Chapter 6

Household wealth

This chapter reflects the Wealth Guidelines *that were prepared in parallel with the development of this Framework. The* Wealth Guidelines *were developed to address the common conceptual, definitional and practical problems that countries face in producing such statistics, as well as to improve the comparability of the country data currently available. They were also developed to facilitate the integration of micro statistics on household wealth with those relating to other dimensions of economic well-being, such as income and consumption.*

Introduction

This chapter first discusses the information needs related to wealth statistics and, based on these needs, the requirements for micro statistics on household wealth to provide measures of the level, composition and distribution of wealth at the level of individual households. It also discusses the need for wealth statistics to be as consistent as possible with other micro statistics on household income and consumption as well as with the macro statistics in the System of National Accounts. The first section describes the current status of international standards for household wealth statistics at both the micro and macro level, followed by an outline of the key concepts and definitions for household wealth, or net worth, and the definition and composition of the assets and liabilities that make up household wealth. The chapter then discusses a range of conceptual and practical issues that need to be kept in mind in order to produce useful micro-data on the stock of wealth and on the flows contributing to its changes. Finally, the chapter discusses the data sources and methods for producing household wealth statistics, as well as the best ways to disseminate and analyse these statistics.

Uses of wealth data

Income and wealth are the economic resources that households use to support their consumption. Wealth may be used to support current consumption or retained to support future consumption. Wealth usually also generates current income, in the form either of services provided to the household, as is the case for owner-occupied dwellings and consumer durables, or of a return on the capital invested in financial assets, property for rent, unincorporated enterprises and the like.

Studies of economic well-being have tended to focus on income. In part at least, this is because income data are easier to collect, because there is some correlation between household income and wealth, and because for most households income is the main economic resource used to support consumption. Household income surveys tend to treat the run-down of wealth in the form of annuities or regular withdrawals from pension funds as income. That convention is also adopted in this Framework.

There has been growing demand for micro-data on wealth in addition to data on income. Wealth data at the micro level are needed for research and analysis in many different fields, and they can support the design and evaluation of a wide range of economic and social policies. Micro data on wealth holdings are crucial for purposes such as:

● analysing household economic behaviour, including the way in which different types of households respond to financial shocks and other economic developments, and the transmission mechanisms that are involved;

● assessing the living standards, consumption possibilities and overall economic well-being of particular groups within society;

- assessing the sustainability of household spending patterns and the concentration of financial risks in specific sectors of the population; and

- analysing the impact of particular policies and institutional arrangements on household asset accumulation and indebtedness, including the barriers and incentives they create.

The joint distribution of household income and wealth gives a better understanding of the economic well-being of households, and of the policies required to assist those most at risk of economic hardship. A low-income household with above-average wealth is not necessarily worse off than a medium-income household with no wealth, or vice versa. On the other hand, low-income households that also have low levels of wealth may be of particular interest to governments seeking to target policies and programs more directly towards households in need. Micro-level wealth data are essential for such research.

Wealth can affect personal consumption in various ways. For example, households whose wealth increases due to higher asset prices may spend more because they have more resources available, and because their liquidity or collateral constraints are relaxed. Households may also use credit to insulate their spending from financial shocks, although for some of them the higher costs of debt service may leave fewer funds available to smooth their consumption and put them at risk of financial hardship. As household heterogeneity can play an important role in how average consumption responds to wealth changes, knowledge of the characteristics of individual households is crucial to assess the structural relationships between average wealth and average consumption.

Wealth inequality is of interest because in many countries a relatively small number of households hold a large proportion of total wealth, and because wealth inequality is greater than income inequality. It is therefore important to understand the economic behaviour of those at or near the top of the wealth distribution when analysing the dynamics of aggregate wealth. There may also be widespread interest in how the concentration of wealth, including of particular types of wealth, is changing over time, as well as in the factors driving these changes and the role of bequests and saving in heightening wealth inequalities.

It can also be important to understand how particular types of assets or liabilities are distributed. In some countries, for example, a relatively small proportion of households hold high levels of debt. In these conditions, even small changes in asset prices can lead to the value of the outstanding debt exceeding that of the underlying assets (e.g. houses). This can trigger a vicious cycle of deleveraging and further declines in asset prices, which can have a major impact on market outcomes and place those households at risk of economic hardship. As changing real estate prices may have a major impact on household asset levels and indebtedness, researchers are concerned with understanding the relationship between these variables. Micro data are essential for this research in order to reveal the detailed composition of assets and liabilities across individual households. This can also support investigation into mismatches between assets and liabilities and help to assess the risks that too much debt might pose for the households concerned and for the wider economy.

More generally, financial innovation can have a substantial effect on the level and structure of household assets and liabilities, and on the financial risks to which households are exposed. As a consequence, there is interest in monitoring changes in household portfolio behaviour in order to assess the impact of financial market developments and the possible adverse effects on some households. Similarly, liquidity,

the cost of debt and other constraints can substantially affect the borrowing of some households. Analysis of the wealth and other financial circumstances of households at the individual level can provide insights into the nature and effect of such constraints, and into their association with financial hardship and the inability to smooth income shocks.

In order to assess the adequacy of saving for retirement and the possible risk to that saving from asset meltdowns or other financial shocks, it is important to know the level and composition of the assets of households whose main income earner is at or close to retirement. This may be of particular interest in countries where there are government incentives to take up certain types of assets as part of a strategy to encourage saving for retirement. To assess the effectiveness of these policies, it is important to know who is using these financial products, and whether the incentives to use them are leading to higher saving or just to a shift away from other products in asset portfolios.

Micro data on household wealth have the potential to provide distributional indicators for use in disaggregating wealth measures in national accounts. The macro measures are typically compiled from sources that do not provide information at the level of individual households. However, micro-wealth statistics can provide such information – which is essential for producing distributional indicators – as they are typically compiled from survey data reported by individual households.

In the light of the information needs discussed above, the broad objective of micro statistics on household wealth is to provide measures of the level, composition and distribution of wealth at the level of individual households. Micro statistics on household wealth need to be accurate, comprehensive and regularly updated. They should include information both on the value of the different types of assets and liabilities in household portfolios and on the characteristics of the households holding them. These characteristics allow households to be grouped in ways that are analytically useful, such as by their size, composition and geographical location, by attributes of a particular household member, or by the level of their wealth or income.

Micro-level wealth measures need to be as consistent as possible with the macro-level measures to facilitate the use of both sets of statistics in combination. This may have further benefits in view of the potential of the micro data to improve the national accounts, or vice versa. For example, in some instances macro and micro statistics might be compared after adjusting for conceptual or coverage differences, and it might be feasible to use the micro data to improve the compilation of the macro estimates. Micro-level wealth measures also need to be consistent with micro-level income and consumption measures in order to facilitate in-depth study of the various dimensions of household economic well-being.

International wealth standards

The main current international wealth standard is the 2008 System of National Accounts (SNA). This provides a framework for macro-economic data that integrates wealth data with other economic aggregates. The ICW Framework shares many concepts and treatments with the SNA but, as discussed elsewhere, there are differences reflecting the different uses of macro and micro data and the different practical issues facing the compilers of macro and micro data.

Since there has not been an international standard for micro-data on household wealth, the OECD has developed *Wealth Guidelines* in parallel with this Framework. As

reflected in this Framework, there are many aspects of wealth statistics that have a relationship with income and consumption statistics, and therefore the international standards for those statistics have some applicability to wealth statistics. The most relevant reference is the *Canberra Group Handbook on Household Income Statistics, Second Edition, 2011*

Concepts and definitions

The concept of "wealth" generally refers to economic resources in the form of assets and liabilities. The SNA refers to the wealth of an economy's inhabitants as being the levels of an economy's assets and liabilities at particular points of time (SNA, para 1.2). Wider concepts of wealth are also important for some types of analysis. These may look beyond assets and liabilities, as commonly understood, to other types of resources that people may possess. For example, the conventional economic view of wealth may be extended by taking into account human capital (such as people's knowledge and skills), social capital (such as people's social networks and support mechanisms) or cultural capital (such as people's cultural and spiritual beliefs).[1] However, concepts relating to these different types of capital are difficult to integrate with the concepts dealing with economic resources. Also, their many dimensions are hard to measure comprehensively, particularly at the individual level, and attaching monetary values to them is especially problematic.

For micro statistics on household wealth, confining the concept of wealth to assets and liabilities in a narrow economic sense – i.e. comprising those items that have an economic value and are subject to ownership rights – is the most useful and practical approach for most purposes. This concept of wealth is a net measure equalling assets less liabilities. For an individual household, the net measure may be positive or negative depending on that household's specific circumstances. Because it is a net measure, wealth is often referred to as "net worth".

The definition of *wealth*, or *net worth*, for micro statistics on household wealth is the value of all the assets owned by a household less the value of all its liabilities at a particular point in time. Practical issues may sometimes arise with the "point in time" condition. This condition and its implications are discussed in more detail below.

Assets and liabilities

An *asset* is a store of value representing a benefit or series of benefits accruing to the economic owner by holding or using the entity over a period of time. Assets may be financial in nature or not. In micro-data, financial and non-financial assets are usually shown separately.

A *liability* is established when one unit (the debtor) is obliged, under specific circumstances, to provide a payment or series of payments to another unit (the creditor). All liabilities are financial in nature, and for all financial assets held by a household there is a corresponding liability held by another party.

To be recognised as an asset or liability, a financial claim or obligation must be unconditional once the contract or custom establishing it is agreed by both parties. This requirement for micro statistics on household wealth is the same as that for macro statistics based on the central SNA framework. This implies that contingent assets and contingent liabilities are excluded from the asset and liability measures in both sets of statistics.

Contingent assets and contingent liabilities arise from past events where one party is obliged to provide a payment or series of payments to another party if and only if certain specified conditions prevail in the future. As there is no certainty about how the future will unfold in relation to these conditions, contingent assets and contingent liabilities can be viewed as potential assets and liabilities, whose existence will be confirmed only by the occurrence or non-occurrence of future events. For example, an undrawn line of credit associated with an overdraft facility on a bank account is a contingent liability of the account holder, as the holder incurs a liability only if and when the overdraft is drawn. Similarly, a claim for compensation or damages being pursued through legal processes where the outcome is uncertain is a contingent asset of the claimant, as only if and when payment against the claim is certain does the claimant acquire an asset. Uncertainty about the value of an asset or liability does not make them contingent if it is certain that an asset or liability of some value does exist. For example, the entitlement to receipts from an annuity for the remainder of one's life, no matter how long one lives, is not considered as a contingent asset.[2]

A household's assets and liabilities include those relating to any unincorporated enterprise within the household. Such businesses are those owned wholly or partly by a member (or members) of the household where the owner and the enterprise are the same legal entity. The owner is personally liable for any business debts that are incurred, and the enterprise can be engaged in virtually any kind of productive activity, including subsistence production.

Common types of financial assets held by households are currency and deposits, bonds and other types of debt securities, listed and unlisted shares, equity in family trusts, equity in unincorporated enterprises, investment fund shares and units, and pension scheme entitlements. Common types of liabilities are loans and credit card debt. Examples of non-financial assets held by households are their homes, land, other property and valuables. Each of the different types of assets and liabilities held by households are discussed in detail later in this chapter. Unincorporated enterprises are usually best valued on the basis of how much they could be sold for. Since their operations may utilise non-financial and financial assets in an integrated way that cannot readily be separated and valued independently, this Framework values unincorporated enterprises on a net equity basis and treats the net equity as a financial asset.

Treatment of consumer durables

An important conceptual issue affecting the coverage of household non-financial assets is the treatment of consumer durables. Their treatment can significantly affect the magnitude and distribution of household wealth. It also has implications for the integration of statistics on household wealth, income and consumption, and for the consistency of macro and micro measures.

A "consumer durable" is defined in the SNA as a good that may be used for purposes of consumption repeatedly or continuously over a period of a year or more. Examples of household consumer durables are cars and other vehicles, kitchen and laundry appliances, computer and entertainment equipment, and clothing and other personal items. The central SNA framework explicitly excludes consumer durables acquired by households from its concept of assets. This exclusion occurs because the services they provide to households are not treated as being within the SNA's production boundary.

However, the ownership of consumer durables and the related services provided by those assets differ significantly between households. Therefore this Framework for micro-data treats consumer durables as non-financial assets, the services provided by those assets as household consumption, and the services net of depreciation and maintenance costs as income. This treatment has an impact on distribution measures of wealth, consumption and income. It also impacts on saving because income is higher than it otherwise would be (due to services from consumer durables being included in income), while consumption is more evenly spread over time rather than being higher in the period when a consumer durable is purchased and lower in the remaining period of the asset's life.

Treating consumer durables as assets also ensures greater symmetry with liabilities data, since households often take out loans to purchase more expensive durables such as motor vehicles.

Changes in wealth

The value of wealth is the net value of assets and liabilities at a point in time, and is therefore a stock concept. Changes in the value of a household's wealth between two points in time reflect a number of flows. The flows may have involved transactions, as in the case when the household saved or dissaved, or a capital transfer from another party or a capital transfer to another party. Other relevant flows do not involve transactions, but other changes in the volume of wealth (due to, for example, the economic appearance and disappearance of assets, the reclassification of assets and liabilities, and exceptional, unanticipated external events) and holding gains or losses.

The composition of wealth may also change over time, as the household changes the mix of its assets and liabilities. For example, the household may finance the purchase of an asset by disposing of another asset, or it may take out a loan and thereby incur a liability at the same time as acquiring the asset.

For purposes of micro statistics on household wealth, there may be interest in any or all of these flow variables, as they can assist in explaining changes in wealth levels between two points in time. The potential value of this information is reflected in country practices. Most countries that collect data on household wealth at the micro level also gather, at the same time, data on some of the flows that contribute to changes in the level and composition of wealth. Examples are: capital transfers in the form of large gifts and inheritances; purchases and sales of household assets (e.g. the main residence, or securities); capital gains or losses realised on these sales; nominal holding gains and losses; and a rough indicator of saving, involving comparison of expenses for the last 12 months with income over the same period. The concepts underlying the flows contributing to changes in wealth are described in the following subsections.

Saving

Saving is a residual concept that involves subtracting total expenditure from total income. An alternative but equivalent formulation is disposable income less consumption expenditure less interest paid on consumer credit. Saving may be positive or negative: if positive, there has been a net addition to wealth; if negative, there has been a net subtraction from wealth, often called dissaving.

Capital transfers

A transfer is a transaction where one party provides a good, service or asset to another party without receiving from the latter any good, service or asset in return as a direct counterpart. Transfers of non-financial assets and financial assets other than cash (i.e. transfers of ownership of assets without any form of direct payment in return) are capital transfers. Cash transfers may be current transfers or capital transfers.

Transfers that are large and irregular cannot be expected to be available on an ongoing basis; therefore it is expected that, in part at least, they will be saved and used to support consumption and other expenditure in future periods. Such receipts are termed capital transfers received. On the other hand, capital transfers paid are large payments by households that are not likely to be paid regularly.

In general, capital transfers tend to be large, infrequent and irregular, whereas current transfers tend to be small, frequent and regular. Examples of capital transfers relevant to households are: large donations and gifts; inheritances, bequests and legacies; inheritance taxes, death duties and other capital taxes; debt forgiveness; lump-sum retirement payments; and large insurance settlements. Examples of current transfers are personal remittances between households, income taxes, social insurance contributions and benefits, and social assistance benefits.

While the need to differentiate between current and capital transactions is clear, the boundary between them is difficult to define. Terms such as "regular" and "recurring" are imprecise and lie on a continuous spectrum. Also, a transfer that may be considered as large in a household with few economic resources may not be considered large in a household that has considerably more resources and may be involved in transfers of that magnitude on a regular basis. These issues are discussed in more detail in Chapter 7.

Because this Framework focuses on transactions from a household perspective, it departs from the SNA in some respects. As discussed in Chapter 7, the Framework allows for the possibility that a transfer that might be considered as current by one household may be considered as a capital transfer by another household. This is not possible in the SNA, because the SNA is an integrated and complete set of accounts for the economy in which transactions need to be treated in the same way by both parties involved in each of the transactions. The Framework also departs from the SNA in the treatment of receipts of accident insurance payouts. In the SNA, virtually all such receipts are regarded as current transfers received, while in this Framework they are regarded as either negative consumption expenditure or as capital transfers received, depending on their magnitude.

Transactions in non-financial assets

A transaction in a non-financial asset refers to the acquisition or disposal of either a produced asset or a non-produced asset that is not a financial claim. Produced assets cover: new and existing fixed assets, inventories and valuables. Non-produced assets that are not financial claims cover: natural resources; contracts, leases and licences; purchased goodwill and marketing assets. The transactions in these assets should be valued at the actual prices agreed upon by the parties involved in the transaction and should be recorded at the time ownership changes (i.e. when claims or obligations arise, are transformed or are cancelled). The transaction values should include any costs of ownership transfer (SNA paras 2.55, 2.59, 3.122, 10.22-10.199).

Examples of transactions in non-financial assets relevant to households are purchases and sales of homes and other dwellings; of consumer durables, land, gold, fine jewellery or recognised works of art regarded as alternative forms of investment; and of vehicles and equipment used in unincorporated enterprises belonging to households.

Transactions in financial assets and liabilities

A transaction in a financial asset or liability refers to the creation, transformation or cancellation of a financial claim or obligation. These transactions often occur as counterparts of non-financial transactions but also as transactions involving only financial instruments. The transactions should be valued at the actual price agreed upon by the parties involved in the transaction, and should be recorded at the time ownership changes (i.e. when claims or obligations arise, are transformed or are cancelled). The transaction values should exclude any commissions, fees and taxes (SNA paras 2.29, 2.55, 2.59, 3.122).

Examples of transactions in financial assets and liabilities relevant to households are: purchases and sales of debt securities; purchases and sales of shares; deposits in and withdrawals from financial accounts; drawdown and repayment of loans; incurrence and repayment of credit card debt; and contributions to and withdrawals from pension fund accounts. Where relevant, transactions should be classified using the groupings recommended for financial assets and liabilities described later in this section.

Holding gains and losses

Holding gains and losses refer to the nominal gains and losses that accrue continuously to the holders of assets and liabilities as a result of changes in their prices over a period of time. These price changes reflect movements in the relative prices of assets as well as movements in the general price level. They affect the value, but not the volume, of both non-financial and financial assets and their counterpart liabilities. They include both realised and unrealised gains and losses over the period.[3]

A holding gain occurs when an asset increases in value or a liability decreases in value; a holding loss occurs when an asset decreases in value or a liability increases in value. The value of holding gains or losses is calculated for each asset or liability over a period between two specified points in time: the beginning of the reference period or when the asset or liability is acquired or incurred during the period; and the end of the reference period or when the asset or liability is sold or extinguished during the period. The prices to be used in the calculation are those at which the asset or liability may be sold on the market.

Examples of holding gains and losses relevant to households are: changes in the prices of the land and dwellings they own; changes in the prices of valuables they own; changes in the prices of equities they hold; and changes in the prices of debt securities they hold.

Flows not arising from transactions or price changes

Other flows, not arising from transactions or price changes, affect the value of both non-financial and financial assets and their counterpart liabilities by changing their volume, either physically or quantitatively. As already noted, these flows record the economic appearance and disappearance of assets, the reclassification of assets and liabilities, and exceptional unanticipated external events. They are usually labelled, "Other changes in the volume of wealth" (SNA paras 2.109, 2.114, 12.3-12.72, 17.40-17.42).

Examples of these flows relevant to households are: the destruction of dwellings and equipment by natural disasters (e.g. major earthquakes, volcanic eruptions, tsunamis, exceptionally severe hurricanes, forest fires, etc.); the destruction of assets by wars, riots and major technological accidents; the initial recognition of existing goods as valuables (when previously considered to be of negligible value); uncompensated seizures of assets by governments; and write-offs of claims by creditors due to bankruptcy or liquidation.

Special adjustment

The changes in wealth represented by changes in pension, annuity and life insurance entitlements are not fully accounted for by the sources described above, and therefore a special adjustment needs to be made when reconciling income, consumption and wealth concepts and measures. As explained in Chapter 3, these discrepancies arise for several reasons: because some income withdrawals from pension, annuity and life insurance entitlements are treated as income rather than dissaving; because some income earned and retained in the funds is not recorded as household income; because withdrawals from the funds by fund managers as compensation for their services are not recorded as consumption expenditure; and because entitlements are subject to other volume changes and holding gains and losses.

Wealth components and classifications

For many analytic purposes, as well as for a consistent derivation of "net worth", it is necessary to identify and define the individual components of household wealth in some detail. Information about the composition of wealth is particularly important for understanding household participation in the asset market, household portfolio diversification and influences on household portfolio behaviour. Experience from the Luxembourg Wealth Study highlights the need for internationally agreed definitions of the various components identified in the micro-level data, particularly those relating to housing wealth, unincorporated enterprises and pension wealth. The wealth classification used in this ICW Framework, which is drawn on the companion *Wealth Guidelines* (OECD, 2013) is described in Table 6.1.

The following paragraphs define the coverage of each component in broad terms. It is recognised that many countries collect household wealth data in finer detail than shown in the table above; many also use different terminology for describing their components and different or additional classification schemes for organising the data in statistical presentations. These country-specific approaches reflect differences in country circumstances and analytical needs. They may also help to ensure complete coverage of assets and liabilities, particularly as new financial instruments are introduced or taken up by households at differing rates across countries.

Non-financial assets

A *non-financial asset* is defined as either a produced asset or a non-produced asset that is not a financial claim. Produced assets refer to outputs from production processes and cover: new and existing fixed assets, including consumer durables, inventories and valuables. Fixed assets are assets that are used repeatedly or continuously in production processes for more than one year (e.g. dwellings, other buildings and structures, machinery

Table 6.1. **Components of assets and liabilities**

W1	**Non-financial assets**
W1.1	Owner-occupied dwellings
W1.1.1	*Principal residence*
W1.1.2	*Other owner-occupied dwellings*
W1.2	Other real estate
W1.3	Consumer durables
W1.3.1	*Vehicles*
W1.3.2	*Other consumer durables*
W1.4	Valuables
W1.5	Intellectual property and other non-financial assets
W2	**Financial assets**
W2.1	Currency and deposits
W2.2	Bonds and other debt securities
W2.3	Equity in own unincorporated enterprises
W2.4	Shares and other equity
W2.4.1	*Shares in corporations*
W2.4.2	*Other equity*
W2.5	Mutual funds and other investment funds
W2.6	Life insurance funds
W2.7	Pension funds
W2.7.1	*Social insurance pension funds*
W2.7.2	*Private pension funds*
W2.8	Other financial assets
W3	**Liabilities**
W3.1	Owner-occupied residence loans
W3.1.1	*Principal residence loans*
W3.1.2	*Other owner-occupied residence loans*
W3.2	Other real estate loans
W3.3	Other investment loans
W3.3.1	*Financial asset loans*
W3.3.2	*Valuables loans*
W3.3.3	*Intellectual property and other non-financial asset loans*
W3.4	Consumer durable loans
W3.4.1	*Vehicle loans*
W3.4.2	*Other consumer durable loans*
W3.5	Consumer credit loans and other liabilities
W3.5.1	*Education loans*
W3.5.2	*Other loans and liabilities*
WT	**Total wealth (net worth)**

and equipment, cultivated biological resources, and intellectual property products). Inventories are assets consisting of goods and services that came into existence in the current or an earlier period and are held for sale, use in production or other use. Valuables are goods of considerable value not used primarily for purposes of production or consumption but held as stores of value over time. Non-produced assets that are not financial claims cover natural resources (e.g. land); contracts, leases and licences; and goodwill and marketing assets.

The standard components of non-financial assets cover:

● *Principal residence*: The main dwelling or other type of housing unit occupied by the household and owned by one or more of its members. The residence may or may not

have a mortgage or loan secured against it. The land on which the residence is located should be included.

● *Other owner-occupied residences*: Other dwellings or other types of housing unit owned by one or more of the household members and occupied by household members on a regular basis. They include, for example, a city dwelling occupied by some household members during the working week, but exclude holiday dwellings used on an occasional basis. The residences may or may not have mortgages or loans secured against them. The land on which the residences are located should be included.

● *Other real estate*: Other residential and non-residential buildings and land owned by household members other than own unincorporated enterprise assets. The real estate may be rented or leased to other parties, or it may be used exclusively by the household.

● *Vehicles*: The cars, motor cycles, boats, aircraft, etc., owned by household members other than own unincorporated enterprise vehicles.

● *Other consumer durables*: Contents of the household's principal residence and other housing units, where these contents are owned by the household, other than own unincorporated enterprise assets. Examples are kitchen and laundry appliances, furniture, computer and entertainment equipment, clothing and other personal items, excluding valuables.

● *Valuables*: Goods whose primary role is as stores of value. Examples are: precious stones and metals, fine jewellery, works of art, antiques, and stamp and coin collections.

● *Intellectual property and other non-financial assets*: Miscellaneous non-financial assets that are not own unincorporated enterprise assets. These include intellectual property products (e.g. literary or artistic originals, or computer software) and contracts, leases and licences that meet the conditions for treatment as assets (e.g. marketable operating leases allowing a tenant to sub-let a building, or tradable licences and permits to undertake specific activities).

Financial assets

A *financial asset* refers to a financial claim, which is the payment or series of payments due to the creditor by the debtor under the terms of a liability. Shares and other equity are treated as financial assets even though the financial claim their holders have on the issuing institutional unit is not a fixed or pre-determined monetary amount.[4] In this Framework, financial assets managed as an integral part of the operations of own unincorporated enterprises are not presented with the other financial assets of the household, since net equity in own unincorporated enterprise is treated as a separate component of financial assets.

The standard components of financial assets cover:

● *Currency and deposits*: Currency and claims that are represented by evidence of deposit. Examples are notes and coins of fixed nominal values issued by the central bank or government, transaction accounts, saving accounts, fixed-term deposits, and non-negotiable certificates of deposit. Also included are special saving accounts, such as those relating to saving plans under which income taxes on funds deposited in the account can be deferred until money is withdrawn.

● *Bonds and other debt securities*: Negotiable instruments serving as evidence of debt. Examples are government saving bonds, corporate bonds, commercial paper, state or municipal non-saving bonds, foreign bonds and other non-saving bonds, debentures,

mortgage-backed securities, negotiable certificates of deposit, treasury bills and similar instruments normally traded in financial markets.

- *Equity in own unincorporated enterprises*: Household members' share of the value of the non-financial assets plus financial assets less liabilities of unincorporated enterprises that those members both own (or partly own) and work in. Unincorporated enterprises are usually best valued on the basis of how much they could be sold for. Since their operations may utilise non-financial and financial assets and liabilities, integrated in ways that cannot readily be separated and valued independently, this Framework values unincorporated enterprises on a net equity basis, and treats the net equity as a financial asset equivalent to shares in an incorporated enterprise. Examples of assets relevant to this component are industrial land and buildings, livestock, inventories, machinery and equipment of various types including company vehicles, intellectual property, cash and deposits of the business, and shares and other investments managed as an integral part of the business. The liabilities of an unincorporated business include business loans and accounts with business suppliers still to be paid.

- *Shares in corporations*: Instruments and records acknowledging claims on the residual value of a corporation after the claims of all creditors have been met. Examples are publicly traded shares that are listed on an exchange and unlisted shares (i.e. private equity securities).

- *Other equity*: Instruments and records acknowledging claims on the residual value of a business after the claims of all creditors have been met. Examples are household members' equity in partnerships in which the household members do not work (these investors are sometimes known as "sleeping" or "silent" partners), and equity in family trusts. Household members' equity in own unincorporated businesses (i.e. unincorporated businesses that the members own or partly own and in which they also work), mutual funds and other investment funds are excluded.

- *Mutual funds and other investment funds*: Collective investment undertakings through which investors pool funds for investment in financial or non-financial assets. Examples are mutual funds, hedge funds, unit trusts, income trusts and other managed investment funds.

- *Life insurance funds*: Claims of policy holders on enterprises offering life insurance or providing annuities, except those annuities purchased from lump sums rolled over from pension schemes. These claims include life insurance entitlements where the insurer guarantees to pay the policy holder an agreed minimum sum or an annuity at a given date or earlier if the policy holder dies beforehand. Both with-profit and without-profit policies are included. Term insurance providing benefits in the case of death (e.g. from an accident) but in no other circumstances is regarded as non-life insurance and is therefore excluded. The treatment of different types of insurance is discussed further in Chapter 7.

- *Pension funds*: Claims of members and account holders on pension schemes. These claims include entitlements in both employment-related social insurance pension schemes and private pension schemes. These claims also include annuities purchased with lump sums rolled over from pension funds, regardless of the institution with which the annuity is held. Pension schemes are sometimes known as retirement plans or superannuation schemes. Pension schemes may be defined-benefit schemes (where the formula for defining a member's pension is agreed in advance) or defined-contribution

schemes (where the amount of the pension depends on the performance of the assets acquired with the member's contributions). The schemes may be compulsory or voluntary. Examples are current balances of accounts with public, occupational and industry schemes, and personal pension accounts with financial institutions (e.g. superannuation or retirement saving accounts that meet conditions specified under superannuation or tax laws, tax-deferred retirement accounts, and self-managed superannuation funds). Excluded are entitlements in government social security pension schemes.

● *Other financial assets*: Miscellaneous financial assets, including loans made to other households, option contracts, other types of financial derivatives, and other accounts receivable.

Liabilities

A *liability* is established when one unit (the debtor) is obliged, under specific circumstances, to provide a payment or series of payments to another unit (the creditor). Most of the standard liability components for micro statistics on household wealth refer to loans of various types. Loan liabilities are defined as obligations that are created when a creditor lends funds directly to a debtor, and the creditor's claims are evidenced by documents that are not negotiable. Loan liabilities include overdrafts, instalment loans and hire-purchase credit but exclude accounts payable that are not delinquent. However, in this Framework the liabilities of own unincorporated enterprises are not presented with the other liabilities of the household, since net equity in own unincorporated enterprises is treated as a financial asset.

The classification of loans by type is intended to reflect the main purpose for which the loan was taken out, not the form of security used to obtain the loan. Consider, for example, a loan secured against a residence but used to purchase a motor vehicle. It should be classified as a vehicle loan if it is a new loan primarily taken out to purchase that vehicle. But for practical purposes, it should be classified as a residence loan if it is only an extension of a mortgage already taken out to finance the purchase of the residence. It is necessary to classify loans according to their purpose if the interest paid on the loans is to be allocated appropriately as an input cost to the productive activity to which the asset is put, or as an expenditure item as interest on consumer credit.

The standard components of liabilities cover:

● *Principal residence loans* and *other owner-occupied residence loans*: Loans for the purpose of constructing, purchasing or improving the household's owner-occupied residences. Examples are home mortgage loans, home equity lines of credit for home improvement, money borrowed for a deposit on a home purchase, and bridging finance taken out until such time as a home loan is obtained.

● *Other real estate loans*: Loans for the purpose of constructing, purchasing or improving other dwellings, buildings and land (other than own unincorporated enterprise properties). Examples are loans to purchase holiday homes and rental properties for investment purposes.

● *Financial asset loans:* Loans used to purchase shares and other financial assets, excluding loans used to finance purchases or the operations of own unincorporated enterprises. Loans used for own unincorporated enterprises are deducted when deriving the value of equity in those enterprises.

- *Valuables loans*: Loans used to purchase art works, jewellery and other valuables primarily as stores of value.

- *Intellectual property and other non-financial asset loans*: Loans used to purchase intellectual property and other non-financial assets not included elsewhere (excluding loans for own unincorporated enterprises).

- *Vehicle loans*: Loans for the purchase of cars, motorcycles, boats, aircraft, etc. (excluding business loans).

- *Other consumer durable loans*: Loans for the purchase of other consumer durables such as furniture, electrical appliances, clothes, etc. (excluding business loans).

- *Education loans*: Loans to cover study expenses (excluding business loans).

- *Other loans and liabilities*: All other loans and liabilities not included above (excluding loans and liabilities of own unincorporated enterprises). Includes amounts outstanding on credit cards, bank account overdrafts and other lines of credit, if not included above. In practice, it is difficult to decompose credit card debt, bank overdrafts and similar types of ongoing loan facilities into separate categories. In that case, they should be allocated to the major purpose for which they are normally used. This category also includes other loans taken to: purchase consumption items, e.g. food or holidays; purchase valuables, including if purchased primarily as an investment; pay tax obligations; pay a capital transfer to another household, e.g. to help a relative purchase a dwelling; and make a loan to another household, e.g. because the first household has better security or access to a lower interest rate than the other household (the first household would also have a financial asset equal to the value of the loan to the other household).

For some analysis, e.g. when considering the exposure of a household to different forms of risk and associated household behaviour, it is also of interest to know the form of security or collateral used to obtain the loan. Therefore, it is desirable to collect both the purposes for which a household obtained loans and the form of security used. The form of security may be the principal dwelling, other owner-occupied dwellings, other real estate, business assets, vehicles, valuables or other security. Some liabilities are unsecured, and it may be useful to disaggregate those into liabilities outstanding on credit cards, overdraft amount, etc.

As described above, the liabilities of own unincorporated enterprises are not included in the standard liability components in this Framework, because net equity in own unincorporated enterprise is treated as a financial asset. However, users of micro statistics are likely to be interested in the value of those liabilities for some forms of analysis, and it would be useful, where possible, to collect the information on them as a supplementary data item.

Statistical and measurement issues

A range of conceptual and practical issues need to be kept in mind in order to produce useful micro data on the stock of wealth and the flows contributing to changes in that stock.

Valuation

The main criterion is that the valuation of stocks and flows should be consistent. However, a variety of valuation bases exist for describing the assets and liabilities of households in monetary terms. These tend to reflect the different types of assets and liabilities that are held, the different institutional arrangements under which they are held, and the changes in prices that occur over time. Each valuation basis serves a specific purpose and may be used to produce some types of statistics.

For macro-level wealth statistics, the SNA recommends that all assets and liabilities be valued at their current value on the market, or at the closest equivalent to this, on the date to which the statistics relate (SNA paras 2.58-2.60, 3.16, 13.16-13.17). This basis of valuation is fundamental to the integrated nature of the SNA, as it ensures consistency between flow and stock measures. It also reflects the basis on which decisions are made concerning the acquisition and disposal of assets, since such decisions are generally taken in the light of the prices at which the assets may be bought or sold on markets. This means that the values of the assets and liabilities held by households at any moment in time vary whenever any transactions take place, price changes occur, or other changes in volume arise.

The SNA also provides guidance on methods for approximating the current value of assets and liabilities when observable market prices are not available (SNA 3.118-3.139, 3.155-3.158, 13.18-13.84). These methods include: derivation of values from prices established in related markets; estimation of fair values that approximate market prices; calculation of written-down replacement cost; and estimation of the discounted present value of expected future returns. The SNA also discusses the use of nominal values, face values and insured values in estimating current values for particular types of assets and liabilities.

In the case of micro-level wealth statistics, the current valuation of household assets and liabilities is also the preferred measurement basis for most analytical purposes, for similar reasons to those given for macro statistics. However, ambiguities can arise when applying this broad concept to specific types of wealth. In particular, it may be difficult to assign a point estimate of value to those assets that do not face a regular market test or are rarely traded. Also, there can be considerable subjectivity in determining the best approximation of current values. For example, where there are multiple approaches to trading, there may be a number of different valuation bases, any one of which might be considered appropriate in some circumstances.

In practice, most of the different kinds of wealth held by households are likely to raise some valuation issues, and certain kinds of wealth can be expected to present more challenges than others. One of the most important assets for many households, their home, exemplifies the challenges. It may be difficult to value the dwelling in an objective way unless it is actually sold. Except when the dwelling is part of a newly built housing development with clearly distinguishable variations on a basic theme, any special features may generate considerable uncertainty about its value even under a given trading regime. But the valuation of a dwelling usually depends critically on the trading regime, and this implies that a range of potential prices may need to be considered. If a "quick sale" price is used, this may be lower than what might be obtained by filtering through a number of potential buyers over a longer period of time. The length of time an owner is willing to filter through potential buyers to optimise the sale price may also generate a range of values. A "self-evaluation" or "reservation" price – interpreted as the price that would cause an owner not currently intending to move to be willing to sell – might also be considered. A self-evaluation price of this kind might be particularly useful in explaining the consumption behaviour and/or financial decisions of an individual household, as well as in analysing its propensity to consume by drawing on wealth. However, it might not provide a good approximation of the current price of the asset for use in compiling statistical measures.

Other valuation bases include the original acquisition price. This price may provide useful insights for some wealth components, particularly when used in conjunction with current price valuation and analysed at the level of individual households. However, if this basis of valuation is used to produce wealth aggregates relating to all households, the aggregates may have little meaning for many types of analysis, since they would be based on a range of prices stretching back from the current period to possibly the distant past, and very similar assets could be valued at very different prices. In addition, changes in the level of assets over time could easily be misinterpreted, and there would be inconsistencies between stock and flow measures.

In principle, for micro statistics on household wealth, all of a household's asset and liabilities should be valued at their current value on the market, or at the closest equivalent to this, on the date to which the statistics relate. This valuation basis is applicable to all types of assets and liabilities and allows a consistent, coherent and comparable set of aggregate measures to be produced. As this is identical to the valuation basis recommended in the SNA, it also facilitates consistency between macro and micro-level wealth statistics, and between stock and flow measures.

While this "current value" principle underpins existing micro statistics on household wealth in many countries, putting the principle into practice in data collection is not straightforward. Those assets that are typically large contributors to household wealth (e.g. the household home) and non-marketable or non-traded assets (e.g. pension entitlements) often need detailed attention when developing collection methodologies to determine how current price valuation can be best approximated. The availability of information within households, together with respondent burden, also affects the options that can be considered. The current price valuation of each component of household wealth is examined from a practical perspective in *Wealth Guidelines*, along with methods for approximating this basis of valuation. Guidelines are also provided to promote best practice and international comparability.

Timing of recording

In principle, for micro statistics on household wealth, all of a household's assets and liabilities should be recorded at the same point in time, and this point in time should be the same for all households.

A uniform time of recording is essential to ensure the internal consistency and coherence of the statistics. For example, the integrity of aggregates produced by summing or differencing the assets and liabilities of individual households depends on all the components being measured at exactly the same date. To the extent that there are departures from this date, the asset and liability totals may be very difficult to interpret, and the meaning of derivations such as net worth or changes in levels over time may be somewhat blurred.[5]

In practice, difficulties are likely to be encountered in applying this principle to data collection. For example, even though data may be sought in respect of a specific point in time, a household may only have data available for different dates, and it may not be feasible to adjust the data. In addition, although a few countries specify "end of the previous year" as the time of recording for their data collections on household wealth, most countries specify "time of interview". As data collection typically extends over a period of time, such as several months, "time of interview" generally implies the use of

different dates by different households. Again, adjusting the data to a common date may not be feasible. These measurement issues and possible adjustment methods (e.g. the use of indices, such as those relating to the stock market) are considered further in the *Wealth Guidelines*.

A related matter is the reference date for micro-level wealth statistics. In accordance with both the stock concept of wealth and the time of recording principle, the reference date should ideally be a specific point in time rather than a period of time. In practice, constraints on data collection may lead to operational arrangements whereby reference dates span a period of time. For example, in some countries the statistics refer to stock levels over a period of time (e.g. a year) rather than at a point in time (e.g. end of a year). It may be appropriate in such cases to describe the resulting statistics as showing average stock levels over the period if the underlying records are considered to be representative of the entire period. Where such practices are adopted, their analytical implications may need special consideration, as there will be additional elements to take into account for some types of analysis (e.g. understanding changes in wealth over time, joint analysis of micro and macro wealth statistics, and combining micro statistics on wealth, income and consumption).

Consolidation and netting

An individual in a household may have a financial claim on another household member, in which case the second member has a liability to the first. Such claims and liabilities should be netted out and not included in the assets and liabilities of the household when producing household statistics. This is comparable to the standard of not including payments from one household member to another in the income and payments of the household. However, data on the intra-household claims and liabilities should be collected if it is planned to produce statistics on units smaller than the household, such as the family economic unit or individuals.

A household may have both assets and liabilities relating to a particular type of financial instrument. For example, it may have loan claims as well as loan obligations. Some of its assets and liabilities may also be directly linked. For example, it may own a dwelling on which there is a mortgage. While they could be offset against each other, with only the net position included in the aggregates, it is preferable that in both cases the asset and its corresponding liability are included in the asset and liability aggregates. This enables a better analysis of the asset and liability mix of the household, and the study of the potential impact on households of policy changes or other factors.

The main area where implementation issues may arise concerns unincorporated businesses belonging to households. Where the business is treated as part of the household, it may be difficult to obtain separate data on all the assets and liabilities of the business. An estimate of the value of the business (i.e. its assets less liabilities) may be all that can be collected in some circumstances. This issue is discussed further in the *Wealth Guidelines*.

Saving as a residual

A particular issue arises with one of the major flow variables: household saving. As noted earlier in this chapter, saving is a derived variable that is not independently measurable in either macro or micro statistics. In principle, it is derived by subtracting final consumption expenditure from disposable income, where each of these variables is measured

independently. From a practical standpoint, even where a survey aims to collect details of a household's income, consumption and wealth on a fully integrated basis, it is very unlikely that complete and consistent data would actually be available for each and every household. While the difference between income and expenditure can be calculated in such cases, it will be difficult to interpret, as it will reflect, in addition to saving or dissaving, errors and omissions in both measures as well as timing differences between them.

Data collection, dissemination and analysis

Data sources and methods for producing household wealth statistics

Micro data on household wealth are typically obtained from one or more of these sources:

- Multipurpose household surveys, in which a wealth module is embedded.
- Integrated surveys on household wealth and income, or household wealth, income and consumption.
- Surveys of financial institutions.
- Administrative records.
- Specialised private databases covering items such as works of art, historical dwellings and luxury vehicles.

Depending on country circumstances (including, but not limited to, budgets available to data collecting agencies, co-operation agreements between different institutions, privacy laws, the contents of public records, cultural factors influencing the propensity to participate in sample surveys, characteristics of the market for private databases), the optimal source for compiling statistics on household wealth may vary. All approaches involve challenges to data quality, including differences in concepts and definitions, with the nature of the challenge varying with the source or method.

Household surveys are becoming the prevalent source of micro-level data on household wealth. These surveys often collect a core set of demographic and socio-economic information along with data on the topic or topics of particular interest, such as wealth. This core information can be used to classify households into groups, and then to show the distribution of total wealth or other aspects of wealth across these groups. In the case of multipurpose surveys, the simultaneous collection of data on various facets of economic activity allows, in principle, for the production of relatively complex statistics (e.g. debt/income ratio, sources of wealth accumulation by income class, etc.) without the added variability or errors that comes from most data-merging techniques. When surveys include a panel component, wealth dynamics can also be studied at the micro level using appropriate models.

The main challenge to data quality in cross-sectional surveys comes from the response process. Data can be biased by non-response and misreporting. Minimising reporting problems and their effects is a key part of a survey strategy. For any type of statistical survey, there is a trade-off between the perceived response burden and the amount of data collected. This can affect the extent to which a collection can obtain data on the many variables of interest for household wealth statistics.

Trade-offs also exist in terms of the precision of different sets of estimates. For example, a survey geared towards measuring the aggregate holdings of complex financial assets needs to be focused on the (typically small) group of households investing in such

instruments. In most countries, these households are also the wealthiest ones, and wealth tends to be inversely proportional to a household's propensity to participate in surveys. Under a fixed budget, resources are diverted from interviewing more ordinary households to interviewing wealthy ones. Precision in measuring rarely held assets may therefore translate into higher variability of estimates for other ones that are widely held but not particularly common in the wealthiest segment of the population,

Administrative records provide detailed data on any asset or liability that must be registered, either for fiscal purposes or for other reasons. In most countries, dwellings and vehicles are subject to registration procedures, as are other wealth items sometimes, including saving held in foreign currency or in specific financial instruments. Administrative records might also exist for debts exceeding a certain threshold, especially in countries where credit risk is evaluated by government agencies.

These types of records provide two significant advantages over competing sources. First, they normally cover the whole population of an administrative unit (e.g. country, State/Province/Region, etc.); secondly, especially in the case of tax data, a great deal of effort and money is spent in ensuring their accuracy.

The use of administrative data is, however, often severely restricted in order to protect the privacy of households. Depending on the country, laws might mandate that they are used only for a specific purpose, such as calculating taxes, or that they are not released in any non-aggregate form to any institution, public or private, outside the producing agency. Even in the minority of countries where some administrative records are publicly searchable, auxiliary information is often scarce, limiting the possibilities of analysis using such sources alone.

Quality issues might affect administrative records too. Compared to surveys, where data quality generally varies across the sample, this kind of data are more likely to be affected by systematic error; for example, the value of dwellings might be registered based on a census carried out in the distant past, and then not updated to keep market dynamics into account. Conceptual differences may also be important. For example, in some instances, the value of real estate assessed for tax purposes is based on a formula that has only a rough connection with one of the many market prices that might apply. Where administrative data are maintained for fiscal purposes, there may also be an incentive for households to act in ways that cause the value recorded to be minimised.

Private data sets exist covering a variety of wealth items, but are generally limited to segments of the population, e.g. customers of a specific credit institution, owners of a certain brand of car, residents of a certain area. While several data sets, e.g. from different banks, might be combined to obtain a fuller picture, this generates additional costs that are often incompatible with the budget constraints faced by institutional data producers.

Combinations of different sources can occur for several purposes. Conceptually, two types of combinations between different sources can be defined: direct, i.e. carried out on individual data records (e.g. linking of survey-based information with tax information at the household level); and indirect, i.e. based on the incorporation of data from a source as background information for another one (e.g. use of housing prices from a private database in the process of survey design, use of correlations observed on a database in order to construct imputation models for a different one).

Combining sources through record matching

Where direct combination at the micro level is concerned, two kinds of techniques are available: exact matching and statistical matching. Exact matching consists in linking data referring to the same household from different archives. It requires individual households to be identifiable. Statistical matching consists in linking data on similar households from different archives. It requires definition of criteria for assessing similarities between households, based on variables present in all the archives involved.

Exact matching tends to be difficult to carry out, because privacy laws often prevent different data producers from exchanging identifying data about individual households. Sometimes, the producers themselves are prevented from acquiring such data, or from storing them beyond their immediate needs. The most favourable conditions for exact matching arise whenever the archives to be matched belong to the same institution, e.g. a National Statistical Office.

Statistical matching does not hinge on the direct use of personal data; as a consequence, it is generally not subjected to strong legal restrictions, provided that the information contained in the matched data set does not facilitate the identification of the respondents. Compared to exact matching, its main disadvantage lies in the uncertain nature of the process. Statistical matching reflects only micro-level relationships used in the matching algorithm, which can contain errors and/or omissions based on incorrect models or scarcity of information in any of the databases. If survey data are used in a matching exercise, survey error enters the process, increasing this margin.

Where wealth data are concerned, most matching experiments aimed at expanding the breadth of available information have been carried out by linking wealth data sets with other sets that focus on consumption, income, employment and financial literacy. Socio-demographic characteristics or transformations thereof are generally used as pivot variables. Some experiments aimed at improving data quality have been conducted by matching survey data sets affected by non-response on some wealth items and/or for some categories (e.g. the very rich) with private data sets or administrative records containing information requested of, but not provided by, respondents in the survey.

Collection unit and data to be collected

It is important to distinguish between data collection units and data analysis units. The data collection unit is the physical entity within the population about which information is collected (e.g. a person or a household). The data analysis unit is the unit about which statistics are produced. It may be the same as the collection unit, or it may be derivable from the data obtained in respect of the collection unit.

The collection units that can be used for micro-level wealth data generally depend on the design of the statistical survey or the nature of the administrative system through which the data are available. In the case of household wealth surveys, countries use two main types of collection unit: the household (defined in different ways) and the individual person. Other units within the household, such as the family, are also used for collection purposes, but this is less common.

Many countries use both the household and the individual person as collection units. This usually means that some details are collected for the household as a whole from one of its members, while other details are collected from each of the members concerned. For example, information on wealth that is often shared may be collected for the whole

household, while information on wealth that is typically held in a single name may be collected directly from each member. The practical issues associated with different types of collection unit are discussed in more detail in the *Wealth Guidelines*.

In general, wealth data collected at the level of individual persons provide greater flexibility for analysis than data collected at the household level. For example, where wealth data are collected at the person level, it may be analysed by person or aggregated for analyses of households, family economic units, or other units within a household. However, if it is collected at the household level, it may be analysed for units below this level only to the extent that it can be derived from the information collected. Collection at the person level also opens up the possibility of obtaining data on individual ownership shares for assets and liabilities held jointly by household members: such data can provide insights into how wealth is distributed within the household.

From the perspective of accuracy, it is more difficult to generalise. In many cases wealth data obtained directly from the persons concerned are more likely to be complete and based on relevant records than combined data for all household members reported by a single household spokesperson based on that person's knowledge of everyone's finances. In other cases, however, the situation may be less straightforward: for example, members may have differing views about ownership and other aspects of jointly held assets, or one member may specialise in managing finances with other members knowing very little about assets they nominally own.

As well as wealth information, most household wealth surveys collect a range of other information about the household and its members. Examples are household size and composition, income, employment, and characteristics or behaviours of individual household members (such as educational attainment or payment habits). While some information of this kind may be readily obtained for the household as a whole through a single person, other information may need to be collected from each person concerned in order to obtain accurate details. Often, information about the composition of a household and the basic characteristics of its members is collected through a single spokesperson, and more detailed information relating to individual members is collected directly from each of them.

For purposes of integrating micro statistics on wealth with those on income and consumption, there may be advantages in adopting a unified approach to collection units. This is particularly relevant for countries that use a single household survey to cover wealth and one or both of these other topics, each in some depth.

In general, the choice of the collection unit for obtaining information through household wealth surveys needs to take into account the nature of the information being sought, the likely impact on data quality and the survey design. The household unit, the individual person unit, or possibly other or multiple units may be appropriate, depending on a country's particular circumstances.

Analysis unit

The main unit of analysis for micro statistics on household wealth is generally the household. But, as for income and consumption, for some countries and certain types of analysis, other types of unit within the household may also be important, such as the individual person or the family economic unit.

While wealth is held by individual persons, wealth analysis usually focuses on households, since individual wealth, like other economic resources, may be shared with others living in the same household. For example, it is not unusual for some assets and liabilities (such as the household home and any associated mortgage) to be jointly held by partners in a couple relationship. Other assets, such as the bank deposits of the main income earner, may be drawn down as needed to finance the consumption expenditure of a dependent person living in the same household. Even where there is no joint ownership of wealth and no intra-household transfers of wealth, the economies of scale that arise from the sharing of dwellings may benefit members by allowing higher levels of wealth accumulation than would otherwise be the case.

A full appraisal of the way in which wealth is shared within a household would require detailed information on how both wealth and other economic resources are distributed and used within the household, including the various types of transfers that take place between household members. Such detail is very difficult to obtain, and generally countries do not attempt to collect it. However, as already noted, where information is collected at the individual person level it may be possible to obtain some information on individual shares of assets and liabilities held jointly by household members.

For many types of analysis of household wealth, the unit of analysis is a type of decision-making unit. In the case of the household unit, this assumption seems reasonable for the most common and simple household structures, such as nuclear families and single individuals. But for more complex household structures, usually relating to a relatively small proportion of the population, the assumption may be more questionable, as decision-making arrangements within such households can be quite heterogeneous. Since complex households tend to be more common in some countries than in others, this may affect wealth comparisons across countries. Grouping households by size and composition (including family type) can assist in addressing these issues.

Use of equivalence scales

When analysing the distribution of income or consumption across individuals, the normal practice is to equivalise the relevant economic aggregate. Household income is used rather than individual income, because income is usually shared at least to some extent within households, and because there are economies of scale from sharing some resources, especially housing. To capture the impact of these economies of scale, the household income estimates are equivalised, as discussed in Chapter 3. Data that describe household characteristics such as equivalised income but are enumerated for individuals are called person-weighted data.

If wealth is considered from the perspective of an economic resource that can support the current consumption of a household, it is appropriate to equivalise household wealth in the same way as household income is, and to use person-weighted data in analysing the distribution of wealth.

However, if wealth is considered from the perspective of an economic resource that may be used to support consumption in the future, that consumption may not be undertaken by the household in its current form, as individuals may have entered or departed from the household. If they came from or went to other households, rather than being births or deaths within the household, there may have been some shift of wealth between the households concerned. Wealth is owned by individuals, and the wealth owned

by an individual moving into or out of a household may be significantly different from the average wealth of the other people in the household. As a typical example, the wealth of households with working-age adults who have children is likely to be used to support the consumption of the parents when they retire after the children have left the household. The children are not likely to take much of the household wealth with them.

It follows that using person-weighted estimates of equivalised wealth may be of some analytic use, but it gives less insight than the estimates of equivalised income or current consumption. As a result, the analysis of wealth distribution typically focuses on statistics that are classified by the life-cycle stage of the household. Similarly, measures such as Gini coefficients that provide a single statistic summary of wealth distribution across the whole population are of somewhat limited use.

Summary

The key highlights from this chapter can be summarised as follows:

- Micro statistics on household wealth refer to the level, composition and distribution of wealth held by households at a particular time, as well as to changes over time.

- The ICW Framework for micro statistics on household wealth is closely related to that for macro statistics contained in the 2008 edition of the *System of National Accounts* (SNA). Nevertheless, there are some differences, reflecting the different purposes and analytic focus of the statistics to which they refer.

- The level of wealth refers to the value of the stock of assets held after deduction of liabilities outstanding. Because the level of wealth is net value, it is sometimes referred to as net worth.

- Assets can be non-financial (e.g. dwellings and other real estate, valuables, vehicles and other consumer durables) or financial (e.g. currency and bank deposits, equity in businesses and entitlements in pension funds). Liabilities are all financial in nature and include loans used for housing, loans used to finance the purchase of shares, education loans and credit card debt. Assets and liabilities should be valued at current market prices.

- Various flows contribute to changes in the stock of wealth over time. *Saving* is the excess of income over current expenditure and adds to wealth, while dissaving is the decrease in wealth resulting from current expenditure exceeding income. *Capital transfers* refer to the acquisition or disposal of assets when the receiving party neither makes a payment nor incurs a liability to the provider of the asset; such transfers tend to be large and irregular, e.g. large donations and gifts, large gambling winnings, inheritances and lump-sum retirement payments. *Other volume changes* refer to changes such as the destruction of assets (e.g. by accident, storm or war) or recognition that something such as a work of art not previously considered valuable now has value. *Holding gains or losses* are the changes in asset and liability values that reflect changes in the relevant market prices over time.

- The main unit of analysis for micro statistics on household wealth is generally the household. For certain types of analysis, other types of unit within the household may also be important, such as the individual person, the family or the primary economic unit.

- If wealth is considered from the perspective of an economic resource that can support the current consumption of a household, it is appropriate to equivalise it in the same

way as household income is equivalised, and to use corresponding person-weighted data in analysing the distribution of wealth. However, if wealth is considered from the perspective of an economic resource that may be used to support consumption in the future, that consumption may not be undertaken by the household in its current form. The use of person-weighted equivalised estimates gives less insight than in the case of income, and it is more important to examine household data classified by life cycle.

Notes

1. Experimental measures of the monetary value of human capital, based on the life-time income approach, are presented in Liu (2011).

2. It should be noted that financial derivatives – such as option contracts and forward contracts – are treated as actual assets and liabilities, not contingent ones. This treatment follows that in the SNA (paras 11.23, 11.111-11.125). Such financial instruments provide a means through which specific financial risks linked to underlying items can be traded or offset in financial markets in their own right.

3. Holding gains are sometimes described as "capital gains", but the term "holding gain" is preferred in the SNA because it emphasises that they accrue purely as a result of holding assets or liabilities over time without transforming them in any way (SNA 2.109, 3.105-3.106, 3.153-3.154, 12.73-12.93).

4. Conversely, equity is treated as a liability of the issuing unit.

5. The principle outlined here for micro statistics is consistent with the time of recording rules for macro statistics based on the SNA (SNA paras 2.54-2.57, 3.16, 3.150-3.160). The SNA requires stocks and flows to be recorded consistently with respect to timing. It specifies that stocks of assets and liabilities are to be recorded at the same moment, typically the beginning or end of an accounting period. Flows are to be recorded at the moment of accrual within the accounting period (i.e. the moment economic value is created, transformed, exchanged, transferred or extinguished). The SNA notes that an exact timing of individual flows within the accounting period is crucial for distinguishing between changes in net worth due to transactions and changes due to holding gains and losses.