Regional Course on 2008 SNA (Special Topics): Improving Exhaustiveness of GDP Coverage

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Session 1.2
Keys updates to the 2008 SNA

Alick Nyasulu
SIAP Statistician/Lecturer

2008 SNA

Main Changes from 1993 SNA
2008 SNA

**Changes from 1993 SNA may be grouped**

1. Further specifications of statistical units and revisions in institutional sectoring
2. Further specifications of scope of transactions including the production boundary
3. Extension and further specification of concept of assets, capital formation and CFC
4. Refinement of treatment and definition of financial instruments and assets
5. Scope of transactions concerning govt. and public sector
6. Harmonization with BPM6

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**1. Specifications of statistical units and revisions in the sectoring**

*Producer unit undertaking ancillary activities to be recognized as a separate establishment in certain cases*

* Unit undertaking purely ancillary to be recognised as separate establishment if:
  * Statistically observable, in that separate accounts for the production it undertakes are readily available, or
  * if it is located in a geographically different location from the establishments it serves;

* The ancillary establishment classified according to its own principal activity.

* The value of output should be derived on a sum of costs basis, including the costs of the capital used by the unit.

* The 1993 SNA treated a producer unit undertaking purely ancillary activities always as an integral part of the establishment it served.
Statistical units and revisions in the sectoring

**Artificial subsidiaries**
- Ancillary corporations of the 1993 SNA are named as artificial subsidiaries in the 2008 SNA.
- Artificial subsidiaries are subsidiary corporations wholly owned by the parent corporation and created to provide services to the parent corporation, or other corporations in the same group, in order to avoid taxes, to minimize liabilities in the event of bankruptcy, or to secure other technical advantages under the tax or corporation legislation in force in a particular country.
- *Not regarded as institutional unit unless resident in an economy different from that of its parent.*

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**Multi-territory enterprises**
- Residence of multi-territory enterprises clarified.
- Multi-territory enterprises operate a seamless operation over more than one economic territory.
- Such enterprises are typically involved in cross border activities and include shipping lines, airlines, hydroelectric schemes on border rivers, pipelines, bridges, tunnels and undersea cables.
- In case it is not possible to identify a parent or separate branches, it is recommended to prorate the total operations of a multi-territory enterprise by the individual economic territories in which it operates.
Statistical units and revisions in the sectoring

**Special Purpose Entities**

* 2008 SNA provides guidance on the treatment of units with no employees and no non-financial assets known variously as special purpose entities (SPEs) or special purpose vehicles
  
  - Though there is no common definition of an SPE but some of its characteristics are that
  - it has little physical presence,
  - is always related to another corporation, often as a subsidiary, and
  - it is often resident in a territory other than the territory of residence of its parent

* Such a unit is treated as an institutional unit and allocated to sector and industry according to its principal activity with some exceptions

* *The 1993 SNA did not give explicit guidance for treatment of such units.*

Statistical units and revisions in the sectoring

**Holding company**

- *Holding company allocated to the financial corporations sector*

- As described in section K class 6420 of the ISIC Rev. 4, a holding company holds the assets of subsidiary corporations but does not undertake any management activities. Such a unit therefore, produces only the financial service.

- *In the 1993 SNA the holding companies were recommended to be assigned to the institutional sector in which the main activity of the group of subsidiaries is concentrated.*
**Head office**

- Head office to be allocated to the institutional sector preponderant to activity of its subsidiaries

- The activities of a head office, as defined in section M class 7010 of the ISIC Rev. 4, includes:
  - Overseeing and managing of other units of enterprise;
  - Undertaking the strategic or organizational planning and decision making role of the enterprise;
  - Exercising operational control and manage the day-to-day operations of their related units.
  - Such a unit therefore, produces the non-financial or financial services depending upon the nature of production of its subsidiaries.

- The 2008 SNA therefore, recommends that the head office should be allocated to the
  - non-financial corporations sector unless
  - all or most of its subsidiaries are financial corporations, in which case it is treated by convention as a financial auxiliary in the financial corporations sector.

- 1993 SNA did not give explicit guidance for treatment of head offices.

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**Sub sector of non-profit institutions introduced**

- Like 1993 SNA, the 2008 SNA assigns NPIs to different institutional sectors.

- Recognising the increasing interest of “civil society”, the 2008 SNA recommends that NPIs within the corporate and government sectors be identified in distinct sub-sectors so that supplementary tables summarizing all NPI activities can be separately derived in a straightforward manner as and when required.
Statistical units and revisions in the sectoring

Sub-sectoring of the financial corporation sector revised

* to reflect new developments in financial services, markets and instrument
  i. Central Bank
  ii. Deposit-taking corporations except the central bank,
  iii. Money market funds (MMFs),
  iv. Non-MMF investment funds,
  v. Other financial intermediaries except insurance corporations and pension funds (ICPFs),
  vi. Financial auxiliaries,
  vii. Captive financial institutions and money lenders,
  viii. Insurance corporations (ICs) and
  ix. Pension funds (PFs).

2. Specifications of the scope of transactions including the production boundary

Definition of financial services enlarged

* 1993 SNA recognised only financial intermediation services

* 2008 SNA enlarges definition of financial services to give due weight to the increase in financial services other than the financial intermediation, specifically financial risk management and liquidity transformation.

* Financial services of money lenders recognised
2. Scope of transactions including the production boundary

Research and Development

* Output of Research and development is not treated as intermediate consumption.

* A separate establishment should be distinguished for it when possible.

* The 2008 SNA recommends that the output of the R&D should be valued at
  * market price if purchased (outsourced) or
  * sum of total production costs plus an appropriate mark-up if undertaken on own account

* The 1993 SNA by convention treated the output of R&D as intermediate consumption.

Method for calculating financial intermediation services indirectly measured (FISIM) is refined

* By convention the 2008 SNA recommends that
  * FISIM applies only to loans and deposits and
  * only when those loans and deposits are provided by, or deposited with, financial institutions.

* The 2008 SNA calculates the output of FISIM on loans (VL) and deposits (Vd) only, using a reference rate (rr).

* Assuming that these loans and deposits attract interest rates of rL and rd respectively, the output of FISIM should be calculated according to the formula \((rL - rr) \times VL + (rr - rd) \times Vd\).

* The 1993 SNA calculated FISIM as the difference between property income receivable and interest payable.
Scope of transactions including the production boundary

**Output of central bank clarified**

* Services produced by the central bank are identified in three broad groups,
  * financial intermediation,
  * monetary policy services and
  * supervisory services - overseeing financial corporations.

* Separate establishments should be identified for units of the CB undertaking production of these services

* Financial intermediation services represent market production,

* Monetary policy services represent non-market production and

* Borderline cases, such as supervisory services may be treated as market or non-market services depending on whether explicit fees are charged that are sufficient to cover the costs of providing such services.

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Recoding of output of Non-life insurance services improved

* Catastrophic events generate massive claims on non-life insurance companies

* In such cases the output of the insurance activity estimated using the basic algorithm of the 1993 SNA anchored on the *balance of premiums and claims* could be extremely volatile (even negative).

* The 2008 SNA, therefore recommends that the output of the non-life insurance activity should be calculated using the adjusted claims and adjusted premiums supplements.

* $\text{Output} = \text{Actual premiums earned} + \text{Adjusted premium supplements} - \text{Adjusted claims incurred.}$
Scope of transactions including the production boundary

**Valuation of output for own final use by households and corporations to include a return to capital**

- Return to capital to be included as part of the sum of costs for valuation of the output of goods and services produced for own final use by households and corporations.

- The 1993 SNA was not explicit in including the return to capital in estimating the output of goods and services produced for own final use by households and corporations.

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2. Further specification of concept of asset

**Change of economic ownership introduced**

* 2008 SNA gives guidance to distinguish between legal ownership and economic ownership

* The unit assuming the risk of the asset in case of damage, destruction and theft etc is the economic owner.

* 2008 SNA recommends that assets be recorded on the balance sheets of the economic rather than the legal owner.
Extension of asset boundary

Asset boundary extended to include R&D

* The output of the R&D is capitalized as “intellectual property products”
  * except in cases where it is clear that the activity does not entail any economic benefit to its producer (and hence owner) in which case it is treated as intermediate consumption.
* patented entities, of the 1993 SNA asset category is no longer separately identified and is subsumed into R&D assets
* Treatment of R&D giving rise to produced assets has removed the 1993 SNA inconsistency of treating the patented entities as non-produced asset giving rise to property income

Extension of asset boundary

Extension of the assets boundary and government GCF to include expenditure on weapon systems

* Military weapon systems are seen to be used continuously in the production of defence services, even if their peacetime use is simply to provide deterrence.
* The 2008 SNA, therefore, recommends that military weapon systems should be classified as fixed assets
  * Single-use items, such as ammunition, missiles, rockets, bombs, etc., delivered by weapons or weapons systems are treated as military inventories
* The 1993 SNA treated as gross fixed capital formation all expenditures by the military on fixed assets of a kind that could be used for civilian purposes of production.
  * military weapons, and vehicles and equipment whose sole purpose was to launch or deliver such weapons, were not treated as gross fixed capital formation but as intermediate consumption.
**Produced assets**

- Within buildings and structures, a category has been added for land improvements. This replaces the 1993 SNA term "major improvements to non-produced non-financial assets". The costs of ownership transfer on all land are to be included with land improvements.
- The information, computer and telecommunications (ICT) equipment has been included as a new category under machinery and equipment,
- Weapon systems are recognized as produced assets and classified separately,
- The term "intangible fixed assets" has been renamed as "intellectual property products". The word "products" is included to make clear that it does not include third party rights which are non-produced assets in the SNA,
- R&D products are included within intellectual property products.
- The item "mineral exploration" has been renamed to "mineral exploration and evaluation" to emphasise that the coverage conforms to the international accounting standards,
- Computer software has been modified to include databases
- The term "other intellectual property products" replaces "other intangible fixed assets"
- The only change to inventories is to show military inventories separately

**Non-Produced assets**

- The "tangible non-produced assets" of the 1993 SNA are renamed as "natural resources",
- Other natural resources such as the radio spectrum has been added, and
- The "intangible non-produced assets" has been split into two sub-categories, namely, "contracts, leases and licences" and "goodwill and marketing assets",
- Contracts, leases and licences has been split into four sub-categories;  
  * marketable operating leases,  
  * permissions to use natural resources,  
  * permissions to undertake specific activities, and  
  * entitlement to future goods and services on an exclusive basis.
Further specification of capital formation

Treatment of cost of ownership transfer elaborated

- Like the 1993 SNA, the 2008 SNA continues to treat the costs of ownership transfer (COT) as fixed capital formation.
- COT on acquisition of an asset should be written off over the period the asset is expected to be held by the purchaser
  - 1993 SNA recommended to write off COT over the whole life of the asset
- COT on the disposal of an asset should also be written off over the period the asset is held but recorded when they are actually incurred.
- Recognising the difficulty in implementation of this recommendation for lack of adequate data, the 2008 SNA recommends that these costs should still be recorded as gross fixed capital formation but written off as CFC in the year of acquisition.

Mineral exploration and evaluation

- The 2008 SNA maintains the distinction between the act of exploring for mineral resources (treated as a produced asset) and the mineral resources themselves (treated as non-produced assets).
- The term “mineral exploration” has been renamed as “mineral exploration and evaluation” to match the term used in the International Accounting Standards.
- The 2008 SNA gives guidance that
  - mineral exploration and evaluation should be valued at market prices if purchased or
  - at the sum of costs plus an appropriate mark-up if undertaken on own account
Further specification of capital formation

**Land improvements**
- Land improvements continue to be treated as gross fixed capital formation.
- The 2008 SNA recommends treating land improvements as a category of fixed assets distinct from the non-produced land asset as it existed before improvement.
- In cases where it is not possible to separate the value of the land before improvement and the value of those improvements, the land should be allocated to the category that represents the greater part of the value.
- The costs of ownership transfer on all land are to be included in the land improvements.
- *The 1993 SNA recorded improvements to land as gross fixed capital formation, but in the balance sheet such improvements were included with land itself.*

4. Refinement of treatment and definition of financial instruments

**Stock options (COE in kind)**
- Employer giving employee an option to buy stocks (shares) at some future date at a given price (strike/exercise price) subject to certain conditions (employee is still on the enterprise pay roll).
- Employee may not exercise the option:
  * Share price is now lower than his option price
  * No longer in the employment of the company
- The ‘grant date’ is when the option is provided, the ‘vesting date’ is the earliest date when the option can be exercised (or lapses)
- Valuation of the stock option may estimated as the difference between the market price and the stock price at vesting date or using using a stock option pricing model.
Treatment of loan guarantees elaborated

- The 2008 SNA recognises three classes of loan guarantees and provides guidance for their treatment.
- Guaran"es provided by means of a financial derivative, such as a credit default swap. These derivatives are actively traded on financial market and derivative presents no new features for the SNA
- Standardized guarantees - that are issued in large numbers, usually for fairly small amounts, along identical lines such as export credit guarantees and student loan guarantees
  - In this case, although it is not possible to establish the likelihood of any one loan defaulting, it is standard practice to estimate how many out of a batch of similar loans may default. It operates on the same principle as for non-life insurance and should be treated similarly
- One-off guarantees, consists of those where the loan or the security is so particular that it is not possible for the degree of risk associated with the loan to be estimated with any degree of accuracy.
  - In most cases, the granting of a one-off guarantee is considered a contingency and is not recorded as a financial asset/liability.

Liability in special drawing rights recognised

- The 2008 SNA recommends to treat special drawing rights (SDRs) issued by the IMF as being a liability of countries receiving the allocations and to record allocation and cancellation of SDRs as transactions.
- The asset and liability aspects of SDRs should be recorded separately.
- The 1993 SNA classified SDRs as assets without corresponding liabilities arguing that these assets do not represent claims on the IMF collectively.
Financial asset classification

- To reflect the innovations in the financial market and also maintain its relevance in a time of rapid economic and institutional change, the financial asset classification has been changed in the 2008 SNA.
  - Monetary gold and SDRs
    - Monetary gold, SDRs
  - Currency and deposits
    - Currency, transferable deposits, Other deposits
  - Debt securities
    - Short-term, Long-term
  - Loans
    - Short-term, Long-term
  - Equity and investment fund shares
    - Equity (listed/unlisted/other shares), Investment fund shares/units
  - Insurance, pension and standardised guarantee schemes
    - Non-life insurance technical provisions
    - Life insurance and annuity entitlements
    - Pension entitlements
  - Financial derivatives and employee stock options
    - Financial derivatives (options/forwards), ESO
  - Other accounts receivable/payable
    - Trade credits and advances, Other accounts receivable/payable

Leasing

**Distinction between financial and operating leasing based on economic ownership**

- Distinction between financial leasing and operating leasing based on economic ownership.

- The 2008 SNA recognises the distinction between the operating leasing and the financial leasing according to whether the lessee should be regarded as the economic owner of the asset or not.

- The distinction between operating leasing and the financial leasing in the 1993 SNA was interpreted to be based on the length of the time of lease.
Changes in recording pension entitlements

- The 2008 SNA recognizes that pension promises are contractual engagements, in that they are expected or likely to be enforceable and therefore, they should be recognized as households’ assets, irrespective of the facts that segregated schemes’ assets exist or not, and of the fact that the employer may have recorded an associated liability entry in the his balance sheet or not.
- Consequently the 2008 SNA recommends recording of the liabilities of employers’ pension schemes, regardless of whether funding to meet them exists or not.
- For pensions provided by government via social security however, countries have some flexibility to deviate from this rule in the set of standard tables.
  - This is because the division between which pensions are provided by social security and which by other employment-related schemes varies considerably from country to country.
- However, the full range of information required for a comprehensive analysis of pensions is recommended to be provided in a supplementary table that shows the liabilities and associated flows of all private and government pension schemes, whether funded or unfunded and including social security.

5. Scope of transactions concerning govt. and public sector

Government and public sector

- Recognising the fact that the powers, motivation and functions of government are different from those of other sectors of the economy and that it organises its operations through different institutional units, the 2008 SNA gives extra guidance for the distinction between general government and public corporations.
- Treatment of restructuring agencies has been elaborated
- Principles for treatment of public-private partnership schemes (BOOT schemes) outlined
- Guidance provided for recording of tax credits
Harmonisation of concepts and classification with BOP

**Goods for processing**
* Goods sent abroad for processing should be recorded on change of ownership basis.
* **Merchanting:** is defined as the purchase of a good by a resident (of the compiling economy) from a non-resident and the subsequent resale of the good to another non-resident, without the good entering the merchant’s economy
  * It is a form of global wholesaling, retailing and commodity trading.
* 2008 SNA provides guidelines for recording merchanting.

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**2008 SNA Changes affecting GDP**

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2008 SNA Changes affecting GDP

- Capitalization of Research and Development.
- Valuation of output for own final use by households and corporations to include a return to capital.
- Capitalization of expenditure on weapon systems.
- Refined Method for Calculating Financial Intermediation Services Indirectly (FISIM).
- Changes in recording of pension entitlements.
- Treatment of employee stock options.

Capitalization of R&D

**Capitalization of R&D**

* The activity of R&D is no longer treated as ancillary
* Expenditure on R&D is treated as capital formation (except those made available free)

**Impacts**

- Move R&D from intermediate consumption to gross capital formation. This changes GDP by the same amount.
- Require adding consumption of R&D fixed capital stock to non-market output: increase GDP
Output for own final use by households and corporations is valued with a return to capital

**Impacts**
- Valuation of market producers only.
- Not applicable to non-market producers like government and NPISH.

**Capitalization of weapon systems**

**Military Expenditure**
- Fixed assets (Transports and weapons delivery systems, intercontinental missiles, etc.).
- Change in inventories (bullets, bombs, etc.)

**Impacts**
- Move expenditure on military equipments from final consumption to gross capital formation: This does not change GDP.
- Require adding consumption of military fixed capital stock to government output: increase GDP.
- Need to separate:
  - Military GCF
  - Non-military GCF (only this will affect economic growth)
New way of measurement of FISIM

Measurement
* Measurement relies only on interest receivable on loans and interest payable on deposits, ignoring all other investment incomes.
* Own funds are also treated as generating output.

Impacts
* Depends on the structure of financial instruments, but tends to increase output of FISIM.
* For example, loans of own funds and other forms of equity will only generate high output as interest payable is nil.
* Money lenders output recognized

Unfunded pension funds

Imputation
* Unfunded pension benefits to be imputed to compensation of employees at the time the employees are employed so as to allow for the future payment of pensions.
* Apply to both market and non-market producers.
* For government apply when obligation is legally certain.

Impacts
* Change Compensation of employees of market and non-market producers.
* Change value added of non-market producers, and thus GDP.
* Change net borrowing/lending of government, and government debt.
Treatment of stock of options

**Treatment of employee stock options as compensation of employees (in kind)**

- It is equal to the difference between the market price and strike price at the vesting date (only when positive).
- It should be spread between the grant date and the vesting date.
- Treatment has been approved by International Accounting Standards (IAS) and the US Financial Accounting Standards Board (FASB)

**Impacts**

- Increase compensation of employees of corporations
- Reduce operating surplus of corporations
- Do not change GDP but change household income

Thank you