UNIT 2 - Balance of Payments (BoP)

What you will learn:
1. What the balance of payments is and what it measures
2. The major accounts of the BoP and what they measure
3. How an economic transaction is recorded in the BoP
4. Arguments for/against a Current Account (trade) deficit
5. How government policies affect the BoP
6. How an MNC can use information from the BoP statement

Definition: Balance of Payments
- A record of all the financial/economic interaction between one country and the rest of the world during some period of time.
- While even the largest MNC has a negligible effect on the BoP, governments monitor the BoP and set policy to manipulate the BoP.
- MNC's need to plan for possible government action. e.g., blocked funds, special taxes
- Banks can use the BoP for credit analysis
- Also changes in BoP may be useful in predicting changes in the exchange rate.

Basic Accounts make-up the BoP

Current account
- (For an individual this is most like current income)
  - merchandise account (trade)
    - Exports
    - Imports
  - services
    - Tourism
    - Interest Payments (now in a separate sub-account)
    - Dividend Payments (now in a separate sub-account)
    - Fees (Rents)
  - Unilateral Transfers
    - gifts, pensions

Financial Account
(measures changes in Non Central Bank Wealth)
- Portfolio Account (No control of asset)
  - U.S. claims on foreigners
    - Foreign Bonds, Foreign Currency
    - U.S. liabilities to foreigners
    - US Bonds, Dollars
- Direct investment (some control of assets)
  - U.S. direct investments overseas
    - Factories, Real Estate, Equity
  - Foreign direct investments in U.S.
    - Factories, Real Estate, Equity

Official Reserves
(Like a subsidy or tax to private sector, measures Central bank activity)
- Foreign currency held by the central bank
- Special Drawing Rights
  http://fx.sauder.ubc.ca/
- Gold
Sample Transactions of the BoP

(1a) A U.S. firm sells $1000 of its direct holdings of foreign assets abroad.
   – decrease in US direct investment overseas, source, +$1,000
(1b) Payment is received in Euros
   – increase in US claims on foreigners, use, -$1,000

(2a) A U.S. firms sells $500 of its holdings of foreign debt
   – decrease in US claims on foreigners, source, +$500
(2b) Payment is received by the US firm in dollars
   – decrease in US liabilities to foreigners, use, -$500

(3a) A U.S. firm buys back $2000 of foreign direct investment in U.S.
   – decrease in foreign direct investment in the US, use, -$2,000
(3b) Payment is made with dollars
   – increase in US liabilities to foreigners, source, +$2,000

(4a) A U.S. citizen receives $2500 in dividends & interest from foreigners
   – increase in services rendered, source, +$2,500
(4b) Payment is made with £
   – increase in US claims on foreigners, use, -$2,500

(5a) U.S. government gives $1000 in foreign aid
   – increase in US unilateral transfers, use, -$1000
(5b) Payment is made in dollars
   – increase in US liabilities to foreigners, source, +$1,000

(6a) A U.S. firm pays out $2000 in dividends & interest to foreigners
   – increase in services received, use, -$2000
(6b) Payment is made in dollars
   – increase in US liabilities to foreigners, source, +$2,000
(7a) A U.S. firm exports aircraft worth $5000
- increase in US exports, source, +$5000
(7b) Payment is received in ¥
- increase in US claims on foreigners, use, - $5000

(8a) A U.S. firm imports cars worth $4000
- increase in US imports, use, - $4000
(8b) Payment is made in ¥
- decrease in US claims on foreigners, source, + $4000

(9a) A U.S. firm retires debt held by foreigners worth $700
- decrease in US liabilities to foreigners, use, - $700
(9b) Payment is made in dollars
- increase in US liabilities to foreigners, source, + $700

(10a) Immigrants to the U.S. receive $500 from friends overseas
- increase in unilateral transfers received, source, + $500
(10b) Payment is received in ¥
- increase in US claims on foreigners, use, - $500

(11a) The US Central Bank (the FED) sells € worth 200
- decrease in official reserves, source, + $200
(11b) Payment is received in dollars
- decrease in US liabilities to foreigners, use, - $200
Interpreting the BoP
Statement Ex. 1

- Current Account = -20
- Financial Account = +15
- Official Reserves = +5

In the current account,

\[(1a)\] Current Consumption \(>\) Current Production

\[(1b)\] Net Wealth is decreasing

\[(1c)\] The US demand for foreign currency to buy foreign goods

\[(1d)\] There is pressure from the current account on the $ to weaken

In the Financial account,

\[(2a)\] Capital is flowing into the US

\[(2b)\] The US demand for foreign currency to buy foreign assets

\[(2c)\] There is pressure from the Financial account on the $ to strengthen

In the Official Reserves Account

The FED is losing reserves
This acts like a subsidy for the private sector
The Fed’s activity strengthens the dollar

Interpreting the BoP
Statement Ex. 2

- Current Account = 15
- Financial Account = -14
- Official Reserves = -1

In the current account,

\[(3a)\] Current Consumption \(<\) Current Production

\[(3b)\] Net Wealth is increasing

\[(3c)\] The US demand for foreign currency to buy foreign goods

\[(3d)\] There is pressure from the current account on the $ to strengthen
In the Financial account, (2a) Capital is flowing out of the US (2b) The US demand for foreign currency to buy foreign assets exceeds the Foreign supply of foreign currency, so the US accumulates foreign currency reserves. This pressure from the Financial account on the $ is weakening.

In the Official Reserves Account, the FED is gaining reserves. This acts like a tax on the private sector, and the Fed’s activity weakens the dollar.

**BoP and Currency Expectation Ex 1**

At the current exchange rate, you expect the following BoP Balances:

- Current Account: -5
- Financial Account: 8
- Official Reserves Account: 6

In addition, the Central Bank has 6 in Official Reserves. Under these circumstances, you would expect this country’s currency to

**Answer:** Strengthen Unless the Central Bank Weakens the Currency

**BoP and Currency Expectation Ex 2**

At the current exchange rate, you expect the following BoP Balances:

- Current Account: 3
- Financial Account: -12
- Official Reserves Account: In addition, the Central Bank has 7 in Official Reserves.

Under these circumstances, you would expect this country’s currency to

**Answer:** Weaken; almost certainly

**BoP and Currency Expectation Ex 3**

At the current exchange rate, you expect the following BoP Balances:

- Current Account: -5
- Financial Account: 8
- Official Reserves Account: 15 in Official Reserves

In addition, the Central Bank has 15 in Official Reserves. Under these circumstances, you would expect this country’s currency to

**Answer:** Strengthen Unless the Central Bank Weakens the Currency

**Interpreting Central Bank Intervention Ex 1**

At the current exchange rate, you expect the following BoP Balances:

- Current Account: 3
- Financial Account: -12
- Official Reserves Account: 7 in Official Reserves

Under these circumstances, you would expect this country’s currency to

**Answer:** Strengthen Unless the Central Bank Weakens the Currency

No Intervention rate

3 Billion Euros

3.00

1.200

1.300
Interpreting Central Bank Intervention Ex 2

No Intervention rate

Rate 1.2500
USD/Euro

2 Billion Euro

Statistical Discrepancy and Bop Ex. 1

Statistical Discrepancy and Bop Ex. 2

What about the economy does a current account deficit reflect?

• National Income Account Identity

• Notation
  • $Y = \text{real income/output}$
  • $C = \text{Household consumption}$
  • $I = \text{Investment (plant, equipment, durable goods)}$
  • $G = \text{Government purchases (Net of transfers)} = \text{Output allocated to the public sector}$
  • $X = \text{Exports (inflows in the Current Account)}$
  • $M = \text{Imports (outflows in the Current Account)}$

• What happens to individual income $\rightarrow$
  • It is Taxed, Consumed and Saved
    $Y = T + C + S$

From the previous slide we have

$Y = C + I + G + (X - M)$

• Setting the two expressions equal we get
  $T + C + S = C + I + G + (X - M)$

• Then solving for the current account balance we get
  • Current Acc1 Balance = Private Savings Balance + Government Budget Balance
    $(X - M) = (S - I) + (T - G)$

• It must be the case that
  • Total sources of output = Total uses of Output
    $Y + M = C + I + G + X$

Rearranging

$Y = C + I + G + (X - M)$

This has to hold exactly
Using this equation we see that a Current Account deficit is reflective of
(S - I) + (T - G) being negative or simply that the country doesn’t save enough to fund investment
Another useful expression is given by combining:
(X - M) = (S - I) + (T - G)
and
current + Financial+ official = 0

When we do this we get
I +(G-T) = S + FinancialAcc’t + Official Res Acc’t
The left hand side are the USES of capital
The right hand side are the SOURCES of capital
For the USES
- I is investment or the addition to plant & equip of businesses
- (G-T) is the amount the government needs to fund of net government purchases
For the Sources
- S is gross private domestic savings
- FinancialAcc’t (if positive) is foreigners saving for us
- Official Reserves Acc’t (if positive) is the central bank subsidizing the private sector by losing reserves and strengthening the country’s currency

Interpreting National Income Accounts Ex 1

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<th></th>
<th>68</th>
<th>50</th>
<th>250</th>
<th>308</th>
<th>250</th>
<th>180</th>
<th>10</th>
<th>-12</th>
<th>2</th>
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<td>Imports</td>
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<td>Taxes (net of transfers)</td>
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<td>Government Spending (net of transfers)</td>
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<td>Financial Account</td>
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If the National Income Accounts had the values above, one would expect interest rates to
Fall because I < S+(T-G)+Official +Financial

Interpreting National Income Accounts Ex 2

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<th>100</th>
<th>180</th>
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<td>Gross Private Domestic Savings</td>
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<tr>
<td>Taxes (net of transfers)</td>
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</tbody>
</table>

If the National Income Accounts had the values above, one would expect interest rates to
Rise because I > S+(T-G)+Official +Financial

What if the government decides the Current Account deficit is bad?

Government Policies which could possibly reverse a trade deficit

1. Increase tax revenue
   - Increase tax rates
   - Mechanism: Tax revenues increase, people consume less including imports

   Might not work because:
   - people lower their savings and consume imports anyway
   - income may drop and actual tax revenues don’t increase
   - government spending could go up

2. Increase savings level
   by increasing interest rates
   Mechanism:
   - people save more/consume less and investment decreases

   Might not work because:
   - over time lower investment can lead to lower income growth, which leads to less tax revenue and savings by giving tax incentives
   Mechanism:
   - people save more/consume less

   Might not work because:
   - lose tax revenues
• 3. Weaken the dollar
  • Mechanism:
    • export industry increases, import substitution increases \(\Rightarrow\) income increases \(\Rightarrow\) savings and tax revenues increase
  • Might not work because:
    • people lower their savings and consume imports anyway
    • income in the import industry may drop

• 4. Tariffs and Quotas
  • Same as weaken the dollar + retaliation by foreign governments

Possible benefits of a trade deficits:

1. Lower inflation
Recall that a trade deficit implies current consumption > current production. Without the inflow of foreign goods, there would be excess demand and so prices would rise. The inflow of goods keeps this from happening.

<table>
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<tr>
<th>Quantity</th>
<th>Domestic Supply</th>
<th>Domestic Demand</th>
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2. Lower interest rates
The inflow of foreign capital amounts to foreigners saving for us. The increase in size of the savings pool keeps our interest rates down. This may increase the investment level.

3. Lower tax rates
The government can deficit finance without interest rates rising. Less "crowding out".

Possible negative consequences of trade deficits

1. Argument
Over time foreigners will own an increasing proportion of our capital stock and we will lose autonomy over our economy.

Counter Argument
Foreign ownership is highly decentralized among competing groups
Foreign owned companies tend to be good corporate citizens out of fear of regulations
Can always nationalize

2. Argument
Foreigners may Rapidly divest themselves of U.S. assets
The only way foreigners can cash-in their U.S. assets is through U.S. exports.
Problem is not enough supply of exports (at the current prices) to cover the foreign claims \(\Rightarrow\) prices rise \(\Rightarrow\) High U.S. inflation.
Real temptation for the U.S. government to monetize the debt - print up money to pay for it \(\Rightarrow\) High U.S. inflation.

Counter argument
• Not in the interest of anyone to let this happen, but it is a real possibility.
3. Argument
   Current Account deficits are bad for Employment

   Counter Argument
   Not clear net effect on employment and quality of jobs