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## Institutional Sector Accounts: 1999–2008

### Highlights

This is the first release of official institutional sector accounts (ISA) for the years ended March 1999 to 2008 for all sectors. The ISA analyse income, saving, and other transactions by economic sector. For the years ended March 1999–2008:

- National saving rose to a peak of \$7.9 billion in 2004, and then decreased to \$4.1 billion by 2008.
- Dissaving by the household sector increased from 3.2 percent of household net disposable income in 1999 to 8.9 percent in 2007, then shrank to 4.0 percent in 2008.
- Central government sector saving increased from 5.8 percent of net disposable income in 1999 to 26.1 percent in 2008.
- Interest received in the finance sector almost tripled, from \$13.7 billion in 1999 to \$39.5 billion in 2008.

Accounts for the general government and household sectors contained in this release are published up to and including the year ended March 2010. For the year ended March 2010:

- National saving decreased to \$7.0 million in 2009 but rose to \$3.2 billion in 2010.
- Dissaving by households increased again to 4.5 percent of household net disposable income in 2009 then shrank to 2.2 percent in 2010.
- Central government sector saving decreased from 12.6 percent of net disposable income in 2009 to -3.9 percent in 2010.

### Saving as a proportion of household net disposable income 1999–2010



Source: Statistics New Zealand

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## Commentary

All dollar figures in this release are in current prices unless otherwise stated.

Users are reminded that all data for 2008 are provisional. The household and government sector data, which are available up to 2010, are provisional from 2008–10. All of these are therefore subject to revision with the national accounts balancing processes.

## Introduction

This release of the New Zealand institutional sector accounts covers the years ended March 1999 to 2008. The accounts for the household and general government sectors are included up to 2010, with new data and methods introduced. The release incorporates the most recent national accounts and balance of payments statistics as at November 2010.

*Institutional Sector Accounts: 1999–2008* is the first official publication of institutional sector accounts and is a further step toward a full set of integrated national accounts. Institutional sector accounts break down the national accounts into mutually exclusive economic sectors identified in the *System of National Accounts 1993* (1993 SNA).

Classifying economic agents by sector brings together similar types of decision makers and provides information that is useful in studying the source and disposal of incomes, the origin of saving, the direction and method of transfer of saving from one sector to another, and the areas of the economy in which available funds are spent. A full set of accounts for each sector make it possible to fully reconcile a number of key inter-sectoral income and transfer flows (such as interest, dividends, and donations) and enable saving to be analysed by sector.

The six sectors are:

- non-financial corporations (sector 1)
- financial corporations (sector 2)
- general government (sector 3)
- private non-profit organisations serving households (sector 4)
- households (sector 5)
- rest of the world (sector 6).

Historical events from 1999 to 2008 that may be reflected in the sector accounts include: changes to the tax system, interest rate changes, the property boom, and business cycles. In the case of the household and government accounts to 2010, the impact of the global financial crisis is also reflected.

The next institutional sector accounts release is expected to be incorporated within the November 2011 annual national accounts release.

## Overview of institutional sector accounts 1999–2008

National saving (for the whole economy) is published as part of the annual national accounts. Conceptually, national saving is the sum of each sector's saving, determined from the income and outlay accounts of each sector. National saving went up between 1999 and 2004, with dips in 2000 and 2003. National saving declined from 2004 with an upturn in 2008.

With the exception of the 2000 year, households dissaved throughout the period 1999–2008,

meaning they had negative saving. Expressed as a percentage of household net disposable income (saving plus final consumption expenditure), household dissaving grew from 3.2 percent in 1999 to a peak of 9.5 percent in 2003. It remained between 6.0 and 9.0 percent before shrinking to 4.0 percent in 2008. In contrast, saving by the central government sector increased over the same period, from 5.8 percent of central government net disposable income in 1999 to 26.1 percent in 2008.

Increases in borrowing, interest paid, and investment in housing by households and the private unincorporated producers sectors (sole traders, partnerships) suggest that New Zealand increased its international indebtedness through offshore borrowing to finance housing, among other things. New Zealand's net borrowing (negative net lending) from the rest of the world increased from 4.6 percent of gross disposable national income in 1999 to 8.9 percent in 2008. Payments of investment income to the rest of the world (which includes interest paid), more than doubled over the same period, from \$9.5 billion to \$20.4 billion.

**Net lending as a proportion of gross national disposable income, total economy**  
1999–2008

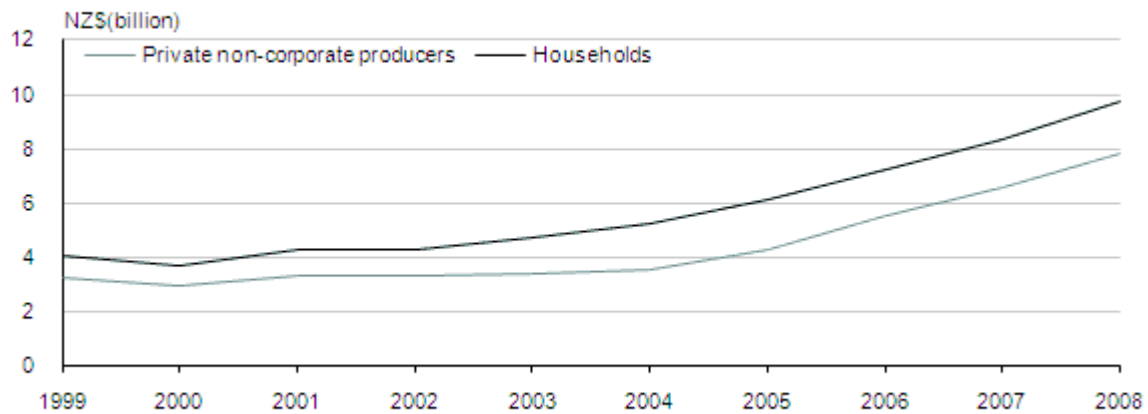


Source: Statistics New Zealand

The domestic sectors with the largest net borrowing in 2007 were households and private unincorporated producers, at \$14.1 billion and \$3.9 billion, respectively. The combined net borrowing of these sectors in 2008 being only slightly less, at \$16.3 billion. In the year ended March 2008, together these two sectors spent \$15.4 billion on fixed assets, an amount close to the \$16.9 billion spent by businesses in the corporate producers sector. Evidence suggests that increased gross fixed capital formation by households and by household-landlords in the private unincorporated producers sectors is mostly in the form of residential buildings.

With the financial sector introducing new products such as revolving credit arrangements and reverse mortgages, interest paid by both the household and private unincorporated producer sectors increased, most noticeably from 2005–08. For the unincorporated producer sector, interest paid increased by 81 percent from 2005–08, whereas value added increased by only 17 percent. Mortgage interest paid in the household sector increased by 72 percent, while final consumption expenditure over this period increased by only 19 percent.

### Interest paid by private non-corporate producers and households 1999–2008



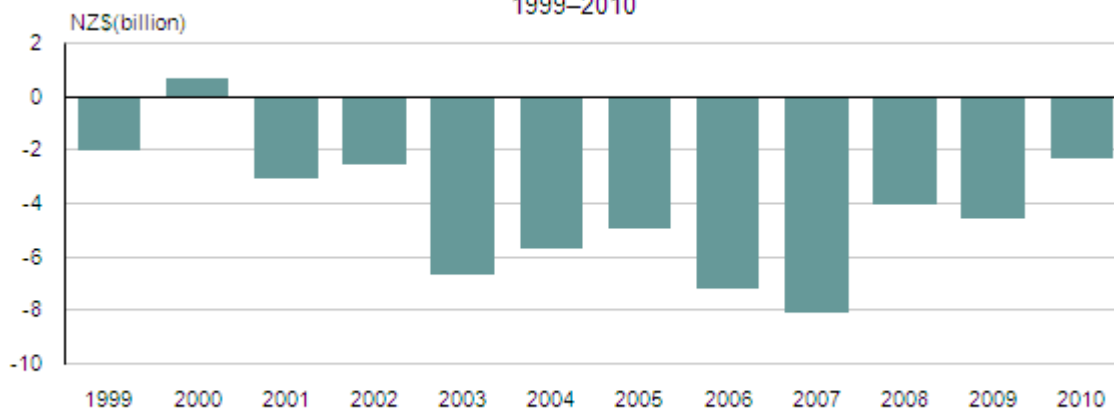
Source: Statistics New Zealand

### Household sector 1999–2010

Outside of spending on housing, final consumption as a proportion of household income has remained fairly constant. Over the full period 1999–2008, compensation of employees (wages and salaries as a main source of household income) increased 1.8 times and final consumption expenditure by households increased 1.6 times.

Household saving as a percentage of household net disposable income improved from -8.9 percent in 2007 to -4.0 percent in 2008. This improvement was mainly the result of an increase in primary income received by households, most noticeably compensation of employees and entrepreneurial income from farming. Dissaving increased to 4.5 percent in 2009, and lessened to 2.2 percent in 2010, as actual dissaving fell from \$4.5 billion to \$2.4 billion. The improvement in 2010 was primarily the result of a significant reduction in income tax paid, down from \$29.0 billion in 2009 to \$25.1 billion, consistent with decreases in personal tax rates effective 1 October 2008. The income tax decline is also due to a fall in resident withholding tax payments.

### Level of household saving 1999–2010



Source: Statistics New Zealand

## Producer enterprises sector

The producer enterprises sector (businesses, including private unincorporated producers such as landlords) consistently increased value added throughout the period 1999–2008. However, saving was negative in 2000 and again in 2007 and 2008. With increasing investment in fixed assets, the sector has been a net borrower in all years except 1999, 2002, and 2003.

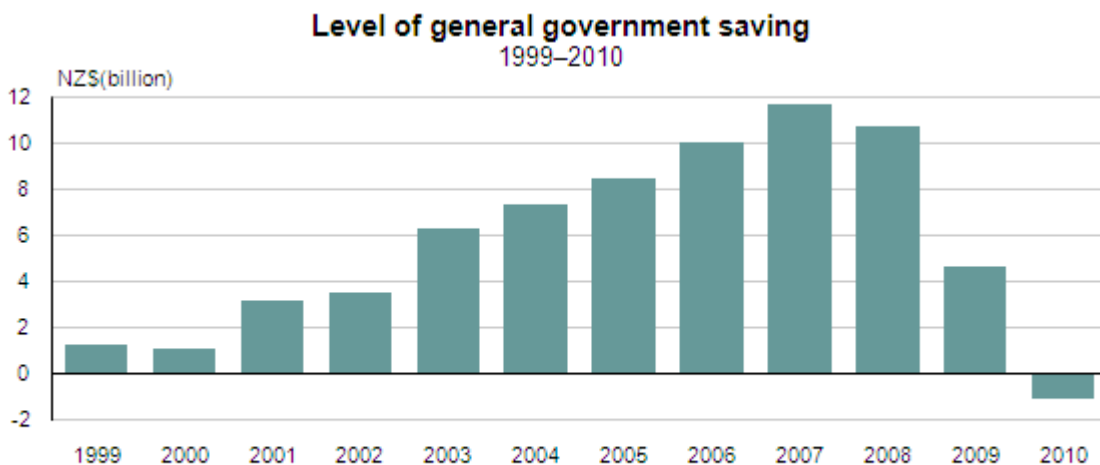
## Financial intermediaries sector

The financial sector income grew substantially throughout the period 1999–2008. In line with the increase in interest paid by households and unincorporated producers, interest received in the finance sector increased from 1999 to 2008, from \$13.7 billion to \$39.5 billion. During this period, the Reserve Bank’s official cash rate climbed from 5.0 percent in 2003 to 8.25 percent in 2007.

## Government sector 1999–2010

In contrast to the dissaving by the household sector, the central government sector steadily increased its level of saving from below \$1.0 billion in 2000 to over \$10.0 billion in 2008. A principal driver has been a 95.7 percent increase in income tax received from 2000 to 2008, combined with social security and assistance benefits paid increasing by only 38.7 percent. Over the same period, the unemployment rate declined from 7.7 percent for the year ended March 1999 to 3.7 percent for the year ended March 2008.

Saving for the central government sector fell from \$10.7 billion in 2008 to \$4.8 billion in 2009, and was negative, -\$1.3 billion, in 2010. Principally, the fall in saving resulted from decreased income tax received, down \$1.0 billion in 2009 and \$5.2 billion in 2010. The drop in income, as noted above, resulted from decreases in personal tax rates effective 1 October 2008. The decline in income tax is also due to a fall in resident withholding tax receipts. In addition, social assistance benefits paid have increased by \$3.1 billion from 2008 to 2010, consistent with the rise in the unemployment rate from a 21-year low of 3.7 percent for the year ended March 2008 to a rate of 6.4 percent for the year ended March 2010.



Source: Statistics New Zealand

## Understanding institutional sector accounts

Institutional sector accounts are an important analytical tool for reconciling inter-sector economic flows within the fully-consistent framework of the New Zealand System of National Accounts (NZSNA), and therefore with the annual national accounts (see the latest release, National Accounts: Year ended March 2010) . They bring together transactors who play similar roles in the economy and who can be expected to have similar reactions to market, fiscal, and monetary policy stimuli. The classification divides the transactors in the economy into five mutually exclusive sectors:

- non-financial corporations (sector 1)
- financial corporations (sector 2)
- general government (sector 3)
- private non-profit organisations serving households (sector 4)
- households (sector 5).

In addition there is also a sector for the rest of the world (sector 6), for transactions between New Zealand resident units and non-residents.

In a fully-developed national accounting system, data is presented in the form of a set of self-balancing and inter-related accounts. For each enterprise, sector, or the economy as a whole, it is possible to compile a full set of accounts including:

- A production account recording the current value of goods and services produced and the costs associated with the production. Value added is the sum of all production (output) less the consumption of intermediate goods and services in the production process. The production of all resident institutional sectors sums to national production, or gross domestic product, reported in table 1.1 of the National Accounts: Year ended March 2010.
- An income and outlay account recording income received from the various factors of production and how this income is either redistributed or used for final consumption expenditure across a variety of sectors. The balancing item is saving, which is a major source of finance for investment in assets or reducing financial liabilities. The income across all resident institutional sectors sum to national disposable income reported in table 1.2 of the National Accounts: Year ended March 2010, while the outlays across all resident institutional sectors sum to national use of disposable income reported in table 1.2.
- A capital account recording net capital transfers, consumption of fixed capital (depreciation), and net purchases of non-financial assets, inventories, and fixed assets. It also shows whether capital expenditure is financed from saving generated within the current period or from borrowing. The balancing item is net lending. Capital transactions across all institutional sectors sum to the totals reported in table 1.3 of the National Accounts: Year ended March 2010.
- A financial account recording changes in financial assets and liabilities that underlie the current and capital transactions in the first three accounts.
- A reconciliation account showing changes in the values of assets and liabilities arising out of price changes and other revaluations.

Within any given sector, the first three accounts share variables. The production account is linked to the income and outlay account through value added, which represents the income available to distribute. The income and outlay account is linked to the capital account through saving, which is the total amount available to invest or retain for future use. The capital account is linked to the production account through consumption of fixed capital in the production process.

Financial and reconciliation accounts and balance sheets are not published as part of the New Zealand national accounts. Therefore, in line with the New Zealand national accounts, this release presents sectoral breakdowns of the first three accounts listed above. That is, for each institutional sector or subsector, a production account, an income and outlay account, and a capital account are published (see the main tables in the 'Tables' section of this release). New Zealand's transactions with the rest of the world for each of these accounts are then brought together in a sixth sector account (see table 12 from the main tables published with this release).

## **Special features of New Zealand data and methods**

There are a number of features of New Zealand's business, tax, and historical context that users should be aware of when viewing these accounts.

### **Relationship between unincorporated businesses and households**

The relationship between households and business, especially small, owner-operated businesses, may be blurred in many ways: household owners of businesses may hold property through years of losses in expectation of capital gains upon sale; business debts may be held within the household sector rather than the business sector; and some final consumption of households operating farms may be reported as expenses of the business (farm).

Statistics NZ classifies unincorporated enterprises to the producer (business) sector and only the net entrepreneurial income from the business is included as a profit transfer in the household account – in effect, no retained earnings (saving) of unincorporated businesses are included in the producer sector. The total net earnings are recorded as being transferred to the household owners, where they become mixed with other sources of household income before income tax assessment. While every effort is made to ensure that business-related expenses are excluded from household consumption expenditure, any that are not will lead to an overstatement in household outlays.

Since household owners are deemed to withdraw all of net current income from unincorporated businesses, any actual retained earnings of these businesses has to be shown as a capital contribution from householders. Consequently, household saving is also a source of finance for capital accumulation in the unincorporated producers sector. Net lending for the household sector therefore reflects the requirement to lend to the unincorporated businesses they own.

The exception to this occurs where households with rental property businesses hold property through years of losses in expectation of capital gains upon sale, and is the reason why negative saving is recorded in the unincorporated producers sector.

### **Trust income**

In recent years, family trusts have become an increasingly popular means of holding productive real and financial assets. In the national accounts, family trusts, as the owners of 'household' assets, are classified to the household sector and income earned by the trusts is included in household income. However, the different forms of asset ownership possible are quite complex, as are the ways in which the relevant trust flows might be captured in the source data used to compile the accounts. Trust income (especially beneficiary income) is recorded in household income. In principle, some of it may be recorded in the producer sector. Inland Revenue statistics suggest that this component of trustee income has increased significantly in recent years.

## **Retained earnings**

Under New Zealand law, qualifying companies (by treating the company and its shareholders as one entity as much as possible for income tax purposes) allow a number of tax benefits. Analysis suggests that after changes to the top personal income tax rate in 2000, an increasing proportion of earnings were retained within these companies rather than paid out to the working proprietors as entrepreneurial withdrawals. This is reflected in the institutional sector accounts, where the retained earnings of corporations are not reported as household income. To the extent that the working proprietor has ready access to the retained earnings of the company, saving recorded in the household income and outlay account was lower than it might be in the absence of this particular tax law.

## **Kiwisaver**

Kiwisaver was introduced on 1 July 2007 with a kick-start payment, fee subsidy, and tax credit. The compulsory employer contribution was introduced from 1 April 2008. Therefore, in this release Kiwisaver transactions apply only to the government and household sector accounts for 2008 onwards.

Pension contributions and benefits are recorded as though they were current payments or receipts in the household income and outlay account. However, as the households are the owners of these funds, saving through the scheme needs to be recorded in the household account. This is done by way of the transaction 'adjustment for change in net equity in pension funds', which reverses the effects of the contributions or pension flows in the household income and outlay account.

## **Dividend imputation credits**

As dividend imputation credits are essentially a tax credit, dividends are estimated net of these credits.

## **Breakdown of overseas investment income**

Incorporation of income tax data into the balance of payments has improved coverage of overseas income, but the 'overseas income' captured within the tax forms is not broken down by source of income. In the absence of credible information to distinguish between compensation of employees and investment income, all income has been treated as investment income. Future balance of payments improvements will include developing a methodology to analyse investment income for the non-surveyed entities and individuals, by investment and instrument types where possible.

## **Property income payable to the rest of the world**

The estimates in the income and outlay account for all years for the rest of the world sector were derived in the balance of payments as a net series. In the income and outlay account, interest paid is recorded as negative in 1999 and 2000. In these two years, property income received was larger than property income paid.

## **History of development**

Previously published New Zealand institutional sector accounts 1987–98 are labelled 'experimental' as the data sources were not of sufficient quality. As a result, the Annual Enterprise Survey (AES) was redesigned and is the major data source for these official institutional sector accounts from 1999.

The previously published experimental household income and outlay account and government income and outlay account were not produced in the context of full institutional sector accounts. As a result, the allocation of certain transactions between sectors could not be balanced. They are now included in the full set of official institutional sector accounts.

This development has benefited from the adoption of improved methods using new data sources. New/improved data sources include:

- the redesigned AES data
- improved access to Inland Revenue taxation statistics
- enhancements to balance of payments statistics
- Reserve Bank and interest data
- the non-profit institutions satellite account.

Other enhancements include reconciling interest, dividend flows, and transfers across all sectors (previously some property income flows and other income transfers remained unallocated).

## **Revisions to the household income-outlay account**

The primary differences between the current and previous household income and outlay accounts are as follows.

### **Household entrepreneurial income**

Household entrepreneurial income is estimated as entrepreneurial withdrawals from the unincorporated producers sector, plus the salaries and wages of working proprietors from the corporate producers sector. Revisions reflect the reclassification of some businesses as corporate, higher mortgage interest allocation to residential property operators, and adjustments for residential landlord losses. The residential landlords' activity is modelled in the national accounts, and the mortgage interest allocation to the activity (which is also modelled) affects the estimate of landlord losses.

### **Interest received**

In the experimental household income and outlay account, interest received used the same average rate across all financial instruments and assumed that deposits were fixed across the various finance companies. The new method uses rates at a more detailed level, for example, bank deposits, bonds, and finance company deposits. The revisions reflect shifts in the distribution of deposits as households moved their money into higher-returning assets in the mid-2000s.

## Current transfers received

Child support payments to households by government were previously estimated using the Household Economic Survey. The series has now been aligned with payments recorded in the government sector account. Household-to-household child support payments have no effect on the net sector, and have not been estimated.

## Interest paid – housing

Previously, interest payments on housing mortgages were estimated using 'current' mortgage rates. The new method now uses a broader range of rates including those applying to 'older' fixed rate mortgages.

## Income tax paid overseas

Measurement of income tax paid overseas is introduced for the first time using balance of payments estimates derived from Inland Revenue estimates of withholding tax paid by New Zealand residents to foreign governments on overseas earnings. Note that the balance of payments income tax estimates are treated as income tax in the NZISA, not transfers.

<b>Household sector accounts – revisions to selected transactions</b>											
		Year ended March									
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
		\$(million)									
Entrepreneurial income	Previously published	12,026	13,223	14,519	16,198	14,705	16,002	16,583	16,079	16,341	20,338
	Revised	11,269	13,005	13,939	15,120	13,915	15,675	15,859	15,338	15,782	19,478
Interest (receivable)	Previously published	3,435	2,786	3,482	3,221	3,475	3,577	4,440	5,149	6,234	7,772
	Revised	3,433	2,868	3,596	3,384	3,722	3,978	5,035	6,211	7,385	8,973
Housing interest	Previously published	3,945	3,591	3,870	4,246	4,553	5,229	6,321	8,212	10,002	12,085
	Revised	3,096	2,790	3,209	3,126	3,402	3,682	4,429	5,405	6,376	7,622
Contribution of selected transactions to saving revisions		90	665	195	205	608	1,621	1,763	3,128	4,218	4,804

## Revisions to the government sector accounts

There have been a range of revisions both to the classification of various enterprises and the content of some transactions. However, two revisions in particular measure transactions that were not previously recorded. These are for capital taxes and transfers received by local government.

## Capital taxes

Capital taxes received by local government were not previously included in the experimental government sector accounts. The capital taxes in question are of two types:

- Development contributions are charges placed on developers for development work (such as subdivisions or buildings) to cover additional infrastructure costs incurred by councils.
  - Financial contributions are charges imposed to promote sustainable management of natural and physical resources. These contributions may be financial and non-financial (such as land).
- Both types of contributions have now been incorporated in this release but because of changes in past data sources, it is not possible to take the time series back before 2003. Therefore, there is a discontinuity in the time series between 2002 and 2003.

## Capital transfers

In the experimental government sector accounts, net capital transfers included only transfers received from central government. In this release, estimates for vested assets received by local government are also included. Vested assets include infrastructure assets (such as land, roads) received from developers or assets placed in a council's control that may have restrictions as to their use (that is, reserve land), where the ownership and control has been transferred to councils by a third party. As with capital taxes, it is not possible to take the vested assets revisions back before 2003. There is a discontinuity in the time series between 2002 and 2003.

<b>Local government revisions to capital taxes and capital transfers</b>							
Transaction	1999–2002	2003	2004	2005	2006	2007	2008
		\$(million)					
Capital taxes	NA	88	101	137	167	235	267
Capital transfers	Not revised	169	248	342	454	277	632

Note: NA = not applicable

## Improvements to balance of payments statistics

Statistics NZ introduced changes to the income series in the Balance of Payments and International Investment Position: June 2010 quarter. The main changes are:

- The use of Inland Revenue's income data as reported for tax purposes to improve estimates of investment income flows that were not measured previously. This change applies from June 1998 onwards.
- Estimates derived for compensation of employees (wages and salaries) on the debit side (payments to non-residents) using tax and other data sources from June 1999 quarter onwards.
- Improvements to interest income and expense data previously reported by surveyed entities, from the June 2000 quarter onwards.

These enhancements helped address a number of known weaknesses in the previously published household income and outlay account.

## **Improvements to annual national accounts**

As part of an ongoing programme of reviewing and updating methodology and data sources, Statistics NZ introduced a number of improvements in the National Accounts: Year ended March 2010 release and, where relevant, these changes are incorporated into this release.

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## Technical notes

### Institutional sector classification

This report classifies institutional units (such as enterprises and households) by broad economic sectors using the New Zealand Standard Institutional Sector Classification (NZISC).

Subsectors and groups within some sectors recognise differing functions and the degree of government control. In this release the producer enterprises sector is further broken down into four different subsectors, namely:

- private corporate producers
- private unincorporated producers
- central government producers (for example, state-owned enterprises)
- local government producers (for example, council-controlled organisations).

The general government sector is broken down into two subsectors:

- central government
- local government.

It should also be noted that the private non-profit institutions serving households sector differs from the coverage of the published non-profit institutions satellite account, in that it does not, for example, include non-profit organisations that serve business.

The unit considered when applying the NZISC for the collection and publication of statistics is referred to as the 'institutional unit'. The most common institutional unit is the enterprise unit. This is the smallest business unit having a separate legal existence. It includes companies, partnerships, sole proprietorships, incorporated societies, government departments, and trusts. The non-financial corporations sector, for example, includes limited liability companies and unincorporated businesses, as well as state-owned enterprises and (local government) council-controlled organisations. The other principal unit is the household. These units include resident individuals and families in their role as final consumers and as owners of factors of production. Households, in their capacity as owner-occupiers of dwellings, are included in the household sector.

Some legal entities need to be separated into two or more institutional units in order to compile meaningful statistics. This is particularly so where the significant activities of a single legal entity span two or more institutional sectors. For instance, individuals are legal entities classified to the household sector because of their roles as final consumers. However, some individuals are also proprietors of farms or small businesses and as such, for statistical purposes, form separate enterprise units classified to the producer enterprises sector.

Although government departments are considered to be separate legal entities, some combine both entrepreneurial and governmental functions. Similarly, large territorial local authorities blend a variety of trading and administrative functions under one corporate heading. In the NZISC, separate enterprise units are formed to identify separate substantial trading and financial functions.

It should also be noted that in the NZSNA, transactions with the rest of the world are presented from New Zealand's perspective, whereas in the NZISA, the sector is presented from the perspective of the rest of the world. This means that in the NZISA transactions that are negative in the published national accounts appear as positive in the NZISA. For example, net lending has

positive values in all years in the NZISA rest of the world sector account as the rest of the world has been a net lender to New Zealand. However, in the National Accounts: Year ended March 2010 release it is negative in these years, reflecting that New Zealand has been a net borrower.

## **General method**

The institutional sector accounts are compiled by transaction. Each transaction is allocated to sectors separately, and then full sector accounts are compiled.

The principal data sources for most transactions are the same business surveys as used in the national accounts. These business surveys, such as the Annual Enterprise Survey, collect information on financial flows as well as the productive activity that is already published in the annual national accounts. Business surveys are also designed to collect data on an industry by sector basis.

For income and outlay, and capital account items there are also significant flows relating to the household sector. Therefore, additional data sources are incorporated into the method to supplement the business survey data. For example, household interest flows are estimated using Reserve Bank data.

Large financial flows are reconciled as far as possible at the enterprise level. For example, large dividends reported as being paid by New Zealand resident enterprises in the balance of payments are checked against dividends paid recorded in business surveys. Also, large inter-company flows are cross-checked. Where the data sources are inconsistent, other sources including annual reports are consulted, and the source data is then adjusted. By this process of reconciliation the gap between national totals for transactions (such as interest paid and interest received) are brought close together, and then a final adjustment is made to match the flows exactly.

In cases where conflicting information on interest flows are reported by the debtor and creditor, and both flows appear to be reported correctly, the debtor numbers have been used.

In general, data has been recorded gross. Even between institutional units within the same sub-sector, receipts are not netted off payments, and vice versa. It has also meant that where inter-company financial flows are recorded in unconsolidated form, level shifts in some series can occur that are entirely due to the inter-company flows.

## **Standard treatments**

### **Saving as a residual**

Since saving is estimated as the residual between total income and total outlays it is highly sensitive to any errors in estimating income and outlay components. Income and expenditure estimates (including interest and dividend flows) are now reconciled within the institutional sector framework.

### **Primary income and secondary income**

Income is subdivided into primary and secondary. Primary income is directly linked to the production process: compensation of employees, gross operating surplus, entrepreneurial income, net taxes on production and property income (rent on natural resources, interest, dividends, and earnings attributed to insurance policyholders). Secondary income covers redistribution in the form of current transfers, including current taxes on wealth and income, social security and pension transfers.

## **Owner-occupied dwellings**

Ownership of owner-occupied dwellings is considered to be a market activity undertaken by households. All expenditure associated with the purchase, alteration, and maintenance of owner-occupied dwellings is classified as gross fixed capital formation or intermediate consumption and is therefore excluded from final consumption expenditure. Included, however, is the payment of imputed rent by owner-occupiers. This measures an income flow back to households valued at market rates.

Consumption of fixed capital (depreciation) is recorded separately in the household capital account. A consequence of this treatment is that the saving residual in the household income and outlay account is net of the depreciation on owner-occupied dwellings.

## **Finance service charge and future developments**

The finance service charge is earned by banks and other enterprises classified as financial intermediaries.

Conceptually the interest received by these intermediaries, in the income and outlay account, should be net of the finance service charge earned. For all sectors to balance, however, this requires the corresponding payments to be also recorded net. This in turn requires the payment of the finance service charge to be allocated by sector. Currently in the NZSNA the payment of the finance service charge is not allocated, rather, it is recorded as being paid by a nominal industry, which has a corresponding negative operating surplus.

Rather than include the nominal industry as a separate institutional sector with negative saving, the finance service charge received has been subtracted from the operating surplus of the financial corporations sector. It also avoids double-counting the relevant interest flows. Moreover, because gross flows of interest received and paid are recorded in the income and outlay accounts, the non-allocation of the finance service charge, though affecting operating surplus for each sector, has no effect on sectoral saving or net lending.

Work is underway in the national accounts to replace the finance service charge with the 1993 SNA concept – financial intermediation services indirectly measured (FISIM). When allocating the cost as FISIM, the GDP total will change (increase) by the value of the amount classified as final consumption expenditure of households, government, and private non-profit institutions serving households, as well as the value allocated to exports, net of that estimated as imported.

## **Pension and social security schemes**

According to the 1993 SNA, income for life insurance and superannuation and pension schemes is imputed. Employer contributions to these schemes are included as part of an individual's income. Since the accumulated pension and superannuation funds are regarded as part of household assets, interest earned by the funds is included in household income. To avoid double-counting this income, actual pension payments are treated as a rundown in assets, or dissaving. Internationally, there may be differences in where the line is drawn between funded social security schemes (not classified as part of private saving) and funded pension schemes (usually for state employees).

While every effort is made to exclude capital gains and losses from the earnings of pension and life funds, to the extent that any remain, then household income will be over or understated compared with the conceptually correct measure.

In addition, income earned by New Zealand residents' investments in overseas pension funds is not currently measured.

### **Insurance premiums and pension fund contributions**

Only the service or administration charge component of insurance premiums and pension fund contributions paid by households is treated as final consumption expenditure. The balance is treated as a transfer payment classified as secondary income payable.

### **Actual final consumption**

Actual final consumption of households measures the goods and services acquired by households, whether purchased by them directly or by government or non-profit institutions on their behalf.

### **Capital gains and losses**

As noted, capital gains and losses associated with holding or trading capital and financial assets are, in the SNA, recorded in reconciliation accounts. Therefore, these gains/losses are excluded from the concept of saving. Similarly, foreign exchange movements are eliminated.

### **The concept of saving**

Over recent years, interest in accurately estimating the saving of New Zealanders and identifying in which part of the economy it occurs has grown substantially. Interest in this question predates the global financial crisis, but has intensified in the face of the crisis. This is reflected in recent government efforts such as the Tax Working Group, the Capital Market Working Group, and the Savings Working Group. A level of national saving lower than the level of investment necessarily results in a higher current account deficit and a higher net level of international debt. In contrast, higher national saving means that more domestic funds are available to invest in productive activity.

National saving (for the whole economy) is published as part of the Annual National Accounts. Conceptually, national saving is the sum of each sector's saving, determined from the income and outlay accounts of each sector.

This release uses the term 'saving' in its conventional economic sense employed in the national accounts. Under this definition, saving is the portion of national income accruing to a country (or sector thereof), that is, not consumed and is therefore available to finance investment and/or fund future consumption.

Some alternative savings estimates include balance sheet items, for example, the market value of a sector's stock of assets less the market value of its stock of liabilities. Wealth measures that adjust for the change in the value of assets are called estimates of net worth. Wealth or net worth can therefore be viewed as the accumulated stock of savings. Wealth estimates are outside of the current scope of the institutional sector accounts.

An example of how household sector saving as measured in this release differs from the change in net worth is illustrated as follows:

- Increases in the value of the owner-occupied housing stock will be included in measures of household net worth but are not included in household saving as measured in the NZISA.

- However, increases in mortgage interest payments related to increases in housing values do affect (reduce) household saving as measured in the NZISA.

It should be noted that measuring saving as a flow measure (income not spent) or savings as a stock measure (change in net worth) are not competing methodologies. Instead the key objective should be to reconcile them in a full set of income, capital, financial, and balance sheet accounts.

At the sector level it is possible to compile saving estimates using either macroeconomic data, as in the institutional sector accounts, or using microeconomic data. While, for example, the Household Economic Survey is not designed to produce household saving statistics, and Statistics NZ cautions against doing so, it has been used for this purpose because of its comprehensiveness and richness of data on respondent characteristics. There are a number of possible conceptual or definitional differences that may exist between the 1993 SNA-based household income and outlay account and survey-based household income/expenditure series.

For a more extensive discussion of saving measures, refer to [Selected Issues in the Measurement of New Zealand's Saving\(s\)](#) (Bascand, Cope, & Ramsay, 2006), available on the Statistics NZ website, [www.stats.govt.nz](http://www.stats.govt.nz).

## **More information**

For more information, including terms and definitions, follow this [link](#) from the 'Technical notes' section of this release on the Statistics NZ website.

## Tables

The following tables can be downloaded from the Statistics New Zealand website in Excel format. If you do not have access to Excel, you may use the [Excel file viewer](#) to view, print, and export the contents of the file.

### Main tables

1. Producer enterprises sector accounts, 1999–2008
2. Private corporate producer enterprises and producer boards sector accounts, 1999–2008
3. Private non-corporate producer enterprises sector accounts, 1999–2008
4. Central government enterprises sector accounts, 1999–2008
5. Local government enterprises sector accounts, 1999–2008
6. Financial intermediaries sector accounts, 1999–2008
7. General government sector accounts, 1999–2008
8. Central government sector accounts, 1999–2008
9. Local government sector accounts, 1999–2008
10. Private non-profit organisations serving households sector accounts, 1999–2008
11. Households sector accounts, 1999–2008
12. Rest of world sector accounts, 1999–2008

### Supplementary tables

1. General government sector accounts, 1987–2010
2. Central government sector accounts, 1987–2010
3. Local government sector accounts, 1987–2010
4. Households sector accounts, 1987–2010