Economic and Finance statistics

Financial accounts and government finance statistics

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EUROPEAN MASTER IN OFFICIAL STATISTICS

EMOS

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Part 1: Financial accounts

Overview

1   A representation of the economy

2   Compilation of Financial Accounts
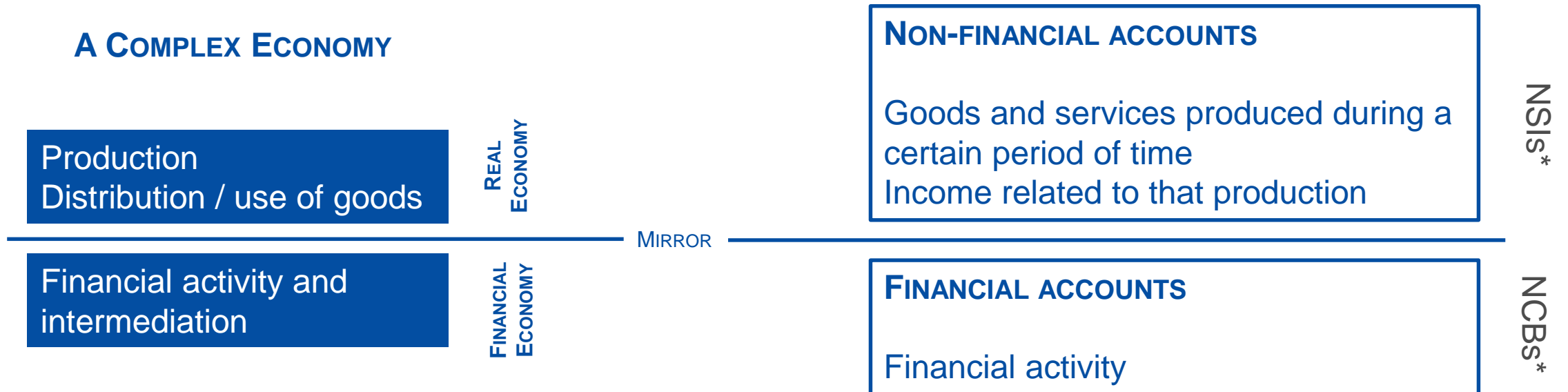
3   Uses and users

Statistical Representation of Economic Activity

- The production process in an economy consists of numerous interactions between economic entities

- Capturing these interactions is essential for empirical analysis and economic policy

- Data must be presented in a systematic and consistent manner to allow for comparison across time and sectors/regions

Sector accounts provide a <u>simplified</u> representation of economic activity

Split into real and financial economy

A COMPLEX ECONOMY

Production Distribution / use of goods	REAL ECONOMY
Financial activity and intermediation	FINANCIAL ECONOMY

MIRROR

NON-FINANCIAL ACCOUNTS

Goods and services produced during a certain period of time
Income related to that production

NSIs*

FINANCIAL ACCOUNTS

Financial activity

NCBs*

Financing (financial activity) = provision of financial resources to be used in a financial or real economic activity
External financing involves borrowing
Internal financing uses own funds (e.g. profits).

- National central banks + National statistical institutes at national level

- European Central Bank + Eurostat at international level

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6

(typically)

Link between non-financial and financial accounts

The real economy and the financial economy are closely connected

Balances from accumulation of real assets	Saving and capital transfers

Financial surplus / deficit of each sector

i.e. to what extent each sector has made financial resources
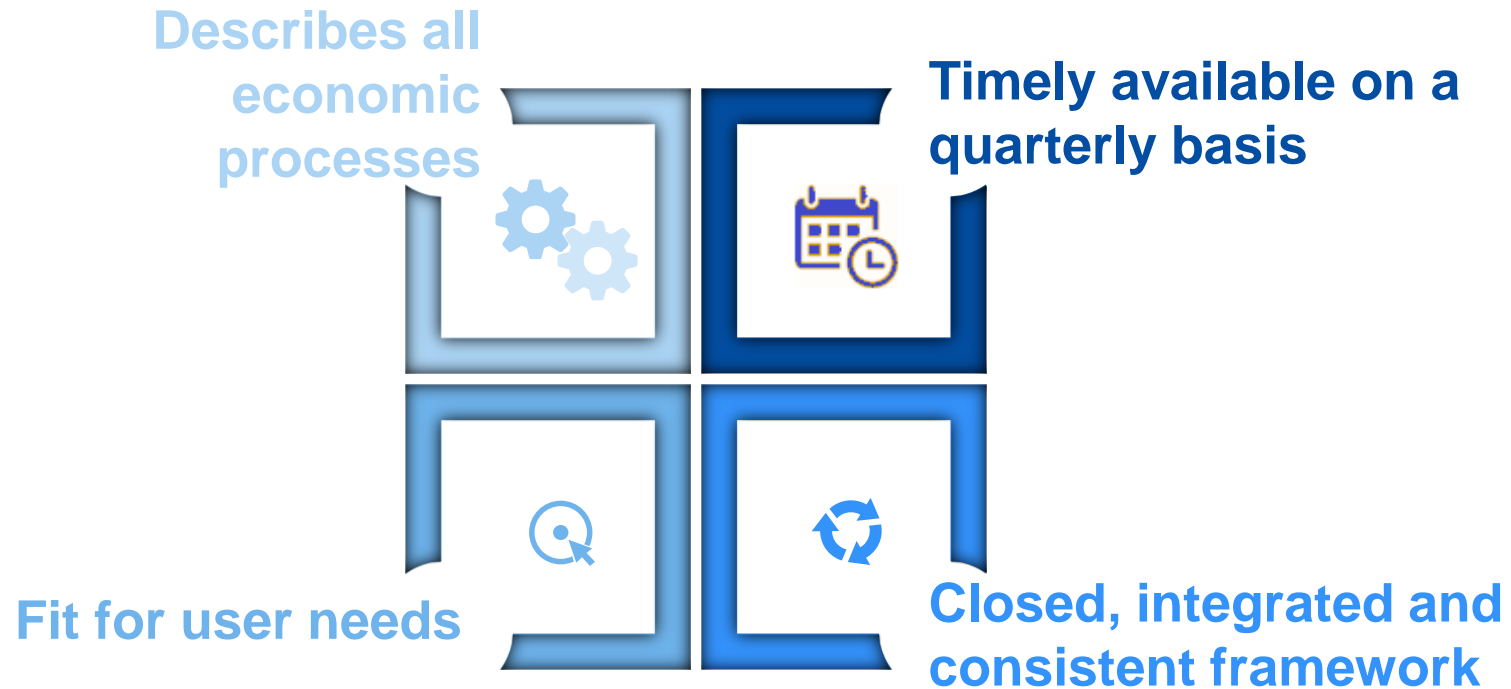available / has used financial resources

Financial accounts represent a basic structure of financial system as well as financial activity of households, companies and the government
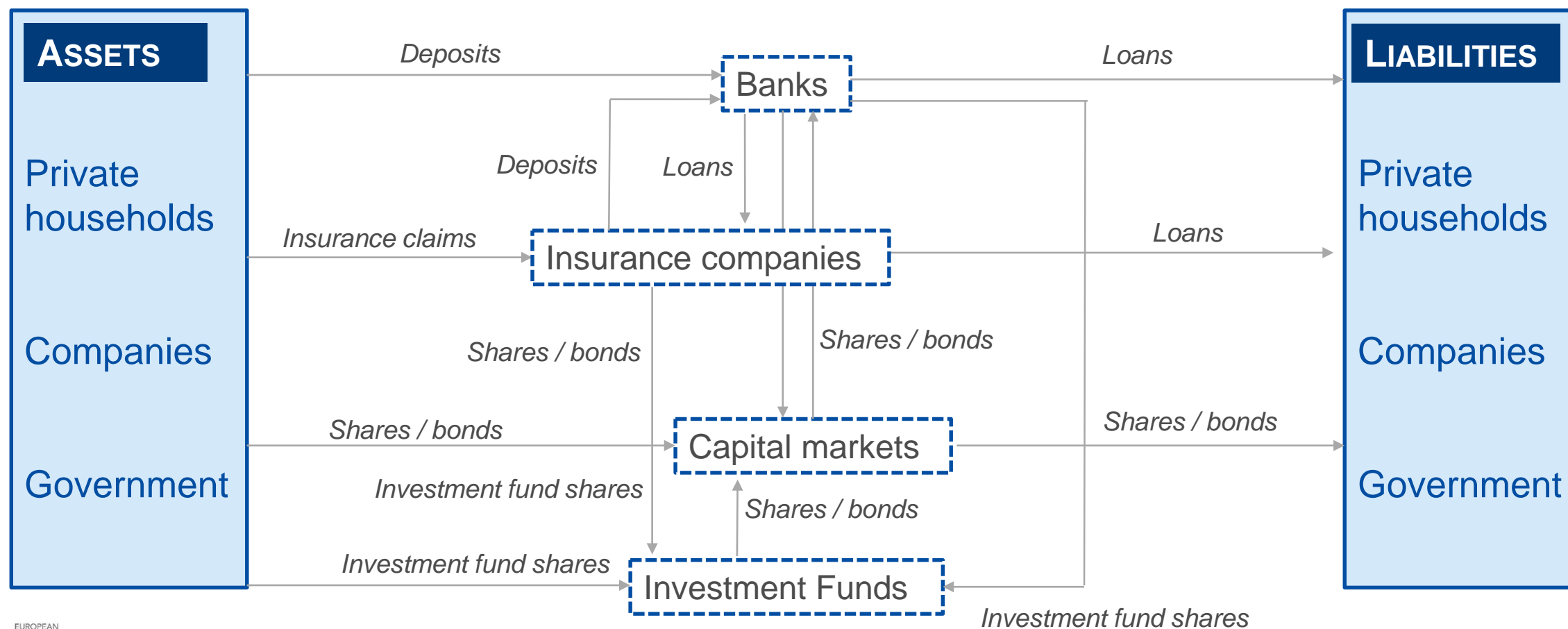
Description of the financial transactions for a period

+ Stocks of financial assets and liabilities on a specific date

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Financial Accounts

Describes all economic processes

Timely available on a quarterly basis

Fit for user needs

Closed, integrated and consistent framework

Economic Interaction amongst sectors

Statistical representation of financial interactions

Creditor sector \ Debtor sector			Residents				Non-residents				Residents outside the euro area
			Private Households	Banks	Companies	Government	Euro area other than domestic				
							Private Households	Banks	Companies	Government	
Total											
Residents		Private Households									
		Companies									
		Banks									
		Government									
Non-residents	Euro area other than domestic	Private Households									
		Companies									
		Banks									
		Government									
	Residents outside the euro area										

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Financial Accounts – Inputs and Outputs

STATISTICAL BUILDING BLOCKS

- Holdings Statistics
- Issues Statistics
- Investment funds Statistics
- Insurance Statistics
- Government Financial Accounts
- Balance of Payments
- …

FINANCIAL ACCOUNTS

NON-FINANCIAL ACCOUNTS

STATISTICAL BUILDING BLOCKS

National Publications

INTEGRATED EURO AREA ACCOUNTS

European Publications

THIS CLASS

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11

Principles of Financial Accounts

- Compliance with **SNA** and **ESA** (the "what", "how" and "when")

- **Units** grouped by **institutional sectors**

- Complete representation of **stocks** and **flows** of all sectors

- Including all relations **between** and **within** sectors shown

- Valued at **exchange values**, i.e. market prices

- Horizontal and vertical **consistency**

How do the accounts work?

- **Closed system** which covers **all economic processes**

- **Quadruple entry system** – reflected twice by each sector involved

Example: Loans taken by households:

Loans:
→ Households (liabilities)
→ MFIs (assets)

Financial accounts

Financial Instrument	Households (S14)		MFIs (S12K)	
	Assets	Liabilities	Assets	Liabilities
Loans (F4)		+X	+X	
Deposits (F2M)	+X			+X

Deposits:
→ Households (assets)
→ MFIs (liabilities)

How do the accounts work? (2)

Example: Wages paid to households:

Compensation of employees:
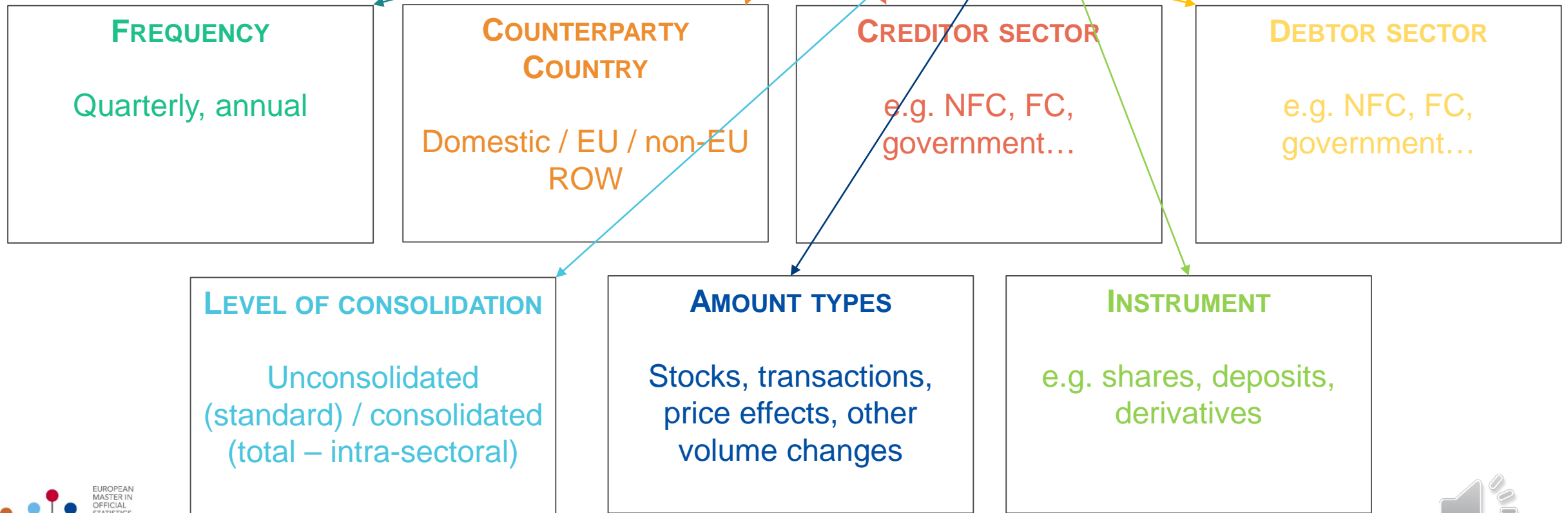→ Corporations (pay)
→ Households (receive)

Deposits:
→ Corporations (decrease)
→ Households (increase)

Total Economy

Real economy | Balance sheet

Non-financial accounts | Financial accounts

Uses	Resources	Assets	Liabilities
+X	+X		
		-X +X	

Net lending / borrowing

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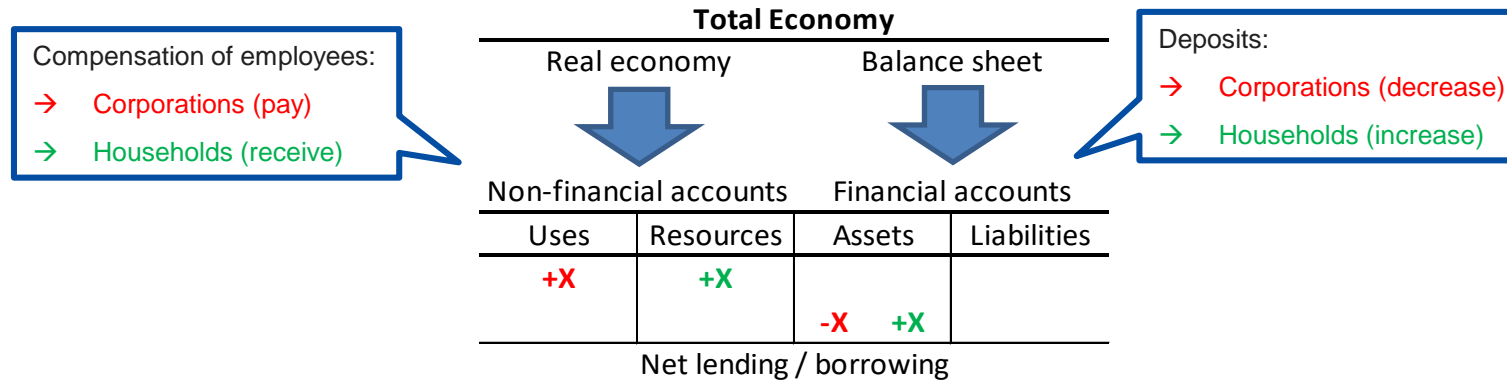
How do the accounts work? (3)

Food for thought

1) How would you record if a non-financial corporation purchases listed shares issued by an insurance corporation?

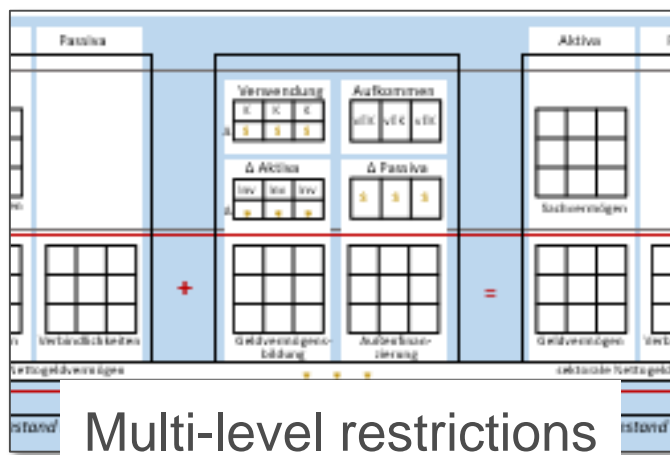2) How would you record the payout of dividends by a financial corporation to a government entity holding the shares?
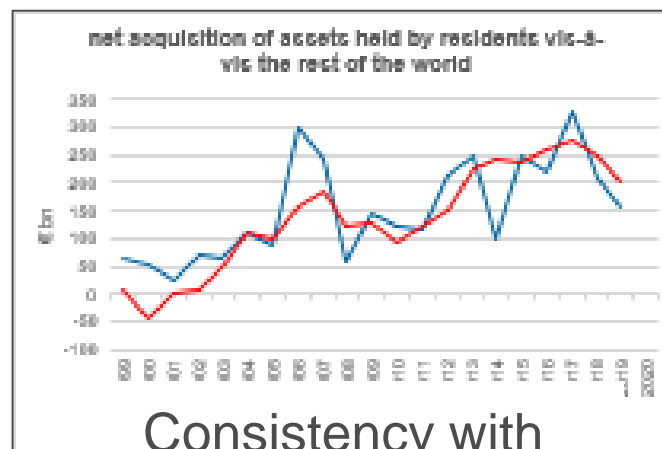
Dimensions of Financial Accounts

Example of an SDMX code: **BBAF2.Q.N.DE.W0.S14.S1.C.A.LE.F51._Z._T.S.V.A**

FREQUENCY	**COUNTERPARTY COUNTRY**	**CREDITOR SECTOR**	**DEBTOR SECTOR**
Quarterly, annual	Domestic / EU / non-EU ROW	e.g. NFC, FC, government…	e.g. NFC, FC, government…

LEVEL OF CONSOLIDATION	**AMOUNT TYPES**	**INSTRUMENT**
Unconsolidated (standard) / consolidated (total – intra-sectoral)	Stocks, transactions, price effects, other volume changes	e.g. shares, deposits, derivatives

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Practical compilation challenges

Multi-level restrictions (horizontal, vertical, who-to-whom, stock-flow)

Consistency with other macroeconomic statistics

Lack of adequate source data

Uses and Users

- **Uses:**

  - Monetary analysis

  - Integrated non-financial and financial analyses

  - Financial balance sheets and exposures, financial stability

  - International comparisons (e.g. G-20)

 - Euro area and EU country analyses

  - EU benchmarking (e.g. Macro-economic Imbalance Procedure)

- **Users:**

  - NCBs/ECB: Monetary Policy / Economics / Macroprudential Policy / Financial Stability / Research

  - European Systemic Risk Board

  - European Commission, OECD, IMF

  - Media and the general public

EAA uses – Who-to-whom

- **Households' selected financial assets by counterpart sector***
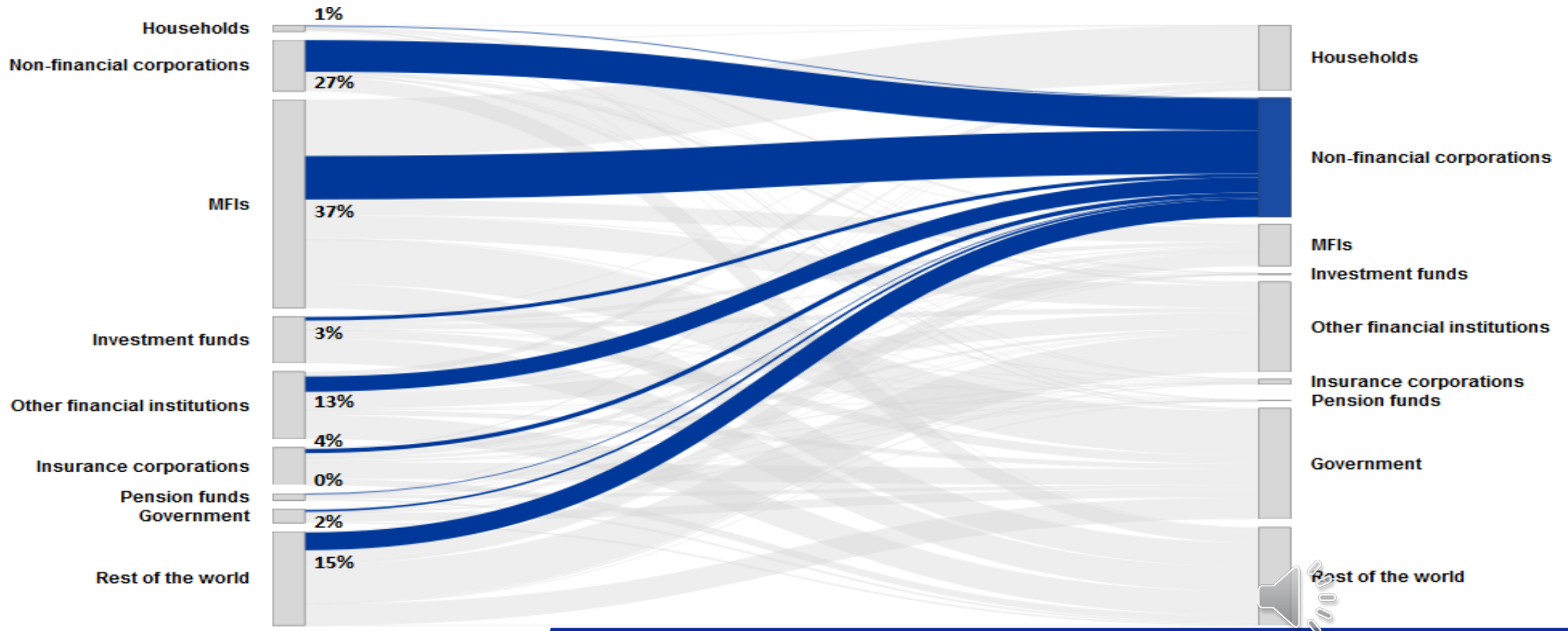
- (EUR billions, 2018 end of period stocks)
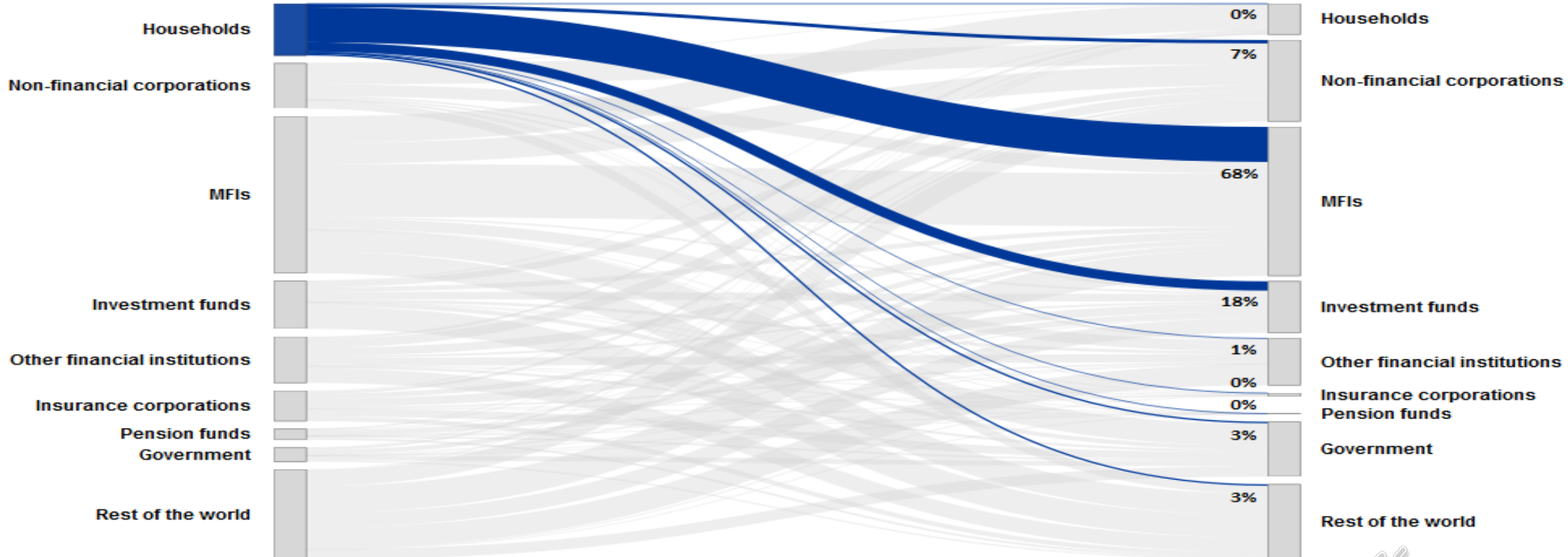
* Financial instruments for which the counterpart sector breakdown is available: deposits, loans, debt securities, listed shares and investment fund shares/units

EAA uses – Who-to-whom

- **Main components of NFC debt (loans, debt securities) by counterpart sector**

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Further Information

- Bundesbank website – Financial accounts

https://www.bundesbank.de/en/statistics/macroeconomic-accounting-systems/financial-accounts

- ECB website – Sector accounts

https://www.ecb.europa.eu/stats/macroeconomic_and_sectoral/sector_accounts/html/index.en.html

- Bundesbank quarterly press releases

https://www.bundesbank.de/en/press/press-releases/acquisition-of-financial-assets-and-external-financing-in-germany-in-the-fourth-quarter-of-2020-864142

- ECB Press releases

https://www.ecb.europa.eu/press/pr/stats/ffi/html/index.en.html

- Euro area statistics interactive charts

https://www.euro-area-statistics.org/

- European System of Accounts (ESA2010)

http://ec.europa.eu/eurostat/documents/3859598/5925693/KS-02-13-269-EN.PDF/44cd9d01-bc64-40e5-bd40-d17df0c69334

- Understanding Financial Accounts (OECD)

http://www.oecd.org/publications/understanding-financial-accounts-9789264281288-en.htm

Thank you (part 1)

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Part 2: Government finance statistics

Overview

1   Excessive Deficit Procedure (EDP) and government finance statistics (GFS)

2   Measurement of government debt (Maastricht debt)

3   Deficit - debt adjustment (DDA)

Excessive Deficit Procedure (EDP)

- Protocol on the EDP

  - ➢ 3% and 60% of GDP as reference values for government deficit and debt

- Council Regulation No 220/2014 of 7 March 2014 on the application of the Protocol on EDP

  - ➢ All EU Member States reporting to Eurostat the government deficit, debt and GDP by end-March and end-September

  - ➢ Methodological standards of ESA: deficit/surplus of government is the net borrowing/net lending balance in national accounts

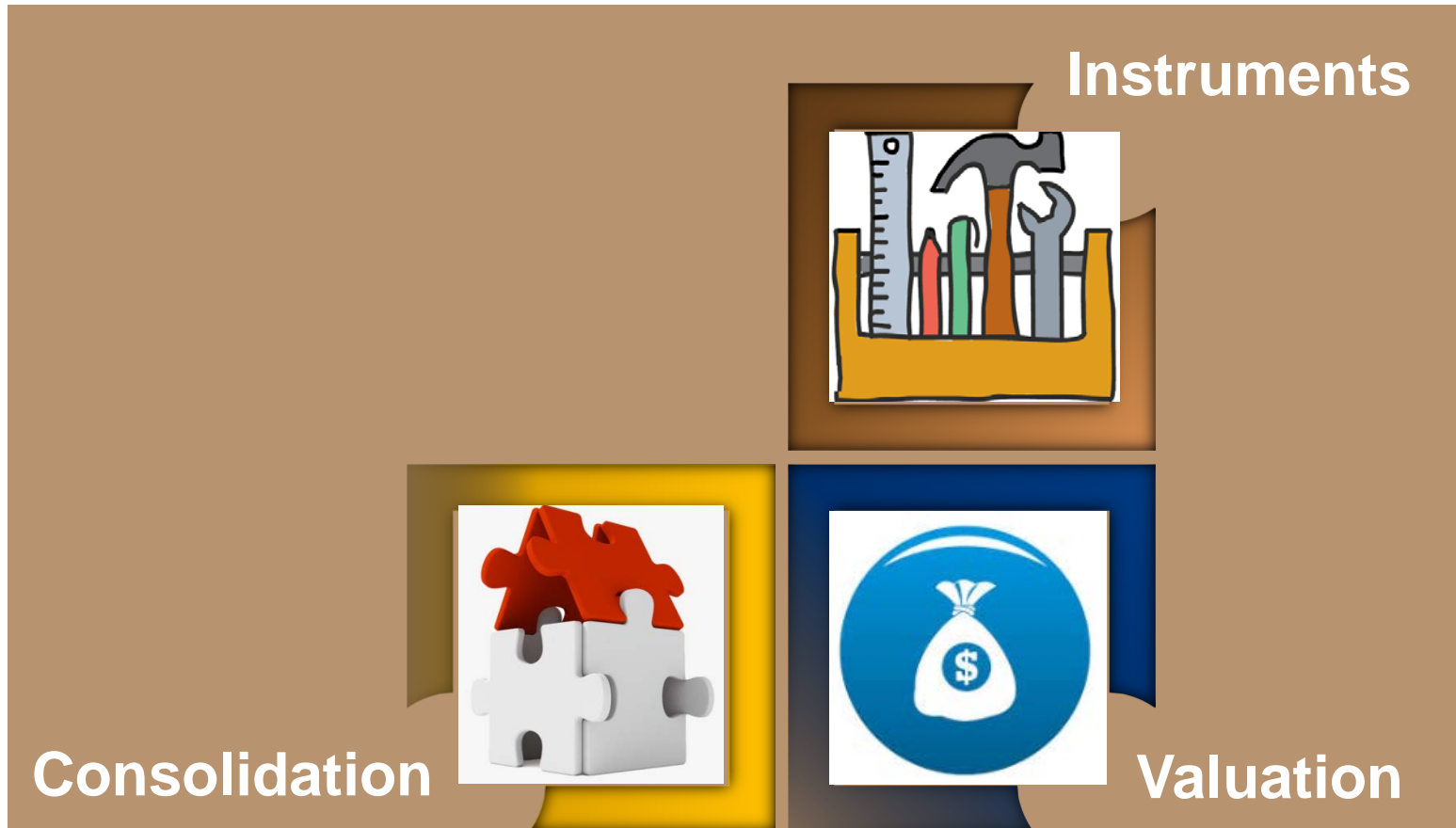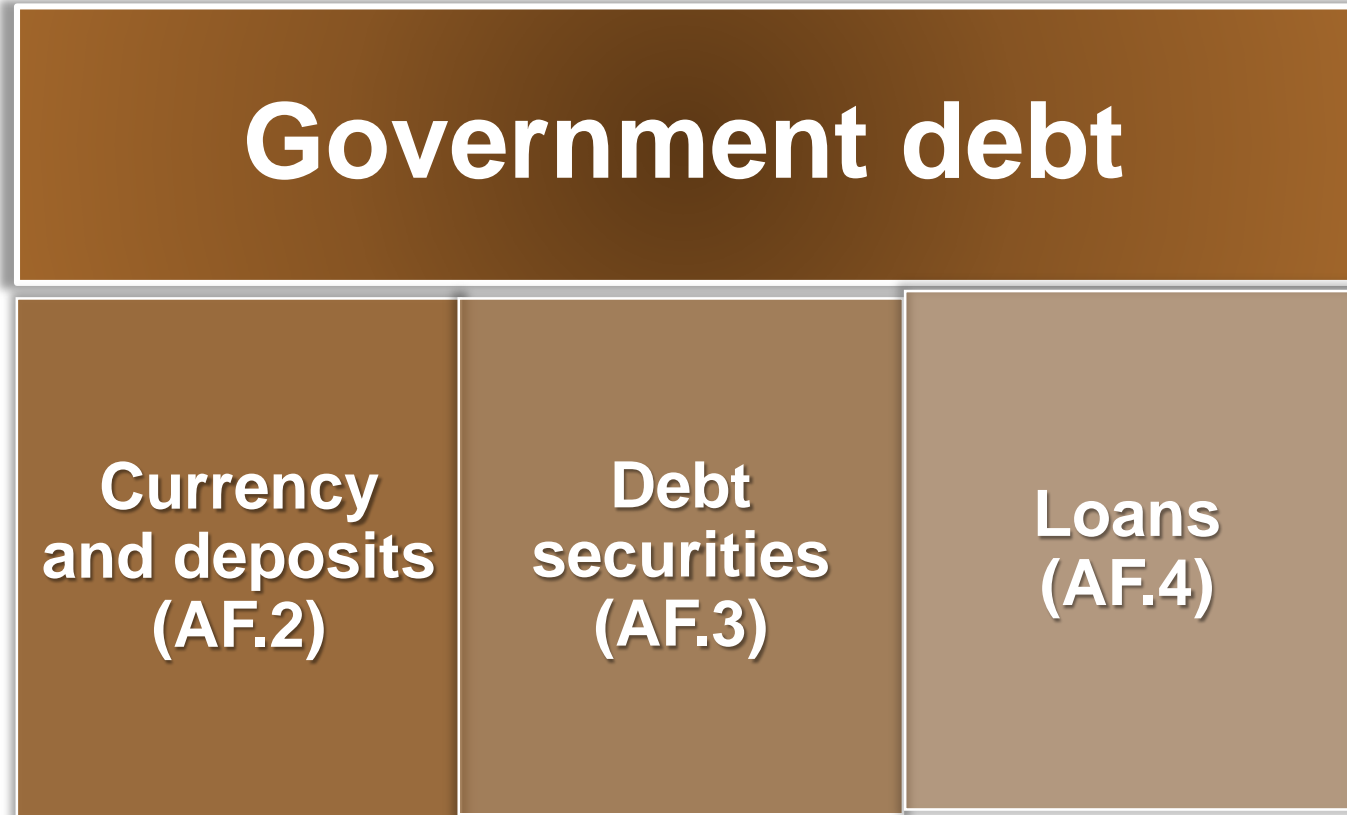 - ➢ Specific accounting rules on Maastricht debt

GFS and EDP

- **Government finance statistics** (GFS) - detailed government sector national accounts data - financial and non-financial accounts and Maastricht debt

- Compiled often by NSIs (non-financial accounts) and NCBs (debt and financial accounts)

- **Consistency** between the EDP notified data and GFS

- GFS based on different national full surveys and complementing specific sources

- The government data often used to improve the data of other sectors (counterpart information)

- Due to specific recording practices government accounts have a separate Chapter in ESA 2010 (Chapter 20)

Measurement of government (Maastricht) debt

Instruments

Consolidation

Valuation

Measurement of government (Maastricht) debt

Instruments

Government debt		
Currency and deposits (AF.2)	Debt securities (AF.3)	Loans (AF.4)

Not included for example liabilities in: AF.8 Other accounts or AF.6 Insurance, pension and standardised guarantee schemes

Measurement of government (Maastricht) debt

Valuation

Maastricht debt:

- ➤ **measured <u>at face value</u> (undiscounted amount of principal to be repaid at maturity)**

- ➤ **not affected by changes in market interest rates**

- ➤ **excludes accrued interest**

Different from market valuation in financial accounts; especially large differences for traded instruments, e.g. debt securities

Measurement of government (Maastricht) debt

Consolidation

Government debt measured gross (financial assets are not netted off) and consolidated between and within sub-sectors (S.1311, S.1312, S.1313, S.1314)
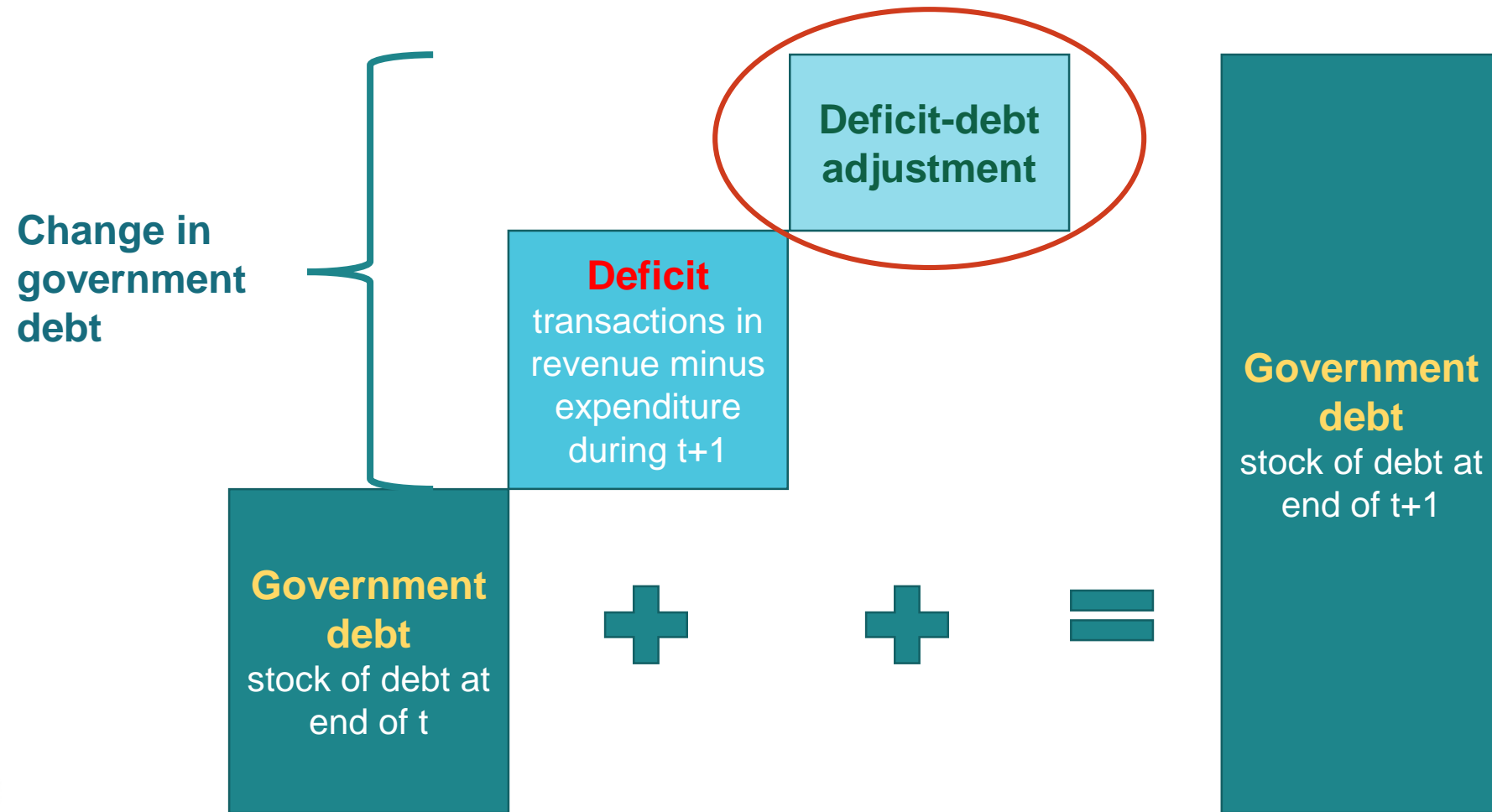
		Assets by					
		S.1311 central	S.1312 state	S.1313 local	S.1314 social security funds	S.11+S.12+ S.14+S.2	Total
Liabilities by	S.1311 central						
	S.1312 state						
	S.1313 local		Consolidated out				
	S.1314 social security funds						
	Total						

Deficit-debt adjustment (DDA)

- Also called *Stock-flow adjustment*

Change in government debt

Deficit-debt adjustment

Deficit
transactions in revenue minus expenditure during t+1

Government debt
stock of debt at end of t

+

+

=

Government debt
stock of debt at end of t+1

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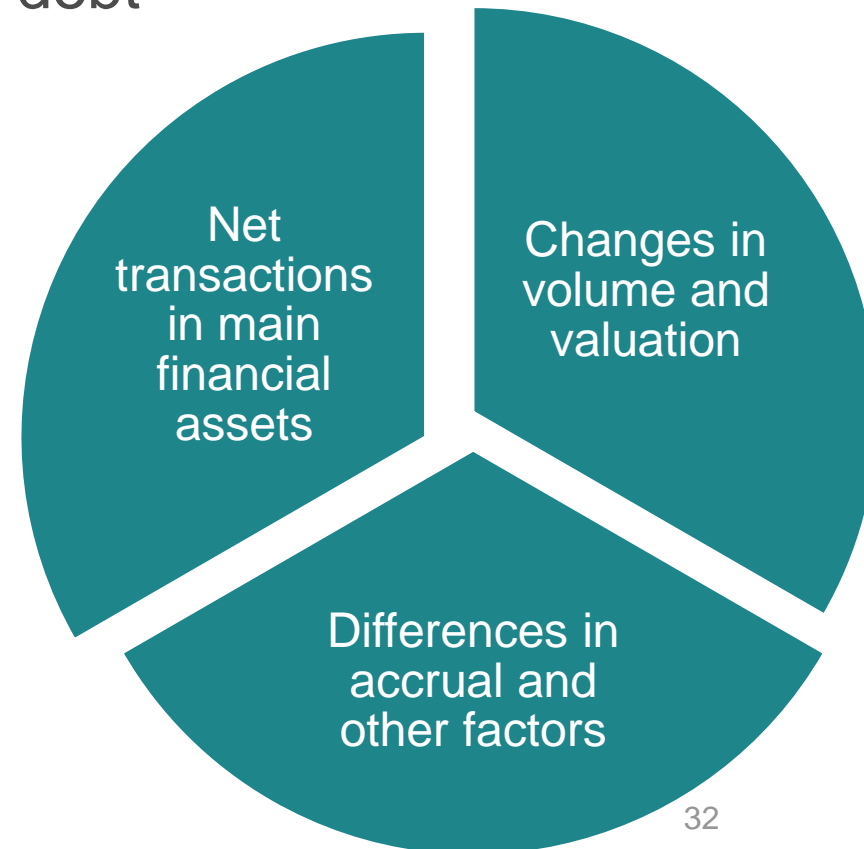
Deficit-debt adjustment (DDA)

- DDA can be analysed to assess the quality and consistency of the government accounts

- Includes main elements of non-financial accounts (deficit), financial accounts (DDA) and government debt

- **Three main pillars of DDA**

Net transactions in main financial assets

Changes in volume and valuation

Differences in accrual and other factors

Deficit-debt adjustment (DDA)

I.   Net transactions in main financial assets

➢ Acquisitions of financial assets without impact on deficit, but impact on government debt

➢ *Examples: acquisitions of shares in public corporations for investment purposes, extensions of loans to public corporations etc*

II.   Changes in volume and valuation of debt without financial or non-financial transactions

➢ Valuation effects:

▪ Exchange rate holding gains or losses on foreign currency denominated debt

▪ Market-to-face value adjustments:

✓ *Issuances, redemptions and repurchases below/above nominal value*

✓ *Interest paid vs accrued*

Deficit-debt adjustment (DDA)

➢ Changes in volume of debt:

  ▪ Reclassification of entities and instruments

III. Time of recording differences and remaining factors

➢ Remaining changes in liabilities not part of government debt

➢ Time of recording differences: net transactions in other accounts payable/receivable that impact deficit and debt in different time periods due to accrual recording

➢ *Example: A military equipment was delivered (impact on deficit), but the payment in only due in the next calendar year, when government will borrow to finance this purchase (impact on debt)*

➢ *Statistical discrepancies*

Further Information

- Eurostat website – Government finance statistics

https://ec.europa.eu/eurostat/web/government-finance-statistics/overview

- Bundesbank website – Public finances

https://www.bundesbank.de/en/statistics/public-finances

- ECB website – Government finance statistics

https://www.ecb.europa.eu/stats/macroeconomic_and_sectoral/government_finance/html/index.en.html

- Bundesbank - Maastricht debt: methodological principles, compilation and development in Germany

https://www.bundesbank.de/resource/blob/732992/1b6ec3e991c00a5229c2a8ad6a807dd6/mL/2018-04-maastricht-data.pdf

- ECB Statistics Paper Series – L. Kezbere, H. Maurer Deficit-debt adjustment (DDA) analysis: an analytical tool to assess the consistency of government finance statistics

https://www.ecb.europa.eu/pub/pdf/scpsps/ecb.sp29.en.pdf?785748cfdaaf26dba9a8e5a0a662746b

Thank you