

Abstract

Preparation and setting out the national accounts for Iran based on the System of National Accounts 1993 has been performing since 1994 in the office of Economic Accounts, Statistical Centre of Iran¹.

Currently, the annual time series of national accounts statistics in current and fixed prices has been published for 1991-2012. These statistics include the value added of 72 industries, household final consumption expenditures, government final consumption expenditures, capital formation, export, import, compensation of employees and quantitative macroeconomic aggregates in the form of Health Account, Information Communication Technology, Government Financial Statistics and Input - Output Table, ..., all based on the international standard classifications like ISIC, CPC, COFOG, COICOP,

The final aim in the Office of Economic Accounts, Statistical Centre of Iran is expansion of national accounts in various dimensions (regional, time and industrial dimensions) due to widespread the use of national accounts statistics in economic policy and planning.

This office has been calculated the regional accounts for 32 provinces of Iran since 1999, quarterly accounts since 1991.

Now, the main activities in the Office of Economic Accounts, statistical centre of Iran are estimating annual and quarterly gross domestic product using product and expenditure approach in current and fixed prices and also calculating regional gross domestic product using product approach in current prices.

This report is a brief introduction on how we calculate the value added of 5 industries (defense, research and development, financial services, owner occupied dwellings, non- observed economy) in Iran for our annual national accounts.

¹ Statistical Centre of Iran has been prepared national accounts since 1974.

Part I: Defense Services

Government units are unique kinds of legal entities established by political processes that have legislative, judicial or executive authority over other institutional units within a given area. Government is a supplier of some services which nobody can provide them and generally have no markets. Defense services is one of them.

Coverage

Defense services include management, supervision and performance of the defense works and defense forces (army, marine, air ...) and is classified and defined in 7522 by the ISIC Rev. 3.1.

Resource

Considering that the annual budget has detailed information on government organizations and their activities; separating organizations' expenses and selecting defense expenses among them by using ISIC Rev. 3.1, 7522 code content.

Calculation Method

Due to having no market for the government services (like defense services) to define appropriate prices for them, government's output is valued by non-market output which is the sum of intermediate consumption, compensation of employees and consumption of fixed capital.

To calculate intermediate consumption and compensation of employees, we use the share of intermediate consumption and compensation of employees in chosen government organizations related to defense services in 31 provinces of Iran which are calculated from agreement forms between these government organizations and Management and Planning Organization. Using these shares (and checking them with coefficient of input – output table 2000) on expenses of defense services give the intermediate consumption and compensation of employees of this sector in national accounts.

Consumption of fixed capital of defense services (divided to construction and machinery) is a proportion of government's consumption of fixed capital. This proportion is equal to relative share of capital assets of defense services in the total of these assets in government sector.

Government consumption of fixed capital (divided to construction and machinery) calculate by computer software with a time series of capital assets acquisition data and depreciation coefficients.

The difference between output and intermediate consumption is the value added of defense services sector.

Part II: Research and Development

Research and Development is an activity undertaken for the purpose of discovering or developing new products, including improved versions or qualities of existing products, or discovering or developing new or more efficient processes of production.

This definition of research and development is accepted in Iran's national account which is divided into two parts: government research and development and private research and development.

A: Government Research and Development

Coverage

Creative work of natural, medical, agricultural, engineering, social sciences and humanities fields in the government organizations are related to research and development sector. The aim of these activities is to increase human knowledge and introduce the new usage.

In Iran according to international standard industrial classification (ISIC) Rev. 3.1, this sector is classified in 7310 and 7320.

Resource

Considering that the national budget has detailed information about government organizations; so by using ISIC Rev. 3.1 separating research and development expenses among others.

Calculation Method

Like other government activities, the output of research and development is calculating for non-market.

The steps of calculation are exactly like defense services for calculating intermediate consumption, compensation of employees and estimation of consumption of fixed capital.

B: Private Research and Development

Coverage

It is the same as government research and development but in private sector.

Resource

A survey which has been performed in 2006 and annual CPI data are used for estimating the value added of private sector's research and development.

Calculation Method

Unlike government research and development's output which is calculated for non-market, private research and development's output is calculated for market. By using CPI index that is related to this industry and also the data of the mentioned survey, input and output of this sector is estimated.

Part III: Financial Services

Financial intermediation services indirectly measured (FISIM) is an indirect measure of the value of financial intermediation services provided but for which financial institutions do not charge explicitly.

Coverage

It is a part of financial services due to above definition.

Resource

Using public and private banks, credit institutions and post bank data to calculate the aggregation of this activity in economy.

Calculation Method

Calculation method of FISIM classified by chosen groups (Household, Government, Industries, Rest of the World and Banking System) is as below:

- 1- Operational receipts minus operational payments of banking system (by using their legal accounts) is considered as total FISIM.
- 2- Assets of 5 mentioned groups at banking system and their liabilities to this system, separately, (by using summary table of banking system's assets and liabilities) is calculated.
- 3- Subtotal of assets and liabilities of each 5 mentioned groups and total of them and then the ratio of each subtotal of total are calculated. (PROPORTIONS)
- 4- Share of economic sectors (Agriculture, Manufacturing and mining, Construction, Trade and Services) in the facilities extended by banks are used from bank accounts. (RATIO)
- 5- Multiplying PROPORTIONS by FISIM led allocated FISIM to each of 5 above groups.
- 6- Multiplying allocated FISIM to Agriculture, Manufacturing and mining, Construction, Trade and Services by RATIO led allocated FISIM to each economic sector.
- 7- At the end, the allocation of FISIM to industries is as follows:

$(\text{Output of each activity of agriculture} / \text{Total output of agriculture}) * \text{value of FISIM}$
(which is calculated in step 6)

Allocating FISIM to other activities in national accounts is the same as agriculture industry.

Part IV: Owner Occupied Dwelling

Coverage

Owner occupied dwellings include dwellings which are owned by households that live in them. These dwellings are fixed assets that their owners use to produce housing services for their own consumption. In the international standard industrial classification (ISIC) Rev. 3.1, this sector is classified in 7011.

Resource

Household Expenditure and Income Survey which is performed annually.

Calculation Method

The sum of value of codes in part 04 of household expenditure and income survey (mentioned below) is used as owner occupied dwellings output:

- Imputed rent of owner occupied dwellings (main home);
- Imputed rent of owner occupied dwellings (next homes);
- Imputed rent of dwellings occupied versus work;
- Imputed rent of free dwellings;
- Imputed rent of other related dwellings.

Intermediate consumption is calculated by multiplying the ratio of intermediate consumption to output from input-output table 2000 in output which is mentioned above.

Part V: Non-observed Economy

In the national accounts of Iran, this sector is estimated just for manufacturing sector. This industry consists of three groups of firms as bellows:

- Firms which their data are not collected in the manufacturing survey.
- Firms which their data are not collected due to their illegal, unhealthy or tax evasion commodities and activities.
- Military manufacturing activities' data are not clear due to security issues.

Resources

Manufacturing survey and input-output table 2000 use to estimate this sector.

Calculation Method

This sector in Iran's national accounts is just calculated for three groups of manufacturing industry (Food and unclassified products of industries) and military services sectors.

For food industry, multiplying the result of output minus input value of this sector in input-output table 2000 and the growth rate of food industry output resulting from manufacturing survey for each year is used to estimate the output of this part.

Military Manufacturing industry's output is its income which comes from budget for each year.

Unclassified products of industry, multiplying the result of output minus input value of this sector in input-output table 2000 and the growth rate of unclassified products of industry output resulting from industry survey for each year is used to estimate the output of this part.

For all of them, intermediate consumption is calculated by multiplying the ratio of input to output from input-output table 2000 in their outputs.

Quality Assurance Framework

Statistical Centre of Iran has been started its work on the quality assurance framework since 2006 by a committee which focuses on content of its statistical surveys. This committee changes during years which led into a supreme council of quality in March 2015. It has 3 subcommittees (statistical processes, statistical outcomes, public organizational framework of statistical system).

Last year this committee investigated NQAF (National Quality Assurance Framework) and COP (European Statistics Code of Practice). By using these manuals it prepared a draft for quality assurance framework in Statistical Centre of Iran.

Also by using DQAF (Data Quality Assessment Framework), the committee provided a framework on national accounts which its table is mentioned below

The indices are used as a pilot for national accounts 2011. The Office of Economic Accounts will evaluate this pilot study and finalize indices for further use.

Quality Dimensions	Element	Indicator	Principle Issue	Recommendation	Is the recommendation respected?
Methodological Soundness	Concepts & definitions				
	Classifications				
Accuracy & Reliability	Resources				
Service Ability	Periodicity & timeliness				
Accessibility	Data accessibility				

Challenges

- Lack or inadequacy of statistical data;
- Secrecy or inaccessibility of some statistics and the necessity of their estimation;
- Indistinctive of research and development activities in the firms and the difficulties of activities assignment to that;
- Inevitability of using indirect, approximate or in some cases old and out of date data;
- Insufficient attention to create data and revision of estimation method due to high expenses of collecting and processing data;
- The shortage of registered data in all activities;
- The deficiency of suitable surveys;
- Incomplete coverage of research and development units.