# SUPPLY AND USE TABLES FINAL SUPPLY AND USE TABLES, 2002

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#### **PREFACE**

This report contains the final supply and use tables (SU-tables) for 2002, estimated according to the recommendations of the 1993 System of National Accounts (1993 SNA). They are closely linked to the estimates for the gross domestic product (GDP) (Statistical Release P0441) published on 29 November 2005.

The SU-tables, often regarded as the cornerstone of the 1993 SNA, have both statistical and analytical functions. As a statistical tool they serve as a coordinating framework for economic statistics, both conceptually for ensuring the consistency of the definitions and classifications used, and as an accounting framework for ensuring the numerical consistency of data obtained from different sources (i.e. industrial surveys, household surveys, investment surveys, foreign trade statistics).

As an analytical tool, the tables serve as a basis for calculating the economic data contained in the national accounts, and for detecting weaknesses in the economic data. Moreover, they are conveniently integrated into macroeconomic models in order to analyse the link between final demand and industrial output levels.

The SU-tables also have many other uses. These include the extension of the tables to -

- symmetric input-output tables, i.e. tables focusing on the inter-relationships between industries in an economy with respect to the production and uses of its products and the products imported from abroad;
- social accounting matrices, i.e. matrices elaborating on the linkages between SU-tables and institutional sector accounts; and
- satellite accounts, i.e. accounts linking the 1993 SNA with specific fields of enquiry.

pp P J Lehohla Statistician-General

Pretoria July 2006

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#### INTERPRETIVE SUMMARY

#### **Background**

Statistics South Africa (Stats SA) further implemented the 1993 System of National Accounts (1993 SNA) through rebasing and benchmarking of gross domestic product (GDP) estimates, which were published in Statistical Release P0441- *Gross Domestic Product, Revised estimates 1998-2003 and Third quarter 2004* on 30 November 2004. The result of the benchmark process was to develop an integrated, coherent set of statistics that will inform users on the dynamics of the economy.

Major revisions of the national accounts were necessary due to -

- The change of the base year for the estimates at constant prices;
- The availability of new sources of information including results of intermittent economic censuses and surveys as well as the 2001 Population Census;
- Improvements in methodology; and
- Revisions of basic economic datasets as part of Stats SA's economic improvement strategy

In accordance with international best practice, an update of the base year accompanied by some revisions of the GDP estimates have been taking place regularly every five years in South Africa.

The 1993 SNA requires countries to compile supply and use tables (SU-tables) as they form an integral part of the 1993 SNA. According to the 1993 SNA, the annual estimates of gross value added and its components, as well as output, intermediate consumption expenditure, final consumption expenditure and GDP should all have their origin in SU-tables. This is because these tables have been developed to check the accuracy and consistency of the economic data contained in the national accounts.

The SU-tables are intended to include all the transactions in goods and services in an economy for a specific year, e.g. 2002, in a matrix format. They allow for close examination of the consistency of the national accounts by linking and integrating the various components within a single framework.

As an extension of the implementation of the 1993 SNA, Stats SA compiled the first official SU-tables for South Africa for the 1993-reference and published it in December 1999. Stats SA have been publishing SU-tables annually as from the 1998-reference year. This will ensure an extended time-series of the SU-tables and also assist in analysing and evaluating the performance of the economy over time.

Stats SA has now compiled the detailed SU-tables for the 2002 reference year. Therefore, this publication is the fourth official SU-tables published by Stats SA. Stats SA will in the future publish the detailed SU-tables after the benchmark of gross domestic product estimates; furthermore Stats SA will publish compressed SU-tables of 10 products by 10 industries in November and 27 products by 27 industries in February of each year.

## Integration with national accounts

In November 2004 it was possible, for the first time, to use SU-tables to estimate the annual GDP. The 2002 SU-tables are therefore reconciled with the national accounts estimates of GDP by activity, the expenditure on GDP as well as the residual-item (the difference between GDP calculated by the production approach and expenditure approaches). The discrepancy between the supply and use of products at a more detailed commodity level is published as well. Publishing these discrepancies in respect of products is specifically aimed at revealing the shortcomings in various data sources in order to investigate and rectify them.

#### Interpretation

The SU-tables serve as a co-ordinating framework to ensure the numerical consistency and accuracy of data obtained from different sources (i.e. industrial surveys, households surveys, investment surveys, foreign trade statistics). The SU-tables are also important in analysing and evaluating the performance of an economy over time.

However, as this latter function is dependent on the availability of an extended time-series of SU-tables (which does not yet exist), the analysis is limited to a brief comparison of some of the more important findings regarding 1999, 2000, 2001 and 2002.

#### Components of gross value added by industry

Gross value added at basic prices is defined as output valued at basic prices less intermediate consumption valued at purchasers' prices. Table A shows the components of gross value added at basic prices by industry for 1999, 2000, 2001 and 2002. An analysis of the percentage contribution of the components of gross value added to total gross value added at basic prices for different industries shows that in certain industries the compensation of employees is the largest contributor to the total gross value added by the specific industry. In other industries, the operating surplus is the largest contributor to the total gross value added by the specific industry.

In 2002, the compensation of employees accounted for 81,7% of the total gross value added in the community, social and personal services industry (compared with the 83,6% in 1999, 82,5% in 2000, and 82,1% in 2001). The construction sector experienced a decrease in compensation of employees from 61,8% in 1999 compared with 60,6% in 2000, 58,2% in 2001 and 56,4% in 2002. For the transport, storage and communication sector, the decrease in compensation of employee accounted for 44,4% in 1999 compared with 41,6% in 2000, 40,5% in 2001 and 39,1% in 2002. However, the gross operating surplus accounted for 77,4% in 2002 of the total gross value added in the agriculture, hunting, forestry and fishing industry (compared with the 67,0% in 1999, 66,8% in 2000 and 70,7% in 2001).

The percentage contribution of taxes less subsidies on production is negligible in all cases. The agriculture, hunting, forestry and fishing industry is the only industry where subsidies on production exceeded taxes on production.

Table A – Percentage contribution of components of gross value added to total gross value added at basic prices according to industry: 1999, 2000, 2001 and 2002

	*7	Compensation	Gross	Taxes less	Total
Industry	Year	of employees	operating surplus/Mix	subsidies	gross value
			ed income	on productio	added
			cu meome	n	added
Agriculture, hunting, forestry and fishing	1999	33,7	67,0	-0,7	100,0
Tigire unitare, running, roreout y unitarining	2000	34,3	66,8	-1,1	100,0
	2001	30,6	70,7	-1,4	100,0
	2002	24,3	77,4	-1,7	100,0
Mining and quarrying	1999	49,9	48,5	1,7	100,0
	2000	44,6	53,8	1,6	100,0
	2001	40,5	58,0	1,4	100,0
	2002	37,0	61,7	1,3	100,0
Manufacturing	1999	55,2	43,6	1,2	100,0
	2000	52,2	46,6	1,2	100,0
	2001	50,2	48,8	1,0	100,0
	2002	46,4	52,6	1,0	100,0
Electricity, gas and water supply	1999	36,6	62,6	0,8	100,0
, , , , , , , , , , , , , , , , , , ,	2000	35,8	63,3	0,8	100,0
	2001	35,7	63,7	0,7	100.0
	2002	36,9	62,5	0,6	100,0
Construction	1999	61,8	36,7	1,4	100,0
	2000	60,6	37,9	1,5	100,0
	2001	58,2	40,2	1,5	100,0
	2002	56,4	41,8	1,8	100,0
Wholesale-, retail- and motor trade, hotels	1999	52,8	44,8	2,4	100,0
and restaurants	2000	50,1	47,6	2,3	100,0
	2001	47,6	50,4	2,1	100,0
	2002	46,5	51,3	2,2	100,0
Transport, storage and communication	1999	44,4	54,4	1,2	100,0
	2000	41,6	57,2	1,2	100,0
	2001	40,5	58,3	1,2	100,0
	2002	39,1	59,5	1,4	100,0
Finance, real estate and business services	1999	33,8	60,4	5,7	100,0
	2000	34,1	60,3	5,6	100,0
	2001	34,6	60,8	4,6	100,0
	2002	34,1	61,1	4,9	100,0
Community, social and personal services	1999	83,6	15,3	1,1	100,0
_ ^	2000	82,5	16,2	1,3	100,0
	2001	82,1	16,5	1,4	100,0
	2002	81,7	16,5	1,7	100,0
Total industries	1999	54.7	43.1	2.2	100,0
	2000	52.8	45.1	2.2	100,0
	2001	51.0	47.0	1.9	100,0
	2002	48.9	49.1	2.0	100,0
	1				

#### Output of industries according to type of input

Output consists of those goods or services that are produced within an establishment that become available for use outside the establishment, plus any goods and services produced for own final use.

Table B reflects a breakdown of the output of the primary, secondary and tertiary industries according to type of input in 1999, 2000, 2001 and 2002. It is interesting to note that in the case of the primary and tertiary industries, gross value added constituted more than 50% of the output in these years, while in the secondary industry gross value added constituted less than 30% of its output. Furthermore, it is evident that the secondary industry is the largest user of secondary products, which serve as intermediate inputs.

Table B – Output of industries according to type of input: 1999, 2000, 2001 and 2002

Input	Year		Output of Output of Secondary industry				tput of ry industry
		R million	%	R million	%	R million	%
			Contribution		Contribution		Contribution
Primary product	1999	2 435	1,6	70 038	11,2	1 379	0,2
	2000	3 042	1,7	93 637	12,3	1 866	0,2
	2001	3 273	1,6	103 773	12,1	2 087	0,2
	2002	3 992	1,6	129 882	12,8	1 851	0,1
Secondary product	1999	41 047	27,5	309 616	49,6	118 891	14,7
J P	2000	47 602	26,9	383 208	50,5	154 741	16,1
	2001	52 931	25,3	437 264	51,0	172 109	16,0
	2002	65 698	25,8	509 977	50,2	214 683	17,2
Tertiary product	1999	27 676	18,5	66 298	10,6	206 780	25,6
J 1	2000	35 497	20,1	78 558	10,4	257 289	26,8
	2001	43 165	20,6	93 448	10,9	304 451	28,3
	2002	48 439	19,0	115 514	11,4	363 552	29,1
Gross value added	1999	78 351	52,4	178 475	28,6	482 046	59,6
	2000	90 842	51,3	203 010	26,8	544 366	56,8
	2001	109 802	52,5	222 346	25,9	596 067	55,5
	2002	136 292	53,6	259 770	25,6	667 818	53,5
Total	1999	149 508	100,0	624 430	100,0	809 103	100,0
	2000	176 982	100,0	758 412	100,0	958 291	100,0
	2001	209 173	100,0	856 830	100,0	1 074 680	100,0
	2002	254 421	100,0	1 015 142	100,0	1 247 904	100,0

#### **Final demand**

Different components of final demand are distinguished in the SU-tables. The supply table shows imports and the use table shows final consumption expenditure by households and the general government as well as gross capital formation (gross fixed capital formation and changes in inventories) and exports.

Figures 1 reflects the composition of final demand in 2002. Although the detailed SU-tables distinguish between import and export, as well as gross fixed capital formation and changes in inventories, they have been combined in this comparison. Final demand consists of household consumption expenditure of 62%, government consumption expenditure 18%, gross capital formation 16% and net export 4%.

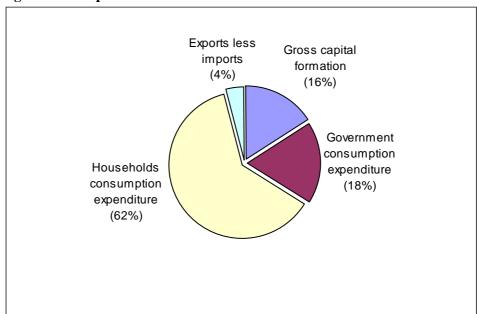


Figure 1 - Composition of final demand: 2002

Source: Stats SA

#### The supply of products at basic prices

Basic prices are the preferred method of valuing output in the 1993 SNA. The basic price is the amount receivable by the producer from the purchaser for a unit of a good or service produced as output *minus* any tax payable *plus* any subsidy receivable on that unit as a consequence of its production or sale. Basic prices exclude any transport charges invoiced separately by the producer. The total supply of products (e.g. agriculture-, hunting-, forestry- and fishing products) at basic prices can be divided according to its origin, i.e. whether the products are domestically produced or imported.

Table C – Supply of products at basic prices according to origin: 1999, 2000, 2001 and 2002

		Domestic p	roduced goods	Iı	nports
Type of product	Year	R million	% contribution	R million	% contribution
Agriculture, hunting, forestry and	1999	51 752	3,3	2 743	1,5
fishing	2000	57 024	3,0	3 328	1,4
	2001	65 551	3,1	4 204	1,6
	2002	84 949	3,4	7 574	2,2
Mining and quarrying	1999	93 835	5,9	16 587	9,0
	2000	115 235	6,1	30 771	13,4
	2001	138 088	6,5	33 315	12,5
	2002	162 393	6,5	38 044	11,2
Manufacturing	1999	482 411	30,5	127 310	68,8
	2000	596 050	31,5	156 886	68,3
	2001	678 544	31,7	183 126	68,8
	2002	811 690	32,2	238 517	70,2
Electricity, gas and water supply	1999	38 331	2,4	1	0,0
	2000	43 524	2,3	10	0,0
	2001	45 014	2,1	87	0,0
	2002	51 056	2,0	153	0,0
Construction	1999	76 499	4,8	214	0,1
	2000	84 683	4,5	230	0,1
	2001	94 293	4,4	210	0,1
	2002	105 939	4,2	213	0,1
Wholesale-, retail- and motor trade,	1999	189 630	12,0	7 145	3,9
hotels and restaurants	2000	231 283	12,2	8 609	3,7
	2001	251 685	11,8	9 194	3,5
	2002	283 321	11,3	10 506	3,1
Transport, storage and	1999	138 933	8,8	19 174	10,4
communication	2000	175 094	9,2	22 439	9,8
	2001	199 979	9,3	24 849	9,3
	2002	239 174	9,5	31 782	9,4
Finance, real estate and business	1999	245 759	15,5	6 340	3,4
services	2000	286 537	15,1	6 092	2,7
	2001	326 933	15,3	7 789	2,9
	2002	379 770	15,1	10 581	3,1
Community, social and personal	1999	265 895	16,8	2 308	1,2
services	2000	304 257	16,1	2 965	1,3
	2001	340 603	15,9	2 758	1,0
	2002	399 174	15,9	3 293	1,0
C.i.f / f.o.b adjustment	1999			-10 329	-5,6
·	2000			-16 592	-7,2
	2001			-15 013	-5,6
	2002			-20 732	-6,1
Purchases by residents	1999			13 543	7,3
•	2000			15 018	6,5
	2001			15 604	5,9
	2002			19 601	5,8
Total supply of products	1999	1 583 041	100,0	185 037	100,0
EF V F	2000	1 893 686	100,0	229 757	100,0
	2001	2 140 683	100,0	266 122	100,0
	2002	2 517 467	100,0	339 532	100,0
	<b></b>		200,0		200,0

Table C shows to what extent South Africa's total supply of products were dependent on domestically produced goods and imports in 1999, 2000, 2001 and 2002 in meeting domestic demand.

The most important domestically produced goods for 1999, 2000, 2001 and 2002 were manufactured goods which accounted for R482 411million (30,5%) in 1999, R596 050million (31,5%) in 2000, R678 544 million (31,7%) in 2001 and R811 690 million (32,2%) in 2002; followed by Community, social and

personal services which accounted for R265 895 million (16,8%) in 1999, R304 257 million (16,1%) in 2000, R340 603 million (15,9%) in 2001 and R399 174 million (15,9%) in 2002; and finance, real estate and business services of R245 759 million (15,5%) in 1999, R286 537 million (15,1%) in 2000, R326 933 million (15,3%) in 2001 and R379 770 million (15,1%) in 2002. Imported goods in 2002 were predominantly manufactured goods with 70,2% (compared with 68,8% in 1999, 68,3% in 2000 and 68,8% in 2001); followed by mining and quarrying with 11,2% (compared with 9,0% in 1999, 13,4% in 2000 and 12,5% in 2001).

#### Use of products at purchasers' prices

The 1993 SNA recommends that intermediate and final consumption expenditure be valued at purchasers' prices. The purchaser's price is the amount paid by the purchaser, excluding any deductible value added tax (VAT) or similar deductible tax, in order to take delivery of a unit of a good or service at the time and place required by the purchaser. The purchaser's price of a good includes any transport charges paid separately by the purchaser to take delivery at the required time and place.

Table D (p. 8) shows the uses of products at purchasers' prices according to destination for 1999, 2000, 2001 and 2002, namely, intermediate consumption expenditure and final consumption expenditure, including exports. In comparing total final consumption expenditure for 2002 with 1999, 2000 and 2001, it is evident that expenditure on (use of) certain products increased.

- Agriculture, hunting, forestry and fishing (3,3% in 2002 compared with the 3,3% in 1999, 2,9% in 2000 and 3,1% in 2001);
- Manufacturing (41,4% in 2002 compared with the 40,7% in 1999, 41,6% in 2000, and 40,5% in 2001);
- Wholesale-, retail- and motor trade, hotels and restaurants (2,9% in 2002 compared with the 2,9% in both1999 and 2000 and 2,8% in 2001); and
- Transport, storage and communication services (5,6% in 2002 compared with the 5,5% in 1999, 5,2% in 2000 and 5,5% in 2001)

If total intermediate consumption expenditure for 2002 is compared with total intermediate consumption expenditure for 1999, 2000 and 2001, increases were recorded for the following products.

- agriculture, hunting, forestry and fishing (3,6% in 2002 compared with the 3,4% in 1999, 3,3% in 2000 and 3,2% in 2001);
- finance, real estate and business services (18,4% in 2002 compared with the 18,9% in 1999, 17,9% in 2000 and 18,3% in 2001); and
- Community, social and personal services (4,9% in 2002 compared with the 5,5% in 1999, 5,0% in 2000 and 4,8% in 2001);

Table D – Use of products at purchasers' prices according to destination:  $1999,\,2000,\,2001$  and 2002

Type of product	Year	Total final c	onsumption	Total inte consumption	
Type of product	1 cai	R million	%	R million	%
		K million	% contribution	K million	% contribution
Agriculture, hunting, forestry and	1999	33 064	3,3	28 672	3,4
fishing	2000	33 344	2,9	35 309	3,3
noming.	2001	39 550	3,1	39 131	3,2
	2002	50 316	3,3	52 298	3,6
	1000	60 <b>7</b> 50	60	45 150	~ 4
Mining and quarrying	1999	68 758	6,9	45 179	5,4
	2000	87 025	7,6	63 237	6,0
	2001	105 716	8,2	70 002	5,8
	2002	122 321	8,1	83 427	5,7
Manufacturing	1999	406 365	40,7	414 209	49,1
	2000	478 881	41,6	523 331	49,6
	2001	521 245	40,5	597 475	49,3
	2002	624 954	41,4	715 800	49,2
Electricity, gas and water supply	1999	14 031	1,4	25 257	3,0
Electricity, gas and water suppry	2000	15 200	1,3	29 440	2,8
	2001	16 607	1,3	29 678	2,4
	2002	19 118	1,3	33 507	2,3
	1000	40.576	5.0	20.007	2.6
Construction	1999	49 576	5,0	30 087	3,6
	2000	55 302	4,8	32 780	3,1
	2001	62 834	4,9	35 152	2,9
	2002	68 997	4,6	41 051	2,8
Wholesale-, retail- and motor trade,	1999	29 096	2,9	18 177	2,2
hotels and restaurants	2000	32 919	2,9	23 679	2,2
	2001	36 176	2,8	30 894	2,5
	2002	43 530	2,9	32 344	2,2
Transport, storage and	1999	54 635	5,5	76 781	9,1
communication	2000	60 445	5,2	105 063	10,0
Communication	2001	71 316	5,5	129 519	10,7
	2002	83 739	5,6	155 758	10,7
F. 1	1000	00.700	10.0	150 (10	10.0
Finance, real estate and business	1999	99 798	10,0	159 610	18,9
services	2000	111 008	9,6	189 340	17,9
	2001	121 417	9,4	222 297	18,3
	2002	132 604	8,8	267 926	18,4
Community, social and personal	1999	229 866	23,0	46 186	5,5
services	2000	262 789	22,8	53 262	5,0
	2001	295 637	23,0	58 354	4,8
	2002	343 131	22,7	71 478	4,9
Direct purchases abroad by	1999	13 543	1,4		
residents	2000	15 018	1,3		
	2001	15 604	1,2		
	2002	19 601	1,3		
Total supply of product	1999	998 721	100,0	844 167	100,0
	2000	1 151 905	100,0	1 055 468	100,0
	2001	1 286 130	100,0	1 212 467	100,0
	2002	1 508 309	100,0	1 453 587	100,0

<sup>&</sup>lt;u>1</u>/ Total final consumption expenditure = Households consumption expenditure + General government consumption expenditure + Fixed capital formation + Changes in inventories + Exports

#### **METHODOLOGICAL NOTES**

**Background** to the 1993 SNA and SUtables

Stats SA implemented the 1993 SNA in conjunction with rebasing and benchmarking gross domestic product (GDP) estimates published on 21 June 1999. The results of the latest benchmark and rebasing of GDP were published in Statistical Release P0441 Gross Domestic Product, Revised estimates 1998-2003 and Third quarter 2004 on 30 November 2004. These are the fourth official supply and use tables (SU-tables) published by Statistics South Africa. The first official SU-tables for the 1993 reference year were published in 1999. Stat SA has been publishing SU-tables annually as from the 1998 reference year. This will ensure an extended time-series of the SU-tables and also assist in analysing and evaluating the performance of the economy over time.

As the role of SU-tables is primarily related to the goods and services (table E), production (table F) and generation of income (table G) accounts, these accounts are briefly discussed before attention is given to the structure of the SU-tables.

#### **Goods and services** account

The goods and services account (table E) shows, for the total economy, how the total amount of product available (resources) is equal to the total amount used. Resources are shown on the left-hand side and uses are shown on the right-hand side.

Table E – Goods and services account: 2002

Resources	R million	Uses	R million
Output	2 517 467	Intermediate consumption	1 453 587
Taxes on products	109 660	Final consumption expenditure	937 392
Subsidies on products	(4 762)	Private consumption expenditure	722 091
Imports of goods and services	339 532	Government consumption expenditure	215 301
		Gross capital formation	187 644
		Gross fixed capital formation	175 594
		Changes in inventories	12 050
		Exports of goods and services	382 290
		Residual item	983
Total resources	2 961 897	Total uses	2 961 897

Sources: South African Reserve Bank, Quarterly Bulletin, December 2005 Stats SA: Statistical Release P0441 Gross Domestic Product: Annual estimates 1993–2004, Third quarter 2005, 29 November 2005

Production account The production account (table F) emphasises the concept of GDP or value added as one of the main balancing items in the 1993 SNA. The 1993 SNA recommends the calculation of GDP for the entire economy and the calculation of value added for the various industries. The GDP is essentially a production measure as it is obtained through the sum of the gross values added of all resident institutional units, in their capacities as producers, plus the values of any taxes, less subsidies, on production or imports not already included in the values of the outputs and values added by resident producers.

Value added measures the value created by production and may be calculated either before (gross) or after (net) deducting the consumption of fixed capital on the fixed assets used. Gross value added is defined as the value of output less the value of intermediate consumption. Gross/net value added is the balancing item in the production account for an institutional unit, sector, establishment or industry, while gross/net domestic product is the balancing item in the production accounts for the total economy.

It is important to note that value added does not cover all transactions linked to the production process, but only to the result of production, i.e. output and the utilisation of goods and services when producing this output, i.e. intermediate consumption. In other words it includes output as a resource (see right-hand side of the production account) and intermediate consumption as a use (see left-hand side of production account). As the consumption of fixed capital is not shown separately, the resulting balancing item is *gross* domestic product.

Table F - Production account: 2002

Uses	R million	Resources	R million
Intermediate consumption	1 453 587	Output	2 517 467
		Taxes on products	109 660
		Subsidies on products	(4 762)
Gross domestic product	1 168 777		

Source: Stats SA: Statistical Release P0441 Gross Domestic Product: Annual estimates 1993–2004, Third quarter 2005, 29 November 2005

## Generation of income account

The generation of income account (table G) records distributive transactions resulting from the production process. Distributive transactions consist of transactions by which the value added generated by production is distributed to labour, capital and government, and transactions involving the redistribution of income and wealth (taxes on income and other transfers).

Thus, the resources include gross domestic product and the uses refer to compensation of employees as well as taxes less subsidies on production and imports. The balancing item is gross operating surplus/mixed income. The mixed income refers to the balancing item in the generation of income account for the household sector. The reason is that the surplus generated by unincorporated household enterprises includes both remuneration for the labour of the owner as well as a return to the entrepreneurship and capital employed.

Table G - Generation of income account: 2002

Uses	R million	Resources	R million
Compensation of employees	520 501	Gross domestic product	1 168 777
Taxes on production and imports	134 688		
Taxes on products	109 660		
Other taxes on production	25 028		
Subsidies	(8 247)		
Subsidies on products	(4 762)		
Other subsidies on production	(3 485)		
Gross operating surplus/mixed income	521 835		

Source: Stats SA: Statistical Release P0441 Gross Domestic Product: Annual estimates 1993–2005, Third quarter 2005, 29 November 2005

Concepts and definitions applicable to SU-tables

The 1993 SNA clarifies, inter alia, the concepts and definitions used for the valuation of output of goods and services, intermediate consumption, and value added. The concepts and definitions applicable to the SU-tables are briefly discussed below.

#### Output of goods and services

Output consists only of those goods and services that are produced within an establishment and that become available for use outside that establishment and for own final use in that establishment. Output may be valued in various ways. The 1993 SNA prescribes three ways in which output of goods and services may be measured, namely at basic prices, producers' prices or purchasers' prices.

- The basic price is the amount receivable by the producer from the purchaser for a unit of a good or service produced as output *minus* any tax payable (e.g. excise duties and value added tax (VAT)) *plus* any subsidy receivable on that unit as a consequence of its production or sale. Basic prices *exclude* any transport charges invoiced separately by the producer.
- Producers' price is the amount receivable by the producer from the purchaser for a unit of a good or service produced as output *minus* any VAT, or similar deductible tax, invoiced to the purchaser. It *excludes* any transport charges invoiced separately by the producer.
- Purchasers' price is the amount paid by the purchaser, excluding any
  deductible VAT or similar deductible tax, in order to take delivery of a unit
  of a good or service at the time and place required by the purchaser. The
  purchaser's price of a good includes any transport charges paid separately by
  the purchaser to take delivery at the required time and place.

The relationship between the above-mentioned concepts can be expressed as follows:

Output at basic prices

plus taxes on products (excluding VAT)

less subsidies on products

= Output at producers' prices

plus trade and transport margins

plus non-deductible VAT

= Output at purchasers' prices

Basic prices are the preferred method of valuing output of goods and services produced for the market, especially when a system of VAT is in operation.

#### **Intermediate consumption**

With regard to the valuation of intermediate consumption, i.e. expenditure by enterprises on goods and services consumed as inputs in the production process, the 1993 SNA recommends that it should be valued at purchasers' price. Intermediate inputs purchased and/or transferred from other establishments belonging to the same enterprise, should be valued at the same prices as used to value them as outputs of those establishments, plus any additional transport charges not included in the output values.

#### Gross value added

The 1993 SNA recommends that gross value added by the various industries be valued at basic prices, both at current and constant prices. It is important to note that gross value added at basic prices excludes any taxes payable on products and includes any subsidies receivable on products. As the basic price measures the amount retained by the producer it is, therefore, the price most relevant for the producer's decision taking. Gross value added at basic prices is also the measure preferred and adopted by Stats SA.

In order to derive the GDP at market prices, taxes less subsidies on products must be added to total gross value added at basic prices. It should be noted that GDP at market prices is a measure, which is only applicable to the total economy.

#### The classification and terminology of taxes

Taxes on production and imports include taxes on products and other taxes on production. Taxes on products consist of taxes payable on goods and services when they are produced, delivered, sold or otherwise disposed of by their producers. Furthermore, they are payable per unit of a good or service produced. Important examples of taxes on products are excise and import duties and VAT. Other taxes on production consist of taxes on the ownership of land, buildings or other assets used in production or on labour employed, etc. Important examples of other taxes on production are taxes on payroll or work force, business or professional licenses, etc.

Current taxes on income and wealth cover all compulsory payments levied by government on the income and wealth of institutional units. These taxes include taxes on individual or household income, taxes on the income or profits of corporations, etc.

#### Financial Services Indirectly Measured (FSIM)

Banks and other financial institutions provide a variety of services. Those that are specifically charged for include currency exchange, handling of cheques, etc., and the corresponding revenues form part of the institutions' output. An additional, and very significant part of their income comes from charging higher interest rates to borrowers and paying lower interest rates to depositors than they would need to if they charged explicitly for all their services. This "hidden" charge (known as imputed bank service charge in the 1968 SNA) is called Financial Services Indirectly Measured (FSIM) in the 1993 SNA. The total value of FSIM is measured in the 1993 SNA as the total property income receivable by financial intermediaries minus their total interest payable, excluding the value of any property income receivable from the investment of their own funds, as such; income does not arise from financial intermediation.

The total value of financial intermediation services was previously recorded in 1968 SNA separately as a negative item in the system of national accounts. According to the 1993 SNA, the total output should be allocated among the various recipient industries or users e.g. households of the services for which no explicit charges are made.

#### **Trade margins**

The output of wholesalers and retailers is measured by the value of the trade margins realised on the goods they sell i.e. the difference between the sale value of products sold and the cost of purchasing these products. The reason for measuring the output of the wholesale and retail trade by the trade margins is because the productive activity associated with distribution is construed to be the provision of services for displaying the goods in an informative and attractive way. Included in the trade margins are estimates regarding the informal sector, i.e. goods sold by stalls, street hawkers and other itinerant merchants.

#### **Transport margins**

Transport margins constitute part of the output of transport of goods. Basically, there are two methods of treating transport margins in a SU-table.

When transport is arranged in such a way that the purchaser has to pay separately for the transport costs, in other words if the transport costs are billed separately, these costs is identified as transport margins. This implies that customers not only buy the goods, but also transport services from producers.

If the producer transports the goods, or arranges for them to be transported without extra cost to the purchaser, transportation will appear as intermediate consumption to the producer, and at the same time it will be included in the basic price.

The output of passenger transport is not part of transport margins.

#### Secondary and ancillary production

Establishments often produce products that are not typical of the industries in which they are classified for statistical censuses or surveys. According to the standard industrial classification (SIC) used by Stats SA, the establishment is the statistical unit according to which all economic activities are classified.

A business at a particular address is classified in its entirety according to its principal activity in a certain industry, and both principal and secondary products of that establishment then form part of the output of the particular industry. The major output of such a business, which determines its classification, is called its principal output, and its other outputs, typically produced by another industry, are called its secondary output.

From the above, it is clear that a secondary activity may be defined as an activity carried out within an establishment in addition to the principal activity and whose output, like that of the principal activity, must be suitable for delivery outside the establishment. In the supply table secondary products are shown as *off diagonal entries*. The value added of a secondary activity must be less than that of the principal activity.

Ancillary products, in contrast to principal and secondary products, are not intended for use outside the establishment and are also not explicitly recognised and recorded separately in the SU-tables. They are merely supporting activities undertaken within the establishment for purposes of creating the necessary conditions within which the principal and secondary activities can take place.

The following kinds of activities are typical examples of ancillary products -

- keeping records or files;
- purchasing and storing of materials or equipment;
- cleaning and maintenance of buildings;
- provision of security; and
- reparation and servicing activities.

#### **Gross capital formation**

The 1993 SNA recommends that gross capital formation be measured by the total value of the gross fixed capital formation, changes in inventories and acquisitions less disposals of valuables. Due to data constraints, it is not possible to include any estimates for the acquisition less disposals of valuables in the SU-tables.

Data constraints also resulted in two further recommendations of the 1993 SNA relating to gross capital formation not being implemented. These are the treatments of expenditure on -

- mineral exploration;
- computer software;

User should keep the SNA93 recommendation pertaining to expenditure by the defence force on fixed assets that could be used for production purposes by both military and civilian users in mind. In principle, Expenditure on, inter alia, military hospitals and other military buildings were treated as gross fixed capital formation

#### Import data

Import data is adjusted for the difference between cost of insurance and freight (c.i.f.) and free on board (f.o.b.). The adjustment is necessitated by the 1993 SNA recommendation to value imported commodities at c.i.f. prices, but total imports at f.o.b. prices. The difference between the f.o.b. price and the c.i.f. price represents the costs of transportation and insurance between the frontier of the exporting country and the frontier of the importing country.

# Structure of SU-tables

The structure of the SU-tables is explained by means of an aggregated set of tables (tables H and I). In order to simplify references to these SU-tables, the columns of the supply table have been numbered SC and the rows of the supply table have been numbered UC and the rows of the use table have been numbered UC. The intersection of a row and a column is denoted by a colon separating the two applicable numbers e.g. SC1:SR1. Furthermore, the economy is divided into three industries, primary, secondary and tertiary, as shown in columns SC5 to SC7 and UC4 to UC6. The sum of these three industries is found in columns SC8 and UC7.

#### Supply table

The supply table (table H) shows the origin of the resources of goods and services, depicting products in rows (SR) and industries in columns (SC). In the rows, the various types of products are presented according to a product classification (table J). An additional row is added for the adjustment of direct

purchases by South African residents abroad. In the columns, information on the output of each industry according to an industrial classification (table M and table N), imports, taxes less subsidies on products and trade and transport margins are shown. Furthermore, in the supply table, goods and services produced in the economy are measured at basic prices. Basic price is the preferred method of valuing output in the 1993 SNA. The basic price is the amount receivable by the producer from the purchaser for a unit of a good or service produced as output *minus* any tax payable *plus* any subsidy receivable on that unit as a consequence of its production or sale. Basic prices exclude any transport charges invoiced separately by the producer. The c.i.f./f.o.b. adjustment to import data is shown in column SC10 and row SR4.

Use table

The use table (table I) shows the uses of goods and services and supplies information on the cost structures of the various industries. In the rows, the various types of products are presented according to a product classification (table K and L). Additional rows are added for the adjustment of direct purchases by South African residents abroad and direct purchases in the domestic market by non South Africans residents. The table is divided into three different sections, each with its own characteristics.

The *first section* shows the goods and services used as intermediate consumption at purchasers' prices by industry in columns (UC4-UC6)) and by product in rows (UR1-UR5). The total row (UR6) shows intermediate consumption by industries at purchasers' prices.

The *second section* shows the components of final demand (column UC9), namely, exports, households consumption expenditure, general government consumption expenditure, fixed capital formation, changes in inventories and the residual item at purchasers prices.

The *third section* elaborates on the production costs of producers other than intermediate consumption expenditure (columns UC2-UC7 and row UR7) namely, compensation of employees, taxes less subsidies on production and imports, consumption of fixed capital and net operating surplus/mixed income.

The purchaser's price is the amount paid by the purchaser, excluding any deductible VAT or similar deductible tax, in order to take delivery of a unit of a good or service at the time and place required by the purchaser. The purchaser's price of a good includes any transport charges paid separately by the purchaser to take delivery at the required time and place.

**Uses of SU-tables** 

The SU-tables, often regarded as the cornerstone of the 1993 SNA, have both statistical and analytical functions.

As a statistical tool they provide a co-ordinating framework for checking the consistency of economic statistics on flows of goods and services obtained from quite different kinds of statistical sources, i.e. industrial surveys, household surveys, investment surveys, foreign trade statistics. Furthermore, the SU-tables serve as a basis for calculating the economic data contained in the national accounts and to detect weaknesses in the economic data.

As an analytical tool, the tables are conveniently integrated into macroeconomic models in order to analyse the link and interaction between final demand and industrial output levels. This type of analysis, which is also known as impact analysis, enables users at universities and research institutions to use the tables for sophisticated analysis, including market and productivity analysis.

The SU-tables have, in addition to their major statistical and analytical functions mentioned above, many additional uses. The following are some examples of the extended use of supply and use tables:

- Derivation of GDP.
- Other derivations.
- Symmetric input-output tables.
- Social accounting matrices (SAMs).
- Satellite accounts

Table H - Framework of the supply of products at basic prices: 2002 (R million)

	Column no.	SC1	SC2	SC3	SC4	SC5	SC6	SC7	SC8	SC9	SC10
		(SC2+SC3+ SC4)			(SC8+ SC9+ SC10)	Ou	tput of industr	ries	(SC5+ SC6+ SC7)		
Row no.	Supply of products	Total supply at purchasers' prices	Taxes less subsidies on products	Trade and transport margins	Total supply at basic prices	Primary industry	Secondary industry	Tertiary industry	Total industry	Imports	c.i.f./ f.o.b. adjust- ment on imports
SR1	Primary products	308 361	1 892	13 509	292 960	247 155	187		247 343	45 618	
SR2	Secondary products	1 503 426	73 631	222 227	1 207 568	6 785	961 900		968 685	238 883	
SR3	Tertiary products	1 130 508	29 375	(235 736)	1 336 870	481	53 055	1 247 904	1 301 440	56 162	(20 732)
SR4	c.i.f./f.o.b. adjust- ment on imports	ı			-					(20 732)	20 732
SR5	Direct purchases residents	19 601			19 601					19 601	
SR6	Total output at basic prices	2 961 897	104 898	-	2 856 999	254 421	1 015 142	1 247 904	2 517 467	339 532	-

Table I - Framework of the use of products at purchasers' prices: 2002 (R million)

	Column no.	UC1	UC2	UC3	UC4	UC5	UC6	UC7	UC8	UC9
		(UC7+UC9)			Interm	ediate consump industries	tion by	(UC4+ UC5+ UC6)	(UC2+ UC3+ UC7)	
Row no.	Supply of products	Total supply at purchasers' prices	Taxes on products	Subsidies on products	Primary industry	Secondary industry	Tertiary industry	Total industry	Total economy	Compo- nents of final demand
UR1	Primary products	308 361			3 992	129 882	1 851	135 725		172 637
UR2	Secondary products	1 503 426			65 698	509 977	214 683	790 358		713 068
UR3	Tertiary products	1 130 508			48 439	115 514	363 552	527 505		603 004
UR4	Direct purchases residents	19 601								19 601
UR5	Direct purchases non residents	ı								_
UR6	Total uses at purchasers' prices	2 961 897			118 129	755 372	580 086	1 453 588		1 508 309
UR7	Gross value added/ GDP		109 660	(4 762)	136 292	259 770	667 818	1 063 879	1 168 777	
UR8	Total output at basic prices				254 421	1 015 142	1 247 904	2 517 467		

#### **Derivation of GDP**

The production, income and expenditure based components of GDP at current market prices can all be derived from the SU-tables (tables H and I).

The *production approach* derives GDP at market prices by deducting intermediate consumption expenditure (uses) at purchasers' prices from total output at basic prices after making provision for taxes and subsidies on products as well as trade and transport margins. The corresponding entries for 2002 in tables H and I are:

	Output at basic prices	SC8:SR6	R 2	517 467
		UC7:UR8		
plus	Taxes less subsidies on products	SC2:SR6	R	104 898
plus	Trade and transport margins	SC3:SR6	R	0
less	Intermediate consumption			
	(at purchasers' prices)	UC7:UR6	R	1 453 588
=	GDP at market prices	UC8:UR7	R	1 168 777

The *income approach* to estimate the GDP at market prices entails summing all the components of value added i.e. remuneration of employees and gross operating surplus after making provision for taxes and subsidies on products. In table I it is shown as column UC8.

GDP at market prices

UC8:UR7

R 1 168 777

The *expenditure approach* to estimate the GDP at market prices entails the summation of the components of final demand i.e. household consumption expenditure, general government consumption expenditure, fixed capital formation, change in the value of inventories and exports, in the use table (table I) and subtracting imports as obtained from the supply table (table H):

	Components of		
	final demand	UC9:UR6	R 1 508 309
less	Imports	SC9:SR6	R 339 532
=	GDP at market prices	UC8:UR7	R 1 168 777

#### Other derivations

Apart from deriving the GDP according to the various approaches, a number of different valuations regarding goods and services, output, etc., can also be deduced from SU-tables as is illustrated in tables E and F. The columns on the left of the SU-tables (SC1 and UC1) show the total supply of goods and services at purchasers' prices i.e. including taxes less subsidies on products and trade and transport margins. Total supply of goods and services at basic prices is shown in column SC4. The columns for trade and transport margins (SC3) and taxes less subsidies on products (SC2+UC2+UC3) are used to derive total supply of products at purchasers' prices from the valuation at basic prices.

Column SC9 refers to imported goods and services. The c.i.f./f.o.b. adjustment to imports is shown in column SC10 and row SR4. The GDP at market prices is shown in column UC8, while the components of final demand (final consumption expenditure, gross capital formation, exports and the residual item), also valued at market prices, are shown in column UC9.

The products available in the economy are classified in rows SR1 to SR3 and UR1 to UR3. For each product, total supply and total use in purchasers' prices are equal. The rows SR5 and UR4 refer to direct purchases by South African residents abroad, which are treated as both imports and household expenditures. The expenditure by non-residents in the domestic market is shown in UR5. As it is included in both the exports (as a positive entry) and final consumption expenditure by households (as a negative entry), the net value in UC9 is nil.

The total output at basic prices for the different industries is shown in rows SR6 and UR8. Row UR6 includes total uses at purchasers' prices and UR7 shows gross value added for all industries and GDP at market prices for the total economy.

The off-diagonal production by a particular industry, or group of industries can also be easily deduced from a supply and use table. For example, the intersection SC6:SR1 shows that the secondary industries produced R187 million of primary products. Furthermore, the secondary industry produced R53 055 million of tertiary products (SC6:SR3). The value of the secondary industries' principal output (secondary products SC6:SR2) was R961 900 million. The negative value (R235 736 million) in SC3:SR3 reflects the total margins that are deducted from tertiary products as they are distributed throughout SC3 to convert the supply at basic prices to the supply at purchasers' prices.

Details regarding intermediate and final consumption can also be directly obtained from a SU-table, for example the first row of the use table (UR1) shows that primary products were used as intermediate consumption expenditure by the primary industry (R3 992 million), secondary industry (R129 882 million) and tertiary industry (R1 851 million) and as final consumption expenditure (R172 637 million).

#### Input-output tables

The SU-tables form the basis for the estimation of input-output tables, both at current and at constant prices. From a statistical point of view, input-output tables serve many needs, including a framework for -

- basic data compilation;
- weighting and calculation of index numbers;
- accessing quality and completeness of data;
- developing interrelated price and volume measures; and
- consistency checking.

Symmetric input-output tables can be derived from SU-tables and used for various kinds of analytical purposes, including the analysis of -

- production;
- structure of demand;
- export ratios;
- employment;
- impact studies;
- prices and costs;
- required imports;
- investment and capital;
- exports,
- energy;
- the environment; and
- sensitivity analysis through the construction of (dynamic) output modelling.

#### **Social Accounting Matrices (SAMs)**

A SAM elaborates on the linkages between SU-tables and institutional sector accounts. It is a presentation of the SNA in matrix terms that incorporates whatever degree of detail that might be of special interest. To date, builders of SAMs have exploited the available flexibility to highlight special interests and concerns, display the various interconnections, disaggregate the households sector; show the link between income generation and consumption, etc. The power of a SAM, as well as the 1993 SNA, comes from choosing the appropriate type of disaggregation to study the topic of interest. In addition to a flexible application and the inclusion of various components, a SAM may incorporate more extensive adjustments, which are of a satellite accounting nature, in order to satisfy specific analytical purposes.

#### **Satellite accounts**

As in the case of SAM, the links to the central framework, including the supply and use framework is of paramount importance in constructing satellite accounts. In some cases, working with the central framework of the 1993 SNA, even in a flexible way, is not sufficient. Even though conceptually consistent,

the central framework may be overburdened with detail. Moreover, some requirements may conflict with the central conceptual framework and its architecture.

In certain types of analysis, the basic intention is not to use alternative economic concepts, but simply to focus on a specific field or aspect of economic and social life in the context of national accounts. The intent is to make apparent and to describe in more depth aspects that are hidden in the accounts of the framework or surface only in a limited number of points, e.g. tourism. Tourism as such is not a normal industry and cannot be classified separately as e.g. the manufacturing industry. Various aspects of tourism may appear in detailed classifications of activities, products and purposes. However, specific tourism transactions and purposes appear separately only in a few cases. In order to measure and describe tourism in a national accounts framework, use must be made of satellite accounting. This approach allows for the adaptation of the various classifications and measurement of additional aggregates, such as national expenditure in tourism.

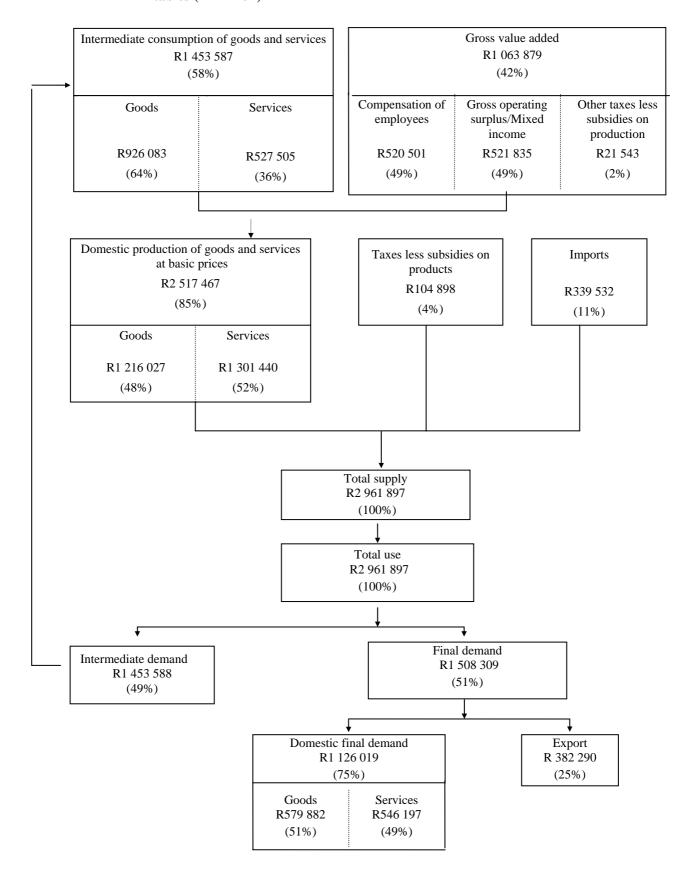
In other types of analysis, alternative concepts are emphasised, such as the enlargement of the production boundary through the inclusion of domestic services by members of the household. In these approaches, the economic process itself is depicted differently, and complementary or alternative aggregates are calculated.

The analysis of a number of important fields such as the environment may benefit by building a framework to accommodate elements included in the central accounts, explicitly or implicitly, plus complementary elements, either monetary or in physical quantities, and possibly alternative concepts and presentations.

#### Alternative view

As an alternative, the flows of goods and services in the economy, as well as macro-economic concepts associated with the flows, can be explained through using a diagram (figure 2). This diagram is based on the principle that total supply = total use (demand) in the economy. It further shows that total supply (R2 961 897 million) can be derived by adding domestic production at basic prices (R2 517 467 million), taxes less subsidies on products (R104 898 million) and imports (R339 532 million). Furthermore, domestic production at basic prices (R2 517 467 million) is a combination of intermediate consumption of goods and services by all industries (R1 453 588 million) and gross value added, i.e. compensation of employees, gross operating surplus/mixed income and other taxes less subsidies on production (R1 063 879 million). The total use (R2 961 897 million) consists of final demand (R1 508 309 million) and intermediate demand (R1 453 588 million). The distribution of intermediate consumption and domestic final demand between goods and services is also shown.

Figure 2 – Flow of goods and services according to the 2002 supply and use tables (R million)



#### **Balancing process**

The SU-tables were balanced through the application of the "commodity flow method", where applicable. This is a method whereby the detailed supply of goods and services (whether imported or domestically produced) is allocated between various intermediate or final uses, including exports. It is reliant on detailed basic statistics and is most powerful when independent estimates are made for both the supply and the use of each commodity.

The first step in the balancing process of the 2002 SU-tables was to concentrate on balancing of information relating to specific industries. Production and generation of income accounts were compiled for each industry, ensuring that the calculation of GDP was consistent from both the production and the income approach.

Secondly the estimates/structures referring to components of final demand in the SU-tables were adjusted to comply with the level estimates published by the SARB. This allowed for the construction of a goods and services account, from which the difference (residual item) in the calculation of the GDP using the expenditure approach and the production/income approach could be estimated.

The third phase of the balancing process was to disaggregate the output and intermediate consumption items of the industrial production accounts across the detailed product categories. A similar process was followed for the components of final demand in the goods and services account, as well as the estimates of taxes and subsidies on products.

The fourth step was the calculation of trade and transport margins. This was required to adjust the valuation of the supply of products from basic to purchasers' prices. After this, the residual item, as calculated in the second step, was allocated according to product classification in the use table.

During the fifth step, the initial residual (both positive and negative), between the supply and use of products at purchasers' prices, was addressed through data confrontation and the use of the commodity flow approach. This entailed the verification of the quality of the data and the classification thereof, on both sides of the equation, for each product. After investigation of the data, judgmental decisions were required in order to adjust the total supply or use of products at purchasers' prices.

In cases where sound decisions could not be made as to the accuracy of contradicting statistics and where historic trends and patterns proved insufficient, the results were left unchanged and are reflected in the residual of the detailed tables (Tables 3 and 4: SU-tables 2002.xls).

In order to ensure that the data published in the summarised tables (table 1 and 2), correspond with the GDP as calculated according to the production-, income- and expenditure approaches, the residual item in the goods and services account (table E) was allocated to the components of final demand.

#### THE TABLES

#### 2002 SU-tables

Four tables are published in respect of 2002, namely -

- a condensed supply table (Table 1);
- a condensed use table (Table 2);
- a detailed supply table (Table 3: SU-tables 2002.xls); and
- a detailed use table (Table 4: SU-tables 2002.xls on ).

The first two tables (Tables 1 and 2) provide an aggregated view of the final supply and use tables (SU-tables) and were adjusted (through the allocation of the residual item across the components of final demand) to calculate the gross domestic product (GDP) by means of the income-, production- and expenditure approaches without a residual.

The detailed tables (Tables 3 and 4: SU-tables 2002.xls) reflect a residual, implying that the GDP as calculated according to the income and production approaches differs from the GDP as calculated from the expenditure side. Publishing the residual in respect of products is specifically aimed at revealing the shortcomings in various data sources in order to investigate and rectify them.

#### **Future SU-tables**

The compilation of SU-tables places a heavy burden on source data. It is, however, the aim of Statistics South Africa (Stats SA) not only to reduce the time lag between the publication of SU-tables and the reference year, but also to improve the quality and consistency of the various data sources.

Stats SA compiles and publishes annual SU-tables. Apart from serving statistical purposes and aiding the estimation of annual GDP-estimates, these publications serve as basis for periodic SAMs.

# The supply of products

The simple question: "who produces what" is easily answered by referring to the supply table (Table 3: SU-tables 2002.xls), where each row shows the distribution of output of each product (indicated by "SP") by industry and where each column lists the distribution of output of each industry (indicated by "I") by product.

One finds for example, that in 2002 the grain mills industry (column I10, of the supply table) produced R12 791million of grain mill products (row SP16, SP17 and SP18) while all domestic industries combined (row SP16, SP17, SP18 and column I95) produced R12 917million of grain mill products. Thus, the grain mill industry accounted for 99% of the total domestic production of grain mill products in 2002.

The use of products The use table displays the demand for various goods and services, which may be used as intermediate inputs (products that are purchased by an industry from other industries to produce its outputs) or for final consumption by households, government, etc.

> The question of "who buys what" is answered in the use table. Elements in the rows of the use table show the use of a particular product by various industries as well as the use of this product by various categories of final demand.

> In 2002, for example, all industries (column I95 of the use table, Table 4: SUtables 2002.xls), used grain mill products (row UP10) worth R5 095 million – the sum of row UP10 across the columns (I1-I94) of the use table. Individual entries across row UP10 represent individual uses by the industry indicated in the column.

> This tabular presentation provides an analytical basis for understanding supply and demand for the products of any given industry. As Stats SA produces final SU-tables on an annual basis, users will be able to monitor changes over time.

#### Value added by industry

Generally speaking, the gross output of an industry consists of the value of the goods and services produced by that industry: the value of grain mill products produced by the grain mill industry; the value of cars and trucks produced by the motor vehicles manufacturing industry, etc. A brief reflection shows that, for example, the production of grain mill products requires agricultural products and other inputs. These goods and services are not the products of grain mills. Rather, they are produced by other industries and used by the grain mills as their inputs. Thus, a measure of the unduplicated production of an industry should exclude all intermediate inputs purchased from other industries.

The use table (Table 4: SU-tables 2002.xls) displays all the costs incurred in production by an industry: the goods and services used as intermediate inputs; returns to the factors of production (rows V2 and V7), namely, compensation of employees and operating surplus/mixed income as well as taxes less subsidies (row V3). The latter entries, when combined, constitute "Value Added at Basic Prices" representing the contribution of the industry concerned to the total value of production of the economy.

#### **Gross Domestic Product (GDP) for** the total economy

In order to derive the measure of "Gross Domestic Product at Market Prices" for the total economy, net taxes on products, i.e. taxes on products less subsidies on products, should also be added to the measure of value added at basic prices as they are a part of the market price of goods and services. The net taxes in this case indicate that total subsidies on products (row V5) have been subtracted from total taxes on products (row V4). It should be noted that taxes are paid not only by the business sector but also by other sectors of the economy, which are covered in the final demand component of the use table in this publication.

The GDP at market prices as calculated above is called income-based GDP. In addition the supply and use tables (Tables 3 and 4: SU-tables 2002.xls) also incorporate components of expenditure-based GDP i.e. household consumption expenditure (column F3 of the use table), government consumption expenditure (column F4 of the use table), fixed capital formation (column F5 of the use table), changes in inventories (column F6 of the use table) and net exports [exports (column F2 of the use table) less imports (column F1 of the supply table)].

#### Domestic availability of goods and services

It is of interest to analyse the domestic availability of a particular product, or of all goods and services for a particular year. The domestic availability of a product is defined as total domestic production minus exports plus imports. These values can be read directly from the supply and use tables. In 2002 the domestic production of grain mill products was R12 917 million (row SP16, SP17, SP18 and column I95, of the supply table, Tables 3 and 4: SU-tables 2002.xls), while total exports were R555 million (row UP10 and column F2, of the use table) and imports were R1 385 million (row SP16, SP17, SP18 and column F1, of the supply table, Table 3: SU-tables 2002.xls).

Thus, the domestic availability of this product at purchasers' prices is R18 043 million, made up of domestic production (R12 917 million) *minus* exports (R555 million) *plus* imports (R1 385 million) *plus* taxes less subsidies on products (R1 156million) *plus* trade and transport margins (R3 140 million).

#### Import share

The data used in the preceding section also allows for the calculation of the import share of a product, that is, what portion of the domestic availability of a product comes from foreign countries. From these data, the import share for the same commodity can be calculated as follows:

(Total imports / Total domestic availability) x 100.

That is for 2002:

 $(R1\ 385\ million / R18\ 043\ million)\ x\ 100 = 7,68\%$ 

#### **Export share**

Countries with considerable foreign trade have a keen interest in measures of export performance. A simple indicator of such performance is the proportion of total domestic production that is exported. Using the same commodity as in the previous illustrations, 3,08% of the domestic production of grain mill products was exported in 2002, calculated as follows:

 $(R555 \text{ million} / R18\ 043 \text{ million}) \times 100 = 3,08\%.$ 

Table 1 – Condensed supply of products at basic prices: 2002 (R million)

Supply of	Total	Taxes less subsidies on products	Trade and trans- port margins	Total supply at basic prices	Industry											
products	supply at purcha- sers' prices				Agri- culture	Mining	Manu- facturing	Elec- tricity	Con- struc- tion	Trade	Trans- port	Business services	Commu- nity services	Industry	Imports	c.i.f./f.o.b adjust- ment
Agriculture	102 613	1 839	8 251	92 523	84,762	-	187	-	-	-	-	-	-	84,949	7 574	
Mining	205 748	53	5 258	200 437		162,393	-	-	-	-	-	-	-	162,393	38 044	
Manufactu- ring	1 340 754	68 320	222 227	1 050 207	-	585	811,105	-	-	-	-	-	-	811,690	238 517	
Electricity	52 625	1 416	_	51 209	-	-	-	51 056	-	-	-	-	-	51,056	153	
Construction	110 048	3 895	_	106 152	1,233	4,968	-	1,213	98,525	-	-	-	-	105,939	213	
Trade	75 874	3 088	(221 042)	293 827	-	148	13,910	57	155	268,791	261	-	-	283,321	10 506	
Transport	239 496	1 873	(14 694)	252 317	-	-	-	-	-	-	239,174	-	-	239,174	31 782	(18 639)
Business services	400 530	12 272	-	388 258	-	333	15,879	-	1,299	150	998	361,111	-	379,770	10 581	(2 093)
Community services	414 608	12 141	-	402 467	-	-	21,755	-	-	10,461	-	5,671	361,287	399,174	3 293	
c.i.f./f.o.b. adjustment	_														(20 732)	20 732
Direct purchases abroad by residents	19 601			19 601											19 601	
Total	2 961 897	104 898	_	2 856 999	85 995	168 426	862 836	52 326	99 980	279 403	240 433	366 781	361 287	2 517 467	339 532	_

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Table 2 – Condensed use of products at purchasers' prices: 2002 (R million)

Supply of	Total	Taxes					Industry					Total	Total	Final
products	supply at purcha- sers' prices	less subsidies on products	Agri- culture	Mining	Manu- fac- turing	Elec- tricity	Construc- tion	Trade	Trans- port	Business services	Commu- nity services	Industry	economy	Demand
Agriculture	102 613		3 296	25	48 011	8	3	649	2	22	281	52 298		50 316
Mining	205 748		245	425	73 111	6 832	1 917	33	247	76	540	83 427		122 321
Manufacture- ring	1 340 754		28 727	30 174	419 508	6 692	38 165	32 416	64 020	32 408	63 690	715 800		624 954
Electricity	52 625		632	4 217	12 587	6 196	232	2 994	3 171	1 729	1 751	33 507		19 118
Construction	110 048		347	1 602	_	2 724	23 873	3 395	1 391	5 125	2 594	41 051		68 997
Trade	75 874		320	599	1 999	181	213	9 659	9 421	6 301	3 650	32 344		43 530
Transport	239 496		4 944	26 705	23 300	969	1 855	31 991	33 927	19 686	12 381	155 758		83 739
Business services	400 530		1 825	4 485	53 368	2 591	8 635	53 714	24 720	90 789	27 800	267 926		132 604
Community services	414 608		1 480	8 081	21 346	86	969	1 457	3 500	5 979	28 579	71 478		343 131
Direct purchases abroad by residents	-													19 601
Direct purchases by non-residents	19 601													_
Total uses	2 961 897		41 816	76 314	653 231	26 280	75 861	136 307	140 399	162 114	141 266	1 453 588		1 508 309
Total gross value added/GDP		104 898	44 179	92 113	209 605	26 046	24 119	143 095	100 034	204 667	220 021	1 063 879	1 168 777	
Total			85 995	168 426	862 836	52 326	99 980	279 403	240 433	366 781	361 287	2 517 467		

#### ADDITIONAL INFORMATION

#### **Explanatory notes**

#### Introduction

1 This publication contains SU-tables for 2002, compiled in accordance with the recommendations of the 1993 System of National Accounts.

## Scope of the supply and use tables

2 The SU-tables cover the entire economy. Ninety-four different industry groups, 153 product groups (153 product groups in supply table and 95 product groups in use table) as well as six different components of final demand are distinguished.

#### Classification

3 The 1993 edition of the Standard Industrial Classification of all Economic Activities (SIC), Fifth Edition, Report No. 09-90-02 was used to classify the industries or economic activities in the System of National Accounts. The SIC is based on the 1990 (third revision) International Standard Industrial Classification of all Economic Activities (ISIC), with suitable adaptations for local conditions. The third revision of the ISIC differs in various respects from the previous edition. Therefore, the fifth edition of the SIC also differs from previous editions. Table M and table N provide information on the industry groups that are included in the SU-tables.

A commodity classification was developed for use in the SU-tables which is closely related to the SIC classification. The aim was to simplify the process of creating square SU-tables. More information on the product groups is provided in table J and table K.

# Reference period and time of recording

4 The tables record production activities and transactions of goods and services conducted in South Africa during the reference year, i.e. 2002. Domestic production of goods is recorded at the time they are produced and that of services at the time they are provided. Intermediate consumption of goods and services is recorded at the time they are actually used in the production process. Final consumption of goods and services by households and general government is recorded at the time they are purchased irrespective of their delivery in general. Goods for fixed capital formation are recorded at the time they are delivered, and changes in inventories are recorded at the time legal proprietary rights are transferred. Imports and exports are recorded at the time of customs clearance.

#### **Related publications**

5 Users may also wish to refer to the following publications available from Stats SA:

#### Final Input-Output tables:

- Report No. 09-16-01 Input-output tables, 1967.
- Report No. 09-16-02 Input-output tables, 1971.
- Report No. 09-16-04 Input-output tables, 1975.
- Report No. 09-16-05 Input-output tables, 1978.
- Report No. 09-16-05 Input-output tables, 1981.
- Report No. 09-16-05 Input-output tables, 1981 (Imports separately).
- Report No. 04-02-01 (1984) Input-output tables, 1984.
- Report No. 04-02-02 (1984) Input-output tables, 1984 (Imports separately).
- Report No. 04-02-01 (1988) Input-output tables, 1988.
- Report No. 04-02-02 (1988) Input-output tables, 1988 (Imports separately).
- Report No. 04-02-01 (1989) Input-output tables, 1989.
- Report No. 04-02-02 (1989) Input-output tables, 1989 (Imports separately).

#### Preliminary Input-Output tables:

- Report No. 04-02-03 Input-output tables, 1993 (RAS-Method).
- Report No. 04-02-03 Input-output tables, 1993 (RAS-Method). (Imports separately).

#### Social Accounting Matrices:

- Report No. 04-03-02 (1988) Final Social Accounting Matrix for South Africa, 1988.
- Report No. 04-03-02 (1998) Final Social Accounting Matrix for South Africa, 1998.

#### Supply and use tables

- Report No. 04-04-01 (1993) Final supply and use tables, 1993.
- Report No. 04-04-01 (1998) Final supply and use tables, 1998: An input-output framework.
- Report No. 04-04-01 (1999) Final supply and use tables, 1999: An input-output framework
- Report No. 04-04-01 (2000) Final supply and use tables, 2000: An input-output framework

#### Symbols and abbreviations

7 BAS **Basic Accounting System** Cost of insurance and freight c.i.f. Final demand component x in detailed Fx SU-tables Free on board f.o.b. **FSIM** Financial Services Indirectly Measured **Gross Domestic Product GDP GFS Government Financial Statistics** Industry x in detailed SU-tables Ix I-O tables Input-Output tables **International Standard Industrial ISIC** Classification of all Economic Activities Not elsewhere classified n.e.c. Social Accounting Matrix SAM **SARB** South African Reserve Bank Column x in condensed supply table SCxStandard Industrial Classification of all **SIC** Economic Activities, fifth edition **SNA** System of National Accounts SPx Row x in detailed supply table Row x in condensed supply table SRx SU-tables Supply and use tables Statistics South Africa Stats SA Column x in condensed use table UCx Row x in detailed use table UPx **URx** Row x in condensed use table VAT Value Added Tax Value added component x in detailed Vx SU-tables 0 or too small to publish

### **Rounding-off of figures**

8 The figures have been rounded off to the nearest million. There may therefore be slight discrepancies between the sums of the constituent industries and the totals shown.

## Annexure 1 – Description of products used in the supply table

Table J provides a detailed description for each of the product descriptions in the supply.

Table J – Description of products used in the supply table

Row no.	Supply table description	Detailed description
SP1	Agricultural products	Agriculture, hunting, forestry and fishing
SP2	Coal and lignite products	Mining of coal and lignite
SP3	Gold and uranium ore products	Gold and uranium ore
SP4	Other mining products	Other mining and quarrying; service activities incidental to mining of minerals
SP5	Slaughtering of livestock	Slaughtering, dressing and packing of livestock, including poultry and small game for meat
SP6	Prepared and preserved meat	Prepared and preserved meat, including sausage; by-products (hides, bones, etc.)
SP7	Lard and other edible fats	Lard and other edible fats
SP8	Fish products	Processing and preserving of fish and fish products
SP9	Fruit and vegetables products	Processing and preserving of fruit and vegetables
SP10	Crude oil and oilseed cake	Crude oil and oilseed cake and meal
SP11	Margarine and edible oils	Compound cooking fats, margarine and edible oils
SP12	Fresh milk	Fresh milk (pasteurising, homogenising, sterilising and vitaminising)
SP13	Butter and cheese	Butter and cheese
SP14	Ice cream and other edible ice	Ice cream and other edible ice, whether or not containing cream or chocolate
SP15	Other edible milk products	Milk powder, condensed milk and other edible milk products, e.g. ghee, casein or lactose
SP16	Flour and grain mill products	Flour and grain mill products, including rice and vegetable milling; grain mill residues
SP17	Breakfast foods	Breakfast foods

 $Table \ J-Description \ of \ products \ used \ in \ the \ supply \ table \ (continued)$ 

Row no.	Supply table description	Detailed description
SP18	Starches and starch products	Starches and starch products
SP19	Animal feeds	Animal feeds
SP20	Bakery products	Bakery products
SP21	Sugar products	Sugar, including golden syrup and castor sugar
SP22	Confectionary products	Cocoa, chocolate and sugar confectionery
SP23	Farinaceous products	Macaroni, noodles, couscous and similar farinaceous products
SP24	Coffee and tea	Coffee, coffee substitutes and tea
SP25	Other food products	Spices, condiments, vinegar, yeast, egg products, soups and other food products n.e.c.
SP26	Beverages and tobacco products	Distilling, rectifying, blending of spirits, wine, beer, other malt liquors, malt, soft drinks; production of mineral waters and tobacco products
SP27	Preparatory activities of fibres	Preparatory activities of fibres, including washing, combing and carding of wool
SP28	Spinning of animal fibres	Spinning, weaving and finishing of yarns and fabrics predominantly of wool and other animal fibres
SP29	Spinning of vegetables fibres	Spinning, weaving and finishing of yarns and fabrics predominantly of vegetable fibres
SP30	Blankets and stuffed articles	Blankets, made-up furnishing articles and stuffed articles
SP31	Tents and other canvas goods	Tents, tarpaulins, sails and other canvas goods
SP32	Automotive textile goods	Automotive textile goods (including safety belts, seat covers and upholstery)
SP33	Other textile articles	Other textile articles
SP34	Carpets and rugs	Carpets and rugs
SP35	Cordage, rope, twine and netting	Cordage, rope, twine and netting
SP36	Other textile products	Other textile products n.e.c.
SP37	Garment, hosiery knitting	Garment and hosiery knitting

 $Table \ J-Description \ of \ products \ used \ in \ the \ supply \ table \ (continued)$ 

Row no.	Supply table description	Detailed description
SP38	Other knitting products	Other knitting products
SP39	Men's and boys' clothing	Men's and boys' clothing
SP40	Women's and girls' clothing	Women's and girls' clothing
SP41	Other wearing apparel	Bespoke tailoring; hats, caps, ties and other wearing apparel
SP42	Articles of fur	Dressing and dyeing of fur, artificial fur, fur apparel and other articles of fur
SP43	Leather products	Tanning and dressing of leather
SP44	Handbags	Travel goods and ladies' handbags
SP45	Other leather products	Other general and small goods of leather and leather substitutes, including harness and saddlery
SP46	Footwear	Footwear
SP47	Saw and preserving of timber	Saw and preserving of timber
SP48	Other mill products	Other mill products, including wattle grinding and compressing
SP49	Panels and boards	Veneer sheets, plywood, laminboard, particle board and other panels and boards
SP50	Builders' carpentry and joinery	Builders' carpentry and joinery
SP51	Wooden containers	Wooden containers
SP52	Coffins	Coffins (excluding coffins manufactured by funeral undertakers)
SP53	Picture frames	Picture frames and framing
SP54	Other articles of wood	Other articles of wood, cork, straw and plaiting materials, including woodcarving and woodturning
SP55	Paper products	Pulp, paper and paperboard
SP56	Corrugated paper	Corrugated paper and paperboard
SP57	Containers of paper	Containers of paper and paperboard
SP58	Stationary	Stationary

 $Table \ J-Description \ of \ products \ used \ in \ the \ supply \ table \ (continued)$ 

Row no.	Supply table description	<b>Detailed description</b>
SP59	Other paper products	Other paper products
SP60	Published and printed products	Publishing (excluding recorded media) and printing
SP61	Recorded media products	Publishing and reproduction of recorded media
SP62	Fuel products	Coke oven products, processing of nuclear fuel and petroleum refineries/synthesisers
SP63	Basic chemical products	Basic chemicals, except fertilizers and nitrogen compounds
SP64	Fertilizers	Fertilizers and nitrogen compounds
SP65	Primary plastic products	Plastics in primary form and of synthetic rubber
SP66	Pesticides	Pesticides and other agrochemical products
SP67	Paints	Paints, varnishes and similar coatings, printing ink and mastics
SP68	Pharmaceutical products	Pharmaceuticals, medicinal chemicals and botanical products
SP69	Cleaning compounds	Soap and other cleaning compounds
SP70	Perfumes and cosmetics	Perfumes, cosmetics and other toilet preparations
SP71	Polishes, waxes and dressings	Other preparation such as polishes, waxes and dressings
SP72	Other chemical products	Other chemical products n.e.c.
SP73	Man-made fibres	Man-made fibres
SP74	Rubber tyres	Rubber tyres and tubes; retreading and rebuilding of rubber tyres
SP75	Other rubber products	Other rubber products
SP76	Plastic products	Plastic products
SP77	Sheet and plate glass	Sheet and plate glass, glass blocks, tubes and rods; glass fibres and glass wool
SP78	Other glass products	Glass containers; glass kitchenware and tableware; scientific and laboratory glassware, clock and watch glasses and other glass products

 $Table \ J-Description \ of \ products \ used \ in \ the \ supply \ table \ (continued)$ 

Row no.	Supply table description	<b>Detailed description</b>
SP79	Non-structural Ceramics	Non-structural non-refractory ceramicware
SP80	Structural ceramic products	Refractory and structural non-refractory clay and ceramic products
SP81	Cement	Cement, lime and plaster
SP82	Other non-metallic products	Article of concrete, cement, plaster, stone and other non-metallic mineral products n.e.c.
SP83	Basic iron and steel	Basic iron and steel (except steel pipe and tube); casting of iron and steel
SP84	Steel pipe and tube	Steel pipe and tube
SP85	Non-ferrous metals	Basic precious and non-ferrous metals; casting of non-ferrous metals
SP86	Metal structures	Metal structures or parts thereof
SP87	Metal doors, windows and gates	Other structure metal products, e.g. metal doors, windows and gates
SP88	Containers of metal	Tanks, reservoirs and similar containers of metal
SP89	Steam generators	Steam generators, except central heating hot water boilers
SP90	Treated metal products	Forging, pressing, stamping, roll-forming of metal; powder metallurgy, treatment and coating of metals and general mechanical engineering
SP91	General hardware products	Cutlery, hand tools and general hardware
SP92	Cans and tins	Metal containers, e.g. cans and tins
SP93	Cables and wire products	Cables and wire products
SP94	Metal fasteners	Metal fasteners
SP95	Other metal products	Other metal products n.e.c.
SP96	Engines	Engines and turbines, except aircraft, vehicle and motor cycle engines
SP97	Pumps	Pumps, compressors, taps and valves
SP98	Gears	Bearings, gears, gearing and driving elements
SP99	Lifting equipment	Lifting and handling equipment

 $Table \ J-Description \ of \ products \ used \ in \ the \ supply \ table \ (continued)$ 

Row no.	Supply table description	Detailed description
SP100	General machinery	Other general purpose machinery
SP101	Agricultural machinery	Agricultural and forestry machinery
SP102	Machine-tools	Machine-tools
SP103	Machinery for metallurgy	Machinery for metallurgy
SP104	Mining machinery	Machinery for mining, quarrying and construction
SP105	Food machinery	Machinery for food, beverage and tobacco processing
SP106	Textile machinery	Machinery for textile, apparel and leather production
SP107	Weapons and ammunition	Weapons and ammunition
SP108	Other special machinery	Other special purpose machinery
SP109	Household appliances	Household appliances n.e.c.
SP110	Office machinery	Office, accounting and computing machinery
SP111	Electric motors	Electric motors, generators and transformers
SP112	Electricity apparatus	Electricity distribution and control apparatus
SP113	Insulated wire and cable	Insulated wire and cable
SP114	Accumulators	Accumulators, primary cells and primary batteries
SP115	Lighting equipment	Electrical lamps and lighting equipment
SP116	Other electrical products	Other electrical products n.e.c.
SP117	Radio and television products	Radio, television- and communication equipment and apparatus
SP118	Medical and surgical equipment	Medical and surgical equipment and orthopaedic appliances
SP119	Instruments	Instruments and appliances for measuring, checking, testing, navigating and for other purposes, except industrial process control equipment
SP120	Control equipment	Industrial process control equipment

 $Table \ J-Description \ of \ products \ used \ in \ the \ supply \ table \ (continued)$ 

Row no.	Supply table description	Detailed description
SP121	Photographic equipment	Optical instruments and photographic equipment
SP122	Watches and clocks	Watches and clocks
SP123	Motor vehicles	Motor vehicles (including their engines) and bodies (coachwork) for motor vehicles; trailers and semi-trailers
SP124	Motor vehicles parts	Parts and accessories for motor vehicles and their engines
SP125	Building and repairing of ships	Building and repairing of ships
SP126	Building and repairing of boats	Building and repairing of pleasure and sporting boats
SP127	Railway	Railway and tramway locomotives and rolling stock
SP128	Other transport equipment	Other transport equipment n.e.c.
SP129	Furniture	Furniture
SP130	Jewellery	Jewellery and related articles
SP131	Musical instruments	Musical instruments
SP132	Sports goods	Sports goods
SP133	Games and toys	Games and toys
SP134	Brushes and brooms	Brushes and brooms
SP135	Crayons, chalk, pens and pencils	Crayons, chalk, pens and pencils
SP136	Buttons and buckles	Buttons, buckles slide fasteners, etc.
SP137	Number plates and signs	Number plates, signs and advertising displays, that are not electrical
SP138	Other manufacturing	Other manufacturing n.e.c. and recycling of metal- and non-metal waste and scrap
SP139	Electricity	Electricity, gas, steam and hot water supply
SP140	Water	Collection, purification and distribution of water
SP141	Buildings construction	Buildings, specialist trade contractors, building installation, building completion

 $Table \ J-Description \ of \ products \ used \ in \ the \ supply \ table \ (concluded)$ 

Row	Supply table description	Detailed description
no.		
SP142	Other constructions	Site preparation; construction of civil engineering structures and construction of other structures; renting of construction / demolition equipment with operators
SP143	Trade services	Wholesale trade, commission trade (except of motor vehicles and motor cycles), retail trade, repair of personal and household goods, sale, maintenance and repair of motor vehicles and motor cycles and retail trade in automotive fuel
SP144	Hotel and restaurant services	Hotels, camping sites, other provision of short- stay accommodation; restaurants, bars, canteens
SP145	Transport services	Transport, supporting and help activities related to transport
SP146	Communications	Post, courier activities and telecommunication
SP147	FSIM	Financial intermediation services indirectly measured
SP148	Insurance services	Financial intermediation, insurance and pension funding
SP149	Real estate services	Real estate activities
SP150	Other business services	Other business activities
SP151	General Government services	Other individual and collective general government
SP152	Health and social work	Human health, veterinary and social work activities
SP153	Other services / activities	Education, other service and other activities n.e.c. or unspecified

## Annexure 2 – Description of products used in the use table

Table K provides a detailed description for each of the product descriptions in the use table (Tables 3 and 4: SU-tables 2002.xls on CD).

Table K – Description of products used in the use table

Row	Use table description	Detailed description
uP1	Agricultural products	Agriculture, hunting, forestry and fishing
UP2	Coal and lignite products	Mining of coal and lignite
UP3	Gold and uranium ore products	Gold and uranium ore
UP4	Other mining products	Other mining and quarrying; service activities incidental to mining of minerals
UP5	Meat products	Production, processing and preserving of meat and meat products
UP6	Fish products	Processing and preserving of fish and fish products
UP7	Fruit and vegetables products	Processing and preserving of fruit and vegetables
UP8	Oils and fats products	Vegetable and animal oils and fats
UP9	Dairy products	Dairy products
UP10	Grain mill products	Grain mill products; starches and starch products
UP11	Animal feeds	Animal feeds
UP12	Bakery products	Bakery products
UP13	Sugar products	Sugar, including golden syrup and castor sugar
UP14	Sugar confectionery	Cocoa, chocolate and sugar confectionery
UP15	Other food products	Other food products n.e.c.
UP16	Beverages and tobacco products	Distilling, rectifying, blending of spirits, wine, beer, other malt liquors, malt, soft drinks; production of mineral waters and tobacco products
UP17	Textile products	Preparation and spinning of textile fibres; weaving of textiles and finishing of textiles
UP18	Made-up textile products	Made-up textile articles, except apparel

 $Table \ K-Description \ of \ products \ used \ in \ the \ use \ table \ (continued)$ 

Row no.	Use table description	Detailed description
UP19	Carpets and rugs	Carpets and rugs
UP20	Other textiles products	Cordage, rope, twine and netting
UP21	Knitting mill products	Knitted and crocheted fabrics and articles
UP22	Wearing apparel	Wearing apparel; dressing and dyeing of fur; articles of fur
UP23	Leather products	Tanning and dressing of leather
UP24	Handbags	Luggage, handbags and the like, saddlery and harness
UP25	Footwear	Footwear
UP26	Wood products	Sawmilling and planing of wood, products of wood, cork, straw and plaiting materials
UP27	Paper products	Pulp, paper and paperboard
UP28	Containers of paper	Corrugated paper and paperboard, containers of paper and paperboard
UP29	Other paper products	Other articles of paper and paperboard
UP30	Published and printed products	Publishing (excluding recorded media) and printing
UP31	Recorded media products	Publishing and reproduction of recorded media
UP32	Fuel products	Coke oven products, processing of nuclear fuel and petroleum refineries/synthesisers
UP33	Basic chemical products	Basic chemicals, except fertilizers and nitrogen compounds
UP34	Fertilizers	Fertilizers and nitrogen compounds
UP35	Primary plastic products	Plastics in primary forms and synthetic rubber; man-made fibres
UP36	Pesticides	Pesticides and other agrochemical products
UP37	Paints	Paints, varnishes and similar coatings, printing ink and mastics
UP38	Pharmaceutical products	Pharmaceuticals, medicinal chemicals and botanical products

 $Table \ K-Description \ of \ products \ used \ in \ the \ use \ table \ (continued)$ 

Row no.	Use table description	<b>Detailed description</b>
UP39	Soap products	Soap, detergents, cleaning-, polishing-, perfume- and toilet preparations
UP40	Other chemical products	Other chemical products n.e.c.
UP41	Rubber tyres	Rubber tyres and tubes; retreading and rebuilding of rubber tyres
UP42	Other rubber products	Other rubber products
UP43	Plastic products	Plastic products
UP44	Glass products	Glass and glass products
UP45	Non-structural ceramics	Non-structural non-refractory ceramicware
UP46	Structural ceramic products	Refractory and structural non-refractory clay and ceramic products
UP47	Cement	Cement, lime and plaster
UP48	Other non-metallic products	Articles of concrete, cement, plaster, stone and other non-metallic mineral products n.e.c.
UP49	Iron and steel products	Basic iron and steel; casting of iron and steel
UP50	Non-ferrous metals	Basic precious and non-ferrous metals; casting of non-ferrous metals
UP51	Structural metal products	Structural metal products, tanks, reservoirs and steam generators
UP52	Treated metal products	Forging, pressing, stamping, roll-forming of metal; powder metallurgy, treatment and coating of metals and general mechanical engineering
UP53	General hardware products	Cutlery, hand tools and general hardware
UP54	Other fabricated metal products	Other fabricated metal products n.e.c.
UP55	Engines	Engines and turbines, except aircraft, vehicle and motor cycle engines
UP56	Pumps	Pumps, compressors, taps and valves
UP57	Gears	Bearings, gears, gearing and driving elements
UP58	Lifting equipment	Lifting and handling equipment
UP59	General machinery	Other general purpose machinery

 $Table \ K-Description \ of \ products \ used \ in \ the \ use \ table \ (continued)$ 

Row no.	Use table description	<b>Detailed description</b>
UP60	Agricultural machinery	Agricultural and forestry machinery
UP61	Machine-tools	Machine-tools
UP62	Mining machinery	Machinery for mining, quarrying and construction
UP63	Food machinery	Machinery for food, beverage and tobacco processing
UP64	Other special machinery	Other special purpose machinery
UP65	Household appliances	Household appliances n.e.c
UP66	Office machinery	Office, accounting and computing machinery
UP67	Electric motors	Electric motors, generators and transformers
UP68	Electricity apparatus	Electricity distribution and control apparatus
UP69	Insulated wire and cable	Insulated wire and cable
UP70	Accumulators	Accumulators, primary cells and primary batteries
UP71	Lighting equipment	Electric lamps and lighting equipment
UP72	Other electrical products	Other electrical equipment n.e.c.
UP73	Radio and television products	Radio-, television- and communication equipment and apparatus
UP74	Optical instruments	Medical, precision- and optical instruments, watches and clocks
UP75	Motor vehicles	Motor vehicles (including their engines) and bodies (coachwork) for motor vehicles; trailers and semi-trailers
UP76	Motor vehicle parts	Parts and accessories for motor vehicles and their engines
UP77	Other transport products	Other transport equipment n.e.c.
UP78	Furniture	Furniture
UP79	Jewellery	Jewellery and related articles
UP80	Manufactured products n.e.c.	Other manufacturing n.e.c. and recycling of metal- and non-metal waste and scrap

 $Table \ K-Description \ of \ products \ used \ in \ the \ use \ table \ (concluded)$ 

Row no.	Use table description	<b>Detailed description</b>
UP81	Electricity	Electricity, gas, steam and hot water supply
UP82	Water	Collection, purification and distribution of water
UP83	Buildings construction	Buildings, specialist trade contractors, building installation, building completion
UP84	Other constructions	Site preparation; construction of civil engineering structures and construction of other structures; renting of construction / demolition equipment with operators
UP85	Trade services	Wholesale trade, commission trade (except of motor vehicles and motor cycles), retail trade, repair of personal and household goods, sale, maintenance and repair of motor vehicles and motor cycles and retail trade in automotive fuel
UP86	Hotel and restaurant services	Hotels, camping sites, other provision of short- stay accommodation; restaurants, bars, canteens
UP87	Transport services	Transport, supporting and help activities related to transport
UP88	Communications	Post, courier activities and telecommunications
UP89	FSIM	Financial intermediation services indirectly measured
UP90	Insurance services	Financial intermediation, insurance and pension funding
UP91	Real estate services	Real estate activities
UP92	Other business services	Other business activities
UP93	General government services	Other individual and collective general government
UP94	Health and social work	Human health, veterinary and social work activities
UP95	Other services / activities	Education, other services and other activities n.e.c. or unspecified.

# Annexure 3 – Link between the products used in the supply table (SP) and the products used in the use table (UP)

Table L provides a link between the products used in the supply table (SP) and the products used in the use table (UP) (Tables 3 and 4: SU-tables 2002.xls on CD).

Table L – Link between the products used in the supply and use tables

Row no.	Use table description	Supply table row no.
UP1	Agricultural products	SP1
UP2	Coal and lignite products	SP2
UP3	Gold and uranium ore products	SP3
UP4	Other mining products	SP4
UP5	Meat products	SP5, SP6, SP7
UP6	Fish products	SP8
UP7	Fruit and vegetables products	SP9
UP8	Oils and fats products	SP10, SP11
UP9	Dairy products	SP12, SP13, SP14, SP15
UP10	Grain mill products	SP16, SP17, SP18
UP11	Animal feeds	SP19
UP12	Bakery products	SP20
UP13	Sugar products	SP21
UP14	Sugar confectionery	SP22
UP15	Other food products	SP23, SP24, SP25
UP16	Beverages and tobacco products	SP26
UP17	Textile products	SP27, SP28, SP29
UP18	Made-up textile products	SP30, SP31, SP32, SP33
UP19	Carpets and rugs	SP34
UP20	Other textiles products	SP35, SP36
UP21	Knitting mill products	SP37, SP38
UP22	Wearing apparel	SP39, SP40, SP41, SP42

 $Table \ L-Link \ between \ the \ products \ used \ in \ the \ supply \ and \ use \ tables \ (continued)$ 

Row no.	Use table description	Supply table row no.
UP23	Leather products	SP43
UP24	Handbags	SP44, SP45
UP25	Footwear	SP46
UP26	Wood products	SP47, SP48, SP49, SP50, SP51, SP52, SP53, SP54
UP27	Paper products	SP55
UP28	Containers of paper	SP56, SP57
UP29	Other paper products	SP58, SP59
UP30	Published and printed products	SP60
UP31	Recorded media products	SP61
UP32	Fuel products	SP62
UP33	Basic chemical products	SP63
UP34	Fertilizers	SP64
UP35	Primary plastic products	SP65, SP73
UP36	Pesticides	SP66
UP37	Paints	SP67
UP38	Pharmaceutical products	SP68
UP39	Soap products	SP69, SP70, SP71
UP40	Other chemical products	SP72
UP41	Rubber tyres	SP74
UP42	Other rubber products	SP75
UP43	Plastic products	SP76
UP44	Glass products	SP77, SP78
UP45	Non-structural ceramics	SP79
UP46	Structural ceramic products	SP80
UP47	Cement	SP81

Table  $\boldsymbol{L}$  - Link between the products used in the supply and use tables (continued)

Row no.	Use table description	Supply table row no.
UP48	Other non-metallic products	SP82
UP49	Iron and steel products	SP83, SP84
UP50	Non-ferrous metals	SP85
UP51	Structural metal products	SP86, SP87, SP88, SP89
UP52	Treated metal products	SP90
UP53	General hardware products	SP91
UP54	Other fabricated metal products	SP92, SP93, SP94, SP95
UP55	Engines	SP96
UP56	Pumps	SP97
UP57	Gears	SP98
UP58	Lifting equipment	SP99
UP59	General machinery	SP100
UP60	Agricultural machinery	SP101
UP61	Machine-tools	SP102
UP62	Mining machinery	SP104
UP63	Food machinery	SP105
UP64	Other special machinery	SP103, SP106, SP107, SP108
UP65	Household appliances	SP109
UP66	Office machinery	SP110
UP67	Electric motors	SP111
UP68	Electricity apparatus	SP112
UP69	Insulated wire and cable	SP113
UP70	Accumulators	SP114
UP71	Lighting equipment	SP115
UP72	Other electrical products	SP116

 $Table \ L-Link \ between \ the \ products \ used \ in \ the \ supply \ and \ use \ tables \ (concluded)$ 

Row no.	Use table description	Supply table row no.
UP73	Radio and television products	SP117
UP74	Optical instruments	SP118, SP119, SP120, SP121, SP122
UP75	Motor vehicles	SP123
UP76	Motor vehicle parts	SP124
UP77	Other transport products	SP125, SP126, SP127, SP128
UP78	Furniture	SP129
UP79	Jewellery	SP130
UP80	Manufactured products n.e.c.	SP131, SP132, SP133, SP134, SP135, SP136, SP137, SP138
UP81	Electricity	SP139
UP82	Water	SP140
UP83	Buildings construction	SP141
UP84	Other constructions	SP142
UP85	Trade services	SP143
UP86	Hotel and restaurant services	SP144
UP87	Transport services	SP145
UP88	Communications	SP146
UP89	FSIM	SP147
UP90	Insurance services	SP148
UP91	Real estate services	SP149
UP92	Other business services	SP150
UP93	General government services	SP151
UP94	Health and social work	SP152
UP95	Other services / activities	SP153

### Annexure 4 – Description of industries used in the SU-tables

Table M provides a more elaborate description of the abbreviated description of activities in the supply and use tables (Tables 3 and 4: SU-tables 2002.xls on CD).

Table M – Description of industries used in the SU-tables

Col.	SU-tables description	<b>Detailed description</b>
I1	Agriculture	Agriculture, hunting, forestry and fishing
I2	Coal	Mining of coal and lignite
13	Gold	Gold and uranium ore
I4	Other mining	Other mining and quarrying; service activities incidental to mining of minerals
15	Meat	Production, processing and preserving of meat and meat products
I6	Fish	Processing and preserving of fish and fish products
I7	Fruit	Processing and preserving of fruit and vegetables
18	Oils	Vegetable and animal oils and fats
I9	Dairy	Dairy products
I10	Grain mills	Grain mill products; starches and starch products
I11	Animal feeds	Animal feeds
I12	Bakeries	Bakery products
I13	Sugar	Sugar, including golden syrup and castor sugar
I14	Confectionery	Cocoa, chocolate and sugar confectionery
I15	Other food	Other food products n.e.c.
I16	Beverage and tobacco	Distilling, rectifying, blending of spirits, wine, beer, other malt liquors, malt, soft drinks; production of mineral waters and tobacco products
I17	Textiles	Preparation and spinning of textile fibres; weaving of textiles and finishing of textiles
I18	Textile articles	Made-up textile articles, except apparel

 $Table\ M-Description\ of\ industries\ used\ in\ the\ SU\text{-tables}\ (continued)$ 

Col.	SU-tables description	<b>Detailed description</b>
I19	Carpets	Carpets and rugs
I20	Other textiles	Other textiles n.e.c.
I21	Knitting mills	Knitted and crocheted fabrics and articles
I22	Wearing apparel	Wearing apparel; dressing and dyeing of fur; articles of fur
I23	Leather	Tanning and dressing of leather
I24	Handbags	Luggage, handbags and the like, saddlery and harness
125	Footwear	Footwear
I26	Wood	Sawmilling and planing of wood, products of wood, cork, straw and plaiting materials
I27	Paper	Pulp, paper and paperboard
I28	Containers of paper	Corrugated paper and paperboard, containers of paper and paperboard
129	Other paper	Other articles of paper and paperboard
I30	Publishing	Publishing (excluding recorded media) and printing
I31	Recorded media	Publishing and reproduction of recorded media
I32	Petroleum	Coke oven products, processing of nuclear fuel and petroleum refineries/synthesisers
I33	Basic chemicals	Basic chemicals, except fertilizers and nitrogen compounds
I34	Fertilizers	Fertilizers and nitrogen compounds
I35	Primary plastics	Plastics in primary forms and synthetic rubber; man-made fibres
I36	Pesticides	Pesticides and other agrochemical products
I37	Paints	Paints, varnishes and similar coatings, printing ink and mastics
I38	Pharmaceuticals	Pharmaceuticals, medicinal chemicals and botanical products

 $Table\ M-Description\ of\ industries\ used\ in\ the\ SU\text{-tables}\ (continued)$ 

Col.	SU-tables description	<b>Detailed description</b>
I39	Soap	Soap, detergents, cleaning-, polishing-, perfume- and toilet preparations
I40	Other chemicals	Other chemical products n.e.c.
I41	Tyres	Rubber tyres and tubes; retreading, rebuilding of rubber tyres
I42	Other rubber	Other rubber products
I43	Plastic	Plastic products
I44	Glass	Glass and glass products
I45	Non-structural ceramics	Non-structural non-refractory ceramic ware
I46	Structural ceramics	Refractory and structural non-refractory clay and ceramic products
I47	Cement	Cement, lime and plaster
I48	Other non-metallic	Articles of concrete, cement, plaster, stone and other non-metallic mineral products n.e.c.
I49	Iron and steel	Basic iron and steel; casting of iron and steel
I50	Non-ferrous metals	Basic precious and non-ferrous metals; casting of non-ferrous metals
I51	Structural metal	Structural metal products, tanks, reservoirs and steam generators
152	Treatment metals	Forging, pressing, stamping, roll-forming of metal; powder metallurgy, treatment and coating of metals and general mechanical engineering
I53	General hardware	Cutlery, hand tools and general hardware
I54	Fabricated metal	Other fabricated metal products n.e.c.
I55	Engines	Engines and turbines, except aircraft, vehicle and motor cycle engines
I56	Pumps	Pumps, compressors, taps and valves
157	Gears	Bearings, gears, gearing and driving elements
158	Lifting equipment	Lifting and handling equipment
I59	General machinery	Other general purpose machinery

 $Table\ M-Description\ of\ industries\ used\ in\ the\ SU\text{-tables}\ (continued)$ 

Col.	SU-tables description	<b>Detailed description</b>
I60	Agricultural machinery	Agricultural and forestry machinery
I61	Machine-tools	Machine-tools
I62	Mining machinery	Machinery for mining, quarrying and construction
I63	Food machinery	Machinery for food, beverage and tobacco processing
I64	Special machinery	Other special purpose machinery
I65	Household appliances	Household appliances n.e.c.
I66	Office machinery	Office, accounting and computing machinery
I67	Electric motors	Electric motors, generators and transformers
I68	Electricity apparatus	Electricity distribution and control apparatus
I69	Wire and cable	Insulated wire and cable
I70	Accumulators	Accumulators, primary cells and primary batteries
I71	Lighting equipment	Electric lamps and lighting equipment
I72	Electrical equipment	Other electrical equipment n.e.c.
I73	Radio and television	Radio-, television- and communication equipment and apparatus
I74	Optical instruments	Medical, precision- and optical instruments, watches and clocks
175	Motor vehicles	Motor vehicles (including their engines) and bodies (coachwork) for motor vehicles; trailers and semi-trailers
I76	Motor vehicle parts	Parts and accessories for motor vehicles and their engines
I77	Other transport	Other transport equipment n.e.c.
I78	Furniture	Furniture
179	Jewellery	Jewellery and related articles
I80	Other manufacturing	Other manufacturing and recycling of metal- and non-metal waste and scrap

 $Table\ M-Description\ of\ industries\ used\ in\ the\ SU\text{-tables}\ (concluded)$ 

Col.	SU-tables description	Detailed description
I81	Electricity	Electricity, gas, steam and hot water supply
I82	Water	Collection, purification and distribution of water
183	Buildings	Buildings, specialist trade contractors, building installation, building completion
I84	Other construction	Site preparation; construction of civil engineering structures and construction of other structures; renting of construction / demolition equipment with operators
185	Trade	Wholesale trade, commission trade (except of motor vehicles and motor cycles), retail trade; repair of personal and household goods, sale, maintenance and repair of motor vehicles and motor cycles and retail trade in automotive fuel
I86	Hotels	Hotels, camping sites, other provision of short- stay accommodation; restaurants, bars, canteens
I87	Transport services	Transport, supporting and help activities related to transport
I88	Communications	Post, courier activities and telecommunications
189	Insurance	Financial intermediation, insurance and pension funding
190	Real estate	Real estate activities
I91	Business activities	Other business activities
I92	General government	Other individual and collective general government
I93	Health and social work	Human health, veterinary and social work activities
I94	Other activities/services	Education, other services and other activities n.e.c.
195	Total industry	The total of all the industries
I96	Total economy	The total for the economy

## Annexure 5 – Key between industry descriptions and SIC-groups

The abbreviated description of industries used in the SU-tables and the corresponding SIC-group codes are shown in table N.

Table N-Key between industry descriptions and SIC - groups

Col.	SU-tables description	Corresponding SIC (Standard Industrial Classification, fifth edition) - groups
I1	Agriculture	1110, 1120, 1130, 1140, 1150, 1160, 1210, 1220, 1310, 1320
I2	Coal	2100
I3	Gold	2300
I4	Other mining	2210, 2410, 2420, 2510, 2520, 2530, 2900
I5	Meat	3011
I6	Fish	3012
I7	Fruit	3013
I8	Oils	3014
<b>I</b> 9	Dairy	3020
I10	Grain mills	3031, 3032
I11	Animal feeds	3033
I12	Bakeries	3041
I13	Sugar	3042
I14	Confectionery	3043
I15	Other food	3044, 3049
I16	Beverages & tobacco	3051, 3052, 3053, 3060
I17	Textiles	3111, 3112
I18	Textile articles	3121
I19	Carpets	3122
I20	Other textiles	3123, 3129
I21	Knitting mills	3130
122	Wearing apparel	3140, 3150

Table  $N-Key\ between\ industry\ descriptions\ and\ SIC$  - groups (continued)

Col.	SU-tables description	Corresponding SIC (Standard Industrial Classification, fifth edition) - groups
I23	Leather	3161
I24	Handbags	3162
I25	Footwear	3170
I26	Wood	3210, 3221, 3222, 3223, 3229
I27	Paper	3231
I28	Containers of paper	3232
I29	Other paper	3239
I30	Publishing	3241, 3242, 3249, 3251, 3252
I31	Recorded media	3243, 3260
I32	Petroleum	3310, 3321, 3322, 3323, 3324, 3325, 3329, 3330
I33	Basic chemicals	3341
I34	Fertilizers	3342
I35	Primary plastics	3343, 3360
I36	Pesticides	3351
I37	Paints	3352
138	Pharmaceuticals	3353
139	Soap	3354
I40	Other chemicals	3359
I41	Tyres	3371
I42	Other rubber	3379
I43	Plastic	3380
I44	Glass	3411
I45	Non-structural ceramics	3421
I46	Structural ceramics	3422, 3423
I47	Cement	3424

Table  $N-Key\ between\ industry\ descriptions\ and\ SIC$  - groups (continued)

Col.	SU-tables description	Corresponding SIC (Standard Industrial Classification, fifth edition) - groups
I48	Other non-metallic	3425, 3426, 3429
I49	Iron and steel	3510, 3531
I50	Non-ferrous metals	3520, 3532
I51	Structural metal	3541, 3542, 3543
I52	Treated metals	3551, 3552
I53	General hardware	3553
I54	Fabricated metal	3559
I55	Engines	3561
I56	Pumps	3562
I57	Gears	3563
I58	Lifting equipment	3565
I59	General machinery	3564, 3569
I60	Agricultural machinery	3571
I61	Machine-tools	3572
I62	Mining machinery	3574
I63	Food machinery	3575
I64	Special machinery	3573, 3576, 3577, 3579
I65	Household appliances	3580
I66	Office machinery	3590
I67	Electric motors	3610
I68	Electricity apparatus	3620
I69	Wire and cable	3630
I70	Accumulators	3640
I71	Lighting equipment	3650
I72	Electrical equipment	3660

 $Table \ N-Key \ between \ industry \ descriptions \ and \ SIC \ -groups \ (concluded)$ 

Col.	SU-tables description	Corresponding SIC (Standard Industrial Classification, fifth edition) - groups
I73	Radio and television	3710, 3720, 3730
I74	Optical instruments	3741, 3742, 3743, 3750, 3760
I75	Motor vehicles	3810, 3820
I76	Motor vehicle parts	3830
I77	Other transport	3841, 3842, 3850, 3860, 3871, 3872, 3879
I78	Furniture	3910
I79	Jewellery	3921
I80	Other manufacturing	3922, 3923, 3924, 3929, 3951, 3952
I81	Electricity	4110, 4120, 4130
I82	Water	4200
I83	Buildings	5021, 5024, 5031, 5032, 5033, 5039, 5041, 5049
I84	Other construction.	5010, 5022, 5023, 5050
185	Trade	6110, 6120, 6130, 6140, 6150, 6190, 6210, 6220, 6230, 6240, 6250, 6260, 6310, 6320, 6330, 6340, 6350
I86	Hotels	6410, 6420
I87	Transport services	7110, 7120, 7130, 7210, 7220, 7300, 7410
I88	Communications	7510, 7520
I89	Insurance	8110, 8190, 8210, 8310, 8320
I90	Real estate	8410, 8420
I91	Business activities	8510, 8520, 8530, 8610, 8620, 8630, 8640, 8650, 8690, 8710, 8720, 8810, 8820, 8830, 8890
192	General government	9110, 9120, 9130, 9400
I93	Health and social work	9311, 9312, 9319, 9320, 9330
I94	Other activities/services	9200, 9500, 9600, 9900, 0200, 0900
195	Total industry	The total of all the industries
I96	Total economy	The total for the economy

# Annexure 6 – Description of adjustment items, components of value added and final demand

The description of the adjustment items, components of value added and final demand used in the SU-tables are detailed in table O.

Table O - Description of adjustment items, components of value added and final demand

Item	SU-tables description	Detailed description
<b>no.</b> C1	c.i.f./f.o.b. adjustment	Adjustment of detailed imports (valued c.i.f.) to total imports (valued f.o.b.)
D1	Purchases by residents	Direct purchases abroad by residents.
D2	Purchases by non-residents	Direct purchases in the domestic market by non-residents.
F1	Imports	Import of goods and services.
F2	Exports	Export of goods and services
F3	Household consumption expenditure	Final consumption expenditure incurred by households
F4	General government consumption expenditure	Final consumption expenditure incurred by general government
F5	Fixed capital formation	Gross fixed capital formation
F6	Changes in inventories	Changes in inventories
F7	Residual	Residual item derived from the goods and services account
V1	Total gross value added / GDP	Sum of value added for industries or gross domestic product for the economy.
V2	Compensation of employees	Compensation of employees
V3	Taxes less subsidies	Taxes less subsidies on production and imports
V4	Taxes on products	Taxes on products
V5	Subsidies on products	Subsidies on products
V6	Other taxes less subsidies on production	Other taxes on production less subsidies on production
V7	Gross operating surplus / mixed income	Gross operating surplus of industries / Gross mixed income of households

#### Annexure 7 – Statistical sources and methods

Table P summarises the most important statistical sources and methods used to compile the 2000 supply and use tables for each industry. Different statistical sources were used to calculate the required levels, e.g. total output, value added and intermediate consumption. The estimation of detailed output and consumption according to commodity is briefly referred to as well.

In addition to the detailed industry specific sources that are listed in table P, extensive use is made of the annual Economy-wide Activity Survey (EAS) conducted by Stats SA. The EAS is a comprehensive collection covering the entire economy, excluding agriculture, financial intermediaries and the general government sector. It includes financial information relating to the income and expenditure statements of enterprises as well as their balance sheets.

Table P – Statistical sources and methods

Industry	Statistical sources and methods
Agriculture	Peridic Censuses of Agriculture conducted by Stats SA. GDP estimates compiled by the National Department of Agriculture in collaboration with Stats SA. Estimates from censuses and surveys are verified against quarterly source data collected by the National Department of Agriculture. Estimates include the value of farm produce consumed by farmers for own account.
	Input-output tables for Agriculture produced by the Department of Agriculture. These tables were used to determine the structure for agriculture, forestry and fishing.
Forestry	Information from the Department of Water Affairs and Forestry. Estimates of growing forests and own-account production are based on a research project conducted by the University of Pretoria.
Fishing	Information provided by the Marine Development Branch of the Department of Environmental Affairs and technical periodicals.
Mining	Information obtained from the Chamber of Mines, periodic census results published by Stats SA, as well as collections of stores consumed by individual mines.
	Detailed information on stores consumed was used to estimate the cost structure of the mines in addition to detailed expenditure items collected through the 1996 Census of Mining. The information from the Minerals Bureau on the sales of minerals was used to verify the output of the mines as obtained from the census.
Manufacturing	Census of Manufacturing conducted by Stats SA for 2001. Information collected from the meat board/abattoirs.
	The 2001 Manufacturing Census was used to tabulate all structural information in the SU-tables. The value added estimates were evaluated against the 2001 Manufacturing Census results and adjusted. Information received on the number of carcasses sold to abattoirs was included. Changes were made to accommodate the import of petroleum products.

 $Table\ P-Statistical\ sources\ and\ methods\ (continued)$ 

Industry	Statistical sources and methods
Electricity and water	Annual statistics and financial statements obtained from ESKOM, the water boards and local authorities, as well as unpublished information from ESKOM.
	Historic input structures were updated from new data sources where possible.
Construction	Results from Stats SA's 1999 Census of Construction are included. Information on gross domestic fixed investment of residential and non-residential buildings compiled by the SARB.
	The own-construction of the general government was included in this industry, while the own-construction of all other industries is shown as ancillary production.
Wholesale, retail and motor trade	Periodic Censuses of Wholesale Trade, Commercial Agents and Allied Services; Retail Trade; and Motor Trade and Repair Services, conducted by Stats SA. The results of the abovementioned censuses for 1993 were incorporated.
	The 1993 census was used to tabulate all structural information in both the supply and use tables.
Hotels and restaurants	Periodic Censuses of Catering and Accommodation Services and Licensed Restaurants, conducted by Stats SA were used. The results of the 1995 Census of Accommodation Services and the 1992 Census of Restaurants were included.
	Historic input structures were updated from new data sources where possible.
Transport and communication	Financial reports and unpublished information of Transnet. Private transport benchmark estimates are obtained from Censuses of Transport and Allied Services conducted by Stats SA. Information from the government garage, local authorities and individual studies, e.g. the TRANSPORTEK study on the taxi industry and Stats SA household surveys.
	Information on the output of the industry, as well as its cost structures, was used to estimate the relevant components in the SU-tables framework.

 $Table\ P-Statistical\ sources\ and\ methods\ (continued)$ 

Industry	Statistical sources and methods
Financial intermediation and insurance	Annual and quarterly surveys conducted by the SARB among the various institutions in the private sector and information reported by public authorities and public corporations. Sample survey of large institutions in the banking and insurance industry.
	FSIM is calculated as a separate cost item for each industry in line with the recommendations of 1993 SNA. This approach differs from the previous national accounts and input-output table practice, which treated these services as a negative nominal sector.
Real estate (including imputed rent on residential	Censuses of Business Services and the 2001 Population Census.
buildings) and business services	Historic input structures were updated from new data sources where possible.
Other private services	Censuses of Social Services. Results from the 2003 general household survey.
	Historic input structures were updated from new data sources where possible.
General government services	Government Financial Statistics (GFS) and Basic Accounting System (BAS) data of Stats SA, information from SARB, and annual reports from Local Government Authorities.
	The intermediate consumption expenditure of the general government was derived through the classification of detailed expenditure by different government departments, provincial governments and local government authorities.
Private consumption expenditure	The survey on Income and Expenditure of Households (2000) of Stats SA; information from the Bureau of Market Research and SARB.
	Expenditure patterns of households are based on different data sources as well as historical trends.
Government consumption expenditure	Government Financial Statistics (GFS) and Basic Accounting System (BAS) data published by Stats SA, information from SARB.
	The final consumption expenditure of general government is divided according to expenditure on collective services and individual goods and services.

 $Table\ P-Statistical\ sources\ and\ methods\ (concluded)$ 

Industry	Statistical sources and methods
Gross fixed capital formation	Information contained in various economic censuses, estimates of fixed capital formation published by SARB, construction activities of the general government published by Stats SA, information on imported and exported capital goods.
	The gross fixed capital formation by type of product is estimated through the commodity flow approach. These results are evaluated against estimates obtained from various other models.
Changes in inventories	Information contained in various economic censuses, estimates of changes in inventories published by SARB.
	The changes in inventories for raw materials, work-in-progress and finished goods were estimated separately according to type of product for each industry. The valuation adjustments were not done with a price index for each product, but rather through a proportional adjustment across all industries of the total valuation adjustment received from SARB.
Imports	Detailed trade statistics from the Department of Customs and Excise and information from SARB.
	Detailed information on imports was reclassified from the Harmonised Commodity Classification System to the level of detail required in the SU-tables. The adjustment of c.i.f. and f.o.b. was based on information from both sources.
Exports	Detailed trade statistics from the Department of Customs and Excise and information from SARB.
	Detailed information on exports was reclassified from the Harmonised Commodity Classification System to the level of detail required in the SU-tables.
Taxes and subsidies on production and imports	Information contained in various economic censuses, Auditor-General reports, the South African National Budget, the Economic and Functional Classification of the Expenditure of General Government and the Department of Trade and Industry.
Trade and transport margins	Periodic Censuses of Wholesale Trade, Commercial Agents and Allied Services; Retail Trade; Motor Trade and Repair Services; and Transport and Allied Services published by Stats SA, as well as information obtained from Transnet
Direct purchases abroad (in domestic market) by (non-) residents	Unpublished information from SARB.

#### **Glossary**

#### **Ancillary activity**

An ancillary activity is a supporting activity undertaken to create the conditions within which the activities of an enterprise are carried out.

#### **Balancing item**

A balancing item is an accounting construct obtained by subtracting the total value of the entries on one side of an account from the total value of the entries on the other side. Balancing items are not simply devices introduced by the 1993 SNA to ensure that accounts balance. They encapsulate a great deal of information and include some of the most important entries in the accounts, for example value added and operating surplus.

#### **Basic price**

The basic price is the amount receivable by the producer from the purchaser for a unit of a good or service produced as output *minus* any tax payable *plus* any subsidy receivable on that unit as a consequence of its production or sale. Basic prices exclude any transport charges invoiced separately by the producer. Basic price is the preferred method of valuing output.

#### Benchmark years

Benchmark years refer to those years in respect of which authoritative and detailed data are available

#### Commodity flow method

The commodity flow method is used to track the flow of goods and services from the supply (domestic production or imported) to the use (intermediate consumption, final consumption or exports) thereof.

#### **Compensation of employees**

Compensation of employees is defined as the total remuneration, in cash or kind, payable by an employer to an employee in return for work done by the latter during the accounting period. It is recorded on a gross basis, i.e. before any deduction for income taxes, pensions, unemployment insurance and other social insurance schemes. It also includes other forms of compensation, namely commissions, tips, bonuses, directors' fees and allowances such as those for holidays and sick leave, as well as military pay and allowances. It excludes employers' social contributions.

# Cost, insurance and freight price

The cost, insurance and freight price (c.i.f.) is the price of a good delivered at the frontier of the importing country, or the price of a service delivered to a resident, before payment of any import duties or other taxes on imports or trade and transport margins within the country.

#### **Enterprise**

An enterprise may be a corporation (a quasi-corporate enterprise is treated as if it is a corporation in the 1993 SNA), a non-profit institution or an unincorporated enterprise. Corporate enterprises and non-profit institutions are complete institutional units. An unincorporated enterprise, however, refers to an institutional unit a household or government unit - only in its capacity as a producer of goods and services. It covers only those activities of the unit, which are directed towards the production of goods and services.

#### **Establishment**

An establishment is defined as an enterprise, or part of an enterprise, that is situated at a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added.

#### **Factor cost**

Factor cost is a valuation concept reflecting the cost of the factors of production (labour and capital). It corresponds to the value remaining after all applicable taxes and subsidies have been deducted from market prices.

#### Final demand

Different components of final demand are distinguished in the SUtables. The supply table shows imports and the use table shows final consumption expenditure by households and the general government as well as gross capital formation (gross fixed capital formation and changes in inventories) and exports.

## Financial services indirectly measured

Financial services indirectly measured (FSIM) are measured in the SNA as the total property income receivable by financial intermediaries minus their total interest payable, excluding the value of any property income receivable from the investment of their own funds. Therefore, income does not arise from financial intermediation.

#### Free on board price

The free on board price (f.o.b.) is the purchaser's price paid by an importer taking delivery of goods at the exporter's frontier after loading on to a carrier and after payment of any export taxes or the receipt of any tax rebates.

#### **GDP** at market prices

GDP at market prices equals total gross value added at basic prices *plus* taxes on products *minus* subsidies on products.

#### **GDP** for the economy

GDP for the entire economy is equal to GDP at market prices. It is essentially a production measure as it is obtained through the sum of the gross values added of all resident institutional units, in their capacity as producers, *plus* the values of any taxes, *less* subsidies, on production or imports not already included in the values of the outputs and values added by resident producers.

## Generation of income account

The generation of income account provides for the distribution of primary incomes to the various institutional sectors. Primary incomes are incomes that accrue to institutional sectors and industries as a consequence of their involvement in processes of production or ownership of assets that may be needed for purposes of production.

#### Goods and services account

The goods and services account shows the total resources (output and imports) and uses of goods and services (intermediate consumption, final consumption, gross capital formation and exports). Taxes on products (less subsidies) are also included on the resource side of the accounts.

Gross operating surplus/Mixed income

Gross operating surplus or mixed income is the balancing item in the generation of income account, i.e. the value added *minus* compensation of employees payable *minus* taxes on production payable *plus* subsidies receivable.

Gross value added at basic prices

Gross value added at basic prices is defined as output valued at basic prices less intermediate consumption valued at purchasers' prices.

Gross value added at producer's prices

Gross value added at producers' prices is defined as output valued at producers' prices less intermediate consumption valued at purchasers' prices.

**Homogeneous production** 

A unit of homogeneous production is defined as a producer unit in which only a single (non-ancillary) productive activity is carried out.

**Industries** 

Industries consist of groups of establishments engaged in the same or similar kinds of activity. The definition of industries are based on the 1993 SNA and is in line with that contained in the Standard Industrial Classification of all Economic Activities, Fifth Edition, Report No. 09-90-02 of January 1993 (SIC).

**Institutional unit** 

An institutional unit is an economic entity that is capable, in its own right, of owning assets, incurring liabilities and engaging in economic activities and in transactions with other entities.

**Intermediate consumption** 

Intermediate consumption consists of the value of the goods and services consumed as inputs by a process of production, excluding fixed assets. Consumption of fixed assets is recorded as consumption of fixed capital.

Other taxes on production

Other taxes on production consist of taxes on the ownership of land, buildings or other assets used in production or on labour employed, etc. Important examples of other taxes on production are taxes on payroll or work force, business or professional licenses.

**Output** 

Output consists of those goods or services that are produced within an establishment that become available for use outside the establishment, plus any goods and services produced for own final use.

**Primary industries** 

The primary industries include the agriculture, forestry and fishing, mining and quarrying industries.

#### **Principal activity**

The principal activity of an establishment is the activity whose gross value added exceeds that of any other activity carried out within the same unit.

#### Producers' price

The producer's price is the amount receivable by the producer from the purchaser for a unit of a good or service produced as output minus any VAT, or similar deductible tax, invoiced to the purchaser. It excludes any transport charges invoiced separately by the producer.

# Production account for the total economy

The production account is the first in the sequence of accounts compiled for institutional sectors, industries and the total economy. The production account contains three items apart from the balancing item namely output, intermediate consumption and taxes less subsidies on products. The output is recorded under resources on the right-hand side of the account. Intermediate consumption and taxes less subsidies on products is recorded under uses on the left-hand side of the account.

#### **Production boundary**

The general production boundary is defined as an economic activity (or production) carried out under the control and responsibility of an institutional unit that uses inputs of labour, capital, and goods and services to produce output of goods and services. The production boundary in the 1993 SNA is more restricted than the general production boundary due to the production accounts not being compiled for household activities that produce domestic or personal services for own final consumption within the same household, except for services produced by paid domestic staff.

#### Purchasers' price

The purchaser's price is the amount paid by the purchaser, excluding any deductible VAT or similar deductible tax, in order to take delivery of a unit of a good or service at the time and place required by the purchaser. The purchaser's price of a good includes any transport charges paid separately by the purchaser to take delivery at the required time and place.

#### **Secondary activity**

A secondary activity is an activity carried out within a single establishment in addition to the principal activity.

#### **Secondary industries**

The secondary industries include the manufacturing, electricity, gas, water and construction industries.

#### **Square**

A matrix is square when it has an equal number of columns and rows.

## Other subsidies on production

Subsidies are transfers from the government to the business sector toward current cost of production. These transfers represent additions to the income of producers from current production.

#### **Subsidies on products**

Subsidies on products are payable per unit of a good or service.

Supply and use tables

The SU-tables are sometimes referred to as rectangular inputoutput tables, make and use tables, supply and disposition of commodities tables.

Supply table

The supply table gives information about the resources of goods and services.

**Symmetric** 

Symmetric tables use similar classifications or units, i.e. same groups of products for both the rows and the columns.

**System of National Accounts** 

System of National Accounts refers to an internationally agreed standard system for macro-economic accounts. The latest version is described in the 1993 System of National Accounts (1993 SNA).

Taxes on income

Taxes on income consist of taxes on incomes, profits and capital gains. They are assessed on the actual or presumed incomes of individuals, households, non-profit institutions serving households (NPISH) or corporations. They include taxes assessed on holdings of property, land or real estate when these holdings are used as a basis for estimating the income of their owners.

Taxes on production and imports

Taxes on production and imports are taxes, which add to the cost of production and are likely to be reflected in market prices paid by the purchaser, such as sales and excise taxes, import duties and property taxes. Taxes on production and imports include taxes on products and other taxes on production.

Taxes on products

Taxes on products consist of taxes payable on goods and services when they are produced, delivered, sold or otherwise disposed of by their producers. Furthermore, they are payable per unit of a good or service produced. Important examples of taxes on products are excise and import duties and VAT.

**Tertiary industries** 

Tertiary industries include wholesale and retail trade and motor trade; catering and accommodation; transport and communication; finance, real estate and business services; community, social and personal services; general government services; and other producers.

Use Table

The use table gives information on the uses of goods and services, and also on cost structures of the industries.

Value added components

The use table distinguishes three different components of value added, i.e. compensation of employees, other taxes less subsidies on production and gross operating surplus/mixed income.

Value added by industry

Value added measures the value created by production and may be calculated either before or after deducting the consumption of fixed capital on the fixed assets used. Gross value added is defined as the value of output less the value of intermediate consumption. Value added is the balancing item in the production account for an institutional unit or sector, or establishment or industry.

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