

# ECO 403 – L0301

## Developmental Macroeconomics

---

### Lecture 4

## The Price and Value of the Exchange Rate

# The Importance of the Exchange Rate

- The ***exchange rate*** will be defined as the ***price*** of one unit of ***foreign*** currency expressed in terms of ***domestic*** currency
- The ***exchange rate*** determines the access of ***efficient*** domestic firms to domestic and world ***markets***
  - It allows ***access*** to demand
- Therefore, the ***exchange rate*** is the most strategic macroeconomic ***price*** for economic ***development***
  - ***Imports*** and ***exports*** depend on the exchange rate
  - But so do real ***wages***, the ***inflation*** rate, ***investment*** opportunities, and ***savings***

# The Importance of the Exchange Rate (cont'd)

- **Orthodox** economists assume that the exchange rate oscillates around its long-run **equilibrium** level
- **Keynesian** economists acknowledge short-run exchange rate **volatility**
  - They also accept that these temporary misalignments may cause currency **crises**
  - But an overvaluation will not remain in the long run and thus it will not affect economic **growth**
- **Developmental macroeconomics** believes that exchange rate **misalignments** and **volatility** are not limited to the short run
  - There is a tendency to **cyclical** and **chronic** overvaluation of developing countries' currencies

# Exchange-Rate Regimes

- Exchange-rate options are usually presented in the binary form of either ***fixed*** or ***floating***
  - But most exchange rates are ***managed***
  - The degree of management varies although governments tend to deny having an ***exchange-rate*** policy
- But a clear ***exchange-rate*** policy that aims to keep the exchange rate floating around its ***equilibrium*** is crucial
  - Countries need to ***neutralize*** the tendency to ***cyclical*** and ***chronic*** overvaluation of their currencies
- Cyclical and chronic ***overvaluations*** can be explained in the context of both ***fixed*** and ***floating*** exchange rate regimes
  - Speculative nature of capital ***flows*** contributes to create speculative ***bubbles***

# The Impossible Trinity

- **Conventional** economists reject exchange-rate policy by invoking a policy **trilemma** or **impossible trinity**

- Not possible to simultaneously manage the **exchange rate**, implement independent **monetary** policy, and allow free capital **flows**
- Only **two** of these policies are possible simultaneously
- Liberal orthodoxy rules out **exchange-rate** policy

- But there is no reason to reject intermediate **interventions**:

- Limited capital **controls**
- **Management** of the exchange rate within a price range
- Reasonable autonomy of **monetary** policy

- **Neoclassical** economics presumes that capital **flows** should not and could not be **controlled**

# The Long-Run Equilibrium of the Exchange Rate

- According to *conventional* theory, the exchange rate is determined:
  - In the short run, by the *supply* and *demand* for foreign currency
  - In the long run, by the *purchasing power parity (PPP)*
- *Developmental macroeconomics* makes a distinction between the market *price* and the *value* of the exchange rate
  - The market *price* fluctuates around the *value*
- The *value* of the exchange rate is the rate that allows a firm utilizing *state-of-the-art* technology to be *competitive*
  - The term “*equilibrium*” refers to the *value* concept of the exchange rate

# Price and Value of the Exchange Rate

- In the short run, the market **price** of the exchange rate ( $e_m$ ) is determined by the **supply** and **demand** for foreign currency
- In the long run, the market **price** of the exchange rate is determined by its **value**
  - The **value** of the exchange rate is its long-run equilibrium
- There are **three** possible long-run equilibria:
  - The **industrial** or **competitive** equilibrium ( $e_{ind}$ )
  - The **current** equilibrium ( $e_{cc}$ )
  - The **foreign debt** equilibrium ( $e_{fd}$ )

# The Industrial or Competitive Exchange Rate

- The *industrial* or *competitive* exchange rate ( $e_{ind}$ ) is the rate that allows a firm utilizing *state-of-the-art* technology to be *competitive*
    - This represents the *value* of the *exchange rate*
  - The *industrial* or *competitive* exchange rate allows the firm to cover its *cost* of production plus a reasonable *profit* rate
  - In the absence of *Dutch disease* and *capital flows*, the market *price* of the exchange rate will fluctuate around this *value*
- The *value* of the exchange rate depends on two main factors:
    - *Technological* changes vis-à-vis the rest of the world
    - Level of real *wages* vis-à-vis those of other countries



# The Determination of the Value of the Exchange Rate

- We have seen that the **value** of the exchange rate changes due to **technological** changes or changes in real **wages** vis-à-vis the rest of the world
- Therefore, the **value** of the exchange rate changes as the **unit labour cost** changes relative to the **unit labour cost** in other countries
- Thus the **competitiveness** of a country and the **motivation** of firms to **invest** depend:
  - In **real** terms, on the comparative index of **unit labour cost**
  - In **monetary** terms, on the **exchange rate**

# A Change in the Value of the Exchange Rate

- If the comparative index of *unit labour cost* increases (i.e., *domestic* real wages increase relative to *foreign* wages), then
  - The real *value* of the *exchange rate* decreases
  - That is, the real *value* of the domestic *currency* rises
- At the current *market price* exchange rate there is now an *overvaluation* of the domestic *currency*
  - Therefore, the country loses *competitiveness*
- Of course, if real *wages* rise as a result of *productivity* increases, then there will be no change in *unit labour cost* and thus no *competitiveness* loss

# The Current Exchange Rate

- The **current** exchange rate ( $e_{cc}$ ) is the rate that balances the **current account** of the country
  - This represents the long-run **equilibrium** in the absence of **capital** flows
- The **industrial** or **competitive** exchange rate ( $e_{ind}$ ) allows efficient firms to cover their **cost** of production plus a reasonable **profit** rate
- In the absence of **Dutch disease**, the **current** and **industrial** exchange rates are equal
- For an economy facing **Dutch disease**, the **current** exchange rate is lower than the **industrial** exchange rate
  - The domestic currency is **overvalued** and efficient firms utilizing **state-of-the-art** technology lose **competitiveness**

# The Foreign Debt Exchange Rate

- Advocates of free *capital* mobility believe that *foreign savings* will contribute to a country's economic *growth*
    - In their view, *foreign* savings will not crowd out *domestic* savings
  - Thus for those who believe that a country should promote *growth* cum *foreign savings*, the equilibrium exchange rate is what we will call the *foreign debt* exchange rate ( $e_{fd}$ )
    - At this rate, the *current account* deficit would not increase the country's *foreign debt/GDP* ratio
- If there are capital *inflows*, the *foreign debt* exchange rate ( $e_{fd}$ ) would be lower than the *industrial* exchange rate ( $e_{ind}$ )
    - The domestic *currency* would thus be *overvalued* and efficient firms would be losing *competitiveness*

# National Development Strategy

- Developing countries that adopt a national **development** strategy and **grow** fast with **stability** always:
  - **Manage** the exchange rate
  - Avoid current account **deficits**
- However, it's considered "**normal**" for developing countries to **grow** with **financing** from rich countries
- The **current account** equilibrium ( $e_{cc}$ ) exchange rate avoids foreign **indebtedness**
  - But it could imply **Dutch disease**
- In order to **grow** rapidly and industrialize, countries should aim to achieve the **industrial** equilibrium exchange rate ( $e_{ind}$ )
  - They must neutralize the **Dutch disease**

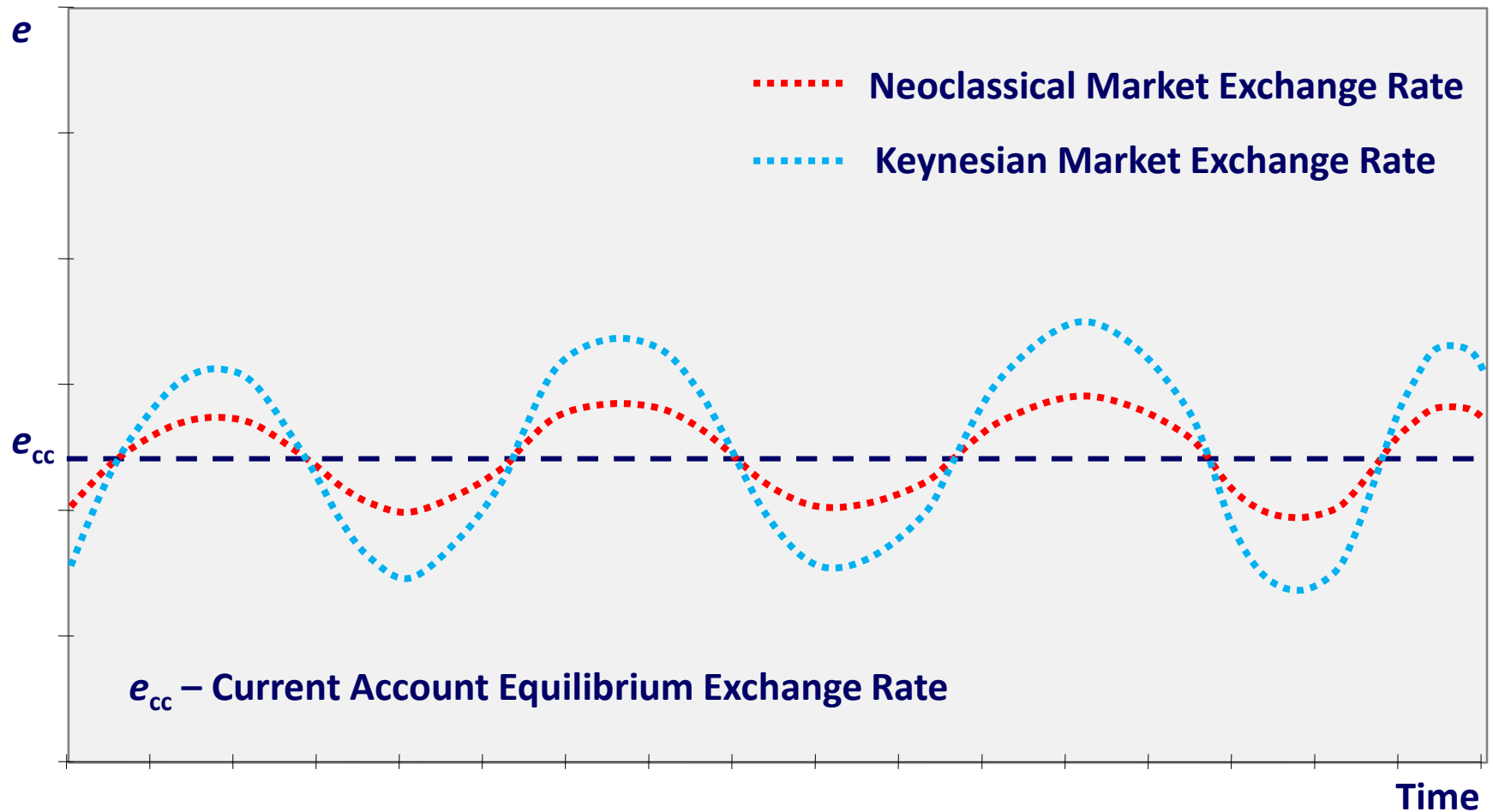
# The Competitive Exchange Rate

- An *industrial* or *competitive* exchange rate ( $e_{ind}$ ) does not imply an *undervaluation* of the domestic currency
  - It's an *equilibrium* exchange rate
  - It's an *equilibrium* because efficient firms can *compete* and continue to *invest*
- An *industrial* or *competitive* exchange rate allows efficient firms to *access* domestic and foreign markets
- An *industrial* or *competitive* exchange rate:
  - Encourages export-oriented *investment*
  - Avoids *unfair* competition from foreign firms
  - Increases *domestic savings*

# Trajectory of the Market Exchange Rate

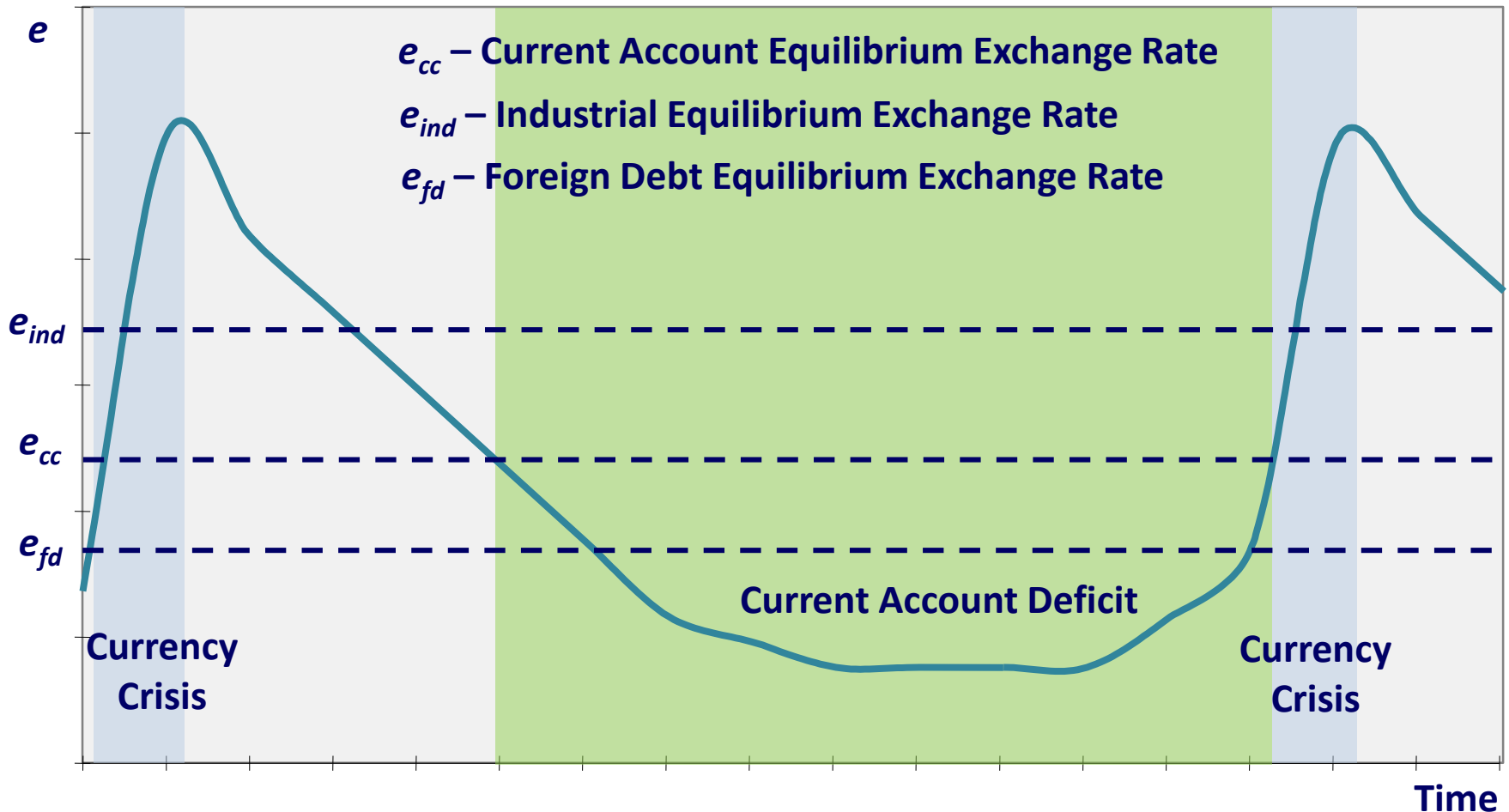
- For **conventional** economics, the **market** exchange rate ( $e_m$ ) fluctuates around the **current** equilibrium exchange rate ( $e_{cc}$ )
  - **Neoclassical** theory: It floats **smoothly** around the equilibrium
  - **Keynesian** theory: It follows a more **volatile** pattern around the equilibrium
- But in developing countries, the domestic currency tends to **appreciate** following a **cyclical** trajectory
  - Sudden **depreciation** during a currency **crisis**
  - Then gradual **appreciation** causing a deficit in the current account

# Conventional Trajectory of the Market Exchange Rate





# The Cyclical and Chronic Tendency to Currency Overvaluation



# The Exchange Rate and Economic Growth

- The *investment* rate is the determining factor in the process of economic *growth*
  - *Investment* increases with *aggregate demand* as long as the expected rate of *profit* exceeds the *opportunity cost* of capital
- *Investment* may be oriented to *domestic* or *foreign* markets
- The existence of *demand* is necessary but not sufficient for *investment* to materialize
  - There must be *access* to demand as well
- An *overvalued* currency may prevent *access* to demand
  - *Efficient* firms will be kept out of the *market*

# Cyclical and Chronic Overvaluation of the Currency

- Currency **overvaluation** is not only **cyclical** but **chronic** as well
  - **Overvaluation** lasts much longer than the brief period when it might be undervalued
- There is a direct **relationship** between the level of the **exchange rate** and the **current account** deficit or surplus
  - To infer a **cause-effect** relationship we must identify the variable affected by an economic policy decision
- Suppose the **currency** appreciated and the **current account** deficit increased
  - It could be due to a decrease in autonomous **exports**
  - It could be due to an increase in capital **inflows**

# Causes of Overvaluation of the Currency

- Currency *overvaluation* may have *structural* or *policy* causes
- The main *structural* cause is the *Dutch disease*
  - *Wages, productivity, and profit* rate are structural factors determining the exchange rate
  - *Ricardian rents* are the fourth factor determining the exchange rate
- The main *policy* causes are:
  - Excessive capital *inflows*
  - The use of the exchange rate as an anchor to flight *inflation*
  - Chronic *budget deficits* requiring foreign financing