International Economics

Lecture 1: This is about how nations interact through trade of goods and services, flows of money and investment. There is continual increase in international linkage; US exports and imports as shares of GDP have been in a long term trend. The bigger an economy, the more it tends to be closed. It is about international finance, not trade, with balance of payments, exchange rate determination, international policy coordination and capital markets.

National Income Accounts: measures of three equal things: national income = value of production = value of expenditure. National income that results from production and expenditure as expenditure of buyers equal the income of sellers which equal the value of production. It is the income earned by a nation's factors of production. Factors are those used to produce goods and services: workers (labour services), physical capital (like buildings and equipment), natural resources and others.

GNP: value of all final goods and services produced by a nation's factors of production in a given time period. It equals national income: every expenditure, somebody's income.

Four possible uses for which final output is purchased:

1. Consumption: expenditure by domestic consumers
2. Investment: expenditure by firms on buildings & equipment
3. Government purchases: expenditure by governments on goods and services
4. Current account balance (exports – imports): net expenditure by foreigners on domestic goods and services (we can treat net exports as the same thing)

GNP more precisely should be adjusted for (a) depreciation of physical capital that results in a loss of income to capital owners. GDP less depreciation is called Net National Product. (b) Unilateral transfers to and from foreign countries can change national income. These gifts include payments of expatriate workers sent to their home countries, foreign aid and pension payments sent to retirees. Net unilateral transfers are part of a country's income but not part of its product and they must be added to the NNP in calculation of National Income. Therefore; National Income = GNP – depreciation + net unilateral transfers. *

GDP: measures the final value of all goods and services produced within a country.
GDP = GNP – payments from foreign countries for factors of production + payments to foreign countries for factors of production. *

National Income Identity for an open economy: $Y = C + I + G + EX - IM$
$= C + I + G + CA$

$CA = EX - IM$ A country's CA balance = change in net foreign wealth.
$= Y - (C + I + G)$ CA surplus, net foreign wealth increasing, vice versa.

National Saving: in a closed economy, $S = I$. A closed economy can only increase wealth by accumulating capital. $S = Y - C - G$ but as $Y = C + I + G$ and $I = Y - C - G$, $S = I$

In an open economy, $S = I + CA$.

Private: $S^p = Y^d - C = Y - T - C$

Government saving: $S^g = T - G$

Note: $S = Y - C - G = (Y - T - C) + (T - G) = S^p + S^g$

Balance of Payments Accounts: composition of CA balance. It keeps track of payments to and its receipts from foreigners. Any transaction resulting in a receipt from foreigners is a credit. Any payment to foreigners is a debit. Note: current account + capital account = financial account. 3 broad accounts:

1. Current account: accounts for flows of goods and services (imports and exports)
2. Financial account: accounts for flows of financial assets (financial capital)
3. Capital account: flows of special categories of assets (capital)—typically nonmarket, non-produced, or intangible assets like debt forgiveness, copyrights and trademarks.

	Credit	Debit
E.g. Fax Machine Purchase (US import): current account		1000
Sale of bank deposit by Citibank (US asset sale): financial account	1000	

More specifically:
Current account: imports and exports; merchandise, services, income receipts.
Current account: net unilateral transfers; gifts, transfers across countries that do not purchase a good or service nor serve as income for goods and services produced.
Capital account: records special transfers of assets, but minor in US or Australia.
Financial account: the difference between sales of domestic assets to foreigners and purchases of foreign assets by domestic citizens.
inflow: foreigners loan to domestic citizens by buying domestic assets: credit (+)
outflow: domestic citizens loan to foreigners by buying foreign assets: debit (–)

Lecture 2: Exchange Rates and the Foreign Exchange Market: an asset approach

Direct quote: foreign currency per unit of domestic currency
Indirect quote: domestic currency per unit of foreign currency. We use this.
E = AUD/USD; units of AUD per foreign currency. Once the money prices of goods are expressed in a common currency, relative prices can be computed.

e.g £50. If E = \$1.5/£, £50 * \$1.5/£ = \$75
If E = \$1.25/£, £50 * \$1.25/£ = \$62.50 E↓, domestic currency appreciates
If E = \$1.75/£, £50 * \$1.75/£ = \$87.50 E↑,domestic currency depreciates

Depreciation is a decrease in the value of a currency relative to another currency. A depreciated currency is less valuable and can be exchanged for a smaller amount of foreign currency. It makes domestic goods cheaper for foreigners. E.g. \$1/€ to \$1.20/€. The Euro has appreciated relative to the dollar. Imports are more expensive and exports cheaper. Note that domestically produced goods are cheaper.

Appreciation is an increase in the value of a currency relative to another currency. An appreciated currency is more valuable and therefore can be exchanged for a larger amount of foreign currency. It makes goods more expensive for foreigners. E.g. \$1/€ to \$0.90/€. The Euro has depreciated relative to the dollar. Imports are cheaper and exports more expensive. Note that domestically produced goods are also more expensive.

e.g. \$1.25/£; jeans=\$45, sweater=£50
£50 * \$1/25/£ = \$62.50.
Relative price of IM (sweater) in terms of EX (jeans) = \$62.5/sweater / \$45/jeans = 1.39
Therefore, 1 sweater can buy 1.39 jeans.

Appreciation of a country's currency raises the relative price of its exports and lowers the price of its imports. Depreciation lowers the relative price of a country's exports and raises the relative price of its imports.

Foreign Exchange Markets
Set of markets where foreign currencies and other assets are exchanged for domestic ones. Most transactions involve U.S. dollars (vehicle currency). The participants include:
(a) Commercial banks and other depository institutions where transactions involve buying/selling of deposits in different currencies for investment purposes, (b) Non-bank financial institutions; corporations (mutual funds, hedge funds, securities firms, insurance companies, pension funds) may buy/sell foreign assets for investment, (c) Non-financial businesses conduct foreign currency transactions to buy/sell goods, services and assets, (d) Central banks: conduct official international reserves transactions.

We assume the Foreign Exchange Markets are efficient. The integration of financial markets (due to technology) implies that there can be no significant differences in exchange rates across locations (no arbitrage opportunity). If there was arbitrage, you could buy at low price and sell at higher price for a profit. If the euro were to sell for \$1.1 in New York and \$1.2 in London, could buy euros in New York (where cheaper) and sell them in London at a profit.

Spot rates: exchange rates for currency exchanges "on the spot" or when trading is executed in the present. Forward rates: exchange rates for currency exchanges that will occur at a