
Financial accounts and flow of funds

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This article briefly describes the structure of sectoral accounts for the economy under the framework of the System of National Accounts. It outlines a Reserve Bank work programme to support the development of financial accounts and flow of funds analysis. These accounts would enhance our understanding of financial behaviours and inter-sectoral relationships within the economy. The article also discusses the development of a full household sector balance sheet and presents estimates for a number of items that are not currently covered in the Reserve Bank's published tables of household assets. New experimental estimates of the equity held in unincorporated businesses, and households' equity in unlisted incorporated businesses add around \$170 billion to previously published estimates of household assets.

1 Introduction

The Reserve Bank is currently redeveloping its statistical collections from financial institutions. These redevelopments are partly being driven by the need to collect additional data on the soundness of financial institutions and the financial system. However the Bank will also be aiming to make its redeveloped surveys consistent with the requirements of the System of National Accounts (SNA). The data from these surveys can be used in the production of financial accounts and flow of funds tables for New Zealand.

Financial accounts show net transactions in financial assets and liabilities for each sector of the economy. Summing the net transactions for assets and subtracting the net transactions for liabilities gives the net change in financial position for a sector. This net change figure, as we will see later, can be used as a check on the accuracy of the estimated saving for the sector.

A flow of funds approach takes the analysis further, showing financial claims between sectors, and the net transactions between them. Flow of funds tables show 'who borrows from whom'. They therefore show the financial exposure of each sector to other sectors, where one of these other sectors is 'the rest of the world'.

The Bank's survey redevelopment work is being undertaken in close consultation with Statistics New Zealand to ensure that the survey data meets, as far as possible, the requirements of the latest United Nations (UN) guidelines for the preparation of national accounts – the SNA08 manual.¹

¹ UN et al (2009).

This article outlines the structure of SNA sector accounts, and briefly describes financial accounts and flow of funds tables. The article also outlines the work that the Reserve Bank is planning in this area. Finally it looks at how a full SNA balance sheet for the New Zealand household sector might be assembled, and produces experimental estimates for some of the items that are currently missing from the Reserve Bank's tables on household assets and liabilities.

2 Sector accounts

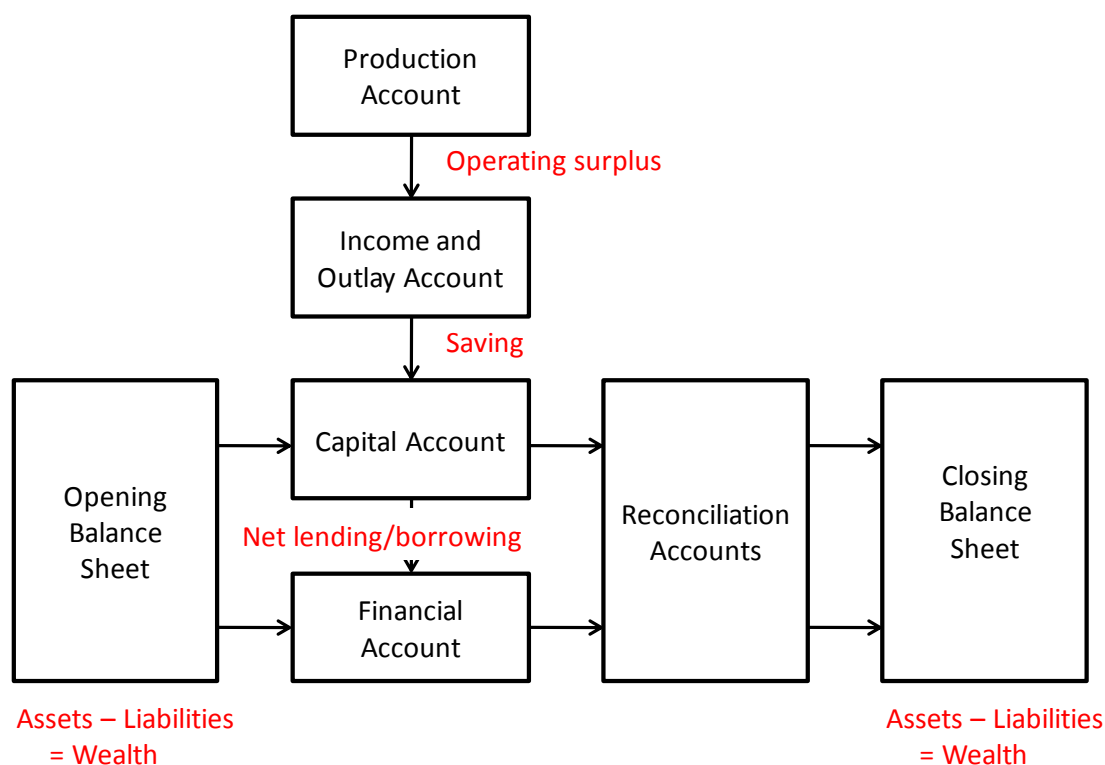
In the national accounts, economic entities – or, more formally, institutional sector units – are grouped into sectors based on the nature of the economic activity that they undertake. In general, there are five sectors within the domestic economy:

- The non-financial business sector
- The financial business sector
- The general government sector
- The non-profit institutions serving households sector
- The household sector.

However, these sectors are often split into subsectors. For example, non-financial businesses can be broken down into private corporations, private unincorporated businesses, and government enterprises. The sectoral data that Statistics New Zealand (SNZ) currently produces use a total of nine domestic sectors or subsectors.²

² These cover: private corporate businesses, private non corporate businesses, central government enterprises, local government enterprises, financial intermediaries, central government, local government, households and private non-profit organisations serving households.

Figure 1
Sequence of sector accounts



SNZ also uses a sector to cover 'Rest of world', which includes overseas entities that have dealings with New Zealand entities. SNZ is currently reviewing its institutional sector classification.³ The review is likely to result in a classification that aligns closely with SNA08.

Sectoral data are generally used to look at a sector's income, expenditure, saving, investment, funding, and borrowing and lending. These items relate to economic flows. Sectoral data can also be produced for economic stocks, such as assets and liabilities, which show how wealth is being accumulated.⁴

In the SNA a sequence of inter-related accounts is produced for each sector, and these are shown in diagrammatic form in figure 1. We will look initially at the first three accounts in the centre of the diagram, which show economic flows over a particular time period, say a year:

- The production account shows components of the sector's GDP. These components are for the income

measure of GDP. One of these components – operating surplus – is used in the next account.

- In the income and outlay account, other income, such as interest receipts and government transfers, is added to operating surplus. Income is then adjusted to account for various payments, such as interest and tax. The residual, after an adjustment to account for depreciation in the sector's capital stock, is saving, which is used in the next account.
- The capital account shows the funding of capital expenditure – of which saving is a major component – and expenditure on capital items, which includes spending on land, buildings and plant. Funding less expenditure equals 'net lending'. If a sector's net lending is positive then it has funds that it can lend to other sectors. Alternatively, the sector can use these funds to pay off its debt. Either way, the sector's net financial assets will increase. If net lending is negative then the sector's net financial assets will decrease.

We turn now to the financial account, which also shows economic flows over a time period. These flows are for 'net transactions' in various types of financial assets

³ See Statistics New Zealand (2012).

⁴ In contrast to sectoral data, industry data – which are based on ANZSIC classification system – focus generally on production and investment.

and liabilities. In general terms, a sector's net transactions for a particular asset type will equal its acquisitions of that asset, less its disposals of that asset. However, for interest bearing assets, the accrued income for the asset over the period also needs to be included.⁵ Net transactions in financial liabilities are calculated in a similar fashion. In summary the financial account shows the financial flows going into, or out of, all types of financial assets and liabilities. The sum of the flows into financial assets minus the sum of the flows into financial liabilities is the 'net change in financial position' for the sector. This figure shows the sector's net acquisition of financial assets. It should be equal to the net lending figure from the capital account. As outlined above, net lending should result in a corresponding change in net financial assets.

In practice, 'net lending' and 'net change in financial position' are usually not exactly the same, owing to difficulties in producing accurate estimates of each measure. Nevertheless, an estimate for 'net change in financial position' provides a useful check on the estimate for 'net lending'. The estimate for 'net change in financial position' can also be used, in conjunction with estimated expenditure on capital items, to derive an alternate value for saving.⁶

So far we have looked at flows. But Figure 1 also shows the sector's balance sheet at the start of the period and the balance sheet at the end of the period, and these balance sheets cover stocks of assets and liabilities. The closing balance sheet can be derived from the opening balance sheet by adding in the flows from the capital account, financial account, and the 'reconciliation' accounts. The reconciliation accounts show the effects of asset revaluations and 'other changes in the volume of assets' (OCVA). OCVA accounts for one-off changes in volumes like defaults on loans or the unexpected destruction of capital stock.

So for each type of asset, the difference between the final stock and the opening stock is equal to the sum of

three flows: net transactions, revaluations, and OCVA. Figures for these flows, as well as figures for opening and closing stocks, are often obtained through surveying enterprises. However, sometimes only balance sheet data – that is, stock data – are available. In these cases an asset price index is often used to estimate revaluations, with a simple assumption being made about OCVA (usually that it is zero). Net transactions are then calculated as a residual.

Flow of funds tables

As we have seen, financial accounts show a sector's net transactions for each type of financial asset or liability. Flow of funds tables go further than this; for each type of asset or liability they provide a breakdown of net transactions by counterparty sector. So for a sector that has increased, for example, its net loan liabilities, it is possible to see the changes in net liabilities against each counterparty sector.

Flow of funds tables sometimes contain data on stocks as well as flows. These show, for example, a sector's loans, broken down by the sector that is providing the loans. These stock tables are perhaps even more useful than the tables for net transactions since for each sector they show that sector's financial exposures to other sectors, including the rest of the world.

Flow of fund tables are often referred to as 'whom-to-whom' tables. For example, a table can be prepared showing stocks of short-term debt securities. The rows of the table would show the sectors that issued the securities, while the columns would show the sectors holding these securities.

Flow of funds data can also be presented via a 'plumbing diagram', which shows the links between sectors. For example, figure 2 shows a diagram for net financial claims between sectors of the Australian economy.⁷ The arrows in figure 2 run from the sector which has the net claim to the sector on which the net claim is made.

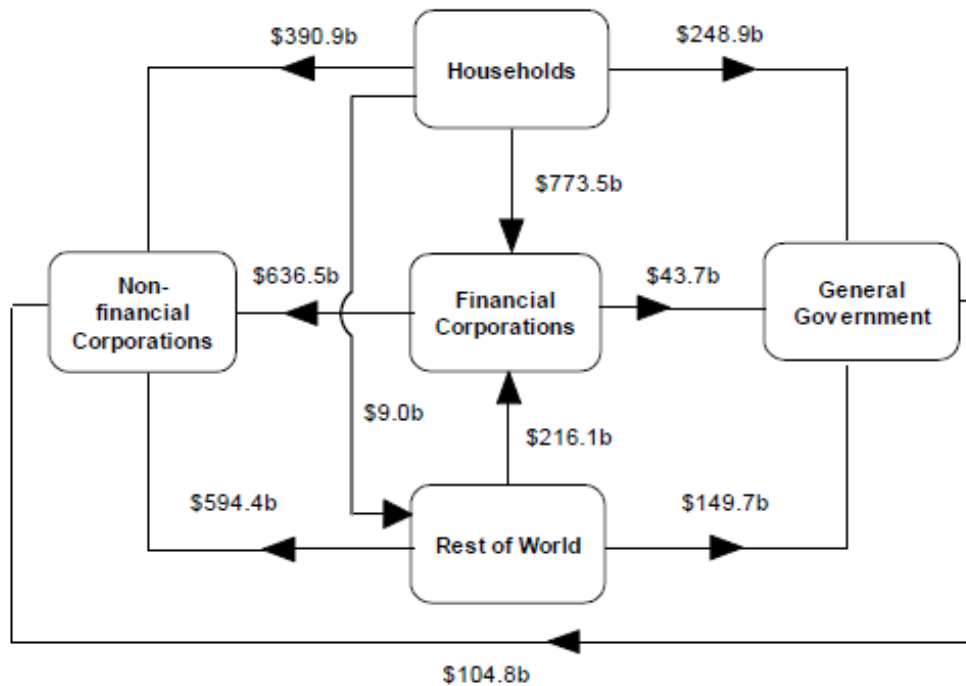
⁵ Accrued interest is interest which has been earned, but for which no payment has yet been received. Hence it does not yet appear in the transaction data, and needs to be accounted for. See IMF (2008), p103, for definitions of net transactions by asset/liability type.

⁶ See Hodgetts et al (2006), which uses RBNZ data on the financial assets of the household sector to back out an alternative estimate of household saving.

⁷ A sector – suppose we call it sector A – will have a financial claim on another sector – say sector B – if it has lent money to sector B or if it holds equity in sector B. Sector A will have a net financial claim on sector B if its financial claims on sector B are greater than sector B's financial claims on sector A.

Figure 2

Net financial claims between sectors of the Australian economy at the end of June quarter 2012, \$A billion



Source: ABS (2012)

One point to note: since one sector's liabilities are assets for counterparty sectors, it is necessary when compiling flow of funds data to use the same financial instrument categories for both liabilities and assets. SNA08 recommends a classification system that starts with assets that have a high degree of liquidity and ends with assets that have a low degree of liquidity.⁸

An interesting feature of figure 2 is that in Australia the household sector has a large net financial claim on financial corporations. This is despite a high level of mortgage borrowing by the household sector, most of which comes from financial corporations. The major component of the household sector's high level of net claims on financial corporations is its accumulated wealth in superannuation funds.

Producing financial accounts and flow of funds tables for New Zealand

SNZ has produced institutional sector accounts for the 1999-2009 period. These accounts are for March years. As noted earlier they cover nine domestic sectors, with another sector for the rest of the world. Each domestic sector table covers the production account, the income and outlay account, and the capital account. The rest of the world table includes the income and outlay account, and the capital account. Sectoral financial accounts, balance sheets and reconciliation accounts are not currently being produced.

The Savings Working Group, which reported to Government in January 2011 recommended that a full set of SNA accounts – including financial accounts, balance sheets and reconciliation accounts – be produced for each sector.⁹ Furthermore, at a workshop on national accounts and financial statistics held at the Reserve Bank in June 2011, there was general support for the development of a

⁸ The major instrument groups, in order of liquidity, are: monetary gold and SDRs, currency and deposits, debt securities, loans, equity and investment fund shares, insurance and pension schemes, financial derivatives and employee stock options, other accounts receivable or payable.

⁹ Savings Working Group (2010), p112.

full set of sectoral accounts.¹⁰

Since the workshop, the Bank and SNZ have been reviewing various data sources, with a view to assessing whether financial accounts and flow of funds tables could be produced. The focus has been on looking at balance sheet data for the financial sector and the household sector. In light of this review work, the Bank's statistics unit has established a programme of work related to financial accounts. This includes redeveloping the Bank's statistical surveys and outputs so that they meet the requirements of the IMF's monetary and financial statistics manual (MFSM) and also SNA08.¹¹ MFSM is consistent with SNA08 although SNA08 specifies more subsectors. The work will focus on:

- The Reserve Bank's balance sheet. An MFSM version of the Bank's balance sheet will be published on the Reserve Bank's website shortly.
- Redeveloping the Reserve Bank's standard statistical return (SSR), which is a survey of the balance sheets and related financial data of registered banks and non-bank financial institutions.
- Redeveloping the managed funds survey (MFS), which is a survey undertaken in conjunction with SNZ. This survey will be brought into line with the requirements of the latest version of the international balance of payments manual (BPM6).
- Implementing a new balance sheet survey of insurance companies. A starting date for this is still to be confirmed.
- Expanding the Reserve Bank's estimates of households' assets and liabilities. Additional items will need to be added to the present data if an SNA-type balance sheet for the household sector is to be produced. The next section of this article outlines initial work in this area.

The ideal situation would be to produce financial accounts and flow of funds tables on a quarterly basis, as in Australia. The redevelopment work on surveys will be

focusing on collecting quarterly data. However, it is likely that any initial versions of financial accounts and flow of funds tables will be annual, and for March years. These accounts would be consistent with the institutional sector accounts already being produced.

3 Household balance sheet

The Reserve Bank already publishes estimates of many of the major items of the household balance sheet on its website. However, as the website notes, a number of major balance sheet items are not covered by these statistics.¹² The largest missing items include equity in unincorporated businesses, and shares in unlisted incorporated businesses.

Table 1 shows a balance sheet for the household sector which, in the main, is based on items from the Reserve Bank's published tables. However, these items have been regrouped and rearranged so that they fall under the financial instrument categories used in SNA08. Also, table 1 includes estimates for equity in unincorporated businesses, and shares in unlisted incorporated businesses. These estimates should be regarded as being experimental only, and are not official Reserve Bank estimates.¹³ Our estimation methods for these two items, and other new items, are briefly outlined below.

Households' equity in unincorporated businesses

Unincorporated businesses are not limited liability companies but are instead owned directly by households. They include sole proprietorships, partnerships and trusts. These could generally be seen as being part of the household sector. However, some of these unincorporated

¹⁰ See Briggs and Barrow (2011) for a summary account of the workshop. Presentations from the workshop can be downloaded from: <http://www.rbnz.govt.nz/research/workshops/13jun2011/index.html>

¹¹ MFSM provides guidelines on the presentation of monetary and financial statistics. See IMF (2000) and IMF (2008).

¹² The items that are listed as not being covered are: equity in farms, equity in unincorporated businesses, shares in unlisted incorporated businesses, equity in directly-held commercial property, direct ownership of assets such as forests, consumer durables, overseas property owned by New Zealand residents, non-equity overseas financial assets, notes and coin held by households.

¹³ While the estimates presented here are 'experimental', the ultimate aim is to produce estimates that can be included in the Bank's website tables. We would also aim to fully document the methodologies used in producing these estimates and make this documentation available.

Table 1
Household balance sheet 2007-2011

Assets, \$m	2007	2008	2009	2010	2011
Currency (notes and coins)	1,472	1,519	1,700	1,761	1,827
Deposits	87,401	95,757	104,061	105,321	110,508
Debt securities	9,641	11,893	14,319	15,015	14,832
Long term loans	810	730	786	765	670
Equity and investment fund shares:					
Quoted shares in resident enterprises	18,956	14,467	11,240	15,274	15,870
Quoted shares in non-resident enterprises	7,834	7,119	5,008	7,173	7,514
Unquoted shares in resident enterprises:					
Equity in unincorporated enterprises (1)	78,000	84,000	84,000	88,000	90,000
Equity in unlisted corporates (1) (2)	78,000	69,000	74,000	77,000	77,000
Unit trusts and group investment funds	33,071	30,250	27,735	30,109	29,980
Insurance and pension funds:					
Life offices	8,351	7,321	6,302	6,195	5,842
Superannuation funds	22,494	21,913	19,323	25,442	29,488
Unfunded superannuation claims	6,887	7,983	8,809	9,703	10,102
Total financial assets	352,917	351,952	357,283	381,758	393,633
Fixed assets (housing stock)	587,000	616,000	568,000	609,000	605,000
Total assets	939,917	967,952	925,283	990,758	998,633
Total assets as a percentage of nominal GDP	553%	526%	499%	522%	502%
Liabilities					
Short term loans (3)	13,776	14,377	13,992	13,426	13,213
Long term loans:					
Housing loans	142,893	158,719	163,198	168,449	170,672
Student loans	8,370	7,413	9,573	10,259	11,145
Total liabilities	165,039	180,509	186,763	192,134	195,030
Total liabilities as a percentage of nominal GDP	97%	98%	101%	101%	98%
Net worth	774,878	787,443	738,520	798,624	803,603
Net worth as a percentage of nominal GDP	456%	428%	398%	421%	404%

(1) Experimental estimates

(2) An estimate for 2011 not available; the 2011 value is assumed to be the same as for the previous year.

(3) Consumer loans are used as a proxy for short term loans; all other loans are assumed to be long term.

Sources: Reserve Bank of New Zealand, QV

enterprises operate reasonably independent of households in that they are able to produce a full set of accounts for their business. The practice in New Zealand has been to take these unincorporated enterprises for which accounts can be compiled and to include them in an 'unincorporated' sector rather than the household sector. Our task therefore has been to estimate the equity of this unincorporated sector with a view to including the equity on the household balance sheet.

We have based our estimates of the equity in unincorporates on data from SNZ's annual enterprise survey (AES). However, we have had to adjust the AES data to exclude assets and liabilities that are already being accounted for by Reserve Bank data. AES data for unincorporates cover a number of family trusts. The financial assets of these trusts are already captured in Reserve Bank surveys since in these surveys all family trusts are treated as being part of the household sector.

Also, the housing assets and housing debt of these trusts have already been accounted for in the Reserve Bank's published data on housing assets and debt, which is also the data used in table 1. Furthermore, AES covers other unincorporates besides family trusts. Some of these will also have housing assets and debt and, again, these will have already been accounted for by the Reserve Bank data.¹⁴

We therefore estimated:

- the housing assets and housing debt that incorporates in AES hold, and
- the financial assets that family trusts in AES hold.

We then subtracted these assets and liabilities from the AES totals, and calculated the remaining equity (as assets minus liabilities). This is our estimate of the equity households hold in unincorporated businesses.

Estimating the housing assets and housing debt held by unincorporates in AES is not straight-forward, and a number of assumptions had to be made in doing this. In view of this, the final estimates shown in Table 1 should be regarded as indicative only.

Given that our estimates have been derived from AES data, they are for 'book values' of unincorporates. That is, they cover 'shareholders' equity and reserves', where for each business this is taken to be equal to total assets minus total liabilities. Ideally any estimates of business equity would reflect 'market values' – this is, the values that the businesses would fetch if they were sold. However, it is likely that many unincorporates could not in fact be sold as going concerns, and that only their physical assets could be sold. In these cases, book values would be a reasonably accurate reflection of market values.

Households' equity in unlisted corporates

Unlisted corporates are limited liability companies that are not listed on the stock exchange. The equity in these companies can be owned by any of the other sectors: other corporates (both financial and non-financial

corporates), unincorporates, government, private non-profit organisations serving households, and the rest of the world.

The household sector's holdings were calculated as a residual. This involved a number of steps:

- We calculated the total equity that was available in New Zealand enterprises, using data from AES and NZX.
- We added in the equity that New Zealand entities hold overseas, using data from SNZ's survey of the international investment position (IIP).
- We then looked at who was holding this equity. We estimated the equity held by each sector other than the household sector. These estimates were based on data from AES, government accounts, and the IIP.
- Total equity available minus our estimate of total equity held was taken to be amount held by the household sector. From this we subtracted the equity that is already covered in the published Reserve Bank estimates, such as the domestic shares that are held by households and the equity that they have in unit trusts.

Again, the resulting estimates need to be treated with caution. Any errors in any of the components used in calculating our final estimates will show up in these final estimates. We are unlikely to have a great deal of confidence in our final estimates until we have been able to benchmark them against estimates from other sources, such as a comprehensive household survey of wealth. Nevertheless, our estimates do not seem outlandish, relative to those for other countries.¹⁵

As with the estimates of households' equity in unincorporates, the estimates of households' equity in unlisted companies are for the book values of companies, rather than market values. As before, this is because the method we have used is based largely on AES data. Converting our estimates of book values to market values is not likely to be straightforward and is an area for further work.

¹⁴ AES specifically excludes the 'residential property operators' group, which includes enterprises whose predominant activity is renting out residential properties. Despite this, the enterprises that are included in AES will hold some rental residential properties.

¹⁵ The ABS estimate for the equity held by Australian households in unlisted companies in March 2009 is equal to around 35% of GDP; our corresponding estimate for New Zealand households is equal to around 40% of GDP.

Other additional items

Table 1 includes estimates for two other types of assets which have not as yet been included in the Bank's published tables. These two asset types are currency (holdings of notes and coins) and unfunded equity in superannuation schemes.

Regarding currency, it was assumed that of the currency that is currently held by the public, half is held by the household sector, with the other half being held by other sectors.

Unfunded equity in superannuation refers to superannuation entitlements not covered in full by the amounts that are held in superannuation funds. These unfunded claims largely relate to defined benefits schemes. The figures in table 1 cover only public sector superannuation schemes, and are taken from central government budgets. As yet we have no estimates for the unfunded component of private sector schemes, although such schemes have been reducing in importance over recent decades.

Items still not being covered

Our estimates of equity in unincorporates should cover two other items listed as missing in footnote 12: equity in directly-held commercial property, and direct ownership of assets such as forests. Our estimates of equity in unincorporates will also include most of the equity in farms since the majority of farms are unincorporated enterprises.¹⁶

This leaves only three items from footnote 12 that we have not covered: overseas property owned directly by New Zealand households, non-equity overseas financial assets, and consumer durables.¹⁷ Household surveys may be able to provide some useful data on these items. Australian data may also be useful for overseas assets, given that a significant proportion of overseas assets held by New Zealand residents are likely to be in Australia. This is an area for further work.

Consumer durables include things like house contents, cars, boats, etc. In the SNA, spending on these items is classified as consumption rather than investment. Hence a value for such items held by households is not included on the SNA balance sheet. However these items are, in a sense, the 'plant and equipment' of the household sector, and hence there may be some merit in producing estimates for them. In the short term, however, the focus will be on estimating SNA items.

There are also some other items for which we need to make estimates for if the household balance sheet is to be fully compliant with the SNA. These are:

- Other accounts receivable and other accounts payable. Accounts receivable will include tax rebates; accounts payable will include tax payments, rent payments, electricity bills, etc.
- Claims on non-life insurance technical reserves. These claims are household sector assets. They include prepayments of insurance premiums and also the financial claims of policy holders that have not yet been settled. The amounts relating to outstanding claims will have risen markedly since the first earthquake in Christchurch.

Table 1 is largely a modified version of the Reserve Bank's current table of household assets and liabilities. Hence it includes all of the assets and liabilities (mortgages) related to housing.

However, in a strict SNA format the household balance sheet would look a little different. It would not include any of the assets and liabilities of unincorporates, and so would not include, for example, the housing assets and liabilities of unincorporates. These assets and liabilities would instead be on the unincorporates balance sheet. However, the net worth of the household sector would not be affected, and would be the same as that shown in Table 1.¹⁸

¹⁶ The remaining equity in farms should be covered by our estimates of households' equity in unlisted corporates.

¹⁷ Examples of non-equity overseas financial assets include direct individual holdings of foreign issued debt securities and New Zealand residents' assets in overseas superannuation funds.

¹⁸ For example, moving some of the housing assets and liabilities to the unincorporates sector would reduce the household sector's net equity in housing. But this would be offset by a rise in the household sector's 'equity in unincorporated enterprises'.

Comments on the expanded household balance sheet

The extra items that we have added to the household balance sheet, especially the items for equity in unincorporates and unlisted corporates, have clearly had a substantial impact on our measure of total assets. This changes how New Zealanders' holdings of housing assets, which are sometimes seen as totally dominating household assets, might be viewed. As a proportion of the total assets shown in the narrower version of the balance sheet on the Reserve Bank website, housing accounts for 75 percent in 2009. As a proportion of the total assets shown in table 1 housing accounts for around 61 percent in the same year. The situation would change again if we were to consolidate the balance sheet of the unincorporates sector with that of the household sector. In this case, the assets of unincorporates would not be subsumed within the equity figure for unincorporates but would be added directly to the assets for households. Our calculations indicate that in this case, housing would be around 56 percent of total household assets in 2009.

Many countries do not separate unincorporates from the household sector; they simply include the assets and liabilities of unincorporates on the household balance sheet. So their balance sheets are equivalent to a consolidated balance sheet for households and unincorporates. This type of balance sheet is often used when making international comparisons.

It is worth noting that the inclusion of substantial amounts of equity in unincorporates and unlisted corporates on the balance sheet doesn't necessarily mean that estimates of household saving will be a lot higher. With respect to the alternative saving measure based on the financial accounts, it will be the net transactions in the assets and liabilities of unincorporates and the net transactions in the equity of unlisted companies that will affect household saving. We haven't yet made any estimates of these net transactions.¹⁹ It is possible that

¹⁹ Since unincorporates are held directly by households, net transactions in unincorporates' equity will generally be equal to net transactions in unincorporates' assets less net transactions in unincorporates' liabilities. Net transactions for unlisted corporates will be net purchases by households of additional shares in these companies.

households' net transactions in equity in unincorporates will be small in some years. They could even be negative, if households were in fact withdrawing equity rather than injecting it.

Overall though, having a more complete balance sheet will help in the production of accurate estimates of household saving. Also, having a full set of accounts for the household sector will help in illustrating the links between household saving and wealth. Similarly, having a full set of accounts for other sectors will improve our understanding of their saving and net assets, and the links that these sectors have with the household sector.

Having a flow of funds table would help to illustrate inter-sectoral links in a transparent way. Producing these tables however will mean that in collecting data on a sector's assets, liabilities, net financial transactions, revaluations and OCVA, the data will also have to be broken down by counterparty sector.

In this article we haven't shown households' assets and liabilities by counterparty sector. In compiling the data though we have found that, for the household sector at least, it has not been particularly difficult to identify the sectors with which households have placed their assets, or from which sectors they have been borrowing. It may prove to be more difficult for other sectors.

4 Conclusion

The production of a full set of financial accounts and flow of funds tables for New Zealand would enhance our understanding of financial behaviours and relationships between institutional sectors in New Zealand. While progress is being made towards that goal, much work remains to be done in getting the data into the shape needed to produce these accounts. The use of an internationally accepted framework – the SNA – should place us in a good position to compare the attributes of New Zealand's financial system with those of other countries once this work is finally completed.²⁰ Overall the SNA is likely to provide us with a useful framework for collecting, organising, interpreting and understanding data on the financial system.

²⁰ See Bank of Japan (2012) for a comparison of the Japan with the US and the euro area.

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