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Principal Features of Building Social Accounts Matrix and Improving Statistical Database for Eco-countries

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With common borders of the population, total area, and GDP (PPP-based) of Economic Cooperation Organization (ECO) member states are estimated as 416 million persons, 7.9 million m^2, and US$2.7 trillion respectively (2010 data). Although heterogeneous in the extent, there is economic development, overall, with serious energy and transport-transit relations among countries that is reflected in growing trade turnover year-by-year. However, there are still rather unused resources and capacity in such areas of cooperation among countries as exchange of energy, transport services, agricultural and industrial goods, use of opportunities for tourism, promoting investment and innovation processes and other areas. Certainly, maximum and optimal use of these resources calls for availability of analytical means capable of accounting for relations both within member states and among them. The implementation of computable general equilibrium (CGE) modeling in each member state would thus be of great significance in resolution of these problems both in terms of accounting for input-output linkages within the countries as well as enabling impact of main trading partners and goods and services among countries. The analysis carried out indicates that there are a number of problems in application of CGE model in most of the member states. As such, input-output tables are not compiled in some countries, while in others despite the fact that these tables are compiled, there are no attempts to build the model, yet in other countries, even if the CGE model is implemented, there are difficulties in taking into account the real results in the face of serious problems related to improving national accounts system database. Summarizing these problems, it is possible to conclude that to ensure the application of a CGE model,

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there is a great need to work out procedures of compilation of a social accounts matrix (SAM) that lies on the basis of this model, for which the relevant statistics of a member state must be improved. Considering the above-mentioned, the presented research, makes procedures and proposals on compilation of SAM, improves statistical data for researching the extent of application of CGE Model in ECO member states, and identifies the degree of availability and organization of relevant data to develop input-output tables and respective SAM.

Keywords: social accounts matrix (SAM), system of national accounts (SNA), input-output table, CGE model, ECO countries

Introduction

It is the contemporaneous practice in statistics that the vast majority of world countries make use of, with a number of reports and additional balance sheet tables to describe and analyze macrostatistical models of their respective economies. By constructing macrostatistical model of the economy, countries strive to see formation, development, and future prospects of important economic interactions occurring in the four phases of broad reproduction (namely production, distribution, exchange, and consumption). In the meantime, macrostatistical models are of great importance in building economic and mathematical models enabling various estimations.

Macrostatistical model is built through a system of national accounts (SNA). Emergence and successful implementation of SNA is a kind of result of historical evolution of economics science. The first ever application of macrostatistical model in the economy took place in the 17th century. As such, English economists estimated national income of France and England first time ever in the history, and then used this estimation to study the impact of change in the tax system on the economy of the country. In 1758, Kene, on the other hand, summarized statsitical materials on French economy and developed a model of national economy in the form of "Economic tables" (or Kene's zig-zagz). There is no doubt that Kene's economic table was a primary form of current SNA.

First macrostatistical models were created in 1923-1930s in the Union of Soviet Socialist Republics (USSR). In early 30s, Soviet economist Pervukhin (Chairman of State Planning Committee of the Soviet Union) first proposed the idea of studying national income in three phases of of economic turnover (production, distribution, and use) in his *Remarks to National Economy's Balance Sheets of 1928-1930s*. At that stage, key features and ratios of current input-output balance had commenced to emerge in the balance sheets of the national economy. Generally speaking, the idea of the current input-output balance was a product of discussions held during the period of new economic policy (NEP) of the Soviet Power, which was then given by Leontief (1990) as serious mathematical equations reflecting interactions among sectors of economy, including gross output, intermediate consumption, and final consumption. It is noteworthy that theoretical explanation of such economic terms as value added and intermediate consumption were introduced by Smith (1955) and Marx (1969) respectively.

It must be noted that the idea of input-output balance was first proposed by Dimitriev (1974) and was eventually used in compilation of the first ever national economy's balance sheet.

After the Second World War, national economy's balance sheet had a great impact on the development of SNA with input-output balance truning into an integral part of SNA.

Theoretical foundations of the SNA also include the theory on factors of production (labour, land, capital and entrepreneurial skills). According to this theory, factors involved in the production of national product and

national income must be paid their "dues". The broad reproduction concept considers all income-generating types of activity, except for illegal and household activities as productive. There are two reasons for such exception: The first one is related to acquiring information and the second reason is due to uncertainty of outcomes of such activity types.

In 1925, Marshall proposed the concept of annual net national income (a total of goods and services including income from foreign investments and excluding goods and services produced and depreciation) in his book *Principles of Economics*, which became a basis for calculation of the SNA indicators. Consequently, economist distinguished concepts of national product and national income, and provided a rationale for estimating these concepts at market prices accountng for inflationary processes rather than based on factor costs. The UN's SNA of 1993 takes the concept proposed by an English economist Hicks (1939) in his book *Value and Capital* as a theoretical foundation of all indicators. According to this concept, total level of income produced in a specific period has to be taken at such a maximum level that would be sufficient to be spent on consumption without using the initial amount of capital. Specification of Hicks' income concept (1939) for application in macrostatistical analysis led to creation and classification of unified system of SNA definitions. This in turn gave rise to elaboration of of such important indicators as gross domestic product, initial income stock, disposable income, savings etc., and defined interactions at the basis of system of accounts as a macrostatistical model of economic turnover.

SNA's theoretical foundation is also based on Keynes' government regulation theory (1936). Principles of organizing information necessary for description and analysis of macroeconomic system are provided in his book *General Theory of Employment, Interest and Money*. He developed a system of macroeconomic indicators (gross income, consumption, investment, savings) related to decisionmaking and policy formulation on market regulation, and proved that government regulatory agencies may influence input parameters of the system to get the desired changes in the output variables of the system.

A new era commenced in the development of macrostatistical model of the economy after the Second World War. It was related to harmonization of different national systems and systemization of international comparisons of macroeconomic indicators and their components. This process was founded on the SNA principles accounting for real possibility of obtaining data in 1951 developed by Stone, Keynes' student and successor. Under his leadership, the SNA standard of the UN was first developed in 1953 and the second standard "a blue book" was issued in 1968. Along with calculation of national product and national income, these standards also reflected the macroeconomic indicators of assets and inter-sectoral interactions. Many countries altered their statistics practices based on recommendations of the blue book.

The UN shifted to a new SNA standard in 1993 due to international harmonization.

As a result of globalization impact though, the UN adopted a new methodology for SNA in 2008 (Retrieved from http://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf).

The modern SNA integrates a homomorphious macrostatistical model that enables assessment of both general outcomes of economic development as well as economic interactions. The calculation of SNA indicators has taken an important analytical meaning and is almost a functional method of state of health diagnostics of alive economic organism.

Hence, as key information source of compilation of SAM, SNA calculations are also successfully used in selection of government's economic policy scenarios, in short- and medium-term forecasting, in country

economic comparisons, and in international economic relations.

Looking at evolution of a macro statistic descriptive history of economy, it is revealed that SNA is the main macro statistical model today incorporating all accomplishments of history of economic thought, starting from François Kennan's tables resembling the characteristics of early elements for practical use, through Karl Marx' model of extended reproduction model, and including even a modern cross-sector balance of distribution of goods and services. SNA is a set of standard recommendations agreed internationally, relying on economic theory in calculation of economic indicators. Theoretical foundation of SNA allows to compile economic indicators in such a way that enables both economic analysis and making policy decisions. It ensures that a detailed report can be prepared on complicated economic activity and interaction among economic agents and group of agents.

As a macro statistical model, the SNA is an important information basis in setting up favorable projection means based on identifying reciprocal effects in the economy. It is this database that served as a basis on which it was possible to construct such instruments of empirical economic analysis as an input-output model and a general equilibrium model. The most suitable presentation of SNA for analytical purposes is the matrix of accounts for analysis of social processes (MAASP), which in short is referred to as SAM.

Importance of Constructing SAM for ECO-countries

Compilation, analysis, and use of SAM in setting up projection tools allows to penetrate into all sophisticated economic processes while regulating such processes from the perspective of principles of economics. Such a great analytical capacity can play a great role not only in terms of governing problems of economic regulation within one country, but also managing inter-country economic cooperation issues at a level of a number of countries. Particularly, here a measurement of mutual benefits from results of reciprocal trade and investment becomes a central issue. In this context, it is important for countries of ECO to compile SAM and coordinate these matrices.

Challenges

Despite all ECO member states have SAMs, it is not used much effectively as an analytical tool. In other words, although there are sufficient opportunities to create an analytical tool, it remains to be created. However, such analytical tools have been created in the example of other countries and are being used successfully. Using such tools in ECO countries might play a great role in defining areas of cooperation and raising efficiency of mutual benefits. Key challenges in compilation of SAM in ECO member states are as follows:

1. Lack of methodology to put SAM in the format of the MAASP.

2. Wrong perceptions about light and full versions of MAASP, or even input-output balance and MAASP being identical. Light version of MAASP can only be compiled based on input-output balance and SAM.

3. Lack of data to develop full version of MAASP. Detailed information are required to disaggregate SAM data, such as aggregate tax data broken down by sectors of economy and types of taxes, exports and imports data broken down by sectors of economy and trading partners. Same can be said about incomes, investments, transfers, and so on.

4. Difficulties arising from methodological differences in compilation of data on accounting, statistical, and taxation recording. Statistical data on activity of economic agents are formed based on accounting data. It is done using an accrual method. Taxation data can be applied in parallel using a cash method, which would

cause differences in tax base by sectors. Statistics agency defines the entire tax base through accrual method. Since breakdown of taxes by sectors and types of taxes is not available at the statistics agency, SAM reflects only aggregate data in this regard, while there are no such data by types of taxes. However, compiling these data based on tax agency's data the balance of data is violated.

5. Variety of tax and subsidy types also which complicates the application to either production or products. Since MAASP is comprised of set of balances as an explicit practical tool, it is required that each economic indicator is placed on a specific cell. However, SAM does not enable such breakdown of taxes by products and production. Each country's economy, on the other hand, has specific taxes and subsidies.

6. Lack of specialists capable of working on SAM as a result of no seminars and courses held on compilation of MAASP internationally.

Methodology

Compilation of SAM is to be implemented in a strictly structured manner, as data used to develop the matrix must be systemic, accurate, well-grounded, reflecting reality adequately, and acceptable to everyone. Compiling such data is based on a number of normative-legal acts. Such normative acts are developed and published by United Nations Statistics Bureau, Organization of Economic Cooperation and Development, International Monetary Fund, Food and Agriculture Organization of the United Nations. Key data to be used in the compilation of SAM are the following:

(1) Table on stock of goods and services in the economy to be used in compiling SAM;

(2) Table on use of goods and services in the economy at consumer prices to be used in compiling SAM;

(3) Table on trade, intermediation, and transport charges to be used in compiling SAM;

(4) Table on net taxes on products to be used in compiling SAM (United Nations, 1999). This table should also be complemented by the following additional information:

(a) On taxes and subsidies on products:

- Value added tax by sectors;
- Other taxes on income from sales of goods (works and services) by sectors;
- Excises by sectors;
- Taxes and levies on various activities by sectors (taxes on lottery games, levy collected from suppliers, allocations from income of various service providers, a single trade tax);
- Customs collections, customs duty on imports by sectors;
- Customs duty on exports by sectors;
- Subsidies to government organizations by sectors;
- Subsidies to cover losses of organizations by sectors;
- Other subsidies by sectors.

(b) ON taxes and subsidies on production:

- Property tax by sectors;
- Land tax by sectors;
- Road tax by sectors;
- Collections for use of roads of Azerbaijan by sectors;
- Mining tax by sectors;
- Subsidies by sectors.

(5) Input-output balance at basic prices to be used in compiling SAM;

(6) Indicators of SNA of the Republic Azerbaijan to be used in compiling SAM:

- Aggregate accounts by institutional sectors at current prices;
- Cross-classification of total output, intermediate production, and value added by types of economic activity and institutional sectors.

Above-mentioned data are to be placed in the table of 2008 SAM with the following format:

This format is a short version of SAM, which can be infinitely disaggregated depending on the objective of the research.

Table 1

Basic Table of Social Accounts Matrix

				Outlays						
				Our economy					Rest of the world	Total
				Firms		Production				
				Current	Capital	Factors	Products	Activities		
Income	Our economy	Firms	Current	current transfers		factor incomes	taxes on product	taxes on activities	current transfers from abroad	current disposable income
			Capital	savings	capital transfers				capital transfers from abroad	available of funds
		Production	Factors					payments for factor services	Factor incomes received from abroad	factorincomes
			Products	Consumption expenditure	Investment expenditure			demand for intermediate products	export	demand for product
			Activities				sales of products			revenue
	Rest of the world			current transfers to abroad	capital transfers to abroad	factorincomes paid to abroad	import			use of foreign exchange
Total				use of income	use of funds	allocation of factor incomes	supply of products	allocation of revenue	Available foreign exchange	

Source: United Nations (2002).

Problems in Statistical Database of ECO Member States in Relation With Compilation of SAM

There is SAM in all ECO member states. However, input-output balance that is an integral part of SAM is not updated in some countries for each year. These balances are updated for each year in Kazakhstan and Kyrgyzstan. In Azerbaijan, this balance was last compiled in 2006, but has not been updated since then.

Each of the difficulties mentioned above can be found in Azerbaijan, Kazakhstan, and Kyrgyzstan.

Conclusions

Taking into account the above-mentioned, the following important conclusions can be drawn:

(1) A detailed compilation of MAASP allows to present broad presentation of economy through macroeconomic indicators in a single table-board, which enables to see explicitly a role and significance of each macroeconomic indicator in the entire system of economic indicators. In short, with all its proportions, the economy can be described in numbers;

(2) Based on MAASP, the SAM indicators can practically be made fully ready for setting up analytical tools. In other words all resources and uses can be represented as a set of balances taking into account inter-sector flows and both types of economic activities and economic sectors. Based on SNA, MAASP for republic of Azerbaijan, Kazakhstan, and Kyrgyzstan has been compiled (Appendix 1, 2, and 3);

(3) Compilation of MAASP has become a necessity analytically giving rise to a need for developing a serious methodology for its compilation;

(4) Detailed compilation of MAASP opens up the following opportunities in learning about and projecting reciprocal impacts in the economy;

- Developing reciprocal impact assessment models for the economy based on SAM multipliers. Based on MAASP, such models for republic of Azerbaijan, Kazakhstan and Kyrgyzstan have been built. As a result of 10% increase in exogenous demand in agriculture, the results of increase in aggregate demand are shown in tables for all three models(Appendix 4, 5, and 6) (Breisinger, Thomas, & Thurlow, 2009);
- Developing computable general equilibrium model.

(5) Finally, analytical tools developed based on MAASP allows to study an impact of any group of macroeconomic indicators on all remaining economic indicators, taking into account all reciprocal impacts in the economy.

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Appendix 1

Social Accounts Matrix of Azerbaijan

Azərbaycan Respublikasının Sosial Hesablar Matrisi 2006-cı il

Columns 1.1–1.15: Activities in the sectors of economy (1), of which

Uses of Resources	Code	Resources	Agriculture, hunting and forestry 1.1	Fishing, fish-breeding 1.2	Mining and quarrying 1.3	Manufacturing 1.4	production and distributing of electricity, gas and water 1.5	Construction 1.6	Wholesale and retail trade;repair of motor,wehicles, personal and household goods 1.7	Serve of hotels and restourants 1.8	Transprot, storage and communication 1.9	Financial intermediation 1.10	Real estate, renting and bussiness activities 1.11	Public administration and defence 1.12	Education 1.13	Health and social work 1.14	Other community,social and personal service activity 1.15
Activities in the sectors of economy 1 of which	1.1	Agriculture, hunting and forestry															
	1.2	Fishing, fish-breeding															
	1.3	Mining and quarrying															
	1.4	Manufacturing															
	1.5	production and distributing of electricity, gas and water															
	1.6	Construction															
	1.7	Wholesale and retail trade;repair of motor,wehicles, personal and household goods															
	1.8	Serve of hotels and restourants															
	1.9	Transprot, storage and communication															
	1.10	Financial intermediation															
	1.11	Real estate, renting and bussiness activities															
	1.12	Public administration and defence															
	1.13	Education															
	1.14	Health and social work															
	1.15	Other community,social and personal service activity															
Goods and services 2 of which	2.1	Agriculture, hunting and forestry	513.32	0.32	0.01	461.77	0.15	10.52	0.37	0.09	0.00	0.00	0.14	3.46	0.00	0.16	3.97
	2.2	Fishing, fish-breeding	0.00	16.39	0.00	0.61	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2.3	Mining and quarrying	4.29	0.68	180.87	817.42	273.17	233.15	0.26	0.01	6.08	0.00	0.69	0.23	0.02	0.01	1.82
	2.4	Manufacturing	120.34	12.60	171.46	1482.22	109.33	616.99	252.34	4.01	157.13	8.53	46.94	172.89	70.19	35.26	67.79
	2.5	production and distributing of electricity, gas and water	63.58	5.96	29.11	80.23	81.33	16.92	12.03	1.98	16.70	0.66	9.65	27.63	10.90	6.75	6.12
	2.6	Construction	4.63	0.00	73.17	36.89	12.16	653.19	9.41	0.70	8.02	0.18	40.45	11.82	25.49	28.10	0.31
	2.7	Wholesale and retail trade;repair of motor,wehicles, personal and household goods	21.71	0.00	158.33	29.18	4.43	90.63	183.26	0.53	106.13	14.72	9.00	1.34	2.95	7.73	9.06
	2.8	Serve of hotels and restourants	0.95	0.82	4.38	3.56	0.53	20.66	11.26	37.07	9.78	3.04	9.21	15.17	1.37	5.02	1.13
	2.9	Transprot, storage and communication	25.88	3.52	351.70	309.21	28.01	312.84	87.77	3.59	566.70	17.01	53.81	22.65	7.61	20.97	39.37
	2.10	Financial intermediation	2.53	0.48	2.13	15.52	1.96	19.68	3.04	0.06	28.64	26.82	1.98	7.71	1.49	6.21	0.88
	2.11	Real estate, renting and bussiness activities	22.86	0.06	41.97	39.08	3.21	98.58	20.26	2.08	74.07	26.07	59.88	16.60	2.44	9.51	6.31
	2.12	Public administration and defence	0.00	0.00	0.06	1.63	0.03	3.58	0.04	0.00	1.44	0.25	5.84	22.45	0.00	0.30	0.00
	2.13	Education	0.06	0.15	0.72	1.12	0.03	0.42	0.01	0.02	0.27	0.00	0.18	9.58	0.98	0.29	0.07
	2.14	Health and social work	0.00	0.00	19.91	0.33	1.34	89.96	19.71	0.69	47.05	0.28	8.80	2.01	0.23	7.41	0.09
	2.15	Other community,social and personal service activity	0.86	0.03	5.99	13.06	0.21	10.88	1.45	3.33	10.27	0.45	1.73	26.66	3.12	0.58	68.18
Factor costs 3 of which	3.1	WAGE	63.00	26.00	633.30	204.10	73.30	279.00	317.50	31.70	437.50	127.20	202.40	315.10	300.30	116.60	84.20
	3.2	CAPITAL	1185.30	38.90	8868.70	858.10	36.00	1143.80	673.80	68.20	792.50	119.40	128.40	170.40	126.00	144.90	201.60
Costs of economic agents 4 of which:	4.1	Non financial corporation															
	4.2	Financial corporation															
	4.3	Public administration	14.9	1.2	31.9	19.9	6.2	22.6	14.5	0.9	12.9	1.8	4.4	3.4	3.7	3.3	4.9
	4.4	Hoseholds															
	4.5	Non-profit institutions serving households (NPISH)															
	4.6	FISIM															
capital investment	5																
Finance 6	6,1	Changes in inventories															
Rest of the world	7																
Total			2,044.20	107.1	10,573.70	4,373.90	631.4	3,623.40	1607	155.1	2,275.20	346.4	583.5	829.1	556.8	393.1	495.8

Columns 2.1–2.15: Əmtəə və xidmətlər (2), o cümlədən

Uses of Resources	Code	Resources	Agriculture, hunting and forestry 2.1	Fishing, fish-breeding 2.2	Mining and quarrying 2.3	Manufacturing 2.4	production and distributing of electricity, gas and water 2.5	Construction 2.6	Wholesale and retail trade;repair of motor,wehicles, personal and household goods 2.7	Serve of hotels and restourants 2.8	Transprot, storage and communication 2.9	Financial intermediation 2.10	Real estate, renting and bussiness activities 2.11	Public administration and defence 2.12	Education 2.13	Health and social work 2.14	Other community,social and personal service activity 2.15
Activities in the sectors of economy 1 of which	1.1	Agriculture, hunting and forestry	2,044.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1.2	Fishing, fish-breeding	0	107.1	0	0	0	0	0	0	0	0	0	0	0	0	0
	1.3	Mining and quarrying	0	0	10,573.70	0	0	0	0	0	0	0	0	0	0	0	0
	1.4	Manufacturing	0	0	0	4,373.90	0	0	0	0	0	0	0	0	0	0	0
	1.5	production and distributing of electricity, gas and water	0	0	0	0	631.4	0	0	0	0	0	0	0	0	0	0
	1.6	Construction	0	0	0	0	0	3,623.40	0	0	0	0	0	0	0	0	0
	1.7	Wholesale and retail trade;repair of motor,wehicles, personal and household goods	0	0	0	0	0	0	1,607	0	0	0	0	0	0	0	0
	1.8	Serve of hotels and restourants	0	0	0	0	0	0	0	155.1	0	0	0	0	0	0	0
	1.9	Transprot, storage and communication	0	0	0	0	0	0	0	0	2,275.20	0	0	0	0	0	0
	1.10	Financial intermediation	0	0	0	0	0	0	0	0	0	346.4	0	0	0	0	0
	1.11	Real estate, renting and bussiness activities	0	0	0	0	0	0	0	0	0	0	583.5	0	0	0	0
	1.12	Public administration and defence	0	0	0	0	0	0	0	0	0	0	0	829.1	0	0	0
	1.13	Education	0	0	0	0	0	0	0	0	0	0	0	0	556.8	0	0
	1.14	Health and social work	0	0	0	0	0	0	0	0	0	0	0	0	0	393.1	0
	1.15	Other community,social and personal service activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	495.8
Goods and services 2 of which	2.1	Agriculture, hunting and forestry															
	2.2	Fishing, fish-breeding															
	2.3	Mining and quarrying															
	2.4	Manufacturing															
	2.5	production and distributing of electricity, gas and water															
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	2.13	Education															
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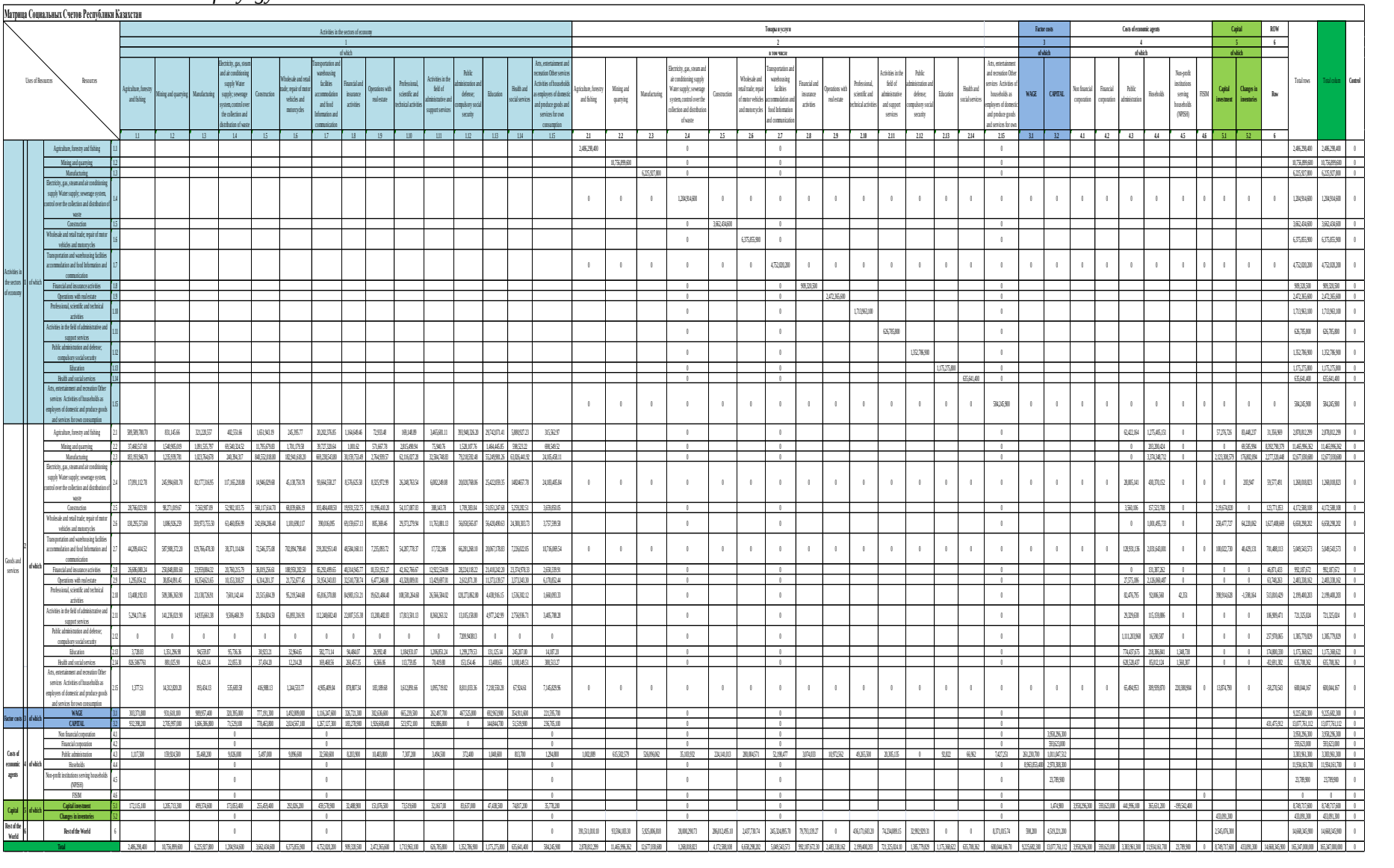
Factor costs 3 of which	3.1	WAGE															
	3.2	CAPITAL															
Costs of economic agents 4 of which:	4.1	Non financial corporation															
	4.2	Financial corporation															
	4.3	Public administration	0.16	11.14	175.32	560.65	43.59	102.59	87.06	9.92	51.58	0.00	-13.01	0.00	0.00	0.00	-4.60
	4.4	Hoseholds															
	4.5	Non-profit institutions serving households (NPISH)															
	4.6	FISIM															
capital investment	5																
Finance 6	6,1	Changes in inventories															
Rest of the world	7		510.45	24.42	886.25	4833.05	50.94	103.52	182.77	0.00	472.00	0	0	0	0	202.3016258	0
Total			2554.82	142.66	11635.27	9767.60	725.94	3829.50	1876.83	165.02	2798.78	346.40	570.49	829.10	556.80	595.40	491.20

Columns 3.1–Control: Factor costs (3), of which; Costs of economic agents (4), of which; Capital investment (5); Finance (6); ROW (7)

Uses of Resources	Code	Resources	Wage 3.1	Capital 3.2	Non financial corporation 4.1	Financial corporation 4.2	Public administaration 4.3	Hoseholds 4.4	Non profit institutsion serving hoseholds(NPISH) 4.5	FISIM 4.6	Capital investment 5	Changes in inventories 6.1	ROW 7	Total rows	Total columns	Control
Activities in the sectors of economy 1 of which	1.1	Agriculture, hunting and forestry												2,044.20	2,044.20	0
	1.2	Fishing, fish-breeding												107.1	107.1	0
	1.3	Mining and quarrying												10,573.70	10,573.70	0
	1.4	Manufacturing												4,373.90	4,373.90	0
	1.5	production and distributing of electricity, gas and water												631.4	631.4	0
	1.6	Construction												3,623.40	3,623.40	0
	1.7	Wholesale and retail trade;repair of motor,wehicles, personal and household goods												1,607	1,607	0
	1.8	Serve of hotels and restourants												155.1	155.1	0
	1.9	Transprot, storage and communication												2,275.20	2,275.20	0
	1.10	Financial intermediation												346.4	346.4	0
	1.11	Real estate, renting and bussiness activities												583.5	583.5	0
	1.12	Public administration and defence												829.1	829.1	0
	1.13	Education												556.8	556.8	0
	1.14	Health and social work												393.1	393.1	0
	1.15	Other community,social and personal service activity												495.8	495.8	0
Goods and services 2 of which	2.1	Agriculture, hunting and forestry					16.70	1264.50	0.86		71.34	-1.91	209.06	2554.82	2554.82	0
	2.2	Fishing, fish-breeding					0.00	124.51	0.00		0.00	0.51	0.50	142.66	142.66	0
	2.3	Mining and quarrying					0.00	95.59	0.00		0.00	-92.03	10113.01	11635.27	11635.27	0
	2.4	Manufacturing					4.91	2244.94	0.25		2667.73	130.30	1391.45	9767.60	9767.60	0
	2.5	production and distributing of electricity, gas and water					0.00	330.76	0.00		0.00	0.74	24.89	725.94	725.94	0
	2.6	Construction					0.00	21.98	0.00		2828.72	-10.42	84.71	3829.50	3829.50	0
	2.7	Wholesale and retail trade;repair of motor,wehicles, personal and household goods					0.00	1115.34	0.00		0.00	1.43	121.06	1876.83	1876.83	0
	2.8	Serve of hotels and restourants					0.00	39.86	0.00		0.00	0.08	1.15	165.02	165.02	0
	2.9	Transprot, storage and communication					0.00	389.17	0.00		0.00	0.60	558.37	2798.78	2798.78	0
	2.10	Financial intermediation					0.00	27.40	0.00	191.9	0.00	0.00	7.95	346.40	346.40	0
	2.11	Real estate, renting and bussiness activities					56.77	78.70	2.92		0.00	0.40	8.72	570.49	570.49	0
	2.12	Public administration and defence					409.28	590.47	21.07		0.00	0.00	-227.34	829.10	829.10	0
	2.13	Education					332.92	243.72	17.14		0.00	0.00	-50.87	556.80	556.80	0
	2.14	Health and social work					731.22	0.00	37.64		0.00	0.00	-371.27	595.40	595.40	0
	2.15	Other community,social and personal service activity					49.10	306.07	2.53		0.00	0.00	-13.28	491.20	491.20	0
Factor costs 3 of which	3.1	WAGE											264.8	3,476	3,476	0
	3.2	CAPITAL								-191.9	0		1,358.40	15,722.50	15,722.50	0
Costs of economic agents 4 of which:	4.1	Non financial corporation		5,639.20										5,639.20	5,639.20	0
	4.2	Financial corporation		162.7										162.7	162.7	0
	4.3	Public administration		2,813										3,983.90	3,983.90	0
	4.4	Hoseholds	3,364.50	4,342.30										7,706.80	7,706.80	0
	4.5	Non-profit institutions serving households (NPISH)		49.3										49.3	49.3	0
	4.6	FISIM								-191.9				-191.9	-191.9	0
capital investment	5			-3.4	5,639.20	162.7	2,383	833.8	-33.1	0			-3,384.70	5,597.50	5,597.50	0
Finance 6	6,1	Changes in inventories									29.7			29.7	29.7	3E-14
Rest of the world	7		111.5	2,719.40										10,096.60	10,096.60	0
Total			3,476	15,722.50	5,639.20	162.7	3,983.90	7,706.80	49.3	-191.9	5,597.50	29.7	10,096.60	117,753.80	117,753.80	0

Appendix 2

Social Accounts Matrix of Kyrgyzstan



Appendix 3

Social Accounts Matrix of Kazakhstan

Social Accounting Matrix of Republic of Kyrgyzstan

Uses of Resources / Resources				Activities in the sectors of economy (1)															Goods and services (2)														Factor costs (3)		Costs of economic agents (4)							Capital (5)		Rest of the world (6)	Total rows	Total columns	Control
				of which															of which														of which							of which					
				Agriculture, hunting and forestry	Fishing, fish farming, the provision of services in these fields	Mining industry	Manufacturing industry	Production and distribution of electricity	Construction	Trading	Hotels and Restaurants	Transport and Communication	Financial activities	Real estate, rental and the provision of services to consumers	Public administration	Education	Health and social services	Provision of communal, social and personal services	Agriculture, hunting and forestry	Fishing, fish farming, the provision of services in these fields	Mining industry	Manufacturing industry	Production and distribution of electricity	Construction	Trading	Hotels and Restaurants	Transport and Communication	Financial activities	Real estate, rental and the provision of services to consumers	Public administration	Education	Health and social services	Provision of communal, social and personal services	Wage	Capital	Non financial corporation	Financial corporation	Public administration	Households	Non profit institution serving households(NPISH)	FISIM	Capital Investment	Changes in inventories	Rest of the world			
				1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	1.11	1.12	1.13	1.14	1.15	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	2.12	2.13	2.14	2.15	3.1	3.2	4.1	4.2	4.3	4.4	4.5	4.6	5.1	5.2				
Activities in the sectors of economy	1.0	of which	Agriculture, hunting and forestry	1.1															111,283.90																								111,283.90	111,283.90	0.0
			Fishing, fish farming, the provision of services in these fields	1.2																13.30																								13.30	13.30	0.0
			Mining industry	1.3																	1,931.90																								1,931.90	1,931.90	0.0
			Manufacturing industry	1.4																		91,661.10																								91,661.10	91,661.10	0.0
			Production and distribution of electricity	1.5																			11,407.00																								11,407.00	11,407.00	0.0
			Construction	1.6																				40,463.20																								40,463.20	40,463.20	0.0
			Trading	1.7																					56,517.00																								56,517.00	56,517.00	0.0
			Hotels and Restaurants	1.8																						7,592.70																								7,592.70	7,592.70	0.0
			Transport and Communication	1.9																							36,090.70																								36,090.70	36,090.70	0.0
			Financial activities	1.10																								11,150.70																								11,150.70	11,150.70	0.0
			Real estate, rental and the provision of services to consumers	1.11																									15,832.20																								15,832.20	15,832.20	0.0
			Public administration	1.12																										17,955.20																								17,955.20	17,955.20	0.0
			Education	1.13																											12,314.20																								12,314.20	12,314.20	0.00
			Health and social services	1.14																												7,334.20																								7,334.20	7,334.20	0.00
			Provision of communal, social and personal services	1.15																													7,445.80																								7,445.80	7,445.80	0.00
Goods and services	2	of which	Agriculture, hunting and forestry	2.1	67,295.92	0	100.76	10,398.82	194.78	664.23	6,720.23	579.54	661.72	16.91	191.75	1,142.03	234.54	125.12	89.79																									554.51	35,891.38	0.86			792.51	-10.30	15,869.47	141,314.50	141,314.50	0.00
			Fishing, fish farming, the provision of services in these fields	2.2	0	5.53	0	0	0	0	0	0	0	0	0	0	0	0	3.07																									3.22	2.08	0.00			0.00	5.16	2.64	21.70	21.70	0.00
			Mining industry	2.3	0.4	0	83.11	632.59	856.88	94.81	191.82	0	67.89	0	1.37	61.38	90.86	11.63	91.5																									0.00	1,215.14	0.09			353.12	38.64	277.34	4,068.50	4,068.50	0.00
			Manufacturing industry	2.4	129.42	0	368.42	39,471.26	2,098.88	15,187.01	6,002.70	1,535.63	9,963.79	375.3	1,408.26	2,000.38	1,065.27	1,009.62	859.79																									40.13	43,664.02	681.29			16,262.88	-792.59	53,870.45	195,202.10	195,202.10	0.00
			Production and distribution of electricity	2.5	10.87	0	67.71	1,387.57	1,219.41	202.81	540.59	158.98	351.55	18.31	650	372.77	310.65	123.64	159.46																									3.31	3,134.70	0.00			4,671.62	21.89	1,052.65	14,386.50	14,386.50	0.00
			Construction	2.6	8.78	0	1.91	1,032.33	1,431.30	5,274.53	3,384.02	579.69	395.19	148.85	1,698.15	31.82	889.22	144.45	961.29																									1.40	8,098.50	0.00			19,189.80	-727.80	806.40	43,160.20	43,160.20	0.00
			Trading	2.7	5,922.89	0.74	97.77	5,363.35	620.79	3,415.53	2,600.27	713.04	2,299.06	122.48	502.75	882.84	453.02	359.39	260.26																									25.41	25,725.83	102.31			9,918.84	-290.82	6,426.42	56,523.20	56,523.20	0.00
			Hotels and Restaurants	2.8	1.84	0	19.6	1,005.34	47	187.66	340.09	344.2	198.43	76.72	81.27	434.78	211.93	92.23	103.62																									0.00	4,448.87	0.00			66.60	-1.90	2.43	7,715.90	7,715.90	0.00
			Transport and Communication	2.9	154.37	0.03	114.38	3,339.42	497.39	1844.55	1772.34	471.29	2,224.33	63.85	432.21	1,093.52	483.53	77.37	129.9																									368.02	20,508.57	2.75			11,855.73	-6.97	23,380.91	67,652.50	67,652.50	0.00
			Financial activities	2.10	13.09	0	0.98	145.16	18.9	0.52	171.93	79.68	241.75	8,888.98	42.88	4.31	15.82	0	41.68																									0.00	1,321.40	0.00			304.90	6.00	457.20	11,740.00	11,740.00	0.00
			Real estate, rental and the provision of services to consumers	2.1	1.42	0	12.28	456.73	42.63	60.4	1,456.42	450.2	1,843.49	30.91	1,498.71	1,138.15	26.13	86.13	89.59																									1,087.10	5,783.20	0.00			123.60	-135.20	3,732.40	17,718.30	17,718.30	0.00
			Public administration	2.12	0.01	0	0	0.04	0	0.02	0.02	0	2.37	0	0.42	0	0.01	0	0																									16,773.00	29.30	0.00			1,148.30	0.00	4,134.60	22,088.10	22,088.10	0.00
			Education	2.13	0	0	0	7.15	5.19	2.43	35.22	1.64	25.16	7.04	9.95	13.86	100.34	0.77	3.38																									9,375.70	2,475.40	0.00			277.70	0.00	0.00	12,340.10	12,340.10	0.00
			Health and social services	2.14	0.13	0	0.26	6.94	1.63	24.6	21.5	29.58	1.97	0.18	43.93	9.81	0.56	45.13	21.08																									6,473.50	940.10	0.00			184.10	0.00	152.70	7,957.80	7,957.80	0.00
			Provision of communal, social and personal services	2.2	0.06	0	0.12	13.92	3.94	15.5	129.35	14.03	153.17	32.77	114.35	13.64	18.01	72.78	478.77																									2,383.20	1,648.10	1,844.20			636.40	0.00	0.00	7,572.30	7,572.30	0.00
Factor costs	3	of which	Wage	3.1	858.2	5.1	632	9,005.30	3,555	2,497.30	2,732.10	438.3	5,488.20	4,010.80	5,038.40	8,029.20	8,438.60	4,325	2,374																																57,350.50	57,350.50	0.00
			Capital	3.2	33,930.30	-2.7	55.3	12,931.30	-60.1	9,904	30,347.70	2,038.80	10,078.40	-3,207.50	1,040.50	0	-353.8	-263.8	1,186																															59,172.20	156,747.60	156,747.60	0.00
Costs of economic agents	4	of which	Non financial corporation	4.1																														22,081.00												22,081.00	22,081.00	0.00
			Financial corporation	4.2																														2,504.60												2,504.60	2,504.60	0.00
			Public administration	4.3	726.1	0.3	141.4	703.4	82.1	271.2	439.9	65.6	271.4	65.4	233.4	425.1	269.8	167.7	68.6	2,598	1	595	11,489	32	1,904	6	123	3,472	426	1,171	153	26	107	127	4,164.40	1,774.50												32,013.10	32,013.10	0.00
			Households	4.4																														52,004.10	112,585.70												164,589.80	164,589.80	0.00
			Non-profit institutions serving households (NPISH)	4.5																															3,851.90												3,851.90	3,851.90	0.00
			FISIM	4.6																																				-6,647.00						-6,647.00	-6,647.00	0.00
Capital	5	of which	Capital Investment	5.1	2,239.30	4.3	243.6	5,990.50	792.1	816.1	345.7	117.5	1,912.90	507.7	2,862.90	2,303.40	584.7	957.1	527																																49,960.70	49,960.70	0.00
			Changes in inventories	5.2																																											-1,893.90			-1,893.90	-1,893.90	0.00
Rest of the world	6		Rest of the world	6															27,432	7	1,630	92,042	2,947	793	0	0	28,090	171	715	3,980	0	527	0	1,162.60	14,646.50												169,186.80	169,186.80	0.00
Total					111,283.90	13.30	1,931.90	91,661.10	11,407.00	40,463.20	56,517.00	7,592.70	36,090.70	11,150.70	15,832.20	17,955.20	12,314.20	7,334.20	7,445.80	141.215	22	4,069	195,202	14,387	43,160	56,523	7,716	67,653	11,748	17,718	22,088	12,340	7,572	57,350.50	156,747.60	22,081.00	2,504.60	32,013.10	164,589.80	3,851.90	-6,647.00	49,960.70	-1,893.90	169,186.80	1,688,109.09	1,688,109.09	0.00

Appendix 4

Calculation of general multiplier based on the Social Accounts Matrix of Azerbaijan

Calculation of general multiplier based on the Social Accounts Matrix of Kyrgyzstan (mln som)

		Activities															SAM multiplier model		Simulation				
		Agriculture, hunting and forestry	Fishing, fish farming, the provision of services in these fields	Mining industry	Manufacturing industry	Production and distribution of electricity	Costruction	Trading	Hotels and Restaurants	Transport and Communication	Financial activities	Real estate, rental and the provision of services to	Public adminstration	Education	Health and social services	Provision of communal, social and personal services	E exogenous demand vector	Z aggregate demand vector	Change in E %	absolute change in the vector of exogenous demand E	Result of the change in the vector of aggregate demand	Absolute result Z	Relative result Z %
Goods and services	Agriculture, hunting and forestry	2.44	0.43	0.38	0.38	0.55	0.62	0.98	0.82	0.39	0.61	0.70	0.71	0.83	0.75	0.76	17,197.06	141,314.50	1.10	18,916.76	145,504.42	4,189.92	2.96
	Fishing, fish farming, the provision of services in these fields	0.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.01	21.70	1.00	11.01	21.74	0.04	0.18
	Mining industry	0.01	0.01	1.03	0.01	0.08	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.03	0.02	0.03	669.19	4,068.50	1.00	669.19	4,089.79	21.29	0.52
	Manufacturing industry	0.46	0.37	0.40	1.49	0.69	0.98	0.81	0.88	0.50	0.71	0.75	0.66	0.83	0.79	0.85	70,062.16	195,202.10	1.00	70,062.16	195,989.37	787.27	0.40
	Production and distribution of	0.03	0.03	0.04	0.03	1.13	0.04	0.06	0.07	0.03	0.05	0.09	0.06	0.08	0.06	0.07	5,749.46	14,386.50	1.00	5,749.46	14,441.58	55.08	0.38
	Costruction	0.09	0.07	0.06	0.06	0.21	1.24	0.20	0.22	0.07	0.17	0.24	0.12	0.22	0.15	0.29	19,269.80	43,160.20	1.00	19,269.80	43,320.94	160.74	0.37
	Trading	0.30	0.22	0.17	0.15	0.27	0.33	1.38	0.39	0.19	0.30	0.32	0.30	0.38	0.35	0.36	7,174.15	56,523.20	1.00	7,174.15	57,037.47	514.27	0.91
	Hotels and Restaurants	0.03	0.03	0.03	0.02	0.04	0.04	0.06	1.09	0.03	0.07	0.05	0.06	0.07	0.06	0.06	67.13	7,715.90	1.00	67.13	7,774.11	58.21	0.75
	Transport and Communication	0.15	0.12	0.12	0.09	0.19	0.21	0.24	0.26	1.14	0.19	0.22	0.23	0.23	0.22	0.23	35,500.44	67,652.50	1.00	35,500.44	67,911.45	258.95	0.38
	Financial activities	0.04	0.03	0.03	0.02	0.05	0.05	0.07	0.10	0.04	4.15	0.06	0.05	0.07	0.06	0.08	768.10	11,748.00	1.00	768.10	11,820.89	72.89	0.62
	Real estate, rental and the provision of services to consumers	0.05	0.04	0.04	0.03	0.06	0.06	0.10	0.13	0.07	0.07	1.16	0.12	0.08	0.08	0.09	4,807.90	17,718.30	1.00	4,807.90	17,810.19	91.89	0.52
	Public adminstration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	22,055.90	22,088.10	1.00	22,055.90	22,088.41	0.31	0.00
	Education	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.02	0.02	0.02	1.03	0.02	0.02	9,653.40	12,340.10	1.00	9,653.40	12,365.73	25.63	0.21
	Health and social services	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	1.01	0.01	6,810.30	7,957.80	1.00	6,810.30	7,968.13	10.33	0.13
	Provision of communal, social and personal	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.03	0.02	0.01	0.02	0.03	1.08	4,863.80	7,572.30	1.00	4,863.80	7,593.07	20.77	0.27

Appendix 5

Calculation of general multiplier based on the Social Accounts Matrix of Kyrgyzstan

Calculation of general multiplier based on the Social Accounts Matrix of Azerbaijan (mln manat)

		Activities															SAM multiplier model		Simulation				
		Agriculture, hunting and forestry	Fishing, fish-breeding	Mining and quarrying	Manufacturing	production and distributing of electricity, gas and water	Construction	Wholesale and retail trade;repair of motor,wehicles, personal and	Serve of hotels and restourants	Transprot, storage and communication	Financial intermediation	Real estate, renting and bussiness activities	Public administration and defence	Education	Health and social work	Other community,social and personal service activity	E exogenous demand vector	Z aggregate demand vector	Change in E %	absolute change in the vector of exogenous demand E	Result of the change in the vector of aggregate demand	Absolute result Z	Relative result Z %
Goods	Agriculture, hunting and forestry	1.35	0.09	0.12	0.11	0.10	0.12	0.10	0.12	0.10	0.13	0.13	0.13	0.13	0.08	0.14	296.04	2,554.82	1.10	325.65	2,594.69	39.88	1.56
	Fishing, fish-breeding	0.01	1.14	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.01	142.66	1.00	1.01	142.87	0.21	0.15
	Mining and quarrying	0.05	0.07	1.06	0.12	0.48	0.13	0.05	0.05	0.05	0.05	0.07	0.08	0.07	0.04	0.07	10,020.98	11,635.27	1.00	10,020.98	11,636.88	1.60	0.01
	Manufacturing	0.26	0.29	0.25	1.27	0.39	0.45	0.37	0.28	0.28	0.30	0.38	0.49	0.40	0.24	0.43	4,194.65	9,767.60	1.00	4,194.65	9,775.22	7.62	0.08
	production and distributing of electricity, gas and water	0.06	0.08	0.04	0.03	1.16	0.04	0.04	0.05	0.04	0.04	0.06	0.08	0.06	0.04	0.05	25.63	725.94	1.00	25.63	727.80	1.86	0.26
	Construction	0.01	0.01	0.02	0.01	0.03	1.22	0.02	0.02	0.02	0.02	0.11	0.03	0.07	0.07	0.01	2,903.02	3,829.50	1.00	2,903.02	3,829.85	0.34	0.01
	Wholesale and retail trade;repair of motor,wehicles, personal and household goods	0.08	0.07	0.10	0.04	0.09	0.11	1.18	0.09	0.12	0.15	0.12	0.09	0.10	0.08	0.12	122.49	1,876.83	1.00	122.49	1,879.26	2.43	0.13
	Serve of hotels and restourants	0.01	0.01	0.01	0.00	0.01	0.02	0.01	1.30	0.01	0.02	0.03	0.03	0.01	0.02	0.01	1.23	165.02	1.00	1.23	165.20	0.18	0.11
	Transprot, storage and communication	0.07	0.09	0.10	0.08	0.13	0.20	0.13	0.10	1.32	0.15	0.22	0.12	0.09	0.10	0.19	558.97	2,798.78	1.00	558.97	2,800.88	2.10	0.08
	Financial intermediation	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.03	1.10	0.02	0.03	0.02	0.02	0.02	7.95	346.40	1.00	7.95	346.86	0.46	0.13
	Real estate, renting and bussiness activities	0.03	0.01	0.02	0.01	0.02	0.06	0.03	0.04	0.05	0.11	1.14	0.04	0.02	0.03	0.04	68.81	570.49	1.00	68.81	571.24	0.76	0.13
	Public administration and defence	0.03	0.03	0.04	0.01	0.03	0.03	0.03	0.04	0.03	0.04	0.05	1.06	0.04	0.03	0.04	203.00	829.10	1.00	203.00	830.02	0.92	0.11
	Education	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.02	0.03	1.02	0.01	0.02	299.18	556.80	1.00	299.18	557.18	0.38	0.07
	Health and social work	0.00	0.00	0.01	0.00	0.01	0.04	0.02	0.01	0.03	0.01	0.03	0.01	0.01	1.02	0.01	397.59	595.40	1.00	397.59	595.49	0.09	0.02
	Other community,social and personal service activity	0.02	0.02	0.03	0.01	0.02	0.03	0.02	0.06	0.03	0.03	0.03	0.06	0.03	0.02	1.19	38.34	491.20	1.00	38.34	491.82	0.62	0.13

Appendix 6

Calculation of general multiplier based on the Social Accounts Matrix of Kazakhstan

Calculation of general multiplier based on the Social Accounts Matrix of Kazakhstan (mln tenge)

		Activities															SAM multiplier model		Simulation				
		Agriculture, hunting and forestry	Fishing, fish farming, the provision of services in these fields	Mining industry	Manufacturing industry	Production and distribution of electricity	Costruction	Trading	Hotels and Restaurants	Transport and Communication	Financial activities	Real estate, rental and the provision of services to consumers	Public adminstration	Education	Health and social services	Provision of communal, social and personal services	Eexogenous demand vector	Z aggregate demand vector	Change in E%	absolute change in the vector of exogenous demand E	Result of the change in the vector of aggregate demand	Absolute result Z	Relative result Z %
Goods and services	Agriculture, hunting and forestry	1.34	0.09	0.08	0.09	0.08	0.09	0.10	0.09	0.10	0.08	0.09	0.45	0.13	0.11	0.10	234,504,096.05	2,878,812,299.08	1.10	257,954,505.65	2,910,223,948.02	31,411,648.94	1.09
	Fishing, fish farming, the provision of services in these fields	0.07	1.21	0.13	0.13	0.06	0.05	0.07	0.05	0.05	0.04	0.04	0.06	0.05	0.06	0.05	8,462,376,372.60	11,465,996,362.30	1.00	8,462,376,372.60	11,467,525,789.55	1,529,427.25	0.01
	Mining industry	0.31	0.39	1.22	0.47	0.46	0.31	0.40	0.29	0.27	0.25	0.28	0.34	0.33	0.37	0.31	4,577,431,120.88	12,677,030,679.70	1.00	4,577,431,120.88	12,684,253,230.04	7,222,550.34	0.06
	Manufacturing industry	0.04	0.06	0.03	1.14	0.04	0.05	0.06	0.05	0.04	0.04	0.04	0.05	0.06	0.06	0.08	87,786,579.69	1,268,018,822.73	1.00	87,786,579.69	1,268,953,293.34	934,470.61	0.07
	Production and distribution of electricity	0.03	0.04	0.01	0.08	1.17	0.04	0.05	0.05	0.03	0.05	0.02	0.03	0.07	0.03	0.03	2,947,006,779.21	4,172,588,108.12	1.00	2,947,006,779.21	4,173,392,636.60	804,528.48	0.02
	Costruction	0.17	0.25	0.10	0.19	0.18	1.34	0.21	0.20	0.11	0.11	0.12	0.18	0.18	0.17	0.12	1,950,106,457.16	6,658,298,201.74	1.00	1,950,106,457.16	6,662,244,715.39	3,946,513.65	0.06
	Trading	0.15	0.21	0.09	0.17	0.14	0.27	1.19	0.19	0.15	0.14	0.15	0.20	0.17	0.16	0.16	970,871,109.81	5,049,543,572.68	1.00	970,871,109.81	5,052,973,384.11	3,429,811.43	0.07
	Hotels and Restaurants	0.03	0.05	0.02	0.04	0.03	0.06	0.04	1.07	0.02	0.04	0.04	0.05	0.04	0.06	0.02	46,871,432.98	992,187,672.27	1.00	46,871,432.98	992,919,840.12	732,167.85	0.07
	Transport and Communication	0.10	0.11	0.06	0.11	0.09	0.12	0.12	0.15	1.13	0.12	0.13	0.11	0.13	0.13	0.13	91,323,449.24	2,483,338,162.00	1.00	91,323,449.24	2,485,671,691.87	2,333,529.87	0.09
	Financial activities	0.02	0.08	0.02	0.03	0.02	0.04	0.04	0.11	0.03	1.07	0.06	0.12	0.02	0.02	0.02	993,646,039.17	2,199,400,203.17	1.00	993,646,039.17	2,199,959,989.40	559,786.23	0.03
	Real estate, rental and the provision of services to consumers	0.02	0.03	0.01	0.02	0.02	0.03	0.04	0.04	0.02	0.02	1.03	0.03	0.02	0.02	0.02	136,239,109.36	721,325,024.15	1.00	136,239,109.36	721,698,972.98	373,948.84	0.05
	Public adminstration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1,369,182,032.29	1,385,779,829.31	1.00	1,369,182,032.29	1,385,796,948.71	17,119.40	0.00
	Education	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.01	0.01	0.01	950,586,743.23	1,175,368,622.00	1.00	950,586,743.23	1,175,595,841.14	227,219.14	0.02
	Health and social services	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.01	547,397,362.76	635,708,362.00	1.00	547,397,362.76	635,797,029.66	88,667.66	0.01
	Provision of communal, social and personal services	0.01	0.02	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	1.03	241,480,103.58	600,044,166.74	1.00	241,480,103.58	600,377,850.02	333,683.28	0.06