Economic and Finance statistics

National Accounts and BoP

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European Statistical System (ESS)

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EMOS core module on economic and finance statistics

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Overview

1 Overview: methodological consistency between National Accounts and BoP/IIP

2 Links between National Accounts and BoP/I.I.P.

2.1 RoW sector in National Accounts

2.2 Basic equation on GDP measurement

2.3 Savings, investment and current/capital account balance

3 The challenges of ensuring consistency in practice

Part 1: overview - methodological consistency between National Accounts and BoP/IIP

1. Overview – methodological consistency

The methodology is defined in different Manuals:

- National Accounts methodology is described in the 2008 **System of National Accounts** (co-signed by UN, OECD, IMF, World Bank and Eurostat/Commission) and 2010 European System of Accounts (Eurostat/Commission)

- Balance of Payments/International Investment Position methodology is explained in the (6th edition of) the **Balance of Payments and International Investment Position Manual**, produced by the IMF

1. Overview – methodological consistency

In recent statistical standards (at least since the 2008 review of the statistical standards), the rest of the world (RoW) is a specific sector of the National Accounts:

- **The 2008SNA / 2010 ESA define a closed, four-entry, system**

    Each transaction is shown as a use (or change in assets) for one agent and as a resource (or change in liabilities) for another agent; each entry in one agent requires another entry in the same agent

- **Record all <u>transactions</u> between resident economic agents grouped into institutional <u>sectors</u>**

- **To "close the system", a specific sector captures the counterpart of flows vis-à-vis non-resident entities: the "rest of the world" sector (and the rest of the world accounts)**

    Remark: this also implies that the institutional sector of counterparts outside the national territory is not identified in national accounts

1. Overview – methodological consistency

Relation between BOP/IIP and the RoW

- **RoW accounts are presented from non-residents' point of view;**
  Conversely, b.o.p./i.i.p. are compiled from residents point of view:

  RoW uses (resources) = b.o.p. debits (credits)

  RoW assets (liabilities) = b.o.p./i.i.p. liabilities (assets)

- **Share the same concepts in terms of:**

  Definitions of economic value, residency, and sectorisation

  Rules of accounting, valuation, time of recording

1. Overview – methodological consistency

Relation between BOP/IIP and the RoW Sector of National Accounts

- **The minor ESA95/BPM5 methodological differences disappeared with the introduction of ESA10/BPM6**

  Unfortunately not in practice!

- **However, financial flows are grouped following economic and legal criteria (e.g. liquidity, risk), <u>as opposed to BOP functional categories</u>**

  In addition, some BOP presentations of direct investment apply a **<u>"directional principle"</u>**, which does not exit in National Accounts

- **However, financial flows are grouped on economic and legal criteria in sector accounts, as opposed to BOP functional approach. Crossing these classification is however possible:**

International account functional categories					
ESA instruments	Direct investment	Portfolio investment	Financial derivatives	Other investment	Reserve assets
Other transferable deposits	X			X	X
Other deposits	X			X	X
Debt securities	X	X			X
Loans	X			X	X
Equity and investment fund shares					
Equity:					
Listed shares	X	X			X
Unlisted shares	X	X			X
Other equity	X			X	
Investment fund shares/ units:					
Money market fund shares/units	X	X			X
Non-MMF investment fund shares/units	X	X		X	X

1. Overview – methodological consistency

Additional practical difficulty: data presentations look different

In particular:

- BoP refers to "current account' and "capital accounts" which are terms rarely used in National Accounts terminology

- BoP "financial accounts" are split by functional categories: direct investment, portfolio investment, etc…

- BoP shows explicitly "errors and omissions", called "statistical discrepancies in National Accounts and often not shown explicitly

Remark: the BPM6 shows a standard presentation of the data, while the SNA does not

1. Overview – methodological consistency

Example:

Main items of the euro area balance of payments (EUR billions, unless otherwise indicated; net transactions)

	Current account					Capital accounts	Net lending/borrowing	Financial Account						Errors and omissions
	Total	Goods	Services	Primary income	Secondary income			Total	Direct investment	Portfolio investment	Financial derivatives	Other investment	Reserve assets	
2020	250	340	31	41	-162	-3	247	252	-202	618	1	-179	13	5

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1. Overview – methodological consistency

Sector Accounts usual format:

2020 Q4	Euro Area	HH	NFC	Fin. Corp	Gov	RoW	Euro Area	HH	NFC	Fin. Corp	Gov	RoW
	Uses/assets						Resources/liabilities					
Generation of income												
Allocation of primary income												
Secondary distribution of income												
…												
Financial accounts (by instrument)												
Closing balance sheet												

Part 2: links between National Accounts and BoP/I.I.P.

2.1 RoW sector in National Accounts

2.2 Basic equation on GDP measurement

2.3 Savings, investment and current/capital account balance

2.1 RoW sector in National Accounts

Example : financial transactions – total assets=total liabilities

2020 Q4	Euro Area	HH	NFC	Fin. Corp	Gov	RoW	Euro Area	HH	NFC	Fin. Corp	Gov	RoW
	Assets						Liabilities					
Deposits	240	217	40	245	-263	126	491	0	4	498	-11	-125
Debt securities	215	-17	-1	236	-3	-284	-237	0	-22	-169	-45	168
Loans	41	0	14	-11	38	-20	87	67	50	-70	39	-66
Equity	220	40	5	168	7	66	207	0	42	164	0	79
Other	113	73	149	-84	-24	-18	157	10	80	89	-23	-62
Total	829	313	207	554	-246	-130	705	78	155	512	-40	-7

2.2 Basic equation on GDP measurement

The following equation shows the link between the components of production and components of expenditure, including exports/imports:

Output	+ Imports (of goods and services)			
= Intermediate consumption	+ Final consumption	+ Gross Fixed Capital Formation	+ Changes in Inventories	+ Exports (of goods and services)

This can be formulated in terms showing explicitly GDP:

GDP =				
Final consumption	+ Gross Fixed Capital Formation	+ Changes in Inventories	+ Exports (of goods and services)	- Imports (of goods and services)

In terms of data sources, exports and imports are generally obtained from the balance of payments.

2.3 Savings, investment and current/capital account balance

A well known equation in economic courses states that: Current Account is broadly equal to Savings – Investment
This equation does (broadly) hold in National Accounts terms, after clarifying some details:

National Accounts	Balance of payments
Gross savings	
- consumption of fixed capital	
=net savings	
Net savings	
+ capital transfers received (receivable)	
- capital transfers paid (payable)	
- Net fixed capital formation	
- Changes in inventories	
- Acquisitions less disposal of valuables	Current account
- Acquisitions less disposals of non-produced non-financial assets	+ Capital account
= net lending/net borrowing of the country	= net lending/net borrowing of the country

2.3 Savings, investment and current/capital account balance

In short:

Net savings
+ net capital transfers received
- fixed capital formation
- changes in inventories
- acquisitions less disposal of valuables
- acquisitions less disposals of non-produced non-financial assets
= BoP current account + capital account

2.3 Savings, investment and current/capital account balance

In addition, this accounting identity allows to link the current+capital accounts with the net lending/net borrowing of each sector. For example:

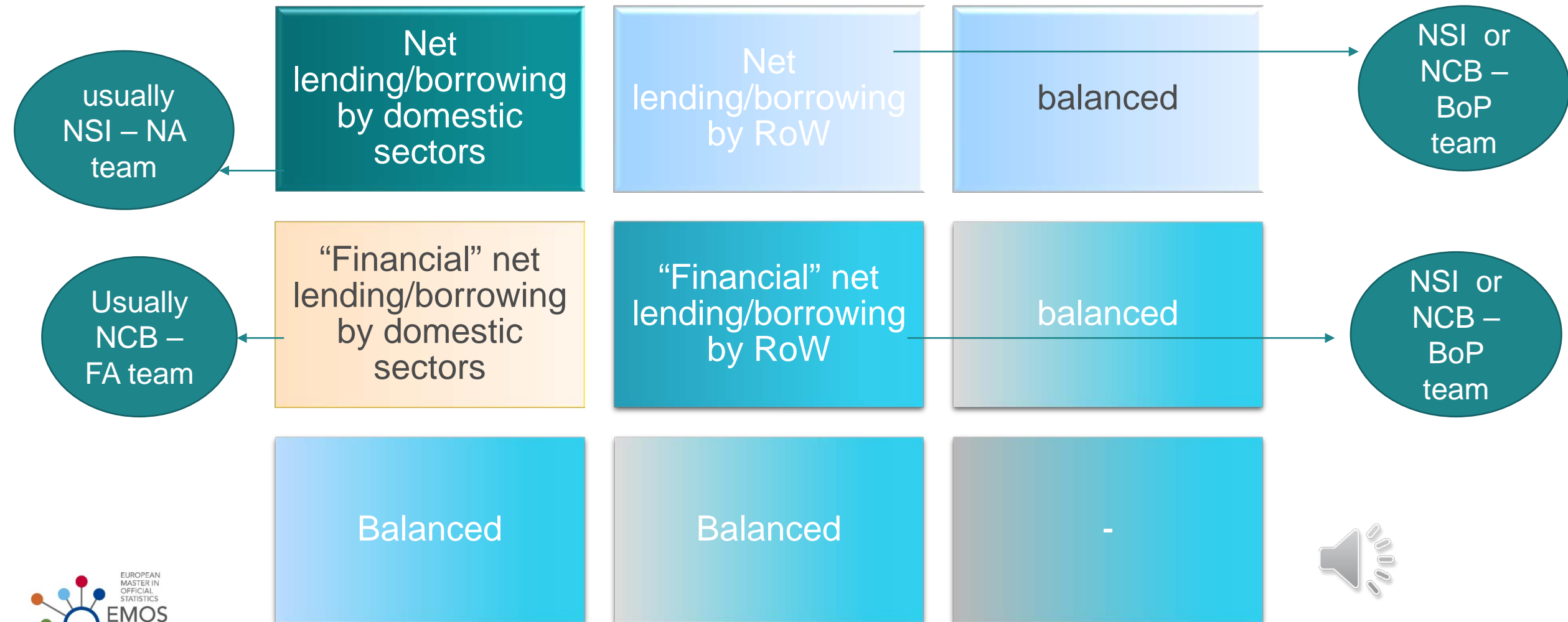| Country	HH	NCF	Fin. Corp.	Gov.	RoW	BoP
National Accounts – Net lending/borrowing						BoP current + capital accounts
200	300	150	100	-350	-200	200

Part 3: The challenges of ensuring consistency in practice

3 Ensuring consistency National Accounts/BoP

Main difficulty: multiple constraints to be met in short timeframe by several teams

usually NSI – NA team	Net lending/borrowing by domestic sectors	Net lending/borrowing by RoW	balanced → NSI or NCB – BoP team
Usually NCB – FA team	"Financial" net lending/borrowing by domestic sectors	"Financial" net lending/borrowing by RoW	balanced → NSI or NCB – BoP team
	Balanced	Balanced	-

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3 Ensuring consistency National Accounts/BoP

Clear bridge between instrument breakdown and functional breakdown

Single integration exercise

Revision windows designed to minimize vintage effect

"Downward" consistency with monthly balance of payments

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3 Ensuring consistency National Accounts/BoP

Clear bridge between instrument breakdown and functional breakdown

Example:

Balance of payments

Financial Accounts

Direct investment	Portfolio investment	Other investment	Reserve assets
equity	Equity	Equity	Equity
Debt securities	Debt securities	Loan and deposits	Debt securities
other		other	

Equity

Debt securities

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3 Ensuring consistency National Accounts/BoP

Example: net lending/net borrowing versus current and capital accounts for the euro area

Euro area	HH	NCF	Fin. Corp.	Gov.	RoW	BoP
National Accounts – Net lending/borrowing						BoP current + capital accounts
243	821	134	109	-820	-243	247

3 Ensuring consistency National Accounts/BoP

Example: net lending/net borrowing versus current and capital accounts for the euro area – further comparison with "financial" net lending/net borrowing

	Euro area	HH	NCF	Fin. Corp.	Gov.	RoW	BoP
	National Accounts – Net lending/borrowing						BoP current + capital accounts
Non-fin. B9	243	821	134	109	-820	-243	247
Fin. B9	-252	-844	-124	-104	820	252	252
Discrepancy	-9	-23	10	5	0	9	5

B9: net lending/net borrowing

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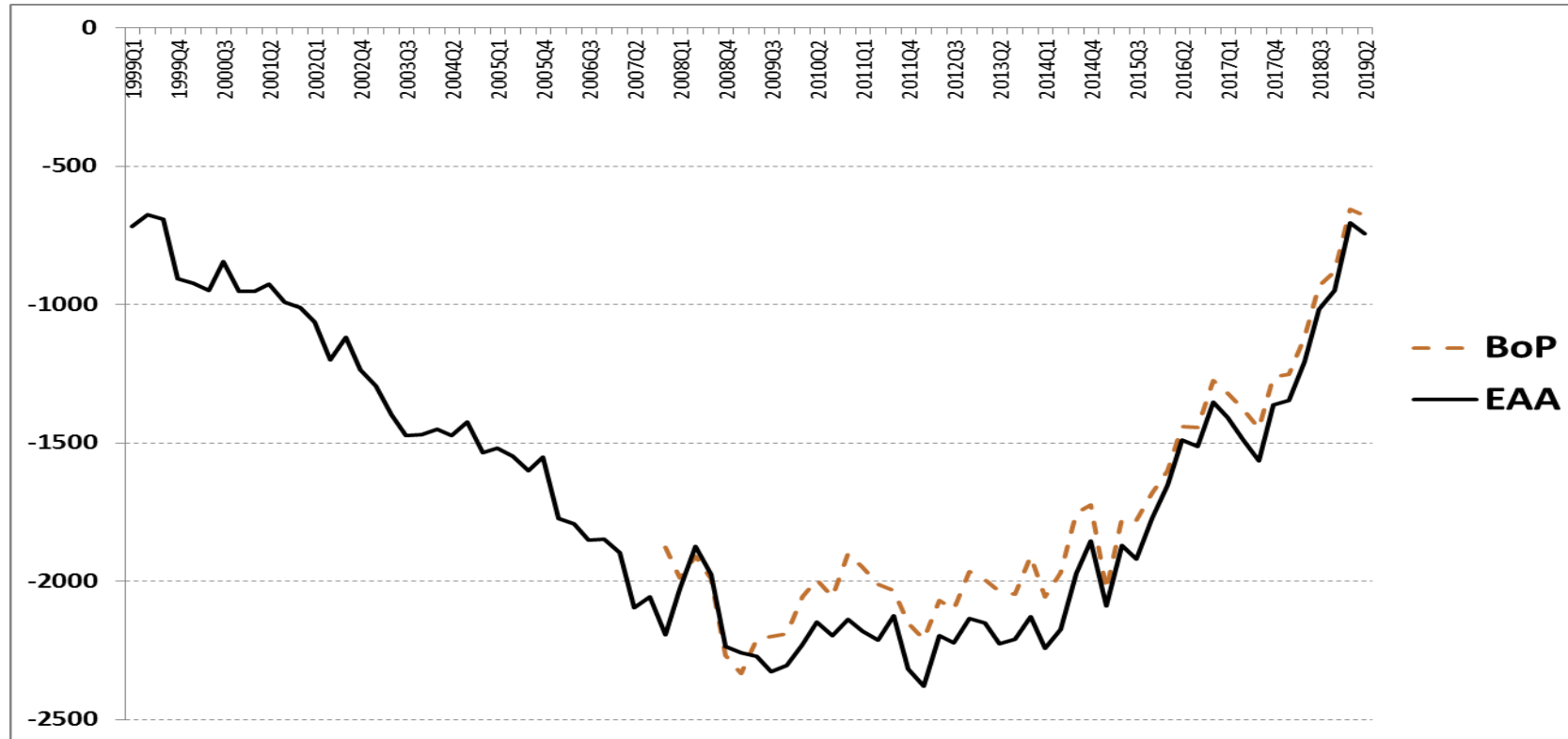
3 Ensuring consistency National Accounts/IIP

Consistency also applies to positions data: Financial Accounts as compared with IIP statistics

Example:
euro area
results

Comparison of liabilities-financial assets vis-à-vis non-residents

3 Ensuring consistency National Accounts/IIP

Additional challenges to ensure consistency in positions:

- consistency between price changes, FX changes and other changes in volume

- consistency of back data, despite differences in methodology (e.g. as from which date do the data apply the latest statistical standards)?

- Impact of differences in previous statistical standards for national accounts and balance of payments

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Further Information

- Destatis website – GDP and decomposition by main component

https://www.destatis.de/EN/Press/2021/02/PE21_081_81.html

ECB website – Sector accounts

https://sdw.ecb.europa.eu/reports.do?node=10000039

- Bundesbank press releases on sector accounts

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

- Bundesbank monthly press releases on BoP/IIP

https://www.bundesbank.de/resource/blob/829288/11a9f6ee9829e04a50d4ade1ce2e9b4f/mL/2020-03-zahlungsbilanzstatistik-data.pdf

- ECB Press releases on sector accounts

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

- ECB Press releases on BoP/IIP

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

- 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 National Accounts (OECD)

https://www.oecd.org/sdd/UNA-2014.pdf

Thank you for your attention!!