

ANNEX B

Comparison of micro and macro frameworks

The main framework developed for analysis of income at the macro level is the System of National Accounts (SNA). Chapter 3 explained that the micro and macro frameworks used to compile household income, consumption and wealth statistics have the same broad underlying concepts, but that there are differences reflecting the different purposes of the two types of data and the data sources used to compile them. Table B.1 provides a detailed element by element comparison of the definitions embodied in this Framework and those of the SNA.

There may also be differences between micro and macro data sets because of differences in the population in scope of the data sets. National accounting estimates cover all people that are part of that economy. Household surveys are often restricted in scope to private households living in housing units, as described in Chapter 7.

In principle, both macro and micro data are compiled on an accrual basis. However, data collected from households are likely to be on a cash basis for most elements. For elements where there may be a significant difference between an accrual basis and a cash basis, such as income tax payments, it may be appropriate to model the element rather than rely on data reported by households. The issue is discussed in Chapter 3. The difference between micro and macro data due to the accounting basis underlying the data are likely to vary depending on country accounting practices and the extent to which steps are taken to ensure that the micro data are estimated on an accrual basis through the use of modelling.

Table B.1. Comparison of micro and macro framework elements

Part 1: Income

ICW Framework		SNA 2008		Comment
Code	Element	Code	Element	
I1	Income from employment			
I1.1	Employee income			
I1.1.1	Cash wages and salaries	D11	Wages and salaries	Wages and salaries paid while employee is on sick, injury or maternity leave are included in I1.1.1 in the ICW Framework and in D6222, Other social insurance non-pension benefits, in SNA.
I1.1.2	Cash commission and piece-work payments	D6222 (part)	Other social insurance non-pension benefits (part)	
I1.1.3	Cash tips and gratuities			
I1.1.4	Directors' fees			
I1.1.5	Shares offered as part of employee remuneration			
I1.1.6	Profit-sharing bonuses and other forms of profit-related pay			
I1.1.7	Other cash bonuses			
I1.1.8	Free or subsidised goods and services from employers			
I1.1.9	Severance and termination pay	D6222 (part)	Other social insurance non-pension benefits (part)	
I1.1.10	Employers' social insurance contributions	D121	Employers' actual social contributions	
		D122	Employers' imputed social contributions	SNA element comprises imputed amounts to reflect the insurance premium equivalent that would be required to provide cover for the social benefits provided directly by employer, such as wages and salaries and other benefits while employee is on sick, injury or maternity leave severance and termination pay pension entitlements from defined-benefit schemes not met by actual social insurance contributions paid Employees are unlikely to be able to report such contributions in household surveys, and they are <i>excluded</i> from the ICW Framework.
I1.2	Income from self-employment	B3n D422 (part)	Net mixed income (part) Withdrawals from income of quasi-corporations (part)	In SNA, these elements include income of "sleeping" or "silent" partners, which the ICW Framework includes in I2.1.3 In SNA, element B3n, Net mixed income, includes income from renting non-dwelling buildings and structures, which the ICW Framework includes in I2.2 royalties and other intellectual property income, which the ICW Framework includes in I2.3 SNA elements <i>exclude</i> interest earned as part of unincorporated business operations and interest paid on business loans – they are included separately as part of D41, Interest received or Interest paid (but associated FISIM charges are included here as input costs) rent earned from land or other natural resources as part of unincorporated business operations or rent paid on land or other natural resources used for business – they are included separately as part of D45, Rent received or Rent paid The depreciation allowances deducted when deriving business profit or loss for the ICW Framework are likely to be the allowances allowed under relevant tax and accounting rules, based on historic cost. They may not reflect the actual rate at which fixed capital is used up in the production process. Consumption of fixed capital is the corresponding item in the SNA, but it is based on current replacement cost, not historic cost, and it is based on estimates of actual rates of capital consumption.

Table B.1. Comparison of micro and macro framework elements (cont.)

Part 1: Income

ICW Framework		SNA 2008		Comment
Code	Element	Code	Element	
I2	Property income			SNA <i>does not deduct</i> any expenses when deriving property income elements outlined below. Any interest paid on associated investment loans are included separately as D41, Interest paid. Any other expenses (including FISIM) are included in P31, Individual consumption expenditure.
I2.1	Income from financial assets			
I2.1.1	Interest from deposits, net of expenses	D41 (part)	Interest received (part)	SNA element <i>includes</i> FISIM, which is <i>excluded</i> from the ICW Framework.
I2.1.2	Income from bonds and other debt securities, net of expenses			
I2.1.3	Income from shares and other equity, net of expenses	D421 B3n (part) D422 (part)	Dividends Net mixed income (part) Withdrawals from income of quasi-corporations (part)	In SNA, income from unincorporated enterprises in which household members are only "sleeping" or "silent" partners is included in B3n, Net mixed income, or D422, Withdrawals from income of quasi-corporations.
I2.1.4	Income from mutual funds and other investment funds, net of expenses	D443	Investment income attributable to collective investment funds shareholders	SNA element <i>includes</i> investment earnings made by the funds but not distributed as payments to shareholders, which is <i>excluded</i> from the ICW Framework.
I2.1.5	Annuity and other regular payments from life insurance funds	D441	Investment income attributable to insurance policy holders	Non-life insurance SNA element <i>includes</i> investment income attributable to holders of non-life insurance policies. Such income is not directly observed by households and is <i>excluded</i> from the ICW Framework. Life insurance (includes private pension funds) SNA element <i>includes</i> investment earnings received on invested life insurance funds but not immediately distributed to life insurance and pension scheme participants. In the SNA these become saving by households and additions to households' equity in the schemes. In the ICW Framework, this income is included in element K03, Adjustments to life insurance, annuity and private pension entitlements. ICW Framework element <i>includes</i> payments that are in reality a run-down of equity in the insurance scheme. In recognition of this, the payments are included as a negative contribution to the ICW Framework element K03, Adjustments to life insurance, annuity and private pension entitlements.
I2.1.6	Regular payments from private pension funds			
I2.1.7	Income from other financial assets, net of expenses	D41 (part)	Interest received (part)	
I2.2	Rent from real estate other than owner-occupied dwellings, net of expenses	D45 (part) B3n (part) B2n (part)	Rent (part) Net mixed income (part) Net operating surplus (part)	In the SNA: income from renting land is included in D45, Rent – this SNA element also include income from giving access to other natural resources such as minerals, and that income is included in element I2.3 in the ICW Framework income from renting non-dwelling buildings and structures is called rentals, not rent; it is not regarded as property income and is included in B3n, Net mixed income income from renting dwellings is included in B2n, Net operating surplus – income from owner-occupied dwellings is the only other component of B2n for the household sector, and that income is included in element I3.1 in the ICW Framework. interest paid on loans associated with the ownership of these assets is not included here as a cost (but associated FISIM charges are), but is recorded at SNA element D41, Interest paid. In the ICW Framework, depreciation deductions are based on tax and accounting rules and historic costs, whereas in SNA consumption of fixed capital is based on current values and actual rates of fixed capital usage.

Table B.1. Comparison of micro and macro framework elements (cont.)

Part 1: Income

ICW Framework		SNA 2008		Comment
Code	Element	Code	Element	
I2.3	Royalties and other income from other non-financial assets, net of expenses	D45 (part) B3n (part)	Rent (part) Net mixed income	In the SNA, income from giving access to natural resources, such as mineral royalties, is included in element D45, Rent. Other income included in this ICW Framework element, including royalties for use of intellectual property, is not regarded as property income in the SNA, and is included in SNA element B3n, Net mixed income.
		D43	Reinvested earnings on foreign direct investment	<i>Excluded from the ICW Framework</i>
		D442	Investment income payable on pension entitlements	Only relates to employment-related social insurance pension entitlements, and is <i>excluded from the ICW Framework</i> .
I3	Income from household production of services for own consumption			
I3.1	Net value of housing services provided by owner-occupied dwellings	B2n (part)	Net operating surplus (part)	SNA element <i>excludes from input costs</i> interest on loans taken to finance the purchase of owner-occupied dwellings (but associated FISIM charges are included here). Interest payments are included in SNA element D41, Interest paid. Note that, for the household sector, SNA element B2n, Net operating surplus, only comprises net income from dwellings (both owner-occupied and rented).
I3.2	Value of unpaid domestic services			<i>Excluded from SNA</i>
I3.3	Net value of services from household durables			<i>Excluded from SNA</i>
I4	Current transfers received, excluding STIK			SNA treats all social transfers as current and tends to treat any transfer as current if the disposal or acquisition of an asset (excluding cash) is not involved. The ICW Framework treats transfers of cash as capital if they are large and irregular, regardless of whether the sale or purchase of an asset is involved.
I4.1	Pensions and other cash benefits from social security	D621	Social security benefits in cash	
I4.2	Pensions and other benefits from employment-related social insurance	D622	Other social insurance benefits	SNA element <i>includes wages</i> and salaries paid by employer while employee is on sick, injury or maternity leave and severance, and termination pay. The ICW Framework includes these as part of income from employment (ICW Framework elements I1.1.1 and I1.1.9, respectively).
I4.3	Social assistance benefits in cash from govt.	D623 (part)	Social assistance benefits in cash (part)	
I4.4	Current transfers received from other households	D752	Current transfers between households	SNA <i>includes</i> winnings from lotteries and gambling, which the ICW Framework includes them as part of negative consumption expenditure (E1.1.2) or other capital transfers received (KR8).
I4.5	Current transfers in cash received from non-profit organisations	D623 (part)	Social assistance benefits in cash (part)	
I4.6	Other current transfers received, excluding STIK	D759	Other miscellaneous current transfers	
		D721	Non-life direct insurance claims	The ICW Framework does not treat non-life insurance claims as current transfers received. It includes term insurance claims as part of other capital transfers received (ICW Framework element KR8) and accident insurance claims as part of negative consumption expenditure (ICW Framework element E1.1.2) or input costs to income elements I1.2, I2.2, I3.1 and I3.3.

Table B.1. **Comparison of micro and macro framework elements** (cont.)

Part 1: Income

ICW Framework		SNA 2008		Comment
Code	Element	Code	Element	
I5	Social transfers in kind (STIK)	D63	Social transfers in kind	The adjustment is required in the SNA because some social security and all employment-related social insurance pension entitlements are treated as financial assets. However, contributions to the schemes are treated as transfers paid, not saving, and payments of pensions are treated as income, not dissaving. Therefore this element records the net difference, less associated service charges. The adjustment is added to disposable income when saving is derived. The ICW Framework does not need this adjustment because social insurance pension entitlements are not treated as financial assets.
		D8	Adjustment for the change in pension entitlements	

Note: Financial intermediation services indirectly measured (FISIM) is included in the SNA but not the ICW Framework. FISIM is the charge to borrowers and lenders imputed to have been made by financial intermediaries for managing loans and deposits. In the SNA, interest payments made by households do not include this imputed component, and are therefore smaller than the corresponding ICW Framework elements. Conversely, the SNA elements of interest income received by households have the imputed component added to them, and are therefore higher than the corresponding elements in the ICW Framework. In the SNA, FISIM imputed with respect to business loans or business income is an input cost of self-employment income; FISIM imputed with respect to mortgages on owner-occupied dwellings is an input cost of the ownership of owner-occupied dwellings; and FISIM with respect to investment loans, consumer loans and property income are all treated as consumption expenditure.

Table B.1. **Comparison of micro and macro framework elements** (cont.)

Part 2: Consumption and other expenditure

ICW Framework		SNA		Comment
Code	Element	Code	Element	
E1	Consumption expenditure	P31	Individual consumption expenditure	SNA <i>includes</i> Purchase of durables, which the ICW Framework treats as purchases of assets. Cost of the repair, maintenance and insurance of durables, which the ICW Framework treats as input costs to income element I3.3, Net value of services from household durables. (See below for the different treatment of accident insurance in the ICW Framework and SNA.) FISIM charges on loans and deposits (excluding loans and deposits of unincorporated enterprises and loans for owner-occupied and rented dwellings, since they are input costs), which are <i>excluded</i> from the ICW Framework. Implicit service charges made by financial institutions operating employment-related pension funds, mutual funds and other investment funds, and non-life insurance funds, all of which are <i>excluded</i> from the ICW Framework. Implicit service charges made by financial institutions operating pension funds, life insurance funds and annuities, which contribute to element K03, Adjustments to pension, annuity and life insurance entitlements SNA <i>excludes</i> Value of unpaid domestic services. Gross value of services from household durables SNA consumption expenditure on term insurance and accident insurance only includes the implicit service charges deducted by the operating financial institution from premiums, whereas the ICW Framework includes the total cash premiums paid. In the SNA, premiums include both actual cash paid by policy holders and imputed amounts equal to the investment earnings of the insurance company using policy holder funds, as included in D441, Investment income attributable to insurance policy holders. The remainder of the premium payments (that is, after deduction of service charges) are included in the SNA as current transfers paid D711, Net non-life direct insurance premiums. Similarly, benefits received are included in the SNA as current transfers received D721, Non-life direct insurance claims. In the ICW Framework benefits from term insurance are included as capital transfers received (KR8) and benefits from accident insurance are included in this as negative consumption expenditure (E1.1.2) SNA consumption expenditure on gambling only includes the service charge component imputed to have been taken by the promoter. Winnings are treated as transfers paid by households with a corresponding value of transfers received by households. In the ICW Framework, all payments on gambling are treated as consumption expenditure with winnings as either negative consumption expenditure (E1.1.2) or capital transfers received (KR8).
E2	Current transfers paid			
E2.1	Direct taxes, net of refunds	D5	Current taxes on income, wealth, etc.	SNA element <i>excludes</i> fines imposed by courts or quasi-judicial bodies – they are included in SNA element D759, Other miscellaneous current transfers. SNA element <i>includes</i> taxes on holding gains (capital gains taxes) – in the ICW Framework they are included in KP2, Irregular taxes on wealth, including taxes on holding gains.
E2.2	Compulsory fees and fines			
E2.3	Employee and employers' social insurance contributions	D611 D613	Employers' actual social contributions Households' actual social contributions	SNA element D611 is equal to SNA income element D121, Employers' actual social contributions.

Table B.1. **Comparison of micro and macro framework elements** (cont.)

Part 2: Consumption and other expenditure

ICW Framework		SNA		Comment
Code	Element	Code	Element	
		D612	Employers' imputed social contributions	Equal to SNA income element D122, Employers' imputed social contributions. These contributions are imputed when employers incur a social insurance liability but do not make contributions to a separate fund. Therefore employees are unlikely to be able to report such contributions in household surveys, and they are <i>excluded</i> from the ICW Framework.
		D6141	Households' pension contributions supplements	Equal to SNA income element D442, Investment income payable on pension entitlements, and <i>excluded</i> from the ICW Framework.
		D6142	Households' non-pension contributions supplements	Part of SNA income element D441, Investment income attributable to insurance policy holders, and <i>excluded</i> from the ICW Framework.
		D711	Net non-life direct insurance premiums	Equal to insurance premiums actually paid, plus part of SNA income element D441, Investment income attributable to insurance policy holders, less service charges payable to the insurance corporations. Premiums actually paid are included in element E1, Consumption expenditure, while the remainder of this element is <i>excluded</i> from the ICW Framework.
E2.4	Current transfers paid to other households	D752	Current transfers between households	SNA element <i>includes</i> payments for lotteries and gambling minus the service charge of operators, which the ICW Framework includes as part of consumption expenditure (E1).
E2.5	Current transfers paid to non-profit organisations	D751	Current transfers to NPISHs (non-profit institutions serving households)	SNA element <i>excludes</i> transfers to non-profit institutions not serving households – they are included in D759, Other miscellaneous current transfers. Large transfers of cash that are included in current transfers in SNA may be regarded as capital transfers in the ICW Framework.
E2.6	Other current transfers paid	D759	Other miscellaneous current transfers	SNA element <i>includes</i> Fines imposed by courts or quasi-judicial bodies, which the ICW Framework includes in element E2.2, Compulsory fees and fines Current transfers paid to non-profit institutions not serving households, which the ICW Framework includes in E2.5, Current transfers paid to non-profit organisations.
E3	Interest paid on consumer credit	D41 (part)	Interest paid (part)	SNA element <i>includes</i> interest paid on non-consumer credit, which the ICW Framework includes with input costs to be subtracted from the income earned from the assets associated with the loans concerned. SNA element <i>excludes</i> FISIM component of interest paid – it is included as part of P31, Individual consumption expenditure.
E4	Social transfers in kind (STIK)	D63	Social transfers in kind	

Table B.1. Comparison of micro and macro framework elements (cont.)

Part 3. Change in net worth

ICW Framework		SNA		Comment
Code	Element	Code	Element	
KS	Saving	B8n	Net saving	Differences between the SNA and the ICW Framework reflect the net differences embodied in the respective measures of income and expenditure described above. Note that SNA element D8, Adjustment to the change in pension entitlements is added to income before expenditure is subtracted to derive saving. The ICW Framework has a somewhat different adjustment to pension entitlements, which is included as element KO3 in Other flows contributing to changes in net work.
KR	Capital transfers received			
KR1	Lump-sum retirement payments and other capital transfers from employers	D99r	Other capital transfers receivable	SNA element <i>excludes</i> some transfers included by the ICW Framework – SNA treats all social transfers as current (SNA para. 10.202) and tends to treat any transfer as current if the disposal or acquisition of an asset (excluding cash) is not involved. The ICW Framework treats transfers of cash as capital if they are large and irregular, regardless of whether the sale or purchase of an asset is involved.
KR2	Lump-sum benefits from social security			
KR3	Lump-sum benefits from social insurance			
KR4	Other capital transfers received from government			
KR5	Lump-sum inheritances			
KR6	Capital transfers received from other households			
KR7	Capital transfers received from non-profit organisations			
KR8	Other capital transfers received			
KP	Capital transfers paid			
KP1	Taxes on inheritances	D91p	Capital taxes payable	SNA <i>excludes</i> taxes on holding gains (capital gains taxes) – they are included in SNA item D5, Current taxes on income and wealth.
KP2	Irregular taxes on wealth, including taxes on holding gains (capital gains taxes)			
KP3	Capital transfers paid to other households	D99p	Other capital transfers payable	SNA element <i>excludes</i> some transfers included by the ICW Framework – SNA tends to treat any transfer as current if the disposal or acquisition of an asset (excluding cash) is not involved. The ICW Framework treats transfers of cash as capital if they are large and irregular, regardless of whether the sale or purchase of an asset is involved.
KP4	Capital transfers paid to non-profit organisations			
KP5	Other capital transfers paid			
KO	Other flows contributing to changes in net worth			
KO1	Other changes in volume of wealth	B102	Changes in net worth due to other changes in volume of assets	Differences between the ICW Framework and SNA for this element will reflect the differences between the ICW Framework and SNA definitions of wealth, as described below.
KO2	Holding gains and losses	B103	Changes in net worth due to nominal holding gains/losses	Differences between the ICW Framework and SNA for this element will reflect the differences between the ICW Framework and SNA definitions of wealth, as described below.
KO3	Adjustment to pension, annuity and life insurance entitlements			See section 3.7.2 of Chapter 3 for an explanation of this item. The SNA has a somewhat different adjustment for changes to pension entitlements, D8, which is a component of saving (B8n).

Table B.1. Comparison of micro and macro framework elements (cont.)

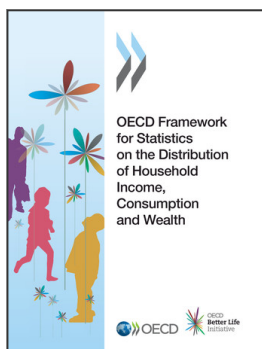
Part 4: Stock of net worth

ICW Framework		SNA		Comment
Code	Element	Code	Element	
W1	Non-financial assets			In the ICW Framework, non-financial assets wholly used by own unincorporated enterprises are included in element W2.3, Equity in own unincorporated enterprise.
W1.1	Owner-occupied dwellings	AN11 (part)	Fixed assets (part)	
W1.2	Other real estate	AN11 (part) AN21 (part)	Fixed assets (part) Natural resources (part)	
W1.3	Consumer durables			<i>Excluded from SNA</i>
W1.4	Valuables	AN13 (part)	Valuables (part)	
W1.5	Intellectual property and other non-financial assets	AN11 (part)	Fixed assets (part)	
W2	Financial assets			
W2.1	Cash and deposits	AF2(part)	Currency and deposits	
W2.2	Bonds and other debt securities	AF3(part)	Debt securities	
W2.3	Equity in own unincorporated enterprises	AN(part) AF(part)	Non-financial assets (part) Financial assets/liabilities (part)	In the SNA, the assets and liabilities of unincorporated enterprises (except for quasi-corporations) are not consolidated to a net equity basis, except for quasi-corporations. Furthermore, the SNA does not distinguish between household assets that are part of an unincorporated enterprise and those that are not, except that durables such as vehicles are included in fixed assets if they are used to generate income but are excluded if they are used for domestic purposes only.
W2.4	Shares and other equity (includes "silent" partner equity in unincorporated enterprises)	AF5	Equity and investment fund shares/units	SNA element AF5 <i>includes</i> equity in quasi-corporations, which the ICW Framework does not separate from other equity in unincorporated enterprises. In the SNA, the assets and liabilities of unincorporated enterprises (except for quasi-corporations) are not consolidated to a net equity basis, except for quasi-corporations. Furthermore, the SNA does not distinguish between household assets that are part of an unincorporated enterprise and those that are not, except that durables such as vehicles are included in fixed assets if they are used to generate income but are excluded if they are used for domestic purposes only. If there is negative equity in these items, the SNA includes the negative value with liabilities, whereas the ICW Framework includes it here as negative asset.
W2.5	Mutual funds and other investment funds	AN(part) AF(part)	Non-financial assets, financial assets and liabilities (part relating to assets and liabilities of silent partners in unincorporated enterprises)	
W2.6	Life insurance funds	AF6	Insurance, pension and standardised guarantee schemes	SNA <i>includes</i> Non-life insurance technical reserves and provisions for calls under standardised guarantee schemes, which the ICW Framework <i>excludes</i> .
W2.7	Pension funds			

Table B.1. **Comparison of micro and macro framework elements** (cont.)

Part 4: Stock of net worth

ICW Framework		SNA		Comment
Code	Element	Code	Element	
W2.8	Other financial assets	AF4	Loans made	If financial derivatives have a negative value, the SNA includes the value with liabilities, whereas the ICW Framework includes it here as negative asset.
		AF7	Financial derivatives and employee stock options	
		AF8	Other accounts receivable	
W3	Liabilities			
W3.1	Owner-occupied residence loans	AF4	Loans taken Other accounts payable	In the ICW Framework (a) business loans and other liabilities of unincorporated enterprises in which household members work are netted out when deriving element W2.3, Equity in own unincorporated enterprise, and (b) business loans to finance investment in unincorporated enterprises in which household members do not work are included in W3.3.1, Financial asset loans.
W3.2	Other real estate loans	AF8		
W3.3	Other investment loans			
W3.4	Consumer durable loans			
W3.5	Consumer credit loans and other liabilities			



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