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Notes – Topic 14

Topic 14: International Finance

I. Exchange Rates
  a. Most important international price for any nation.
  b. Price of one unit of currency in terms of some other currency.
  c. Examples
    i. $1 = ¥120
    ii. ¥1 = $(1/120) ~= $0.0083
    iii. $1 = €1.08
    iv. €1 = $(1/1.08) ~= $0.92
  d. Appreciation → Currency *gains* value in terms of other currency.
  e. Depreciation → Price of currency decreases (*loses* value in terms of other currency).
  f. To say the dollar has appreciated in terms of the yen means the yen has depreciated in terms of the dollar.
  g. Relationship between exchange rate and trade balance
    i. Trade Balance → NX = (X – M)
    ii. When a currency appreciates, imports become cheaper.
    iii. When a currency appreciates, exports become more expensive (in terms of the importing currency).
    iv. Example
      1. Start with $1 = ¥120
      2. Appreciation to $1 = ¥130
      3. To maintain the same revenue, exporters must raise their prices in terms of yen so their profits in *dollars* (what matters) are the same.
      4. Before Appreciation of Dollar: $P_{\text{US COMPUTER}}$ = $1000 = ¥120,000
      5. After Appreciation of Dollar: $P_{\text{US COMPUTER}}$ = $1000 = ¥130,000
      6. Before Depreciation of Yen: $P_{\text{JAPENESE CD PLAYER}}$ = ¥12,000 = $100
      7. After Depreciation of Yen: $P_{\text{JAPENESE CD PLAYER}}$ = ¥12,000 ~= $92.30
    v. When the exchange rate of the dollar increases, US exports become more expensive and US imports become cheaper.
    vi. As $P_{\text{US EXPORTS IN YEN}}$ increases, US exports decrease.
    vii. As (X - M) decreases, GDP (= AD) falls. Y = C + I + G + (X- M)
    viii. Conclusion: Increases in the exchange rate (appreciation) tends to reduce net exports and drag down GDP.
    ix. Depreciation of currency tends to increase net exports and boost GDP.
    x. Tradeoff between strength of currency and trade balance.
    xi. Very important relationship for policy makers.
      1. When economy is slumping, can reduce the currency's value. Competitive devaluation.
      2. Strategy *can* work but not always.
      3. Boost one nation's net exports by reducing another's. Trade partners get unhappy.
  h. What determines the exchange rate?
    i. Just a price! Can be explained with supply and demand
    ii. Affected by everything affecting either the supply or demand curves (a shift in either can push the price of money up or down).
    iii. Factors affecting demand
      1. Demand for *goods*. If we want more Japanese cars we will need more yen to buy them with.
      2. Demand for *financial assets* (stocks, bonds). To buy more stocks, need more currency. This is far more important than goods.

3. When interest rates rise, exchange rate rises. It makes stocks and bonds more attractive .

iv. Factors affecting supply
   1. Not going into detail.
   2. Depends partly on monetary policy and partly on net savings.
   3. Important thing is the demand curve.

v. Dollar appreciating in terms of one currency but depreciating in terms of another.
   1. Happens all the time!
   2. Average exchange rate can be considered
   3. Trade weighted exchange rate → Average rate in terms of all other currencies weighted by the amount of commerce undertaken with each.