The Product of Industries in Israel, Sources, Methods and Transition to Constant Prices

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Introduction

This paper introduces users to the production approach methodology for compiling Value Added in Israel's National Accounts. The analysis of the GDP on the basis of industries provides a broader picture of both current and historic economic development, in a more comprehensive way than other indicators. In addition, the analysis of industries data allows better treatment of the more dynamic behavior of certain industries and various trends accruing in the economy in the observed period. It is very important to comply with the transparency regulations, which are a main factor in the reliability of the National Accounts. To achieve this goal, users should be provided with thorough documentation of the work methods, data sources and the ways the data are processed. The level of transparency affects the level of credibility and has special importance since regular updates and revisions based on research and international guides are conducted for National Accounts. I would like to thank all the directors of the Macro-Economic Statistics Department who assisted in explaining the issues under their responsibility.

National Accounts

National Accounts (NA) present domestic economic activity in a broad and detailed manner, as well as the interaction between different economic factors and the connection between the local economy and foreign markets. The System of National Accounts (SNA) is composed of a sequence of macro-economic accounts, based on internationally accepted terms and definitions as well as unified definitions and accounting rules (SNA2008).

The main aggregate in the SNA is the Gross Domestic Product (GDP), which is the principal indicator for evaluating and reflecting the scale of the domestic economic activity. The GDP is a single figure representing the overall output (or value of production) produced by the enterprises, the general government sector, the non-profit institutions serving households, and the households within the domestic economy in a given timeframe, regardless of the type of the product and services produced and under the assumption that production was made within the economic boundaries of the state or region.

National Accounts in Israel

The Israeli GDP and Value Added are compiled using two different methods:

- The expenditure method, which gives the official GDP of the state of Israel: the sum of domestic final consumption, gross fixed capital formation and export surplus (or deficit).
- The production approach: the sum of the Value Added by all domestic producers, in addition to net taxes on products (such as VAT). This method allows the presentation of the GDP of all industries in the economy by sectors and industry classifications.

National economic statistics were initially based on administrative sources, such as data obtained from the Central Bank and the Ministry of Finance, foreign trade from Customs, etc. This was prior to the conduct of business surveys in the ICBS. Additionally, the official GDP from the expenditure method is based on more up-to-date sources than those of the business surveys. The third way to measure the GDP and Value Added is the Income Method, which is used in a small scale, mainly for the purpose of calculating the production of startups and general government services.

The quarterly NA aggregates and production components calculated using the expenditure approach are made public about 45 days after the end of each quarter and are updated about 30 days later after additional information sources are obtained. A third update is made about a month later; however, the impact is usually minor. During the current year, only the data for that year are updated. The extensive data produced is published on the ICBS website and is regularly sent to the OECD. The quarterly aggregates are calculated and presented in current prices, the previous year's prices, and prices chained to 2015. The chained quarterly aggregates are seasonally adjusted using the X13 program.

The quarterly Value Added of the various industries is published only in the second estimate of NA, about 75 days from the end of each relevant quarter. It is presented by the main economic activities in accordance with the 2011 Standard Industrial Classification of All Economic Activities and in the framework requested by the OECD.

Each year, around mid-August, the ICBS publishes the revised and updated time series of the NA, following the integration of additional data gathered from newly available annual data produced by various sources – surveys, administrative data and methodological updates.

In this paper I aim to present in brief the methods we use for the calculation of the Value Added of the various industries in Israel. We have gradually advanced the production approach for compiling the GDP in Israel in the last few years, although there is room for more efforts to be made to improve the quality of the economic aggregates made available to the public.

Table 1: Main Macro-Economic Variable

Israel, USD Million, Constant Prices & PPPs, OECD Base Year, Annual Changes					
	2018	**2019**	**2020**	**2021**	**2022**
Final consumption expenditure of households	3.5	4.1	-8.1	11.1	7.7
Final consumption expenditure of general government	4.0	3.0	2.8	4.2	0.7
Gross capital formation	6.9	4.9	1.2	12.6	12.4
Exports of goods and services	5.7	3.7	-2.7	14.6	8.3
Imports of goods and services	7.2	3.2	-8.1	20.6	11.7
Gross domestic product	4.1	4.2	-1.9	8.6	6.5
GDP per capita	$38,392	$39,230	$37,819	$40,405	$42,190

Value Added of the Various Industries in Israel: Methods and Challenges

The National Accounts Sector in the ICBS implements the production approach for compiling the GDP. The Value Added is the difference between the value of products and services produced by institutional units and the value of the intermediate consumption used in the process of production.

The Sector's employees gather data from surveys, administrative data, financial reports and the statistical processing of other units in the ICBS. They then compile the Value Added of specific industries, make methodological adjustments according to internationally accepted standards, calculate aggregates in constant prices using the appropriate indices and finally disseminate the economy's Value Added data in accordance with the Standard Industrial Classification of All Economic Activities 2011 (based on ISIC Rev. 4).

The main challenges faced when compiling the GDP by production approach are the following:

- Reducing the time table for obtaining the findings of annual surveys, mainly the Survey of Industries and Input-Output Table;
- Increasing the frequency and availability of the annual Supply and Use Table;
- Development and integration of more CPIs and alternative indices;
- Development, adoption and implementation of more advanced digitalized tools and processes.

The Survey of Industries as the Main Data Source for Production Accounts of the Business Sector

The Survey of Industries (published most recently with data for the year 2020) is conducted for the purpose of estimating the outputs and distribution of inputs in the business sector. The survey's population includes all active dealers in the business sector.

In 2020, 22,503 businesses that reported revenue to the Tax Authorities were sampled, which comprise 3.9% of the total survey population.

The survey is based on the following sources: Revenue data reported by businesses to the VAT authorities, the number of employee jobs reported by employers to the National Insurance Institute, and analyzing physical and digitalized financial reports.

The Value Added derived from the Survey of Industries is done outside of the framework of the National Accounts. However, it complies in the most part to the accounting rules and guidelines accepted in the SNA, such as the classification of industries and the way economic aggregates are recorded in the production accounts. The Survey's data constitute the output and the Value Added of most of the business sector industries in Israel, except for Agriculture and Construction.

Transition from Business Financial Accounting to National Accounts

The Value Added (VA) obtained from the Survey of Industries includes only the business sector, whereas the report of National Accounts consists of the Value Added produced by all the sectors in the economy including the general government and NPI (Non-Profit Institution) sectors. These two constitute a large portion of the economy, including all government ministries, the local authorities, corporations, national institutions, the defence system, most of the educational system, and health system. The value of production of the general government sector and the NPIs amounted to about NIS 258 billion in 2022, about 15% of the total Israeli GDP in that year.

In certain industries of the business sector, different sources, other than the Survey of Industries, were used for the measurement of the GDP. This was due to the unique structure or activity of those industries, or the availability of more reliable sources. Construction and Agriculture were prominent examples of this.

The VA derived from the Survey of Industries is calculated in nominal values, as the common practice in business financial reports presented to the public and to the tax authorities. A significant challenge in preparing National Accounts is to present the development over time of the VA by industry in terms of quantity – the growth rate and the GDP price changes. Additionally,

National Accounts must provide the public and policy makers with quarterly assessments of economic development, whereas the survey is presented in annual terms.

A unique characteristic of our work, less familiar to the general public, is the methodological adjustments to the National Accounts, in accordance with the latest version of the SNA (currently SNA2008). Their purpose is to allow a broad and uniformed coverage of all production activities defined by the production boundaries according to international agreements. For example, certain illegal production activities, or those not reported to the tax authorities, are not reported in the Survey of Industries because they are not represented in the financial reports. According to the SNA, such activities should be evaluated and included in the economy's production accounts.

It is possible to summarize the VA compilation procedures from the Survey of Industries to the comprehensive official GDP published by National Accounts, as follows:

- Using prices indices and quantity change estimates to calculate the VA at constant prices.
- Adjustments of taxes on production in order to be consistent with the administrative data recorded by the Ministry of Finance and minimize the negative effects of using CPIs (which include indirect taxes).
- Adjustments to the levels and changes of fixed capital formation as they are recorded in the NA.
- Broadening the sectorial coverage to the General Government Sector and Non-Profit Institutions (NPIs)
- Adjustments to the coverage of the unobserved economy.
- Methodological adjustments to the SNA2008.
- The use of additional data sources other than the Survey of Industries for compiling the VA of certain industries.
- Adjustment made to be consistent with the Input-Output Table, Supply Tables and GDP compiled by the expenditure method.

Adjustments to the National Accounts

This part will briefly present the main adjustments made to the National Accounts, by which means the calculated Value Added complies with the coverage, definitions and methodology described in the SNA. After this procedure is accomplished in the Product by Industry Sector, the product time series may then be referred to as the official VA of Israel. The scale of such adjustments amounts to about 10% of the total economy's VA and this figure has a significant influence on the changes in prices and on the growth rate of the various industries, compared with the initial calculated VA.

The Classification of R&D Expenditure as an Asset and Fixed Capital Formation that Increases the GDP

Research and development (R&D) is defined as a self-executed, systematic and continuous activity intended for the purpose of establishing new scientific or technical knowledge. This includes knowledge concerning human beings, culture and society, or the development of new implementations for existing scientific or technical knowledge. Prior to the implementation of SNA2008 guidelines for National Accounts in Israel, in 2013, expenditure on R&D was only partially recorded in the NA as Fixed Capital Formation (mainly patents and parts of the activities of designated R&D departments), whereas most of it was recorded as current expenditures (inputs) of enterprises or other organizations engaged in R&D.

R&D output includes the value of the economy's R&D production (including international development centers operating in Israel), as well as R&D production for own-use of other industries. The estimated aggregates are deflated according to the wage indices of the R&D industry (Division 72). The R&D fixed capital formation estimates are based on the following sources of information: Surveys on R&D in the business sector, general government and non-profit sector expenditures for R&D activities, and the survey of imports and exports of services.

The consequent upward revisions made to the production accounts of the economy’s industries for both output and product are equal. This assumes that the production inputs used for R&D production were classified and registered in the Survey of Industries. The total addition to the output of the business sector industries was about NIS 33 billion in 2022, about 2.1% of the total economy’s VA.

Imputation for Output and the Product of Startups

The unique operating characteristics of startup companies comprise a challenge for the proper entry of their economic activity in the NA. Companies in their development stage, operating on investors’ funds, are characterized by insignificant or even a complete lack of revenues from sales and by a relatively small number of employees. This may cause their under-representation in the economy’s overall statistics and incomplete estimations.

According to the principles of the SNA, if it is not possible to estimate the output at the price it is sold in the market, the value of the output must be estimated as a sum of the production costs, depreciation expenses, tax on net production and the estimate of the operating surplus. Our measurement model imputes the output of the "immature" companies based on the scope of capital raising and an estimate of the operating profit. During the companies' product development period, their output is defined as an in-process inventory

accumulated throughout the production period. The inventory of startup companies is also recorded on the uses side of the product as part of the economy's gross fixed capital formation. The sale of the startup companies abroad is recorded as the export of the services of startup companies in Israel's balance of payments, and at the same time the amount of the sale is deducted from the addition to the inventory contributed by the startup companies that raise venture capital (neutralizing effects on the GDP from the uses side). The data is translated into constant prices using the wages data of Division 62 (Computer programming).

Convergence to the Taxes on Production According to Government Reports

The production data and the VA derived from the annual Survey of Industries are recorded in base prices and include the taxes on production paid by the producers less the subsidies on production received from the government. Taxes on production include all taxes imposed on production activities, excluding taxes on products. They consist of payroll taxes, business registration fees, pollution taxes, municipal property tax, etc.

The General Government Sector at the ICBS regularly provides an extensive, broad and detailed report on the total taxes and subsidies in the economy, in accordance with the Government Financial Statistics (GFS) manual of the International Monetary Fund (IMF), which outlines the way governmental financial activities are recorded. Therefore, the surplus in production taxes that exists between the two sources of production taxes (administrative data and the survey data) is credited to the industries according to the grand total as obtained from the government report and then divided by industry based on the latest Survey of Industries.

Employees' Benefits – Workplace Meals and Car Leasing

The VA obtained from the Survey of Industries and from the analysis of financial reports in the National Accounts is regularly imputed higher due to the benefits received by employees as a part of their compensation, such as meals at the workplace and car leasing for personal use.

Companies register those kinds of expenses as inputs, which results in an underestimation in the compensation of employees, as it appears in the financial reports. On the side of production and income, they increase the compensation of employees and as a result, there is an increase in the GDP. On the side of expenditure on uses, the added benefits are recorded as private consumption expenditure. The added wage benefit from car leasing was estimated to reach about NIS 12 billion in 2022, while the workplace meals were about NIS 6 billion in the same year. The data are divided by industry according to the reports of the tax authorities on the receipt of wage

benefits for employees and translated into constant prices according to the private consumption data of households on restaurant expenses and vehicle maintenance.

Upscaling Production due to Construction in Other Industries: Electricity, Water Management and Agriculture

Electricity and Water Supply are characterized by a relatively high volume of own-account construction, in comparison to other industries of the economy. The own-account construction is done by large construction units within the enterprises, but it is considered output from a secondary activity that supports the main activities, which are the production, transmission and supply of electricity and water. The larger companies report directly to the ICBS about their fixed capital formation in construction (which are recorded as an expenditure/input in the financial reports). Some of the expenses are made independently, but a larger part is done by subcontractors from the construction industry. This kind of fixed capital formation is recorded as output and the VA is calculated using ratios obtained from the 2014 Input-Output Table. The data is translated into constant prices using the Price Index of Input in Construction, according to the type of construction.

FISIM – Financial Intermediation Services Indirectly Measured

One of the traditional ways used to carry out financial services is by using financial intermediation. This is a process in which a financial institution such as a bank receives deposits from an institutional unit whose aim is to gain interest on its funds, and it lends to other units needing funds to continue their activity or growth. For such services there are no explicit charges such as commissions or handling fees, as practiced in other financial services. When comparing the total revenues of the financial intermediaries from explicit charges to their expenses (wages, office rental, etc.), we see that the expenses are much higher than the revenue. This difference is due to the fact that financial intermediaries rely on another kind of revenue – revenue from interest. The services are actually financed by the differential between the interest collected from borrowers and that paid to the depositors.

According to the principals of National Accounts, transactions based on interest payments are not considered a part of the output and the VA of the companies. The principal of neutralizing the effects of interest payments creates a contradiction because of their significant role in the activity of financial intermediaries. Therefore, the interest payment itself will not be recorded in the output but the value of the financial intermediation services will be recorded in two ways – as output of the intermediations services and as an intermediate consumption (input) of the industries and sectors using financial intermediation services. These intermediation services are measured

indirectly, taking into consideration the balance between remaining loans and deposits as well as the following interest rates: Interest rate on loans, interest rate on deposits, and the reference interest rate (which represents the interest rate that would have been fixed had the loan taken place without intermediation). Later in this paper, the transition to constant prices in the financial sectors will be presented.

Unreported Compensation to Workers

The production account of the various industries must be coordinated and consistent with labour inputs. Unreported workers participate in the production process and their absence would impair the measurement of industry productivity and the Supply and Use Tables. Therefore, unreported wages of "unofficial" workers need to be included in the compensation of employees of the various industries and as part of the national income of the economy. They are imputed to the product of the relevant industries since the wages are the main component of the VA. The unreported wages also include an estimate for tips made to workers in Accommodation and food service activities. The data are translated into constant prices using the Consumer Price Index.

Marketing of Unreported Agricultural Goods: Unreported Slaughterhouses, Eggs and Fish, Fruits and Vegetables

Marketing and trade in agricultural goods are included in private consumption expenditure when compiling the GDP using the expenditure method, while in the production approach, they are a part of input and output of Manufacturing (food) and Trade. The estimates are gathered from the Agriculture Unit at the ICBS, based on data from the Ministry of Agriculture, the Plant Council, and other agricultural organizations.

Methods for Compiling Estimates in Constant Prices for the Main Industries of the Business Sector

The VA estimates of the various industries are presented in current prices, the previous year’s prices and chained 2015 prices. The preferred method for the transition to constant prices is by aggregate deflation of the current prices by the appropriate price indices, although it is sometimes necessary to use quantitative extrapolation when the appropriate indices are not available. As a first choice, the National Accounts Sector will use the appropriate Producer Price Index for that industry. Producer Price Indices (PPI) are the most highly recommended indices for price deflating of the output and product of industries. The lack of such indices for some industries, however, creates a challenge for more than a few countries, hence other alternatives are internationally accepted (Eurostat 2016). Whenever an industry has no corresponding PPI and the majority of its output is intended for household

use, a corresponding CPI will be sufficient, or the wage data of the same industry is used. In industries such as Agriculture, Electricity, Water Supply and Construction, the input prices reported by the industry's producers and the weighted input price indices, published by the ICBS, are used. Choosing the proper index for the industry price deflation and for presenting the GDP at constant prices requires a comparison between the different options of indicators, and, in certain cases, a consultation with professionals with expertise in the specific industry, or experts who are in continuous contact with the National Accounts Sector. The development of PPIs is a complex and lengthy process, and until it is done for all of the economy's industries, the National Accounts Sector will have to continue the practice of examining the existing indices and developing weighted indices.

Section A – Agriculture, Forestry and Fishing

The ICBS presents the annual industry account similar to what is customary in other developed countries. Agricultural output includes the total marketed produce including the intermediate production, products for own final use, the change in stocks and fixed capital formation in new plantations and afforestation. The intermediate production includes the total of agricultural goods and services used as inputs in the agricultural production process. The VA of the industry is defined as the difference between the agricultural output and the inputs consumed. Estimates of agricultural produce (quantities and prices) are based mainly on monthly reports from wholesalers, marketing and production councils, and manufacturing enterprises. Data on inputs are obtained from an annual survey of inputs and agricultural price indices calculated by the ICBS.

Section F – Construction

The output of the construction industry is defined as the value of the fixed capital formation in a given period. It is calculated as the product of the average cost per square meter and the area built during that period. The area built in square meters is based on data of construction starts and completions received by the ICBS from contractors, local authorities and the Ministry of Construction and Housing. The average cost per square meter varies depending on the purpose of the construction: residences or other buildings. There is also fixed capital formation in infrastructure that is derived from financial data in periodic reports received from enterprises and large institutions on their fixed capital formation in construction. The changes in the domestic product of the construction industry at constant prices are calculated according to the change in the main components of the industry's output. This calculation is based on the assumption that there is a fixed ratio between the input and output derived from the 2014 Input-Output Table, according to the main types of construction. The estimates at constant prices are calculated by

deflating the current values by the corresponding price indices for each type of construction, such as the Price Index of Input in Residential Building, the Price Index of Input in Road Construction and Bridging, and the Price Index of Input in Construction of Commercial Buildings and Offices.

Section B – Mining and Quarrying and Section C – Manufacturing

The production account of Manufacturing is obtained from the annual Survey of Manufacturing which is a sub-sample of 3,000 establishments from the annual Survey of Industries. The gross output of Manufacturing, mining and quarrying includes revenue from manufacturing activity and non-manufacturing activity plus the value of the change in the inventory of finished products and unfinished products, excluding taxes and deducting goods that have not undergone a manufacturing process, and includes subsidies and benefits for exports. The VA data at the level of industry divisions, at constant prices, is obtained as the difference between the output and the value of the inputs at constant prices (using the double deflation method). The output prices for Manufacturing, mining and quarrying are calculated using a weighted index of the domestic sales price (Index of Wholesale Prices of Manufacturing Output for the Domestic Market) and the Index of Manufacturing Output for Exports. Since there are no indices of input prices for the mining and manufacturing sectors, the indices were calculated as a weighted index of inputs from imports and inputs from local production, according to the weights of the inputs in the 2014 Input-Output Table.

Section G – Wholesale and Retail Trade

The output of this industry is defined as the difference between the value of the revenues of goods owned by the business and the value of the purchases of goods intended for sale (marketing margin), plus commissions charged for goods sold that were not owned by the business. The production account at current prices only is obtained from the annual Survey of Industries, and in the National Accounts the aggregates are deflated by appropriate indices for calculating the product at constant prices. In the years in which there was no survey (the last one was conducted in 2020), and for the quarterly GDP system that presents the formation of GDP during the year, an extrapolation was made according to the revenue data from VAT.

Since Israel's national statistics do not have producer price indices for wholesale and retail trade, the ICBS Business-Economic Statistics Department has developed substitute price indices for deflating the revenue and output series of the trade industries. For the purpose of constructing the indices in Divisions 45-46 – Wholesale trade, the composition of the inputs of the industries was examined according to the 2014 Input-Output Table, and thus a different weight was given in the construction of the index to inputs

originating from imports and inputs from the domestic market. The prices of inputs from the domestic market are measured according to the Producer Price Index of Manufacturing Output for the Domestic Market and the prices of imported goods are measured according to the import indices from the Foreign Trade Sector. Division 47 – Retail trade, is deflated at the level of the Divisions with a combination of consumer price indices.

Section I - Accommodation and Food Service Activities

The source of the data on Accommodation (Division 55) is from the annual Hotel Survey - Income and Expenses 2020. The data is based on an analysis of financial statements for 2020 submitted by the hotels to the income tax authorities and supplementary data received from the hotel chains. The product of the industry at constant prices is calculated through quantitative extrapolation based on the quantitative change in the number of person-night stays in the hotels.

The output in Food and beverage services (Division 56) is obtained from the Survey of Industries and includes expenditures on food and beverages. In the years when the survey was not conducted, the estimate was based on the extrapolation of VAT revenue data. Here, the price index used to deflate prices in the transition to constant prices is the Consumer Price Index that measures the expenditure of households on meals outside the home.

Section H – Transportation and Storage, Postal and Courier Activities and Section J – Information and Communication

For the years in which the Survey of the Industries was conducted, the production account of these industries was obtained from the survey and an extrapolation of the base year of the survey was made up to the current year. In the bus, taxi and truck industries, the product at constant prices is calculated by deflating with the Price Index of Input in Buses, the Price Index of Agricultural Truck Transport and the CPI for taxi travel. The product at constant prices of the port services (air and sea) is calculated by combining quantitative indicators for output: landing of planes and transportation and unloading of cargo. Sea freight prices are reported to the ICBS directly by the largest company in the industry. The estimate of the product of Telecommunications is based on an analysis of current quarterly reports of the telecommunications companies active in Division 61. The product at constant prices is calculated using consumer price indices in the telecommunications industry (wired and cellular communications, television and Internet services). The product of Division 62 – Computer programming, consultancy and related activities, is calculated at constant prices using wage indices.

Section K – Financial and Insurance Activities

The product for Banking Services (Division 64) was obtained from a summary of the financial reports of the banks, which are published by the Supervisor of Banks. The output of banks consists of two components: Direct fees for services and indirect fees (originating from interest rate differentials). The product is obtained as the difference between output and inputs of banks. The output from fees at constant prices is obtained by deflating income from fees by the Price Index of Banking Services. Revenue from imputed financial services is the difference between interest on loans at constant prices and interest on deposits at constant prices. Revenue from interest on deposits at constant prices is obtained by multiplying the deposits by the interest on the deposits in the base year. Interest on loans at constant prices is obtained by multiplying the loans by the interest on the loans in the base year.

For Insurance Services (Division 65), calculation of the product was based on a review of the financial reports of the insurance companies prepared by the Capital Market Authority, Insurance and Savings. The output of the insurance industry is the sum of the net premiums paid by customers, the profits from investments and changes in actuarial reserves. The product is the difference between output and the inputs of the insurance companies. The product of the insurance companies at constant prices was obtained by deflating the product at current prices by the Consumer Price Index of insurance services.

Section L – Real Estate Activities

This Section includes the economic activity of brokers and agents in owned or rented real estate on a commission or contract basis. The industry's production account is obtained from the Survey of Industries, and in the years when the survey was not conducted, the estimate is based on extrapolation from the VAT revenue data. The product at constant prices is calculated by deflating the product by the Consumer Price Index which measures household spending on other housing expenses.

Section M – Professional, Scientific and Technical Activities and Section N – Administrative and Support Service Activities

The main source of the production accounts in these Sections is the Survey of Industries. An exception is Division 72 – Scientific research and development, whose production account is adjusted with the 2014 Input-Output Table and the base year data are extrapolated according to the revenue from the annual Survey on R&D Expenditures of the Business Sector. Division 69 – Legal and accounting activities, is deflated by the producer price index developed at the ICBS for this industry. Division 70 – Office services and management consulting, is deflated by the producer price index that corresponds to the industry. Division 73 – Advertising and market research, is also deflated by

the producer price index that corresponds to the industry. Division 74 – Other professional, scientific and technical activities, is deflated using the wage data of the industry. Division 75 – Veterinary activities, is deflated through the agricultural, veterinary services and medicines input index. Division 77 – Rental and leasing activities, is deflated according to private consumption data on car rental services and a consumer price index on car rental. Division 78 – Employment activities, is deflated by a producer price index that corresponds to the industry. Division 79 – Travel agency, is deflated by the consumer price index of household expenditures on health and recreation services. Division 80 – Security and investigation activities, is deflated by a producer price index that corresponds to the industry. Division 81 – Services for buildings, is also deflated by a producer price index that corresponds to the industry. Division 82 – Office administrative, office support and other business support activities, is deflated by the industry wage data.

Section P – Education

In 2020, the government produced about 91% of the output of Section P services. The education services of businesses were taken from the base year of the 2014 Input-Output Table and extrapolation up to the current period was done using data on household expenditures on education services – private teachers, adult education, private kindergartens, etc.

Section Q – Human Health and Social Work Activities

In 2020, the government produced about 60% of the output of Section Q services. The annual Survey of Industries is the source of the rest of the production accounts of the industries. Division 86 – Human health services, is deflated by the consumer price index that measures the expenditure of households on health services. Division 87 – Residential care activities, and Division 88 – Social work activities without accommodation, is deflated from the industry wage data.

Section R – Arts, Entertainment and Recreation and Section S – Other Service Activities

In 2020, the government produced about half of the output of Section R services. The section’s industries that originate in the business sector are deflated by the industry wage data. In the same year, the government produced about 70% of the output of Section S services, and its activity is associated with Division 94 – Activities of member organizations. The other industries of the Section are deflated by the industry wage data. The main source of the production accounts in these Sections is the annual Survey of Industries.

General Government and NPIs (Non-Profit Institutions)

In 2022, the general government produced VA in the amount of about NIS 260 billion, about 16% of the total VA of the economy. About 88% of the government's VA originates in Local administration, public administration and defence, compulsory social security (Section O) and in Education and Human health. The output of general government services is equal to the value of the intermediate inputs consumed, compensation for employees, taxes on production (including taxes on wages), and depreciation of fixed assets. The expenditures and revenues of the government ministries are estimated based on the analysis of the government budget execution reports, plus supplementary data received from the Ministry of Finance and the Ministry of Defense. The expenditures and revenues of the local authorities, of the national institutions and of non-profit institutions are estimated on the basis of data obtained from the analysis of financial reports of these entities and on the basis of additional indicators. The consumption expenditure estimate of non-profit institutions is based on an annual non-profit institution expenditure survey. The product of the general government and non-profit institution services is calculated at constant prices in accordance with the internationally accepted practice – labour input data.

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