Therefore, the statistical discrepancies caused by this source data and the sum of all FFA items except "other external claims and debts" are recorded in "other external claims and debts" in liabilities side of overseas.

For assets side, the portion held by financial institutions, private nonfinancial institutions, and general government is based on the financial statements of financial institutions, the *International Investment Position of Japan*, and the *Balance of Payments Statistics*, etc.

The amount outstanding in this category is evaluated on a face value, while the transaction flow is recorded independently. The reconciliation amount in this category results from the discrepancy between stocks and flows recorded in the *Balance of Payments Statistics* and the *International Investment Position of Japan*.

Note:
Due to the change in estimation methods, there are some sectors with figures that are not continuous between the amounts outstanding at the end of Q4 2004 and the end of Q1 2005.

M-a. Gold and SDRs

This item includes monetary gold, SDRs and IMF reserve positions that are part of Japan's foreign reserve assets. These are specified according to data from the *Balance of Payments Statistics* and the *International Investment Position of Japan*, etc.

All of monetary gold, SDRs and IMF reserve positions are recorded as assets of monetary authorities (the Central government and the Central bank). Among such items, SDRs and IMF reserve positions are recorded on the liability side of overseas, while monetary gold is the only asset that does not have corresponding liability, and therefore, its liability is not posted in any of the sectors.

SDRs are not only reserve assets allocated to member countries by the IMF but also liabilities which those countries have an obligation to collectively repay to member countries as a whole. As a result, the net cumulative amounts of allocations and cancellations by the IMF are recorded as liabilities of the central government sector, while recorded as assets of the overseas sector.

Changes in the IMF reserve positions and SDR allocations after the third quarter of 2009 are posted as transaction flows.

[35] The item in the overseas sector is calculated as the sum of current account (net balance) and capital account (net balance) in the *Balance of Payments Statistics*.

N. Others

"Others" includes credits and debts that are fictionalized in the accounting as follows.

(1) Claims and debts for coins:

Posted under central government and central bank.

(2) Claims and debts between the central government and special accounts (government deposits):

Posted under public financial institutions, public nonfinancial corporations, central government, and social security funds.

(3) Claims and debts related to retirement trust:

Posted under defined benefit schemes, private nonfinancial corporations, and domestically licensed banks.

(4) Rights that have been given by companies to their executives and employees as a success bonus to purchase the shares of the company, but not yet vested:

Posted under households and private nonfinancial corporations.

Besides, for financial institutions, public nonfinancial corporations, central government, local governments, and social security funds, the items that are not included in other categories (Category A-M) are posted under this category where the counterparties of these items are regarded as private nonfinancial corporations and households.