



NATIONAL
STATISTICS OFFICE
OF MONGOLIA

SUPPLY AND USE TABLES, INPUT-OUTPUT TABLE



2024

MAIN RESULTS



Ulaanbaatar
2026



SUPPLY AND USE TABLES, INPUT-OUTPUT TABLE – 2024 MAIN RESULTS

Ulaanbaatar
2026

PREPARED BY:

Erdenesan E.	National Consultant
Munkhzul D.	National Consultant
Terbish J.	Head of National Accounts Division
Bayarmaa B.	Senior statistician, National Accounts Division

NATIONAL STATISTICS OFFICE OF MONGOLIA

Government Building – 3, 14200

Sukhbaatar District, 8th khoroo

Ulaanbaatar, Mongolia

Telephone: 7014-1212

Website: www.1212.mn

E-mail: information@nso.mn

Content

List of abbreviations	5
List of tables	5
List of figures	6
Foreword.....	7
Introduction.....	8
I. Basic concepts, definitions, and methodology for compiling supply and use tables and input-output table.....	9
1.1 Supply and use tables.....	9
1.2 Input-Output Table	12
II. Supply and use of goods and services.....	14
2.1. Total Supply and Growth.....	15
2.2 Composition and Growth of Total Use	16
2.3 Domestic Production by industry.....	17
2.4 Growth of Domestic Production by industry.....	18
2.5 Intermediate Consumption and Gross Value Added	18
2.6 Intermediate Input Ratio by industry.....	20
2.7 Composition and Growth of Gross Value Added	21
2.8 Composition and Growth of Final Use	22
2.9 Contribution and Growth Ratio of Exports by commodity.....	23
2.10 Commodity Export Ratio.....	24
2.11 Contribution and Growth Rate of Imports by commodity	25
2.12 Commodity Import Ratio	26
III. Input-output table, types, coefficient for analysis.....	27
IV. Analysis of input-output coefficient	30
4.1 Input structure-consumption.....	30
4.2 Domestic and imported intermediate inputs	31
4.3 Output allocation (structure) – Sales	32
4.4 Labor - capital structure and External trade.....	33

LIST OF ABBREVIATIONS

ADB	Asean Development Bank
GDP	Gross domestic product
SUT	Supply and Use Tables
GVA	Gross Value Added
VA	Value added
UN	United Nations
IMF	International Monetary Fund
c.i.f	cost, insurance and freight
f.o.b	free on board
ITO	Input-output Table
BOP	Balance of Payment
NSO	National Statistical Office
SNA	System of National Accounts

LIST OF TABLES

TABLE 1. Total supply	15
TABLE 2. Total use.....	16
TABLE 3. Domestic production and composition	17
TABLE 4. Growth of Domestic production	18
TABLE 5. Intermediate consumption, gross value added	19
TABLE 6. Composition and growth rate of value added	21
TABLE 7. Composition and growth rate of final use	22
TABLE 8. Composition and growth of exports by commodity	23
TABLE 9. Composition and growth of imports by commodity	25
TABLE 10. Input-output table, at basic prices, 2024, trillion MNT	28
TABLE 11. Key indicators of coefficient	30
TABLE 12. Import intensive industry	31
TABLE 13. Export-oriented industry	33

LIST OF FIGURES

Figure 1. Flows for compiling supply and use tables.....	10
FIGURE 2. Main equations for supply and use tables	11
FIGURE 3. Main models of input-output tables	12
FIGURE 4. Model of the input-output table	13
FIGURE 5. Flow of goods and services according to 2024 SUT	14
FIGURE 6. Composition of the total supply.....	15
FIGURE 7. Growth of the total supply, percent.....	15
FIGURE 8. Composition of total use, share to total.....	16
FIGURE 9. Growth rate of total use, percent.....	16
FIGURE 10. Composition of domestic production, by aggregated industry	17
FIGURE 11. Composition of domestic production, share to total.....	19
FIGURE 12. Intermediate inputs ratio, by industry, trillion MNT	19
FIGURE 13. Intermediate inputs ratio, by industry.....	20
FIGURE 14. Domestic and imported intermediate inputs, by industry, trillion MNT	20
FIGURE 15. Composition of gross value added, share to total	20
FIGURE 16. Growth rate of value added, percent	21
FIGURE 17. Composition of final use, share to total	22
FIGURE 18. Growth rate of final use, percent	22
FIGURE 19. Commodity export ratios to domestic production.....	24
FIGURE 20. Commodity import ratios to Domestic demand	26
FIGURE 21. Simplified type (model) of Input-output table	27
FIGURE 22. Simplified type (model) of IOT (competitive import type)	27
FIGURE 23. Basic input-output table	29
FIGURE 24. Input coefficient.....	29
FIGURE 25. Output coefficient.....	29
FIGURE 26. Input composition by industry, percent	30
FIGURE 27. Output allocation by industry	32
FIGURE 28. Wages vs operating surplus/Mixed income (Labor-capital intensity).....	33
FIGURE 29. Import intensity and export orientation.....	34
FIGURE 30. Top 8 industry by key indicators.....	34

FOREWORD



In accordance with the Law on Statistics of Mongolia, the National Statistics Office presents the Supply and Use Tables and Input-Output Table based on the 2024 results.

Supply and Use Tables and Input-Output Table provide a detailed description of the structure and

interrelationships within the national economy and are widely used for policymaking, evaluation, and impact analysis.

Supply and Use Tables present, in matrix form, how the supply of domestically produced and imported goods and services is allocated among intermediate consumption, final use, and exports. The Input-Output Table comprehensively reflects the balance between supply and demand in the economy, as well as the interdependence between producers and consumers.

In 2025, the National Statistics Office conducted the "Sample survey for the compilation of Supply and

Use Tables and Input-Output Table" and the "Survey on Individual Entrepreneurs". Using the data collected through these surveys, together with other statistical information, the Supply and Use Tables and Input-Output Table were compiled and produced.

We would like to express our sincere gratitude to the enterprises and organizations that actively participated in the surveys on the Supply and Use Tables and Input-Output Table by providing accurate and timely data.

We also extend our appreciation to the national consultants of the Asian Development Bank for their invaluable contributions and close cooperation in the successful implementation of this work.

Users can now access and use the 2010–2019 and 2024 Supply and Use Tables from the statistical microdata database website nada.nso.mn, in a 173×130-dimension format, as well as the Input-Output Tables for the same years in a 53×53-dimension format.

In addition, the Supply and Use Tables with a 48×32 dimension, and the Input-Output Table with a 20×20 dimension is available on the "National Accounts" section of the Mongolian Statistical Information Service at www.1212.mn

CHAIRMAN

B.BATDAVAA

INTRODUCTION

Under Article 7, paragraph 1(b) of the Law on Statistics of Mongolia, which regulates the conduct of censuses and surveys, it is stipulated that the Supply and Use Tables and the Input-Output Tables and shall be compiled every five years.

The Supply and Use Table (SUT) and the Input-Output Table (IOT) provide a detailed description of a country's economy by presenting, in an integrated framework, production activities, the use of goods and services, and the generation of income within production processes.

The Supply and Use Table establishes an integrated, comprehensive, and internally consistent framework for compiling the main indicators of national accounts. Detailed and interrelated economic information are used for various purposes, such as impact analysis, policy formulation, and evaluation.

The supply and use tables serve as a framework for checking the consistency of data collected from different data sources during compilation. It is also used to integrate and reconcile the three approaches to measuring gross domestic product (GDP): the production approach, the expenditure approach, and the income approach. On the other hand, the SUT provides the basic information for compiling input-output tables.

One of the core benchmark surveys underlying the compilation of the Supply and Use Tables and the Input-Output Tables is the special SUT and IOT survey, through which detailed information on the revenues and expenditures of enterprises is collected.

Based on the special surveys for the Supply and Use Tables and the Input-Output Tables, as well as other data sources and statistical surveys, the National Statistics Office first compiled the Supply and Use Tables for the reference year 2005 and, on this basis, initiated the work on constructing the Input-Output Tables. Subsequently, the Supply and Use Tables for the reference year 2010 were compiled in 2013, after which the compilation of annual Supply and Use Tables commenced. More recently, in 2021, the Supply and Use Tables were compiled for the reference year 2015, and, based on these results, annual Supply and Use Tables for the years 2016-2019 were compiled and disseminated to users.

The special survey for the compilation of the SUT and IOT for 2024 and the survey on Self-employment were conducted in 2025. Using the data collected through these surveys, together with other data sources, the Supply and Use Tables and the Input-Output Tables have compiled for 2024.

In compiling the supply and use tables and input-output table, the recommendations of "the *System of National Accounts 2008 (SNA 2008)*" jointly issued by the United Nations, the World Bank, the European Union, the Organization for Economic Co-operation and Development (OECD), and the International Monetary Fund (IMF) were followed. In addition, the "*Handbook on Supply, Use and Input-Output Tables*" published by Eurostat in 2008, as well as the "Methodology for Compiling SUT and IOT" approved under Order No. 01/134 of the Chairperson of the National Statistics Office in 2013, which is based on these international guidelines, were used as methodological references.

During the period of the centrally planned economy, Mongolia compiled Input-Output Tables based on "The Material Product System" (MPS), which was used in member countries of "the Council for Mutual Economic Assistance" (CMEA), in 1963, 1966, 1970, 1977, 1983, and 1987.

Experimental IOTs based on SNA methodology were compiled in 1997 and 2000. The National Statistics Office of Mongolia (NSO) has been compiling IOTs in accordance with SNA methodology for 2005, 2010-2019.

The SUTs is characterized by its full comprehensive coverage of all economic activities in the national economy for all goods and services. In other words, the results shown in tables are categorized by product type and industry type. The scope of the SUT is illustrated in Figure 1.

In this document, the SUTs 2024 compared with results of SUTs for 2015-2019. In addition, coefficient analysis conducted using the input-output coefficients of the IOTs.

The SUT and IOT matrices, along with related information included in this document, can be downloaded by scanning the QR code.

I. BASIC CONCEPTS, DEFINITIONS, AND METHODOLOGY FOR COMPILING SUPPLY AND USE TABLES AND INPUT-OUTPUT TABLE

1.1 Supply and use tables

Supply table shows the sources of goods and services in the economy, provided by either domestic industry or imports.

Use table shows how goods and services are used across different types of use (demand):

- intermediate consumption (used as inputs in the production process), and
- final use, which is further categorized into consumption, capital formation, and exports.

The Supply and Use Tables (SUT) applies to the product balance of each product, and this can be presented in an equation as follows.

$$\text{Output} + \text{Import} [\text{Supply}] = [\text{Use}] \text{ Intermediate consumption} + \text{Final consumption} + \text{Gross capital formation} + \text{Exports}$$

The Supply and Use Tables broadly shows:

1. The structure of the cost of production and income generated in the production process.
2. Flows of goods and services produced within the national economy.
3. Flows of goods and services with the rest of world

Supply table consists of seven main elements such as:

- a) Domestic output by industry
- b) Imports of goods and services
- c) Trade margins
- d) Transport margins
- e) Taxes on products
- f) Subsidies on products
- g) Total supply at purchaser prices

The main components of **use table**:

- a) Intermediate consumption by industries
- b) Exports of goods and services
- c) Household final consumption expenditure
- d) Government final consumption expenditure
- e) Gross capital formation
- f) Total use at purchaser prices

The types of supply and use tables (SUT) differ depending on their scope and the valuation concepts applied. The main valuation concepts are:

- basic prices,
- purchasers' prices

In addition, valuation tables are compiled to show the differences between basic prices and purchasers' prices. These include:

- trade margin,
- transport margin,
- taxes, subsidies on products.

Use table at basic prices can be divided into the following two parts:

- Domestic use table
- Import use table.

The relationship between import use and total use is an important indicator of the extent to which an economy depends on imports relative to domestic supply.

The supply and use tables also show the relationship between value added and the input-output structure of industries.

In the supply and use tables, the total supply of a given *product* must be equal to its total use.

Classifications

In compiling and aggregating the Supply and Use Tables, the following classifications and coding systems were applied:

- International Standard Industrial Classifications of All Economic Activities (ISIC 4)
- Central Product Classification (CPC 2.1)
- Classification of Individual Consumption According to Purpose (COICOP)
- Classification of Institutional Sectors
- Classification of Financial and Non-Financial Assets
- Classification of the Functions of Government (COFOG)
- Harmonized Commodity Description and Coding System (HS)
- Classification by Broad Economic Categories (BEC)

Valuation principles

Domestic output is valued at basic prices, while intermediate consumption and final consumption are valued at purchasers' prices. Accordingly, the supply table is compiled at basic prices, whereas the use table is compiled at purchasers' prices. To ensure integrated valuation consistency in the balance of the SUT, the Supply and Use Tables are first compiled at purchasers' prices. The conversion from basic prices to purchasers' prices in the supply table is achieved through the allocation of trade and transport margins and the addition of net taxes on products.

The differences between basic prices, producers' prices, and purchasers' prices can be explained as follows:

$\text{Basic price} + \text{taxes on products (excluding VAT) - subsidies} = \text{producer price}$

$\text{Producer price} + \text{VAT} + \text{trade, transport margins} = \text{purchaser's price}$

Countries compile external trade statistics in accordance with the methodology issued by the United Nations¹, where exports are recorded on an FOB basis and imports on a CIF basis. In contrast, balance of payments statistics is compiled and reported in accordance with the methodology issued by the International Monetary Fund² (IMF), under which both exports and imports are valued on an FOB basis.

The data sources

Following data sources (census and survey results) are used for the compilation of SUT for 2024:

- Annual national accounts estimate, surveys, and industrial data for 2024,
- Detailed survey on income and expenditure of enterprises for 2024,
- Survey of self-employed persons – 2024,
- Agricultural Census – 2021, and livestock productivity and output surveys,
- Producer price surveys by industries,
- Population and Housing Census – 2020
- Other administrative data sources (such as balance of payments statistics, foreign trade statistics, investment statistics, government budget statistics, financial and

FOB valuation: Under the FOB (Free on Board) valuation principle, exports are recorded by the exporting economy at the value of the goods including all costs incurred up to the frontier of the exporting country. From the perspective of the importing economy, the value of goods from the place of production up to the exporter's frontier is recorded as imports. Transport and insurance services provided beyond this point, from the exporter's frontier to the frontier of the importing country, are recorded separately as trade in services.

CIF valuation: Under the CIF (Cost, Insurance, and Freight) valuation principle, transport and insurance costs incurred up to the frontier of the importing country are included in the total value of imports.

Under the *System of National Accounts 2008 (SNA 2008)* and the *Balance of Payments and International Investment Position Manual, Sixth Edition (BPM6)*, total imports are required to be valued on an FOB basis. Therefore, to reconcile the different valuation methods, a CIF/FOB adjustment row is included in the supply table. The main purpose of the CIF/FOB adjustment is to ensure consistency in valuation between the supply and use tables (SUT), national accounts, and balance of payments statistics.

tax reports of enterprises, banking, financial, and insurance data, etc.)

In compiling the supply and use tables (SUT), the "Methodology for Compiling Supply and Use Tables and Input-Output Tables" was followed.

This methodology is aligned with "the *System of National Accounts 2008*" (SNA 2008) jointly issued by the United Nations, the World Bank, the European Union, the Organization for Economic Co-operation and Development (OECD), and the International Monetary Fund (IMF), as well as the "*Handbook on Supply, Use and Input-Output*" Tables published by Eurostat in 2008.

¹ International Merchandise Trade Statistics: Concepts and Definitions (IMTS 2010)

² Balance of Payments and International Investment Position Manual: Sixth Edition (BPM6)

Flows for compiling supply and use tables

Balancing the supply and use tables involves integrating data obtained from various sources during the compilation process. Figure 1 illustrates the general flow and sequence of the SUT balancing process.

Figure 2 presents the six fundamental balancing equations applied in compiling the SUT. These identities demonstrate the interrelationships among the indicators contained in the supply and use tables at both basic prices and purchasers' prices.

FIGURE 1. FLOWS FOR COMPILING SUPPLY AND USE TABLES

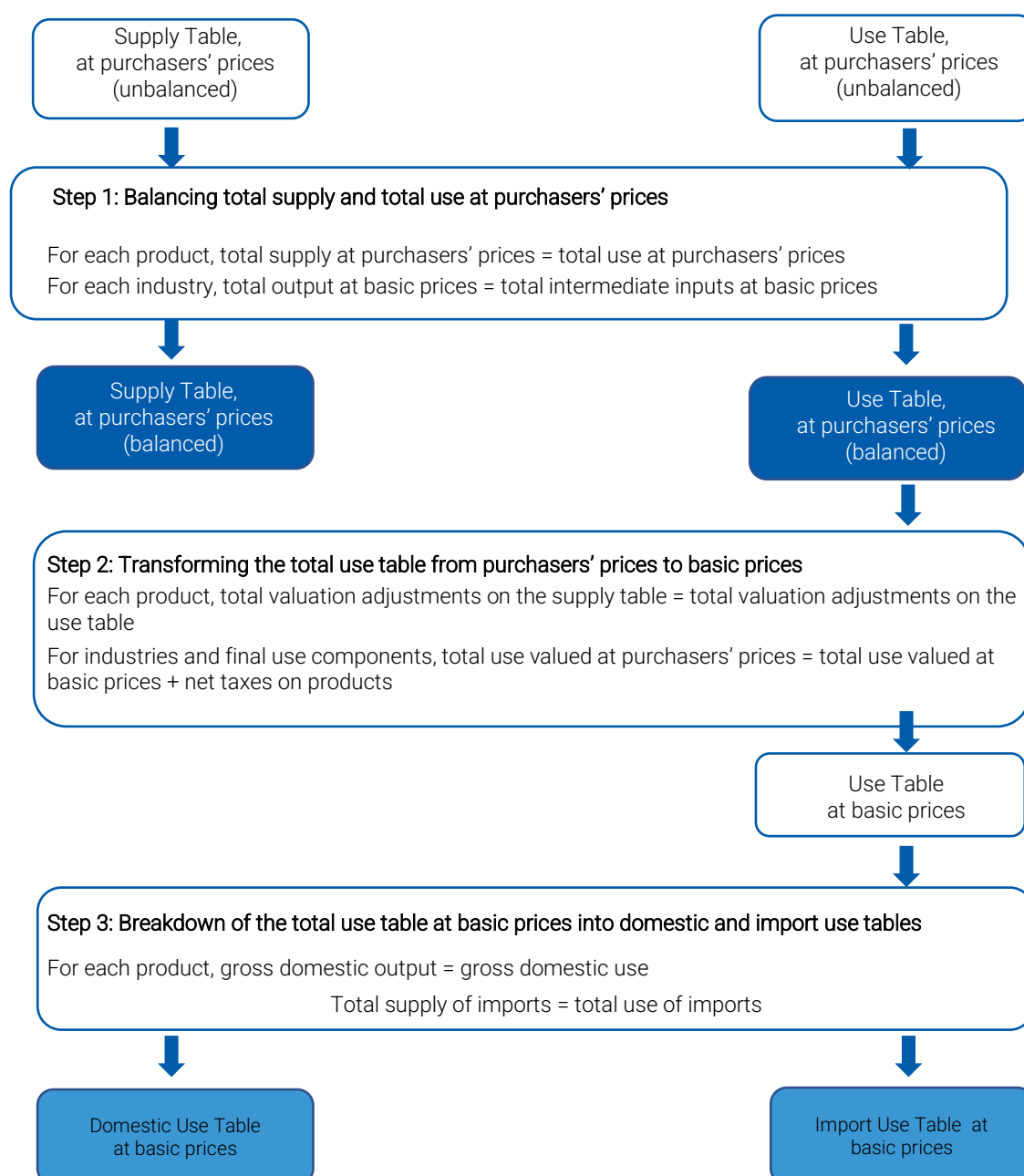
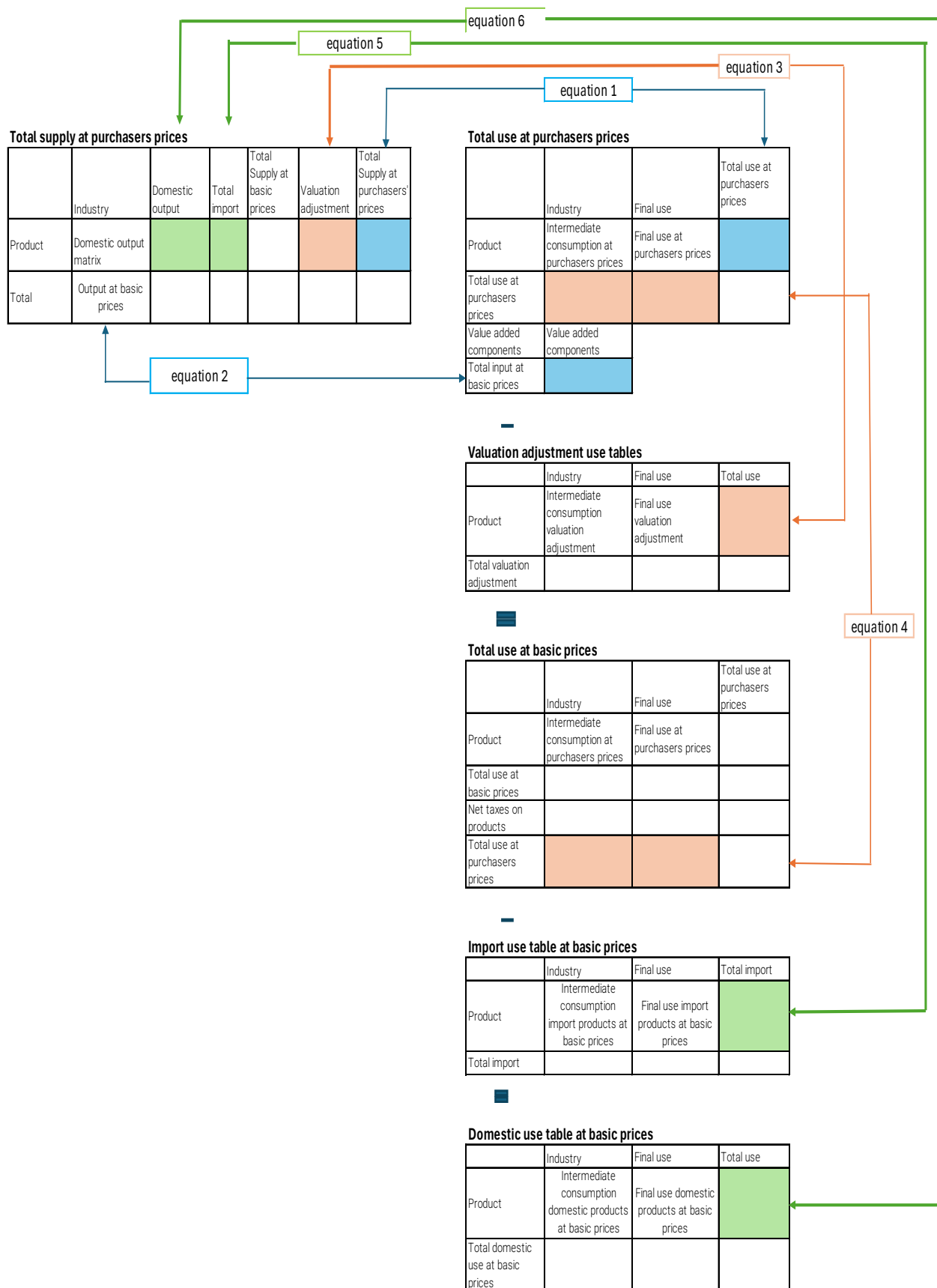


FIGURE 2. MAIN EQUATIONS FOR SUPPLY AND USE TABLES



1.2 Input-Output Table

Model of Input-output table

An input-output table is an economic model that shows how different sectors of the economy (such as agriculture, industry, and services) are interconnected through the exchange of goods, services, and resources.

This model explains:

- (1) how sectors exchange goods and services with one another.
- (2) how the production of one sector affects other sectors; and,
- (3) the flow of goods and services within the economy.

The *System of National Accounts 2008 (SNA 2008)* defines two standard approaches for input-output tables:

1. Industry-by-industry,
2. Product-by-product

The conversion of supply and use tables into input-output tables is based on two assumptions:

- the assumption of a fixed sales structure, or
- the assumption of a fixed technology.

In general, there are four models for compiling input-output tables.

FIGURE 3. MAIN MODELS OF INPUT-OUTPUT TABLES

Major assumption	Assumption in detail	Model of IOT
Technology assumption	Product technology assumption	Model A (Product by Product IOT) <i>Model with negative values</i>
	Industry technology assumption	Model B (Product by Product IOT) <i>Model without negative values</i>
Sales structure assumption	Fixed industry sales structure assumption	Model C (Industry by Industry IOT) <i>Model with negative values</i>
	Fixed product sales structure assumption	Model D (Industry by Industry IOT) <i>Model without negative values</i>

In case of Mongolia, Model D, which is based on the "fixed product sales structure assumption," is used in compiling the input-output table (IOT). Under this approach, the IOT is constructed on an industry-by-industry basis, and it assumes that "products are sold to user industries in the same fixed proportions regardless of which industry produces them." This

assumption is considered economically feasible because it does not generate negative values.

In other words, the model assumes that the sales structure of products for both intermediate and final use remains constant, irrespective of the industry in which the products are produced.

Conversion of SUT into IOT

1. **Preparing the SUT for IOT.** Since the input-output table has a symmetric matrix structure, the supply and use tables are transformed into a symmetric SUT using a product-to-industry conversion table. Consistency between industries and products is ensured.
2. **Price transformation.** The Use table at purchasers' prices is converted into basic prices.
Use table at basic prices = use table at purchaser prices – Taxes + Subsidies – Transport margin – Trade margin
3. **Separation of imports.** Use of imports of goods and services is separated then CIF → FOB adjustment is made.
4. **Identify the use of domestic production.** The use of imported goods and services is separated. Adjustments from CIF to FOB valuation are made.
5. **Calculation (Model D).** The use table (product by industry) is multiplied by the transformation matrix to obtain the derived matrix (industry by industry).

Input-output table by quadrant structure

The IOT consists of three main quadrants.

Quadrant I represents the inter-industry economic relationships within the overall economy, reflecting the production linkages between sectors. In this quadrant, columns show the inputs consumed by producing industries, while rows represent the outputs produced by each sector. For example, in the flour production sector, all inputs used in producing flour, such as raw materials, intermediate goods, fuel, energy, transport, and communication costs are recorded in the column as the costs of that sector.

Quadrant II contains the final (non-productive) uses of goods and services produced by each sector:

- Final consumption (household consumption, government consumption, and consumption of non-profit institutions).
- Gross capital formation (gross fixed capital formation, changes in inventories, and acquisition of valuables).
- Exports of goods and services.

Quadrant III presents the newly generated value added, disaggregated by its components and by economic sector:

- Compensation of employees (wages and salaries).
- Other net taxes on production.
- Consumption of fixed capital (depreciation).
- Net operating surplus and mixed income

Quadrants I and III together show the cost structure of production for each sector. Quadrants I and II indicate how and where the produced goods and services are used. The total supply used by each sector is equal to the total supply allocated. This is the fundamental balance principle of the Input-Output Table.

FIGURE 4. MODEL OF THE INPUT-OUTPUT TABLE

	Purchasing Industries (Demand sector)	Intermediate consumption	Total intermediate Consumption	Final use	Total output
Selling Industries (Supply Sector)		Industry		Final consumption Gross capital formation Export	
	Industry	I quadrant $z_{11} \ z_{12} \dots z_{1j} \dots z_{1n}$ $z_{21} \ z_{22} \dots z_{2j} \dots z_{2n}$... $z_{i1} \ z_{i2} \dots z_{ij} \dots z_{in}$... $z_{n1} \ z_{n2} \dots z_{nj} \dots z_{nn}$	z_1 z_2 ... z_i ... z_n	II quadrant y_{11} y_{22} ... y_{ik} ... y_{nr}	X_1 X_2 ... X_i ... X_n
Primary input	Compensation of employees Other net taxes on production Consumption of fixed capital Operating surplus / mixed income, net	III quadrant $v_{11} \ v_{12} \dots v_{1j} \dots v_{1n}$ $v_{21} \ v_{22} \dots v_{2j} \dots v_{2n}$... $v_{l1} \ v_{l2} \dots v_{lj} \dots v_{ln}$... $v_{m1} \ v_{m2} \dots v_{mj} \dots v_{mn}$			
Total demand		$X_1 \ X_2 \dots X_j \dots X_n$			

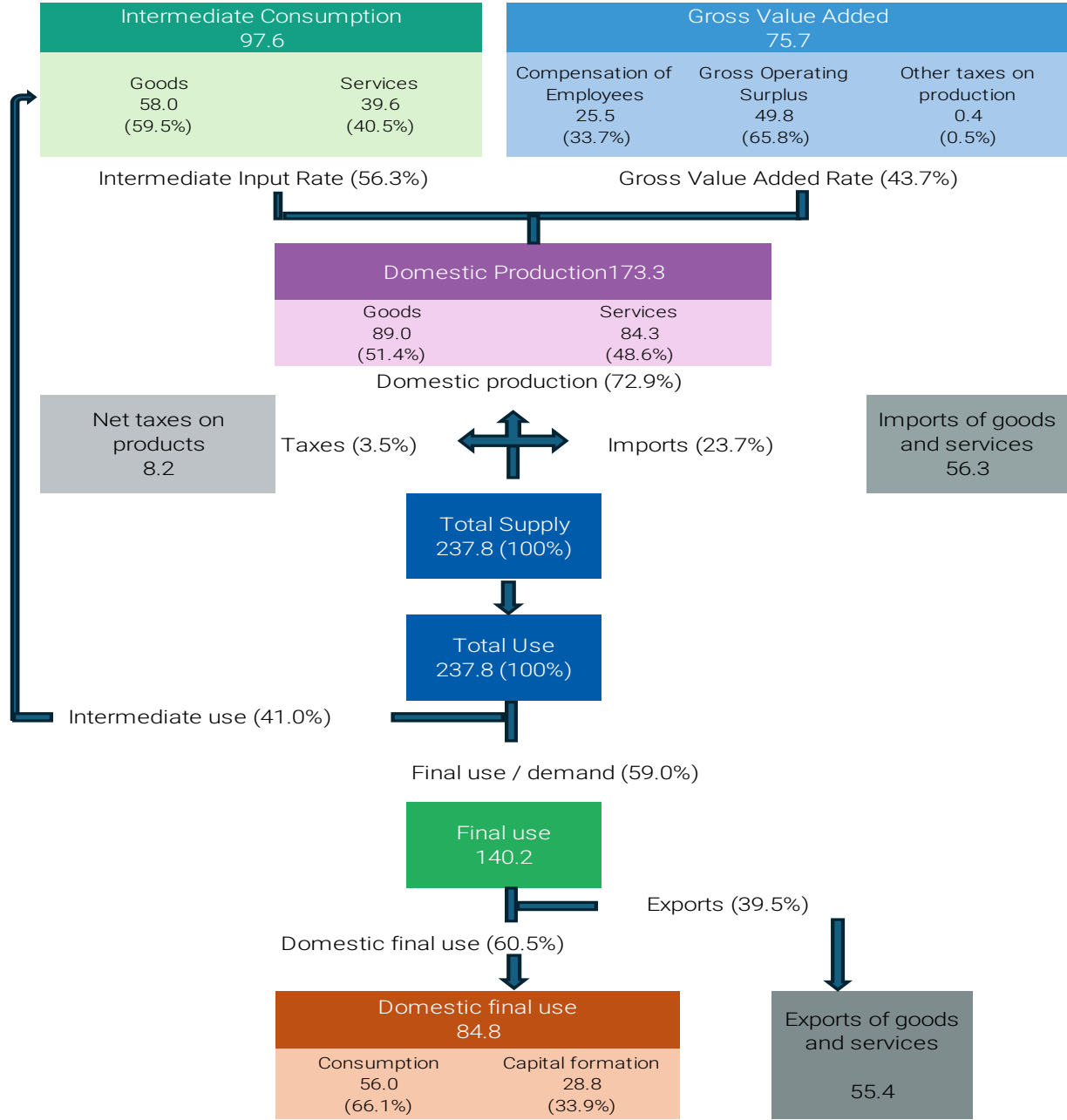
II. SUPPLY AND USE OF GOODS AND SERVICES

The total supply of goods and services (at purchasers' prices) in Mongolia reached MNT 237.8 trillion in 2024. Of this total, domestic production accounted for MNT 173.3 trillion, or 72.9 percent of total supply; imports of goods and services accounted for MNT 56.3 trillion or 23.7 percent; and net taxes on products accounted for MNT 8.2 trillion or 3.5 percent.

In the cost structure of domestic production, the value of intermediate consumption (inputs) used in production amounted to 97.6 trillion MNT.

Gross value added, a component of total output, amounted to MNT 75.7 trillion, representing 43.7 percent of total output. From the perspective of the use, or demand side, the total use of goods and services reached MNT 237.8 trillion in 2024. Of this amount, MNT 97.6 trillion (41.0 percent) was used for production activities as intermediate consumption, while MNT 140.2 trillion (59.0 percent) was allocated to final use. Total final use consisted of MNT 84.8 trillion (60.5 percent) in domestic final use and MNT 55.4 trillion (39.5 percent) in exports of goods and services.

FIGURE 5. FLOW OF GOODS AND SERVICES ACCORDING TO 2024 SUT (trillion MNT)



2.1. Total Supply and Growth

Total supply (at purchaser prices) of goods and services of Mongolia in 2024 reached MNT 237.8 trillion, of which domestic production is 72.9 percent, imports (fob) is 23.7 percent, and taxes less subsidies on product is 3.5 percent. Compared to 2019, the share of total supply for domestic production increased (1.3 percentage

point) and share of imports and net taxes on products decreased. From 2019, domestic production increased 2.4 times and imports increased 2.3 times, resulting in 2.4 times increase of total supply in 2024.

TABLE 1. TOTAL SUPPLY

	Supply			Composition			Growth rate	
	2015	2019	2024	2015	2019	2024	2015 ~ 2019	2019 ~ 2024
	billion MNT			percent				
Total supply	53 430.9	100 940.5	237 776.1	100.0	100.0	100.0	1.9*	2.4*
Domestic production	41 135.1	72 263.0	173 255.3	77.0	71.6	72.9	1.8*	2.4*
Imports	10 410.2	24 663.3	56 271.0	19.5	24.4	23.7	2.4*	2.3*
Net taxes on products	1 885.7	4 014.1	8 249.8	3.5	4.0	3.5	2.1*	2.1*

*times more

FIGURE 6. COMPOSITION OF THE TOTAL SUPPLY

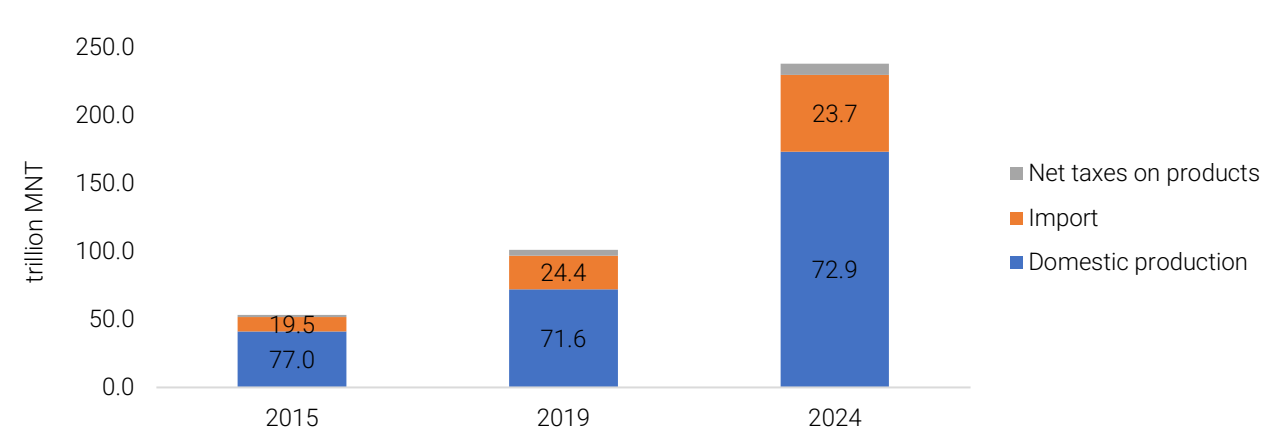
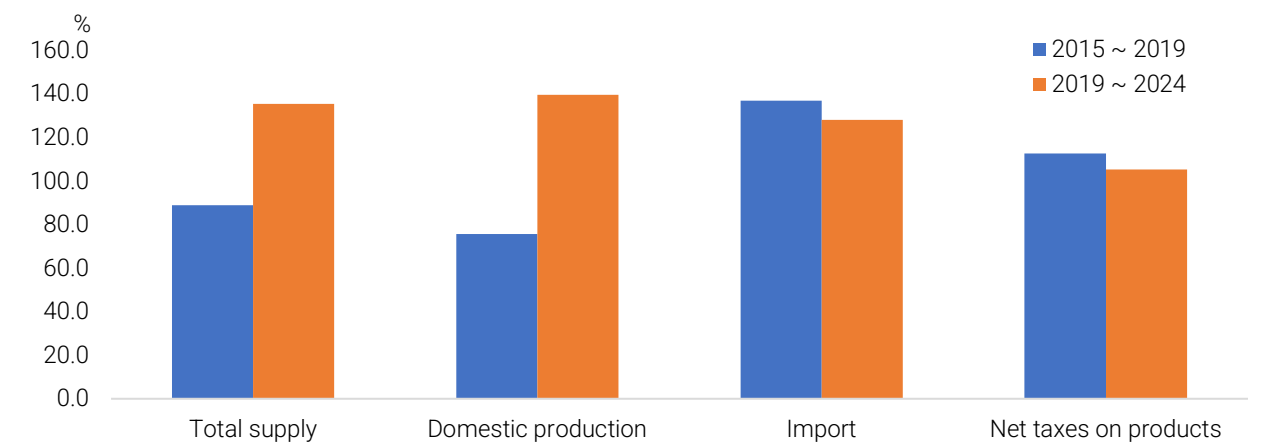


FIGURE 7. GROWTH OF THE TOTAL SUPPLY, percent



2.2 Composition and Growth of Total Use

Total use of goods and services for 2024 was MNT 237.8 trillion. In total use, 41.0 percent was intermediate consumption, 23.5 percent was final consumption, 12.1 percent was gross capital formation and MNT 55.4 billion (23.3%) was exports of goods and services.

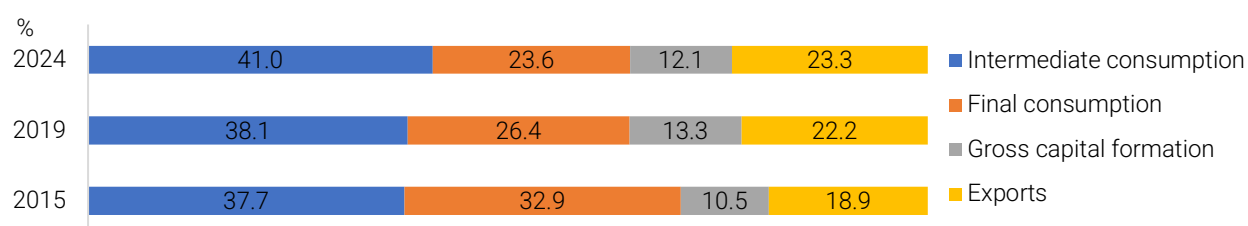
Compared to 2019, exports of goods and services decreased by 1.1 percentage points and domestic final use decreased by 4.0 percentage points (households final expenditure 3.2 points, gross capital formation by 1.2 points decreased).

TABLE 2. TOTAL USE

	Use			Composition			Growth rate	
	2015	2019	2024	2015	2019	2024	2015 ~ 2019	2019 ~ 2024
	billion MNT			percent				
Total use	53 430.9	100 940.5	237 776.1	100.0	100.0	100.0	1.9*	2.4*
Intermediate consumption	20 126.0	38 437.9	97 556.1	37.7	38.1	41.0	1.9*	2.5*
Final use	33 304.9	62 502.6	140 220.0	62.3	61.9	59.0	1.9*	2.2*
Domestic final use	23 189.1	40 095.2	84 791.1	43.4	39.7	35.7	1.7*	2.1*
Consumption	17 576.7	26 627.5	56 007.4	32.9	26.4	23.6	1.5*	2.1*
GCF	5 612.4	13 467.7	28 783.8	10.5	13.3	12.1	2.4*	2.1*
Exports	10 115.8	22 407.3	55 428.9	18.9	22.2	23.3	2.2*	2.5*
Domestic use	43 315.1	78 533.1	182 347.2	81.1	77.8	76.7	1.8*	2.3*

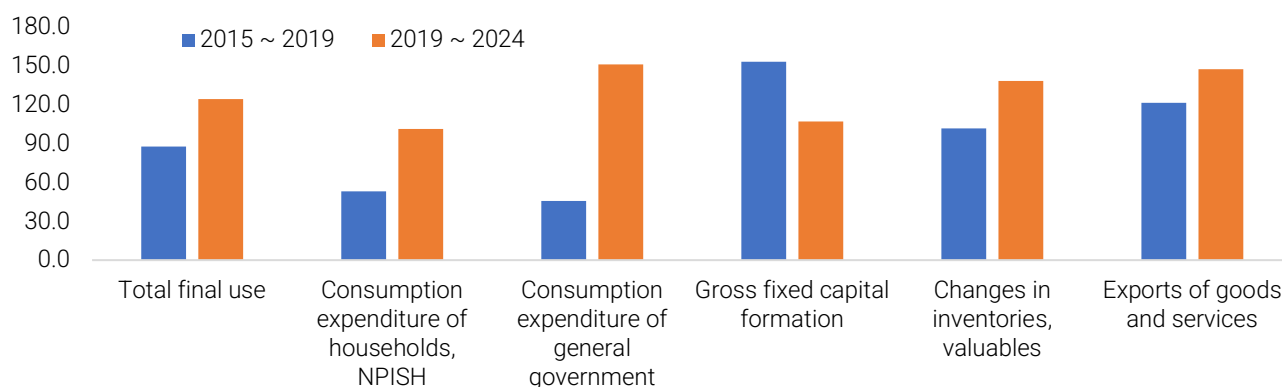
*times more

FIGURE 8. COMPOSITION OF TOTAL USE, share to total



In the total use of 2024, the exports of goods and services, household final consumption and gross capital formation decreased by 0.6 points, 4.6 points and 3.0 points, respectively, while intermediate consumption increased by 1.0 points compared to 2019.

FIGURE 9. GROWTH RATE OF TOTAL USE, percent



2.3 Domestic Production by industry

In the domestic production in SUT 2024 by the 32x20 dimension, the large portions of domestic production accounted from the mining and quarrying sector (27.6 percent), wholesale and retail trade (11.8 percent), and manufacturing (10.2 percent).

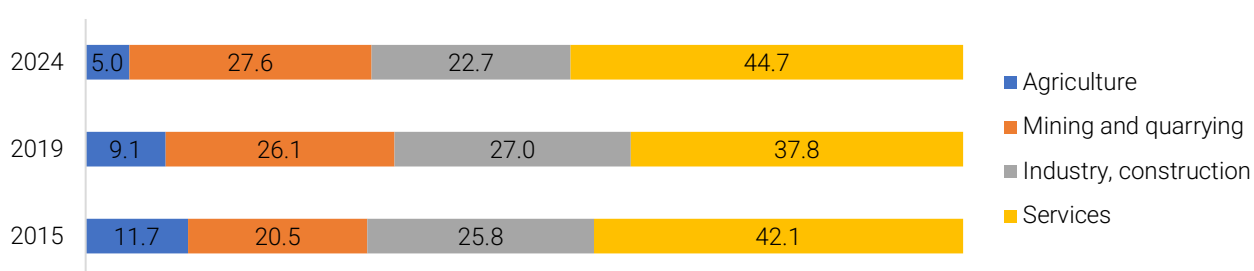
Compared to 2019, shares of wholesale and retail trade (up by 3.4 percentage points), mining and

quarrying (up by 1.6 percentage points), transportation and storage (up by 1.1 percentage points), and financial and insurance activities (up by 0.7 percentage points) have increased. In contrast, shares of agriculture (down by 4.2 percentage points), manufacturing (down by 3.0 percentage points), and construction (down by 0.8 percentage points) have decreased.

TABLE 3. DOMESTIC PRODUCTION AND COMPOSITION

	Domestic production			Composition		
	2015	2019	2024	2015	2019	2024
	billion MNT			percent		
Domestic production, at basic prices	41 135.1	72 263.0	173 255.3	100.0	100.0	100.0
Agriculture, forestry, fishing and hunting	4 799.9	6 587.1	8 584.7	11.7	9.1	5.0
Mining and quarrying	8 418.3	18 832.9	47 876.9	20.5	26.1	27.6
Manufacturing	5 172.2	9 525.7	17 597.1	12.6	13.2	10.2
Electricity, gas, steam, air conditioning supply	1 280.6	2 574.7	5 638.0	3.1	3.6	3.3
Water supply; sewerage, remediation activities	305.2	423.4	786.8	0.7	0.6	0.5
Construction	3 854.8	6 967.6	15 276.8	9.4	9.6	8.8
Wholesale and retail trade; repair of motor vehicles and motorcycles	4 274.2	6 110.8	20 511.1	10.4	8.5	11.8
Transportation and storage	2 610.1	4 751.5	13 352.4	6.3	6.6	7.7
Accommodation and food service activities	522.3	1 101.0	3 151.3	1.3	1.5	1.8
Information and communication	963.2	1 689.8	3 877.7	2.3	2.3	2.2
Financial and insurance activities	1 239.9	2 342.4	6 784.7	3.0	3.2	3.9
Real estate activities	2 002.7	2 478.1	6 174.7	4.9	3.4	3.6
Professional, scientific and technical activities	755.5	1 213.8	3 333.9	1.8	1.7	1.9
Administrative and support service activities	391.0	801.9	2 707.0	1.0	1.1	1.6
Public administration and defense; compulsory social security	1 957.9	2 818.1	7 041.1	4.8	3.9	4.1
Education	1 358.1	2 035.3	4 928.1	3.3	2.8	2.8
Human health and social work activities	757.5	1 329.6	3 378.7	1.8	1.8	2.0
Arts, entertainment and recreation	157.2	221.1	712.3	0.4	0.3	0.4
Other service activities	313.4	455.2	1 538.3	0.8	0.6	0.9
Agriculture, forestry, fishing and hunting	1.2	2.9	3.9	0.0	0.0	0.0

FIGURE 10. COMPOSITION OF DOMESTIC PRODUCTION, by aggregated industry



2.4 Growth of Domestic Production by industry

In the volume of domestic production in SUT 2024 by the 32x20 dimension, the main outputs have recorded from the mining and quarrying sector (MNT 47.9 trillion), wholesale and retail trade (MNT 20.5 trillion), and manufacturing (MNT 17.6 trillion). Compared with 2019, the sectors with the highest growth in domestic production (at current prices) were wholesale and retail trade, administrative and support service activities, and other service activities, each of which increased by 3.4 times. In

contrast, the sectors with the weakest growth were agriculture (30.3 percent), other activities (32.1 percent), and manufacturing (84.7 percent). To the 139.8 percent overall growth, the main contributing growths were from mining and quarrying (40.2 percentage points), wholesale and retail trade (19.9 percentage points), transportation and storage (11.9 percentage points), construction (11.5 percentage points), and manufacturing (11.2 percentage points).

TABLE 4. GROWTH OF DOMESTIC PRODUCTION

	Domestic production			Growth rate		Contribution
	2019	2019	2024	2015 ~ 2019	2019 ~ 2024	2024
	billion MNT			percent		points
Domestic production, at basic prices	41 135.1	72 263.0	173 255.3	75.7	139.8	139.8
Agriculture, forestry, fishing and hunting	4 799.9	6 587.1	8 584.7	37.2	30.3	2.8
Mining and quarrying	8 418.3	18 832.9	47 876.9	123.7	154.2	40.2
Manufacturing	5 172.2	9 525.7	17 597.1	84.2	84.7	11.2
Electricity, gas, steam, air conditioning supply	1 280.6	2 574.7	5 638.0	101.1	119.0	4.2
Water supply; sewerage, remediation activities	305.2	423.4	786.8	38.8	85.8	0.5
Construction	3 854.8	6 967.6	15 276.8	80.8	119.3	11.5
Wholesale and retail trade; repair of motor vehicles and motorcycles	4 274.2	6 110.8	20 511.1	43.0	235.7	19.9
Transportation and storage	2 610.1	4 751.5	13 352.4	82.0	181.0	11.9
Accommodation and food service activities	522.3	1 101.0	3 151.3	110.8	186.2	2.8
Information and communication	963.2	1 689.8	3 877.7	75.4	129.5	3.0
Financial and insurance activities	1 239.9	2 342.4	6 784.7	88.9	189.6	6.1
Real estate activities	2 002.7	2 478.1	6 174.7	23.7	149.2	5.1
Professional, scientific and technical activities	755.5	1 213.8	3 333.9	60.7	174.7	2.9
Administrative and support service activities	391.0	801.9	2 707.0	105.1	237.6	2.6
Public administration and defence; compulsory social security	1 957.9	2 818.1	7 041.1	43.9	149.9	5.8
Education	1 358.1	2 035.3	4 928.1	49.9	142.1	4.0
Human health and social work activities	757.5	1 329.6	3 378.7	75.5	154.1	2.8
Arts, entertainment and recreation	157.2	221.1	712.3	40.6	222.1	0.7
Other service activities	313.4	455.2	1 538.3	45.2	238.0	1.5
Other activities	1.2	2.9	3.9	153.1	32.1	0.0

2.5 Intermediate Consumption and Gross Value Added

In 2024, domestic production amounted to MNT 173.3 trillion. In which, the cost of goods and services used as intermediate consumption was MNT 97.6 trillion, representing an intermediate consumption ratio of 56.3 percent. Gross value added generated from production activities

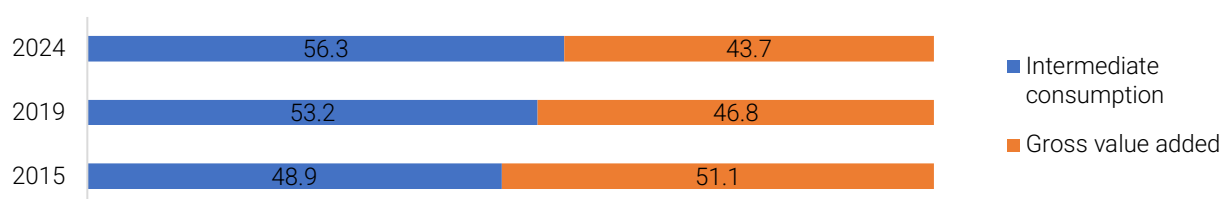
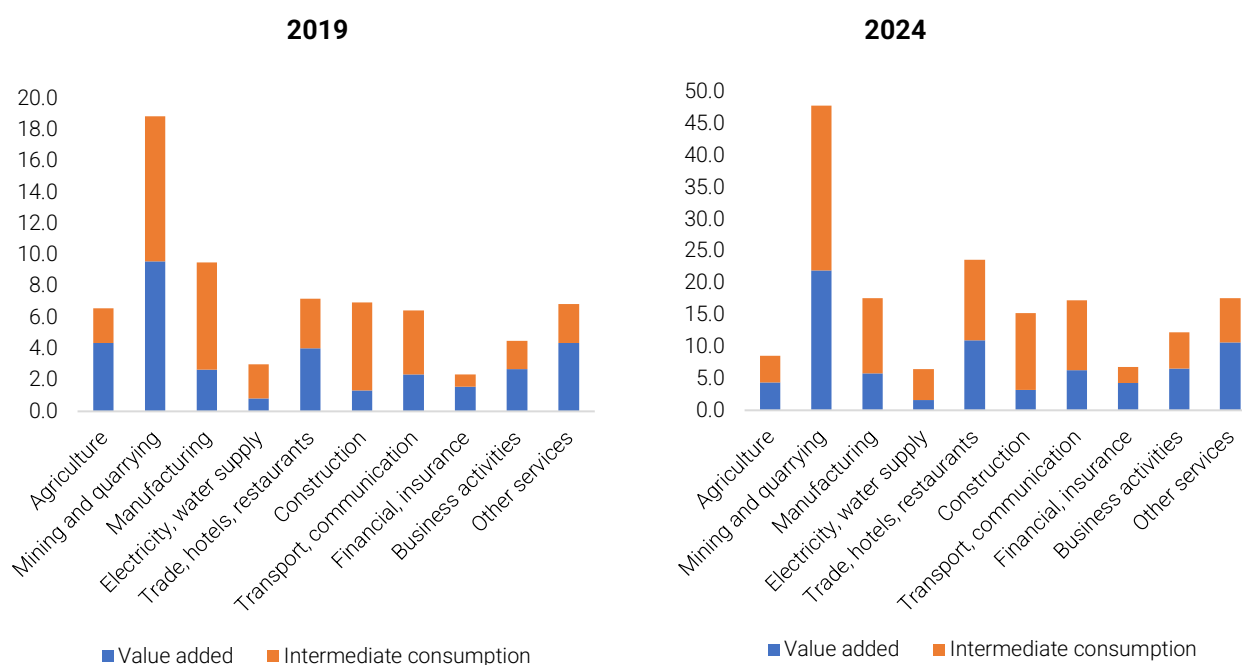
amounted to MNT 75.7 trillion, accounting for 43.7 percent of domestic production.

Compared to 2019, the intermediate consumption ratio – that is, the share of intermediate consumption in domestic production – increased by 3.1 percentage points.

TABLE 5. INTERMEDIATE CONSUMPTION, GROSS VALUE ADDED

	Domestic production			Composition			Growth rate	
	2015	2019	2024	2015	2019	2024	2015 ~ 2019	2019 ~ 2024
	billion MNT			percent				
Domestic production	41 135.1	72 263.0	173 255.3	100.0	100.0	100.0	1.8*	2.4*
Intermediate consumption	20 126.0	38 437.9	97 556.1	48.9	53.2	56.3	1.9*	2.5*
Gross value added	21 009.1	33 825.1	75 699.2	51.1	46.8	43.7	1.6*	2.2*

*times more

FIGURE 11. COMPOSITION OF DOMESTIC PRODUCTION, share to total**FIGURE 12. INTERMEDIATE INPUTS RATIO, by industry, trillion MNT**

The share of value added in total output in 2024 was below 50 percent in sectors such as transportation and information & communication (36.3%), manufacturing (33.0%), electricity and water supply (24.9%), construction (21.2%), mining and quarrying (45.9%), and trade, hotels, and restaurants (46.6%).

In contrast, the share of value added in total output exceeded 50 percent in the other sectors. Compared to 2019, the share of value added in total output increased in only two sectors, namely manufacturing and construction, while declining in all other sectors

2.6 Intermediate Input Ratio by industry

The intermediate input ratio by industry based on 32x20 SUT matrix for 2024 shows high trend in the electricity, gas, steam, air conditioning supply (79.0%), construction (78.8%), administrative and support service activities (74.5%). For industry such as education (26.2%), real estate (27.0%), financial and insurance (36.8%) remain low. Compared to

2019, the largest decrease of intermediate input ratio in following industry: water supply (10.0 percentage point), manufacturing (4.9 percentage point), information and communication (3.0 percentage point) and large increase in agriculture (15.9 percentage point), trade (11.4 percentage point), public administration (6.7 percentage point).

FIGURE 13. INTERMEDIATE INPUTS RATIO, by industry

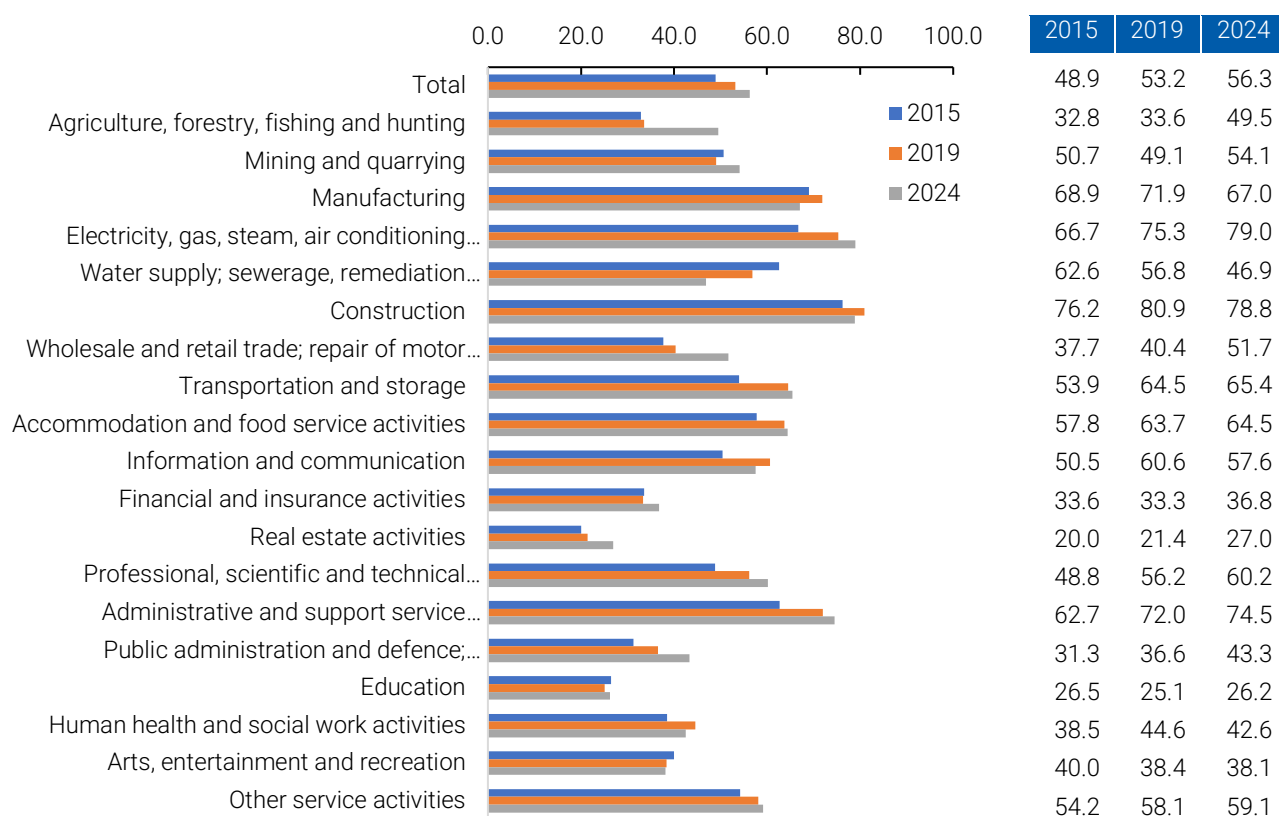
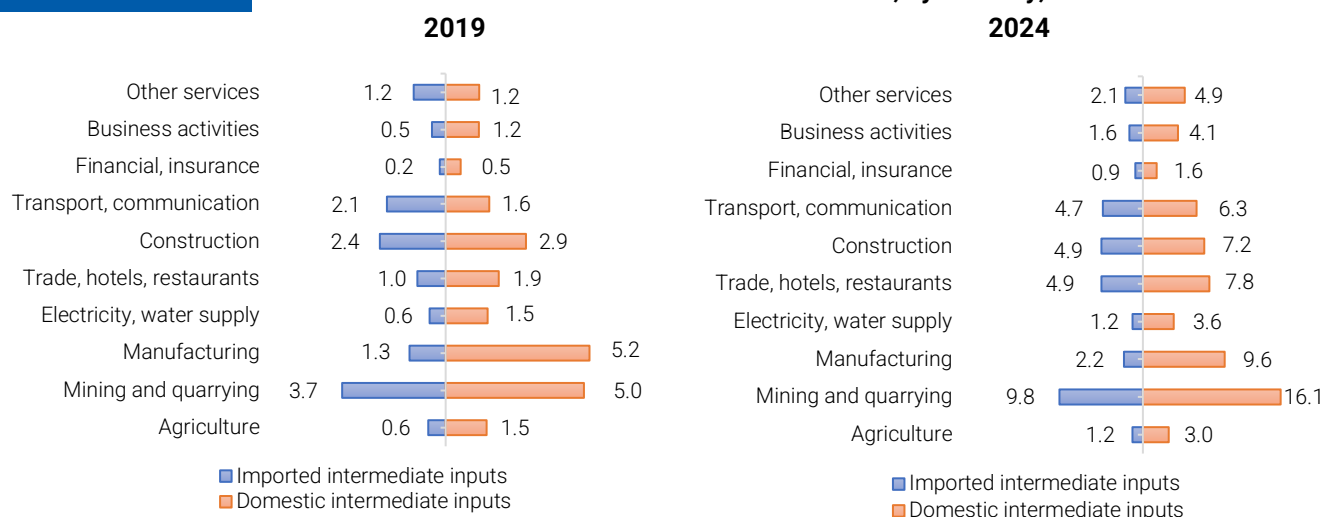


FIGURE 14. DOMESTIC AND IMPORTED INTERMEDIATE INPUTS, by industry, trillion MNT



In the total of MNT 64.2 trillion intermediate inputs supplied by domestic producers in 2024, the largest share — MNT 16.1 trillion (25.1 percent) was used by mining and quarrying industry. The largest share of imported intermediate inputs, amounting to MNT 9.8 trillion (29.3 percent), was also attributed to

mining and quarrying industry. Meanwhile, the manufacturing industry relied more heavily on domestically produced goods for its intermediate input, which accounted for 81.2 percent of its total intermediate input.

2.7 Composition and Growth of Gross Value Added

The gross value added (at basic prices) for 2024 was MNT 75.7 trillion, in which, MNT 25.5 trillion (33.7%) was compensation of employees, MNT

49.8 trillion (65.8%) was gross operating surplus/ mixed income.

FIGURE 15. COMPOSITION OF GROSS VALUE ADDED, share to total

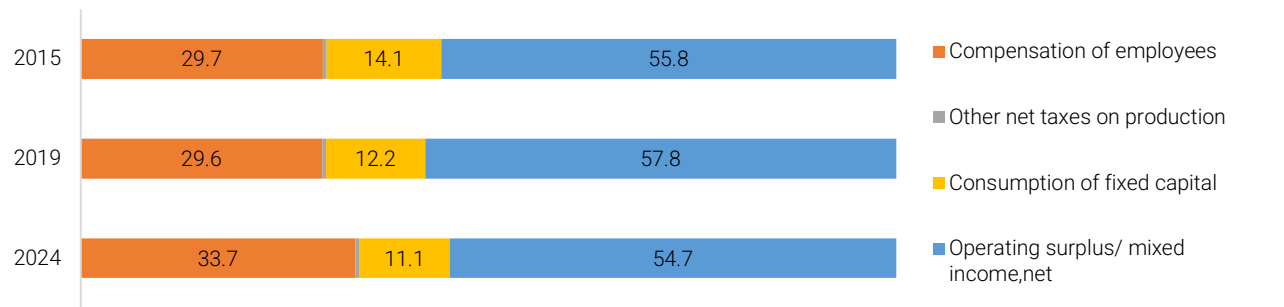


FIGURE 16. GROWTH RATE OF VALUE ADDED, percent

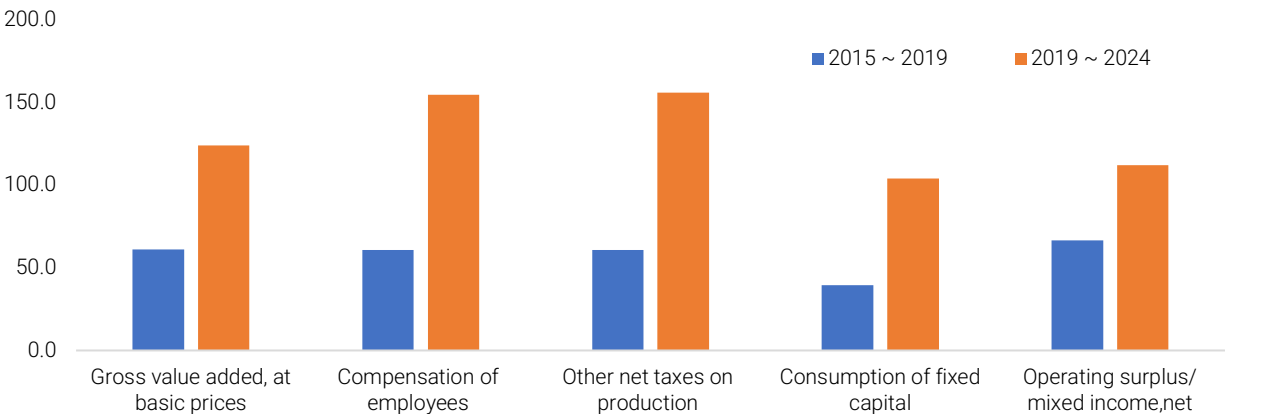


TABLE 6. COMPOSITION AND GROWTH RATE OF VALUE ADDED

	Value Added			Composition			Growth rate	
	2015	2019	2024	2015	2019	2024	2015 ~ 2019	2019 ~ 2024
	billion MNT			percent				
Gross value added, at basic prices	21 009.1	33 825.1	75 699.2	100.0	100.0	100.0	61.0	2.2*
Compensation of employees	6 235.0	10 017.7	25 488.5	29.7	29.6	33.7	60.7	2.5*
Other net taxes on production	93.3	150.0	383.3	0.4	0.4	0.5	60.6	2.6*
Consumption of fixed capital	2 958.3	4 122.3	8 409.5	14.1	12.2	11.1	39.3	2.0*
Operating surplus/ mixed income, net	11 722.5	19 535.2	41 417.9	55.8	57.8	54.7	66.6	2.1*

*times more

2.8 Composition and Growth of Final Use

The final use (demand) for 2024 reached MNT 140.2 trillion, in which MNT 43.6 trillion (31.1%) was households and NPISH consumption, MNT 12.5 trillion (8.9%) was general government consumption, MNT 28.8 trillion (20.5%) was gross capital formation and MNT 55.4 trillion (39.5%) was exports.

Compared to 2019, final use or final demand increased 2.2 times more.

The share of exports (by 3.7 percentage points, from 35.9% to 39.5%), consumption of general government (by 0.9 percentage points, from 7.9% to 8.9%) increased respectively.

FIGURE 17. COMPOSITION OF FINAL USE, share to total

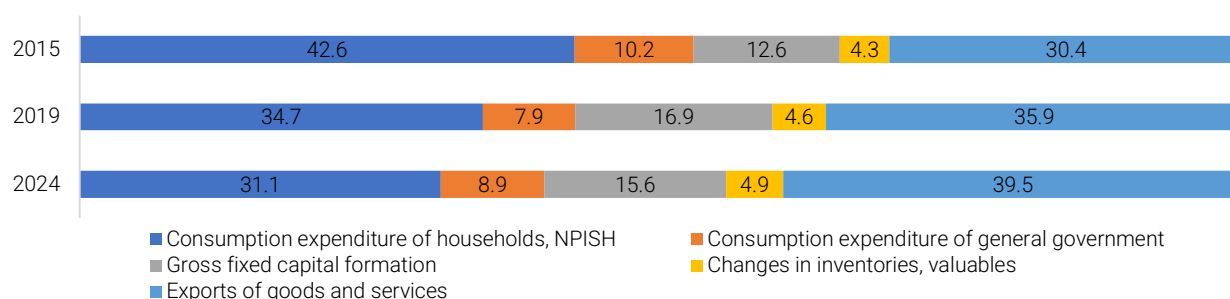


FIGURE 18. GROWTH RATE OF FINAL USE, percent

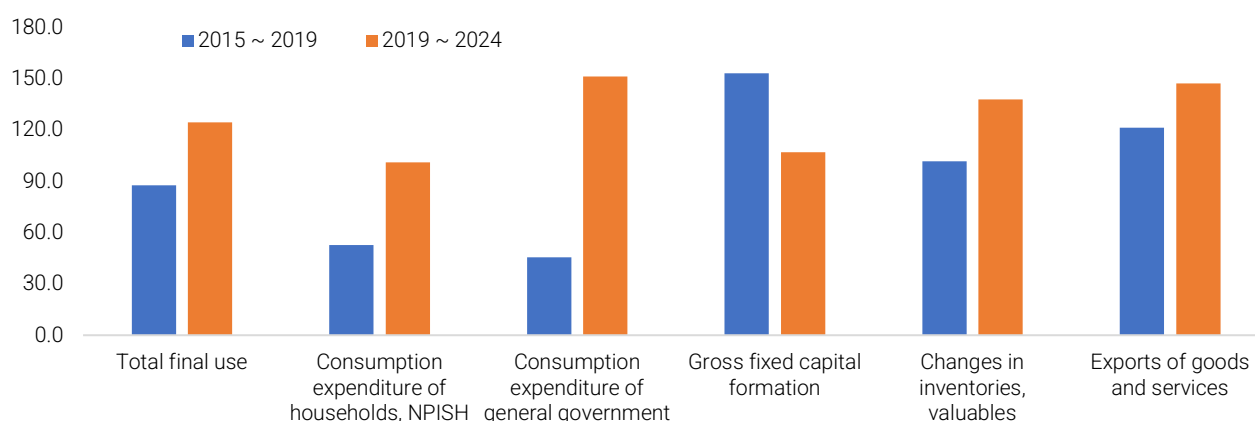


TABLE 7. COMPOSITION AND GROWTH RATE OF FINAL USE

	Final Use			Composition			Growth rate	
	2015	2019	2024	2015	2019	2024	2015 ~ 2019	2019 ~ 2024
	billion MNT			percent				
Total Final Use	33 304.9	62 502.6	140 220.0	100.0	100.0	100.0	87.7	2.2*
Consumption expenditure of households, NPISH	14 171.9	21 667.6	43 550.3	42.6	34.7	31.1	52.9	2.0*
Consumption expenditure of general government	3 404.9	4 960.0	12 457.1	10.2	7.9	8.9	45.7	2.5*
Gross fixed capital formation	4 184.5	10 588.7	21 931.3	12.6	16.9	15.6	153.0	2.1*
Changes in inventories, valuables	1 427.9	2 879.0	6 852.5	4.3	4.6	4.9	101.6	2.4*
Exports of goods and services	10 115.8	22 407.3	55 428.9	30.4	35.9	39.5	121.5	2.5*

*times more

2.9 Contribution and Growth Ratio of Exports by commodity

Total exports reached MNT 55.4 trillion in 2024. Based on the product classification of the 32x20 SUT matrix, the export structure was dominated by coal and crude oil (48.9%), metal ores (27.1%), and basic metals and fabricated metal products except machinery and equipment (6.4%).

Compared to 2019, the shares of coal and crude oil exports increased by 9.5 percentage points, while the shares of livestock and animal products (down by 2.7 percentage points) and metal ore (down by 2.6 percentage points) declined.

In terms of growth rates compared with 2019, stone, sand, clay, other minerals, and crop products

increased by 4.7 times, while coal and crude oil increased by 3.1 times. While, wood and paper products declined by 60.4 percent, electricity, gas, steam, heat, and water supply decreased by 34.3 percent, and chemicals and chemical products fell by 29.3 percent.

In the 2.5 times or 147.6 percent overall increase in exports of goods and services, the largest contributions came from coal and crude oil (81.5 percentage points), metal ores (37.3 percentage points), and basic metals and fabricated metal products except machinery and equipment (10.0 percentage points).

TABLE 8. COMPOSITION AND GROWTH OF EXPORTS by commodity

	Exports			Composition			Growth rate	
	2015	2019	2024	2015	2019	2024	2015 ~ 2019	2019 ~ 2024
	billion MNT			percent				
Total	10 115.8	22 407.3	55 428.9	100.0	100.0	100.0	2.2*	2.5*
Products of agriculture, horticulture and market gardening	41.7	32.9	153.9	0.4	0.1	0.3	-21.0	4.7*
Live animals and animal products (excluding meat)	463.4	990.8	973.9	4.6	4.4	1.8	2.1*	-1.7
Forestry and logging products; fish and other fishing products	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Coal and lignite; peat; crude petroleum and natural gas	1 837.6	8 825.6	27 078.8	18.2	39.4	48.9	4.8*	3.1*
Metal ores	4 872.7	6 651.3	14 999.1	48.2	29.7	27.1	36.5	2.3*
Stone, sand and clay; other minerals	94.1	238.1	1 115.2	0.9	1.1	2.0	2.5*	4.7*
Electricity, town gas, steam and hot water; natural water	1.4	0.9	0.6	0.0	0.0	0.0	-36.6	-34.3
Food products	72.1	408.5	1 079.9	0.7	1.8	1.9	5.7*	2.6*
Beverages; tobacco products	4.1	10.9	9.7	0.0	0.0	0.0	2.7*	-10.3
Textiles; wearing apparel; leather and leather products; footwear	194.9	204.9	429.8	1.9	0.9	0.8	5.1	2.1*
Products of wood, paper	1.0	1.7	0.7	0.0	0.0	0.0	64.5	-60.4
Chemical products; man-made fibers	14.1	115.2	81.5	0.1	0.5	0.1	8.2*	-29.3
Glass and glass products and other non-metallic products n.e.c.; furniture; other transportable goods n.e.c.; waste or scraps	44.0	11.4	16.7	0.4	0.1	0.0	-74.1	46.1
Basic metals; fabricated metal products, except machinery and equipment	982.4	1 327.5	3 568.7	9.7	5.9	6.4	35.1	2.7*
Machinery and apparatus	104.2	177.0	245.6	1.0	0.8	0.4	69.8	38.8
Transport equipment	25.7	125.0	238.1	0.3	0.6	0.4	4.9*	90.5
Others	1 362.4	3 285.8	5 436.7	13.5	14.7	9.8	2.4*	65.5

*times more

2.10 Commodity Export Ratio

Commodity export ratio refers to the percentage of goods that are exported to foreign markets out of the total goods produced or supplied by a country, industry, or product group.

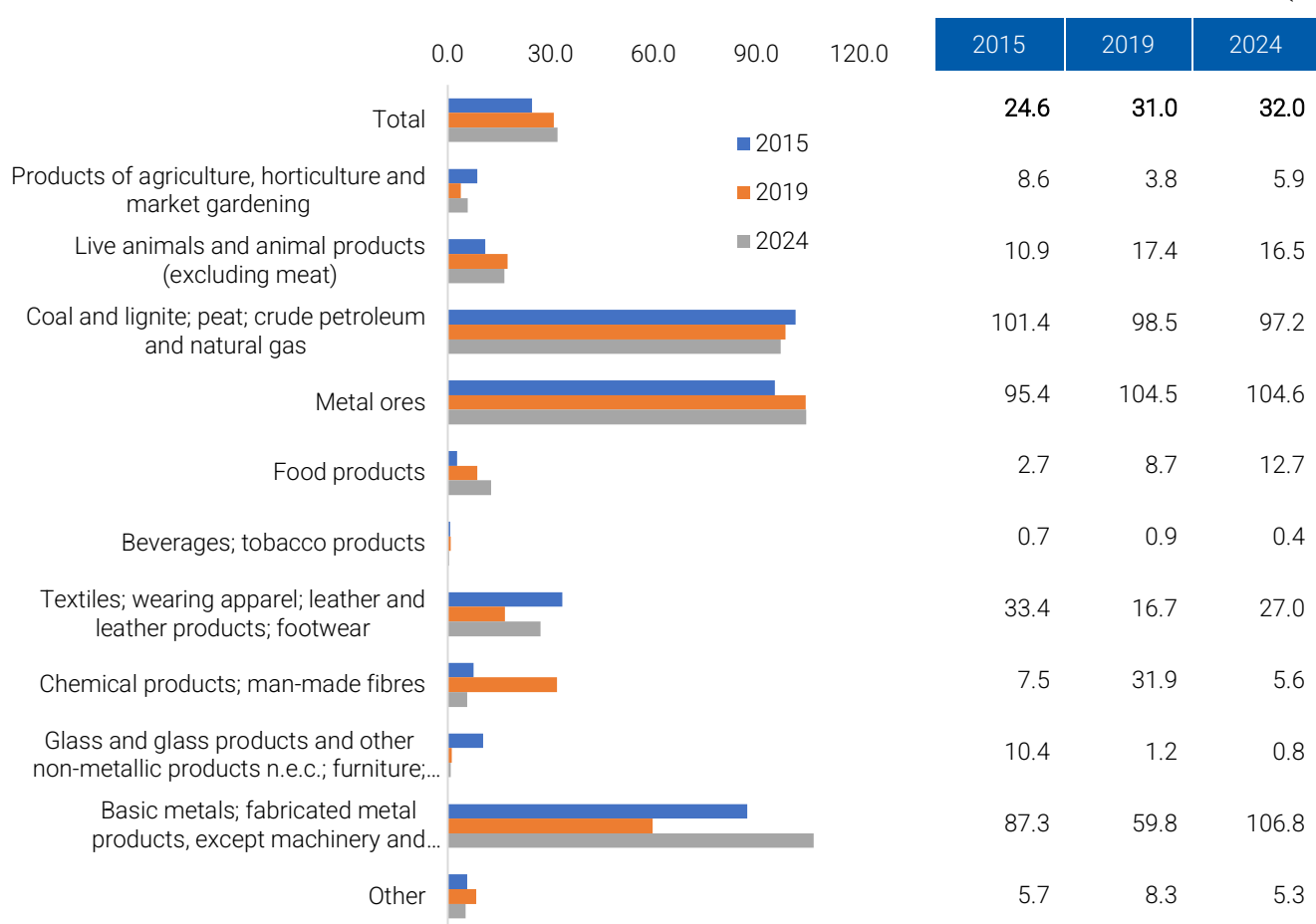
A high export ratio indicates that the industry is strongly export-oriented and dependent on foreign markets - low export ratio indicates that production is mainly consumed in the domestic market. For commodity export ratio to domestic production in 2024, supply and use tables classified by 32 product groups, and the highest ratios were observed for basic metals and fabricated metal

products except machinery and equipment (106.8%), metal ores (104.6%), and coal and crude oil (97.2%).

Compared to 2019, the ratio increased for basic metals and fabricated metal products except machinery and equipment (up by 47.0 percentage points), textiles, knitted goods, leather products, and related articles (up by 10.3 percentage points), and food products (up by 4.0 points). While the ratio declined for chemicals and chemical products (down by 26.3 percentage points) and coal and crude oil (down by 1.3 percentage points).

FIGURE 19. COMMODITY EXPORT RATIOS TO DOMESTIC PRODUCTION

(%)



2.11 Contribution and Growth Rate of Imports by commodity

Imports reached MNT 56.3 trillion in 2024. From the product classification of the 32x20 SUT matrix, the largest shares in the import structure were chemicals and chemical products (19.6%), machinery and equipment (19.5%), and transport equipment (12.6%).

Compared with 2019, the shares of imports increased for transport equipment (up by 3.7 percentage points), machinery and equipment (up by 1.8 percentage points), and food products (up by 0.6 percentage points). In contrast, the share of textiles, knitted goods, leather products, and related articles declined by 2.4 percentage points.

Compared with 2019, the highest growth in imports was recorded in transport equipment (3.3 times more), machinery and equipment (2.5 times more), food products (2.6 times more), and beverages and tobacco (2.4 times more). Meanwhile, textiles, knitted goods, leather products, and related articles declined by 56.6 percent.

In terms of contributions to the overall increase in imports, which grew by 2.3 times, the largest contributions came from machinery and equipment (26.9%), chemicals and chemical products (24.9%), and transport equipment (19.1%).

TABLE 9. COMPOSITION AND GROWTH OF IMPORTS by commodity

	Imports			Composition			Growth rate	
	2015	2019	2024	2015	2019	2024	2015 ~ 2019	2019 ~ 2024
	billion MNT			percent				
Total	10 410.2	24 663.3	56 271.0	100.0	100.0	100.0	2.4*	2.3*
Products of agriculture, horticulture and market gardening	69.4	169.5	353.8	0.7	0.7	0.6	2.4*	2.1*
Live animals and animal products (excluding meat)	13.3	37.1	75.9	0.1	0.2	0.1	2.8*	2*
Forestry and logging products; fish and other fishing products	0.5	0.7	16.0	0.0	0.0	0.0	46.4	22.7*
Coal and lignite; peat; crude petroleum and natural gas	1.1	3.1	3.3	0.0	0.0	0.0	2.8*	6.4
Metal ores	0.0	0.9	2.2	0.0	0.0	0.0	25.4*	2.6*
Stone, sand and clay; other minerals	10.5	15.7	19.1	0.1	0.1	0.0	49.2	21.1
Electricity, town gas, steam and hot water; natural water	254.5	384.7	670.8	2.4	1.6	1.2	51.2	74.3
Food products	642.8	1 173.7	2 996.9	6.2	4.8	5.3	82.6	2.6*
Beverages; tobacco products	197.6	322.4	763.8	1.9	1.3	1.4	63.2	2.4*
Textiles; wearing apparel; leather and leather products; footwear	573.7	723.9	314.1	5.5	2.9	0.6	26.2	-56.6
Products of wood, paper	172.3	266.8	744.9	1.7	1.1	1.3	54.8	2.8*
Chemical products; man-made fibres	2 291.0	4 912.7	11 042.1	22.0	19.9	19.6	2.1*	2.2*
Glass and glass products and other non-metallic products n.e.c.; furniture; other transportable goods n.e.c.; wastes or scraps	523.6	732.5	1 561.3	5.0	3.0	2.8	39.9	2.1*
Basic metals; fabricated metal products, except machinery and equipment	762.9	1 427.8	3 260.2	7.3	5.8	5.8	87.2	2.3*
Machinery and apparatus	1 781.0	4 365.4	10 994.8	17.1	17.7	19.5	2.5*	2.5*
Transport equipment	648.5	2 049.5	6 757.7	6.2	8.3	12.0	3.2*	3.3*
Others	2 467.3	8 076.6	16 694.1	23.7	32.7	29.7	3.3*	2.1*

*times more

2.12 Commodity Import Ratio

Commodity import ratio refers to the share of commodities imported relative to total supply, demand, or consumption.

A *high commodity import ratio* indicates:

- strong dependence on foreign goods,
- limited domestic production capacity,
- higher exposure to external shocks such as exchange rate fluctuations, global price changes, or supply chain disruptions.

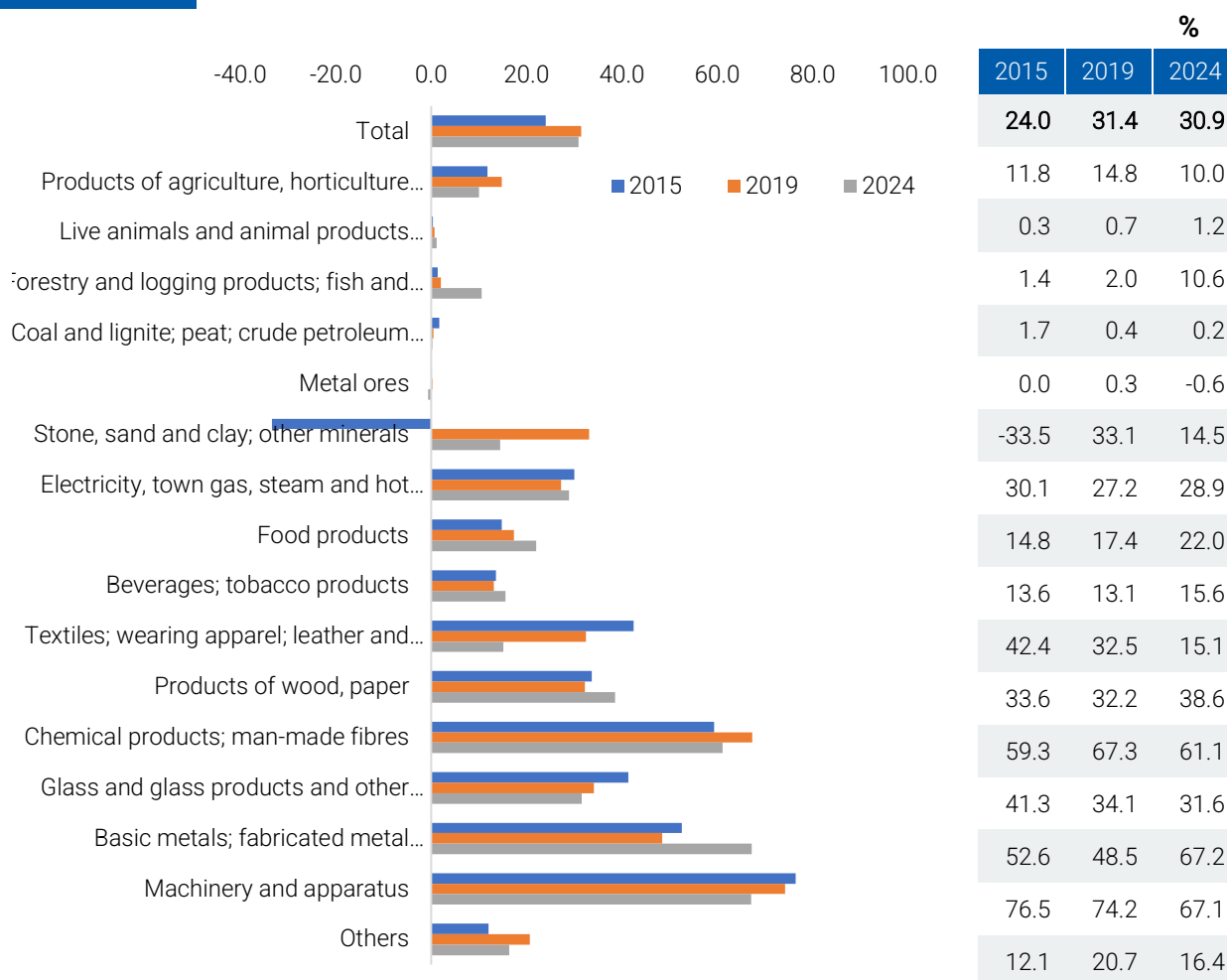
A *low commodity import ratio* indicates:

- domestic demand is largely satisfied by local production,
- greater domestic self-sufficiency,
- lower reliance on imports.

From the product classification of the 32×20 SUT matrix for 2024, the highest import ratios in domestic demand were recorded for basic metals and fabricated metal products except machinery and equipment (67.2%), machinery and equipment (67.1%), and chemicals and chemical products (61.1%).

Compared with 2019, the import ratio in domestic demand increased for basic metals and fabricated metal products except machinery and equipment by 18.7 percentage points, while it declined for textiles, knitted goods, leather products, and related articles by 17.4 percentage points.

FIGURE 20. COMMODITY IMPORT RATIOS TO DOMESTIC DEMAND



III. INPUT-OUTPUT TABLE, TYPES, COEFFICIENT FOR ANALYSIS

The National Statistics Office of Mongolia compiles and disseminates input-output tables in two main types:

1. Input-Output Table (Figure 21),
2. Competitive import type Input-Output Table (Figure 22)

FIGURE 21. SIMPLIFIED TYPE (MODEL) OF INPUT-OUTPUT TABLE

		Intermediate consumption			Final use	Import	Domestic production
		industry 1	...	industry n			
Domestic	industry 1	x_{11}^d		x_{1n}^d	F_1^d	-	X_1
	...					-	
	industry n	x_{n1}^d		x_{nn}^d	F_n^d	-	X_n
Imports	industry 1	x_{11}^m		x_{1n}^m	F_1^m	$-M_1$	-
	...						
	industry n	x_{n1}^m		x_{nn}^m	F_n^m	$-M_n$	-
Gross value added		V_1		V_n			
Domestic production		X_1		X_n			

The basic model of the input-output table (the non-competitive import type IOT) includes only domestic production in intermediate consumption

and final consumption, while imports are presented separately in rows.

FIGURE 22. SIMPLIFIED TYPE (MODEL) OF INPUT-OUTPUT TABLE (competitive import type)

		Intermediate consumption			Final use	Import	Domestic production
		industry 1	...	industry n			
industry 1		x_{11}		x_{1n}	F_1	$-M_1$	X_1
...							
industry n		x_{n1}		x_{nn}	F_n	$-M_n$	X_n
Gross value added		V_1		V_n			
Domestic production		X_1		X_n			

In the competitive import type input-output table (competitive import type IOT) model, domestic production and imports are combined in both

intermediate consumption and final consumption. Imports are shown in the columns with negative signs. The use of this model is relatively limited.

TABLE 10. INPUT-OUTPUT TABLE, at basic prices, 2024, trillion MNT

Industry Industry	Intermediate use				Intermediate use	Final use			Final use	Total economy
	Agriculture	Mining and quarrying	Industry, construction	Services		Final consumption	Gross capital formation	Exports		
Agriculture	1.1	0.0	3.7	0.2	5.0	1.4	1.1	1.1	3.6	8.6
Mining and quarrying	0.0	1.9	0.9	0.0	2.9	0.1	-1.2	46.1	45.0	47.9
Industry, construction	0.4	2.7	7.7	5.8	16.6	9.6	10.7	2.4	22.7	39.3
Services	1.4	10.0	6.6	17.8	35.9	32.7	5.3	3.6	41.6	77.5
Total	2.9	14.6	18.9	23.8	60.3	43.8	16.0	53.1	113.0	173.3
Imports	1.2	9.8	8.4	13.3	32.7	8.9	11.5	0.5	20.9	53.6
Total at basic prices	4.1	24.4	27.3	37.2	93.0	52.7	27.6	53.6	133.9	226.8
Taxes less subsidies on products	0.1	1.5	1.4	1.6	4.6	2.3	1.2	0.2	3.7	8.2
Total at purchaser prices	4.2	25.9	28.7	38.8	97.6	55.0	28.8	53.8	137.5	235.1
Cif/fob adjustment on exports					0.0	0.0	0.0	0.0	0.0	0.0
Direct purchases abroad by residents					0.0	2.7	0.0	0.0	2.7	2.7
Purchases in domestic market by non-residents					0.0	-1.7	0.0	1.7	0.0	0.0
Total at purchaser's prices	4.2	25.9	28.7	38.8	97.6	56.0	28.8	55.4	140.2	237.8
Compensation of employees	0.5	3.7	3.9	17.3	25.5					
Taxes less subsidies on production	0.0	0.1	0.0	0.3	0.4					
Consumption of fixed capital	0.1	3.2	1.2	4.0	8.4					
Operating surplus, mixed income, net	3.7	15.1	5.5	17.1	41.4					
Gross value added at basic prices	4.3	22.0	10.6	38.7	75.7					
Total output at basic prices	8.6	47.9	39.3	77.5	173.3					

In input-output analysis, the non-competitive import type input-output table is predominantly used. This is because, in order to accurately identify the impact

on domestic production, the effects of imports must be excluded from the calculations.

Coefficients for input-output analysis: input and output coefficients

Input coefficients represent the number of inputs required from other industries to generate one unit of production in each industry. Input coefficient also referred to technological coefficient and in input-output analysis, this coefficient is assumed to be fixed and constant.

To calculate the input coefficient, each element in the columns of the IOT is divided by the total domestic production of the corresponding industry.

Output coefficient shows the cost structure of goods and services supplied from each industry to other industries.

To calculate the output coefficient, each element in the rows of the IOT is divided by the total domestic production of the corresponding industry.

FIGURE 23. BASIC INPUT-OUTPUT TABLE

	[column] industry 1	[column] industry 2	...	[column] industry n	Final use (demand)	Total domestic production
[row] industry 1	x_{11}	x_{12}	...	x_{1n}	F_1	X_1
...	...	...	...	...	...	...
[row] industry n	x_{n1}	x_{n2}	...	x_{nn}	F_n	X_n
Gross value added	V_1	V_2	...	V_n		
Total domestic production	X_1	X_2	...	X_n		

When " a_{11} " is defined as the figure produced by dividing x_{11} , representing the input of [column] industry 1 from [row] industry 1 by " X_1 ", representing the domestic production, " a_{11} " represents the input required to produce one unit of production of [column] industry 1 from [row] industry 1.

Similar to intermediate inputs, $v_j = \frac{V_j}{X_j}$ can be defined by dividing the value added produced in [column] industry 1 by domestic products.

FIGURE 24. INPUT COEFFICIENT

	[column] industry 1	[column] industry 2
[row] industry 1	a_{11}	a_{12}
...	...	...
[row] industry n	a_{n1}	a_{n2}
Gross value added	V_1	V_2
Total domestic products	1.0	1.0

The sum of input coefficient $a_{ij} = \frac{x_{ij}}{X_j}$ and the value-added portion or coefficient $v_j = \frac{V_j}{X_j}$ in each industry is defined as 1.0.

FIGURE 25. OUTPUT COEFFICIENT

	[column] industry 1	[column] industry 2	...	[column] industry n	Final use (demand)	Total domestic products
[row] industry 1	b_{11}	b_{12}		b_{1n}	f_1	1.0
...	...	...		...		
[row] industry n	b_{n1}	b_{n2}		b_{nn}	f_n	1.0

Output coefficient $b_{ij} = \frac{x_{ij}}{X_i}$ is show how output of industry i is allocated to other industries (j).

IV. ANALYSIS OF INPUT-OUTPUT COEFFICIENT

The Input-Output Table in this analysis is developed as a dimension 32x32 matrix. Out of the 32 industries, 31 are included in the analysis (the 32nd, 'Other activities,' is treated as a technical row) (Annex 1).

TABLE 11. KEY INDICATORS OF COEFFICIENT

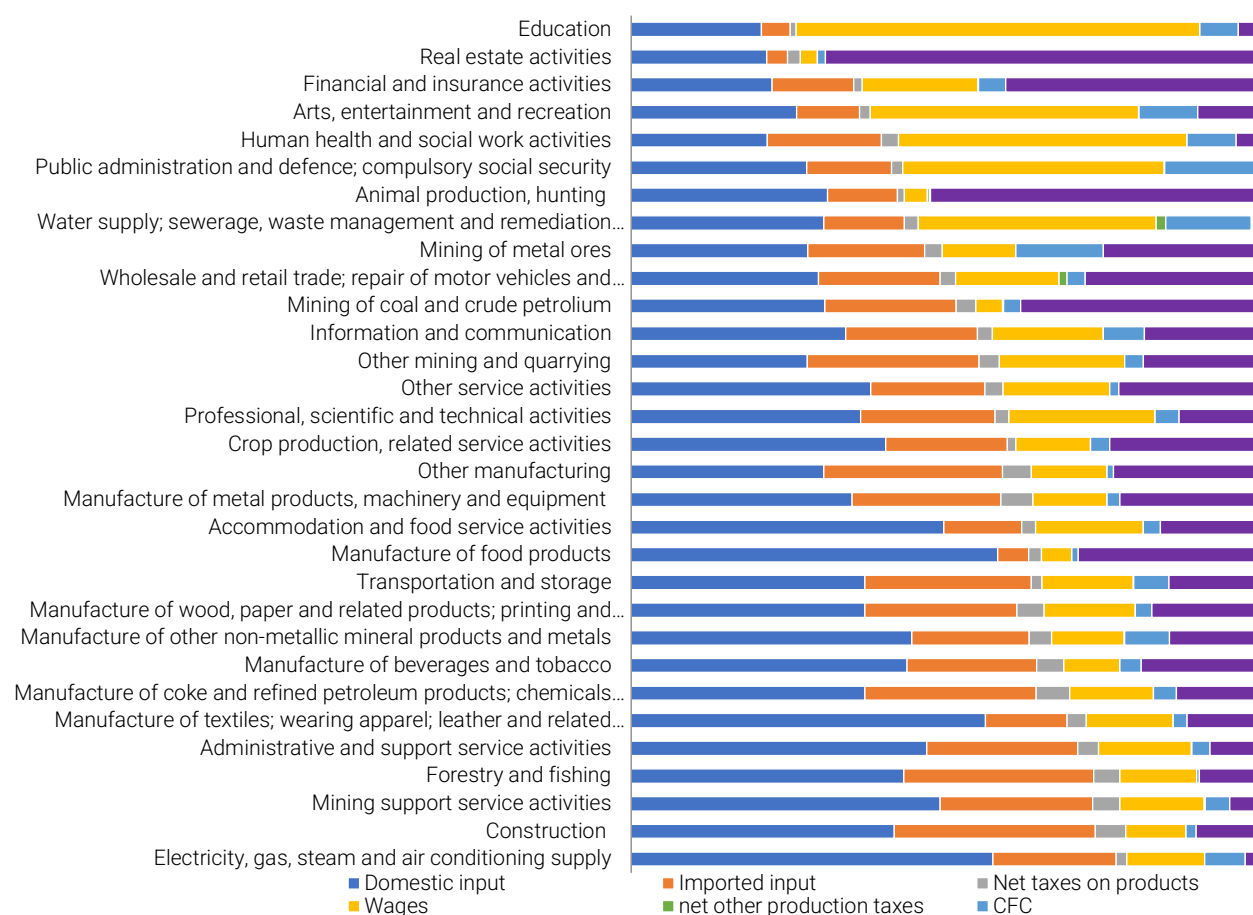
Indicators	Average	Minimum	Maximum
Share of Value Added	0.416	0.210	0.738
Wage share	0.182	0.027	0.643
Share of domestic intermediate input	0.368	0.207	0.583
Share of imported intermediate input	0.188	0.033	0.321
Import intensity (Imports /Total Inputs)	0.334	0.079	0.493
Export share	0.171	0.000	1.054
Final consumption share	0.351	0.000	0.950
Intermediate consumption share	0.428	0.007	0.849

Note: The export share may exceed 1, which indicates re-exports or that exports exceed domestic use.

4.1 Input structure-consumption

The input coefficient answers the question: How much domestic and imported intermediate goods, wages, profits, and capital costs are required by an industry to produce one unit of output?

FIGURE 26. INPUT COMPOSITION BY INDUSTRY, percent



Note: The input structure of each sector is ranked in ascending order based on the share of value added.

Labor intensive industry

The industry with the highest share of primary income and compensation of employees are predominantly social service sectors.

- Education (I28) - 64.3% (the highest in Mongolia)
- Human health and social work activities (I29) - 46.0%
- Arts, entertainment and recreation (I30) - 42.7%
- Public administration and defense (I27) - 41.6%
- Water supply, sewerage, waste management, and remediation activities (I17) - 38.8%.

These industries are publicly funded and characterized by a high degree of labor input. Since their outputs are primarily service based 'labor-intensive', they require relatively low material inputs.

Capital intensive industry

The industry with a high combined share of operating surplus/mixed income and consumption of fixed capital, indicating high capital utilization include the following:

- Real estate activities (I24): operating surplus/mixed income 69.1% - the industry dominated by private returns
- Livestock production (I2): operating surplus/mixed income 52.3% - largely driven by household-based small business income
- Financial and insurance activities (I23): operating surplus/mixed income 40.3% + consumption of fixed capital 4.3%
- Coal and petroleum extraction (I4): operating surplus/mixed income 38.0%
- Food manufacturing (I8): operating surplus/mixed income 28.8%.

4.2 Domestic and imported intermediate inputs

Import intensity reflects the extent to which a sector relies on imports relative to its total input structure.

TABLE 12. IMPORT INTENSIVE INDUSTRY

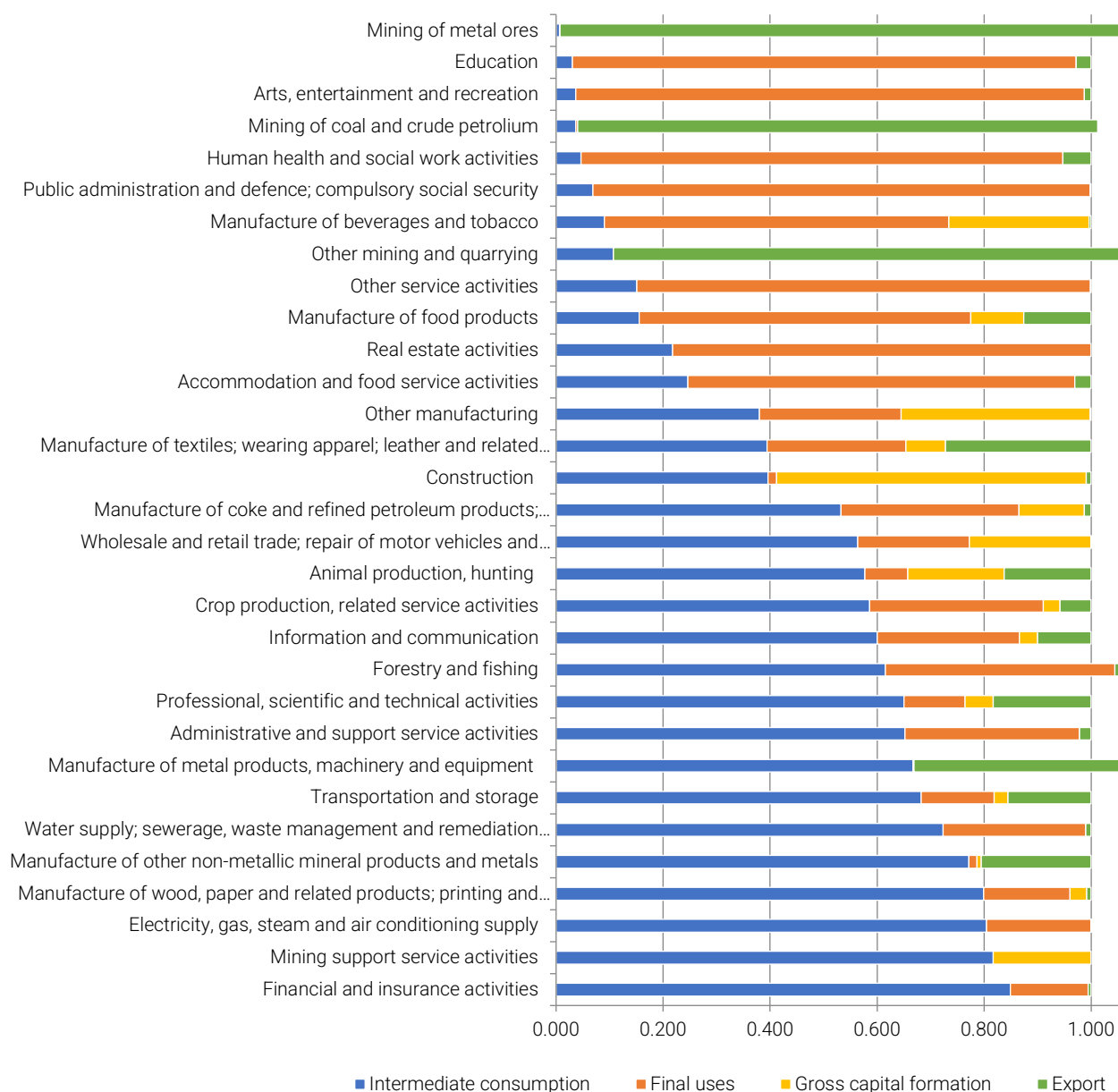
Industry	Domestic inputs	Import inputs	Import intensity
Other mining and quarrying (I6)	0.281	0.273	0.493
Other manufacturing (I15)	0.307	0.285	0.482
Human health and social work activities (I29)	0.217	0.182	0.457
Construction (I18)	0.419	0.321	0.434
Manufacture of coke and refined petroleum products; chemicals and chemical products (I12)	0.372	0.273	0.423
Transportation and storage (I20)	0.373	0.265	0.415

The industry presented in Table 12 shows high absorption of imported goods; hence, sensitive to exchange rate fluctuations and external trade

shocks. In the construction sector, materials such as timber, cement, steel, and related components are largely imported.

4.3 Output allocation (structure) – Sales

FIGURE 27. OUTPUT ALLOCATION BY INDUSTRY



Note: Ranked in descending order by the share of intermediate consumption.

Intermediate linkage sectors in domestic production (Inputs and outputs)

Industry with a high share of intermediate consumption serves as the core of the production network:

- Financial and insurance activities (23): 84.9% intermediate consumption.
- Mining support activities (7): 81.7%.
- Electricity, gas, and steam (16): 80.5%.
- Wood, paper, and printing (11): 79.9%.
- Other non-metallic mineral products and metals (13): 77.2%

Industry dominated by final consumption

- Arts, entertainment, and recreation (30): final consumption 95.0%.
- Education (28): 94.1%.
- Public administration (27): 92.9%.
- Human health (29): 90.1%.
- Other service activities (31): 84.8%.

TABLE 13. EXPORT-ORIENTED INDUSTRY

Industry	Export share	Intermediate input share
Mining of metal ores (5)	1.054	0.007
Other mining and quarrying (6)	0.990	0.107
Mining of coal and crude petroleum (4)	0.972	0.037
Manufacture of fabricated metal products and machinery and equipment (14)	0.794	0.667
Manufacture of textiles, wearing apparel and leather and related products (10)	0.272	0.394
Manufacture of other non-metallic mineral products and basic metals (13)	0.205	0.772

The first three mining industries export approximately 99-105% of their total output to external markets. This indicates that Mongolia's economy is highly sensitive to fluctuations in global

commodity prices. On the one hand, these sectors serve as the primary source of foreign exchange earnings, while on the other hand, they represent a major source of external vulnerability.

4.4 Labor - capital structure and External trade

FIGURE 28. WAGES VS OPERATING SURPLUS/MIXED INCOME (LABOR-CAPITAL INTENSITY)

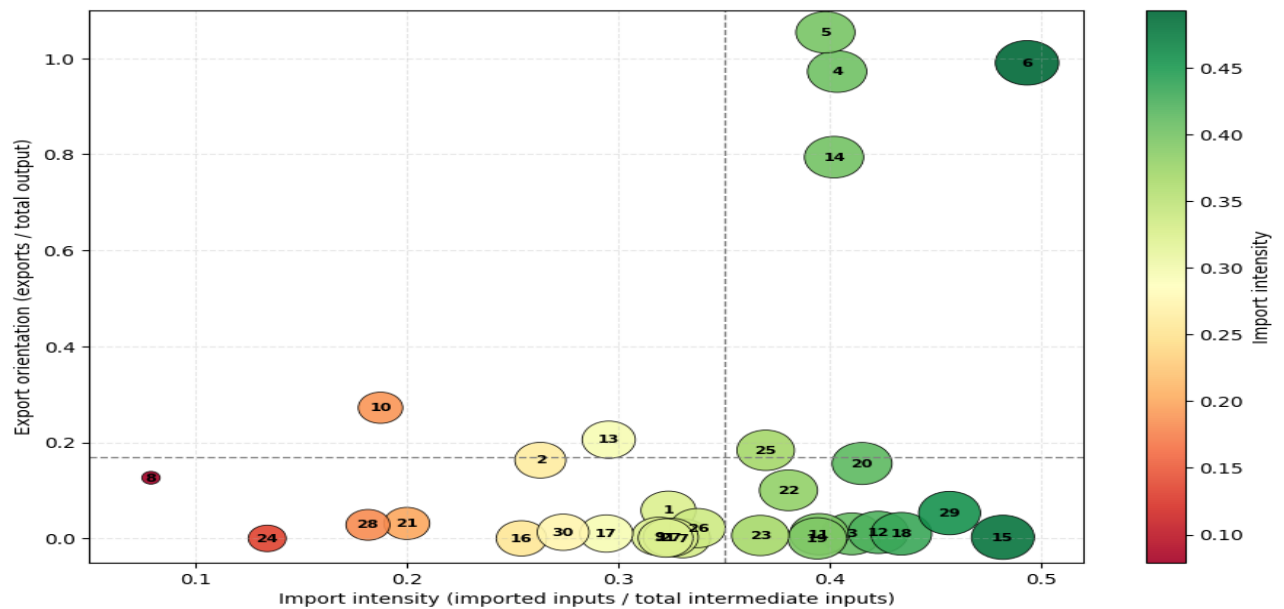
The graph clearly reveals three distinct groups:

- Upper left (high wages): Education, water supply, and health - predominantly social service sectors;
- Lower right (high capital): Real estate, livestock production, and finance - sectors

where returns are concentrated among households and firms;

- Lower center: Production sectors that rely heavily on imports and intermediate inputs - intermediary sectors such as construction, electricity, and transport.

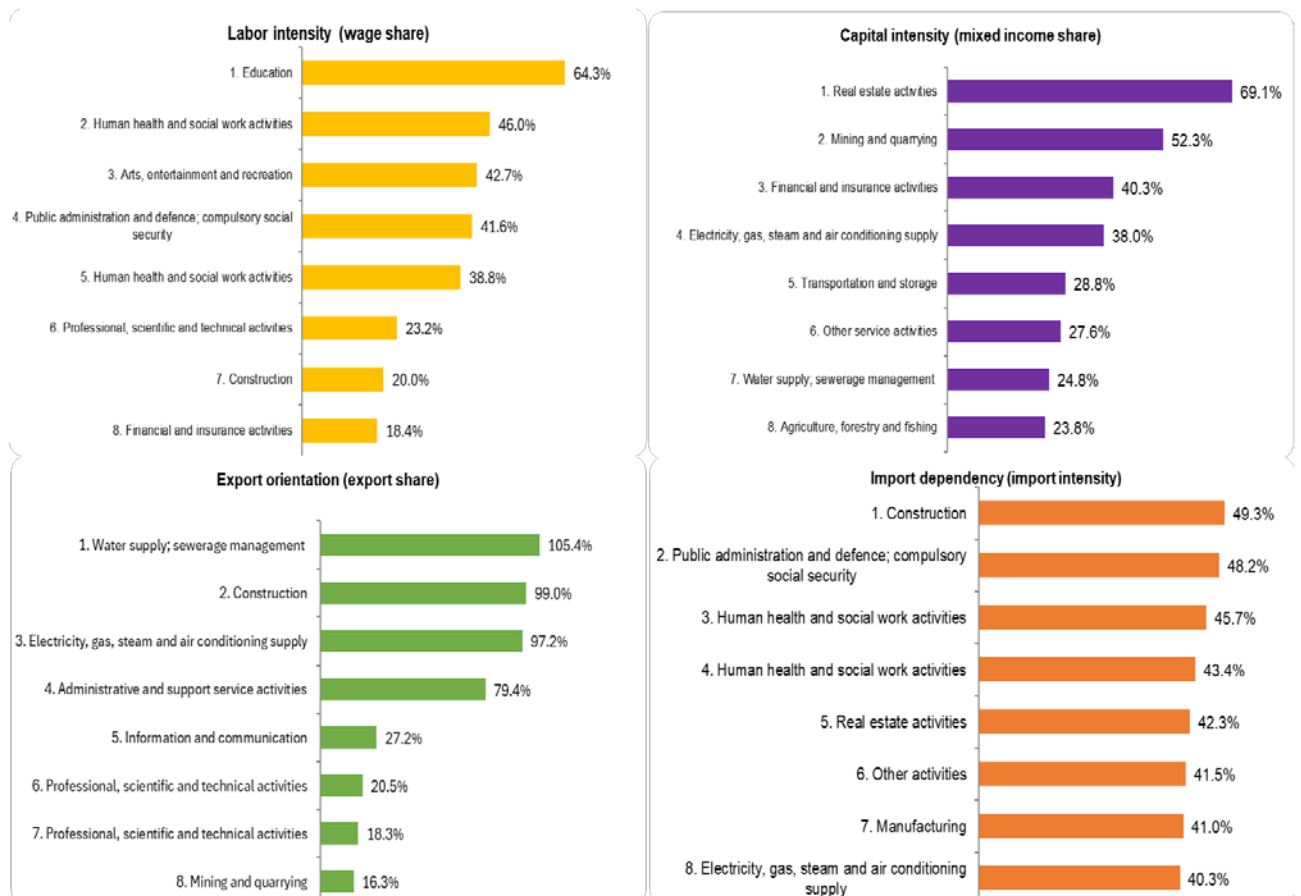
FIGURE 29. IMPORT INTENSITY AND EXPORT ORIENTATION



This graph highlights two distinct characteristics of Mongolia's economy:

- Upper side (high exports, low imports): Mining sectors - the backbone of exports.
- Right side (high imports): Manufacturing, construction, and healthcare - sectors highly dependent on imported goods and therefore more vulnerable to exchange rate risks.

FIGURE 30. TOP 8 INDUSTRY BY KEY INDICATORS



Supplementary Tables

I. Supply and Use Tables (32 product x 20 industry)

1. 32-Product grouping description of SUT
2. 20-Industry grouping description of SUT
3. Supply table, 32x20 for 2024
4. Use table, 32x20 for 2024

II. Input-Output Table (32 industry x 32 industry)

5. 32-Industry grouping description of IOT
6. Input-output table, size 32x32 industry, for 2024
7. 32-industry Leontief Inverse Matrix
8. 32-industry Technical Coefficient Matrix (Input-coefficients)
9. 32-industry Allocation Coefficient Matrix (output-coefficients)



SUPPLEMENTARY TABLE 1. 32-PRODUCT GROUPING DESCRIPTION OF SUPPLY AND USE TABLES

Product	Product grouping description	CPC code
P1	Products of agriculture, horticulture and market gardening	01
P2	Live animals and animal products (excluding meat)	02
P3	Forestry and logging products; fish and other fishing products	03-04
P4	Coal and lignite; peat; crude petroleum and natural gas	11-12
P5	Metal ores	14
P6	Stone, sand and clay; other minerals	15-16
P7	Electricity, town gas, steam and hot water; natural water	17-18
P8	Food products	21-23
P9	Beverages; tobacco products	24-25
P10	Textiles; wearing apparel; leather and leather products; footwear	26-29
P11	Products of wood, paper	31-32
P12	Chemical products; man-made fibres	33-36
P13	Glass and glass products and other non-metallic products n.e.c.; furniture; other transportable goods n.e.c.; wastes or scraps	37-39
P14	Basic metals; fabricated metal products, except machinery and equipment	41-42
P15	Machinery and apparatus	43-48
P16	Transport equipment	49
P17	Construction services	54
P18	Wholesale and retail trade services	61-62
P19	Accommodation, food and beverage services	63
P20	Transport and postal and courier services	64-68
P21	Electricity, gas and water distribution (on own account)	69
P22	Financial and related services	71
P23	Real estate services; leasing or rental services without operator	72-73
P24	Professional, technical and business services	81-84
P25	Support services	85-89
P26	Public administration and other services provided to the community as a whole; compulsory social security services	91
P27	Education services	92
P28	Human health and social care services	93
P29	Sewage and waste collection, treatment and disposal and other environmental protection services	94
P30	Services of membership organizations	95
P31	Recreational, cultural and sporting services	96
P32	Other services	97-98

SUPPLEMENTARY TABLE 2. 20-INDUSTRY GROUPING DESCRIPTION OF SUPPLY AND USE TABLES

Industry	Industry grouping description	ISIC code
I1	Agriculture, forestry and fishing	A
I2	Mining and quarrying	B
I3	Manufacturing	C
I4	Electricity, gas, steam and air conditioning supply	D
I5	Water supply; sewerage, waste management and remediation activities	E
I6	Construction	F
I7	Wholesale and retail trade; repair of motor vehicles and motorcycles	G
I8	Transportation and storage	H
I9	Accommodation and food service activities	I
I10	Information and communication	J
I11	Financial and insurance activities	K
I12	Real estate activities	L
I13	Professional, scientific and technical activities	M
I14	Administrative and support service activities	N
I15	Public administration and defence; compulsory social security	O
I16	Education	P
I17	Human health and social work activities	Q
I18	Arts, entertainment and recreation	R
I19	Other service activities	S
I20	Other activities	TU

SUPPLEMENTARY TABLE 3. 32-INDUSTRY GROUPING DESCRIPTION OF INPUT-OUTPUT TABLE

Industry	Industry grouping description	ISIC 4 code
I1	Crop production, related service activities	011-013, 016
I2	Animal production, hunting	014, 017
I3	Forestry and fishing	02-03
I4	Mining of coal and crude petroleum	05-06
I5	Mining of metal ores	07
I6	Other mining and quarrying	08
I7	Mining support service activities	09
I8	Manufacture of food products	10
I9	Manufacture of beverages and tobacco	11-12
I10	Manufacture of textiles; wearing apparel; leather and related products	13-15
I11	Manufacture of wood, paper and related products; printing and reproduction of recorded media	16-18
I12	Manufacture of coke and refined petroleum products; chemicals and chemical products	19-22
I13	Manufacture of other non-metallic mineral products and metals	23-24
I14	Manufacture of metal products, machinery and equipment	25-30
I15	Other manufacturing	31-33
I16	Electricity, gas, steam and air conditioning supply	35
I17	Water supply, sewerage, waste management and remediation activities	36-39
I18	Construction	41-43
I19	Wholesale and retail trade; repair of motor vehicles and motorcycles	45-47
I20	Transportation and storage	49-53
I21	Accommodation and food service activities	55-56
I22	Information and communication	58-63
I23	Financial and insurance activities	64-66
I24	Real estate activities	68
I25	Professional, scientific and technical activities	69-75
I26	Administrative and support service activities	77-82
I27	Public administration and defense; compulsory social security	84
I28	Education	85
I29	Human health and social work activities	86-88
I30	Arts, entertainment and recreation	90-93
I31	Other service activities	94-96
I32	Other activities	97-99