THE BALANCE OF PAYMENTS
The balance of payments

• Edward Misselden (1608-1654) estimated first balance of payments for England (1621-1622).
• The balance of payments records a country’s trade in goods, services and financial assets with the rest of the world.

• It is an accounting statement based on double-entry bookkeeping.
## Current account
- Merchandise and services
  - Merchandise
  - Services
    - Transport
    - Tourism
    - Communication services
    - Constructor
    - Insurance
    - Financial
    - Information
    - Personal, cultural
    - Government
- Income
  - Employees wages
  - Investment income
- Transfers
  - Government
  - Employees
  - Other

## Capital and financial account
- Capital account
  - Capital transfers
- Financial account
  - Direct investment
  - Portfolio investment
  - Other investment
    - Trade credits
    - Loans
    - Cash and deposits
  - Reserves
    - Monetary gold
    - Special drawing rights (SDR)
    - Reserve position in IMF
    - Foreign exchange
    - Other
- Mistakes
• Every transaction is entered on both sides of the balance sheet, as a credit and a debit.
• Credit entries are those entries that will bring foreign exchange into the country whereas debit entries record items that would mean a loss of foreign exchange.
<table>
<thead>
<tr>
<th>Debit items (-)</th>
<th>Credit items (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I</strong>&lt;br&gt;• Good imports&lt;br&gt;• Services imports</td>
<td><strong>I</strong>&lt;br&gt;• Good exports&lt;br&gt;• Services exports</td>
</tr>
<tr>
<td><strong>II</strong>&lt;br&gt;• Wages and investment outflow&lt;br&gt;• Transfers outflow</td>
<td><strong>II</strong>&lt;br&gt;• Wages and investment inflow&lt;br&gt;• Transfers inflow</td>
</tr>
<tr>
<td><strong>III</strong>&lt;br&gt;• Long term capital outflow</td>
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</tr>
<tr>
<td><strong>IV</strong>&lt;br&gt;• Short term capital outflow</td>
<td><strong>IV</strong>&lt;br&gt;• Short term capital inflow</td>
</tr>
<tr>
<td><strong>V</strong>&lt;br&gt;• Increase in reserves</td>
<td><strong>V</strong>&lt;br&gt;• Decrease in reserves</td>
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</tbody>
</table>
• If the value of the credit items on a particular balance-of-payments account exceeds (is less than) the debit items, a surplus (deficit) exists.
The balance of payments concepts

F. Machlup (1902-1983), differed 3 basic balance of payments concepts:

• Market balance of payments which shows equilibrium of supply and demand for foreign currencies.
• Programmed balance of payments (desires and hopes).
• Statistical balance of payments.
Different approaches to the balance of payments disequilibrium problem

– The elasticity approach
– The absorption approach
– The monetary and portfolio approach
The elasticity approach
Balance of payments adjustment

Exchange rate

Foreign exchange quantity

S (good exports)

D (good imports)

Deficit

Appreciation of home currency

Surplus

Depreciation of home currency
Balance of payments adjustment by exchange rate change

[Diagram showing the relationship between exchange rates and balance of payments deficit.]
Impact of dollar depreciation or devaluation on home prices, exports and imports of goods

(a) Import market USA in $

(b) Export market USA in $

Impact of dollar depreciation or devaluation on home prices, exports and imports of goods

(a) Import market USA in $ 

(b) Export market USA in $
Stability of foreign exchange market and Marshall – Lerner condition

Devaluation will improve balance of trade if absolute home demand for exports elasticity plus elasticity foreign demand for exports are greater than 1.
• Devaluation is effective (net exports increases) if: \[ \varepsilon_x + \varepsilon_m > 1 \]

• Devaluation is not effective (net exports decreases) if: \[ \varepsilon_x + \varepsilon_m < 1 \]

• Devaluation has no influence on the balance of trade (net exports does not change if): \[ \varepsilon_x + \varepsilon_m = 1 \]
Depreciation

Net exports, $NX$

$NX > 0$

$NX = 0$

$NX < 0$

J – curve: depreciation impact on current account

- Contracts
- Not elastic imports demand and exports supply
- The adjustment of foreign and domestic prices to devaluation
The absorption approach

• Balance of trade = difference between total domestic output and home consumption.
• Positive balance of trade: output exceeds home consumption.
The impact of \((I + X)\) increase on GDP

\[ (S+M) = (I+X)_1 \]

\[ (S+M) = (I+X)_2 \]

\[ \Delta Y \]

\[ \Delta X, \Delta I \]

\[ MPS+MPM \]
\[ (I - S) = (M - X) \]

Capital importer
\[(S-I) = (X-M)\]

\[S+M\]

\[(I+X) > (S+M)\]

\[(S+M) > (I+X)\]

\[\text{Capital exporter}\]
Devaluation and current account improvement

\[ \Delta S + TB = \frac{s}{s + m} \Delta X \]
Fiscal expansion and income increase and trade deficit

\[ S - I \]
- slope: \( +s \)

\[ S - I' \]
- slope: \( -m \)

\[ \Delta G \]

\[ \Delta Y \]

\[ \Delta STB = \Delta I - \Delta I' \]

\[ s + m \]
Income adjustment and the balance of trade
Monetary and portfolio approach

• Includes also capital account.
• Devaluation can only temporarily improve balance of payments.

• In the long run, only impact of devaluation: increase of the home price level.

• Portfolio approach: financial assets is also necessary to include, not only supply of money.
• If the supply of money exceeds demand for money in the country – balance of payments deficit.
  Greater money supply leads to international reserves outflow and decrease in money supply.

• If the demand for money exceeds supply of money in the country – balance of payments surplus.
  Greater demand for money leads to higher interest rates and lower imports payments, and foreign exchange inflow in country.
Monetary policy – fixed exchange rate system

Money supply increase

Interest rate decrease

Income and production increase

Outflow of capital in short term

Balance of payments situation worsened

Current account situation worsened (exports decrease and imports increase)

Price level increase
Monetary policy – flexible exchange rate system

- Money supply increase
- Interest rate decrease
- Depreciation and automatic adjustments
- Capital outflow in short term
- Income and production increase
- Current account situation worsened
- Price level increase
- Real product and income increase
- Current account situation improvement
The balance of payments adjustments

Adjustment mechanisms can be:
• automatic – economic processes and
• economic policies.
Automatic processes of adjustment (stabile exchange rate)

Balance of payments deficit

- Aggregate expenditure decrease
- Money supply decrease

- Income decrease
- Inflation rate decrease and competitiveness increase
- Home demand decrease
- Price elasticity

Imports decrease
Exports increase
Deficit decrease

Balance of payments surplus

- Aggregate expenditure increase
- Money supply increase

- Income increase
- Inflation rate increase and competitiveness decrease
- Home demand increase
- Price elasticity

Imports increase
Exports decrease
Surplus decrease
Economic growth

Full employment

Price level stability

Financial system stability

Fair income distribution

Stable balance of payments

INTERNAL AND EXTERNAL BALANCE
Economic-political instruments:
• Fiscal policy;
• Monetary policy;
• Foreign exchange rate policy;
• Structural policy (liberalization, privatization, etc.).
Alternative possibilities for imbalance removal and achieving goals:

- Imports decrease:
  - Trade policy,
  - Real depreciation.
- Importing and exporting goods consumption decrease:
  - Government expenditure decrease,
  - Tax increase,
  - Restrictive monetary policy.
- Consumption redirection towards home goods:
  - Real depreciation,
  - Investment in exporting sectors,
  - Capital controls.
- Short term fluctuation decrease:
  - Use of international reserves,
  - Interest rate changes,
  - Fixed exchange rate in longer term,
  - Imports controls.
Policies to achieve internal and external balance

Four types of internal and external imbalances:
1. Inflation and surplus;
2. Recession and surplus;
3. Recession and deficit;
4. Inflation and deficit.
Swan’s diagram – Internal and external balance

Internal balance (full employment)

External balance (X=M)

Surplus

Deficit

Inflation

Recession

Exchange rate

Real domestic expenditure
1. Inflation and surplus – revaluation needed, restrictive monetary and fiscal policies do not help because they would increase surplus;

2. Recession and surplus – expansive monetary and fiscal policies;

3. Recession and deficit – the worst situation; devaluation with other measures which would increase competitiveness, (expansive monetary and fiscal policies would increase consumption and employment, but also the deficit);

4. Inflation and deficit – restrictive monetary and fiscal policies.
Other possible situations…

- Internal balance+surplus – revaluation and expansive monetary and fiscal policies;
- Internal balance+deficit – devaluation, restrictive monetary and fiscal policies;
- External balance+inflation – restrictive fiscal policy and devaluation;
- External balance+recession – expansive monetary and fiscal policies, devaluation
<table>
<thead>
<tr>
<th><strong>CURRENT ACCOUNT</strong></th>
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<tbody>
<tr>
<td>Goods exports</td>
<td>9.192,5</td>
</tr>
<tr>
<td>Goods imports</td>
<td>-18.626,5</td>
</tr>
<tr>
<td>(1) Net goods exports</td>
<td>-9.434,0</td>
</tr>
<tr>
<td>Services exports</td>
<td>9.179,0</td>
</tr>
<tr>
<td>Services imports</td>
<td>-2.859,1</td>
</tr>
<tr>
<td>(2) Net services exports</td>
<td>6.319,9</td>
</tr>
<tr>
<td>Income (inflow)</td>
<td>1.289,4</td>
</tr>
<tr>
<td>Income (outflow)</td>
<td>-2.426,8</td>
</tr>
<tr>
<td>(3) Net income</td>
<td>-1.137,4</td>
</tr>
<tr>
<td>(4) Net transfers</td>
<td>1.045,0</td>
</tr>
<tr>
<td>(5) Current account (1 + 2 + 3 + 4)</td>
<td>-3.206,4</td>
</tr>
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<thead>
<tr>
<th><strong>CAPITAL AND FINANCIAL ACCOUNT</strong></th>
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<tr>
<td>(6) Net capital transfers</td>
<td>34,2</td>
</tr>
<tr>
<td>(7) Net direct and portfolio investment</td>
<td>3.384,6</td>
</tr>
<tr>
<td>(8) Net others financial transactions</td>
<td>1.446,8</td>
</tr>
<tr>
<td>(9) International reserves (decrease -, increase +)</td>
<td>-721,6</td>
</tr>
<tr>
<td>(10) Net financial account (7 + 8 + 9)</td>
<td>4.109,8</td>
</tr>
<tr>
<td>(11) Mistakes</td>
<td>-937,5</td>
</tr>
<tr>
<td>(12) Balance of payments (5 + 6+ 7 + 8 + 9+11)</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Hrvatska narodna banka, Bilten 135, ožujak 2008., p76.