Chapter 2

Macroeconomic Accounts
The Plan

Gross domestic Product (GDP)

Flows of Income and Expenditures

Balance of Payments
Language of Macroeconomics

no theory (today)

important concepts

national income accounts & balance of payments
relationships among these: accounting identities

biology:
(i) living organism as collection of cells
(ii) how cells function and affect each other
Three basic definitions of GDP

(1) GDP = sum of final sales (demand) in area during period

final sales exclude intermediate sales

(2) GDP = sum of value added during chain of economic activities

Example: Retailer sells 1 barrel of beer for €100
Farmer barley €10 – Energy €20 – barrel producer €5 –
brewery €45 – wholesaler €10 – retailer €10

Query. What are stock- versus flow variables? Which one is GDP?
Three basic definitions of GDP

(3) GDP = sum of incomes earned in area during period

Query. Which kinds of income?

Query. How is GDP measured, respectively, according to the three definitions?
Comparing GDP across countries and time

Countries: GDP versus GDP per capita

Time (I): How to add apples and oranges?

- prices: nominal \( GDP = P^a Q^a + P^o Q^o \)

- effects of prices versus quantities

nominal versus real GDP (GDP deflator)

Time (II): growth rates versus levels
Real vs. nominal GDP

Price deflator or Index

GDP inflator: nominal GDP/real GDP (“inflation”)

rate of inflation: nominal \textit{minus} real GDP growth rate

Query. Argue in a 1-good economy, why this approximation should hold.

Query. Which other measures of inflation are you aware of?
## Euro Area: Growth Rates (% per annum)

<table>
<thead>
<tr>
<th>Year</th>
<th>Nominal GDP</th>
<th>Real GDP</th>
<th>GDP deflator</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>3.6</td>
<td>1.7</td>
<td>1.9</td>
</tr>
<tr>
<td>2006</td>
<td>5.2</td>
<td>3.2</td>
<td>1.9</td>
</tr>
<tr>
<td>2007</td>
<td>5.5</td>
<td>3.1</td>
<td>2.4</td>
</tr>
<tr>
<td>2008</td>
<td>2.4</td>
<td>0.5</td>
<td>1.9</td>
</tr>
<tr>
<td>2009</td>
<td>−3.6</td>
<td>−4.5</td>
<td>1.0</td>
</tr>
<tr>
<td>2010</td>
<td>2.8</td>
<td>2.1</td>
<td>0.7</td>
</tr>
<tr>
<td>2011</td>
<td>2.7</td>
<td>1.6</td>
<td>1.1</td>
</tr>
<tr>
<td>2012</td>
<td>0.4</td>
<td>−0.9</td>
<td>1.2</td>
</tr>
<tr>
<td>2013</td>
<td>1.0</td>
<td>−0.3</td>
<td>1.3</td>
</tr>
<tr>
<td>2014</td>
<td>1.8</td>
<td>0.9</td>
<td>0.9</td>
</tr>
<tr>
<td>2015</td>
<td>2.8</td>
<td>1.6</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Source: Eurostat
Inflation in Italy, 1985-2010 (in %)

Both the GDP deflator and the consumer price index (CPI) measure the price level, or the price of goods in terms of money. The inflation rate is simply the rate of growth of one of these measures. The figure shows that both GDP deflator and CPI measures of inflation tend to move together over time, with occasional exceptions when the difference in the underlying 'baskets' matters. In the late 1980s and in 2015, world oil prices declined sharply. Since gas and heating oil are part of household consumption, inflation measured by the CPI declined. Since oil is imported, it does not contribute value added directly in Italy, and has only a small impact on the GDP deflator. The opposite occurred between 2009 and 2014.

Source: World Development Indicators, the World Bank.

The price index closest to the GDP deflator is the producer price index (PPI), with fixed weights corresponding to a basket representative of national production. Similarly, the CPI is closely tracked by the consumption deflator, the ratio of nominal and real aggregate consumption expenditures by households. A price index like the CPI or the PPI is an example of a fixed-weight, or Laspeyres index. The consumption deflator, which is based on the actual share of goods in the corresponding year's consumption, is called a variable weight or Paasche index. The CPI and the consumption deflator include goods and services produced abroad and imported, while the PPI and the GDP deflator do not, but these latter measures include goods and services locally produced and exported. Figure 2.1 suggests a growing divergence between the PPI and the CPI in Italy in the late 1980s. The reason is that imported goods prices increased by less than those of domestically produced goods.

Other frequently used deflators are related to exports, imports, investment goods, and government purchases. The wholesale price index (WPI) measures the average price of goods at the wholesale stage, and various commodity price indices track the evolution of raw materials prices. The dizzying diversity of indices and deflators reflects the fact that a perfect price index simply does not exist. Different price measures are used for different purposes. For example, wage-earners would like to tie their wages to their cost of living; in this case, the relevant index is the CPI or the consumption deflator. In the case of Italy, linking wages to the CPI rather than to the PPI resulted in higher profits for firms whose sales are better tracked by the PPI. Because the CPI and other Laspeyres indices are easier to compute, they are used most often in practice.

Box 2.3

Price Deflators and Price Indices

Source: International Financial Statistics
### Size of the Underground Economy: Estimates (% of GDP)

<table>
<thead>
<tr>
<th>Country</th>
<th>Shadow Economy as a Share of GDP (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>0.306</td>
</tr>
<tr>
<td>Romania</td>
<td>0.28</td>
</tr>
<tr>
<td>Turkey</td>
<td>0.278</td>
</tr>
<tr>
<td>Croatia</td>
<td>0.277</td>
</tr>
<tr>
<td>Estonia</td>
<td>0.262</td>
</tr>
<tr>
<td>Lithuania</td>
<td>0.258</td>
</tr>
<tr>
<td>Cyprus</td>
<td>0.248</td>
</tr>
<tr>
<td>Malta</td>
<td>0.243</td>
</tr>
<tr>
<td>Latvia</td>
<td>0.236</td>
</tr>
<tr>
<td>Slovenia</td>
<td>0.233</td>
</tr>
<tr>
<td>Poland</td>
<td>0.233</td>
</tr>
<tr>
<td>Greece</td>
<td>0.224</td>
</tr>
<tr>
<td>Hungary</td>
<td>0.219</td>
</tr>
<tr>
<td>Italy</td>
<td>0.206</td>
</tr>
<tr>
<td>EU-28 Average (unweighted)</td>
<td>0.183</td>
</tr>
<tr>
<td>Spain</td>
<td>0.182</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.176</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.162</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.151</td>
</tr>
<tr>
<td>Slovakia</td>
<td>0.141</td>
</tr>
<tr>
<td>Sweden</td>
<td>0.137</td>
</tr>
<tr>
<td>Norway</td>
<td>0.13</td>
</tr>
<tr>
<td>Finland</td>
<td>0.124</td>
</tr>
<tr>
<td>France</td>
<td>0.123</td>
</tr>
<tr>
<td>Germany</td>
<td>0.122</td>
</tr>
<tr>
<td>Denmark</td>
<td>0.12</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.113</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.094</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.083</td>
</tr>
<tr>
<td>Japan</td>
<td>0.084</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0.082</td>
</tr>
<tr>
<td>Austria</td>
<td>0.085</td>
</tr>
<tr>
<td>Switzerland</td>
<td>0.085</td>
</tr>
<tr>
<td>United States</td>
<td>0.059</td>
</tr>
</tbody>
</table>

Source: Schneider (2015), AMECO, own calculations
Estimates of 2008 German Nominal GDP

<table>
<thead>
<tr>
<th>Date of publication</th>
<th>GDP (bn Euro of 2000 prices)</th>
<th>% difference from previous estimate</th>
<th>% difference from Jan 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 2009</td>
<td>2489.4</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Feb 2009</td>
<td>2489.4</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>May 2009</td>
<td>2492.0</td>
<td>0.10%</td>
<td>0.10%</td>
</tr>
<tr>
<td>Aug 2009</td>
<td>2491.4</td>
<td>-0.02%</td>
<td>0.08%</td>
</tr>
<tr>
<td>Nov 2009</td>
<td>2495.8</td>
<td>0.18%</td>
<td>0.26%</td>
</tr>
<tr>
<td>May 2010</td>
<td>2495.8</td>
<td>0.00%</td>
<td>0.26%</td>
</tr>
<tr>
<td>Nov 2010</td>
<td>2481.2</td>
<td>-0.58%</td>
<td>-0.33%</td>
</tr>
<tr>
<td>Feb 2011</td>
<td>2481.2</td>
<td>0.00%</td>
<td>-0.33%</td>
</tr>
</tbody>
</table>
Def. 1: Circular Flow Diagram
Components of GDP by Expenditure (1999-2015, % of GDP)

<table>
<thead>
<tr>
<th></th>
<th>Consumption (C)</th>
<th>Investment (I)</th>
<th>Government Purchases (G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>56.5</td>
<td>26.9</td>
<td>17.6</td>
</tr>
<tr>
<td>Canada</td>
<td>55.4</td>
<td>22.2</td>
<td>20.4</td>
</tr>
<tr>
<td>France</td>
<td>55.2</td>
<td>21.8</td>
<td>23.1</td>
</tr>
<tr>
<td>Germany</td>
<td>56.3</td>
<td>20.3</td>
<td>18.7</td>
</tr>
<tr>
<td>Italy</td>
<td>60.3</td>
<td>19.8</td>
<td>19.2</td>
</tr>
<tr>
<td>Japan</td>
<td>58.6</td>
<td>22.4</td>
<td>18.9</td>
</tr>
<tr>
<td>Switzerland</td>
<td>56.0</td>
<td>24.1</td>
<td>11.0</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>64.5</td>
<td>17.6</td>
<td>19.9</td>
</tr>
<tr>
<td>United States</td>
<td>67.6</td>
<td>20.8</td>
<td>15.3</td>
</tr>
<tr>
<td>Euro area</td>
<td>56.1</td>
<td>21.5</td>
<td>20.3</td>
</tr>
</tbody>
</table>

Source: AMECO, European Commission.
What are your welfare conclusions?

Query. Disposable income is much lower in Sweden than the US. What are your welfare conclusions?
From Expenditure to Income to Personal Disposable Income

- X-Z
- G
- I
- C

<table>
<thead>
<tr>
<th>GDP</th>
<th>Depreciation</th>
<th>NDP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>National income</th>
<th>Personal income</th>
<th>Personal disposable income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect taxes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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We begin by adding up (i.e. aggregating) all expenditures on final goods and services produced domestically.
This sum is defined as the gross domestic product.
We deduct depreciation to obtain net domestic product.
Market prices are different from factor costs due to indirect taxes (and subsidies).
National income is what is distributed to the factors of production.

<table>
<thead>
<tr>
<th>X-Z</th>
<th>GDP</th>
<th>NDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

National income is what is distributed to the factors of production.
Personal income needs two more adjustments...

GDP

X-Z

Depreciation

G

I

C

NDP

Indirect taxes

National income

Personal income

(less retained earnings by firms, corporate taxes, social insurance contributions)
...less personal taxes plus transfers

Diagram showing the flow from GDP to Personal Disposable Income:

1. GDP
2. NDP (National Disposable Income)
3. Indirect taxes
4. National income
5. Personal income
6. Personal disposable income
...which can be used for consumption or saving.
Figure 2.4

- GDP
- NDP
- National income
- Personal income
- Personal disposable income

Components:
- X-Z
- G
- I
- C
- Depreciation
- Indirect taxes
The Accounting Identity in 2010 (% of GDP)

<table>
<thead>
<tr>
<th>Country</th>
<th>S - I</th>
<th>T - G</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>5.6</td>
<td>-8.8</td>
<td>-3.2</td>
</tr>
<tr>
<td>Japan</td>
<td>10.3</td>
<td>-6.7</td>
<td>3.6</td>
</tr>
<tr>
<td>Belgium</td>
<td>3.9</td>
<td>-2.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Denmark</td>
<td>4.7</td>
<td>0.8</td>
<td>5.5</td>
</tr>
<tr>
<td>France</td>
<td>2.6</td>
<td>-4.8</td>
<td>-2.2</td>
</tr>
<tr>
<td>Germany</td>
<td>8.1</td>
<td>-2.5</td>
<td>5.6</td>
</tr>
<tr>
<td>Italy</td>
<td>-1.3</td>
<td>-2.2</td>
<td>-3.5</td>
</tr>
<tr>
<td>Netherlands</td>
<td>11.5</td>
<td>-3.8</td>
<td>7.7</td>
</tr>
<tr>
<td>Spain</td>
<td>0.7</td>
<td>-5.2</td>
<td>-4.5</td>
</tr>
<tr>
<td>Sweden</td>
<td>4.7</td>
<td>1.6</td>
<td>6.3</td>
</tr>
<tr>
<td>UK</td>
<td>5.8</td>
<td>-8.3</td>
<td>-2.5</td>
</tr>
<tr>
<td>Euro area</td>
<td>4.1</td>
<td>-3.9</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Source: OECD
Identities vs. Economics

Identities hold by definition

many newspaper articles flawed b/c violate identities

many political programs flawed b/c violate identities

politicians are confused: don’t understand identities

Any statement about economy/policy must respect identities. otherwise nonsense; independent of economics
The Balance of Payments

<table>
<thead>
<tr>
<th>I. Current Account</th>
<th>II. Capital and Financial Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Goods and Services</td>
<td>a. Capital Account</td>
</tr>
<tr>
<td>2. Services</td>
<td>1. Direct Investment</td>
</tr>
<tr>
<td>b. International Primary Income</td>
<td>2. Portfolio Investment</td>
</tr>
<tr>
<td>1. Wages and Compensation</td>
<td>3. Other Investment</td>
</tr>
<tr>
<td>2. Investment Income</td>
<td>4. Reserve Assets</td>
</tr>
<tr>
<td>c. Secondary Income</td>
<td>c. Errors and Omissions</td>
</tr>
</tbody>
</table>
Table 2.7 Balance of Payments, Various Countries

Source: IMF

<table>
<thead>
<tr>
<th>Country</th>
<th>Eurozone</th>
<th>US</th>
<th>Sweden</th>
<th>Turkey</th>
<th>Brazil</th>
<th>China</th>
<th>Russia</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current account</td>
<td>320</td>
<td>-390</td>
<td>33</td>
<td>-47</td>
<td>-104</td>
<td>220</td>
<td>58</td>
<td>-152</td>
</tr>
<tr>
<td>Balance on goods</td>
<td>332</td>
<td>-741</td>
<td>18</td>
<td>-64</td>
<td>-7</td>
<td>435</td>
<td>190</td>
<td>-203</td>
</tr>
<tr>
<td>Balance on services</td>
<td>94</td>
<td>233</td>
<td>9</td>
<td>25</td>
<td>-48</td>
<td>-151</td>
<td>-55</td>
<td>146</td>
</tr>
<tr>
<td>Primary income balance</td>
<td>79</td>
<td>238</td>
<td>15</td>
<td>-9</td>
<td>-52</td>
<td>-34</td>
<td>-68</td>
<td>-54</td>
</tr>
<tr>
<td>Secondary income balance</td>
<td>-186</td>
<td>-119</td>
<td>-10</td>
<td>1</td>
<td>3</td>
<td>-30</td>
<td>-8</td>
<td>-41</td>
</tr>
<tr>
<td>Capital account</td>
<td>27</td>
<td>0</td>
<td>-1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-42</td>
<td>-2</td>
</tr>
<tr>
<td>Net lending</td>
<td>346</td>
<td>-390</td>
<td>32</td>
<td>-47</td>
<td>-104</td>
<td>220</td>
<td>16</td>
<td>-154</td>
</tr>
<tr>
<td>Financial account balance</td>
<td>403</td>
<td>-240</td>
<td>13</td>
<td>-45</td>
<td>-100</td>
<td>79</td>
<td>23</td>
<td>-166</td>
</tr>
<tr>
<td>Direct investment, net</td>
<td>62</td>
<td>489</td>
<td>4</td>
<td>-7</td>
<td>-71</td>
<td>-209</td>
<td>34</td>
<td>-134</td>
</tr>
<tr>
<td>Portfolio investment, net</td>
<td>97</td>
<td>-167</td>
<td>21</td>
<td>-20</td>
<td>-39</td>
<td>-82</td>
<td>40</td>
<td>-189</td>
</tr>
<tr>
<td>Other investment, net</td>
<td>183</td>
<td>-240</td>
<td>-7</td>
<td>-17</td>
<td>-3</td>
<td>253</td>
<td>51</td>
<td>170</td>
</tr>
<tr>
<td>Reserve assets</td>
<td>6</td>
<td>-4</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>117</td>
<td>-108</td>
<td>12</td>
</tr>
<tr>
<td>Net errors and omissions</td>
<td>56</td>
<td>150</td>
<td>-17</td>
<td>2</td>
<td>3</td>
<td>-140</td>
<td>6</td>
<td>-12</td>
</tr>
</tbody>
</table>

Note: By construction, 'net errors and omissions' are equal to the financial account balance less the sum of current account and capital account balances. Deviations are due to rounding error.

Source: OECD.

By definition, the sum of the current accounts of all countries in the world should equal zero. In fact, it is systematically negative, as receipts are 'omitted' more often than expenditures.
## Balance of Payments: Some Examples

<table>
<thead>
<tr>
<th>Transaction</th>
<th>Credit (+) or debit (-)</th>
<th>Country</th>
<th>Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK exports chemicals to France to the amount of £1 million</td>
<td>+ £1 m</td>
<td>UK</td>
<td>Goods and services</td>
</tr>
<tr>
<td></td>
<td>- £1 m</td>
<td>France</td>
<td>Goods and services</td>
</tr>
<tr>
<td>French school trains German cyclists for €500,000</td>
<td>+ €500,000</td>
<td>France</td>
<td>Goods and services</td>
</tr>
<tr>
<td></td>
<td>- €500,000</td>
<td>Germany</td>
<td>Goods and services</td>
</tr>
<tr>
<td>German construction company is paid SF5 million to build a Swiss bridge</td>
<td>+ SF5 m</td>
<td>Germany</td>
<td>Goods and services</td>
</tr>
<tr>
<td></td>
<td>- SF5 m</td>
<td>Switzerland</td>
<td>Goods and services</td>
</tr>
<tr>
<td>Swiss ski instructor is paid salary of €80,000 for work performed in Austria</td>
<td>+ €80,000</td>
<td>Switzerland</td>
<td>International income</td>
</tr>
<tr>
<td></td>
<td>- €80,000</td>
<td>Austria</td>
<td>International income</td>
</tr>
</tbody>
</table>
## Balance of Payments: Some Examples

<table>
<thead>
<tr>
<th>Transaction</th>
<th>Credit (+) or debit (-)</th>
<th>Country</th>
<th>Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK fast food franchises remit £1 million in profits to headquarters in the USA</td>
<td>+ £1 m</td>
<td>USA</td>
<td>International income</td>
</tr>
<tr>
<td></td>
<td>- £1 m</td>
<td>UK</td>
<td>International income</td>
</tr>
<tr>
<td>Austrian government gives €3 million in relief aid to tsunami victims in Thailand</td>
<td>+ €3 m</td>
<td>Thailand</td>
<td>Current transfers</td>
</tr>
<tr>
<td></td>
<td>- €3 m</td>
<td>Austria</td>
<td>Current transfers</td>
</tr>
<tr>
<td>Estonian worker in Denmark sends DK100,000 to family in Tallinn</td>
<td>+ DK100,000</td>
<td>Estonia</td>
<td>Current transfers</td>
</tr>
<tr>
<td></td>
<td>- DK100,000</td>
<td>Denmark</td>
<td>Current transfers</td>
</tr>
<tr>
<td>Spanish government forgives debt of €10 m owed by Peru</td>
<td>+ €0 m</td>
<td>Peru</td>
<td>Capital account</td>
</tr>
<tr>
<td></td>
<td>- €0 m</td>
<td>Spain</td>
<td>Capital account</td>
</tr>
</tbody>
</table>
## Balance of Payments: Some Examples

<table>
<thead>
<tr>
<th>Transaction</th>
<th>Credit (+) or debit (-)</th>
<th>Country</th>
<th>Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swedish investor purchases a factory in Germany for €100 million</td>
<td>+ €100 m</td>
<td>Germany</td>
<td>Financial account / direct investment</td>
</tr>
<tr>
<td></td>
<td>- €100 m</td>
<td>Sweden</td>
<td>Financial account / direct investment</td>
</tr>
<tr>
<td>Portuguese bank buys €20 million of stock in German company from French bank based in France</td>
<td>+ €20 m</td>
<td>France</td>
<td>Financial account / portfolio investment</td>
</tr>
<tr>
<td></td>
<td>- €20 m</td>
<td>Portugal</td>
<td>Financial account / portfolio investment</td>
</tr>
<tr>
<td>UK bank based in London lends £50 million to subsidiary in Ireland</td>
<td>+ £50 m</td>
<td>Ireland</td>
<td>Other investment</td>
</tr>
<tr>
<td></td>
<td>- £50 m</td>
<td>UK</td>
<td>Other investment</td>
</tr>
</tbody>
</table>
## Balance of Payments: Some Examples

<table>
<thead>
<tr>
<th>Transaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slovenian resident transfers €100,000 from home account to a bank account in Italy</td>
</tr>
<tr>
<td>Bank of England purchases €5 billion from the European Central Bank (ECB) paying with pound sterling</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Credit (+) or debit (-)</th>
<th>Country</th>
<th>Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ €100,000</td>
<td>Italy</td>
<td>Financial account / portfolio investment</td>
</tr>
<tr>
<td>- €100,000</td>
<td>Slovenia</td>
<td>Financial account / portfolio investment</td>
</tr>
<tr>
<td>- €5 b</td>
<td>UK</td>
<td>Reserve assets account</td>
</tr>
<tr>
<td>+ €5 b</td>
<td>Eurozone</td>
<td>Reserve assets account</td>
</tr>
</tbody>
</table>
Balance of Payments and the GDP

(1) balance of goods and services = X – Z

absorption A = C + I + G

X – Z = Y - A

(2) Current account (CA) = (X – Z) + IAB

gross national disposable income YD = Y + IAB

CA = Y + IAB – A = YD – A
Balance of Payments and the GDP

CA > 0: net lender, CA < 0: net borrower

net lending = Current Account (CA) = Financial Account (FA)

E&O = FA - CA