Indonesia is one of Asia-Pacific countries that have an important position with a relatively stable economic growth. Based on the report Organization International Monetary Fund (IMF), the five members of ASEAN-5 countries, namely Indonesia, Malaysia, Philippines, Singapore and Thailand, in total achieve economic growth of 4.60 percent in 2015 equal to 2014, and lower when compared with previous years.

I. Data Sources and estimation methods for compiling national accounts, areas of concern and possible solution

GDP can be used as an indicator to measure performance the economy of a country or as a reflection of the success of a government in moving the economic sectors. GDP is presented in two price concepts, namely the current prices and constant prices.

Economic categories in the preparation of GDP by industrial origin covers seventeen field of business, namely: (A) Agriculture, Forestry and Fishing, (B) Mining and Quarrying, (C) Manufacturing, (D) Electricity and Gas, (E) Water supply, Sewerage, Waste Management and Remediation Activities, (F) Construction, (G) Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles, (H) Transportation and Storage, (I) Accommodation and Food Service Activities, (J) Information and Communication, (K) Financial and Insurance Activities, (L) Real Estate Activities, (M,N) Business Activities, (O) Public Administration and Defense; Compulsory Social Security, (P) Education, (Q) Human Health and Social Work Activities, and (R,S,T,U) Other Services Activities. The concepts and definitions used in the calculation of Gross Domestic Product (GDP) equal quarterly with the concepts and definitions used in the calculation of the annual GDP which is also published by BPS-RI annually. As for the need to be considered in this publication are the things that a quarterly specification as below:

- The quarterly gross domestic product is the sum of gross value added generated by production units or economic sector / field of businesses operating in the territory of a country during a particular quarter.

- The term "quarterly" is defined as a period of one quarter (three months), namely: the first quarter (January-February - March), the second quarter (April - May-June), the third quarter (July-August - September) and fourth quarter (October-November - December).
- Quarterly basis used is the average of the quarter I, II, III, and IV in 2010.
- Figures growth rate presented in this publication is a quarterly growth rate of the chain (q-to-q), the quarterly growth rate the same quarter the previous year (y-on-y), and a quarterly growth rate Cumulative (c-to-c). For ease of writing the values of GDP respectively quarterly denoted by the letter as presented in Table 1, with calculating the percentage growth rate as follows:

  - Percentage chain quarterly growth rate (q-to-q) quarter I, II, III, and IV t year (previous quarter = 100) were:
    - Qtr. I: \( \frac{P}{D} \times 100-100 \)
    - Qtr. II: \( \frac{Q}{P} \times 100-100 \)
    - Qtr. III: \( \frac{R}{Q} \times 100-100 \)
    - Qtr. IV: \( \frac{S}{R} \times 100-100 \)

  - The percentage rate of quarterly growth against the same quarter last year previous (y-on-y), Quarter I, II, III, and IV year t (the same quarter of the previous year = 100) were:
    - Qtr. I: \( \frac{P}{A} \times 100-100 \)
    - Qtr. II: \( \frac{Q}{B} \times 100-100 \)
    - Qtr. III: \( \frac{R}{C} \times 100-100 \)
    - Qtr. IV: \( \frac{S}{D} \times 100-100 \)

  - The cumulative rate of quarterly growth (c-to-c) the first quarter, I - II, I - III and I - IV year t (cumulative quarter of the previous year = 100) were:
    - Qtr. I: \( \frac{P}{A} \times 100-100 \)
    - Qtr. I - II: \( \frac{(P + Q)}{(A + B)} \times 100-100 \)
    - Qtr. I - III: \( \frac{(P + Q + R)}{(A + B + C)} \times 100-100 \)
    - Qtr. I - IV: \( \frac{T}{E} \times 100-100 \)

Table 1. Notation Calculations Quarterly GDP Growth

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Year t-1</th>
<th>Year t</th>
</tr>
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<tbody>
<tr>
<td>Quarter</td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>Value</td>
<td>A</td>
<td>B</td>
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A. Current Practices and Status

Coverage and Calculation Methods of GDP by Industry

Industry description presented in this chapter includes coverage and definition for section and division of industries, calculation methods of GVA (Gross Value Added) both at current and 2010 constant market prices, and data sources.

A. Agriculture, Forestry and Fishing

This section includes any cultivation obtaining the objects or items from nature which are the living things that can be used for own consumption or to be sold to others. The cultivation includes activities whose main purpose is to meet farmer’s own needs (subsistence) such as the cultivation of food crops.

1. Agriculture, Livestock, Hunting and Agriculture Services

This division includes food crops, horticultural crops, plantation crops, livestock, and agricultural services and hunting animals intended for sale.

a. Food Crops

Food crops includes all economic activities that produce food commodities. The commodities generated by this activity include rice, crops (corn, soybeans, peanuts, mung beans, sweet potato, cassava, other food crops, such as taro, canna, arrowroot, yam, etc.), and other cereal crops (sorghum, millet, barley, wheat, etc.). All the commodities above are seasonal crops, of which the forms of production at harvest or of other raw production are still within the scope of agriculture category. Some examples of the forms of production on agricultural commodity crops are: rice in dry unhusked, corn in dry seed, and cassava in wet bulb. Rice and pulses production data are obtained from Sub Directorate of Food Crops Statistics, BPS. The producer prices data for the food crops are obtained from Sub Directorate of Rural Price Statistics, BPS. The price indicators used are the Producer Price Index obtained from Sub Directorate of Producer Price Statistics, BPS; and the price paid by farmer index for food crops production obtained from Sub Directorate of Rural Price Statistics, BPS. For the cost structure of food crop activities, the data are obtained from the the Census of Agriculture and the Farming Cost Structure Survey conducted by the Sub Directorate of Food Crops Statistics, BPS.

b. Horticultural Crops

Horticultural crops consists of seasonal and annual horticultural crops. The seasonal horticultural crops include short-lived horticultural crops (less than one year) and the harvest is gathered once or several times for one planting season. Meanwhile, the annual horticultural crops include the horticultural crops that are generally older than one year with several harvest periods per one
planting season. The commodities of horticultural crops are vegetables, fruits, medicinal plants, and ornamental plants. Horticultural production data are obtained from the Sub Directorate of Horticulture Statistics, BPS. The producer prices data for the horticultural crops are obtained from Sub Directorate of Rural Price Statistics, BPS. The price indicators used are the Producer Price Index obtained from Sub Directorate of Producer Price Statistics, BPS; and the price paid by farmer index for the horticultural crops production obtained from Sub Directorate of Rural Price Statistics, BPS. For the costs structure of horticultural crops activities, the data are obtained from the Census of Agriculture.

c. Plantation Crops
Plantations consists of seasonal and annual plantation crops, cultivated by individuals or companies (public and private). The coverage of plantations activities include land preparation, seeding, breeding, planting, maintaining, and harvesting. The commodities generated by plantations activities include sugar cane, tobacco, patchouli, jatropha, sesame, fibrous plants (cotton, roselle, hemp, jute, agave, abaca, kenaf, and-others), coconut, oil palm, rubber, coffee, tea, cocoa, pepper, nutmeg, cinnamon, cloves, cashew nuts, etc. The production data obtained from the Directorate General of Plantation of the Ministry of Agriculture. The price data in the form of producer prices are obtained from Sub Directorate of Rural Price Statistics, BPS. The price indicators used are the Producer Price Index obtained from Sub Directorate of Producer Price Statistics, BPS; and the price paid by farmer index for the plantations production obtained from Sub Directorate Rural Price Statistics, BPS. Meanwhile, the cost structure data for plantations activities are obtained from the Census of Agriculture.

d. Livestock
Livestock covers all farm activities which organize breeding and cultivation of all kinds of livestock and poultry for the purpose of breeding, raising, slaughtering, and harvest, committed by individuals or enterprises. This group also includes livestock and poultry farming that produce recurrent products, for example, milk and eggs. The commodities of this group are beef cattle, buffalo, goat, sheep, pig, horse, free-range chicken, meat-producing chicken, egg-laying chicken, duck, Muscovy duck, chicken egg, duck egg, raw milk, etc. The data on livestock production are obtained from the Directorate General of Livestock and Animal Health of the Ministry of Agriculture. The price data in the form of producer prices are obtained from Sub Directorate of Rural Price Statistics, BPS. The price indicators used in the calculation are the Producer Price Index obtained from Sub Directorate of Producer Price Statistics, BPS; and the price paid by farmer index for livestock production obtained from Sub Directorate of Rural Price Statistics, BPS. For the cost structure, the data are obtained from the Census of Agriculture and Livestock...
Company Survey (Cattle, Poultry and Dairy Cattle) conducted by Sub Directorate of Livestock Statistics, BPS.

e. Agriculture Service and Hunting
Agriculture service and hunting activities includes agricultural services, hunting and catching of wild animal, and wild animal breeding. The agricultural service activities are carried out by individuals or business entities based on remuneration or contract specifically provided to support agricultural activities (crops, horticultural crops, plantation crops, and livestock). Another common service is agricultural equipments/animals leasing (including operators) with the risk covered by the services provider. Hunting and catching of wildlife activities include hunting and poaching of wild animals for population control and preservation; pickling and tanning of furskin, reptiles and poultry skin; hunting and poaching of animals using traps; the capture of animals (dead or alive) for food, fur, skin, research purposes, pet, or to be placed in zoos or; the production of fur or skin from the caught animals. Meanwhile, the wild animal breeding activities include breeding, raising, and researching for the preservation of the wild animals (terrestrial or marine animals). Some marine wild animals are dugong, sea lion and seal. Agricultural services output are obtained by imputation approach by taking into account the proportion of expenditure for agricultural services to the output produced by an agricultural activity in a given period. The outputs of agricultural activities are derived from the Sub Directorate of Goods Account, BPS. Meanwhile, the proportion of spending on agricultural services to the output is obtained from the Census of Agriculture, Farming Cost Structure Survey and Livestock Company Survey conducted by BPS. The data on wild animal hunting activities estimated by foreign exchange earnings approach from the sale of wild animals are obtained from the Directorate General of Conservation of Natural Resources and Ecosystems, Ministry of Environment and Forestry.

2. Forestry and Logging
This division includes logging of all types of wood; collecting of leaves, tree saps, and roots; and the services that support forestry activities based on remuneration or contract system. The commodities of forestry activities are log (derived from the cultivation of production forest and conservation forest), wood, rattan, bamboo and other forest products. This division also includes the services which support main forestry activities on the basis of remuneration (fee) or a contract, including reforestation activities carried out on the basis of a contract. Data of logging and other forest products are derived from Perum Perhutani, Directorate General of Sustainable Production Forest Management, Ministry of Environment and Forestry, and Sub Directorate of
Forestry Statistics, BPS. The producer price data are obtained from the Sub Directorate of Forestry Statistics, BPS. The Producer Price Index is obtained from the Sub Directorate of Producer Price Statistics, BPS. Meanwhile, the data on cost structure for forestry activities are obtained from the Census of Agriculture and the Forestry Company Survey conducted by the Sub Directorate of Forestry Statistics, BPS.

3. Fishing

This division covers capture fisheries and aquaculture activities of all kinds of fish and other aquatic biota, in fresh water or brackish water or sea. The commodities generated by fishing activities include all kinds of fish, crustaceans, molluscs, seaweed and other aquatic organisms derived from the capture (in the sea and inland open water) and aquaculture (sea, pond, cage, floating net, pond, and paddy field). This division also includes the services that support fishing activities on the basis of remuneration (fee) or contract. The fishing commodities production data are obtained from the Directorate General of Fishing and Aquaculture, Directorate of the Ministry of Maritime Affairs and Fisheries. The price data in the form of producer prices are obtained from Sub Directorate of Rural Price Statistics, BPS. The price indicators used are the Producer Price Index obtained from Sub Directorate of Producer Price Statistics, BPS; and the price paid by farmer index for the cost of fishery activities obtained from the Sub Directorate of Rural Price Statistics, BPS. The cost structure data are obtained from the Census of Agriculture and Fisheries Company Survey conducted by the Sub Directorate of Fisheries Statistics, BPS. The approach used in estimating the value-added Industry of Agriculture, Forestry and Fishing is through production approach. This approach is based on consideration of the availability of data on production and prices for each agricultural commodity. According to its nature, output is divided into two types, namely main output and secondary output. In addition, the other commodities that are not covered are estimated through complementary percentage obtained from various special surveys. Calculation of output in this category not only includes the main and secondary output at harvest time but also the added output adopted from the implementation of SNA 2008. For activities producing the commodities of which the results can be taken repeatedly, the output also includes the maintenance costs incurred during a specific period called Cultivated Biological Resources (CBR). For the activities producing seasonal commodities or the commodities harvested only once, the output also includes costs incurred for standing crops at the end of the period reduced by the costs incurred for standing crops in the early period referred as Work-in-Progress (WIP). So that the total output in this category is the sum of the main output, secondary output, and CBR or WIP of all commodities coupled with a complementary value. Gross Value Added (GVA) of a division is obtained from the sum of value
added of each activity that produces certain commodities. GVA is obtained from the value of output at basic prices less intermediate consumption. Estimates of GVA at 2010 constant prices use the revaluation method, namely multiplying production value in the current year with the price in the base year (2010) to estimate the constant output of current year.

**B. Mining and Quarrying**

All types of commodities of the Industry of Mining and Quarrying are divided into four divisions, namely: crude petroleum, natural gas and geothermal; coal and lignite mining, iron ore mining; and other mining and quarrying.

1. **Crude Petroleum, Natural Gas and Geothermal**

This division includes the production activities of the mining and oil extraction from oil shales and oil sands and natural gas production and the search for hydrocarbon liquids. This division also includes the activities of operating and/or developing oil extraction sites, natural gas, and geothermal. Approach used in this division is the production approach. The output at current prices is obtained by multiplying the quantum of goods produced by the price per unit of production in each year. While the value added at constant 2010 is prices obtained by revaluation method. The data on production of oil and gas are obtained from the Directorate General of Oil and Gas - Ministry of Energy and Mineral Resources. The price data/ indicators are obtained from the same directorate general and the publication Statistics on the State Electricity Company (PLN); and the Producer Price Index (PPI) for Gas and Geothermal serves as the driver of quarterly prices of both commodities. The Cost Structure Data are obtained from company financial report, Indonesia Stock Exchange (ISE) and BPS’ Oil and Gas Mining Statistics. For crude oil prices, the calculation uses Indonesian Crude Price. The gas prices in 2010 are driven by the PPI. Meanwhile, geothermal energy prices in the calculation is based on the statistics on PLN and driven by the PPI for the quarterly prices.

2. **Pertambangan Batubara dan Lignit**

Coal mining activities include mining operation, drilling of diverse range of coals such as anthracite, bituminous, and subbituminous, either at the surface or underground, also including mining by liquefaction method. The mining operation comprises of quarrying, crushing, washing.

12. **Manufacture of Fabricated Metal Products, Computer, Electronic, and Optical Products, and Electrical Equipment**

This division includes the manufacture of “pure” metal products (such as spare parts, container and structure), that generally have a static or does not move, the manufacture of weapons and ammunition supplies, manufacture of computers, computer equipment, communication equipment, and similar electronic items, including the manufacture of components, manufacture
of products that generate, distribute and use electrical power. ISIC Rev.4: code 25, 26 and 27. 13. Manufacture of Machinery and Equipment

The activities covered in the division are manufacture of machinery and equipment that can work independently either mechanically or in connection with the processing of materials, including mechanical components, which produce and consume energy, and the main components that are produced specially. The division also includes the manufacture of machinery for special purposes for transport of passengers or goods within the basic restrictions, hand tools, fixed or mobile equipment regardless of whether the equipment is made for industrial use, civil works and buildings, agriculture and households. ISIC rev.4: code 28

14. Manufacture of Transport Equipment

This division includes a manufacture of motor vehicles and semi-trailers and other transportation equipments. Manufacture of motor vehicles for the transport of passengers or goods, transport equipments such as shipbuilding and boat, truck/railway carriages and locomotives, aircraft and spacecraft. This division also includes the manufacture of various parts and accessories of motor vehicles, as well as the manufacture of trailers or semitrailers. ISIC Rev.4: codes 29 and 30.

15. Manufacture of Furniture

Manufacture of Furniture includes the manufacture mebeller and related products made of various materials except stone, cement and ceramic. Mebeller manufacture processing is a standard method, namely the establishment of materials and assembling components, including cutting, printing and coating. Product Designing both for aesthetics and quality function is the important aspect in the production process. Mebeller manufacture tends to be a special activity. ISIC rev.4: code 31

16. Other Manufacturing, Repair and Installation of Machinery and Equipment

This division includes the manufacture of various items that have not been covered elsewhere in previous manufacturing divisions. This division is a combination of other manufacturing and the repairs and installation services of machinery and equipment. This division is residual in nature where the production processes, input materials and use of the produced goods can change easily and widely. The division does not include the activity of cleaning the industrial machinery, repairs and maintenance of computer and communication equipment as well as repair and maintenance of household goods, but includes the repair and maintenance of machinery and special equipment items produced by other manufacturing with the aim of restoring machinery, equipment and other products. ISIC Rev.4: codes 32 and 33. The data on Manufacture of Coal Processing and Oil and Gas Refining are provided by the Directorate General of Oil and Gas of
the Ministry of Energy and Mineral Resources, production of oil and gas refinery data. Production data/indicators of Manufacture of Coal production are obtained from the Directorate of Industrial Statistics of BPS. Meanwhile, data on refinery prices of petroleum products are obtained from Directorate General of Oil and Gas of the Ministry of the Energy and Mineral Resources. The price of LNG data are obtained from the price of LNG exports from the Directorate of Distribution Statistics of BPS. The export rates are from the Directorate of Expenditure Accounts of BPS, while the indicator prices for Manufacture of Coal are obtained from the Directorate of Price Statistics of BPS. The Cost Structure data are obtained from the publication Oil and Gas Mining Statistics, BPS. From Division of Manufacture of Food and Beverage to Other Manufacturing, Repair and Installation of Machinery and Equipment, the data sources consist of: Production/Production indicators that are divided into two major groups, namely Large Medium Industrial (LMI) production index and the index of production for Small and Micro Industries (SMI) obtained from the Directorate of Industrial Statistics of BPS. The Data Price/Price Indicator are obtained from the Directorate of Price Statistics of BPS. The cost structure data are estimated from the BPS’ LMI and SMI Annual Survey, coupled with a variety of special surveys conducted by DPA. Calculation approaches for Manufacture of Oil and Gas Processing activity using the production approach. The output at current prices in this division is obtained by multiplying the production at a price for each year, while output at constant prices revaluation method, ie production for each year multiplied by the price of the base year 2010. The GVA at current prices is obtained from the difference between output at current prices and intermediate consumption for each year, whereas for the GVA at constant prices is derived from the difference between output at constant prices between intermediate consumption at constant prices. Approach for the estimation Manufacture of Coal to Other Manufacturing, Repair and Installation of Machinery and Equipment used production approach. Output at constant prices are using extrapolation approach which is a multiplication of the output base year with an index of production for each year, while output at current prices is calculated from the output at constant prices multiplied by the price index for each year. GVA at current prices is obtained from the difference between output at current prices with the intermediate consumption for each year, whereas for the GVA at constant prices is obtained from output at constant prices reduced by intermediate consumption at constant prices. In the GVA calculation for these manufacturing divisions, the SUT 2010 is used as the reference base year of 2010.

**D. Electricity and Gas**

This section includes the production of electricity, natural and artificial gas, steam, hot water, cold air and ice and the likes through the network, channel, or permanent infrastructure pipe.
Dimensional network/infrastructure can not be determined with certainty, including the activities of the distribution of electricity, gas, steam and hot water and cooling air and water for the purpose of producing ice. Production of ice for food/beverage and non-food purposes. This category also includes the operation of the gas and engine generating, controlling and distributing the electricity or gas. This also includes the production of hot steam and air conditioner.

1. Electricity
This division includes the generation, transmission and distribution of electricity to consumers, both held by the State Electricity Company (PLN) as well as by private companies (Non-PLN), such as electricity generation by local government owned company, and managed by a private electricity (individuals and companies) with a view to sale. Electricity generated or produced include electricity sold, used alone, is lost in transmission and distribution, and stolen electricity. Method of calculating used is the production approach. Output at current prices is obtained by multiplying the quantum of goods produced with a base price per unit of production in each year. Meanwhile, output at constant prices in 2010 was obtained by revaluation, ie multiplying the quantum of goods produced in each year with a base price per unit of production in 2010. Furthermore, to obtain GVA both at current and constant prices of 2010 was by multiplying the output each year with GVA ratio. The key data are production and prices data. Production data in the form of electricity sold and electricity is generated either by PLN and non-PLN. Just as production data, the price also includes the sale price and the price of generation, both production data and price data, taken from PT. PLN every quarter and PLN statistics published every year. It also takes the data electricity subsidy from the Ministry of Finance.

2. Manufacture of Gas and Production of Ice
This division produces Natural Gas, artificial gas steam/hot water, cold air and ice production. This division includes the manufacture of gas and distribution of natural gas or artificial gas to consumers through a system of pipelines, and gas sales activities. This group also includes the supply of gas through a variety of processes, transportation, distribution and supply of all types of fuel gas, gas sales to consumers through pipelines. This includes drainage, distribution and procurement of all kinds of fuel gas through the duct system, trading gas to the consumer through channels, activities of dealers who take care of gas trading gas through gas distribution systems operated by others and the operation of changing commodity and transport capacity of gas fuel. The production activities of Steam/ Hot Water, Air and Production Ice Cold include activities of production, collection and distribution of steam and hot water for heating, energy and other purposes, production and distribution of air cooling, cooling water for cooling purposes and the
production of ice, including ice for needs food/beverages and non-food purposes. The calculation method used for 2010 series is the production approach. Output at current prices is obtained by multiplying the quantum of goods produced with the price per unit of production in each year. Meanwhile, output at constant prices in 2010 is obtained by revaluation, i.e. multiplying the quantum of goods produced in each year at a price per unit of production in 2010. Furthermore, to obtain the GVA both at current and constant prices of 2010 was by multiplying the respective the output of each year with the GVA ratio. The data on production and prices of city gas are obtained from PT. PGN (State Gas Company). The production data is reported directly by PT. PGN every three months. Meanwhile, the prices data are acquired from the financial statements of the company published every three months. There is a one-quarter lag for the prices data so the last quarter figure is an estimation.

E. Water Supply, Sewerage, Waste Management and Remediation Activities
This section includes economic/industry activity with the management of various forms of waste/garbage, such as solid or liquid waste, either domestic or industrial, which can pollute the environment. The results of the sewage treatment process are discarded or being an input for other production processes. The water supply activities is included in this industry, since these activities are often carried out in conjunction with or by the units involved in the management of the waste/garbage. Method of calculating the Gross Value Added for water supply on base year 2010 used production approach. Output at current prices is obtained by multiplying the quantum of goods produced at a price per unit of production in each year. For the price data that are not available in recent years are estimated by the growth of CPI components of fuel, electricity and water supply. Outputs at constant 2010 prices are obtained by revaluation, i.e. multiplying the quantum of goods produced in each year at a price per unit of production in 2010. Furthermore, to obtain value added both at current and constant prices of 2010 are by multiplying the respective output at each year with the GVA ratio. Calculation of waste/sewerage management is using the income approach. In the worksheet management, garbage disposal and cleaning activities are done by the Government and the private sector. The government activities in this service are funded by the state budget (APBN) or local government budget (APBD). Source of production data are Sub Directorate of of Mining and Energy Statistics of BPS, APBD (Ministry of Finance); Waste Output data are obtained from Sub Directorate of LMI Statistics of BPS. The prices data are obtained from Subditrectorate of Producer Price Statistics of BPS while the Cost Structure Data are obtained from the Annual Water Survey of BPS.

F. Construction
Industry of Construction is the business activities that cover general and special construction of buildings and civil construction works, either for residence or other purposes. The construction activities are new construction work, repair, extension and alteration works, establishment of prefabricated buildings or structures on the site, and temporary construction projects. Construction activities can be carried out by the general contractor (the construction company working for the other party) and the special contractor (the business units or individuals who perform construction activities for their own use). Results of construction activities include: Construction of housing; nonhousing building; civil building such as road, highway, bridge, runway, railway and railway bridges, tunnel, dam, reservoir, water tower, irrigation, drainage sanitation, flood control levees, terminal, station, parking area, docks, warehousing, ports, airports; construction of the electricity and telecommunications building: power generation; transmission, distribution and communication networks building, and so on; Installation of buildings and civil buildings: electricity installations including heating and cooling equipments, gas installation, installation of water and wastewater and drainage channels, and so on; dredging: including dredging rivers, swamps, lakes and shipping lanes, ponds and port canals; land preparing activities for construction works including dismantling and demolition of buildings or other buildings as well as the cleaning of building ruin; completion of civil construction such as glazing and aluminum; processing the floor, walls and ceiling of the building; painting; interior craftsmanship and decoration in a final settlement; workmanship exterior and landscaping on the building and other civil buildings; Construction equipment rental with operators such as lorry crane, molen, bulldozers, concrete mixer, drilling machine, and so on. Calculation method for obtaining output at current prices is extrapolation where the construction index at current prices serves as extrapolator. To get the output at constant prices, the output at current prices is deflated by using construction wholesale price index as the deflator. In the meantime, intermediate consumption is obtained by using commodity flow everal major commodities of intermediate consumption, such as the production of cement, wood, as well as minerals. GVA at current is obtained from the output at current reduced by cost of intermediate consumption. The GVA at constant is derived by multiplying the ratio of output at constant with base year 2010. The production indicator data for log, bamboo and industrial products instead of oil and gas are provided by Subdircorate of Goods Account of BPS, Petroleum bitumen production data from the Indonesian Petroleum Statistics by the Directorate General of Oil and Gas of the Ministry of Energy and Mineral Resources; the data on export of cement from Sub Directorate of Export Statistics of BPS and the Indonesian Cement Company Association; import of cement and building materials of the SITC 3 digits from Sub Directorate of Import Statistics of BPS. WPI
price indicator in the form of building materials are taken from Sub Directorate of Wholesale Price Statistics of BPS. Construction index are from the publication of Construction Statistics, Sub Directorate of Construction Statistics of BPS.

**G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles**

This section includes economic activities in the field of wholesale and retail trade (i.e. sale without any technical changes) of various types of goods, and that provide compensation for the services along with the sale of the items. Both wholesale (large trade) and retail sales are the final step in the distribution of goods. This section also includes the repair of cars and motorcycles. Sales without technical changes also include the activities related to trade, such as goods sorting, preparation, and quality separation, blending, bottling, packing, dismantling from the larger size, re-packing into smaller size, storage, whether with cooling system or not, cleaning and drying of agricultural products, cutting of wood or metal sheets. Wholesale traders are often physically collecting, sorting, and separating the good’s quality in large measure, resizing and repacking into smaller sizes. The retailers resell the goods (without technical change), both new and second-hand goods, mainly to the general public for consumption or use of the individual or household, through shops, department stores, stalls, mail-order houses, sellers of doors to the door, peddlers, consumer cooperatives, auction houses, and others. In general, retailers acquire the direct benefit from the goods they sell, but some retailers act as agents who sell on consignment or commission basis.

1. **Wholesale and Retail Trade and Repair of Motor Vehicles and Motorcycles**

This division includes all activities (except industrial and renting) related to cars and motorcycles, including lorries and trucks, as well as wholesale and retail trade, car care and maintenance and new and used motorcycles. This includes not only wholesale and retail trade of parts and accessories of cars and motorcycles, but also the activities of commission agents contained in wholesale and retail trading vehicle.

2. **Wholesale Trade and Retail Trade Except of Motor Vehicles and Motorcycles**

These division include economic activities in the field of wholesale and retail trade of various types of goods, both wholesale (large trade) and retail and they are the final step in the distribution of merchandise in addition to automobile and motorcycle products. The national and international trade on their own business or based on contract (borkarage) is also within the scope of this division. Output of Trade Business is trade margin obtained by the sale minus the value of goods traded net of transport costs incurred by the trader. Output of trade
(current/constant) is calculated using the indirect method, which uses the method of approach flow of goods "commodity flow approach". Trade margin is obtained by multiplying the trade margin ratio with the output of goods produced by the domestic industry producing goods plus imports of goods from abroad. Then output or trade margins are multiplied by the ratio of value added to obtain value-added trade. Meanwhile, the repair of cars and motorcycles is calculated by production approach, the production indicator is using the number of vehicles. To get the value added at constant prices, the value added at current price is deflated by the general CPI (BPS). Sources of data for the Industry of Wholesale and Retail Trade; Repair of Cars and Motorcycles are the Sub Directorate of Goods and Services Accounts of BPS (data on output of domestic industrial goods), Transport Statistics of BPS, Import of goods of BPS, Consumer Price Statistics of BPS, and other surveys conducted by the Directorate of Production Accounts of BPS.

H. Transportation and Storage
This section includes the provision of transport of passengers or goods, whether scheduled or not, by using rail, pipeline, road, water or air, and the activities related to transport. Industry of Transportation and Warehousing consisting of: Rail Transport; land transport; sea transport; transport streams, lakes and crossings; air transport; warehousing and transportation support services, postal and courier. The activities also include the transport of passengers and goods removal activities from one place to another by using conveyances or vehicles, both motorized and nonmotorized. Meanwhile, the transport support services include the activities that are supporting the activities of transport such as: terminal, port, warehousing, and others.

1. Railways Transport
Railways transport for passengers and or goods using railway through intercity, the city and the operation of the sleeping carriage or restaurant carriage that is fully managed by the Indonesian Railways Company (PT. KAI). The method of estimation is by production approach. Production indicator is the number of passengers and goods transported or the number of passenger miles and miles-ton of goods. Output and GVA at current prices are collected from the financial statements of PT KAI. In the meantime, for the price indicators, the calculation uses CPI of railways transport obtained from Sub Directorate of Consumer Price Statistics of BPS. Output 2010 at constant prices is obtained by extrapolation method is by using the number of passengers and goods as extrapolation. GVA at constant 2010 prices is obtained by multiplying the output at constant prices with the ratio of GVA in 2010.

2. Land Transport
Land transport covers the transport of passengers and goods vehicles using the highway conveyances, both motorized and not motorized, including charter activity/ vehicle rental with or
without driver services; and transport services by pipeline to transport crude oil, natural gas, oil products, chemicals and water. The method of estimation is by production approach. Output at current prices is obtained by multiplying the production indicators (the number of tested vehicle) and price indicators (average output for each type of transport equipment). Meanwhile, the output at 2010 constant prices obtained by using an extrapolation method with the index number of the vehicle as extrapolator. GVA is calculated by multiplying the ratio of value added to output. Production indicators are the number of vehicles (taxi, public transportation, buses, and trucks) of which the data were obtained from the Sub Directorate of Traffic Information of the National Police. The data for calculation of output and GVA ratio structures are derived from the financial statements of Djakarta Transportation Company (Perum PPD), PT Djawatan Angkoetan Motor RI (Perum DAMRI) and some go public land transportation companies on the Indonesian Stock Exchange. The price indicator used is the CPI for road transport from Sub Directorate of Consumer Price Statistic of BPS.

3. Sea Transport
Sea transport covers the transport of passengers and goods by ship operating within and outside the domestic area. It excludes the sea transport operated by other companies that are in the same business group of which the shipping activities are only supporting the parent activities and the available data are difficult to be separated. The method of estimation is by production approach. Output at current prices is obtained by multiplying the production indicator and prices indicator. Output at 2010 constant prices is calculated by the extrapolation method, with the production index and the index of passengers and unloading of goods as extrapolator. The GVA is obtained by multiplying the GVA ratio and output. The production indicators are the number of passengers and goods transported from PT. Pelabuhan Indonesia (Pelindo) I-IV. The price indicators such as average output per passenger and average output per item are obtained from the National Sailing Company (Pelni) and PT Djakarta Lloyd, as well as the CPI for sea transport services from Sub Directorate of Consumer Price Statistics of BPS. The calculation of the GVA ratio using the income statement of state-owned enterprises and some companies go public sea transport from the Indonesia Stock Exchange.

4. River, Lake, and Ferry Transport
The activities include the transport of passengers, goods and vehicles by sea / river and lake transport both motorized and non-motorized and sea/water crossing activity with ferry. The method of estimation is by production approach. Production indicators used are the number of passengers, goods and cars that are transported. Outputs at current prices are obtained by multiplying the production indicators and price indicators consisting of river, lake and crossing
transport. Outputs at constant 2010 prices are obtained by the method of extrapolation. The extrapolator is the production index weighted average number of passengers, goods and vehicles transported. Furthermore, the value added is obtained by multiplying the ratio of value added by output. Production indicators such as the number of passengers, goods and vehicles transported are obtained from the annual publication of Transportation Statistics, the Ministry of Transportation. Meanwhile, the price indicators such as average output per passenger, the average output per item and the average output per vehicle are obtained from the River and Lake Transport Company (PT. ASDP), and the CPI for river, lakes and crossing transport from Sub Directorate of Consumer Price Statistics, BPS. The calculation of GVA uses the income statement of PT. ASDP.

5. Air Transport
This activity includes the transport of passengers and goods by using aircraft operated by airline companies operating in Indonesia. The method of estimation is by production approach. The production indicators are the number of passengers and freight, or the number of assengermiles and ton-miles of goods transported. Output at current prices is obtained by multiplying the production indicator and price indicator for each passenger and goods both domestically and internationally. Output at 2010 constant prices is obtained by the method of extrapolation, and the production index number of passengers and amount of goods transported serve as the extrapolators. While GVA is obtained by multiplying the GVA ratio by output for each of these prices. Production indicators in the form of the number of passengers and goods transported are collected from PT Angkasa Pura I (Central Region and East of Indonesia) and PT Angkasa Pura II (Western Region of Indonesia). The price indicators such as average output per passenger/km-passenger and the average output per item/km-ton of goods are obtained from national airline reports, Garuda Indonesia and PT Merpati Nusantara Airlines; and the CPI for air transport are from Sub Directorate of Consumer Price Statistics of BPS.

6. Warehousing and Support Services for Transportation, Postal and Courier
This activity includes all activities that support and facilitate the activities of transport, namely airport services, sea, river, land (terminal and parking), stevedoring services land and sea, the agency passenger, freight forwarding services, road tolls, warehousing, testing services the feasibility of land and sea transportation, and other supporting services, postal and courier services. The method of estimation is production approach. Output and GVA at current prices of the data processing revenues and expenditures/expenses are taken from the income statement of companies and particularly go public companies. Meanwhile, outputs at 2010 constant prices are calculated by the method of deflation, which is dividing the output value on the basis of
prevailing by the price index base year 2010. GVA at constant prices is obtained by multiplying output at 2010 constant prices by GVA ratio at the base year 2010. The main data sources for transport supporting service activities are from a number of state-owned enterprises, such as: PT Angkasa Pura I and II, PT Pelabuhan Indonesia I-IV, PT Jasa Marga, PT Varuna Tirta Prakasya, PT Banda Gara Mutual, PT PBM Adhiguna Putera, PT KBN, and some go public companies on the Indonesian Stock Exchange. Meanwhile, the price indicator in the form of the CPI of transport supporting facilities are from Sub Directorate of Consumer Price Statistics of BPS.

I. Accommodation and Food Service Activities

This section includes the provision of short-term lodging accommodation for visitors and other travellers and the provision of food and beverages for immediate consumption. The number and type of additional services provided are very varied. This is not including the provision of long-term accommodation as primary residences, preparing food or drinks not to be consumed immediately or through wholesale and retail trade.

1. Accommodation

This division includes the activities of providing short-term accommodation to visitors or other travellers. Including the provision of longer accommodation for students, workers, and so on (such as dormitory or boarding house with or without meals). Provision of accommodation can only provide accommodation facilities without food and beverage and/or leisure facilities. The definition of short-term accommodation such as star and unclassified hotel, and other dwellings for staying like inns, motels, and so on. It also includes the supply of food and beverages as well as other facilities for guests staying during these activities are within the same management with the inn due to the data are difficult to be separated. The GVA of accommodation division is obtained by using the production approach. The production indicator used is the number of room nights sold and the price indicator is the average rate per room night. Output at current prices is obtained by multiplying production indicator by price indicator. Meanwhile, the GVA at constant prices is obtained by multiplying the output with GVA ratio. Output and GVA at constant prices is calculated by using the revaluation model. The production data used are the data on room nights sold obtained from Sub Directorate of Tourism Statistics of BPS. The price indicators use the data rates from the Annual Hotel Survey conducted by Sub Directorate of Tourism Statistics of BPS.

2. Food and Beverage Service Activities

This division activities include eating and drinking services that provide food or beverages for immediate consumption, wether traditional restaurants, self-service restaurants or take-away restaurants, both in the permanent or temporary place and with or without seating. The meaning
of the provision of food and beverages is the provision of food and drinks to be consumed immediately upon reservation. The approach used to calculate the output is through production approach. The production indicator for this division is the total of mid-year population. The price indicator is the average expenditure per capita on eating and drinking outside the home. The result of multiplying both indicators serves as output at current prices. Meanwhile, outputs at constant prices are calculated by using the method of deflation, with the CPI processed foods, beverages, and cigarettes as a deflator. The GVA at current and constant prices are obtained by multiplying the output by GVA ratio. Data source for the production of this division is from BPS’ 2010 Indonesia Population Projection Population Census. Meanwhile, the price indicators are obtained from the National Socioeconomic Survey (Susenas) and CPI for food, drinks and cigarettes from the BPS’ publication of Economic Indicators.

J. Information and Communication

This section includes the production and distribution of information and cultural products, the inventory tool to transmit or distribute these products as well as data or communications activities, information, information technology and data processing and other information services activities. The section consists of several industries namely Publishing, Moving Image, Video, Sound Recording and Music Publishing, Broadcasting and Programming (Radio and Television), Telecommunications, Programming, Consulting Computer and Information Technology. Publishing industry activities include publishing of books, brochures, leaflets, dictionaries, encyclopedias, atlases, maps and charts, the publication of newspapers, journals and magazines or tabloids, including software publishing. All forms of publishing (print, electronic or audio, on the Internet, as multimedia products such as CD ROM reference books etc.). Industrial activities of motion picture production, video, sound recording and music publishing include the manufacture of moving images better on film, video tape or disk to be played in the cinema or on television, the supporting activities such as film editing, cutting, and dubbing and others, distribution and playback of moving images and other film productions to other industries. Purchasing and selling distribution rights of the moving pictures and other film productions are included here. It also includes the sound recording activities, i.e. production of original sound master recordings, releasing, promoting and distributing, publishing of music as sound recording service activities in a studio or elsewhere. Industrial activities and programming broadcast (radio and television) include the manufacture of broadcast content or the acquisition of the rights to distribute, and then broadcast such as radio, television and entertainment programs, news, conversations and so on. This also includes data broadcasting, in
particular integrated with radio or TV broadcasting. The telecommunications industry includes providing telecommunications and service activities of the transmitter of voice, data, text, sound and video. Transmission facilities that carry out these activities may be based on a single technology or a combination of various technologies. Generally, this activity is the transmission of content, without getting involved in the manufacturing process. Industrial programming activity, computer consulting and information technology services include providing expertise services in the field of information technology, such as writing, modifying, testing and supporting software; planning and designing computer systems that integrate computer hardware, computer software and communications technology; management and operation of clients computer systems and/or data processing facilities in the client as well as other professional activities and technical activities related to computers. The method of estimation is production approach. Outputs at current prices are obtained from the value of production/income resulting from the large and medium manufacturing survey, as well as the financial statements of publicly traded companies engaged in the information and telecommunications, while the GVA at current prices is obtained from the sum of wages and salaries, profit/loss, depreciation, and other components. Meanwhile, the outputs at 2010 constant prices are obtained by the method of deflation, and GVA at constant prices is obtained by multiplying output at 2010 constant prices with GVA ratio at 2010 as the base year.

The main data for the information activities are obtained from Sub Directorate of Large and Medium Industry Statistics and Sub Directorate of Communication Statistics and Information Technology of BPS, the public television and information technology companies, Directorate of Art and Film, General Directorate of Art and Culture, Ministry of Tourism and Creative Economy, while the telecommunication activities are derived from a number of public telecommunications companies such as: PT Telkom and its subsidiaries, PT Telecom Mobile (Telkomsel); PT Indosat and its subsidiary, Excel Axiata; PT Bakrie Telecom; and PT. Smartfren Telecom, Meanwhile, price indicators such as the price index: PPI for printing and publishing are from Sub Directorate of Producer Price Statistics of BPS; General CPI and CPI for communication from Sub Directorate of Consumer Price Statistics of BPS.

K. Financial and Insurance Activities
This section includes financial brokerage services, insurance and pensions, other financial services and financial support services. This section also includes the activities of asset holders, such as the holding company activities and the activities of underwriting or funding agencies and similar financial institutions.

1. Financial Intermediary Service
The activities covered activities that raise funds from the public in the form of savings and channel them to the public in the form of credits/loans or other forms in order to improve the standard of living of the people, such as: receiving deposits in current accounts and deposits, providing credit/loan either the short/medium and long term. The main activities for Financial Intermediary Service are collecting and distributing the funds while the provision of other services are only supporting activities, such as: sending money, buying and selling securities, discounting bill of exchange/trade paper/debentures and the like, renting a place to store valuables, etc. Financial Intermediary Service activities include central banks, conventional and Islamic banking, central and local government banks, national private banks, joint venture and foreign banks, and rural banks, saving and loan cooperatives, Baitul Maal wantanwil and other monetary intermediary services. The method of estimation is production approach to commercial banks (including BPR) and the expenditure approach to the central bank (Bank Indonesia). Output at current prices of the commercial banking business is the amount of bank acceptance of the services provided to users, such as administrative costs of the transaction with the bank, and implicitly imputed bank services as measured by using the method of FISIM, as well as other income earned for supporting activities, such as: sending money, buying and selling securities. Output of central bank (Bank Indonesia) is the amount calculated for the costs incurred, including intermediate consumption, expenditure on wages/ salaries, taxes, and depreciation. Meanwhile, the output of KSP, BMT and other Monetary Services is obtained by multiplying average operating revenues with each number business. GVA at 2010 constant prices is calculated using deflation method and General CPI as deflator and GDP Implicit index without the Financial Intermediary Service. Output and GVA at current prices are obtained from Bank Indonesia.

2. Insurance and Pension Funds

Insurance and pension funds include the underwriting annuities and insurance, where the premium is invested to be used against future claims.

Insurance and Reinsurance

Insurance and reinsurance are nonbank financial institution that engage in receiving risks on any casualty/injury to goods or people, including annuity. The insured person may receive a fee for the destruction/damage to goods or due to the death of the insured person. This group includes the activities of life insurance, nonlife insurance and reinsurance, both conventional and sharia principles. The method of estimation used in calculating output at current prices is the production approach. The output of the activities of insurance and reinsurance is the sum of underwriting income, investment, and other income. Meanwhile, output at constant prices is obtained by using
the deflation method where the Consumer Price Index (CPI) is commonly used as a deflator. Gross Value Added, both at current prices and constant prices, is obtained by multiplying the output and GVA ratio. Data source is in the form of financial statements of insurance and reinsurance activities obtained from the Financial Services Authority (FSA) and Sub Directorate of Financial Statistics of BPS. Meanwhile CPI for the general consumer price index is obtained from Sub Directorate of Consumer Price Statistics of BPS.

**Pension Fund**
The pension fund is a legal entity that manages the program promised pension benefits. Retirement benefits is the amount of money paid periodically or as well in retirement as old-age benefits / pension money. The pension fund is divided into two types, namely Employer Pension Fund and Pension Fund of Financial Institutions. The method of estimation used in calculating output at current prices is the production approach. The output of the activities of pension funds is the result of the processing of the financial statements of these activities. Meanwhile, the output at constant prices is obtained by using the deflation method where the Consumer Price Index (CPI) is commonly used as a deflator. Gross Value Added (GVA), both at current prices and at constant prices is obtained by multiplying the output and GVA ratio. Sources of data are in the form of financial statements of pension fund activities derived from the Financial Services Authority (FSA) and Sub Directorate of Financial Statistics of BPS. The general consumer price index is obtained from Sub Directorate of Consumer Price Statistics of BPS.

### 3. Other Financial Services
Other financial service activities include leasing activity, lending activity by institutions not covered by the financial intermediaries, as well as the activities of the distribution of fund that is not in the form of loans. This division includes the activities of the leasing with option rights, mortgage, consumer finance, credit card financing, venture capital, factoring, and other financial services.

**Pawnshop**
Pawnshops covers the business of providing credit facilities to the public on the basis of legal pledge. The credit or loans are based on the value of the collateral chattels submitted, with no regard to the use of borrowed funds granted. The method of estimation to calculate the output at current prices is the production approach. The output of the activities of pawnshops is the result of processing the financial statements of the pawnshop companies consisting of capital rental income, revenue administration, and other income. Meanwhile, output at constant prices is
obtained by using the method of deflation, of which the Consumer Price Index (CPI) is commonly used as a deflator. Gross Value Added, both at current prices and at constant prices is obtained by multiplying the output and GVA ratio. The data sources are financial statements of the pawnshop activities obtained from the Financial Services Authority (FSA), the Pawnshop Companies, and Sub Directorate of Finance Statistics of BPS. Meanwhile, the general consumer price index is obtained from Sub Directorate of Consumer Price Statistics of BPS.

**Financing Institutions**

Financing institutions includes the activities of the lease with option rights, consumer financing, credit card financing, factoring financing, leasing and other financing. Lease with option rights includes corporate finance activities in the form of finance lease for use by the lessee for a certain period based on periodic payments. Consumer finance business includes financing through the procurement of goods and services based on the needs of the consumers with the payment system in installments or periodically. Credit card financing includes financing business in the form of a purchase or transfer of a company's receivables. Factoring financing includes financing business in the output at current prices is the production approach. The output of the activities of financial institutions is the result of the processing of the financing company's financial statements. Meanwhile, output at constant prices is obtained by using the method of deflation, of which the Consumer Price Index (CPI) is commonly used as a deflator. Gross Value Added (GVA), both at current prices and at constant prices is obtained by multiplying the output and GVA ratio. The data in the form of financial statements of financing institutions are obtained from the Financial Services Authority (FSA) and Sub Directorate of Financial Statistics of BPS. The general consumer price index is obtained from Sub Directorate of Consumer Price Statistics of BPS.

**Venture Capital**

This includes venture capital financing activity in the form of equity participation in a joint-venture company (investee company) for a certain period of time. The method of estimation to calculate the output at current prices is the production approach. The output of this activity is the result of the processing of the financial statements of a venture capital company. Meanwhile, output at constant prices is obtained by using the method of deflation, of which the Consumer Price Index (CPI) is commonly used as a deflator. Gross Value Added (GVA), both at current prices and at constant prices is obtained by multiplying the output and GVA ratio. Data sources are financial statements of ventura capital activities obtained from the Financial Services Authority (FSA) and Sub Directorate of Financial Statistics of BPS. The general consumer price index is obtained from Sub Directorate of Consumer Price Statistics of BPS.
4. Financial Supporting Services

Financial support services include activities that provide services that are closely linked to the activity of financial services, insurance, and pension funds. This division includes the administration of financial markets (exchanges), investment manager, clearing and guarantee institution, depository and settlement institution, trustee, currency exchange services, insurance and reinsurance brokerage services, and the activities supporting financial services, insurance and other pension funds.

Stock Exchange

The stock exchange activities include the business that organizes and provides a system and means of securities trading. The activities also include the operation and supervision of financial markets, such as commodity contract exchanges, securities exchanges, as well as stock exchanges. The estimation method used in calculating output at current prices is the production approach. Outputs from the administration of financial markets (stock exchanges) are the result of the processing of the financial statements of the Indonesia Stock Exchange consisting of income securities transaction services, recording services, information services, and other revenues. Meanwhile, output at constant prices is obtained by using the method of deflation where the Consumer Price Index (CPI) is commonly used as a deflator. Gross Value Added (GVA), both at current prices and at constant prices is obtained by multiplying the output and value added ratio.

Sources of the data are financial statements of stock exchange activities from PT BEI, and Sub Directorate of Finance Statistics of BPS. The general consumer price index is obtained from Sub Directorate of Consumer Price Statistics of BPS.

Investment Manager

Investment Manager includes the activities of managing securities portfolio for the clients or collective investments portfolio for a group of clients. The method of estimation to calculate the output at current prices is the production approach. The output of this activity is the result of processing the investment manager of corporate financial statements. Meanwhile, output at constant prices is obtained by using the method of deflation, of which the Consumer Price Index (CPI) is commonly used as a deflator.

Gross Value Added (GVA), both at current prices and at constant prices is obtained by multiplying the output by value added ratio. The data in the form of financial statements are derived from the investment manager activities, Sub Directorate of Financial Statistics of BPS. The general consumer price index is obtained from Sub Directorate of Consumer Price Statistics of BPS.

Clearing and Guarantee
Clearing and guarantee institution activities include organizing the business of clearing and settlement of exchange transactions orderly, fair, and efficient. The method of estimation calculate the output at current prices is the production approach. The output of this activity is the result of the processing of the company's financial statements of PT Kliring Penjamin Efek Indonesia/PT KPEI (Indonesian Clearing and Guarantee Company). Meanwhile, output at constant prices is obtained by using the method of deflation with the Consumer Price Index (CPI) serving as a deflator. Gross Value Added (GVA), both at current prices and at constant prices is obtained by multiplying the output by GVA ratio. The data sources are financial statements of the clearing and guarantee institutions obtained from PT KPEI. The general consumer price index is obtained from Sub Directorate of Consumer Price Statistics of BPS.

Securities Depository
Securities depository institution activities include organizing efforts of central depository for custodian banks, securities companies, and other parties, as well as the completion of stock exchange transaction in order, fair, and efficient manner. The method of estimation used in calculating output at current prices is the production approach. The output of this Meanwhile, the output at constant prices is obtained by using the method of deflation with the Consumer Price Index (CPI) serving as a deflator. Gross Value Added (GVA), both at current prices and at constant prices is obtained by multiplying the output and GVA ratio. Data source are in the form of financial statements of the securities depository institution obtained from the PT. KSEI. The general consumer price index is obtained from Sub Directorate of Consumer Price Statistics of BPS.

Trustee
Trustee includes the business activities of those who are entrusted to represent the interests of all bondholders. The method of estimation to calculate output at current prices is the production approach. The output of this activity is the result of the processing of the company's financial statements trustee. Meanwhile, output at constant prices is obtained by using the method of deflation, of which the Consumer Price Index (CPI) is commonly used as a deflator. Gross Value Added (GVA), both at current prices and at constant prices is obtained by multiplying the output and GVA ratio. Data source is in the form of financial statement of the trustee activities obtained from Sub Directorate of Finance Statistics of BPS. The general consumer price index is obtained from Sub Directorate of Consumer Price Statistics of BPS.

Money Changer Services
Currency exchange services (money changer) includes various types of business services currency exchange, including currency sales service. The method of estimation to calculate output at current prices is the production approach. The output of this activity is derived from financial statements of currency exchange company. Meanwhile, output at constant prices is obtained by using the method of deflation with the Consumer Price Index (CPI) serving as a deflator. Gross Value Added (GVA), both at current prices and at constant prices is obtained by multiplying the output and GVA ratio. The data sources are financial statements of the currency exchange activities obtained from Sub Directorate of Finance of BPS. The general consumer price index is obtained from Sub Directorate of Consumer Price Statistics of BPS.

**Insurance and Reinsurance Brokerage Services**

Insurance and reinsurance brokerage services include the businesses that provide services in the framework of the implementation of the closure of the insurance objects belonging to the insured to the insurance companies and reinsurance as an underwriter. The method of estimation to calculate output at current prices is the production approach. The output of this activity is the result of the processing of the financial statements of insurance and reinsurance brokerage firms. Meanwhile, the output at constant prices is obtained by sing the method of deflation with the Consumer Price Index (CPI) serving as a deflator. Gross Value Added (GVA), both at current prices and at constant prices is obtained by multiplying the output and GVA ratio. Sources of data are financial statements of insurance and reinsurance brokerage services obtained from the Financial Services Authority (FSA) and Sub Directorate of Financial Statistics of BPS. The general consumer price index is obtained from Sub Directorate of Consumer Price Statistics of BPS.

**L. Real Estate Activities**

This section includes the activities of real estate renting, agent or intermediary services (in the sale or purchase) and providing other real estate services that could be done on their own or belonging to others on the contracts basis. This section also includes building development, maintenance, and renting activities. Real estate property comprises of land and the buildings on it. Output for residential building renting activities is obtained from the multiplication of household consumption expenditure per capita for house rent, lease, contract, estimated rent, taxes and maintenance of the house with a number of mid-year population. Meanwhile, the output non-residential building renting business is acquired from multiplying building area leased by an average rental rate per m2. VA is obtained by multiplying the GVA ratio to output. GVA at constant prices is obtained by extrapolation method with index of building area serving as
extrapolator. Data source of residential building renting business are the results of Susenas and the Population Census, BPS (imputation of residential rental). The production data of non-residential renting business are obtained from the research of association of the business. The input structure on residential and non-residential building renting business are obtained from Special Survey of Trade and Services Sector by BPS.

**M,N. Business Activities**

Industry of Business Services is a combination of two sections, namely Section M and N. Section M covers professional activities, science and engineering that require high levels of training and generate knowledge and skills available to users. The Section M activities include legal services and accounting, architectural and civil engineering services, research and development of science, advertising and market research, as well as professional services, scientific and other technical services. Section N activities include a variety of the activities supporting general business operations, such as rental and lease services without option rights, employment services, travel agency services, tours and other reservation services, security and investigation services, building and park services, office administrative services, as well as office supporting services and other business supporting services.

**Legal services**

Legal services include business services attorney/lawyer, notary, legal aid organizations, and other legal services.

**Accounting, Bookkeeping and Auditing Services**

Accounting, bookkeeping and auditing activities cover the services of bookkeeping, preparing, auditing, and analyzing of financial statements and reports, as well as accuracy certification testing and tax consulting.

**Architectural and Civil Engineering Activities and Other Technical Consulting Services**

This group includes architecture consulting services, such as building design and architecture drafting, architectural urban planning services, architectural restoration of historic buildings, and building inspection services.

**Advertising**

Advertising includes advisory assistance services business, creative, production of advertising materials, media planning and buying, including the activities of creating and placing advertising in newspapers, magazines/tabloid, radio, television, internet, and other media.

**Rental and Leasing Services Without Option for Construction and Civil Engineering**

**Machinery and Equipment**
This includes rental and leasing activities without option right for construction and civil engineering machinery and equipment including the equipment without operator.

**Labor Placement Services**

Labor distribution services include services of labor camps and distribution of the jobless are ready to use, such as service of Indonesia labor agencies, housemaid distribution agencies, and so on.

**Cleaning Services to Building**

This includes services of cleaning various types of building, such as offices, factories, shops, meeting halls, and schools. The method of estimation used to calculate the output of services section at current prices is production approach. Output is obtained by multiplying the number of workers with the average output per worker. Meanwhile, output at constant prices is obtained by revaluation method. Gross Value Added (GVA), both at current prices and at constant prices is obtained by multiplying the output and GVA ratio. The key data are total employment data obtained from the Directorate of Population and Employment Statistics of BPS. The general consumer price index is obtained from Sub Directorate of Consumer Price Statistics of BPS.

**O. Public Administration and Defence; Compulsory Social Security**

This section includes activities related to government, which are generally carried out by the administration. This section also includes the interpretation of legislation and law relating to the courts and according to the rules, as well as the administration of programs based on legislation, legislative activities, taxation, defence, State security and safety, immigration services, foreign affairs and administration programs government, as well as compulsory social security. The activities that are classified in other section in ISIC are not included in this section, albeit by government agencies. For example, the administrations of the school system, (regulation, inspection, and curriculum) are included in this section, but the teaching activities belong to the Section of Education (P) and prison or military hospitals are classified into section of Q. The GVA of the administration at current prices is the sum of all employee expenses of government administration and defense activities as well as other government services coupled with the depreciation. Estimates of value added at constant 2010 prices is calculated by extrapolation. The number of civil servants weighted index by class rank serves as extrapolator. The data are from the state budget realization by the Directorate General of Budget of the Ministry of Finance; Realization of routine budget and development expenditure; Local government finance statistics (K1, K2, K3) by BPS; Realization of the local government budget by the Bureau of Local Government Finance; number of civil servants by the National Civil Service Agency (NCSA).
**P. Education**

This section includes educational activities at various levels and for various jobs, either orally or in writing as well as the various means of communication. This section also includes public and private education also includes teaching, especially regarding sports activities, entertainment and educational support. Education can be provided in the room, through radio and television broadcasting, internet and mailing education. Education level activities classified as basic, secondary, and higher and other education, also including educational support services and early childhood education. GVA of Government Education Services at current prices is calculated by expenditure approach, and Private Education Services by production approach. The GVA of government educational services at 2010 constant prices is calculated by deflation approach, while the Private Education Services by revaluation approach. The data sources are the state budget, Ministry of Education and The Cultures; Ministry Of Religion Affairs; Various special surveys conducted by Directorate of Production Account and Expenditure Account of BPS; Sub Directorate of Consumer Price Statistics of BPS.

**Q. Human Health and Social Work Activities**

This section includes providing health services and social activities, from health care provided by skilled professionals in hospitals and other health facilities to home care activities that involve levels of health care activities to social activities that do not involve force health professionals. The provision of health services and social activities include: Hospital Services; Clinical services; Other Hospital Services; Physician practices; Health Care Services performed by paramedics; Traditional Health Care Services; Health support service; Special Transport Services Transportation of the Sick (Medical Evacuation); Animal Health Service; Social Work Services. The calculation method for government services at current prices applies expenditure approach, while the private sector using production approach. GVA of government health services and social activities at 2010 constant prices uses the deflation approach, but the GVA of private ones uses revaluation approach. The data sources are the realization of state budget/local government budget; Ministry of Health; National Socioeconomic Survey (Susenas); Various special surveys conducted by Directorate of Production an Expenditure Account of BPS; and Sub Directorate of Consumer Price Statistics.

**R, S, T, U. Other Services Activities**

Industry of Other Services Activities is a combination of four categories in ISIC Rev. 4. This section has a fairly extensive activities that include: Arts, Entertainment, and Recreation; Computer Repair Services and Personal Purposes Goods and Home Appliances; Individuals
Services Serving Households; Activity Produce Goods and Services by Household Used Alone to meet the needs; Other private services including the activities of international agencies, such as the UN and UN agencies, the Regional Board, IMF, OECD, etc.

**Arts, Entertainment and Recreation**

Services of Arts, Entertainment and Recreation (section R) include activities to meet the needs of the general public for entertainment, art, and creativity, including libraries, archives, museums, other cultural activities, gambling and betting, as well as sports activities and other leisure. Output at current prices is obtained by using the production approach, of which the output is obtained by multiplying production indicators and price indicators. Output stage entertainment / arts spectacle calculated based on the tax received by the government. Output for entertainment and other recreational services are generally based on the multiplication of the number of companies and the number of workers each with an average output per indicator. GVA at current prices is obtained by multiplying the GVA ratio to output. Output and GVA at constant prices use the method of deflation/extrapolation with the deflator/that the extrapolator is CPI of recreation and sport/appropriate production indicator index. The data on production of entertainment and recreation services are obtained from several sources, namely the Ministry of Tourism and Creative Economy, and Association of Advertising Company, and the BPS supporting data (Employment, Survey of Socioeconomic, Economic Census, Consumer Price Statistics and specialized surveys performed by Directorate of Production Accounts and Directorate of Expenditure Accounts).

**Other Services**

This section includes the activities of membership of organizations, repair services of personal computers and personal goods and home appliances, as well as a variety of other personal services activities. Output at current prices obtained from multiplication of each workforce with an average output per worker. GVA at current prices is obtained by multiplying the GVA ratio to output. The output and GVA at constant prices is calculated by deflation method with the general CPI serving as deflator. The data are obtained from BPS (Economic Census, Sub Directorate of Demographic Statistics, Survey of Socioeconomic, and Sub Directorate of Consumer Price Statistics).

**Individuals Services of Serving Households; Activities Producing Goods and Services by Household Used to Fulfil the Own Needs**

This is section T which includes activities that utilize personal services to serve household services therein domestic workers (maids, security guards, gardeners, drivers, and so on), and other activities producing goods and services by household used to fulfil the own needs (therein
including agriculture, manufacturing, excavation, construction, and supply of water). Outputs at current prices for the services of individuals serving households/services of domestic workers (maids, security guards, gardeners, drivers, and the like) are obtained by multiplying the per capita expenditure for the services of domestic workers to the total population at mid-year, and the GVA is equal to the output produced because the consumption of domestic service workers is employer's household consumption expenditure. The Output and GVA at current prices are obtained from the results of BPS internal surveys. Meanwhile, the output of water supply is obtained from the approach of households using pumps and wells, both protected and unprotected wells. Meanwhile, output and GVA at constant prices, both for domestic workers' activities as well as activities to produce goods and services for its own use by households are obtained by using the method of deflation with the general CPI rate serving as deflator. Data sources of this section are BPS’ Survey of Socioeconomic, Population Census, Sub Directorate of Mining, Energy and Construction Statistics (Water Supply Statistics Publication), and Special Surveys by Directorate Expenditure Accounts.

**Activities of Extraterritorial Organizations and Bodies**

This is section U which include activities of international agency, such as the UN and its representatives, Regional Agency, etc., including the International Monetary Fund, The World Bank, World Health Organization (WHO), the Organization for Economic Co-operation and Development (OECD), the Organization of Petroleum Exporting Countries (OPEC) etc. Output and GVA at current prices are obtained from the cost approach derived from the financial statements of international agencies and other international extra. Meanwhile, the figures for constant output are obtained by the method of deflation with the general CPI serving as deflator rate. Sources of data are the financial statements of international agencies and other international extra headquartered in Indonesia and Sub Directorate of Consumer Price Statistics.

**2.2. Coverage and Calculation Methods of GDP by Expenditure**

**1. Household Final Consumption Expenditure**

Household final consumption expenditure (HFCE) covers all expenditures on consumption of goods and service over the period of one year. In this regard, the function of households is as final users of various goods and services available in the economy. Household is defined as an individual or a group of individual that share shelters. These individuals collect income, own assets and incur liabilities, consume goods and services collectively in the household, especially foods and shelter. So far, the estimation of household expenditure based on National Economic Social Survey (Susenas) still has the issue of underestimation (especially for non food and ready-to-eat food), therefore an adjustment is needed. Secondary data in the form of data or supply
indicator from various external sources are needed for adjustment. The result of adjustment is then used to replace the Susenas data. The replacement is applied at the level of commodities, commodities group or certain type of expenditure. This requires an assumption that the secondary data brings more representative estimation for figuring HFCE.

The result of the above calculation method is HFCE at current price. To get the figure at constant 2010 price, HFCE has to be defined as 12 categories of COICOP. HFCE at constant price is then calculated by deflating HFCE at current price with CPI of COICOP 12 categories. **2. Non Profit Institution Serving Households Expenditure (NPISH)**

NPISH is part of Non Profit Institution (NPI). According to its function, NPI are divided into NPI that serve household and NPI that do not serve household. NPISHs are institutions that provide goods and services for free or at the price, which is not economically significant for household members and the price is not controlled by government. Price, which is not economically significant means the price does not bring significant impact on the number of producers who are willing to provide their goods and services and significant impact on the quantity of goods and services to be purchased by consumers. With assumption that these institutions do not carry out productive economic activities, the expenditure of NPISH is similar to the output or production cost disbursed to perform serving activities on household, organization member, or certain group of community. Production cost of NPISH is similar with intermediate consumption plus primary cost (compensation of employee, consumption of fixed capital, and other tax on product). Production cost is cost paid by the institution for consuming goods and services as intermediate input and production factor, plus value of goods and services provided by either own production or from transfer. If the input is free, the value is imputed by reference from market price. Expenditure of NPISH is estimated with direct method by using the result of Special Survey on NPISH. Expenditure at constant price is calculated by summing up quarterly NPISH expenditure at constant price.

**3. Government Final Consumption Expenditure**

As a final consumer, government carries out the act of consuming goods and services. On the other hand, government also performs activities of investment as a producer. For government sector, its consumption expenditure size is similar with government output. Therefore, GFCE covers regular purchase of goods and services, payment of employee compensation, estimation of consumption of fixed capital, excluding receipt from the sale of goods and services produced by its production unit, which cannot be separated from government activities. The raw data used is the realization of routine and development expenditure budget from APBN (state budget). The data to estimate central government consumption expenditure are obtained from the Directorate
General of Treasury of the Ministry of Finance, whereas to estimate regional government consumption expenditure the data comes from provincial, regency, district and village governments, which are regularly collected by BPS. The size of fixed capital consumption is estimated to be 20 percent of the value of government gross fixed capital formation, whereas for the local governments is estimated to be 5 percent of total compensation of employees. The estimation of compensation of employees at 2010 constant prices is calculated by extrapolation, using the weighted composite index of number of civil servants as the extrapolator, whereas the intermediate expense is calculated by deflation, using general WPI excluding exports as the deflator.

4. Gross Domestic Fixed Capital Formation (GFCF)

GFCF is defined as acquisition and disposal of fixed assets on a production unit. Acquisition of fixed assets includes procurement, production, and purchase of new and used fixed assets from abroad (incl. overhaul, transfer-in and barter of fixed assets). The capital is appliances used for production process and usually has usable life more than one year. The terminology “gross” indicates that GFCF still contain depreciation. Depreciation or consumption of fixed capital figures out the decline of fixed assets value used on production process normally in one period. In general, fixed assets are classified into 4 groups, which are according to: kind of commodities, kind of industries, kind of institutions, kind of originating region. In compiling GDP/GRDP, GFCF is classified according to kind of fixed assets. The acquisition is less disposal of fixed assets, either new or used assets such as dwelling and non dwelling construction, machineries and equipment, cultivated assets, intellectual property products, transportation etc. The data used is derived from the calculation of the output of Industry of Construction by the Directorate of Production Accounts BPS, publication of Large and Medium Industrial Statistics, import statistics published by BPS. The method used in calculating fixed capital formation is the approach of the flow of commodities.

Gross Fixed Capital Formation of Construction

Construction as GFCF is the output of Industry of Construction, which is calculated by valuing the use of construction materials plus other costs in the form of services and primary input (gross value added). Including here is machineries and equipments directly attached on construction. To obtain the value of materials at the places of construction, it needs additional costs of trade margin and transport cost. The construction materials produced domestically consist of agricultural products for example bamboos and woods; mining products which are sand, stone, asphalt and others; and manufacturing products for construction purposes. Materials from import are generally in the form of manufacturing products. Ratios of the output of the materials trade
margin and transport cost for each commodity are based on special survey. Other costs which are estimated as the amount of percentage to total cost and the value added ratios are also obtained through special survey. Output of construction for a small maintenance is not a part of capital, therefore it excludes from the fixed capital formation.

**Capital Formation of Non-Construction**

Data on machineries and equipments, vehicles, other instrument, CBR and intellectual property products used as fixed capital formation, which are imported or domestically produced is provided annually by Directorate of Import Statistics and other sources. Value of machineries and equipments at the user side are obtained by adding trade and transport margin, and other costs related. Similar to construction materials, the commodities with multi use characteristic should be separated by applying ratios of capital to consumption goods obtained from special surveys. Capital formation of constructions at 2010 constant prices is estimated by output of this section at 2010 constant prices. The values are also estimated per component of the construction materials for constructions and some commodities produced by domestic industry are estimated by using extrapolation method, that is to use production index for each commodity. Meanwhile, construction materials from imports are estimated through deflation using WPI of construction materials from imports. Further, capital formation of machines and appliances for domestic industry at constant prices is estimated by extrapolation method using production index for each commodity as an extrapolator, and for the imported products is used a deflation method by using WPI of imports.

**5. Change in Inventory and Statistical Discrepancy**

Change in inventories is obtained by substracting the inventories at the end position to the beginning. Data on value of change in inventories which having the quantum data like estate, livestocks, forestry, mining and manufacturing come from the publication for each commodity in the related directorate of BPS –Statistics Indonesia. Meanwhile, change in inventories which have no quantum data comes from financial statements of establishments or enterprises. Estimation for change in inventories at 2010 constant prices which having the quantum data is used the revaluation and for the no quantum data is used deflation, which is WPI as the deflators. Statistical discrepancy is the excessive value between GDP by industry and GDP by expenditure.

**6. Exports and Imports of Goods and Services**

Exports and imports are transaction activities of goods and services between Indonesian people and other residents. The exports and imports include merchandise goods, transportation services, insurance, communication, tourism and other services. They also include direct purchases of goods and services by overseas/foreign tourists in domestic area and Indonesian people in abroad.
The data used are gathered from exports and imports statistics of BPSStatistics Indonesia; Balance of Payments supplied by the Central Bank and the International Monetary Fund (IMF); and from the Ministry of Energy and Mineral Resources. Exports and imports of goods are valued by free on board (fob). US dollar conversion to rupiah for international trade is differed. For exports, it uses an average of buying US dollar (from Central Bank) weighted by nominal transaction of monthly exports, while imports uses an average of selling US dollar weighted by monthly nominal imports. Exports and imports of goods are from the annual publication of BPS-Statistics Indonesia, whereas exports and imports of services are obtained from Balance of Payments published by Bank of Indonesia.

7. Net Factor Income from Abroad
The net income covers income arisen from capital and net interest. The net income is a different income of inflow and outflow to abroad. The basic data is from the Bank of Indonesia, which is Balance of Payment in US dollar term. The incomes both inflow and outflow have been converted from US dollar to rupiah by using conversion rate of respective export and import at weighted average as explained above. Estimation for the 2010 constant prices uses deflation method, which applies price indices of per unit of export and import as deflators.

8. Net Taxes on Production and Imports, and Consumption of Fixed Capital
Net Taxes on Production and Imports include taxes on production and imports received by central and regional government less subsidies on production and imports spend. The Data are based on realization of receipt and disbursement of central and regional government from Ministry of Finance and BPS – Statistics Indonesia.
Further, the consumption of fixed capital is calculated by estimating consumption of fixed capital in corporations, government and households.

B. Challenges
The challenge faced in calculating GDP, especially quarterly GDP data are not fully available before the release of the GDP. Example: Data quarterly financial report the company went public, published after the release of the GDP. Challenge greater availability of data in the data services in BPS where there are several categories of services that do not have subject matter. Surely this is an obstacle for calculating GDP.

C. Quality Practices
In terms of quality assurance results of the data generated, we check the data consistency through discussions with related subject matter in each quarter.
II. Methods for rebasing GDP, areas of concern and possible solution

A. Current Practices and Status

BPS has change the base year in the preparation of the Gross Domestic Product (GDP) from 2000 to 2010. The change was made because over the last ten years there has been a change in the structure of the national economy as a result of the influence of the global order and locally.

The change provides among other benefits include the illustrated the shift of economic structure and economic growth. In addition, the base year changes will also improve the quality of data generated GDP. Further than that, it can makes the GDP data internationally comparable.

GDP base year 2010 were prepared based on the System of National Accounts (SNA) 2008. SNA 2008 is the international recommendations on how to make the size of the economic activities according to standards based on the raw balance economic principles.

Implementation of SNA 2008 in the preparation of Indonesia's GDP base year 2010 include:

1. Concept and Scope

   Cultivated of Biological Resources (CBR), mineral exploration and evaluation, original product in the works of art and literature, treatment and database software, and licenses as Gross Fixed Capital Formation (GFCF).

2. Methodology

   Improved methods of calculation of output of bank from "Imputed Service Bank Charge (IBSC)" into" Intermediation Financial Services Indirectly Measured (FISIM)".

3. Valuation

   The value added of the undertaking assessed use a base price.

4. Classification

   Update classification use KBLI 2009 (ISIC rev. 4) and KBKL 2010

B. Challenges

In conducting the new base year change, there are some things that are also experiencing changes, among others, the concept and scope, methodology, valuation and classification. Original industrial classification used is KBLI 2005 and then turned into KBLI 2009. Meanwhile, the benchmark is used into SNA 2008. In the face of changing standards and classifications are needed understanding for the preparation team of GDP. At the beginning the idea of the new base year change, ability and understanding possessed by the preparation team...
of GDP is still very low. However, it is to be handled by conducting training of ABS were very helpful the compilers of GDP in understanding the changes that must be accommodated.

C. Quality Practice

The next emerging challenges are still some agenda SNA 2008 which has not been able to be implemented, such as R&D. So far we've done an in-depth study R&D in 2015 on companies that do R&D in several provinces in Indonesia. However, the results cannot be obtained in-depth study of how the value R&D is in Indonesia. Therefore, the future required a special survey to be able to capture the value R&D in Indonesia.

III. Quality practices and issues in national account

A. Current Practices and Status

Condition that occurs at this time, Indonesia has been implementing SNA 2008 in the calculation of GDP and other economic indicators. However, as has been stated previously that the changes to the SNA 2008 has not been able to be implemented in full. Some of the changes that have not been accommodated include the R&D and tally output of financial institutions other than banks by the method of FISIM.

In the SNA 1968, the costs incurred by a business / company to conduct R&D included as consumption between the business / company. Meanwhile, in the SNA 2008 results included R&D capitalized as GFCF. Study in-depth about R&D in several private companies in Indonesia already been done in 2015.

The results obtained in the field in broad outline shows that the majority of companies have not made R&D as part of the development of their business activities yet. On the other hand, the activity R&D recognized companies are not entirely the same as that referred to in the SNA R&D 2008 and Frascati Manual (FM). Companies recognize that market research, feasibility studies, testing laboratories, and the like as R&D, whereas according to SNA 2008, such activity is not an activity R&D. Plan ahead we will conduct an in-depth study continued to learn more about how the R&D recording in a company and matters relating to R&D. Plan ahead we will do is conduct an in-depth study continued to learn more about how the recording R&D in a company and matters relating to R&D.

B. Challenges

In the course of the volatility of the new base year change, of course this is not an easy task for us. We had to work hard to catch up with the world in the calculation of GDP. With all
the efforts we have made and the cooperation of all the editorial team of GDP, we've been able to be quite successful in implementing the SNA 2008. However, we still cannot be satisfied with the results that we have achieved because there is still a lot of "homework" that we have not resolved. There are still many changes to the 2008 SNA that we cannot yet implemented. Moreover, not all members of the editorial team of GDP has the same skill in the method of calculating GDP. This is a great challenge for us to continue to refine the calculation of GDP.

C. Quality Practice

With the SUT 2010, we did a benchmark GDP, so we define in 2010 to the base year. We want to implement the recommended SNA 2008 with its CVM, where the year t-1 as the base year. But we have not been able to implement it. Even the current state of the SUT 2011 is still in process

Reference
