Introduction to International Finance

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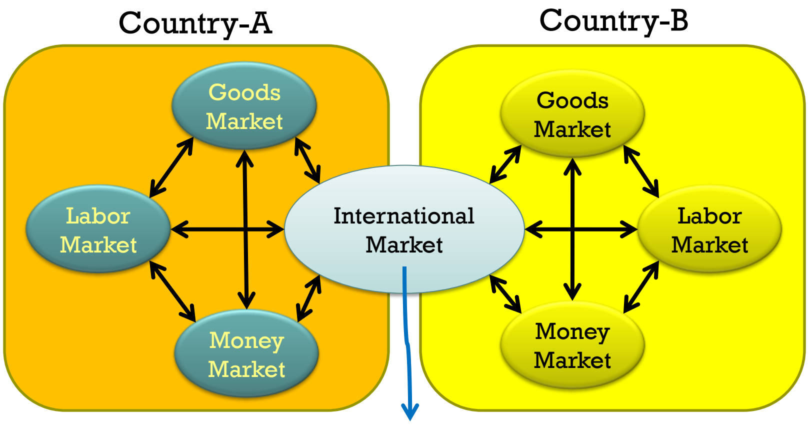
Part-I

Introduction

Economic Market



- Balance of Payment
- National Reserve
- Exchange rate

International Finance

- International Finance is
  - a branch of economics
  - that studies the flow of goods/services and financial across countries
  - that determine the exchange rate,
  - and study how these affect domestic economic activities
- Also known as International Macroeconomic

Exchange Rate

- Exchange rate:
  - Price of one currency which is valued by another currency
  - Conversion value between two currencies
- Example: 1 USD = IDR 10.000
- If the exchange rate changes to: IDR 9,000/USD
  - IDR strengthens (appreciate) against USD
  - USD weakens (depreciate) against IDR

What Influence Exchange Rate?

- In general, exchange rate is influenced by supply and demand of a currency
  - “Supply” refers to the availability of currencies in a country (money supply)
  - “Demand” refers to the need to get/use a currency (by converting another currency)
- If demand for local currency increases, then its exchange rate will strengthen (appreciate) against foreign currencies

Simple Illustration

- An Indonesia Company (IC) exports goods to US for USD 20 million
  - IC receives USD 20 million from its counterparty
  - IC needs to convert USD 20 million to get IDR 200 billion (assume 1 USD = IDR 10,000)
  - There is an increase in IDR demand and more supply in USD
  - Thus, IDR will strengthen against USD

Simple Illustration

- Using similar logic, if IC imports goods from US, the demand for IDR decreases, and IDR will weaken against USD
- More specifically we can say that exchange rate is influenced by capital flow across countries

  Capital inflow will strengthen domestic currency,

  while capital outflow will weaken domestic currency (against foreign currency)

Capital Flow (Mobility)

- Capital flow occurs in both the goods and financial market
- Goods market (export and import)
  - If export > import = surplus, export < import = deficit
  - This deficit is also known as trade deficit or international deficit or current account deficit
  - It may refer to the competitiveness of a country
- Financial market (investment, loan, capital asset)
  - It is influenced by interest (return) and risk of a country
  - Capital will flow to countries that offer the ehighest return (after considering their risk)

Example of Capital Flow

- Example of capital outflow
  - Importing goods
  - Domestic company purchases asset in other countries
  - Domestic institution gives loan to companies in other countries
  - Sending money to someone in other countries etc.
- Example of capital inflow
  - Exporting goods
  - FDI (foreign direct investment)
  - Domestic company receives loan from bank in other countries, etc.

Ideal Condition

	Surplus	**Deficit**
• Export - Import	Export > Import	Export < Import
• Currency	Appreciate	Depreciate
• Price of goods in international market	Increase (less competitive)	Decrease (more competitive)
• Next Export-Import	Export < Import	Export > Import
• Capital Flow	Inflow > Outflow	Inflow < Outflow
• Currency	Appreciate	Depreciate
• Interest Rate	Decrease	Increase
• Next Capital Flow	Inflow < Outflow	Inflow > Outflow

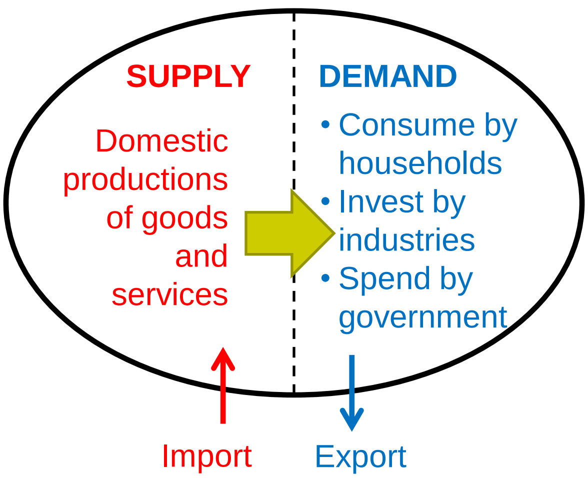
Ideal vs Actual

- Ideally, capital inflow and outflow will create equilibrium in international market
  - exchange rate will fluctuate around a certain level
- In fact, exchange rate of a country may fluctuate sharply → lead to financial crisis
  - This condition generate greater risk, that is not suitable for business and economic growth
- Many countries do big efforts to stabilize their currencies as well as domestic economic condition

Part-II

Goods and Money Market

Goods Market



Supply = Demand

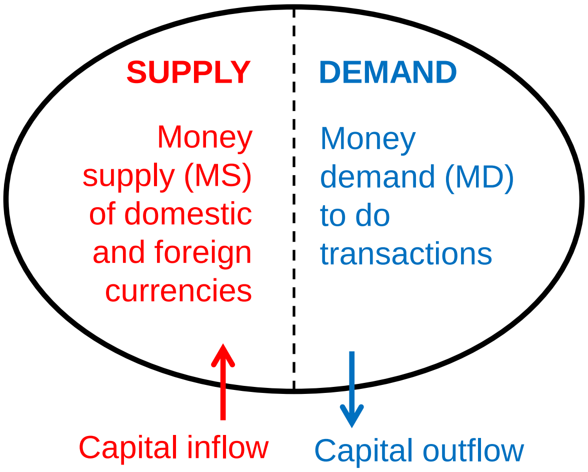
GDP = C+I+G+NX

Goods market determines **price**

Every transaction of goods and services needs money as medium

GDP ↑, Money ↑

Money Market

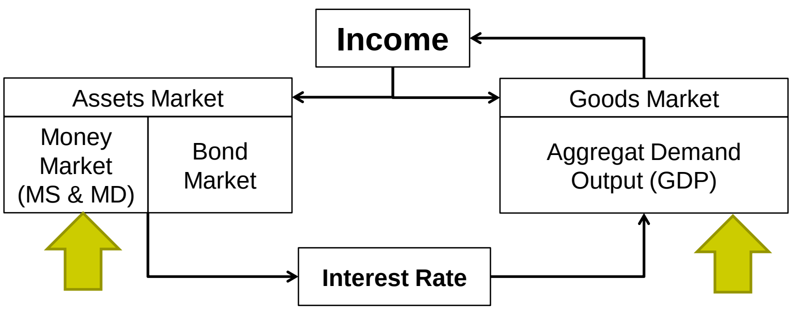


MS = MD

MS and MD determine **interest**

- If MD >> MS, interest will increase
- If MD << MS, interest will decrease

Goods and Money Market



Monetary Policy

- Authority: Central bank
- Main tools: money supply (MS), interest rate (I), credit policy

Fiscal Policy

- Authority: Government
- Main tools: government spending (G), tax (T), subsidy, blocking, etc.

Economic Data (2010 - 2011)

Component		US	EU	China	Indonesia
Consumption	C	70.8%	58.0%	24.2%	58.7%
Investment	I	12.0%	19.9%	46.5%	30.5%
Gov. Spending	G	20.6%	22.0%	10.0%	9.0%
Export-Import	NX	-3.4%	0.1%	19.3%	1.8%
Total ($ trillion)	**GDP**	**15.0**	**12.8**	**7.3**	**0.85**
GDP growth		2 - 2.3%	1.4 – 1.6%	8 - 9%	6.4 - 6.5%
Interest rate		0.25%	0.75%	6.4%	6.0%
Inflation		1.7%	3.1%	5.4%	3.8%
Unemployment		8.3%	10.3%	4.2%	6.8%
Public debt (%GDP)		100.9%	82.5%	25.8%	24.5%
Fiscal deficit (% GDP)		8.7%	4.1%	1.15%	1.6%

Goods and Money Market

- They influence each other
  - If GDP increases → MD will increase → it needs more MS
  - If interest decrease → consumption will increase
  - If interest increases → Investment will decrease
- Both of them work together to support economic growth, and stabilize macro indicators (e.g. inflation rate, interest rate, exchange rate)

Part-III

Fiscal and Monetary Policy

Fiscal Policy

- Fiscal policy affects the output of goods market as well as government budget (fiscal budget)
- Government budget → the plan of future income and outcome of a state
  - Income: tax, customs, dividend, grants, etc.
  - Outcome: operational expenses, social benefit (e.g. education, health, pension), capital expenses, debt repayment
- If Income < Outcome, it is called fiscal deficit (government budget deficit)

Example:
Indonesia Government Budget 2013

APBN	Rp.Trillion	%
Tax and Customs	1,148.5	76.5%
Non Tax Income	349.1	23.2%
Grant	4.5	0.3%
TOTAL INCOME	**1,502.1**	**100%**
Employee expense	233.0	13.7%
Goods expense	206.5	12.1%
Capital expense	192.6	11.3%
Debt payment	112.5	6.6%
Subsidy	348.1	20.4%
Grant expenses	2.3	0.1%
Social benefit	82.5	4.8%
Transfer to regions	529.4	31.0%
TOTAL EXPENSE	**1,706.9**	**100%**
Surplus (Deficit)	**(204.8)**	

- What should government do if fiscal deficit occurs?
  - Increase income (e.g. tax, customs tariff)
  - Reduce expense
  - Loan → issuing government bond
- Government debt also known as public debt or sovereign debt

Example:
Indonesia Fiscal Policy 2013

Reduce current account deficit
- Reduce oil and gas import
- Increase luxury goods tax
- Relax mineral export policy
- Relax Bonded Zone limitation for household (incentive for export)

Maintain purchasing power
- Maintain strictly minimum level of salary in all areas
- Tax holiday for book
- Trade policy change for beef meat and holticulture
- Coordination with BI (inflation)

Maintain economic growth
- Tax holiday and tax allowance for labor intensive and export oriented business (avoiding layoff), e.g. agro business and mining

Speed up investment
- Reduce bureaucracy for doing business or new investment
- Tax allowance for R&D
- Speed up investment in electricity, mining, oil & gas, infrastructure
- Negative investment list

Monetary Policy

- Monetary policy aims to influence (absorb or inject) money supply in a country (domestic or foreign currency)
- Objectives:
  - Support economic growth (e.g. achieve inflation target)
  - Stabilize exchange rate (e.g. rebalance international deficit)

Monetary Policy	Monetary Operation
• Tight Money Policy (TMP) • Easy Money Policy (EMP)	• **Open Market Operation** • Legal Reserve Ratio Requirement • Discount Rate Policy • Selective Credit Control • Moral Suasion

Open Market Operation (OMO)

- OMO is acitivites

Instrument	Description	Impact on MS
Repo transaction	Bank sells securities to Central Bank, and promise to buy back in the agreed date	+
Issue Central Bank certificat	Bonds issued by Central Bank	–
Term Deposit	Placement Bank's money on Central Bank during a certain period	–
Reverse Repo	Bank buys securities from Central Bank, and promise to sell back in the agreed date	–
Outright transaction	The sale or puchase of securities without agreement to repurchase or resell in the future	+ / –
Currency Intervention	The sale or purchase of currency to influence its value in the market	+ / –

Currency Intervention

- The purchase or the sale of the currency to influence Its value of domestic currency
- One famous type of currency intervention is sterilization
  - Unsterilized Intervention (Intervention that affect MS)
    - Example-1: BI buys USD-denominated bond with IDR (Excess IDR in the market will weaken IDR)
    - Example-2: BI sells/buys USD with IDR
  - Sterilized Intervention (Intervention that does not affect MS)
    - Example-1: BI buys USD-denominated bond with IDR, then sell IDR-bond (to absorb excess IDR in the market)

Foreign Currency (FX) Reserve

- FX reserve is foreign assets (foreign currency, foreign currency bond, gold) held by central bank
- FX reserve is accumulated from capital inflow to a country through OMO
- The size of FX reserve does not always indicate the economic strenght of a country. It also depend on its exchange rate policy
- A country that adopt fixed or pegged exchange rate should hold large FX reserve
  - Example: China, Hong Kong

FX Reserve by State (2013)

No	Country	FX Reserve ($ Billion)	No	Country	FX Reserve ($ Billion)
1	China	3,516	13	Thailand	171
2	Japan	1,254	14	Mexico	171
3	Saudi Arabia	685	15	United States	149
4	Russia	514	16	France	146
5	Switzerland	508	17	Italy	145
6	Taiwan	412	18	Malaysia	136
7	Brazil	374	19	Libya	130
8	Rep. of Korea	326	20	United Kingdom	129
9	Hong Kong	304	21	Turkey	123
10	Singapore	260	22	Poland	107
11	Germany	197	23	Indonesia	98
12	Algeria	192	24	Denmark	86

Example: Monetary Policy 2013

- Increase interest rate
  - BI rate has increased several times (from 5.75% in March 2013 to 7.0% in August 2013)
- Relax the regulations for exporter to buy foreign currency
  - More comfort for exporters because they are more certain to buy foreign currency again when needed
- Relax regulations for foreigners to keep their IDR that results from short-term investment
  - Attract foreigners to place their IDR in Indonesia rather than convert it to foreign currency quickly

Exercise-1

If the Bank Indonesia decides to purchase IDR by selling foreign assets in the foreign exchange market, the effect is the same as

A. an open market sale of bonds to decrease the monetary base and the money supply.
B. an open market purchase of bonds to decrease the monetary base and the money supply.
C. an open market sale of bonds to increase the monetary base and the money supply.
D. an open market purchase of bonds to increase the monetary base and the money supply.

Exercise-2

A foreign exchange intervention with an offsetting open market operation that leaves the monetary base unchanged is called

A. unsterilized foreign exchange intervention
B. sterilized foreign exchange intervention
C. exchange rate feedback rule
D. money neutral foreign exchange intervention

Exercise-3

A central bank sale of _____ to purchase ______ in the foreign exchange market results in an equal rise in its international reserves and the money supply.

A. foreign assets; domestic currency

B. foreign assets; foreign currency

C. domestic currency; foreign assets

D. domestic currency; domestic currency

Exercise-4

An unsterilized intervention in which domestic currency is sold to purchase foreign assets leads to

A. a gain in foreign exchange reserves

B. an increase in the money supply

C. an appreciation in the foreign currency

D. all of the above

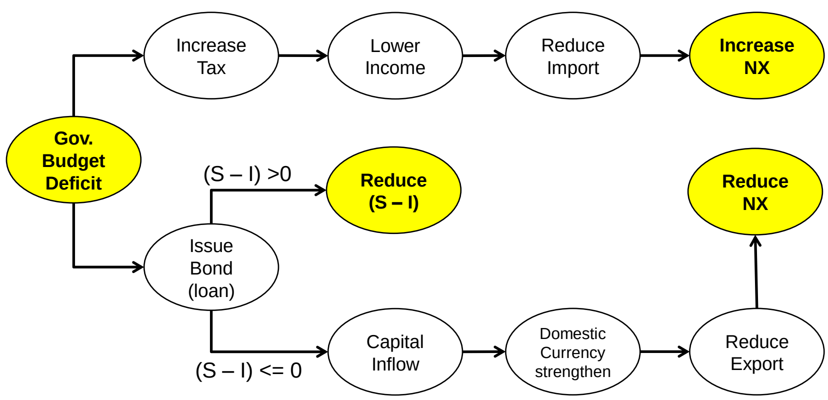
Twin Deficit

- There's strong relation between current account balance and government budget balance
- A country suffers twin deficit if
  - Current account (trade) deficit
  - Government budget (fiscal) deficit
- The relation

(Tax - G)	=	NX	–	(S – I)
Government Budget		Trade Balance		Saving Surplus

Fiscal and Trade Deficit

(Tax - G)	=	NX	–	(S – I)
Government Budget		Trade Balance		Saving Surplus



Literature Review

- Content:
  - The background of article
  - Main issue of the article (topic and problem)
  - Findings / conclusion
- Format
  - Times new roman 12 and 1.5 space
  - 3 pages (maximum)
  - The 4th page will not be read
- Write your names, NIMs and group
- Submit it in hard copy at the beginning of class session