A Primer on International Financial Statistics

The views expressed do not necessarily represent those of the ECB or the Eurosystem.

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Martin Schmitz
External Statistics and Sector Accounts Division
Overview

1. **Balance of payments (BoP):** summarises transactions between residents and non-residents during a specified period

2. **International investment position (IIP):** presents an economy’s stock of external financial assets and liabilities

3. **Selected topics**
Balance of payments identity

CA + KA + NEO = FA

- **CA = current account balance**
  - Trade balance (goods and services)
  - Primary income (investment income) and secondary income (current transfers such as remittances)

- **KA = capital account balance**
  - non-produced, non-financial assets (land, brand names etc.) and capital transfers (debt forgiveness)

- **NEO = net errors and omissions**
  - capturing any statistical discrepancy

- **FA = financial account balance**
  - net financial outflows (net transactions in assets minus liabilities)
Balance of payments identity

CA + KA + NEO = FA

Euro area balance of payments
(four-quarter moving sums, % of GDP)
Euro area current account balance (monthly)
## Euro area current account balance (quarterly)

<table>
<thead>
<tr>
<th>Cumulated figures for the four-quarter period ending</th>
<th>Q4 2021</th>
<th>Q4 2022</th>
<th>Q4 2021</th>
<th>Q4 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Balance</td>
<td>Credit</td>
<td>Debit</td>
<td>Balance</td>
</tr>
<tr>
<td><strong>Current account</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of GDP</td>
<td>2.3%</td>
<td>36.3%</td>
<td>34.0%</td>
<td>-1.0%</td>
</tr>
<tr>
<td><strong>Goods</strong></td>
<td>279</td>
<td>2,500</td>
<td>2,221</td>
<td>35</td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td>90</td>
<td>1,015</td>
<td>917</td>
<td>10</td>
</tr>
<tr>
<td><strong>Transport</strong></td>
<td>14</td>
<td>170</td>
<td>166</td>
<td>5</td>
</tr>
<tr>
<td><strong>Travel</strong></td>
<td>24</td>
<td>72</td>
<td>48</td>
<td>8</td>
</tr>
<tr>
<td><strong>Insurance, pension and financial</strong></td>
<td>7</td>
<td>115</td>
<td>108</td>
<td>2</td>
</tr>
<tr>
<td><strong>Telecommunication, computer and information</strong></td>
<td>129</td>
<td>215</td>
<td>86</td>
<td>40</td>
</tr>
<tr>
<td><strong>Other business</strong></td>
<td>-46</td>
<td>258</td>
<td>305</td>
<td>-25</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>-28</td>
<td>177</td>
<td>205</td>
<td>-10</td>
</tr>
<tr>
<td><strong>Primary income</strong></td>
<td>65</td>
<td>827</td>
<td>702</td>
<td>20</td>
</tr>
<tr>
<td>Compensation of employees</td>
<td>22</td>
<td>46</td>
<td>24</td>
<td>0</td>
</tr>
<tr>
<td>Investment income</td>
<td>34</td>
<td>743</td>
<td>709</td>
<td>10</td>
</tr>
<tr>
<td>Direct investment</td>
<td>41</td>
<td>462</td>
<td>421</td>
<td>11</td>
</tr>
<tr>
<td>Portfolio equity</td>
<td>-72</td>
<td>98</td>
<td>169</td>
<td>-19</td>
</tr>
<tr>
<td>Portfolio debt</td>
<td>47</td>
<td>126</td>
<td>79</td>
<td>12</td>
</tr>
<tr>
<td>Other investment</td>
<td>14</td>
<td>54</td>
<td>40</td>
<td>5</td>
</tr>
<tr>
<td>Reserve assets</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Other primary income</td>
<td>8</td>
<td>38</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>Secondary income</td>
<td>-158</td>
<td>152</td>
<td>310</td>
<td>-40</td>
</tr>
</tbody>
</table>
Current and financial account in practice

External transactions
Transactions between a resident (German) and a non-resident (Spanish) institutional unit

Quadruple-entry system

Current account

Financial account

Unit A

Unit B

Credits/debits

Vertical double entry bookkeeping: within units

Assets/liabilities

Horizontal double entry bookkeeping: across units
Functional (investment) categories

- Direct investment
- Portfolio investment
- Other investment
- Financial derivatives (other than reserves) and employee stock options
- Reserve assets
International investment position

\[ IIP_t = FA_t - FL_t \]

- IIP: net international investment position
- FA/FL: external assets/liabilities
International investment position

\[ IIP_t = FA_t - FL_t \]

- IIP: net international investment position
- FA/FL: external assets/liabilities

\[ IIP_t - IIP_{t-1} = FA_t + REV_t + OVC_t \]

- FA: financial account
- REV: revaluations due to changes in
  - exchange rates
  - other asset prices
- OVC: other volume changes
  - reclassifications, write-downs; breaks arising from changes in sources, methods, in the residency of companies etc.
Changes in euro area international investment position

[Graph showing changes in the net international investment position from Q1 2016 to Q4 2022, with categories such as Change in the net international investment position, Transactions, Price changes, and Other volume changes.]
## Euro area international investment position

<table>
<thead>
<tr>
<th></th>
<th>Q3 2022</th>
<th>Q4 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amounts outstanding</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>475</td>
<td>265</td>
</tr>
<tr>
<td><strong>Transactions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>39</td>
</tr>
<tr>
<td><strong>Exchange rate changes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>-338</td>
<td>-11</td>
</tr>
<tr>
<td><strong>Price changes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>-11</td>
<td>92</td>
</tr>
<tr>
<td><strong>Other volume changes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>-1</td>
<td></td>
</tr>
<tr>
<td><strong>Amounts outstanding</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% GDP</td>
<td>2.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

### Assets

- **Direct investment**: 12,680 (90.0%)
- **Portfolio equity**: 5,385 (36.9%)
- **Portfolio debt**: 5,603 (39.2%)
- **Financial derivatives**: -6 (0.0%)
- **Other investment**: 7,144 (41.1%)
- **Reserve assets**: 1,134 (6.3%)

**Total Assets**: 35,381

### Liabilities

- **Direct investment**: 10,483 (73.8%)
- **Portfolio equity**: 8,116 (62.1%)
- **Portfolio debt**: 4,663 (32.8%)
- **Other investment**: 8,403 (59.7%)

**Total Liabilities**: 34,006

**Gross external debt**: 16,581 (152 / 201 = 76.1%)
Some basic concepts in BoP/IIP statistics

- **Institutional units and sectors**
  - E.g. a mutual fund, part of financial sector

- **Residency principle and economic ownership**
  - Centre of predominant economic interest; “location” to engage in economic activities over extended time
  - No “nationality”/“ultimate”/“immediate” concepts
  - All (global) activities of institutional unit considered

- **Valuation at market prices with exceptions**
  - FDI unlisted equity, loans, and others

- **Creditor/debtor approach**
  - Bilateral financial links always vis-à-vis creditor/debtor
Topic 1: Portfolio investment

“Equity” includes

• **Listed shares** and **unlisted shares**

• **Investment fund shares**/units issued by collective investment undertakings (includes mutual funds and money market funds)

• Caveat: if not included in FDI (more on this later)
Topic 1: Portfolio investment equity

Euro area portfolio equity liability transactions
(four-quarter moving sums)
Topic 1: Portfolio investment – euro area

Importance of investment funds as holders of securities

**Euro area holdings of portfolio investment securities (€ bn)**

- **Monetary and Financial Institutions (MFIs)**
- **Investment funds**
- **Insurance Corporations and Pension Funds (ICPFs)**
- **Other Financial Institutions (OFIs)**
- **Other**

In 2021:
- Investment funds hold 59%
- MFIs hold 12%
- ICPF hold 13%
- OFIs hold 6%
- Other holds 10%
Topic 1: Portfolio investment – IMF CPIS

IMF Coordinated Portfolio Investment survey

• Reports bilateral assets of 85 economies (at semi-annual frequency), fully consistent with IIP data, by financial instrument (equity and debt)

• Detailed versions include holder and issuer sectors (available as of end-2013)

• To note
  • These positions do not include securities held as reserve assets and securities held by international organisations (both available at aggregated level in IMF’s Securities Held as Foreign Exchange Reserves (SEFER) and Securities Held by International Organizations (SSIO))
  • Equity includes fund shares (can be approximated for some cases by issuer sector “other financial corporations”)
  • Liabilities available in “derived” from (based on asset data)
Topic 2: Other major bilateral datasets

• **FDI**
  - IMF IMF’s Coordinated Direct Investment Survey (CDIS)
  - OECD FDI database (lower country coverage, but more details)

• **Banks’ cross-border financial transactions/positions**
  - BIS Locational and Consolidated Banking statistics (LBS; CBS)

• **International investment position**
  - Some economies provide bilateral breakdown of the entire (or parts of the) IIP
**Topic 2: International investment position of the euro area – geographical breakdown**

<table>
<thead>
<tr>
<th></th>
<th>Total EUR bn</th>
<th>EU non-EA</th>
<th>United Kingdom</th>
<th>United States</th>
<th>BRIC</th>
<th>Switzerland</th>
<th>Japan</th>
<th>Offshore centres</th>
<th>Other countries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct investment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assets</td>
<td>12,068</td>
<td>9</td>
<td>18</td>
<td>26</td>
<td>9</td>
<td>10</td>
<td>1</td>
<td>10</td>
<td>17</td>
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<tr>
<td>Liabilities</td>
<td>9,891</td>
<td>5</td>
<td>18</td>
<td>30</td>
<td>4</td>
<td>9</td>
<td>3</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td><strong>Portfolio investment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assets</td>
<td>11,100</td>
<td>9</td>
<td>14</td>
<td>43</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>16</td>
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<tr>
<td>Equity</td>
<td>5,354</td>
<td>4</td>
<td>10</td>
<td>51</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>10</td>
<td>13</td>
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<tr>
<td>Debt securities</td>
<td>5,746</td>
<td>15</td>
<td>18</td>
<td>35</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>19</td>
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<tr>
<td>Liabilities</td>
<td>12,722</td>
<td>6</td>
<td>10</td>
<td>33</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>Equity</td>
<td>8,325</td>
<td>6</td>
<td>10</td>
<td>41</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Debt securities</td>
<td>4,397</td>
<td>6</td>
<td>9</td>
<td>16</td>
<td>18</td>
<td>11</td>
<td>12</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td><strong>Other investment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assets</td>
<td>6,581</td>
<td>9</td>
<td>30</td>
<td>21</td>
<td>3</td>
<td>7</td>
<td>5</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Liabilities</td>
<td>8,004</td>
<td>21</td>
<td>28</td>
<td>15</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>8</td>
<td>16</td>
</tr>
</tbody>
</table>
Topic 3: Foreign direct investment

A resident in one economy (direct investor) having control or a significant degree of influence on the management of an enterprise (direct investment enterprise) resident in another economy

- **Significant degree of influence**
  - ≥10% voting power

- **Control**
  - >50% voting power

- **Equity ownership** as proxy for voting power
- 10% is key separator with portfolio investment!
Topic 3: Foreign direct investment

- Once the FDI relation is defined between two entities, all financial transactions/position between them are included in FDI (exception: banks)

**Equity**
- Listed shares
- Unlisted shares and other equity

**Debt**
- Loans
- Debt securities
- Trade credits
- Other instruments

- Valuation of FDI at market prices is a contentious issue:
  - Simple for listed shares, for unlisted equity no market price available
  - Recommended proxies: own funds at book value or market capitalisation method
  - However big variation in methods across countries
Topic 3: Foreign direct investment

Euro area FDI equity liabilities (€ bn)

- Listed shares
- Unlisted

Euro area FDI debt liabilities (€ bn)

- Debt securities
- Trade credits
- Other
Topic 3: Foreign direct investment

FDI plays a central role in analysing economic interconnectedness and integration

FDI data as key metrics for economic analysis
- Countries’ attractiveness and competitiveness
- Role in global production networks
- Domestic spillovers of foreign investment
- Countries’ bilateral economic/financial/risk exposures

MNEs activity distorts size and geography of FDI data
- Complex MNEs structure with multiple ownership layers
- Ease of moving intangible assets/profits across borders
- Very large FDI activity involving intermediate financial centers

High demand to develop supplementary FDI data
- To re-map size/geography of global cross-border links
- … filtering out the role of intermediate financial centers
- … and providing a better representation of underlying economic linkages

FDI plays a central role in analysing economic interconnectedness and integration
Topic 3: Foreign direct investment

Euro area foreign direct investment assets and liabilities transactions (percentages of euro area GDP)

Source: ECB and Eurostat.
Notes: Financial centres refer to Belgium, Cyprus, Ireland, Luxembourg, the Netherlands and Malta. Inverted values for liabilities. Four-quarter moving sums.
The latest observation is for the second quarter of 2019.
Topic 3: Foreign direct investment

US foreign direct investment assets in the euro area by industry of euro area affiliate (USD billions)

Source: US BEA.
Topic 3: Foreign direct investment

In EU FDI hubs foreign companies ultimately control >50% of outward FDI

Chart 4: Domestic vs foreign-controlled intra-EU FDI assets
Domestic vs foreign-controlled, proportion of country’s intra-EU FDI, 2018

Source: Gómez-Llabrés, Pastoris and Schmitz (2023). Authors’ calculations based on Orbis data.
Note: The blue part of the stacked bat represents the percentage of EU countries’ intra-EU FDI which is controlled by domestic corporate groups; the yellow part shows its intra-EU investment ultimately attributable to corporate groups from other EU-countries; red bars for its intra-EU investment controlled by US corporate groups; green for its intra-EU investment controlled by corporate groups from outside the EU (and not US groups).

FDI hubs’ FDI largely controlled by foreign groups

**US groups** particularly relevant for FDI by IE, HU, LU and NL

**Other EU groups** particularly relevant for FDI by LU, NL, MT, BE

**Other extra-EU groups** particularly relevant for FDI by MT, CY, AT
Topic 4: Special purpose entities (SPEs)

IMF Task Force definition of SPEs:

1. A formally registered or incorporated legal entity that is resident in an economy and recognised as an institutional unit with little or no employment (up to a maximum of five employees), little or no physical presence, and little or no physical production activities in the host economy;

2. Directly or indirectly controlled by non-residents;

3. Established to obtain specific advantages provided by the host jurisdiction;

4. Transacting almost entirely with non-residents with large parts of the financial balance sheet of a cross-border nature
Topic 5: International currency exposures

- Official statistics on **foreign currency exposures** in IIP still relatively sparse

- Such data are important e.g. to study the transmission of exchange rate movements, international roles or currencies etc.

- Assembly of research-based datasets:

- Most recent dataset
  - 50 countries for the period 1990-2017
  - Refined estimates, including actual data reported by statistical authorities
Topic 6: Households’ foreign assets – evidence from the euro area

Global discrepancy between assets and liabilities in international security holdings, attributed to households’ assets

(Zucman, 2013; Alstadsæter, Johannesen and Zucman, 2018) (AJZ))

Source: Lane and Milesi-Ferretti (2018), IMF Securities Held as Foreign Exchange Reserves (SEFER) and Securities Held by International Organizations (SSIO).
Discrepancy between global asset and (portfolio) liability positions in securities (6 tn US dollar in 2019)...

1. ...only due to households’ unrecorded assets?
   - Incomplete country coverage
   - Coverage gaps also for non-financial corporations (NFCs) and institutional investors
   - France: 1/3 of missing assets belong to NFCs (Bui Quang and Gervais, 2019)

2. ...may reflect misclassifications between portfolio equity and FDI equity
   - Excess global FDI equity assets over liabilities of around 2 tn US dollar in 2017
   - Potentially problems for inward FDI to identify 10% threshold and incomplete coverage
Topic 6: Assessment of research studies (2)

Estimates of households’ offshore assets held in custody in Switzerland:

<table>
<thead>
<tr>
<th>Method</th>
<th>Securities</th>
<th>Deposits</th>
<th>Total</th>
<th>of which EA</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Alstadsæter, Johannesen and Zucman (2017)</td>
<td>2,174</td>
<td>167</td>
<td>2,342</td>
<td>822</td>
</tr>
<tr>
<td>(2) Reported by SNB and BIS</td>
<td>539</td>
<td>184</td>
<td>724</td>
<td>254</td>
</tr>
<tr>
<td>(3) Securities (55% HH share), Deposits (as reported)</td>
<td>1,087</td>
<td>184</td>
<td>1,271</td>
<td>446</td>
</tr>
<tr>
<td>(4) Sec. (55% HH share), Dep. (non-bank, 55% HH share)</td>
<td>1,087</td>
<td>198</td>
<td>1,285</td>
<td>479</td>
</tr>
<tr>
<td>(5) Sec. (100% HH share), Dep. (non-bank, 100% HH share)</td>
<td>1,976</td>
<td>361</td>
<td>2,337</td>
<td>791</td>
</tr>
</tbody>
</table>

Outside Switzerland:

- Falling deposits in offshore financial centres (partly) driven by international initiatives to tackle tax evasion
- **Euro area households’ assets** (including securities)
  - ~390 bn US dollar, if same ratio as for Switzerland is used (5.5)
  - ~120 bn US dollar (if ratio of 1 is used)
Euro area households’ foreign assets

Total extra-euro area: \(~540\) to \(800\) bn euro in 2017

- In Switzerland: \(~500\) bn US dollar
- In other countries: range from 120 to 390 bn US dollar

Of which 20% may be recorded in official statistics (Zucman, 2013):

Total unrecorded assets: \(~430\) to \(640\) bn euro in 2017

- 1.7% to 2.5% of euro area external assets recorded in the i.i.p.
- 3.5% to 5% of euro area annual GDP

AJZ estimated 7%-8% of euro area GDP for 2007
Topic 6: Euro area households’ foreign assets: Why are the estimates smaller?

- **Measurement issues** and **assumptions** made in research studies
  - Better **coverage** of securities holdings (third-party holdings, automatic exchange)
  - Estimates may partly reflect assets of **corporations** rather than households
  - Potential **misclassifications** between FDI and portfolio investment

- **Global developments**
  - Falling offshore deposits, at least partly due to **global tax transparency** initiatives
  - Incorporation of (previously) unrecorded offshore assets in official statistics (e.g. following **voluntary disclosure schemes**)

- **Looking ahead**
  - Pursue initiatives to improve official statistics on foreign assets of households
  - Maintain dialogue with researchers
Looking forward to your comments/questions!

Contact: martin.schmitz@ecb.europa.eu