ECON 212 Elements of Economics II

Session 12 – OPEN-ECONOMY: THE BALANCE OF PAYMENT

Lecturer: Dr. Priscilla Twumasi Baffour, Department of Economics Contact Information: ptbaffour@ug.edu.gh



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Session Overview

This session introduces students to economic transactions between countries, how they are undertaken and recorded (BoP account) and the impact they have on the macro economy, that is we will seek to find the various effects the components of the balance of payments have on an economy's net worth (lender or borrower in terms of flows overtime and creditor or debtor in terms of the net stock of foreign assets in the capital account).

The session further discusses the causes of statistical discrepancies and the essence of the principle of double entry in the BoP account.



Session Outline

- Balance of payment account.
 - Definition
 - Illustration
 - Double entry principle.
- Components of the balance of payment.
 - Current account.
 - Capital account.
- Statistical discrepancy.
- Equilibrium output or income in the open market.
- Imports and exports and the trade feedback effect.
- How can one use the BOP sub-accounts to make financial decisions?

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Learning Outcome

- After completing this session, you should be able to;
 - Explain basic concepts in international trade such as Balance of Payment, current account, capital account and terms of trade.
 - Distinguish between balance of payments and balance of trade.
 - Distinguish between current account and capital account under the balance of payment account.
 - Understand the relationship between balance of payment and the foreign exchange market.
 - Appreciate the impact balance of payment has on the net worth of a business and the economy at a specific time.
 - Discuss the trade feedback effect



Reading List

- Read Chapter 24 of John Sloman; Economics, 8th Edition (2011), Pearson
- Session Slides
- Watch video on session 12
- Any Other Economics text books available to students



Topic One

BALANCE OF PAYMENT ACCOUNTS.



- The balance of payments is the record of a country's transactions in goods, services, and assets with the rest of the world; also the record of a country's sources (supply) and uses (demand) of foreign exchange. It is statement that summarizes an economy's transactions with the rest of the world for a specified time period.
- The balance of payments, also known as balance of international payments, encompasses all transactions between a country's residents and its nonresidents involving goods, services and income; financial claims on and liabilities to the rest of the world; and transfers such as gifts.



- The balance of payments classifies these transactions into two accounts – the current account and the capital account.
- An economy's balance of payments transactions and international investment position (IIP) together constitute its set of international accounts.
- Despite its name, the "balance of payments" data is not concerned with actual payments made and received by an economy, but rather with transactions.
- Since many international transactions included in the balance of payments do not involve the payment of money, this figure may differ significantly from net payments made to foreign entities over a period of time.



- The BoP must always balance, you will know why?
- BOP is a flow statement, not a stock statement.
 - Main transactions in BOP:
 - Exchange of real assets.
 - Exchange of financial assets.



| An Example of Balance of Payments Account | |
|--|---------|
| CURRENT ACCOUNT | |
| Goods exports | 682.6 |
| Goods imports | |
| (1) Net export of goods | - 484.3 |
| Export of services | 289.3 |
| Import of services | - 240.5 |
| (2) Net export of services | 48.8 |
| Income received on investments | 244.6 |
| Income payments on investments | - 256.5 |
| (3) Net investment income | – 11.9 |
| (4) Net transfer payments | - 56.0 |
| (5) Balance on current account (1 + 2 + 3 + 4) | - 503.4 |
| CAPITAL ACCOUNT | |
| (6) Change in private U.S. assets abroad (increase is –) | – 152.9 |
| (7) Change in foreign private assets in the United States | 533.7 |
| (8) Change in U.S. government assets abroad (increase is –) | - 3.3 |
| (9) Change in foreign government assets in the United States | 46.6 |
| (10) Balance on capital account (6 + 7 + 8 + 9) | 474.1 |
| (11) Statistical discrepancy | 29.3 |
| (12) Balance of payments (5 + 10 + 11) | 0 |



Double-entry Accounting in the BoP

- All transactions are either debit or credit transactions
- Credit transactions result in receipt of payment from foreigners
 - Merchandise exports (valued f.o.b.)
 - Transportation and travel receipts
 - Income received from investments abroad
 - Gifts received from foreign residents
 - Aid received from foreign governments



Double-entry Accounting in the BoP

- Debit transactions involve payments to foreigners
 - Merchandise imports
 - Transportation and travel expenditures
 - Income paid on investments of foreigners
 - Gifts to foreign residents
 - Aid given by home government
 - Overseas investments by home country residents
- Every credit transaction has a balancing debit transaction, and vice versa, so the <u>overall</u> balance of payments is always in balance.



- The current account includes transactions in goods, services, investment income and current transfers.
- A country's *current account* is the sum of its:
 - net exports (exports minus imports),
 - net income received from investments abroad, and
 - net transfer payments from abroad
- Exports earn foreign exchange and are a credit (+) item on the current account. Imports use up foreign exchange and are a debit (-) item.



- The *balance of trade* is the difference between a country's exports of goods and services and its imports of goods and services. Balance of trade is the largest component of a country's balance of payments.
- Debit items include imports, foreign aid, domestic spending abroad and domestic investments abroad.
- Credit items include exports, foreign spending in the domestic economy and foreign investments in the domestic economy.
- Balance of trade is also referred to as "trade balance" or "international trade balance".



- A *trade deficit* occurs when a country's exports are less than its imports; the opposite scenario is a trade surplus.
- Net exports of goods and services (EX IM), is the difference between a country's total exports and total imports.
- Investment income consists of holdings of foreign assets that yield dividends, interest, rent, and profits paid to Ghana asset holders (a source of foreign exchange).
- Net transfer payments are the difference between payments from Ghana to foreigners and payments from foreigners to Ghana.



- The balance on current account consists of net exports of goods, plus net exports of services, plus net investment income, plus net transfer payments. It shows how much a nation has spent relative to how much it has earned.
- Current account balance = Net export + Net interest and (CAB)
 (NX) transfers from abroad.
- Fluctuations in net exports are the main source of fluctuations in the current account balance.
- Net interests and transfers from abroad are small and have trends but do not fluctuate much.



- The government budget, private savings and investment determine net exports.
- The government sector balance is equal to net taxes (NT) *less* government expenditure on goods and services (G). That is (NT G).
- Private sector balance entails private savings (S) minus private investment (I). That is (S – I).
- The summation of the government sector balance and the private sector balance is the value of net exports (X – M).



• Using Aggregate expenditure method:

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

• Using income method:

Y = C + S + Net taxes (NT)

• Therefore,

$$C + I + G + (X - M) = C + S + Net taxes (NT)$$

 $(X - M) = (S - I) + (NT - G)$



The Capital Account

- For each transaction recorded in the current account, there is an offsetting transaction recorded in the capital account.
- The *capital account* records the changes in assets and liabilities.
- It mainly includes transactions in financial instruments that is, records of foreign investments in the domestic country minus investment of nationals abroad.



The Capital Account

- A capital account shows the net change in physical or financial asset ownership for a nation and together with the current account, constitutes a nation's balance of payments.
- The capital account includes foreign direct investment (FDI), portfolio and other investments, plus changes in the reserve account.
- A capital account may also refer to an account showing the net worth of a business at a specific point in time.



The capital account

- In the absence of errors, the balance on capital account would equal the negative of the balance on current account.
- If the capital account is positive, then it means a change in foreign assets in the country is greater than the change in the country's assets abroad, which is a decrease in the net wealth of the country



Statistical Discrepancy

- It is the net result of errors and omissions on both the debit and credit sides of the BoP
- Where do these errors come from?
 - Under-reporting investment incomes
 - Under-reporting merchandise imports
 - Under-reporting capital exports
 - Basically, people succeed in hiding their imports, foreign investment incomes, capital flight from their governments for tax and other purposes.



What If?

- BoP shows surplus:
 - Demand > Supply for that currency.
 - Allow currency value to increase,
 - Or accumulate foreign reserves.
- BoP shows deficit:
 - Supply > Demand for that currency.
 - Devalue currency,
 - Or use official reserves to support currency



Topic Two

EQUILIBRIUM OUTPUT IN THE OPEN ECONOMY.



Equilibrium Output (income) in the Open Economy

Planned aggregate expenditure (AE) in an open economy:

$$AE \equiv C + I + G + EX - IM$$

$$C = a + bY$$

$$I = I_0$$

$$G = G_0$$

$$EX = EX_0$$

$$IM = mV$$

m = marginal propensity to import (or MPM)

• In equilibrium:

$$Y = C + I + G + EX - IM$$

$$Y = a + bY + I + G + EX - mY$$

$$Y - bY + mY = a + I + G + EX$$

$$Y(1 - b + m) = a + I + G + EX$$

$$Y^* = \frac{1}{1 - b + m} (a + I + G + EX)$$
multiplier autonomous expenditures



Equilibrium Output (income) in the Open Economy





• Exports contribute to an increase in autonomous expenditures and cause the planned aggregate expenditure function to shift upward.

•Imports affect the value of the multiplier. After imports are included, the aggregate expenditure function rotates and equilibrium income decreases.



Imports and Exports and the Trade Feedback Effect

- The determinants of imports are the same as the factors that affect consumption and investment behavior as already discussed under national income determination in open economy
 - Typically income.
- Spending on imports also depends on the relative prices of domestically produced and foreign-produced goods.
- The trade feedback effect is the tendency for an increase in the economic activity of one country to lead to a worldwide increase in economic activity, which then feeds back to that country.



Imports and Export Prices and the Trade Feedback Effect

- When the export prices of one country rise, with no change in the exchange rate, the import prices of another also rise.
- If the inflation rate abroad is high, import prices are likely to rise.
- The price feedback effect is the process by which a domestic price increase in one country can "feed back" on itself through export and import prices.
- Thus Inflation is "exportable."

28

