

PRASC



**Project for the Regional
Advancement of Statistics
in the Caribbean**

**Projet régional pour
l'avancement de la statistique
dans les Caraïbes**



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CARIBBEAN NATIONAL ACCOUNT TRAINING PROGRAM

Project for the Advancement of Statistics in the Caribbean Region (PRASC)
National Accounts Training
Session 2 – Overview

January 2018

National Accounts - Overview



➤ Course Objective

- ✓ Provide national account compilers with brief history of the System of National Accounts so that they can put their work into historical context.
- ✓ Provide national account compilers with an understanding of the linkages between the SNA and other macroeconomic frameworks.
- ✓ Provide national account compilers with an example of why the SNA is called a ‘System’



The Big Four (SNA, BPM and GFS and SEEA)

2008 SNA

System of National Accounts 2008



European Commission



International Monetary Fund



Organisation for Economic
Co-operation and Development



United Nations



World Bank

System of National Accounts

B. The conceptual elements of the SNA

1.6 The SNA measures what takes place in the economy, between which agents, and for what purpose. At the heart of the SNA is the production of goods and services. These may be used for consumption in the period to which the accounts relate or may be accumulated for use in a later period. In simple terms, the amount of value added generated by production represents GDP. The income corresponding to GDP is distributed to the various agents or groups of agents as income and it is the process of distributing and redistributing income that allows one agent to consume the goods and services produced by another agent or to acquire goods and services for later consumption. The way in which the SNA captures this pattern of economic flows is to identify the activities concerned by recognizing the institutional units in the economy and by specifying the structure of accounts capturing the transactions relevant to one stage or another of the process by which goods and services are produced and ultimately consumed. These concepts are sketched below and developed further in chapter 2 and later chapters.

1. Activities and transactions

1.7 The SNA is designed to provide information about the behaviour of institutional units and the activities in which they engage, namely production, consumption and the accumulation of assets, in an analytically useful form. This is achieved by recording the exchange of goods, services and assets between institutional units in the form of transactions. At the same time, other transactions are recorded that represent the form of payment for the exchange which may be a good, service or asset of similar value but is often some form of financial claim including notes and coins.

1.8 Data on transactions provide the basic source material from which the values of the various elements in the accounts are built up or derived. The use of transactions data has important advantages. The first of these is that the prices at which goods and services are exchanged in transactions between buyers and sellers on markets provide the information needed for valuing, directly or indirectly, all the items in the accounts. Secondly, a transaction that takes place between two different institutional units has to be recorded for both parties to the transaction and therefore generally appears twice in a system of macroeconomic accounts. This enables important linkages to be established in the SNA. For example, output is obtained by summing the amounts sold, bartered or transferred to other units plus the amounts entered into, less the amounts withdrawn from, inventories. In effect, the value of output is obtained by recording the various uses of that output by means of data on transactions. In this way, flows of goods and services can be traced through the economic system from their producers to their eventual users. Some transactions are only internal bookkeeping transactions that are needed when a single unit engages in two activities, such as the production and consumption of the same good or service,

2. The institutional sectors of the economy

1.9 Two main kinds of institutional units, or transactors, are distinguished in the SNA; households and legal entities. Legal entities are either entities created for purposes of production, mainly corporations and non-profit institutions (NPIs), or entities created by political processes, specifically government units. The defining characteristic of an institutional unit is that it is capable of owning goods and assets, incurring liabilities and engaging in economic activities and transactions with other units in its own right.

1.10 For the purposes of the SNA, institutional units that are resident in the economy are grouped together into five mutually exclusive sectors composed of the following types of units:

- a. Non-financial corporations;
- b. Financial corporations;
- c. Government units, including social security funds;
- d. NPIs serving households (NPISHs);
- e. Households.

The five sectors together make up the total economy. Each sector may be further divided into subsectors; for example, the non-financial and financial corporations sectors are divided to distinguish corporations subject to control by governments or foreign units from other corporations. The SNA makes provision for a complete set of flow accounts and balance sheets to be compiled for each sector, and subsector if desired, as well as for the total economy. The total number of accounts that may be compiled is therefore potentially quite large, depending upon the level of disaggregation that is required and feasible. Only by disaggregation into sectors and subsectors is it possible to observe the interactions between the different parts of the economy that need to be measured and analysed for purposes of policymaking.

1.11 Institutional units that are resident abroad form the rest of the world. The SNA does not require accounts to be compiled in respect of economic activities taking place in the rest of the world, but all transactions between resident and non-resident units have to be recorded in order to obtain a complete accounting for the economic behaviour of resident units. Transactions between residents and non-residents are grouped together in a single account, the rest of the world account

3. Accounts and their corresponding economic activities

1.12 This section gives a very brief summary of the accounts of the SNA. It is impossible to do justice to the wealth of information contained in the SNA in a short section of this

2008 SNA



- The 2008 SNA was prepared under the auspices of the Inter-Secretariat Working Group on National Accounts (ISWGNA), which consists of five organizations:
 - the Statistical Office of the European Commission (Eurostat);
 - the International Monetary Fund (IMF);
 - the Organisation for Economic Cooperation and Development (OECD);
 - the United Nations Statistics Division (UNSD); and
 - regional commissions of the United Nations, Secretariat and the World Bank.

2008 SNA



- The System of National Accounts, 2008 (2008 SNA) is a statistical framework that provides a comprehensive, consistent and flexible set of macroeconomic accounts for policymaking, analysis and research purposes.

INTERNATIONAL MONETARY FUND



Balance of Payments and International Investment Position Manual

Sixth Edition (BPM6)



2.11 The highest level of classification used in the IIP, financial account, and other changes in assets and liabilities account is the functional classification, which is covered in Chapter 6. The functional categories group together financial instruments based on economic motivations and patterns of behavior to assist in the analysis of cross-border transactions and positions. These categories are direct investment, portfolio investment, financial derivatives (other than reserves) and employee stock options, other investment, and reserve assets. The SNA does not have such categories, preferring to record financial account activity by type of instrument alone (although direct investment is a memorandum item to the SNA instrument classification). Chapter 5 covers the classification of financial instruments.

3. Balance of payments

2.12 The balance of payments is a statistical statement that summarizes transactions between residents and nonresidents during a period. It consists of the goods and services account, the primary income account, the secondary income account, the capital account, and the financial account. Under the double-entry accounting system that underlies the balance of payments, each transaction is recorded as consisting of two entries and the sum of the credit entries and the sum of the debit entries is the same. (See Box 2.1 for further elaboration on the double-entry accounting system.)

2.13 The different accounts within the balance of payments are distinguished according to the nature of the economic resources provided and received.

Current account

2.14 The current account shows flows of goods, services, primary income, and secondary income between residents and nonresidents. The current account is an important grouping of accounts within the balance of payments. Its components are dealt with in the following chapters:

- Chapter 10 discusses the goods and services account. This account shows transactions in goods and services.
- Chapter 11 discusses the primary income account. This account shows amounts payable and receivable in return for providing temporary use to another entity of labor, financial resources, or non-produced nonfinancial assets.¹

• Chapter 12 discusses the secondary income account. This account shows redistribution of income, that is, when resources for current purposes are provided by one party without anything of economic value being supplied as a direct return to that party. Examples include personal transfers and current international assistance.

2.15 The balance on these accounts is known as the current account balance. The current account balance shows the difference between the sum of exports and income receivable and the sum of imports and income payable (exports and imports refer to both goods and services, while income refers to both primary and secondary income). As shown in Chapter 14, Selected Issues in Balance of Payments and International Investment Position Analysis, the value of the current account balance equals the saving-investment gap for the economy. Thus, the current account balance is related to understanding domestic transactions.

Capital account

2.16 The capital account shows credit and debit entries for nonproduced nonfinancial assets and capital transfers between residents and nonresidents. It records acquisitions and disposals of nonproduced nonfinancial assets, such as land sold to embassies and sales of leases and licenses, as well as capital transfers, that is, the provision of resources for capital purposes by one party without anything of economic value being supplied as a direct return to that party. This account is described further in Chapter 13.

Financial account

2.17 The financial account shows net acquisition and disposal of financial assets and liabilities. This account is described in Chapter 8. Financial account transactions appear in the balance of payments and, because of their effect on the stock of assets and liabilities, also in the integrated IIP statement.

2.18 The sum of the balances on the current and capital accounts represents the net lending (surplus) or net borrowing (deficit) by the economy with the rest of the world. This is conceptually equal to the net balance of the financial account. In other words, the financial account measures how the net lending to or borrowing

BPM6



- The BPM6 was prepared under the direction of the IMF committee on Balance of Payments Statistics.
 - *“The sixth edition of the Balance of Payments and International Investment Position Manual (BPM6) serves as the standard framework for statistics on the transactions and positions between an economy and the rest of the world.”*

BPM6 – Four main uses



- To provide and explain concepts, definitions, classifications, and conventions for balance of payments and international investment position statistics;
- To enhance international comparability of data through the promotion of guidelines adopted internationally;
- To show the links of balance of payments and international investment position statistics to other macroeconomic statistics and promote consistency between different data sets; and
- To provide a brief introduction to uses of data on balance of payments, other changes in financial assets and liabilities, and international investment position, as the international accounts of an economy



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I. Introduction

This chapter describes the purpose of this manual, the uses of government finance statistics, the structure of the government finance statistics system, major methodological changes from the previous edition of this manual, and methods of implementing the revised system.

A. Purpose of the manual

1.1 This second edition of the *Government Finance Statistics Manual (GFS Manual or revised GFS Manual)*¹ describes a specialized macroeconomic statistical system (the GFS system) designed to support fiscal analysis. The manual provides the economic and accounting principles to be used in compiling the statistics and guidelines for the presentation of fiscal statistics within an analytic framework that includes appropriate balancing items.² The manual does not treat systematically the practical aspects of compiling the statistics. These aspects of the GFS system will be addressed in a compilation guide.

1.2 The primary purpose of the *GFS Manual* is to provide a comprehensive conceptual and accounting framework suitable for analyzing and evaluating fiscal policy, especially the performance of the general government sector and the broader public sector of any country. The concept of a sector is described in Chapter 2. In short, the general government sector consists of entities that implement public policy through the provision of primarily nonmarket services and the redistribution of income and wealth, with both activities supported mainly by compulsory levies on

other sectors. The public sector consists of the general government sector plus government-controlled entities, known as public corporations, whose primary activity is to engage in commercial activities.

1.3 Public finance analysts have traditionally used fiscal statistics to analyze the size of the public sector; its contribution to aggregate demand, investment, and saving; the impact of fiscal policy on the economy, including resource use, monetary conditions, and national indebtedness; the tax burden; tariff protection; and the social safety net (see Chapter 4, Box 1). In addition, analysts have become increasingly interested in assessing the effectiveness of spending on poverty alleviation, the sustainability of fiscal policies, net debt, net wealth, and contingent claims against government, including the obligations for social security pensions.

1.4 Achieving these analytic goals often requires the use of statistics for the public sector rather than the general government sector. Public corporations, non-financial as well as financial, can carry out government fiscal policies in a variety of ways, and analysis of their fiscal activities frequently requires statistics on all of their activities rather than isolated statistics on specific transactions. Even when statistics are compiled for only the general government sector, some information on public corporations is required to reflect the level and change in the level of equity ownership of public corporations held by units of the general government sector.

1.5 The basic concepts, classifications, and definitions employed in this manual depend on economic reasoning and principles that should be valid universally regardless of the circumstances in which they are applied. Therefore, the GFS system is applicable to all types of economies regardless of the institu-

¹The first edition was published in 1986 with the title *A Manual on Government Finance Statistics*. It will be referred to as the *1986 GFS Manual*.

²Balancing items summarize the net value of the activities covered by

GFS 2014



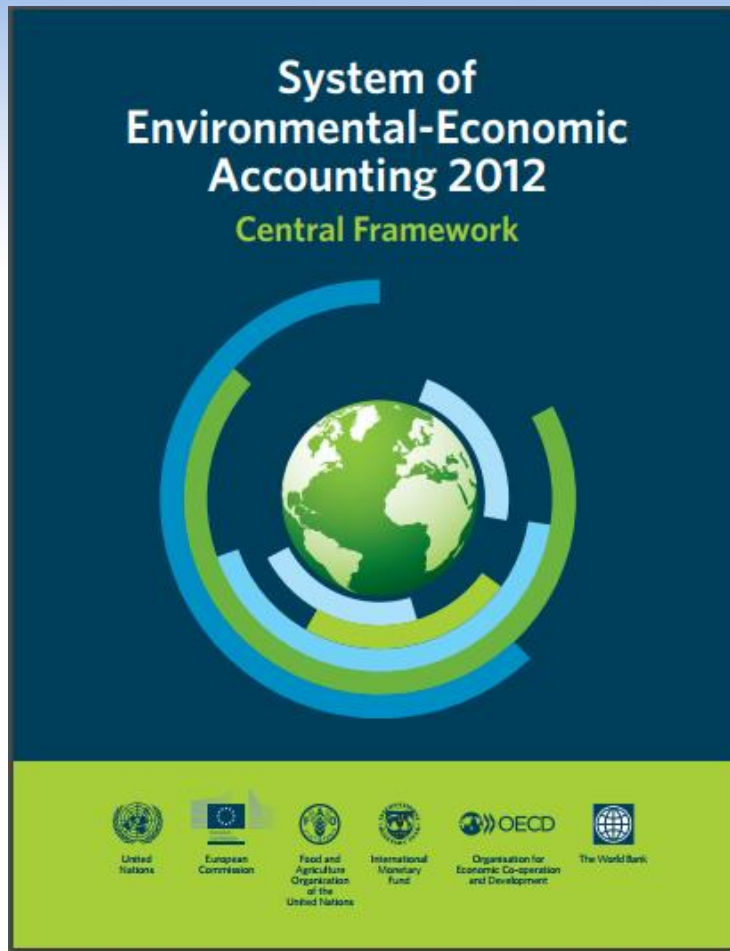
- The GFS 2001 was prepared under the direction of the IMF
 - *“This second edition of the Government Finance Statistics Manual (GFS Manual or revised GFS Manual)¹ describes a specialized macroeconomic statistical system (the GFS system) designed to support fiscal analysis. The manual provides the economic and accounting principles to be used in compiling the statistics and guidelines for the presentation of fiscal statistics within an analytic framework that includes appropriate balancing items”*

GFS 2014



- The GFS 2014
- provides the economic and statistical reporting principles to be used in compiling the government finance statistics;
- describes guidelines for presenting fiscal statistics within an analytic framework that includes appropriate balancing items
- is harmonized with other macroeconomic statistical guidelines.

SEEA (2012)



1

Chapter I

Introduction to the SEEA Central Framework

1.1 What is the System of Environmental-Economic Accounting Central Framework?

1.1 The System of Environmental-Economic Accounting 2012—Central Framework (SEEA Central Framework) is a multipurpose conceptual framework that describes the interactions between the economy and the environment, and the stocks and changes in stocks of environmental assets.

1.2 Using a wide range of information, the SEEA Central Framework, through its structure, enables source data to be compared and contrasted and allows for the development of aggregates, indicators and trends across a broad spectrum of environmental and economic issues. Particular examples include the assessment of trends in the use and availability of natural resources, the extent of emissions and discharges to the environment resulting from economic activity, and the amount of economic activity undertaken for environmental purposes.

1.3 At the heart of the SEEA Central Framework is a systems approach to the organization of environmental and economic information which covers, as completely as possible, the stocks and flows that are relevant to the analysis of environmental and economic issues. In applying this approach, the SEEA Central Framework utilizes the accounting concepts, structures, rules and principles of the System of National Accounts. In practice, environmental-economic accounting includes the compilation of physical supply and use tables, functional accounts (such as environmental protection expenditure accounts) and asset accounts for natural resources.

1.4 The integration of information concerning the economy and the environment requires an interdisciplinary approach. The SEEA Central Framework brings together, in a single measurement system, information on water, minerals, energy, timber, fish, soil, land and ecosystems, pollution and waste, production, consumption and accumulation. To each of these areas are assigned specific and detailed measurement approaches that are integrated in the SEEA Central Framework so as to provide a comprehensive view.

1.5 The concepts and definitions that constitute the SEEA Central Framework are designed to be applicable across all countries, regardless of their level of economic and statistical development, their economic structure, or the composition of their environment.

1.6 The SEEA Central Framework also provides a foundation for the development of related topic- and theme-specific statistical publications. There has already been substantial work on the topics of water, energy and fisheries.

1.7 The SEEA Central Framework is complemented by two publications: SEEA Experimental Ecosystem Accounting, and SEEA Applications and Extensions. Their content is outlined later in the present section.

SEEA 2012



- The 2012 SEEA was prepared under the direction of the United Nations
 - *“The SEEA is a statistical system that brings together economic and environmental information into a common framework to measure the condition of the environment, the contribution of the environment to the economy and the impact of the economy on the environment. The SEEA contains an internationally agreed set of standard concepts, definitions, classifications, accounting rules and tables to produce internationally comparable statistics.”*

SEEA 2012



- The SEEA framework follows a similar accounting structure to the System of National Accounts (SNA). The SEEA uses concepts, definitions and classifications consistent with the SNA in order to facilitate the integration of environmental and economic statistics. By doing so, the SEEA allows us to develop indicators and conduct analysis on the economy-environment nexus.
- The SEEA consists of three parts:
 - The [SEEA Central Framework](#) (2012) was adopted by the UN Statistical Commission as the first international standard for environmental-economic accounting in 2012.
 - The [SEEA Experimental Ecosystem Accounting](#) offers a synthesis of current knowledge in ecosystem accounting.
 - The [SEEA Applications and Extensions](#) illustrates to compilers and users of SEEA Central Framework based accounts how the information can be used in decision making, policy review and formulation, analysis and research.



A brief macroeconomic accounting history lesson

Historic Versions of the System of National Accounts



- **1947** — The origins of the SNA trace back to the 1947 Report of the Sub-Committee on National Income Statistics of the League of Nations Committee of Statistical Experts under the leadership of Richard Stone. At its first session in 1947, the United Nations Statistical Commission (UNSC) emphasized the need for international statistical standards for the compilation and updating of comparable statistics in support of a large array of policy needs

Historic Versions of the System of National Accounts



- **1953** — The 1953 SNA was published under the auspices of the UNSC. It consisted of a set of six standard accounts and a set of 12 standard tables presenting detail and alternative classifications of the flows in the economy. The concepts and definitions of the accounts were widely applicable for most countries, including developing countries. Two slightly modified editions of the 1953 SNA were published.
- **1960** — The first revision in 1960 reflected comments on country experience in the implementation of the 1953 SNA.

Historic Versions of the System of National Accounts



- **1964** — The second revision in 1964 improved consistency with the International Monetary Fund's Balance of Payments Manual.
- **1968** — The 1968 SNA extended the scope of the national accounts substantially by adding input-output accounts and balance sheets; giving more attention to estimates at constant prices; and making a comprehensive effort to bring the SNA and the Material Product System (MPS) closer together.

Historic Versions of the System of National Accounts



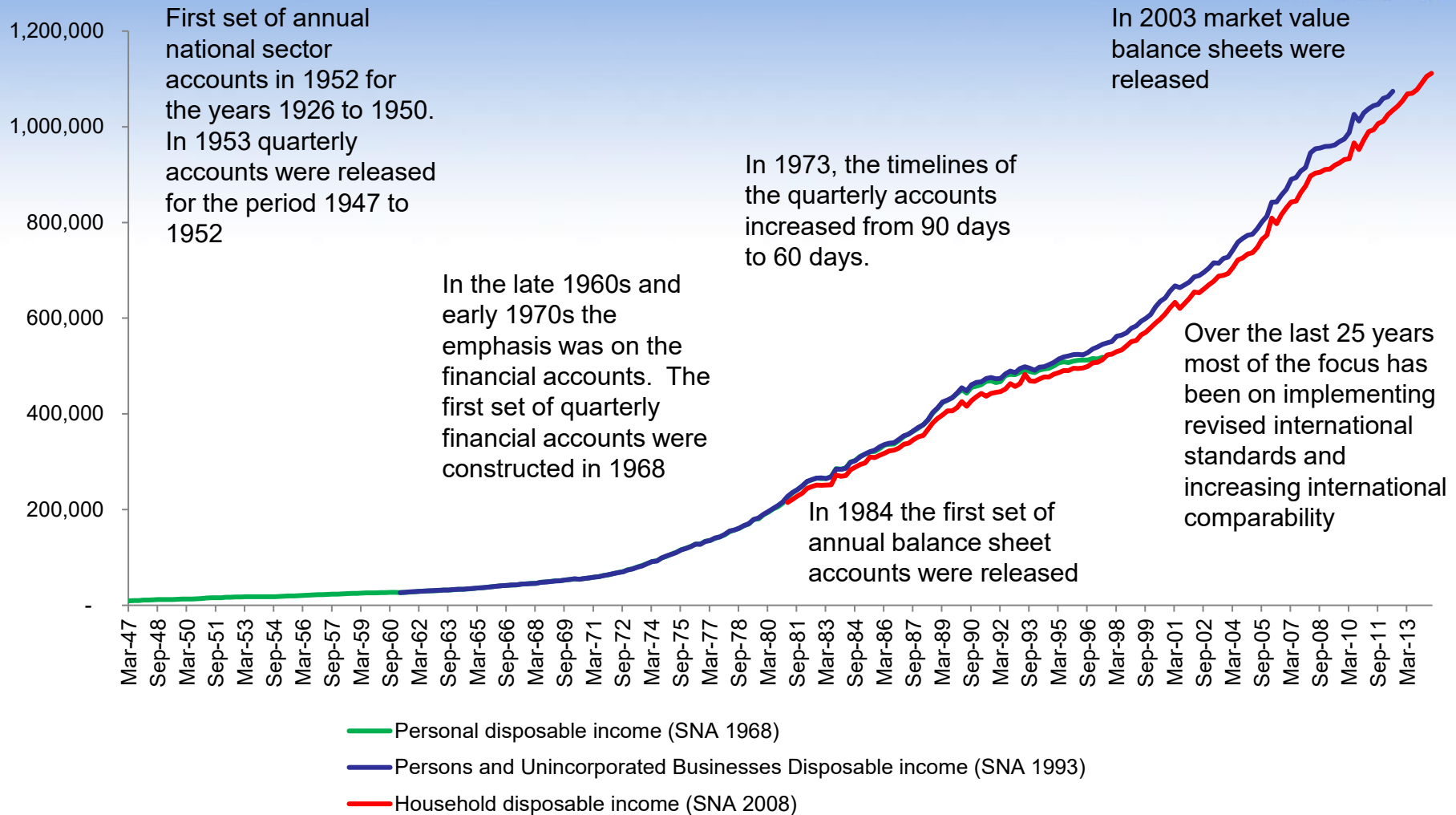
- **1993** — The 1993 SNA represents a major advance in national accounting and embodies the result of harmonizing the SNA and other international statistical standards more completely than in previous versions.
- **2008** — The 2008 SNA, which is an update of the 1993 SNA, addresses issues brought about by changes in the economic environment, advances in methodological research and the needs of users.

New Standards – The implications



- With each iteration of the international manuals countries need to revise it's national accounts to align with the international standard.
- Given the magnitude of the changes it was not always possible to implement these standard in their entirety or back-cast the data to the beginning of the macroeconomic account time series.
- Countries often need to make trade-offs between implementing new standards and breaks in time series.
- The adoption of new accounting standards represents to single most significant challenges for NSOs.

Historical Development Sixty Years in the Making





What do we mean by “a system”

The national accounting “system” - Sequence of Accounts



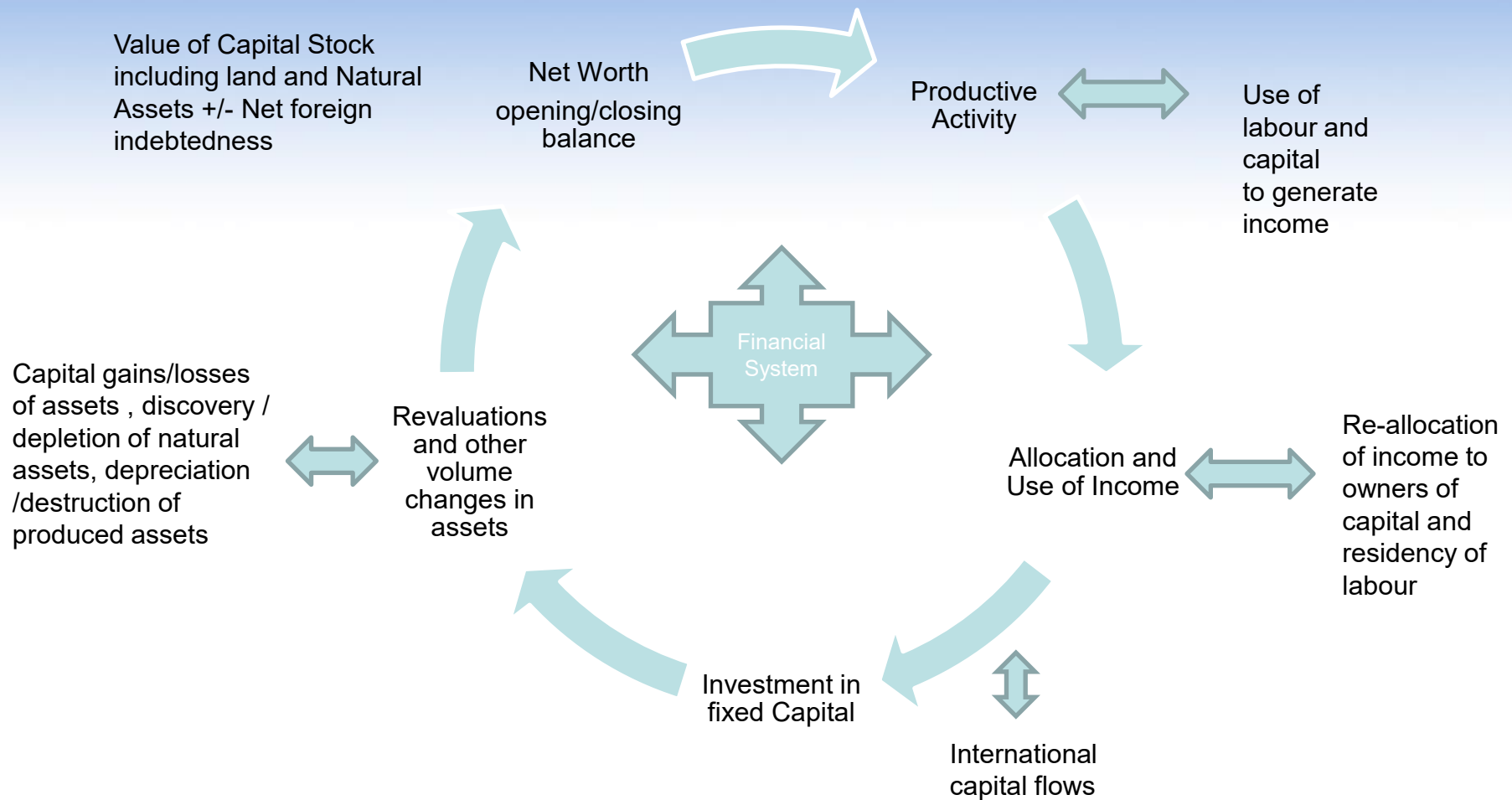
- National Accounts are constructed within an economic accounting framework or standard – much like business accounting statements are constructed under an accounting standard (i.e. the IFRS).
- Just like balance sheets, income statements and statements of cash flow are produced for business – the national accounts are economic accounting statements related to production, income distribution, investment, financing and wealth.
- One of the key components of this framework is the idea that the accounts are interrelated – or there is a sequence (or system) of accounts which aim to tell a story.

The national accounting “system” - Sequence of Accounts



- It is referred to as a system because it is:
 - ✓ Comprehensive – all designated activities and the consequences for all agents in the economy are covered.
 - ✓ Consistent – because identical values are used to establish the consequences of a single action on all parties concerned using the same accounting rules.
 - ✓ Integrated – all the consequences of a single action by one agent are necessarily reflected in the resulting accounts, including the impact on measurement of wealth captured in balance sheets.

The national accounting “system”



Sequence of Accounts – A numerical example

GDP by Production Account		
Output		1000
Market Output	750	
Output for Own Final Use	50	
Non-Market Output	200	
Less: Inputs		
Intermediate Inputs		800
Balancing Item: Gross Value Added		200
GDP by Income Account		
Opening Entry: Gross Value Added		200
Payments to Factors of Production		
Less: Compensation of Employees	100	
Less: Taxes less subsidies on production	25	
Balancing Item: Operating Surplus/Mixed Income		75

Sequence of Accounts – A numerical example

GDP by Production Account		
Output		1000
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Intermediate Inputs		800
Gross Value Added		200
GDP by Income Account		
Payments to Factors of Production		
Less: Compensation of Employees	100	
Less: Taxes less subsidies on production	25	
Less: Operating Surplus/Mixed Income	75	
Equals: Gross Domestic Product		200

National Accounts - Overview



➤ Key takeaways

- ✓ The SNA is part of a broader group of accounting standards which includes the Balance of Payments, Government Finance Statistics and System of Environmental and Economic Accounting.
- ✓ These systems have a rich history and are more or less aligned with each other.
- ✓ The SNA is a “system” meaning it is internally consistent both conceptually and structurally.

National Accounts - Overview



➤ Activity

- ✓ Develop a timeline of national accounting for your country (jurisdiction)

National Accounts - Overview



➤ Appendix

Historic Versions of the Balance of Payments Manual



- **1948** – The Balance of Payments Manual was first published in 1948. The main objective of the manual was to provide a basis for regular and internationally standardized reporting of data to the IMF. The publication consisted of tables and instructions for reporting data with little discussion on balance of payments concepts or compilation methods.
- **1950 and 1961** – The second and third additions were published in 1950 and 1961 respectively. These additions expanded on the concepts underlying the system and contained a complete set of balance of payment principals which could be used by countries to serve their own needs.

Historic Versions of the Balance of Payments Manual



- **1977** – The fourth edition was published in 1977 and was a response to the way international transactions were carried out and to changes in the international financial system. This manual provided a significant amount of flexibility in the presentation of balance of payments data.
- **1993** – The fifth edition introduced the most significant changes since 1948 as it aligned with the 1993 System of National Accounts, introduced the international investment position (IIP) and introduced a number of changes to the structure of the accounts.
- **2008** – The sixth addition introduced changes which address the emerging issues of globalization, further elaborate the international investment position and financial innovation.

Historic Versions of the Government Finance Statistics Manual



- **1986** – The IMF published “A manual on Government Finance Statistics” in order to bring some consistency to the way countries reported government financial data.
- **2001** – In 2001 the IMF issued the “Government Finance Statistics (GFS) Manual” which was an update to the 1986 manual and was – as much as possible – harmonized with the 1993 edition of the *System of National Accounts (1993 SNA)*. It covers concepts, definitions, classifications, and accounting rules, and it provides a comprehensive analytic framework within which the statistics can be summarized and presented in a form appropriate for analysis, planning, and policy determination.

Historic Versions of the Government Finance Statistics Manual



- **2014** – In 2014 the IMF has released a pre-publication draft of the GFS manual which addresses important international economic developments in recent years and take into account improved recording and methodological treatments of various events. The changes to *GFSM 2001* incorporated in the *GFSM 2014* can broadly be summarized as methodological changes to align with the *2008 SNA*, clarifications on existing methodological guidelines and presentational changes.
- ❖ Right now the 2008 SNA, BPM6 and GFS 2014 are aligned in terms of concepts, definitions and methods.

The System of Environmental and Economic Accounts (SEEA)



- **Early 1990s** – In the statistical sphere the development of SEEA was begun in the early nineteen nineties. As with the development of the national accounts, the experts involved came from large international organisations, national statistical offices, researchers from universities and consultants. Experts in economics, environmental issues and statistics have developed the SEEA to a point where statistics can be compiled, analysed and published.
- **2012** - In 2012 the United Nations Statistical Commission adopted the SEEA as a statistical standard.