

**GOVERNMENT OF TUVALU
Central Statistics Division
Ministry of Finance &
Economic Planning**

Tuvalu

National Accounts

Report on the Revision in November 2003

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I am also appreciative of the support of Mainaga Taupe, the acting head of Customs and Tax, in obtaining administrative data and of Patricia Vatafua who provided and explained the Government Accounts. Many government officials and private sector managers and accountant have also provided assistance and my thanks go out to them.

Rodney Lewington
22 January 2004

Introduction

This report describes the main facets of the revision of the Tuvalu National Accounts carried out in November/December 2003. This work up-dated the National Accounts last compiled in 1999. It provides estimates of GDP by industry and sector groups in current and constant prices for the years 1996 to 2002.

The revision was carried out under a PFTAC financed mission to have a National Accounts system in place that could be maintained by local staff.

History

The National Accounts for Tuvalu were last compiled by Rodney Lewington in 1999 for the years 1996 to 1998 under an OPVC contract funded by AusAid¹. These built on accounts prepared several years earlier by an IMF Technical Advisor. Previous estimates had been carried out by attached ex pats.

Subsequent to 1999 and ADB team is understood to have made estimates but the nature of these could not be ascertained in November 2003.

The 1999 worksheets and manuals remained on the Tuvalu Central Statistics Divisions (CSD) computers following the 1999 up dating. These were not up dated by the CSD as there was a complete turnover of staff in 2000 with a resultant loss of knowledge.

In March 2003 Phillip Turnbull reviewed the statistical system at the request of the Tuvalu Government Statistician and, *inter-alia*, recommended that PFTAC support a programme to update the National Accounts and provide sufficient training for CSD staff to provide the capacity to compile the National Accounts annually.

The November 2003 mission was the result of this recommendation.

Nature of this Revision

The November 2003 revision was based on the worksheets and manuals archived in Statistics New Zealand following the 1999 revision. The Excel worksheets from that revision were up-dated to allow entry to 2004 and to accept newly available information.

This new data included accounts deposited for taxation purpose since 1999, a full industry analysis of the employer contributions to the Tuvalu National Provident Fund, annual accounts of the central and local government and the results of the 2002 Population Census. Other accounts were obtained from some major producers.

The quantities of locally produced food consumed in the subsistence sector were reviewed at a seminar where the estimations method for subsistence value added was demonstrated. This, and consumption information derived from the 1994 Household Survey, lead to a downward revision of the per week production of subsistence crops and fish.

There was insufficient information to make estimates of capital formation in the private sector. Hence these were not completed although the worksheets have been set up to do this. Over the coming ten months – to September 2004, it is hoped that adequate numbers of private sector businesses' accounts will come available.

¹ Tuvalu National Accounts Report 1996 to 1998, Ministry of Finance and Development, Tuvalu, September 1999

Valuation - Factor Cost vs Market Value

Value added by all producers, including the government, sums to Gross Domestic Product. These can be valued in several ways. Two valuations are used in these estimates of Gross Domestic Product:

Factor cost
 This is the sum of compensation of employees (Approximately equivalent to salaries and wages)
 Consumption of fixed capital (Depreciation)
 Operating surplus (Profits before interest paid and received)

and

Market Value (purchasers cost). Which includes also
 Indirect taxes such as sales tax, VAT and import duty
 Less
 Subsidies.

The current and previous estimates provide value added by industry at factor cost and the total GDP at factor cost and at market value. The two valuations differ when indirect taxes and subsidies are important as is the case in several of the government owned market and pseudo market activity such, as the PWD.

Construction Industry

The Construction industry output of Government was fully revised resulting in a significant downward revision of value added at factor cost in this industry. The change also brought the implicit subsidy to the Public Works Department into the National Accounts.

Note that some large construction activity carried out by overseas contractors under aid projects is not included as economic activity in the Tuvalu economy. The finished product being regarded as an import by Tuvalu with some small values of exports where Tuvalu provides good or services to the contractor.

Training Provided

Seminars of between one and a half and three hours involved two (sometimes three) staff of the CSD, one from Planning Division and one from Finance Division. Much of the training was one to one at desk, explaining the process in worksheets and the concepts behind the practice.

The four seminars in the first week of the visit covered the extent of the Tuvalu economy, industry and sector classification, production accounts, and the place of the production account in the full 1993 SNA.

Emphasis was placed on the relationship between financial accounts and the National Accounts. This led to training in the analysis of commercial accounts to obtain National Account estimates from commercial accounts. The use of surrogate movers, such as Tuvalu National Provident Fund contributions, was demonstrated.

This training led on to the analysis of actual commercial and government accounts, initially under guidance.

A fifth seminar was held in the second week on the methods and options for making estimates of value added in the subsistence sector. This seminar finished with an agreed estimate of the weekly consumption per household of crops, toddy and fish and the unit values of these. The estimates form the basis of subsistence value added.

At desk training was continuous as the analysis of government and commercial accounts proceeded. This was extended to the worksheets as the estimates were built up and the process of review of the results.

Data Sources Used

The definitive data sources for the formal sector of the economy are the accounts of the government and of commercial undertakings. Where these were not available estimates of value added were based on the employer contribution to the Tuvalu National Provident Fund.

Subsistence value added and that from owner occupied dwellings uses estimates of consumption, and household and population counts.

These primary data sources were supplemented by information from a variety of sources. Local knowledge played an important part in the estimates and in the use of surrogates.

The following provided a brief description of the data sources and their application.

Accounts of Private Sector

Private sector accounts prepared for income tax purposes form the definitive source of information on the private sector market activity. The Tax Office records were the first port of call. In which case CSD staff extracted the relevant values from the accounts to get an estimate of value added, stock change and fixed capital formation.

Where files could not be found or were not up to date there were two possible approaches. For larger businesses attempts were made to obtain accounts directly from the business. For smaller firms and where larger firms' accounts could not be obtained the provident fund monthly deposits were used as a mover.

From a statistical view point the availability of information from the administrative records of the Tax Office are important. In the event many businesses files could not be found and many files were several years out of date. This made for rather more work than was initially expected.

From the tax collection perspective one would expect a more efficient collection and storage procedure.

As is usual with commercial accounts the recorded accounting items did not necessarily have direct concordance with the National Accounts transaction items. For example some accounts recorded expenditure as "Labour costs" which may well have included costs associated with recruiting and retaining labour that would fall outside "Compensation of employees". Best guess adjustments were made where applicable.

There is a investment incentive that allows deduction of the full value of an asset to be written off for tax purposes in the year of purchase. Where this could be identified adjustment was made to a more normal accounting depreciation to arrive at "Consumption of fixed assets".

Government Accounts

The Government accounts were available as a trial balance showing account code by divisions within Ministries. These were in electronic form. Account item classification is now almost ideal for National Accounts analysis following changes made subsequent to the 1999 National Accounts use of these.

The trial balance was analysed by sector, industry and NA transaction type using Excel. The few queries were referred back to the Treasury Accountant for clarification.

It is believed that the data provided covers all Central Government transactions including previously off budget (XB) and supplementary budget funding through donors (SBF). There is a minor concern that some aid funding provided directly to departments such as Health and Education may not be included.

Aid in kind is not recorded in the trial balance and had to be estimated from other sources.

National Provident Fund

The Tuvalu National Provident Fund receives contributions from employers on behalf of employees as a standard percentage of wages and salaries paid (Currently 10%) The monthly payments to the fund

provide a measure of wages and salaries paid. Information is available by individual employers classified by industry group.

There is some difficulty with timing. Often employers do not pay by the due date (even Government has delayed paying on time in the past). The delayed payments and “catch-ups” made it necessary to carry out some smoothing for individual business where the anomaly was obvious.

Population Census 2002

A Population Census was carried out in November 2002. This provided counts of residents, of households and household amenities, house ownership and tenancy. Some agriculture information such as the count of pigs, chickens and ducks was also made.

The population and housing estimates used in the 1999 revision, when carried forward to 2003, showed an overstatement. This was remedied by assuming a constant percentage deviation in each year between 1992 and 2002.

Other data sources

Merchandise trade was not used to great extent in the National Accounts. Its main purpose was a check on construction and transport activity using the relevant imports as indicators of activity.

Merchandise Trade data is considered to be reasonably accurate in recent years. Some enquireies on the extent to which aid funded imports were recorded as merchandise imports were not resolved during the visit.

A Household Survey was carried out in 1994. The available data in November 2003 was limited. Values per week by commodity groups were utilized as cross checks in the subsistence estimates. Without meta data and the ability to go deeper into the commodity analysis the data was of limited use.

Deflation

The value added estimates are produced in current prices and in prices of 1988.

Constant prices continue to be calculated in the same way as the 1998 revision.

For those industries where value added is calculated in current value terms the norm is to use the CPI or a relevant selection of CPI sub groups to deflate. The exception is with the government non market activities where an index of Government wage rates is used.

In the industries where the quantum of output is used to build up the value added this quantum is valued at a 1988 price to arrive at a constant price value added

Changes in Method

Besides the introduction of new data, described above, new methods were introduced in two areas. The construction activity of the government was re estimated entirely and this spilled over into Mining and Quarrying and changed the value of implicit subsidies.

Construction

Public construction

Estimates prepared in 1999 followed the previous methods in assuming that the construction moved with the inputs into the relevant division of the Public Works Department. Applying this method to recent years did not yield believable estimates.

The method now takes the directly measured value added of the relevant divisions of government and of private sector businesses classified to construction. The results track well with the imports of building material.

The change to the direct use of the Public Works Department accounts has identified the large implicit subsidy contributed by government to the construction industry.

Private Construction

The worksheet Private.xls takes information from company accounts on the value added of private enterprises in the construction industry.

For 1997 and 1998 these directly measured values have been used as a mover of the value added in 1996 as estimated in the old method.

Accounts for the period from 1998 to 2002 could not be obtained during the revision carried out in November 2003. There was also difficulty in establishing a register of construction businesses that operated in that period.

The most suitable data available was the provident fund contributions attributable to this industry. This was used to move the 1998 value added.

Deflation to get constant price value added of both public and private sector construction value added uses an index that combines elements of the CPI and a wage index based on Government wages. This is calculated in workbook CPI for NATIONAL ACCOUNTS\Construct_index.xls.

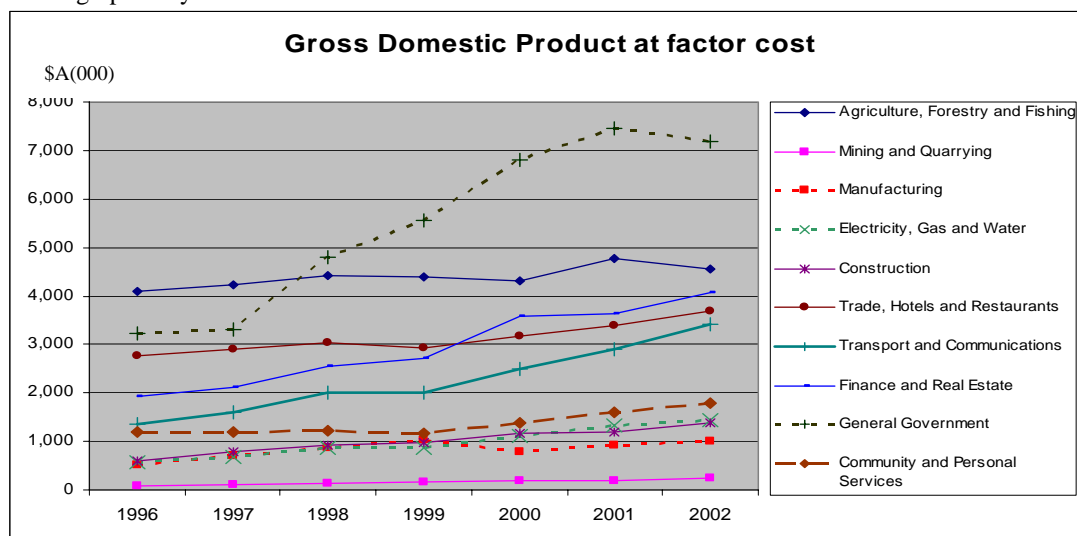
When time allows a review of the whole construction industry method is required.

The construction industry activity continues to be the mover for the mining and quarrying. As a consequence there has been a decrease in the previously estimated values added for both of these industries.

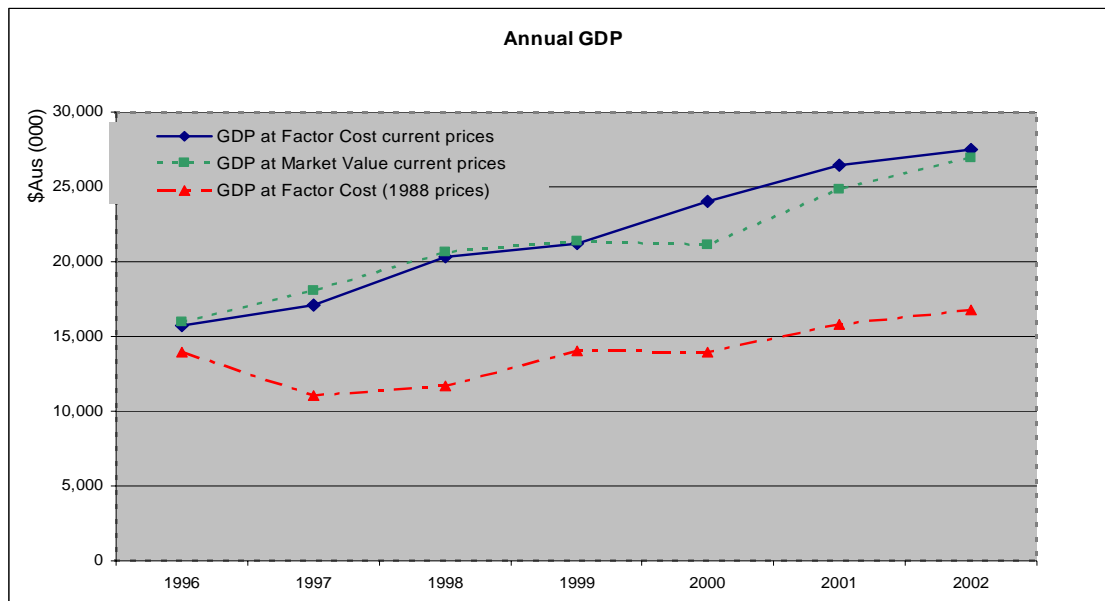
Results

The value added by industry and sector as estimated using the 2003 methods is shown in the tables in the appendices.

The most noticeable aspect is the extent that Government non market activity has driven the economy. This now far exceeds the value added by the primary industries of agriculture and fishing. This is best shown graphically.



The graph above is in current prices. The following graph compares current and constant price GDP.



The full tables are provided in the Appendix.

Differences from the Previous Estimates

The November 2003 work on the National Accounts introduced some new methods and utilised the data from several new sources besides replacing surrogate information used in the more recent years of the 1998 revision.

The differences are shown in the comparative table on pages 16 and 17. The significant differences are described below:

Agriculture subsistence output.

The estimates of subsistence production have been revised in the light of information from the 2002 Population Census. This census gave new benchmarks for the count of pigs, chicken and ducks besides population and households. The net result to agriculture of these changes is small although the impact differed between the individual products.

The Valuation of Toddy.

Crops' contribution to value added in both market and non market have increased as a result of a reappraisal of the unit value of Toddy. (Sap from coconut palm that can be drunk fresh or fermented) Previous National Account estimates had this at 5 cents a litre. A more appropriate price in 2003 is 65 cents a litre (50 cents for a 750cc sauce bottle.)

This has increased over the previous estimates, by twelve fold in the 1998 year, and the main reason for the revised value added in the Agriculture, forestry and fishing industry group

The Quantum of Pulaka

The 2003 estimation of 1998 uses the lower number of outer island households revealed by the 2002 Population Census. This reduced the estimated quantity used and hence produced in 1998 by some 31,000 kilos. The unit value used is the same in both revisions.

Sweet Potatoes

The use of the lower estimate of households reinforced by the smaller proportion of households cultivating sweet potatoes lowered the estimated quantity produced in the period 1996 to 1998. This was offset by an increase in the unit price used in the new estimates. The price per kilo has been moved by the price of ordinary potatoes as shown by the CPI. This has reflected the fluctuations in price in recent years.

Bananas

The value added in both subsistence and market production was moved downwards by the lower estimate of households and upwards by a revision of the unit value using the CPI movement from year to year.

Breadfruit

The rise in unit value in the new revision has made a slight increase in the value added by subsistence bread fruit production in the 1998 year.

Animal Husbandry

The estimate now made shows increase and decrease during the three year period from 1996 to 1998. This is a combination of the use of livestock counts from the 2002 Population Census and some small reappraisals of the value of pigs and chicken.

Subsistence Fishing

The value added in 1998 has changed by 1.3 percent with slightly larger changes in earlier years estimates. This is the result of a combination of changes brought about by a reappraisal of consumption per household on the Outer Islands following the households survey and discussions with local staff, the re-estimation of the number of households fishing by the 2002 Population Census, and linking the unit value of fish to the CPI price change.

Manufacturing

The lowering of the 1996 to 1998 estimate of value added from non traditional manufacturing is the result of more accounting information now being available for that period. The largest revision is for 1998 where the estimate, made in 1999, was based on accounts for two of the seven operating businesses in this industry. The others were estimated from partial National Provident Fund contributions and general knowledge of the level of activity.

The estimates now made for 2002 are similarly based on very few actual accounts although it is to be hoped that the National Provident Fund contributions are providing a better surrogate than was available in 1998 and 1999.

The estimates for the 1996 to 1998 local production of cigarettes and cottage industries are both a little lower than the earlier estimates. Local cigarette estimates are based on a three year moving average of the imports of cake tobacco and this has fallen subsequent to the estimates in 1999.

Cottage industries use the number of households as one parameter. The estimates of the number of households has fallen as a result of the 2002 Population Census.

Electricity

The estimates for this industry for 1996 to 1998 remain unchanged. There is some concern that no accounts have been available from the Tuvalu Solar Electricity Corporation since at least 1994. At that time it contributed almost 10 percent of the value added for the industry. The current National Account estimates make best guesses at the contribution in recent years.

Construction and Mining and Quarrying

The revised method used in the estimates is described above. In the 1998 year this lowered value added in construction from a previous estimate of \$ 2,950 thousand to \$ 930 thousand.

Trade, Hotel and Restaurants

Revisions to the 1996 to 1998 estimates are due entirely to the availability in 2003 of accounting records which now replace the estimates previously based on provident fund contributions and local knowledge. The revisions have been particularly marked for the government owned retail businesses and hotel.

A similar situation exists for the 2001 and 2002 years where final accounts are not yet available. This situation is further exacerbated by the irregularity of provident fund contributions to the fund by some government owned corporations.

Community and Personal Services

The market produced value added has changed a little with the revision with a slightly lower contribution from businesses counteracted by an increase in the coverage adjustment.

The non profit organisations show a slight increase in 1998 when compared with the previous estimate. The revised method relies in provident fund contributions and general knowledge.

Owner Occupied Dwellings

The 2002 Population Census provided a more reliable estimate of owner occupied housing, its structure and size composition. Compared with the extrapolated counts of owner occupied from the 1992 Census there are more owner occupied non-traditional houses, although this increase in numbers was slightly offset by a smaller size and hence lower rent than used in the 1998 National Accounts compilation

Next Steps

As discussed above the recent years estimates are based on a limited data. In particular the accounts for many of the medium and smaller sized businesses were not available and for some of the larger enterprises draft and partial accounts were used. Over the coming months it is the intention of the CSD to do the analysis of these missing accounts as they come available.

This data will replace the estimates based on movement in provident fund contributions.

Access to accounts will also provide sufficient information to make a reasonable estimate of capital formation.

It is proposed that there should be a visit to compile the Balance of Payments in September 2004. At that time the Government Accounts for 2003 will be available and CSD staff are expected to have started on the National Accounts estimates for the 2003 calendar year. It is anticipated that the technical advisor would be available during this visit to advise on the compilation.

Appendix - Tables

Table 1: Gross Domestic Product and some Allied Aggregates

Aggregate	1996	1997	1998	1999	2000	2001	2002
	At Current Prices						
GDP at factor cost (\$A000)	15,762.6	17,113.2	20,307.6	21,213.7	24,044.0	26,411.5	27,490.2
Indirect taxes (\$A000)	1,658.7	1,754.9	2,537.6	2,329.5	3,022.6	3,643.6	3,660.2
Subsidies (\$A000)	1,456.8	816.5	2,181.0	2,181.3	5,915.3	5,232.0	4,206.0
GDP at market prices (\$A000)	15,964.6	18,051.6	20,664.1	21,361.8	21,151.3	24,823.1	26,944.4
Household non-market GDP at factor cost (\$A000)	5,462.1	5,718.1	6,116.8	6,094.1	6,097.7	6,810.9	6,770.7
Percentage of household non-market GDP at factor cost (\$A000)	34.7	33.4	30.1	28.7	25.4	25.8	24.6
Population estimate *	8,953	9,474	9,684	10,002	9,997	9,817	9,573
Per capita GDP at factor cost (\$A)	1,760.5	1,806.3	2,097.1	2,120.9	2,405.2	2,690.4	2,871.5
Per capita GDP at market prices (\$A)	1,783.1	1,905.4	2,133.9	2,135.7	2,115.8	2,528.6	2,814.5
Gross fixed capital formation \$A(000)	10,791.5	9,239.0	11,353.6	na	na	na	na
	At 1988 Prices						
GDP at factor cost \$A(000)	11,086.3	11,709.3	14,020.0	13,945.5	15,808.5	16,745.5	16,946.9
Annual economic growth index (1988 = 100) and GDP = 9087.3)	122.0	128.9	154.3	153.5	174.0	184.3	186.5
Per capita GDP at factor cost (\$A)	1,238.2	1,235.9	1,447.8	1,394.2	1,581.4	1,705.8	1,770.2
Gross fixed capital formation (\$A000)	8,587.7	7,021.8	10,140.1	na	na	na	na

*Population (defacto) has been estimated using the 1991 and 2002 census adjusted for migration, births and deaths

Table 2: Gross Domestic Product at factor cost by Industry

Economic Activity	\$A(000)						
	1996	1997	1998	1999	2000	2001	2002
	At Current Prices						
1. Agriculture, Forestry and Fishing	4,097	4,222	4,421	4,394	4,322	4,772	4,565
2. Mining and Quarrying	82	110	132	149	194	199	237
3. Manufacturing	528	699	854	1,029	793	909	1,016
4. Electricity, Gas and Water	578	670	864	873	1,124	1,339	1,433
5. Construction	585	790	931	988	1,159	1,201	1,370
6. Trade, Hotels and Restaurants	2,754	2,906	3,043	2,939	3,166	3,383	3,700
7. Transport and Communications	1,361	1,598	2,002	2,007	2,499	2,890	3,429
8. Finance and Real Estate	1,915	2,123	2,544	2,712	3,586	3,629	4,055
9. General Government	3,235	3,315	4,806	5,565	6,800	7,466	7,188
10. Community and Personal Services	1,182	1,189	1,211	1,164	1,390	1,613	1,794
11. <i>less: Imputed bank service charges</i>	555	512	501	605	991	989	1,295
All Economic Activities	15,763	17,113	20,308	21,214	24,044	26,411	27,490
	At 1988 Prices						
1. Agriculture, Forestry and Fishing	2,499	2,500	2,457	2,429	2,380	2,317	2,099
2. Mining and Quarrying	73	97	106	120	149	148	161
3. Manufacturing	280	367	406	356	280	330	364
4. Electricity, Gas and Water	513	568	732	739	952	1,134	1,214
5. Construction	521	695	747	792	891	895	931
6. Trade, Hotels and Restaurants	2,147	2,230	2,340	2,205	2,329	2,460	2,629
7. Transport and Communications	1,060	1,234	1,502	1,459	1,741	1,909	2,253
8. Finance and Real Estate	845	949	1,221	1,268	1,793	1,756	1,924
9. General Government	2,652	2,543	3,963	4,160	5,006	5,354	5,035
10. Community and Personal Services	934	924	933	869	999	1,142	1,209
11. <i>less: Imputed bank service charges</i>	438	398	386	451	712	700	872
All Economic Activities	11,086	11,709	14,020	13,946	15,809	16,746	16,947

Table 3: Gross Domestic Product at factor cost by Kind of Economic Activity, Principal Components and Type of Production

Economic Activity	Current Prices,						(A\$'000)
	1996	1997	1998	1999	2000	2001	2002
	At current prices						
1. Agriculture, Forestry and Fishing	4,097.5	4,222.5	4,420.9	4,393.7	4,322.4	4,771.6	4,564.6
Market Production	469.8	551.0	585.7	638.9	639.2	639.2	698.8
1.1 Crop Husbandry	346.2	382.6	410.9	443.6	423.0	428.3	452.6
1.2 Animal Husbandry	96.5	105.4	118.5	131.1	143.1	154.7	165.6
1.3 Forestry	-	-	-	-	-	-	-
1.4 Fishing	27.1	63.0	56.3	64.2	73.1	56.3	80.6
Non-market Production	3,627.7	3,671.5	3,835.3	3,754.8	3,683.2	4,132.4	3,865.7
1.1 Crop Husbandry	1,332.0	1,403.4	1,473.0	1,364.0	1,270.1	1,251.4	1,232.3
1.2 Animal Husbandry	606.1	633.2	673.1	692.6	738.0	783.4	343.1
1.3 Forestry	208.7	211.8	222.8	184.1	169.1	160.3	150.9
1.4 Fishing	1,480.9	1,423.0	1,466.3	1,514.0	1,505.9	1,937.3	2,139.4
2. Mining and Quarrying	82.1	110.3	131.7	149.2	194.4	198.9	236.6
Market Production	66.4	89.7	104.9	122.9	169.7	172.6	210.3
2.1 Public Works	64.2	85.8	103.1	121.8	168.3	171.0	207.9
2.2 Private Activities	2.2	3.9	1.8	1.1	1.4	1.6	2.4
Non-market Production	15.8	20.5	26.7	26.3	24.7	26.3	26.3
2.1 Public Works	15.8	20.5	26.7	26.3	24.7	26.3	26.3
3. Manufacturing	527.5	699.1	854.3	1,028.6	793.2	908.7	1,015.6
Market Production	345.2	461.2	562.6	659.6	514.8	589.9	670.4
3.1 Manufacturing Concerns	28.3	59.1	77.8	58.3	48.4	61.9	102.1
3.2 Cottage Industries	105.8	107.9	110.2	111.3	112.5	113.7	115.0
3.3 Local Cigarettes	211.1	294.2	374.6	490.0	353.9	414.2	453.3
Non-market Production	182.3	237.9	291.7	368.9	278.4	318.8	345.2
3.2 Cottage Industries	41.6	41.8	42.0	42.2	42.5	42.7	42.9
3.3 Local Cigarettes	140.8	196.1	249.7	326.7	235.9	276.1	302.2
4. Electricity, Gas and Water	577.9	670.1	864.3	873.0	1,124.4	1,338.7	1,432.8
Market Production	577.9	670.1	864.3	873.0	1,124.4	1,338.7	1,432.8
5. Construction	584.7	790.2	931.5	987.5	1,159.3	1,201.3	1,369.9
Market Production	308.0	429.9	462.2	526.4	725.1	740.2	908.8
5.1 Public Construction	266.4	356.2	428.1	505.9	698.7	709.9	863.1
5.3 Private Enterprises	41.6	73.7	34.1	20.5	26.4	30.3	45.7
Non-market Production	276.7	360.3	469.2	461.1	434.2	461.1	461.1
5.2 Own Account Construction	276.7	360.3	469.2	461.1	434.2	461.1	461.1
6. Trade, Hotels and Restaurants	2,754.1	2,906.4	3,043.4	2,938.7	3,166.5	3,383.0	3,699.5
Market Production	2,754.1	2,906.4	3,043.4	2,938.7	3,166.5	3,383.0	3,699.5
7. Transport and Communications	1,361.4	1,598.4	2,001.7	2,006.8	2,498.9	2,890.1	3,428.7
Market Production	1,361.4	1,598.4	2,001.7	2,006.8	2,498.9	2,890.1	3,428.7

	(A\$'000)						
Economic Activity	1996	1997	1998	1999	2000	2001	2002
8. Finance and Real Estate	1,915.0	2,123.4	2,544.2	2,712.4	3,585.6	3,629.1	4,055.0
Market Production	996.6	1,141.8	1,499.4	1,604.4	2,391.5	2,370.6	2,732.0
8.1 Finance	983.4	1,127.3	1,483.5	1,587.0	2,372.3	2,349.7	2,709.4
8.2 Real Estate	13.2	14.5	15.9	17.4	19.3	20.9	22.6
Non-market Production	918.4	981.6	1,044.8	1,108.0	1,194.1	1,258.5	1,322.9
8.2 Real Estate	918.4	981.6	1,044.8	1,108.0	1,194.1	1,258.5	1,322.9
9. General Government	3,235.3	3,315.1	4,805.7	5,564.6	6,800.5	7,466.3	7,187.9
Non-market Production	3,235.3	3,315.1	4,805.7	5,564.6	6,800.5	7,466.3	7,187.9
10. Community and Personal Services	1,182.4	1,189.3	1,210.9	1,163.8	1,390.4	1,613.2	1,794.3
Market Production	741.2	743.0	761.9	788.8	907.2	999.4	1,044.7
Non-market Production	441.2	446.2	449.1	375.0	483.2	613.8	749.6
11. less: Imputed bank service charges	555.2	511.6	501.0	604.6	991.4	989.3	1,294.6
All Economic Activities	15,762.6	17,113.2	20,307.6	21,213.7	24,044.0	26,411.5	27,490.2
Market Production	7,065.3	8,080.0	9,385.0	9,554.9	11,145.8	12,134.3	13,531.6
Non-market Production	8,697.3	9,033.2	10,922.6	11,658.8	12,898.2	14,277.2	13,958.6
- Household	5,462.1	5,718.1	6,116.8	6,094.1	6,097.7	6,810.9	6,770.7
- General Government	3,235.3	3,315.1	4,805.7	5,564.6	6,800.5	7,466.3	7,187.9

Table 4: Gross Domestic Product at factor cost, by Kind of Economic Activity, Principal Components and Type of Production

Economic Activity	Constant (1988) Prices						(A\$'000)
	1996	1997	1998	1999	2000	2001	2002
1. Agriculture, Forestry and Fishing	2,498.6	2,499.6	2,456.5	2,428.7	2,380.3	2,316.9	2,098.9
Market Production	225.6	242.5	237.4	240.2	244.7	228.3	235.0
1.1 Crop Husbandry	125.7	126.4	127.1	127.8	128.5	129.2	129.9
1.2 Animal Husbandry	83.6	78.3	77.0	75.7	74.4	73.1	71.8
1.3 Forestry	-	-	-	-	-	-	-
1.4 Fishing	16.3	37.8	33.3	36.7	41.8	26.0	33.3
Non-market Production	2,273.0	2,257.1	2,219.2	2,188.5	2,135.6	2,088.6	1,863.9
1.1 Crop Husbandry	681.5	682.1	657.8	636.0	594.9	558.8	546.0
1.2 Animal Husbandry	416.5	391.1	381.8	372.5	363.2	353.8	141.5
1.3 Forestry	116.0	118.2	109.6	105.1	97.6	92.9	87.9
1.4 Fishing	1,059.0	1,065.8	1,069.9	1,074.9	1,080.0	1,083.1	1,088.5
2. Mining and Quarrying	73.2	97.0	105.6	119.7	149.4	148.2	160.8
Market Production	59.2	79.0	84.2	98.6	130.4	128.6	143.0
2.1 Public Works	57.2	75.5	82.7	97.7	129.3	127.4	141.3
2.2 Private Activities	2.0	3.5	1.5	0.9	1.1	1.2	1.7
Non-market Production	14.1	18.1	21.4	21.1	19.0	19.6	17.9
2.1 Public Works	14.1	18.1	21.4	21.1	19.0	19.6	17.9
3. Manufacturing	280.5	367.0	406.2	355.6	280.4	329.7	364.2
Market Production	189.8	251.5	281.5	244.1	194.3	229.4	259.3
3.1 Manufacturing Concerns	22.3	45.9	59.9	43.5	34.8	43.8	68.8
3.2 Cottage Industries	76.3	77.2	80.7	77.3	69.9	80.3	75.3
3.3 Local Cigarettes	91.2	128.4	140.9	123.3	89.6	105.2	115.2
Non-market Production	90.7	115.5	124.7	111.5	86.1	100.3	104.9
3.2 Cottage Industries	30.0	29.9	30.8	29.3	26.4	30.2	28.1
3.3 Local Cigarettes	60.8	85.6	93.9	82.2	59.7	70.1	76.8
4. Electricity, Gas and Water	512.9	567.6	732.1	739.4	952.4	1,133.9	1,213.7
Market Production	512.9	567.6	732.1	739.4	952.4	1,133.9	1,213.7
5. Construction	521.3	695.3	747.2	792.2	890.9	895.3	931.1
Market Production	274.6	378.3	370.8	422.3	557.2	551.6	617.7
5.1 Public Construction	237.5	313.4	343.4	405.8	536.9	529.0	586.6
5.3 Private Enterprises	37.1	64.9	27.4	16.5	20.3	22.6	31.1
Non-market Production	246.7	317.0	376.4	369.9	333.7	343.7	313.4
5.2 Own Account Construction	246.7	317.0	376.4	369.9	333.7	343.7	313.4
6. Trade, Hotels and Restaurants	2,147.2	2,230.2	2,339.8	2,205.4	2,328.6	2,460.4	2,629.1
Market Production	2,147.2	2,230.2	2,339.8	2,205.4	2,328.6	2,460.4	2,629.1
7. Transport and Communications	1,060.1	1,233.9	1,501.6	1,458.9	1,741.0	1,909.1	2,253.2
Market Production	1,060.1	1,233.9	1,501.6	1,458.9	1,741.0	1,909.1	2,253.2

Economic Activity	(A\$'000)						
	1996	1997	1998	1999	2000	2001	2002
8. Finance and Real Estate	844.9	949.2	1,221.3	1,268.1	1,792.7	1,756.3	1,924.0
Market Production	786.4	886.8	1,155.0	1,198.0	1,718.7	1,678.5	1,842.4
8.1 Finance	776.4	875.8	1,143.0	1,185.0	1,704.5	1,663.1	1,825.7
8.2 Real Estate	9.9	10.9	12.0	13.1	14.2	15.4	16.6
Non-market Production	58.5	62.4	66.2	70.1	74.0	77.8	81.7
8.2 Real Estate	58.5	62.4	66.2	70.1	74.0	77.8	81.7
9. General Government	2,652.4	2,542.9	3,962.8	4,160.0	5,006.1	5,354.2	5,035.2
Non-market Production	2,652.4	2,542.9	3,962.8	4,160.0	5,006.1	5,354.2	5,035.2
10. Community and Personal Services	933.5	924.0	933.0	868.9	999.0	1,141.8	1,209.0
Market Production	585.2	577.3	587.0	588.9	651.9	707.4	704.0
Non-market Production	348.4	346.7	346.0	280.0	347.2	434.4	505.1
11. less: Imputed bank service charges	438.4	397.5	386.1	451.4	712.3	700.2	872.3
All Economic Activities	11,086.3	11,709.3	14,020.0	13,945.5	15,808.5	16,745.5	16,946.9

Comparison between the estimates of 1999 and those made in 2003

		VALUE ADDED AT FACTOR COST						SA(000)		
		Estimate in 2003 Revision			ESTIMATE in 1998 Revision			Difference between 1998 and 2003		
		1996	1997	1998	1996	1997	1998	1996	1997	1998
1.	Agriculture, Forestry and Fishing	4,097	4,222	4,421	3,088	3,352	3,484	1,010	870	937
	Market Production	470	551	586	162	201	206	308	350	380
	1.1 Crop Husbandry	346	383	411	40	44	45	306	339	366
	1.2 Animal Husbandry	96	105	118	95	95	95	2	11	24
	1.3 Forestry	0	0	0	0	0	0	0	0	0
	1.4 Fishing	27	63	56	27	63	66	0	0	-10
	Non-market Production	3,628	3,672	3,835	2,926	3,151	3,279	702	520	557
	1.1 Crop Husbandry	1,332	1,403	1,473	883	943	998	449	461	475
	1.2 Animal Husbandry	606	633	673	639	639	639	-33	-6	34
	1.3 Forestry	209	212	223	211	214	215	-2	-2	8
	1.4 Fishing	1,481	1,423	1,466	1,193	1,356	1,426	288	67	40
2.	Mining and Quarrying	82	110	132	447	467	638	-365	-357	-507
	Market Production	66	90	105	433	451	618	-367	-361	-513
	2.1 Public Works	64	86	103	431	447	616	-367	-361	-513
	2.2 Private Activities	2	4	2	2	4	2	0	0	0
	Non-market Production	16	21	27	14	16	21	2	5	6
	2.2 Private Activities	16	21	27	14	16	21	2	5	6
3.	Manufacturing	528	699	854	534	711	881	-6	-11	-27
	Market Production	345	461	563	353	470	584	-8	-8	-22
	3.1 Manufacturing Concerns	28	59	78	37	65	96	-8	-6	-18
	3.2 Cottage Industries	106	108	110	106	108	110	0	0	0
	3.3 Local Cigarettes	211	294	375	210	296	378	1	-2	-4
	Non-market Production	182	238	292	181	241	297	1	-3	-5
	3.2 Cottage Industries	42	42	42	41	43	44	1	-2	-2
	3.3 Local Cigarettes	141	196	250	140	198	252	0	-2	-2
4.	Electricity, Gas and Water	578	670	864	578	532	574	0	138	290
	Market Production	578	670	864	578	532	574	0	138	290
5.	Construction	585	790	931	2,076	2,207	2,952	-1,492	-1,416	-2,020
	Market Production	308	430	462	1,832	1,930	2,591	-1,524	-1,500	-2,129
	5.1 Public Construction	266	356	428	1,791	1,856	2,557	-1,524	-1,500	-2,129
	5.3 Private Enterprises	42	74	34	42	74	34	0	0	0
	Non-market Production	277	360	469	244	277	360	32	84	109
	5.2 Own Account Construction	277	360	469	244	277	360	32	84	109
6.	Trade, Hotels and Restaurants	2,754	2,906	3,043	2,858	2,625	2,972	-103	281	72
	Market Production	2,754	2,906	3,043	2,858	2,625	2,972	-103	281	72
	6.1 Public enterprise	1,731	1,946	1,961	1,745	1,675	1,887	-15	271	73
	6.2 Private enterprises	1,024	960	1,083	1,112	950	1,084	-89	10	-1

	Estimate in 2003 Revision			ESTIMATE in 1998 Revision			Difference between 1998 and 2003		
	1996	1997	1998	1996	1997	1998	1996	1997	1998
7. Transport and Communications	1,361	1,598	2,002	1,274	1,620	1,380	87	-22	622
Market Production	1,361	1,598	2,002	1,274	1,620	1,380	87	-22	622
7.1 Public enterprise	1,304	1,587	1,965	1,216	1,587	1,345	88	0	620
7.2 Private enterprises	58	11	36	59	33	35	-1	-22	2
8. Finance and Real Estate	1,915	2,123	2,544	1,731	1,936	2,330	184	187	214
Market Production	997	1,142	1,499	995	1,143	1,500	2	-2	-1
8.1 Finance	983	1,127	1,483	983	1,127	1,483	0	0	0
8.2 Real Estate	13	15	16	11	16	17	2	-2	-1
Non-market Production	918	982	1,045	736	793	830	182	189	215
8.2 Real Estate (Owner occupied dwelling)	918	982	1,045	736	793	830	182	189	215
9. General Government	3,235	3,315	4,806	3,248	3,315	4,806	-13	0	0
Non-market Production	3,235	3,315	4,806	3,248	3,315	4,806	-13	0	0
10. Community and Personal Services	1,182	1,189	1,211	1,167	1,189	1,207	15	1	4
Market Production	741	743	762	738	755	771	3	-12	-9
Non-market Production	441	446	449	429	434	437	12	12	12
11. less: Imputed bank service charges	555	512	501	555	512	501	0	0	0
All Economic Activities GDP at Factor cost	15,763	17,113	20,308	16,446	17,442	20,724	-683	-329	-416
Market Production	7,065	8,080	9,385	8,667	9,216	10,695	-1,602	-1,136	-1,310
Non-market Production	8,697	9,033	10,923	7,778	8,227	10,028	919	807	894
- Household	5,462	5,718	6,117	4,530	4,911	5,223	932	807	894
- General Government	3,235	3,315	4,806	3,248	3,315	4,806	-13	0	0
	15,763	17,113	20,308	16,446	17,442	20,724	-683	-329	-416
\$('000)									
plus indirect taxes	1,659	1,755	2,538	1,659	1,755	2,538	0	0	0
less subsidies	1,457	816	2,181	1,106	528	1,262	350	289	919
All Economic Activities GDP at market value	15,965	18,052	20,664	16,998	18,670	21,999	-1,033	-618	-1,335