

ECO 406

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 Volatility of the Exchange Rate

- Orthodox *neoclassical* economists assume that the exchange rate *smoothly* 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

Different 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

- **Neoclassical** 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 *neoclassical* 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 account** 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**

Unit Labour Costs and Competitiveness



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 ***value*** of the ***exchange rate*** decreases
 - That is, the ***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 Account Exchange Rate

- The **current account** 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 account** and **industrial** exchange rates are equal
- For an economy facing **Dutch disease**, the **current account** 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 (i.e., $\dot{f} = \dot{y}$)
- 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*

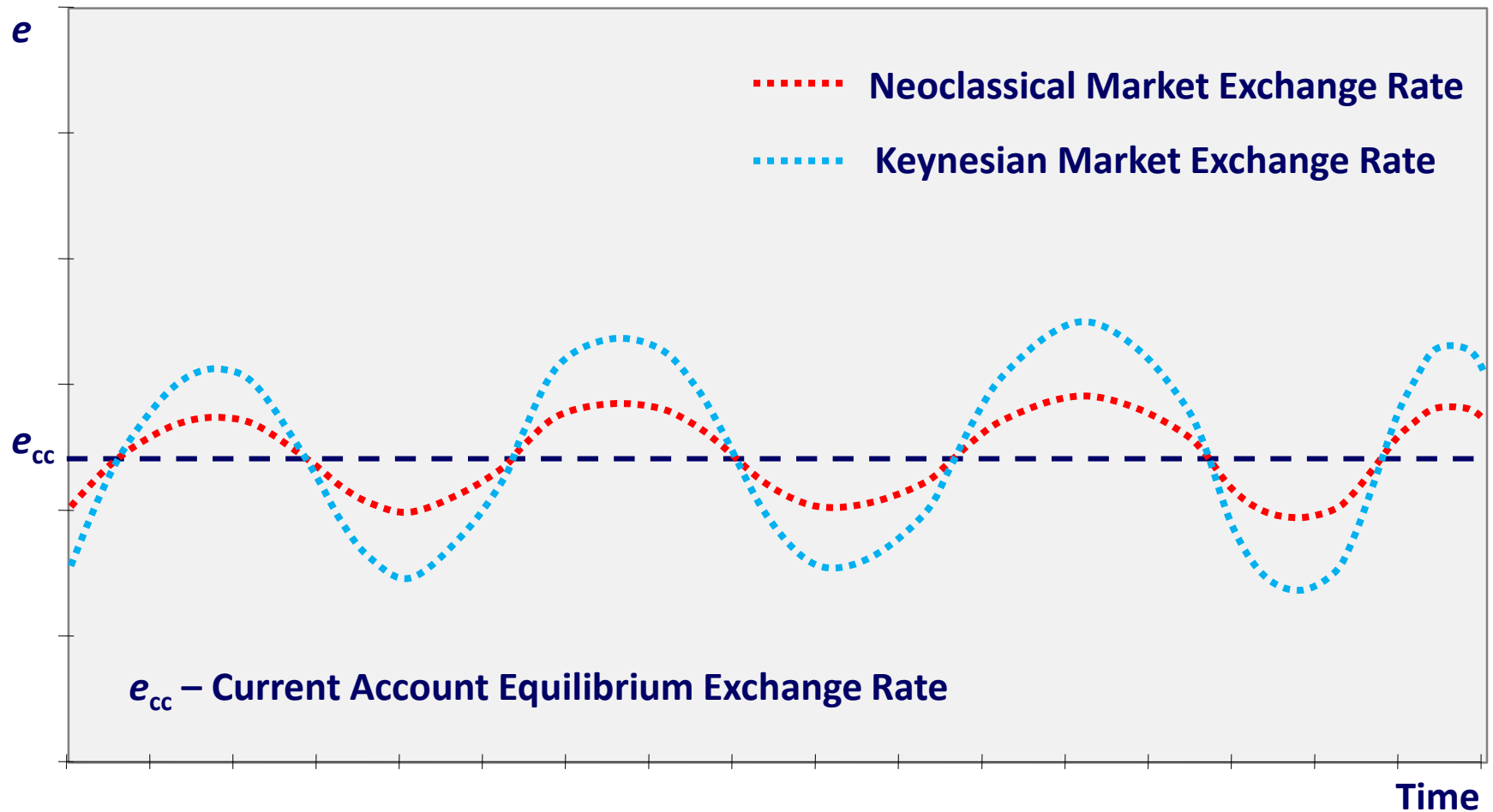
The Competitive Exchange Rate

- 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*

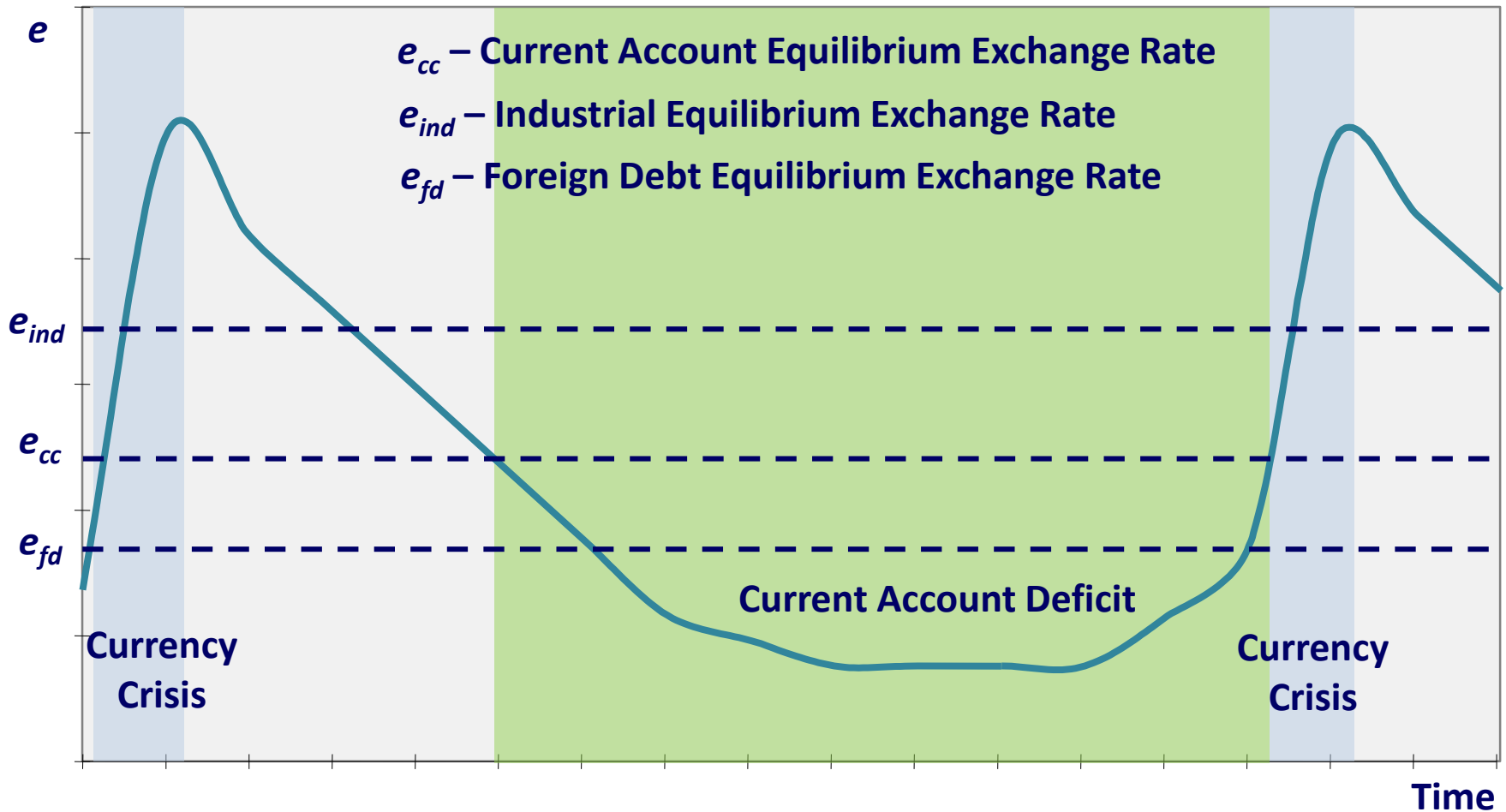
Trajectory of the Market Exchange Rate

- For **conventional** economics, the **market** exchange rate (e_m) fluctuates around the **current account** 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 an eventual 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