Improvement in Input-Output Survey in 2007 and Some Pictures in the Future

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From benchmark input-output table 1987, the job on compiling input-output table in China entered into a regular course. NBS compile benchmark table every 5 years, and in the midpoint between benchmark years we compile annual table. Up to now we also had compiled benchmark tables in year 1992, 1997 and 2002, and annual tables in year 1990, 1995, 2000 and 2005.

2007 is fifth benchmark year since 1987; we should have input-output survey. NBS had finished design of *input-output survey project 2007*, and survey task have assigned to provinces and also some trained jobs were done. Now statistical staffs in the provinces are preparing to do training jobs.

In this paper we introduce contents mainly into three parts. The first part is some instances of *input-output survey project 2007*, includes main contents and some character of the project. The second part is about some problems and challenges in the compiling of input-output table in China. The third part is some assumption of improving our job.

□. Some instances of *input-output survey project 2007*

1. Revise of the *input-output survey project 2007*

Input-output survey project 2007 is base on the one of 2002; revise it according the changes of enterprise finance policy during this period and survey system of NBS. We follow three principles below:

(1).First we study other countries experience on input-output survey and their advantage; combine in currency period the enterprise statistical situation, determine the *input-output survey project*.

(2).Second lighten burden of the enterprise. The project complies by the information from enterprise accounts and statistics, to lighten its burden of data finding and improve the data quality, designs the questionnaire. And the purpose is to make the index easy to understand, convenient to collect data and fill the forms.

(3).Third accommodates statistics reform. According to reform of industry survey, price index survey and the demand of GDP accounts, we will strengthen input-out survey relations with other survey and mate with each other; enhance the function of input-out survey in the national accounts and statistical survey system.

2. Main contents of *input-output survey project 2007*

There are several components in the *input-output survey project 2007.*

(1).Classification of commodity sectors in input-output table

Classification of commodity sectors in input-output table 2007 constitute according to *classification of national industry* （GB/T 4754-2002）, and we also consider the demand of national accounts and macro-economy analyses. It is two levels in the classification. The level I has 42 sectors, the primary industry only has one commodity sector, in the secondary industry, manufacturing parts are divided into 24 commodity sectors and construction industry composes a commodity sector itself, and tertiary industry are divided into 16 commodity sector. The level II has 144 sectors, the primary industry have 5 commodity sectors, in the secondary industry, manufacturing parts are divided into 89 commodity sectors and construction industry have 5 sectors, and tertiary industry are divided into 46 commodity sector.

(2).Survey forms to the enterprise

Survey forms to the enterprise constitute on the factor of finance policy, accounts system, statistics system and the manage situation of the enterprise. In the project 2007, we have 52 survey forms; they deal with input composing of manufacturing, construction industry and service industry, when enterprises of these industries produce product or supply service. Also to survey structure of six composite indexes in period costs, such as transport fee and traveling expenses etc., and fix-asset investment composing.

□Industry

There are seven survey forms to the industry enterprise, include: *large & medium industry enterprise main manufacture make cost composed survey form, large & medium industry enterprise manufacture make cost composed survey form, small industry enterprise make cost composed survey form, industry enterprise raw material source survey form, industry enterprise manufacture first sale direction survey form, main industry manufacture sale survey form, industry enterprise under-level cost and fee survey form.*

These forms separately investigate manufacturing input when industry enterprise product all sorts of productions, and the source of raw material and first destination of production in 2007. Also include the sale amount and sum about 36 industry productions in the over-level industry enterprise.

□Construction industry

There are three survey forms to the construction enterprise, include: *construction industry enterprise business cost composed survey form, construction industry enterprise period cost composed survey form, construction industry enterprise profit form.*

These forms separately investigate component of major operation cost in the construction enterprise, the component of overhead expenses and finance fee in the year 2007, and the profits of the enterprise.

□Service industry

Survey forms of the service enterprise have 14 types and 35 forms according to the trait of activism and the difference of account policy.

Survey forms for the service industry mainly include the same contents, such as component of major operation cost, period cost and profit. Also there is a survey form for the component of expenditure of administration and facilities units.

□Typical survey forms

There are 6 typical survey forms in the *input-output survey project 2007*, include typical survey forms of transport margin, traveling expenses, administrative expenses, amortize of low priced and easily worn articles, packaging cost and R&D charge.

The purpose of typical survey is to obtain the detail expenditure items of these expenses. So the total expenses in the financial statements could be broken down, to meet the demand in the input-output accounts. Survey objects of the typical survey are some enterprise of industry sectors, construction sectors and service sectors.

□Survey forms for fixed asset investment

Coverage of this survey is all items which investment sum equal or over 30 million Yuan, and samples some items below 30 million Yuan. These items include construction projects, fix project, all sorts of equipment, purchase of apparatus and other fixed asset investment. It mainly focuses on the component of these items.

□Survey forms on railway transport and post service

Input-output survey on railway transport and post service in 2007 is charged with separate by Ministry of Railway and State Post Bureau. The basis of that survey forms are accounts statement, statistical data of their own department, material declaration form and some original voucher, then fill in the component of input and gather the information report to NBS.

(3).Use list of raw material for industry sectors and construction sectors

In the project of 2007, we add the use list of raw material for industry sectors and construction sectors to reflect all goods consume during the process of manufacture, such as raw material, fuel and power. We nominate them as *use list for industry enterprise* and *use list for construction enterprise*, and they separately include 95 commodity groups and 39 commodities, and 85 commodity groups and 27 commodities.

3. Some characteristic of the project 2007

There are some changes and characteristics in the national input-output survey project 2007 compare with project 2002.

(1).Classifications of input-output sectors is more detail. In input-output table 2007 the sectors will be 144, and more than 21 sectors in table 2002, in which 6 sectors are added in secondary industry and 16 are in service industry. The sectors classification are base on *Industry Classification of the National Economy*(GB/T 4754-2002）, and consider the continuity of sectors classification, as well as the demand of national accounts and macro-economy analyze.

(2).Constitute use list for the enterprise survey forms. We constitute use list of raw material for industry sectors and construction sectors according to difference of raw material consume in the process of industry sectors and construction sectors, and also reference other country experience. The use list meets the demands of reform in compiling PPI of manufacture production, and adapts some focus items on power consume in China. It is also a try for the reform in the input-output survey, and accumulates experience on compile use table with the commodity flows method by using survey information directly.

(3).Concentrate contents on over-level industry enterprise survey forms. It would only include component of manufacture cost in the survey forms for over-level industry enterprise in the project 2007 to accommodate the reform of statistic. NBS will develop cost and fee survey of over-level industry enterprise in annual industry survey from 2007. To avoid overlap, input-output survey in 2007 for over-level industry enterprise will just focus on manufacture cost but no involved in period fee of the enterprise. We can get those information from industry annual survey when compile input-output table 2007.

(4).Adjust survey forms for medium-sized industry enterprise. *Partition of differentia among large, medium and small enterprise in statistics* issued in 2003,

enhance the standard of medium-sized enterprise, and many enterprises which belong to large-sized in the past incorporated into medium-sized. And the sector classification of input-output table is more detail than before, so the medium-sized enterprise will produce more commodities in more different sectors than before. To improve the representation of the input-output survey on industry sectors, require the medium-sized enterprise to fill the component of manufacture cost by the input-output sectors.

(5).Add some survey items on inflow and outflow between provinces. To meet the demand of compiling input-output table for provinces and conceive of compiling national non-competition input-output table, we add two survey forms "*industry enterprise raw material source survey form"* and *"industry enterprise manufacture first sale direction survey form*," to reflect the inflow and outflow between province, and cancel the survey forms "*large industry enterprise import commodity source survey form*" in project 2002.

(6).Intensify the survey of service enterprise. We add 8 survey forms according to the characters of service industry about the road transport, water transport, air transport, computer services, accommodation, business services, travel agency and recreation services base on the project of 2002, heighten the pertinence of the services industry.

(7).Add some items on typical survey. To decompounds some synthesis index in the period cost, we add 3 typical surveys about "amortize of low priced and easily worn articles", "packaging cost" and "R&D charge" in addition of typical surveys about "transport margin", "traveling expenses", "administrative expenses" in the project 2002.

.Some issues and challenges of China input-output table compiling

1. The distinguish of compiling method between China and which recommend in 1993 SNA

The 1993 SNA recommends that the statistical supply and use tables should serve as the foundation from which the analytical input-output tables (include symmetric products table and symmetric industry table) are constructed. And supply and use tables are data-oriented in nature; the symmetric tables are always constructed from having made certain analytical assumptions, usually from existing supply and use tables.

In China we compile supply table and symmetric products table first, then

construct use table in certain analytical assumptions. The main reason for this method used in China is that the foundation of statistics in China can not meet the requirement of commodity flows method recommend in 1993 SNA.

2. The new demand form our user spur us to improve on the compile of input-output table

Many researcher concerns more and more on the trade relation among countries for the economy globalization and at the same time position of China in the world trade are more important. And there is rather high proportion of processing trade to the whole foreign trade in China and the amount are so big too. Trade frictions aim at China are heightened, researchers expect NBS would provide non-competition table, to describe the economy relation more detail between China and other world and provide data support to explain the trade situation of China. But we did not compile non-competition table so far. The new demand and new trade circumstance, spur us to compile non-competition input-output table as early as possible.

Another goal for us is compile sequence input-out table with compare price to study the quality and potential in China economy growth.

3. The problems in the national accounts of China require us to reform the method of compiling input-output table.

We face the discrepancy between GDP base on production (or income) and expenditure method, and also data resource lack in the quarterly GDP accounts. These problems also require us to reform the input-output accounts to provide a balance framework for GDP estimate.

On condition that we adopt the method recommend in the 1993SNA to compile supply-use table, we may integrate GDP estimate by difference methods under the SUT framework to eliminate the gap among them. In the quarterly GDP estimate, now we just get quarterly accumulative total, for the reason in data source. By compile SUT, we may get the information from it to calculate separate quarterly GDP through model.

□. Assumption on improving our job on compiling national input-output table

We will do some research on several fields in the next years to enhance the compiling of input-output table in China.

1. We will pay attention to the experience on compiling input-output table by commodity flow method during the process of compiling input-output table 2007.

And quest for how to exert the framework function of input-output table in national accounts.

In the 2007 survey of input-output, we add some items for the commodity information on its supply and distribute in the manufactory cost and construction cost survey. Establish the condition to take a try to compile input-output table by commodity flows.

2. From 2007 to 2008, we will summarize some method in other countries, and provide some advice on statistical reforms. And at the same time we would use the information from the second census and data from input-output survey of 2007 about the commodity output and its distribution, have a try to use commodity flow in some parts when compiling input-output table 2007.

During 2008 to 2009, we may attempt to compile input-output table 2008 in the new methods base on the input-output table 2007 and data from census, then check with the data estimate by other source, such as GDP by production and expenditure methods.

3. According to the results from 2007 to 2009, we may bring forward the reform project on how to compile the table 2012. And in 2012, we may achieve the goal of reform on input-output accounts then access the target that input-output table acts as the framework of national accounts on estimate quarterly GDP and annual GDP.