**Session: Integrating Micro and Macro Approaches to National Income Analysis**

Paper: Development of Financial Sectoral Accounts - New Opportunities and Challenges for Supporting Financial Stability Analysis
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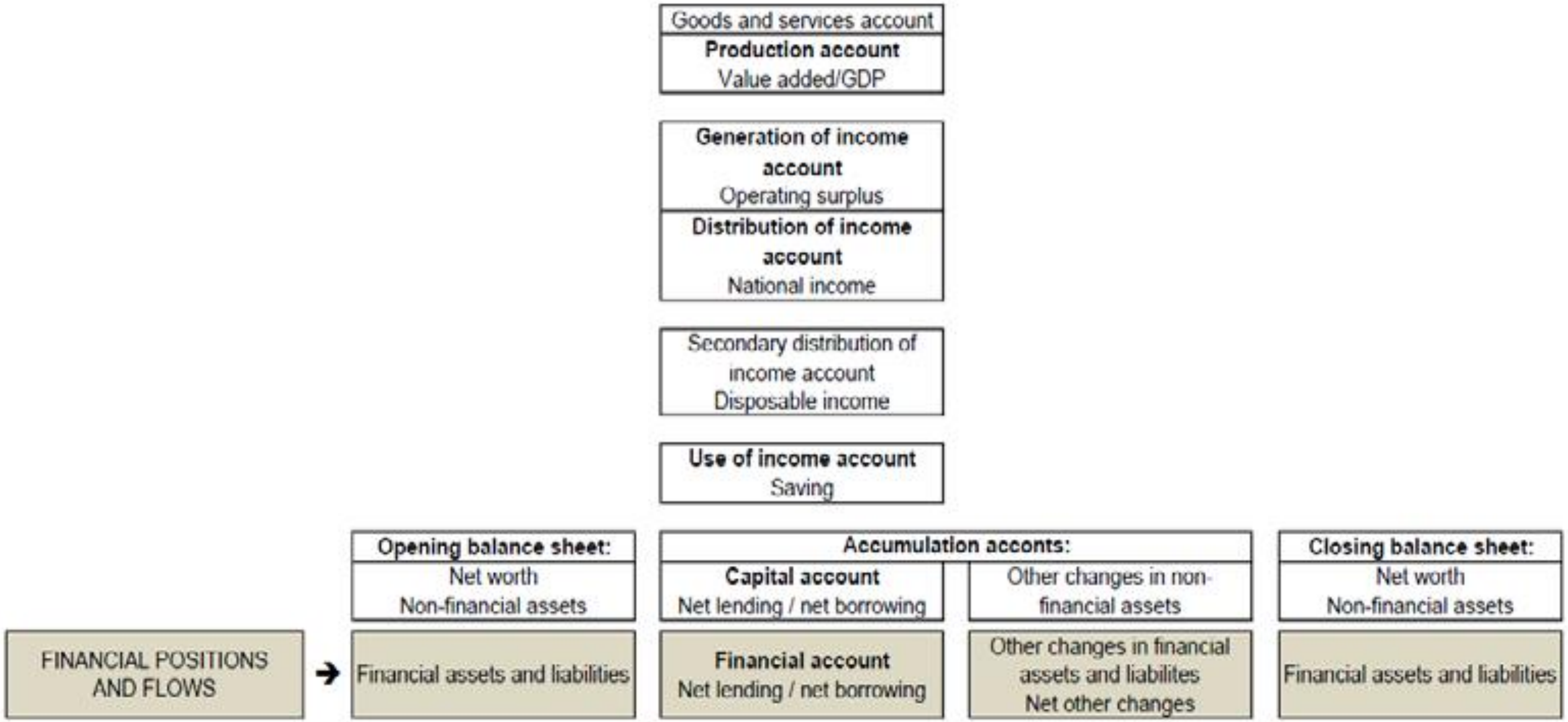
# Content

# The national accounts framework



# The „From-whom-to-whom“ approach

| Lending sector / Borrowing sector | Financial corporations | | Non-financial corporations | | Households | | Government | | Rest of world | |
|---|---|---|---|---|---|---|---|---|---|---|
| | A | L | A | L | A | L | A | L | A | L |
| Financial corporations<br>- Instruments | | | | | | | | | | |
| Non-financial corporations<br>- Instruments | | | | | | | | | | |
| Households<br>- Instruments | | | | | | | | | | |
| Government<br>- Instruments | | | | | | | | | | |
| Rest or world<br>- Instruments | | | | | | | | | | |

# Recommendations of the Data Gaps Initiative

First Phase (2000-2005)

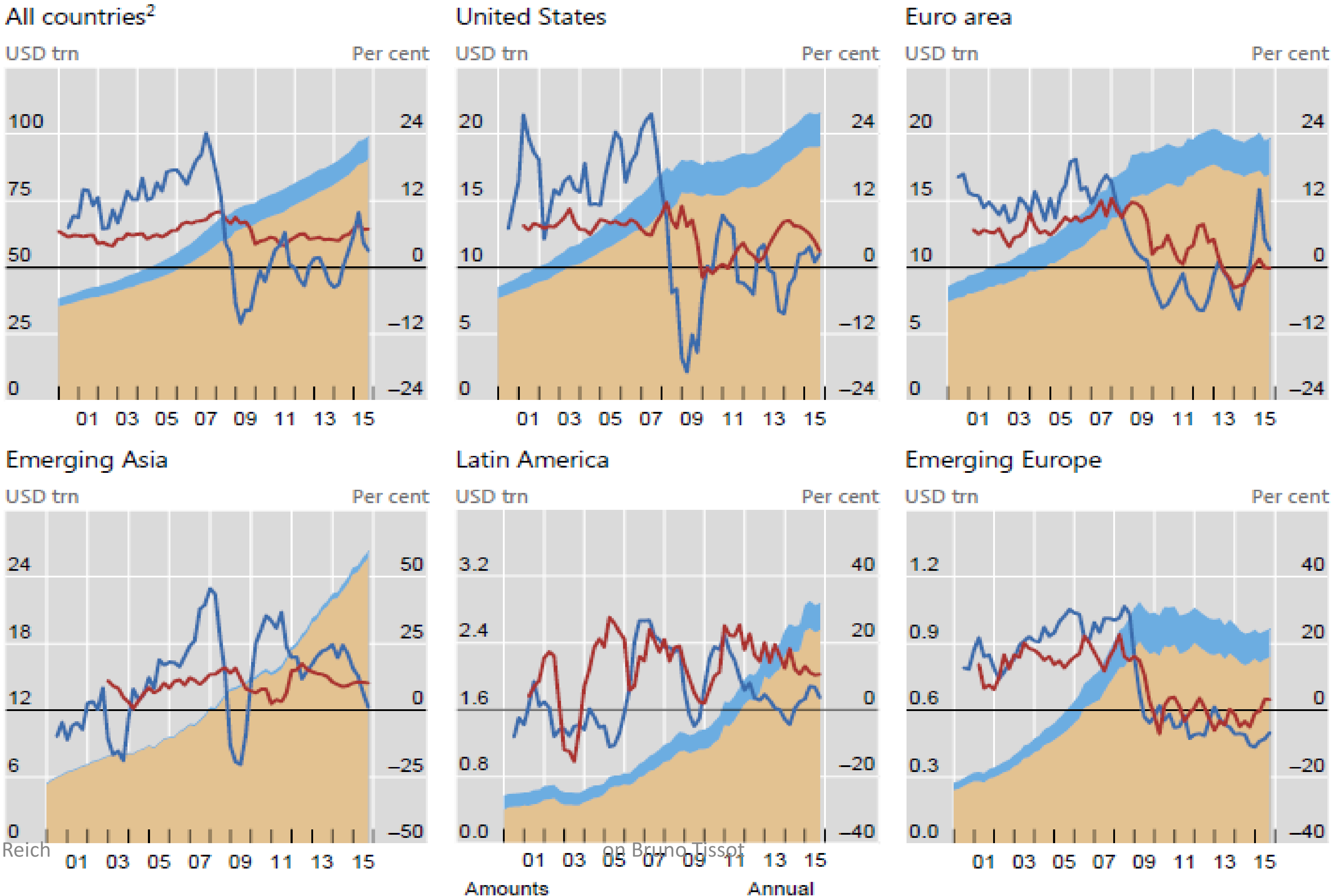
I.1 Mandate of the DGI
I.2 Financial soundness Indicators
I.3 Tail risk
I.4 Aggregate leverage and maturity mismatches
.....
I. 20 Principal global indicators

Second Phase (2016-2020)

I.1 Mandate of the DGI
I.2 Financial sectoral accounts
I.3 Concentration measures
I.4 Data for global systemically important financial institutions
.....
I. 20 Promotion of data sharing

## Global bank credit to non-banks, by borrower region

Banks' cross-border credit plus local credit in all currencies[1] Graph 6



# Integrated financial accounts

„In an ideal world, sectoral financial accounts should be integrated in a **strong sense**: i.e. there would be no discrepancies at all between the financial transactions and the economic activities reported in the underlying national accounts framework, and this across all the sectors of the economy.
In practice, however, there are discrepancies not least because the data are diverse, incomplete, and collected for various purposes and by different actors.
Integration is therefore obtained in a **weak sense**, by ensuring the joint efforts of compilers to integrate the accounts as much as feasible, possibly leading to remaining gaps or discrepancies while focusing on specific sectors or instruments.“ (Tissot p. 6)

# Integration: Continuity

$$F(x) = \int_0^x f(t)dt = \lim \sum_{i=1}^{n} f(t_i)\frac{x}{n}, \quad n \to \infty$$

is equivalent to

$$f(x) = \frac{dF(x)}{dx} = \lim \frac{\Delta F}{\Delta X}, \; \Delta x \to 0$$

Pure mathematics!

# Integration in reality: Frame of reference („data template“)

- determines concepts
- determines borders
- determines  consistency

# Limits of integration: different objects of observation

The transaction

- in finance: creation of claim and liability,
- in national accounting: production and use of output,
- in business accounting: generation and allocation of profit,
- in household surveys: personal income and private consumption.

# Limits of integration: open systems

Closure is possible but artificial („imputations“):
- national income and international trade,
- balance sheet and revaluation,
- domestic (formal) product and informal (self-employed) economy
- industries (GDP) and households (ILC)

→ bottom-up is necessarily unequal to top-down

# Frames of reference: From blossom

# to branch

to tree

# Global accounting

"Given that the controlling and controlled units forming a corporate group usually belong to different economies and different sectors, the aggregation of group-level information cannot be consistent with traditional **residency-based** SNA framework.
This framework records assets and liabilities of the economic units that are resident in a specific economic territory, information that is progressively losing its relevance with globalization… (Tissot, p. 19)