### The Balance of Payments

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<th>Debit (payments we make)</th>
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<td>3. Exports of Non Factor Services</td>
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<td>5. Exports of Factor Services (residing abroad)</td>
<td>6. Imports of Factor Services (residing abroad)</td>
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<td>7. Unrequited Transfers to U.S</td>
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**Notes:**

1. and 2. are trade in goods
2. 3. and 4. are trade in Services e.g. tourism
3. 5. and 6. are trade in factor services residing abroad i.e. land, labour or capital residing abroad and earning wages or rent are in this category.
4. 7. and 8. are unilateral transfers to and from the US.
5. 9. and 10. are short term capital flows e.g. buying and selling foreign bonds, transfers from checking accounts (an entry in 1. paid for by check is a corresponding entry in 10.)
6. 11. through 18. are **official settlements** which are the monetary authority’s financing of the external balance. This can include IMF activities and changes in reserves. If the federal reserve is supporting a fixed exchange rate and the $ depreciates, the federal reserve will have to sell foreign currency (sell reserves) to maintain the fixed exchange rate which means an entry in 15. Alternatively if a foreign country is trying to maintain a fixed exchange rate by selling $, this would be an entry in 18. So, official settlements are a proxy of the degree of intervention in the foreign exchange market by governments.
7. Statistical Discrepancies makes the balance of payments balance. It can be used as a proxy of the degree of illegal trade e.g. drugs, money.
8. The capital account tends to dominate the current account. Thus, the capital account tends to influence the exchange rate more than the current account.

$$\begin{align*}
(1+3)-(2+4)= &\text{ Trade Account (TA)} \\
(X-M)+(5-6)+(7-8)= &\text{ Current Account (CA)} \\
(9+11+13)-(10+12+14)= &\text{ Capital Account (KA)} \\
\text{CA+KA}= &\text{ Balance of Payments (BP)}
\end{align*}$$
The Balance of Payments and National Income Accounts

Recall from intro macro:

(1) \( Y \equiv C + I + G + X - M \) where \( Y \) is GDP. (1) can be rewritten as

(2) \( Y \equiv E + (X - M) \) where \( E = \text{expenditure} = C + I + G \)

equation (2) implies that:

(3) \( X - M \equiv Y - E \) so if:

- \( X - M < 0 \) (Trade deficit) then \( E > Y \) which means that we are borrowing from abroad.
- \( X - M > 0 \) (Trade surplus) then \( E < Y \) which means that we are lending abroad.

Extending this analysis further:

(4) \( \text{GNP} = \text{GDP} + \text{net factor payments from abroad} \)

\[ = \text{GDP} + (5 - 6) \]

if we assume, for simplicity, that unilateral transfer are zero (7-8=0), we can rewrite (4) as:

(5) \( \text{GNP} = \text{GDP} + \text{CA} \)  

if we include taxes (by subtracting \( T \) from both sides) we have:

\[ \text{GNP} - T = C + I + G - T + \text{CA} \]

moving \( C \) to the left hand side we have:

\[ \text{GNP} - C - T = I + G - T + \text{CA} \]

The LHS is saving. Rearranging we get:

(6) \[ \boxed{\text{CA} = (S - I) + (T - G)} \]

(S-I) is private saving and (T-G) is public saving.

If the government always runs a balanced budget, then;

- \( S > I \) then US residents are investing money abroad and \( CA > 0 \) (CA surplus)
- \( S < I \) then US residents are borrowing from abroad and \( CA < 0 \) (CA deficit)

If \( S = I \) then a CA deficit will occur iff \( T < G \) i.e. the government is borrowing from abroad—“Twin Deficits”. Tends to be supported in the data prior to 1990’s.

The CA shows how much a country is borrowing or lending.

Like individuals, the CA can follow a life cycle. When a country is young and poor countries tend to borrow from abroad to invest and promote growth. As a country matures, they tend to run surpluses e.g. Canada.