

## **National Accounts for 2010 (2005 Benchmark Revision)**

### **Notice on Usage**

1. The current Japanese National Accounts (hereafter, JSNA) are compiled based on the System of National Accounts 1993 (hereafter, 1993SNA), the international standard recommended by the United Nations in 1993.
2. In the annual compilation of JSNA, the figures for the latest year (fiscal and calendar) are estimated as “Annual estimates,” with the figures for the previous year (fiscal and calendar) being re-estimated as “Fixed estimates” that reflect newly available source data. In this “National Accounts for 2010,” the figures for 2010 and 2009 are estimated as Annual estimates and Fixed estimates, respectively.
3. In addition, “National Accounts for 2010” reflects the results of benchmark revision which incorporates “Input-Output Tables in 2005,” “Population Census in 2005,” and other basic source data that have not been utilized in the previous rounds of annual estimations. In the benchmark revision, the figures dating back to 2001 are retroactively revised, while the expenditure series (including GDP) are retroactively revised back to 1994.
4. In “National Accounts for 2010,” a number of major conceptual changes and improvements in estimation methods have been implemented.

#### **(1) Conceptual Changes Introduced by the Benchmark Revision 2005**

##### **1-1. Introduction of Financial Intermediary Services Indirectly Measured (FISIM)**

Conforming to 1993SNA and 2008SNA, the output of financial intermediary services are now estimated as “FISIM,” part of which are consisting GDP. GDP figures excluding FISIM are also presented as reference series.

Along with this change, the concept of property income (i.e. interest payment and receipt) is modified. As previously interest payments and receipts contain the payments to financial intermediary services, they are now adjusted to exclude FISIM components. The interest payments and receipts including FISIM component (i.e. the previous base) are also shown as reference series under the headings of “interest payment (before FISIM adjustment)” and “interest receipt (before FISIM adjustment), respectively.

##### **1-2. Change to the Classification of Economic Activities and Goods and Services**

The classification of both economic activities and goods and services are renewed based on the classification of Japan Standard Industry Classification (JSIC) Rev.11 (March 2002) and “Input-Output Tables in 2005.” Specifically, the previous class, “Transport and Communications,” is divided into “Transport” and “Information and Communication” from the year 2005 (the old classification being maintained for 2001-2004). The new classification of “Information and communications” contains “Publishing and Printing” from the previous “Manufacturing”, “Information Services” from the previous “Business Services”, and “Broadcasting” from the previous “Personal Services.”

### **1-3. Review of the Classification of Government Affiliated Organizations**

“Marketability of output” and “Government control,” the criteria for categorizing each government affiliated unit into institutional sectors, are revised so as to conform to 1993SNA and 2008SNA.

- (A) Marketability: If a unit’s sales exceed 50% of its production cost, the unit is recognized as a market producer.
- (B) Government control: If either “rule by ownership (government holding no less than 50% stocks)” or “rule on other grounds (having legal authorities to appoint and dismiss the executive officers)”, then it is considered there is a government control.

### **1-4. In-house Software included in Fixed Capital Formation**

Software produced on own account (i.e. in-house software), which is expected to be used in production over 1 year, is newly estimated and included in fixed capital formation. As in-house software is the one developed for the purpose of own use and is unable to be evaluated by market price, its output is evaluated by total production costs including the compensations of workers engaging in the development.

### **1-5. Market Price Evaluation of Consumption of Fixed Capital**

Previously, consumption of fixed capital (hereafter, CFC) was evaluated by book-value in the flow accounts (except for the CFC that was based on social infrastructures), while market price method adopted for evaluating CFC in the stock accounts. Now, the market value of CFC derived from the perpetual inventory method (PIM) is utilized throughout JSNA. As a result of this change, the “Other Account” in the Reconciliation Account has been abolished.

### **1-6. Modifying the Treatment of National Forests**

While national forests were included in the category of produced assets (work-in-process inventory) as cultivated assets, the new standard changes this treatment and reclassifies these forests as tangible non-produced assets. Meanwhile, private owned forests are continuously included in the produced assets category (work-in-progress inventory).

## **(2) Improvement in Estimation Methods as a result of the Benchmark Revision**

### **2-1. Introduction of the perpetual inventory method (PIM) in the estimation of tangible fixed assets, etc.**

Previously, the stock values of tangible fixed assets excluding social infrastructures were estimated by “benchmark year method” using “National Wealth Survey in 1970” as the benchmark. Now, perpetual inventory method (PIM) is uniformly used in the new base. In addition, fixed capital matrix and a fixed capital stock matrix by asset category and by institutional sector (including by economic activity for some parts) are introduced, and the assumption on the depreciation of fixed assets are reviewed as well based on the result of "Survey on Capital Expenditures and Disposals of Private Enterprises."

### **2-2. Change to the method of dividing annual data into quarterly values in the**

**expenditure series**

**(a) Introduction of the “Proportionality Denton method” to a shipment series, etc.**

The method to divide the annual data (which are estimated by using annual source statistics) into quarterly data, which is based on the supplementary series (i.e. quarterly or monthly source statistics), is modified. Specifically, the “Proportionality Denton Method” is adopted for the quarterly division for the shipment, domestic final consumption expenditure of households, and private non-residential investment series.

**(b) Reviewing of the correcting method for the estimation of change in private inventory**

In estimating quarterly private inventory increases (work-in-progress, wholesale and retail, materials and supplies inventory), corrections are made for the growth rates in source data using regression models. In this benchmark revision, the regression models have been modified not to include constant terms and seasonal dummies in order to directly reflect the development of source data. By this change, the ratios for quarterly division of private inventory increase are revised retroactively.

**(c) The change to the ratio for quarterly division of public fixed capital formation**

In line with the change to the adjustment ratio for the construction activity in winter season (hereafter, winter correction factor or WCF) in “Construction Statistics FY2009,” the ratio for quarterly division of public fixed capital formation is also changed. Specifically, it is assumed that the WCF gradually (linearly) changes between FY2000 on which the old WCF is based and FY2009 for which the new WCF is set, and that the quarterly division ratio for public fixed capital formation data during FY2000-2009 also developed in the same pattern. This change of quarterly division method also affects the quarterly division of private non-residential investment, as private non-residential investment is derived by subtracting public fixed capital formation from total gross fixed capital formation.

**2-3. Reviewing deflator estimation**

**(a) Reviewing the price source data which are used in the estimation of “basic unit deflators”**

- (A) Given that many metal products for construction (e.g. steel frames, etc.) are customer made goods, the price index assigned to these goods are changed to input cost type index which reflects labor costs as well as the price index of the corresponding items of “Corporate Goods Price Index (CGPI).”
- (B) In calculating output and import deflators of to some services (e.g. mobile telecommunication, lodging), the price index of the corresponding items in “Consumer Price Index (CPI)” are assigned, in addition to those of “Corporate Service Price Index (CSPI),” taking into considerations the demand outlets of those services (i.e. Corporations and/or Households).

**(b) Deflator for commodity and non-commodity sales by private nonprofit**

**institutions serving households (NPISH) are changed to the output deflator of NPISH producer instead of CPI that was previously used**

#### **2-4. Modification to the Estimation Method of Work-in-progress Inventories for Cultivated Assets**

The estimation method of natural growth of cultivated assets as work-in-progress inventories is changed to Realized Inventory Method (RIM), instead of the previous method using changing rate of inventory calculated from “Input-Output Tables.” RIM derives output and inventory of cultivated asset from observable shipment data, assuming growth models of the cultivated assets based on average cultivation period and scrap rate.

#### **2-5. Japanese personnel’s salary in U.S. Armed Forces in Japan**

The salaries of Japanese personnel working in the U.S. military facilities located in Japan is recorded as compensation of employees from overseas (receivable) and current transfer to overseas (payable) from 1994 to 2002, which is consistent with the treatment from 2003 on.

#### **2-6. Recording the over-repayment regarding consumer loans**

Starting from FY2005, the return of the repayments of consumer loans which exceed the upper limit stipulated in Interest Rate Restriction Act is recorded as capital transfer from private financial institutions to household sector.

#### **2-7. Reviewing the estimation method of financial accounts, etc.**

##### **(a) Modification of the estimation and presentation of "government deposit" and "others" in financial assets/liabilities**

The estimation and recording of the "government deposit" and "others" in financial assets and liabilities are in line with the treatment of the Flow of Funds (FOF). Specifically, in the current JSNA, all “government deposits” are uniformly recorded as central government’s asset, and the deposits held by special accounts (which are classified in either public nonfinancial corporation or public financial institution) are recorded as “others” assets of them with corresponding “others” liabilities of the government sector being recorded.

##### **(b) Modification to the treatment of the unrecorded part of the retirement benefit obligation of corporations**

In March 2011, the FOF started to record previously unrecorded portion of the retirement benefit obligations of corporate sector. JSNA, in accordance with the FOF, reflects the unrecorded part of corporate retirement benefit obligations in the estimation of “pension reserve” and “receivable/payable, etc. in the financial accounts.

#### **(3) Changes of the Presentation Introduced in the 2005 Benchmark Revision**

##### **3-1. New information on public finance**

##### **(a) Introducing a table on Government Finance Statistics**

A new accounting table on non-financial flow transactions of general government (central government, local governments, social security funds) starts to be compiled in accordance with "Government Finance Statistics Manual 2001

(GFSM2001)” of IMF.

**(b) The subdivision of items in the Supporting Table 7 (General Government total outlays by function) and the Supporting Table 8 (General Government final consumption expenditure by function)**

The Supporting Table 7 and 8 are presented in detail using the 2-digit classification of functions of government (COFOG).

**3-2. Compiling “Gross Fixed Capital Formation of Assets classified by Institutional Sectors and Economic Activities” and “Net Capital Stocks of Fixed Assets classified by Institutional Sectors and Economic Activities”**

Both fixed capital matrix and fixed capital stock matrix are newly compiled, accompanying the introduction of new estimation method of fixed assets abovementioned.

**(4) Other changes to the method for the annual estimates**

**4-1. Accounting for the impact of the Great East Japan Earthquake**

**(a) Recording of monetary donations**

The monetary donations distributed to the disaster victims via non-profit private institution serving household (e.g. Japanese Red Cross Society, Central Community Chest of Japan, etc.) and general government (afflicted local governments) are recorded as directly distributed as current transfers from the donors (each institutional sector) to the afflicted sector (households). The timing of recording is when the victims received the donations.

**(b) Recording of earthquake insurance claims in non-life insurance**

The claims of the earthquake insurance regarding the Great East Japan Earthquake significantly exceed the expected amounts, and thus each insurer finances them by reinsurance and/or redemption of own capitals (i.e. contingency reserves, etc.). Taking this into consideration, the earthquake insurance claims regarding the Great East Japan Earthquake, which are regarded as exceeding the expected claims, are subtracted from the actual claims payable and recorded as capital transfers from financial institutions (e.g. non-life insurance companies) to each institutional sector (policy holder). This treatment is in line with the recommendation in 2008SNA.