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Arab Republic of Egypt
Central Agency For Public Moilization & Statistics

Social Accounting Matrix (SAM) for Egypt 2010 / 2011

August 2015

CGIAR RESEARCH PROGRAM ON Policies, Institutions, and Markets Led by IFPRI
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EGYPT

CAPMAS

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Preface

The Central Agency for Public Mobilization and Statistics (CAPMAS) is pleased to present the Social Accounting Matrix (SAM) for Egypt for 2010/2011, which indicates all inter relationships and economic transactions amongst all the regulatory sectors in the Egyptian economy and the rest of the world. The SAM provides data on the economy geared towards economic planners and analysts, as well as decision-makers. The data is used in economic analysis and assessment, and is to be used with economic models that help study the impact of economic policy reform on socio-economic transformations within the community**.**

The availability of comprehensive and coherent socio-economic data is an essential requirement to the development of any national strategic plan and so compiling and presenting that data in a specific format (as a social accounting matrix) provides the required database as an input to using Computable General Equilibrium (CGE) Models for policy analysis. In building the Egypt SAM, the year 2010/2011 was used as a reference year that coincides with the most recent Supply and Use Tables, one of the key pillars of SAM construction.

Construction of the Egypt SAM was in collaboration with the World Food Programme (WFP) Egypt and the International Food Policy Research Institute (IFPRI) in Washington D.C., and under the technical supervision of Professor Iman Muhammad Ahmed, Head of the Department of Economics, Faculty of Commerce, Port Said University.

CAPMAS looks forward to receiving feedback and comments of those interested in economic and financial studies, especially studies that may contribute improving and building upon this body of work. The Egypt SAM for 2010/2011 shall be accessible for all interested users online through our official website.

Major General/ Abu Bakr Al Gendi
President of the Central Agency for Public Mobilization and Statistics

Acknowledgment

The staff of the General Department of National Accounts extend their thanks and appreciation to all those who collaborated with us in preparing for and producing this significant statistical output. We would like to pay special tribute to Major General Abu Bakr Al Gendi, President of CAPMAS, for his continuous and on-going support to the Department's staff.

This work is funded by the World Food Programme (WFP) Egypt and the CGIAR's Research Program on Policies, Institutions and Markets (PIM), under the leadership of the International Food Policy Research Institute (IFPRI).

We would also like to express our appreciation to Professor Iman Muhammad Ahmed Ali, Head of Department of Economics, Port Said University; Advisors to CAPMAS' President and CAPMAS' leaders for their continuous and on-going support for the staff in constructing the Social Accounting Matrix for Egyptian economy for 2010/2011.

We hope that this work realizes its objective, which is to benefit economic researchers, analysts and decision makers; and ultimately, to present a value added to the Agency, in general, and to national accounts, in particular.

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I. Introductory concepts

1. Introduction

Any economy depends, in its formation, on an array of interwoven relationships and linkages among production, consumption, investment and saving, its various sectors and its relationship with the outside world. These relationships and interlinkages can be captured in a moment in time in a table of these flows known as a social accounting matrix or more commonly known as, a SAM. The SAM is at the core of computable general equilibrium (CGE) modeling. A modeling technique that allows ex-ante analysis of policy scenarios and their impact on the economy as a whole.

The Egypt SAM for 2010/2011, was constructed as a preliminary step towards building a socio-economic tool that able to provide a comprehensive and coherent socio-economic database. Portraying the above mentioned relationships and linkages, the SAM provides the database needed for further analysis.

The availability of statistical data, namely, the supply and use tables constructed by CAPMAS for 2010/2011, has greatly facilitated the construction of the 2010/2011 SAM for the Egyptian economy. The SAM developed is made up of 144 rows and 144 columns. Its accounts were divided into seven categories; production activities, commodities (goods and services), factors of production, households and other (non-governmental) domestic institutions, the government, savings/investment and the rest of the world (ROW).

2. A Social Accounting Matrix (SAM)

A SAM is a representation of an economy showing the flow of income from production activities in the form of factor payments to the households and the consequent flow back to product markets through household spending on goods and services. It is a square matrix where the column sum must equal the sum of the corresponding row. Each cell in the SAM can either represent the payments from a column account to a row account, or, an income received by a row account from a column account. The rows indicate income received whereas the columns indicate payments made. As a result, the SAM represents an analytical tool that highlights the interactions throughout the economy in the form of circular flows.

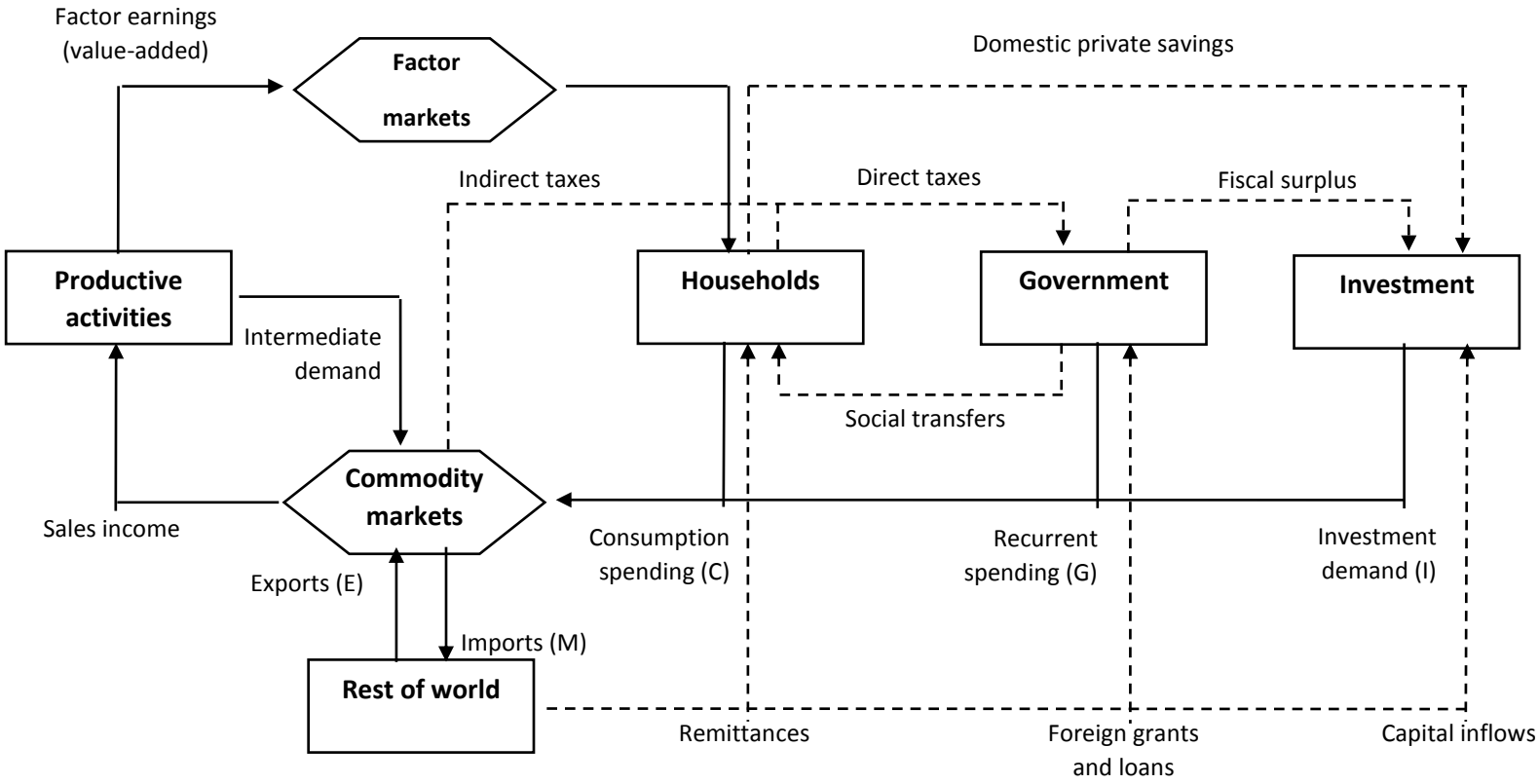
The SAM differs from national accounts data, and supply use tables, because it is not restricted to only income generation and utilization. It also includes the distribution of income across households and other domestic (non-governmental) institutions. Subject to data availability, the SAM accounts in each category may be disaggregated appropriately to address the policy questions addressed in economic models such as CGE models.

3. Circular flow of income

The SAM's circular flow of income in the economy is represented in Figure 1. Households (and other domestic institutions) own the factors of production (labor, land and capital) and receive payment (factor

earnings or value added) from the production activities for the use of these factors. In turn, households use a portion of these factor earnings and other sources of income (such as; transfers and remittances) to purchase goods and services from these commodity accounts (and from the rest of the world in the form of imports) making up private consumption. Activities, commodities, households and other domestic institutions pay taxes to the government who use a portion and spend on consumption of goods and services (government consumption) as well as paying transfers to households in the form of social transfers. In an open economy, the rest of the world provides goods and services (in the form of imports) and pays for its demand of domestically produced goods and services (exports). The rest of the world also pays out transfers to the domestic economy (through workers' remittances and transfers to the government)

Figure 1: Circular flow diagram of the economy



Source: Breisinger, Thomas and Thurlow (2009).

4. Definitions and terminologies

Activities: Activities integrate production inputs with factors of production through the production process to produce goods and services.

Commodities: Goods and services produced domestically through production activities or imported from abroad.

Factors of production: Factors that contribute to the production process, namely, labor, capital and land.

Returns to labor: Total wages and salaries (before deduction of retirement contributions or taxes); and cash, in-kind, and social benefits accruing to all employees in all economic activities.

Return to capital: Includes interests and profits.

Return to land: Includes rent on agricultural land.

Fixed capital formation: Value of additions to fixed assets during the year, less exclusions.

Change in stock: The value of stock at end of year *minus* value of stock at the beginning of the year *plus* net change in stock during the year.

Gross fixed capital formation (investment – (I)): Fixed capital formation *plus* change in stock.

Government sector: It includes units of the central government, local government and service authorities. It does not include economic authorities, public sector, or public business sector. Government units provide primarily non-market services; and may provide goods for individual consumption.

Non-financial sector: It includes institutions whose primary activity is the production of all (market) goods and services except financial services.

Financial sector: It includes institutions whose primary activity is financial mediation, or supporting financial activities closely associated with financial mediation. Accordingly, this sector includes the Central Bank, commercial and specialized banks, insurance companies, pension funds, stock markets, brokerage and exchange bureaus, and the like.

Non-profit institutions serving households (NPISH): These are legal and social entities that primarily produce non-market goods and service for the households (gratuitously or for a fee but not for profit). The main resources of these institutions are donations or contributions from the households they serve. These institutions produce services for individual consumption, but not for collective services. There are two types of these institutions:

- *First type* includes institutions that are established through unions formed by individuals to provide goods or services primarily for the interest of the members. Services are usually provided freely, and are funded through regular membership fees and subscriptions, such as professional associations, parties, etc.
- The *second type* includes charity associations, relief and aid agencies established for charitable purposes. Most of the resources of these institutions are from cash and in-kind donations and aid.

Households: The household is defined as an individual or group of people who share the same residence; combine part or all their income and wealth; and collectively consume specific types of goods and services, mostly housing and food. The household is often similar to matrimonial family (the family). However, members of the household do not necessarily belong to the same family even though they share resources and consumption. Paid domestic workers who live with the employer in one house do not constitute part of the employer's household, even if the accommodation and food are presented as in-kind wage. Production in the household is within the framework of projects owned and directly controlled by members of the household, either individually or through partnership with others. These are considered informal projects.

Rest of the world: This includes all foreign organizations that have transactions with domestic organizations; or that have other economic relations with domestic entities. Rest-of-the-world sector also includes foreign organizations physically existing within the country's geographical borders such as (embassies, military bases, international organizations…etc.), in addition to the non-resident units outside the country's geographical borders.

Exports (E): Value of the goods and services sold by domestic units to the rest of the world.

Imports (M): Value of the goods and services bought by domestic institutions from the external world.

Direct taxes: Value of taxes on income, property and wealth.

Indirect taxes: These consist of taxes payable on goods and services for parts of the production process, or on the sale, transfer of ownership, lease or supply of these goods or services; or as a tax on the consumption of goods and services; or for private capital formation, such as sales tax, consumption fee, taxes on certain services …etc.

Customs duties: These include taxes payable on goods and services the moment they cross the customs borders of the country's economic region or when goods are delivered through non-domestic producers to domestic organizations.

Subsidies: These include payments that the government makes based on the quantity or value of goods or services that the commodity sectors produce, sell or import. Subsidies always aim to impact the price level or to cover losses that result from the state's policy of controlled prices.

Domestic production: The value of goods and services produced by domestic institutions, be they inside or outside the country.

Gross Domestic Product (GDP): Gross value added in producer prices realized by all domestic resident producing units, *plus* taxes and *minus* subsidies on products.

Gross National Product (GNP): GDP *plus* net remittances of expatriates and return on factors of production from abroad.

Total supply: Total goods and services supplied in the market, be they domestically produced imported.

Total demand: Total goods and services demanded in the domestic market, including intermediate consumption, household final consumption expenditure, government final consumption expenditure, NPISH final consumption expenditure, gross fixed capital formation (investment) and exports.

Intermediate consumption: Goods and services used as inputs in the production process (production requirements).

Household final consumption expenditure (C): Expenditure of domestic households on the consumption of goods and services, including goods and services sold at non-economic prices.

Government final consumption expenditure (G): General government spending on individual consumption goods and services, and collective consumption services.

Government transfers: Value of what the government pays to other sectors, such as social security pensions, and subsidies.

Transfers by economic institutions to the Government: Value of what non-government sectors pay to the government, such as transferred surplus, penalties, donations and current transfers.

Transferred surplus to the government: Surplus of economic authorities, public sector, and public business sector transferred to the Ministry of Finance according to the applicable laws and regulations.

Government transfers to the rest of the world: Value of what the government pays to the rest of the world, including grants to foreign countries and international organizations.

Foreign transfers to the government: Value of what the rest of the world pays to the government, such as grants from foreign governments and international organizations.

Buyer's price: Amount paid by the buyer. This price includes net taxes and subsidy *plus* transport and trade margins.

Primary price: The product price before adding taxes and deducting subsidies, and excluding transport and trade margins to the price of the product.

Transport margin: Transport costs paid separately by the buyer for their purchase of commodities at a set time and place.

Trade margin: The spread between the selling price and buying cost of the commodity sold at the time of sale or use.

5. The Conceptual Macro-SAM

Before even starting the numerical exercise of building a SAM, it is important to conceptually explore the structure of a SAM and to understand the linkages and relationships within the economy as portrayed in a more compact presentation that we call the Macro-SAM. The Macro-SAM is a SAM where activities, commodities, and households (among other accounts) are aggregated into single accounts. It still represents the circular flow of income underlying all SAM structures, just presented in a simple matrix format.

Table 1 presents the conceptual Macro-SAM (9 Rows x 9 Columns) for the Egyptian economy and will be the reference table for this section. In general, the discussion below focuses on the conceptual underpinnings of the SAM, abstracting from any numerical examples.

Activities and commodities

The SAM distinguishes between "activities" and "commodities." Activities are the entities that produce goods and services, and commodities are those goods and services produced by activities. They are separated because sometimes an activity produces more than one kind of commodity (by-products). Similarly, commodities can be produced by more than one kind of activity: for example, maize can be produced by small or large-scale farmers. The values in the activity accounts are usually measured in producer prices (that is, farm or factory gate prices).

Activities

Activities produce goods and services by combining the factors of production with intermediate inputs. This is shown in the activity column of the SAM, where activities pay factors the wages, rents and profits they generate during the production process (that is, value-added). This is a payment from activities to factors, and so the value-added entry in the SAM appears in the activity column and the factor row [R3-C1]. Similarly, intermediate demand is a payment from activities to commodities [R2-C1]. Adding together value-added and intermediate demand gives gross output. The information on production technologies contained in the activity column is the input part of a typical "input-output table," or factor and intermediate inputs per unit of output.

Commodities

Commodities are either supplied domestically [R1-C2] or imported [R8-C2]. Indirect sales taxes and import tariffs are paid on these commodities netting out the subsidies that the government pays to support some of the commodity sectors [R6-C2]. This means that the values in the commodity accounts are measured at market prices. Commodities are purchased by a number of economic entities. As discussed, activities buy commodities to be used as intermediate inputs for production [R2-C1]. Final demand for commodities consists of consumption spending by households, enterprises and financial and non-financial institutions (both private and public), otherwise known as *households and other domestic institutions* [R2-C4], government consumption, or recurrent expenditure [R2-C5], gross capital formation or investment [R2-C7], and export demand [R2-C8].

Table 1: Basic structure of a SAM

S.A.M		1	2	3	4	5	6	7	8	9
		Activities	**Commodities**	**Factors of Production**	**Households & Other Domestic Institutions**	**Government**	**Taxes**	**Savings/ Investment**	**Rest of the world**	**Total**
1	**Activities**		Domestic supply							**Activity Income**
2	**Commodities**	Intermediate Demand			Consumption Spending (C)	Recurrent Spending (G)		Investment Demand (I)	Exports (E)	**Total Demand**
3	**Factors of Production**	Value added							Factor income from abroad	**Total Factor Income**
4	**Households & Other Domestic Institutions**			Factor payments		Transfers			Worker's Remittances	**Households and other domestic institutions Income**
5	**Government**				Transferred surplus		Net Tax revenue[1]		Foreign Grants & Loans	**Total Government Revenue**
6	**Taxes**		Indirect taxes + tariffs less subsidies		Personal income tax					**Total Net Tax Revenue**
7	**Savings/ Investment**				Private Savings	Fiscal Balance			Current Account Balance	**Total Savings**
8	**Rest of the world**		Imports (M)	Factor income to the rest of the world	Transfer payment from the HH sector	Transfers from the government				**Foreign Exchange Outflow**
9	**Total**	**Gross Output**	**Total Supply**	**Total Factor Spending**	**Total Other Sector Spending**	**Total Government Spending**	Total Net Tax	**Total Investment Spending**	**Foreign Exchange Inflow**	

Source: Breisinger, Thomas and Thurlow (2009) and authors' modification.

[1] This account includes; net indirect taxes on goods and services (where subsidies are netted out), customs duties, and direct taxes (income and property income taxes).

Domestic institutions

A SAM is different from an input-output table because it not only traces the income and expenditure flows of activities and commodities, but it also contains complete information on different institutional accounts, such as the households and other domestic institutions account[2] and the government. Households and the other domestic (non-government) institutions are usually the owners of the factors of production, and so they receive the incomes earned by factors during the production process [R4-C3]. They also receive transfer payments from the government [R4-C5] (for example, social security and pensions), and from the rest of the world [R4-C8] (such as remittances received from family members working abroad). Households then pay income taxes to the government through the taxes account [R6-C4] and purchase goods and services from the commodity account [R2-C4]. Households and other domestic institutions also transfer payments abroad to the rest of the world [R8-C4] and transfers surpluses to the government [R5-C4]. The remaining income is then saved (or dis-saved if expenditures exceed income) [R7-C4].

The government receives transferred surpluses from households and other domestic institutions [R5-C4] and from the rest of the world [R5-C8] (such as foreign grants and development assistance). In addition, the government receives income in the form of net taxes [R5-C6] thus making up total government revenues. The government uses these revenues to pay for recurrent consumption spending [R2-C5], for transfers to households and other domestic institutions [R4-C5] and to send transfers to the rest of the world [R8-C5]. The difference between total revenues and expenditures is the fiscal surplus (or deficit if expenditures exceed revenues) [R7-C5].

Savings, investment and the foreign account

According to the ex-post accounting identity, investment or gross capital formation must equal total savings. So far we have accounted for households and other domestic institutions savings [R7-C4] and government savings [R7-C5]. The difference between total domestic savings and total investment demand is reflected in "foreign savings", or what is called the current account balance [R7-C8].

II. A Macro-SAM for Egypt, 2010/2011[3]

The first step to constructing a SAM is to construct the numerical Macro-SAM. In its detailed form, the SAM can be disaggregated in a multitude of ways depending upon data availability and the policy question under study. Usually, data needed for the disaggregation is produced and published by national statistical organization in its national accounts, or other periodic statistical bulletins and supply use tables. That is why the most important sources of the data are; the supply use tables and the fiscal bulletins published by CAPMAS and other end of year fiscal accounts published by the Ministry of Finance. Other important data sources are; the Central

[2] As mentioned previously, this account includes households, the private sector, financial and non-financial sectors (such as economic sectors, state owned enterprises, non-governmental organizations, professional unions, etc…) in the economy.

[3] For this entire section, please refer to Table 2 for the sources of data used in constructing the Macro-SAM.

Bank of Egypt's balance of payments accounts, bulletins from the Ministry of Planning, the Ministry of Agriculture and Land Reclamation as well as other data sources for the year 2010/2011.

In constructing the Egypt SAM for 2010/2011, a mélange of sources are used. It is always better to use accurate and consistent national sources in building the SAM. This section will refer to Table 2 below which lists all the sources used in constructing the Macro-SAM and the corresponding figures for the macro totals as a reference.

Table 2: Key macroeconomic aggregates and sources of data used in Macro-SAM, 2010/2011

Macro aggregate	**Data Sources**	**Value (EGP Billion)**
Household consumption expenditure (C)	Supply and use tables 2010/2011- CAPMAS	1,005.6
Government consumption expenditure (G)	Supply and use tables 2010/2011- CAPMAS	131.0
Investment demand (*Gross fixed capital formation*) (I)	Supply and use tables 2010/2011- CAPMAS	246.4
Total exports of goods and services (E)	Supply and use tables 2010/2011- CAPMAS	282.2
Total imports of goods and services (M)	Supply and use tables 2010/2011- CAPMAS	362.7
Intermediate demand	Supply and use tables 2010/2011- CAPMAS	925.8
Production factors: Land, capital, labor (*GDP at factor cost*)	Supply and use tables 2010/2011- CAPMAS BOP 2010/2011 – Central Bank Statistical bulletin of agricultural production requirements 2010/011- Ministry of Agriculture and Land Reclamation	1,341.7
Domestic production (*intermediate demand + value added*)	Supply and use tables 2010/2011- CAPMAS	2,265.6
Net taxes *(indirect taxes+ production subsidy + customs duties+ income taxes*)	Supply and use tables 2010/2011- CAPMAS Final accounts - Ministry of Finance (MOF)	61.8
Current government transfers to households and other domestic institutions (*social insurance and retirement pensions*)	Final accounts 2010/2011- MOF	103.6
Remittances of expatriates (*net personal transfers + foreign exchange*)	BOP 2010/2011- Central Bank	84.3

We first build GDP at market prices using the aggregate demand components of the Egyptian economy.

GDP at market prices:

As a first step towards construction, we start with data on aggregate final demand[4] and fill in the relevant cells according to the identity below.

GDP = Private Consumption + Government Consumption + Investment demand + Net Trade Balance

Or

GDP = C + G + I + (X-M)

GDP = (R2-C4) + (R2-C5) + (R2-C7) + [(R2-C8) – (R8-C2)]

GDP (EGP Billion) = 1,005.6 + 131.0 + 246.4 + (282.2 – 362.7) = EGP Billion 1,302.5

After deriving these macro aggregates the rest of the cells in the Macro-SAM are then filled in giving us Table 3 that shows the constructed Macro-SAM for Egypt for 2010/2011.

[4]Throughout the SAM construction and balancing process, these macro variables have to always coincide to the data source used to procure them.

Table 3: Egypt Macro-SAM (2010/2011), EGP Billion

S.A.M		1	2	3	4	5	6	7	8	9
		Activities	**Commodities**	**Factors of production**	**Households and other domestic institutions**	**Government**	**Taxes**	**Savings/Investment**	**Rest of the world**	**Total**
1	**Activities**		2265.6							2265.6
2	**Commodities**	925.8			1005.6	131.0		246.4	282.2	2591.0
3	**Factors of Production**	1339.8							1.9	1341.7
4	**Households and other domestic institutions**			1302.5		103.6			84.3	1490.5
5	**Government**				84.8		61.8		1.3	147.9
6	**Taxes**		-37.3		99.0					61.8
7	**Savings/Investment**				299.2	-86.9			34.1	246.4
8	**Rest of the world**		362.7	39.2	1.8	0.2				403.8
9	**Total**	2265.6	2591.0	1341.7	1490.5	147.9	61.8	246.4	403.8	

Source: CAPMAS estimates

1. Intermediate demand:

Intermediate demand in 2010/2011 was EGP billion 925.8 (See Table 2).

2. Factor income:

In the Macro SAM (Table 3) column 3 outlines how factor income is distributed to institutions. Row 4 and column 3 shows factor income that is received by households and other domestic institutions, i.e. incomes that compensate labor (wages and salaries) plus the income of self-employed workers, plus factor income that is distributed abroad (Row 3 and column 8).

3. Domestic supply:

Once total factor income and intermediate demand are calculated, we calculate domestically produced output sold on the domestic market which will be equal to the column total of the activity account (column 1).

4. Households and other domestic institutions account:

A. *Payments to Households and other domestic institutions*

Row 4 in the Macro SAM includes all current income received by households and other domestic institutions, namely: factor incomes (column 3), transfers from the government, e.g. pension payments (column 5), and transfers from the rest of the world, e.g. remittances (column 8).

1. *Factor payments (EGP Billion 1,302.5)*: Households and other domestic institutions get paid for their ownership of labor, capital and land.
2. *Transfers (EGP Billion 103.6)*: Households and other domestic institutions receive transfers from the government.
3. *Worker's remittances (EGP Billion 84.3)*: Households across Egypt receive remittances from family members working abroad. As remittances are available in US dollars, they were transferred to LCU using the annual exchange rate of EGP 5.849/ per US$ for the year 2010/ 2011.

B. *Spending by Households and other domestic institutions*

Column 4 includes all spending by households and other domestic institutions on; goods and services, transferred surpluses to the government from financial and non-financial sectors, income tax payments, and transfers to the rest of the world. The difference is savings/dissavings for the households and other domestic institutions account.

1. *Household final consumption (EGP Billion 1,005.6)* covers household spending on purchasing goods and services.
2. *Transfers to the government (EGP Billion 84.8)* include transferred surpluses from the economic sector and public sector enterprises.
3. *Income Taxes (EGP Billion 99)*: The households and other domestic institutions account pays direct taxes such as income taxes and property income taxes to the government.
4. *Transfers to the rest of the world (EGP Billion 1.8)*: The households and other domestic institutions account also remits to the rest of the world.

The difference between the income and expenditures is private savings/dissavings (EGP Billion 299.2).

5. Government Account:

A. *Payments to the government (government revenue)*

The government of Egypt receives payments from a series of taxes it levies on the economy (row 5). These include: direct taxes, indirect taxes, import tariffs, as well as transfers it receives from the households and other domestic institutions account.

1. *Transfer of surplus from households and other domestic institutions (EGP Billion 84.8).* The government receives transferred surplus form the economic sectors and public enterprises.
2. *Taxes (EGP Billion 61.8)*: Net taxes include direct taxes such as income taxes that households and other domestic institutions pay to the government; indirect taxes, which represent the amount paid by the business sector to the government for being a producer of goods and services[5] less subsidies on production activities or the sale of commodities. Subsidies here appear as a negative tax as they are paid by the government to the production activities for specific economic purposes, whether in an effort to control consumer prices, or as support to industries that are strategic to the Egyptian economy. The tax account also includes import tariffs, which are customs duties on imported goods collected by the government.
3. *Foreign grants and loans (EGP Billion 1.3)*: The government also receives income from foreign entities which include other governments, international and financial organizations abroad.

B. *Spending by the government*

The government of Egypt spends on a variety of things (column 5) such as purchases of goods and services, paying out social benefits and transfers to households and other domestic institutions, and paying out foreign grants and loans to the rest of the world.

1. *Government consumption (EGP Billion 131)*: For its own consumption, the government spends on goods and services in the economy.
2. *Social transfers (EGP Billion 103.6)*: This account includes all of the financial support provided to households and other domestic institutions by the government.
3. *Foreign grants and loans to the rest of the world (EGP Billion 0.2)*: The Government of Egypt also provides loans and grants to foreign entities abroad.

The difference between government revenue and spending is either the fiscal surplus or deficit. In 2010/2011, the fiscal deficit amounted to EGP Billion 86.9.

[5] These taxes have a direct impact on the prices of goods and services produced.

6. Rest of the World (ROW):

A. Payments to the ROW

These include Egypt's purchases of goods and services (imports), factor payments, household transfers to family members residing outside and loans and grants paid by the Government of Egypt to foreign governments and entities.

1. *Imports (EGP Billion 362.7)*: These are purchases of goods and services from abroad.
2. *Factor payments (EGP Billion 39.2)*: These are repatriation of funds by foreign organizations operating in Egypt.
3. *Household transfers abroad (EGP Billion 1.8)*: These are remittances by the household and private sectors in Egypt to family members living abroad.
4. *Government loans and grants to the outside world (EGP Billion 0.2)*: This account highlights the support the Government of Egypt provides to other governmental and non-governmental entities abroad.

B. Payments from the ROW

These include export receipts, factor income earned from abroad, workers' remittances, and foreign loans and grants.

1. *Exports (EGP Billion 282.2)*: A source of foreign exchange earnings, Egypt exports goods and services to the ROW.
2. *Factor income earned from abroad (EGP Billion 1.9)*: This is income earned from factors of production operating in foreign countries.
3. *Worker's remittances (EGP Billion 84.3)*: This is income sent by family members working abroad back to their families in Egypt.
4. *Foreign loans and grants (EGP Billion 1.3)*: These are loans and grants given to the Government of Egypt from foreign entities.

The difference between foreign exchange earnings and payments is the current account deficit/surplus (*EGP billion 34.1*).

Balancing the Macro-SAM

After the macro-SAM is constructed it is then balanced. The savings account in most cases becomes the residual account, except for the fiscal deficit. For the current account deficit/surplus, the expenses (transfers from rest of the world + incomes of domestic factor of production + total value of exports) are netted out of the receipts (transfers to rest of the world + incomes of factor of production owned by rest of the world + total value of imports) and the residual becomes the current account balance. The activities, commodities, net taxes and factors of production accounts do not need balancing because they are taken directly from the balanced supply use tables and the closing accounts of the government. The government account is manually balanced (revenues and expenditures), after adjustments were made to exclude royalties on mobile phone licenses, which were not available for the focus year.

III. Adding sectoral detail to the 2010/2011 Egypt SAM

In this step, the SAM is detailed to reflect the more diversified structure of the Egyptian economy. The activity and commodity accounts are disaggregated in this section (Table 4). The disaggregation of the activities and commodities sectors was done to present the most detail possible to the SAM given the data currently available. Further disaggregations will be performed once more detailed data on the required sectors becomes available.

As is evident form Table 4, the number of commodity accounts is greater than the number of activities. That can be explained by the fact that one activity can produce more than one commodity. For some sectors however, namely for the agricultural sector (and others), there is insufficient data to disaggregate the activity accounts to the level present for agricultural commodities.

Table 4: Activities and commodities by sector, 2010/2011.

Sectors	Number of Activities	Number of Commodities
Agriculture, forestry and fisheries	2	17
Mining	4	5
Manufacturing	24	27
Services	20	26
Electricity, water and sewage	2	2
Construction	1	1

Source: Authors' compilation

Once the disaggregation is done the activities, commodities, factors of production, and tax accounts did not need balancing. However, the SAM was unbalanced in the institutional sector except government account, the government sector, the rest of the world, and the savings accounts. The same balancing methodology followed for the Macro SAM (above) was followed for the detailed SAM, meaning that for all but the fiscal accounts, savings were taken as a residual of income and expenditure of these accounts. For the government account, the fiscal deficit reported is derived from the Government's closing accounts for 2010/2011.

Once the adjustments have been made to balance the accounts, the savings account of the households and other domestic institutions was adjusted to balance the SAM.

Ⅳ. Key treatments in the data

Activities were classified according to the second level of the International Standard Industrial Classification of All Economic Activities (**ISIC.4**).

Commodities were classified according to the third level of agricultural products, and second level of the other products according to Central Product Classification (**CPC1.1**).

Some activities were merged as some activities shared production of one product according to CPC 2. They were merged to appear in the matrix as one activity, such as water and sanitary drainage activities, financial services activities, information and communications activities, administrative activities and subsidy.

Commodities that have no intermediate consumption were merged with other commodities that do, for instance, domestic services were aggregated with other personal services; and domestic services activities with other services activities to avoid a non-invertable matrix including these activity sectors.

Data from the income and expenditure survey was transformed from a COICOP classification to CPC1.1.

Exports and imports data were transformed from a HS classification to CPC1.1.

Factors of production were divided into labor, capital and land according to System of National Accounts (SNA).

For the sake of this SAM, **institutions are divided into government and non-government sectors** (including households, NPISH, financial sector and non-financial sector institutions).

Financial and non-financial sectors include public and private sectors and economic authorities.

Domestic non-government institutions include the households, enterprises, public and private financial ad non-financial institutions all appearing together under the account households and other domestic institutions.

Taxes are divided into direct taxes, indirect taxes, and customs duties.

Subsidies are treated as negative taxes.

Government final consumption expenditure has been estimated through the sales' receipts of marketed and non-marketed goods and services.

Gross fixed capital formation (investment) is fixed capital formation plus change in stocks.

Data for petroleum subsidies has been reconciled from the final accounts of General Petroleum Company (GPC), and from the state's final accounts were the government adopts cash equivalents rather than an accrual basis as does the GPC.

The value of the surplus as reported by the public sector and public enterprises, and the economic authorities and stated in the financial and economic bulletins of the public sector, public business sector and economic authorities has been reconciled with the reported surplus in the state's final accounts as the government adopts a cash basis in reporting whereas the financial and economic bulletin reports using an accrual basis.

Revenue and expenditure of previous years were excluded from the government account.

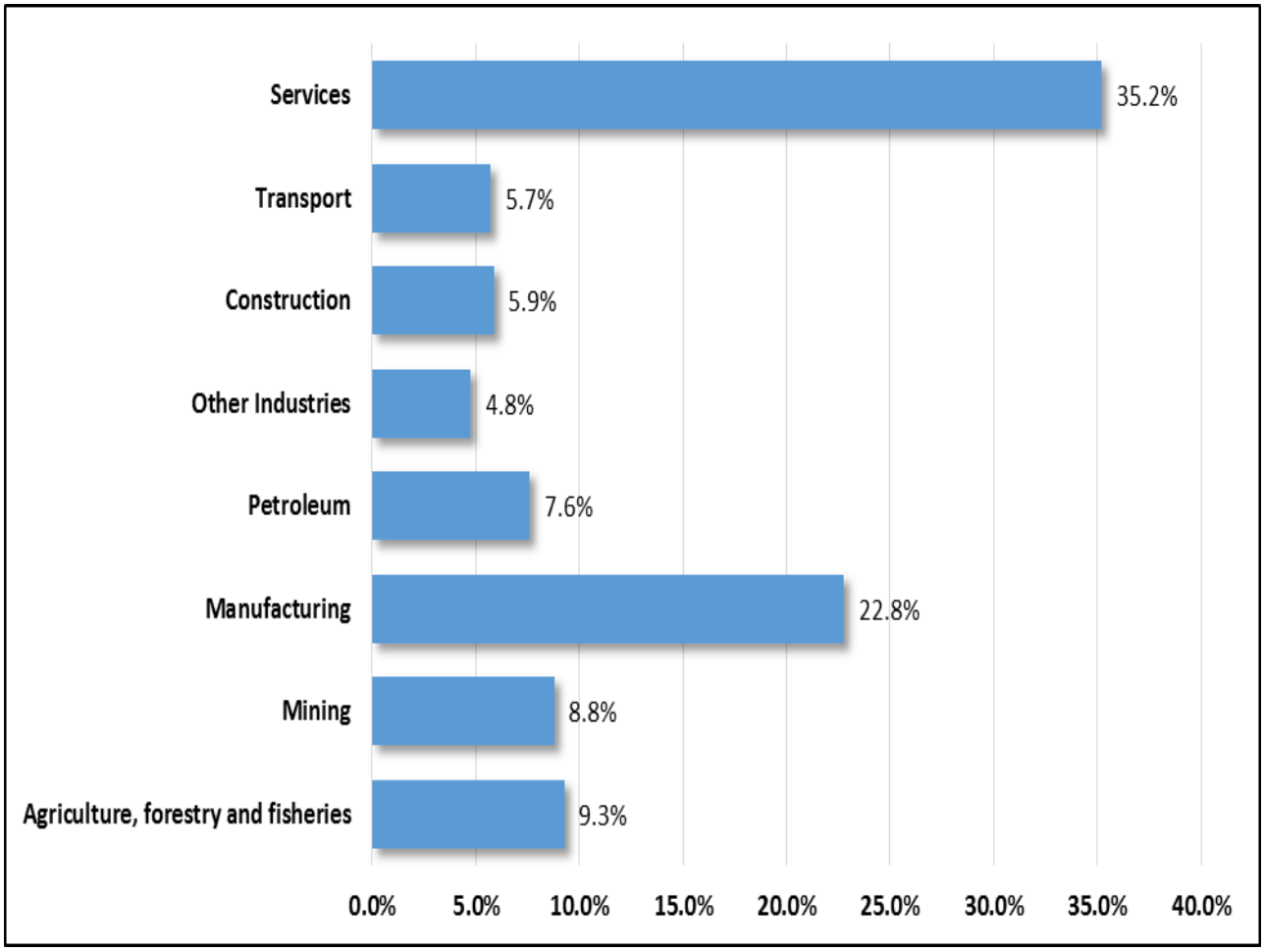
V. Characteristics of the Egyptian Economy in 2010/2011

Below we highlight selected details about the characteristics of the Egyptian economy from the 2010/2011 SAM (Tables 5 and 6 below)

Structure of Production

The data shows that the largest sector by far is the services sector making up more than one third (35.2%) of the Egyptian economy in 2010/2011 (Figure 2). The manufacturing sector follows second at 22.8% of total production. The agricultural sector makes up 9.3% of total production in the economy during that year and production in the petroleum sector in turn makes up 7.6% of total production.

Figure 2: Contribution of Economic Activities in Production (%), 2010/11

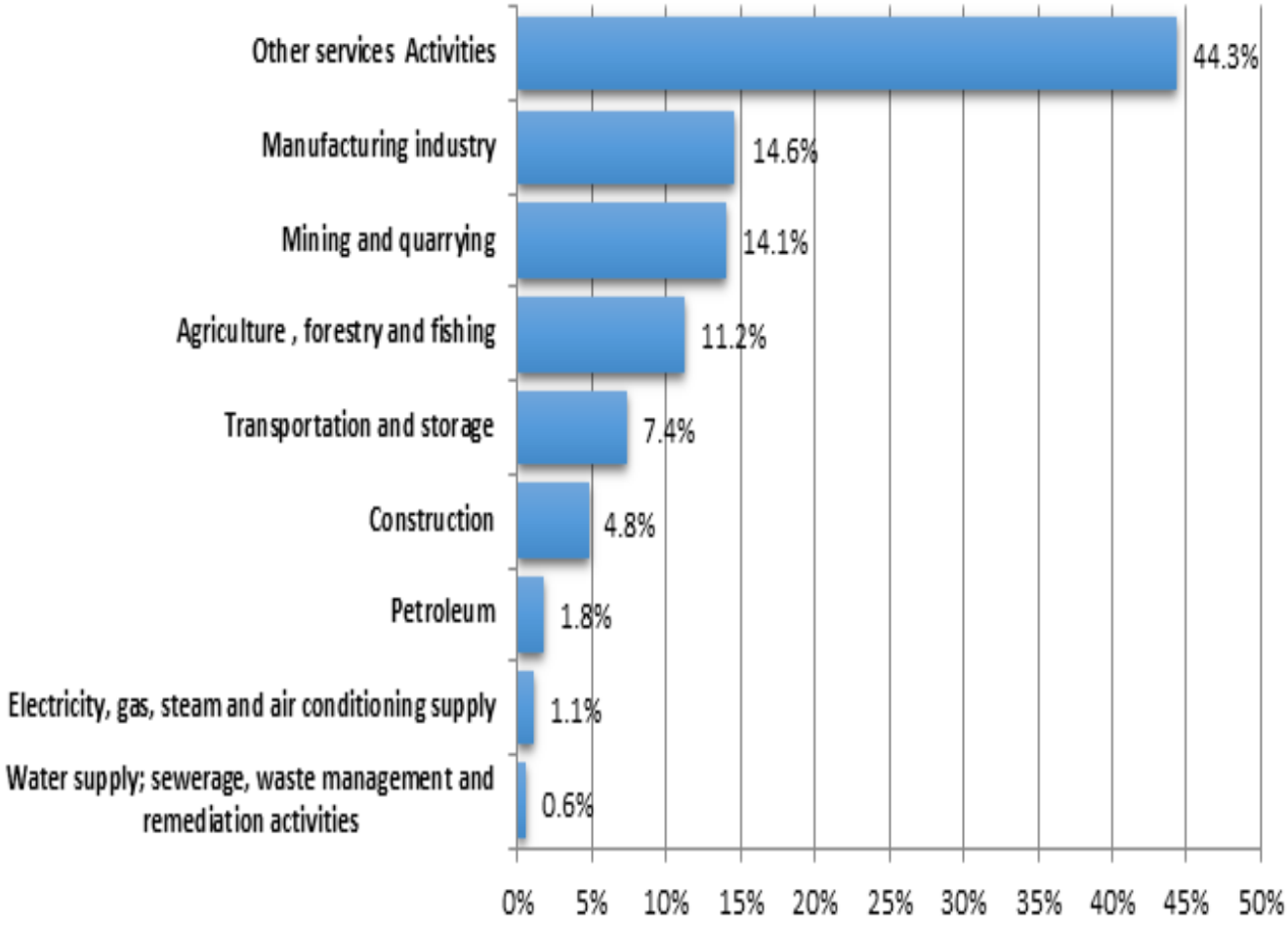


Source: Egypt 2010/2011 SAM

Value Added

Figure 3 below shows that the services sector made up 44.3% of total value added, the largest contribution to value added that year. Closely following at 14.6% were manufacturing activities and mining and quarrying (at 14.1%). Water supply and sewage activities contributed the least to value added, at 0.5% of the total in the Egyptian economy in 2010/2011.

Figure 3: Contribution of Economic Activities in Value Added (%), 2010/2011

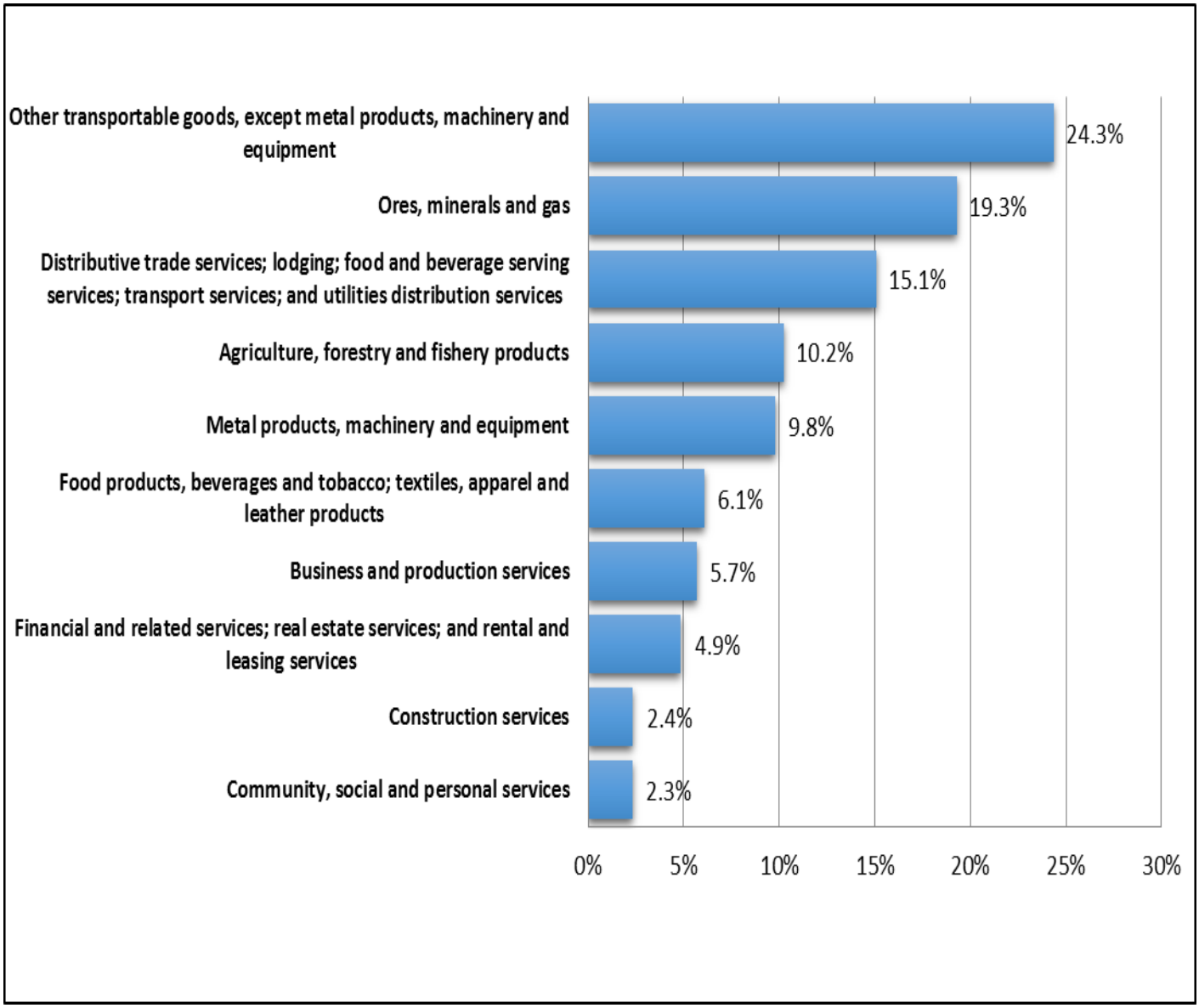


Source: Egypt 2010/2011 SAM

Intermediate Demand

Intermediate demand for transportable goods made up close to a quarter of all intermediate demand in 2010/2011 (24.3%), closely followed by intermediate demand for ores, minerals and gas at 19.3%. Showing in third place was intermediate demand for transport and food and beverage services. Community, social and personal services only made up 2.3% of total intermediate demand in 2010/2011.

Figure 4: Intermediate Demand (%), 2010/2011

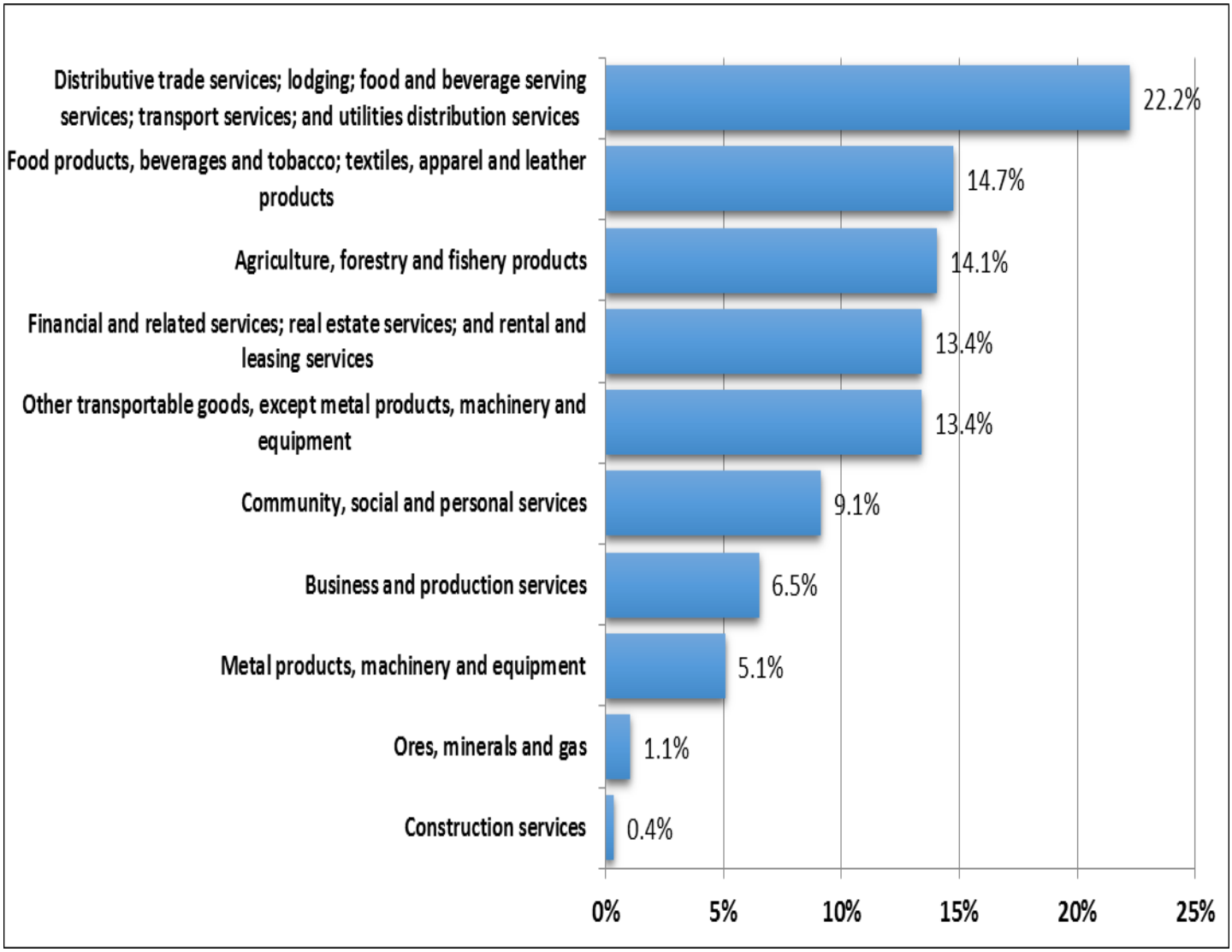


Source: Egypt 2010/2011 SAM

Household Consumption

In 2010/2011, households in Egypt spent slightly above 22% of total private consumption on trade services, food and beverage establishments, utilities and transportation (Figure 5). Spending on food, beverages and apparel was 14.7% of their total spending and 15.1%on agriculture forestry and fisheries. Households spent the least on construction (0.4%).

Figure 5: Household Consumption (%), 2010/2011

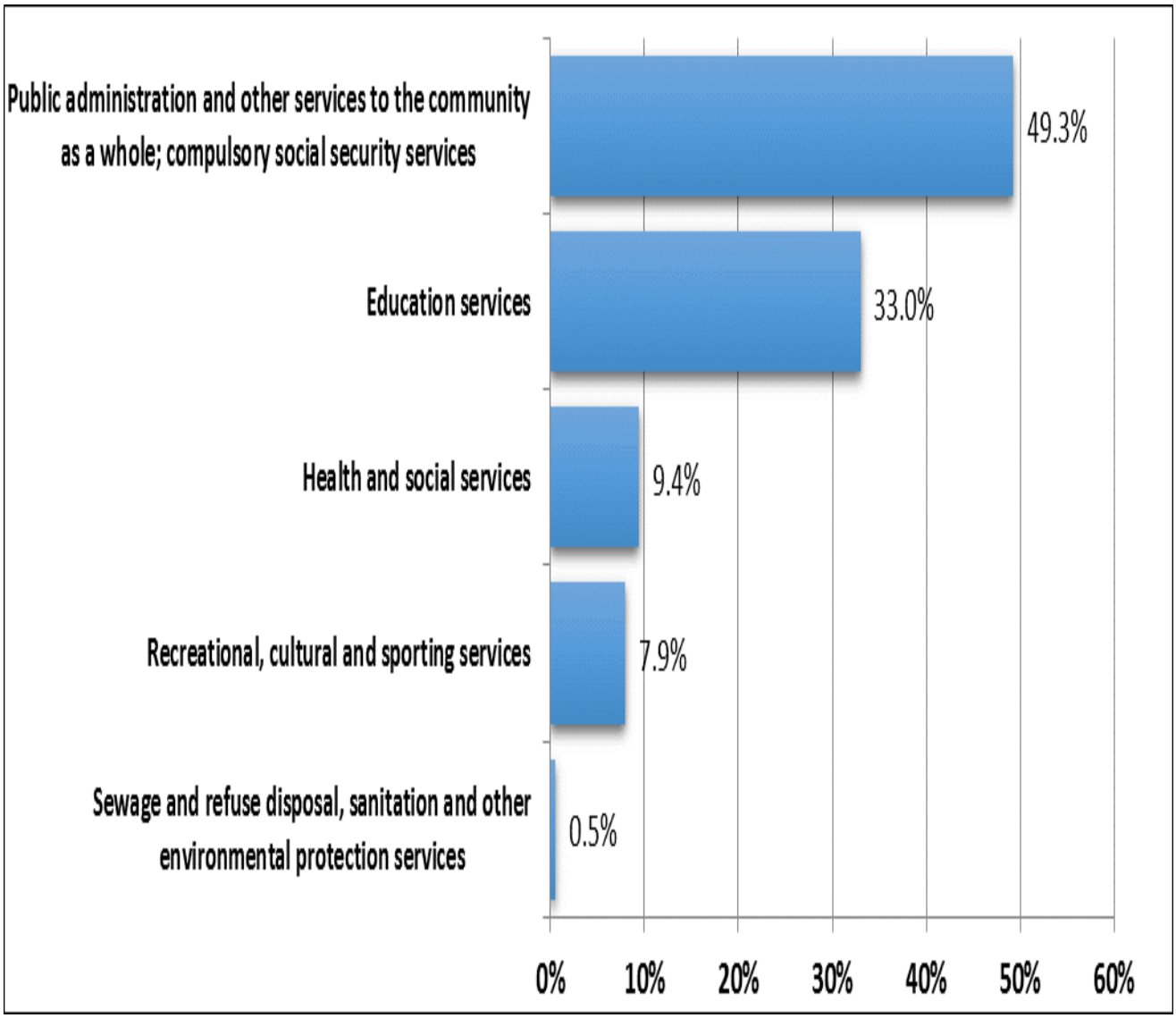


Source: Egypt 2010/2011 SAM

Government Consumption

In 2010/2011, just about half of government spending was on public administration services and on social security (49.3%) (Figure 6). Spending on education services made up one third of all government spending and health spending was just under 10% of the government's spending budget. In 2010/2011, the government spent the least on sewage, sanitation and other environmental services (0.5%).

Figure 6: Structure of Government Consumption (%), 2010/2011



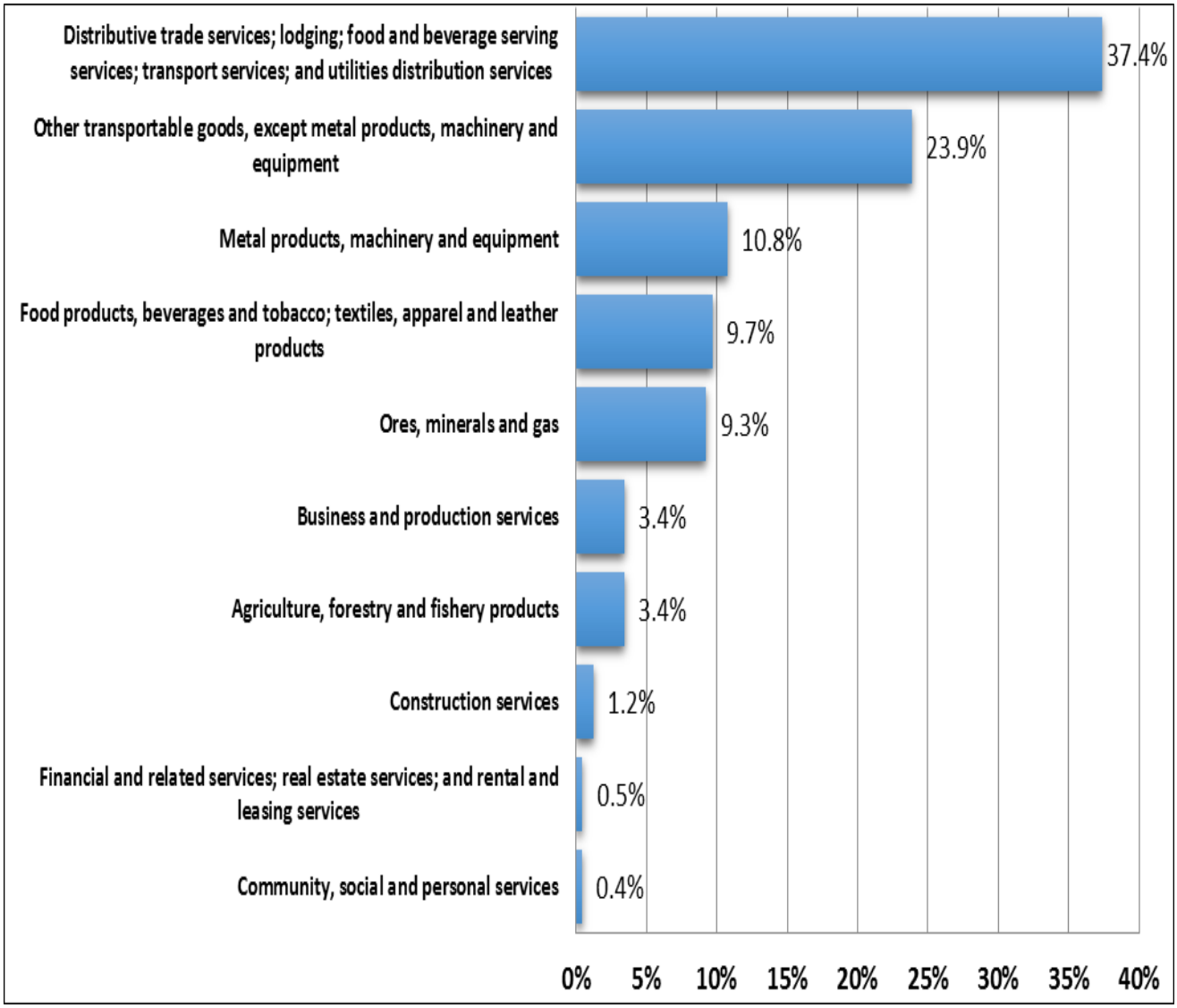
Source: Egypt 2010/2011 SAM

Rest of the World

(a) Exports

The largest foreign exchange earning sectors are still the services sectors (Figure 7). In 2010/2011, 37.4% of all export proceeds came from distributive trade services, tourism, the Suez Canal and utilities distribution. Following at just under one fourth of all exports (23.9%) was earnings from other transportable goods and machinery and equipment. Exports of community and personal services contribute the least (0.4%) to country's total foreign exchange earnings.

Figure 7: Structure of Exports (%), 2010/2011

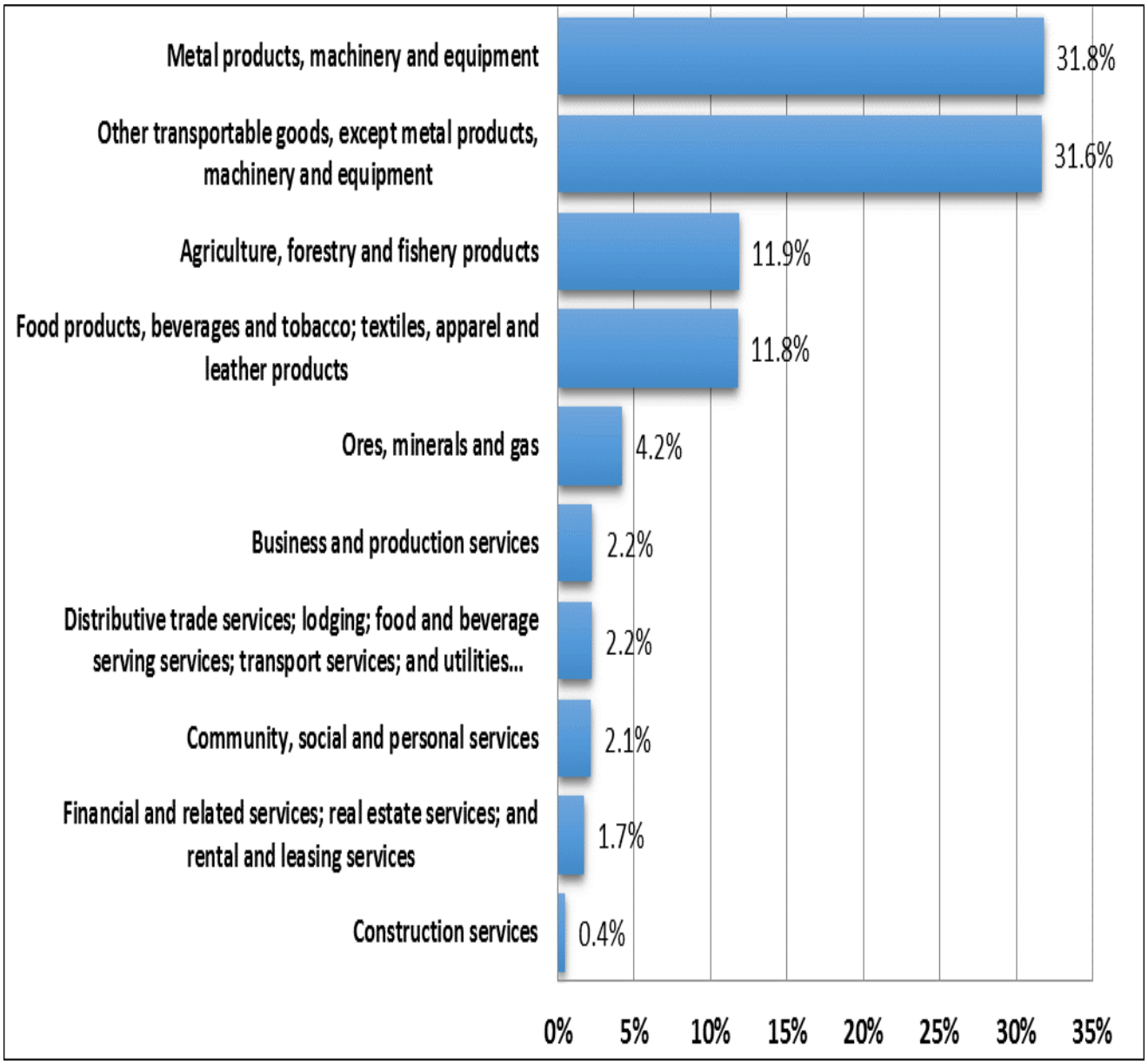


Source: Egypt 2010/2011 SAM

(b) Imports

Close to 64% of all goods and services imported in 2010/2011 were for metal and non-metal products, machinery, equipment and other non-transportable goods (Figure 8) and imports of food and agricultural products made up close to one quarter (23.7%) of all import spending. Imports of services for the construction sector only made up 0.4% of the total import bill.

Figure 8: Structure of Imports (%), 2010e2011



Source: Egypt 2010/2011 SAM

The Egypt SAM for 2010/2011 shed light on other indicators across the Egyptian economy as follows:

Total supply: The total supply value (domestic production+ imports) amounted to EGP 2,591 billion. Domestic production represents 86% of the total supply of goods and services in the economy whereas the imports reached 14% of the total.

Total demand: The total demand value that comprises (household final consumption, government final consumption, intermediate consumption, capital formation, exports) amounted to EGP 2,591 billion. 39% of the goods and services within the domestic economy are geared to household final consumption; 36% towards intermediate consumption whereas about 11% were for exports and 5% for government final consumption.

Factors of production: Land rent for agricultural land amounted to EGP 22.9 billion. Wages (labor income for employees working in the government sector, public sector/ public business sector, formal sector, informal sector, economic authorities) amounted to EGP 341.3 billion. Return on capital registered EGP 977.3 billion.

Government revenues: Total revenues amounted to (EGP 147.9 billion). Direct taxes, which include income and property taxes, are considered the primary resources of revenue for the government as they constitute 36% of total government revenue. Indirect taxes (i.e. taxes on goods and services) made up 28% of total government revenue sources in 2010/2011. Overall, transfers from the households and other domestic institutions amounted to 30.5% of the total and customs duties made up 5% of the total, and foreign grants and loans did not exceed 0.5% of that total.

Government expenditures: Total government expenditures amounted to EGP 147.9 billion. The government's final consumption expenditure that includes purchases of goods and services were 55.5% of total government expenditures, the largest component in government spending according to the SAM. Government transfers to households and other domestic institutions made up 44% of the total, and government transfers to the ROW (in the form of grants and aids to other countries or international organizations) represented 0.5% of the total.

Subsidy distribution: Total subsidy paid out by the government amounted to EGP 132 billion of which 51% were subsidies on production and the rest (49%) on consumer goods. The production subsidy amounted to EGP 67 billion, of which 86.7% went to subsidies on oil production. Subsidies on consumer goods amounted to almost EGP 64 billion, of which 51% went to subsidize the supply of goods and 49% went to subsidize fuel consumption.

Egypt Social Accounting Matrices, 2010/2011

Table 5: Egypt SAM 2010/2011 (29 Rows x 29 Columns), EGP billion
Table Attachments

Table 6: Egypt SAM 2010/2011 (144 Rows x 144 Columns), EGP billion

Table Attachments

VI. Way Forward

Generally, details included in social accounting matrices vary from one country to another. The variation can be a result of the structure of the matrix, or the level of detail available in the data. Accuracy and consistency in the data are a decisive factor in the integrity of SAM data results.

Accordingly, CAPMAS shall further disaggregate the SAM for 2010/2011. Further details or disaggregations will target the household and agricultural sectors. Furthermore, given the importance of labor markets especially on the dynamics of labor supply and demand as well as on skill levels, the Egyptian labor force will be disaggregated according to whether or not labor is unskilled, semi-skilled or skilled. These disaggregations will shed light on income distribution and poverty impacts on the Egyptian economy as a result of alternative policy reforms.

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