

First Regional Data Review Workshop

Country presentation of Mongolia:

Gross output and Intermediate consumption matrices

2009-07-13

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First Regional Data Review Workshop

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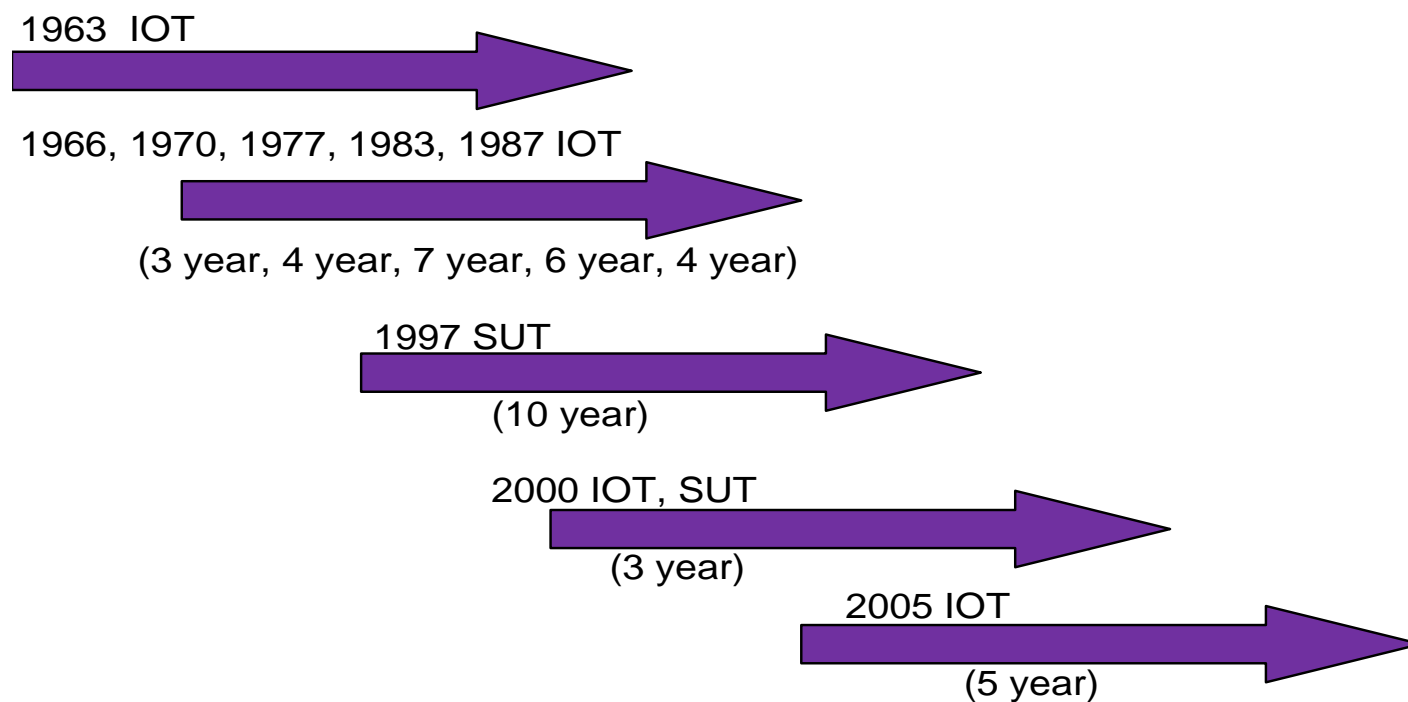
II. Current compilation of Gross output and intermediate consumption matrices

I. Background on compilation of National account

- 1. Estimation of GDP:
 - by 3 approaches, at current and constant prices (1990-2008)
 - by region (2000-2008)
 - annual, quarterly (1990, 2000)

I. Background on compilation of National account

1.1 *The historical years of compilation of IOT*



I. Background on compilation of National account

- *1.2 Legislation*

- “Law of statistics” (compiles SUT and IOT every 5 year)
- Guideline on conducting Census and statistics survey

I. Background on compilation of National account

1.3 Survey design and level of aggregates

- Survey frame:
 - All active enterprises registered in Business Register in 2005
- Survey design:
 - Stratified random sampling methods
- Level of aggregates:
 - SUT by 127 industries, 285 products
 - SUT, 55 industry and 55 products
 - SUT, 15 industry and 15 products

I. Background on compilation of National account

1.4 Basic data sources

- Specific survey for compilation of SUT and IOT :
 - - Production and expenditure survey (3870)
 - - Survey on trade margins (327)
 - - Survey on transport margins (335)
 - - Survey on VAT (67)
- Result of Census and survey
 - Livestock census
 - Economic census, 2005
 - HIES

I. Background on compilation of National account

- **1.4 Basic data sources**

- Administrative data:

1. Bank of Mongolia – Financial and banking statistics
2. Ministry of Finance – Government finance statistics
3. Tax Administration Office – Returns of enterprises
4. Customs Administration – Foreign trade statistics
5. Financial Regulation Commission – Data on financial corporations
6. Ministry of Internal Justice – Data on religious organizations; nongovernmental organizations.
7. Ministry of Health
8. Ministry of Education, Culture, and Science
9. Ministry of Food, Agriculture and Light Industries
10. Ministry of Road, Transport, Construction and Urban Development

I. Background on compilation of National account

1.5 Compilation methodology

- Supply table:
 - Production matrix
 - Import matrix
 - Valuation matrices (trade and transport margins, taxes on products, subsidies on products)
- Use table:
 - Intermediate consumption matrix
 - Final consumption matrix
 - Gross capital formation matrix
 - Import and export matrices
 - Value added components by industry
 - Matrix of adjustment items

I. Background on compilation of National account

1.5 Compilation methodology

- Input-Output Table:
 - Transformation of supply and use tables to symmetric input-output tables

*Use table = IO coefficient matrix * Supply table*

*IO coefficient matrix = Use table * inverse(Supply table)*

II. Current compilation of GO and IC matrices

1. Choice of base year
2. Level of aggregates
3. List of specific data sources used
4. Compilation methodology
5. Summary of results and findings
6. Issues and problems encountered

II. Current compilation of GO and IC matrices

2.1 Choice of base year

- Gross output and intermediate consumption matrices for 2008
 - Last SUT compiled for 2005
 - GDP for 2008 in final stage

II. Current compilation of GO and IC matrices

2.2 Level of aggregates

– GDP by production approach:

- ISIC 3.1 classification
- Compiled by 2-4 digit of ISIC 3.1
 - Mining, manufacturing, electricity, construction, trade, banking and financing, public administration
 - 2 digit
 - Agriculture, hotel & rest., education, health – 3 digit
 - Other services – 4 digit
- GDP published by 1 digit

II. Current compilation of GO and IC matrices

- *2.2 Level of aggregates*
 - Gross output and intermediate consumption matrices:
 - Industry: 2-digit ISIC 3.1
 - Products: 2-digit CPC 1.1

II. Current compilation of GO and IC matrices

2.3 Data sources

- Annual livestock census
- Annual survey on crop production
- Annual surveys for all economic sectors

II. Current compilation of GO and IC matrices

2.4 Compilation methodology

Production approach was used

– Gross output:

Sales (main activity), changes in inventories, changes in work in progress, income in rent, trade margins, other income.

– Intermediate consumption:

raw materials, electricity, fuel, rent, ...

Indirect methods used

– Ratio of gross output and intermediate consumption by products, SUT 2005

II. Current compilation of GO and IC matrices

2.5 Results and findings

- Gross output and intermediate consumption matrices are compiled by 55 industries and 70 products
- Possibility to compile SUT annually, consistency of GDP

II. Current compilation of GO and IC matrices

2.5 Results and findings

MATRIX OF GROSS OUTPUT

1Digit	Description	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Total
0 Total	Agriculture, forestry and fishery pro	1,623	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1,624
1 Total	Ores and minerals; electricity, gas &	2	0	1,209	24	288	0	2	0	3	0	0	0	0	0	0	1,529
2 Total	Food products, beverages and toba	197	0	0	605	0	0	1	1	0	0	0	0	0	0	0	804
3 Total	Other transportable goods, except r	0	0	1	212	0	0	0	0	11	0	0	0	0	0	1	225
4 Total	Metal products, machinery and equ	0	0	735	226	0	0	0	0	4	0	0	0	0	0	0	965
5 Total	Construction services	0	0	5	0	0	711	1	0	32	0	0	0	0	0	0	749
6 Total	Distributive trade services; lodging;	0	0	6	32	26	0	861	95	947	0	1	0	0	1	0	1,969
7 Total	Financial and related services; real	0	0	0	0	0	0	3	0	4	346	474	0	0	0	1	828
8 Total	Business and production services	0	0	0	1	0	0	1	0	375	0	235	0	0	0	4	617
9 Total	Community, social and personal se	0	0	0	0	2	0	0	2	12	0	6	956	427	209	152	1,768
Grand Total		1,821	0	1,956	1,100	317	711	870	99	1,389	346	716	957	428	210	159	11,079

II. Current compilation of GO and IC matrices

2.5 Results and findings

MATRIX OF INTERMEDIATE CONSUMPTION

1Digit	Description	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Total
0 Total	Agriculture, forestry and fishery	160	0	3	237	0	0	4	19	16	0	2	3	3	1	0	448
1 Total	Ores and minerals; electricity, g	9	0	60	106	90	54	21	13	35	4	23	6	7	3	12	445
2 Total	Food products, beverages and t	8	0	4	125	2	1	2	14	14	0	1	4	3	3	2	182
3 Total	Other transportable goods, exce	110	0	181	171	47	136	134	6	276	5	49	35	9	25	14	1,199
4 Total	Metal products, machinery and	77	0	232	132	13	269	6	1	149	0	25	14	2	5	2	926
5 Total	Construction services	0	0	28	2	1	0	1	0	42	2	9	13	3	0	1	102
6 Total	Distributive trade services; lodgi	19	0	53	19	12	9	57	1	81	11	28	20	5	1	8	323
7 Total	Financial and related services; r	17	0	46	36	15	37	152	3	119	106	37	20	15	6	14	624
8 Total	Business and production servic	112	0	17	13	5	115	20	4	86	8	40	37	7	1	15	480
9 Total	Community, social and persona	11	0	5	1	2	0	1	0	4	0	23	553	100	41	24	766
Grand Total		524	0	630	842	187	621	398	60	821	137	237	704	155	87	92	5,496

II. Current compilation of GO and IC matrices

2.6 Issues and problems

- Data sources for disaggregation of output and intermediate consumption by products.
- Problem on FISIM (FISIM not allocated by industry).
- In future:
 - disaggregate industries into 4-digits of ISIC 3.1
 - estimation of GDP by expenditure approach at constant prices
 - use the SUT as a benchmark for the GDP estimates.
 - ISIC 4.0, 2010