## **Exchange Rates**

4.5







### Do you have any experience using an exchange rate? What does it mean to say one currency is stronger than another?

### Imagine you are on vacation sitting on a nice beach in a tropical country. You've been eating and drinking by the water all day. Here comes the bill, how do you pay?

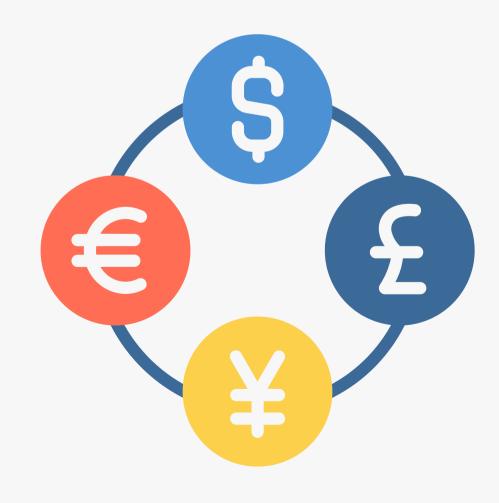




### Definition

### **Exchange Rate**

### The value of one currency expressed in terms of another currency.



### Definition

### Foreign Exchange Market (FOREX)

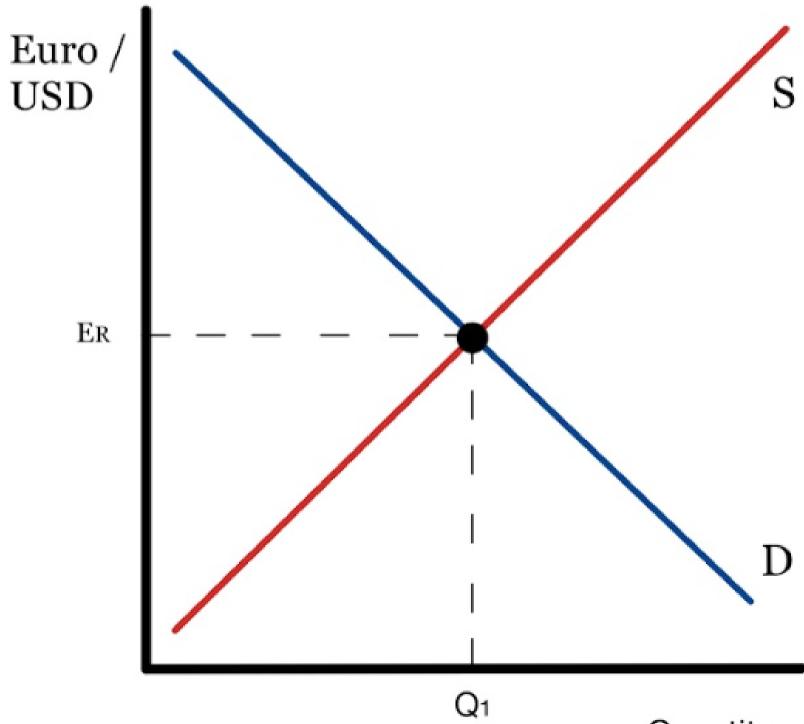
Marketplace for exchanging currencies around the globe.





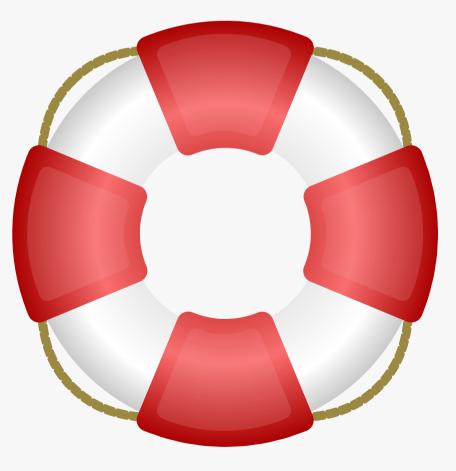
Example

Market for USD



Quantity of USD

## **Floating Exchange Rates**



## Floating Exchange Rate

An exchange rate system where the exchange rate is determined solely by the market

demand and market supply of the currency in the foreign exchange market without any

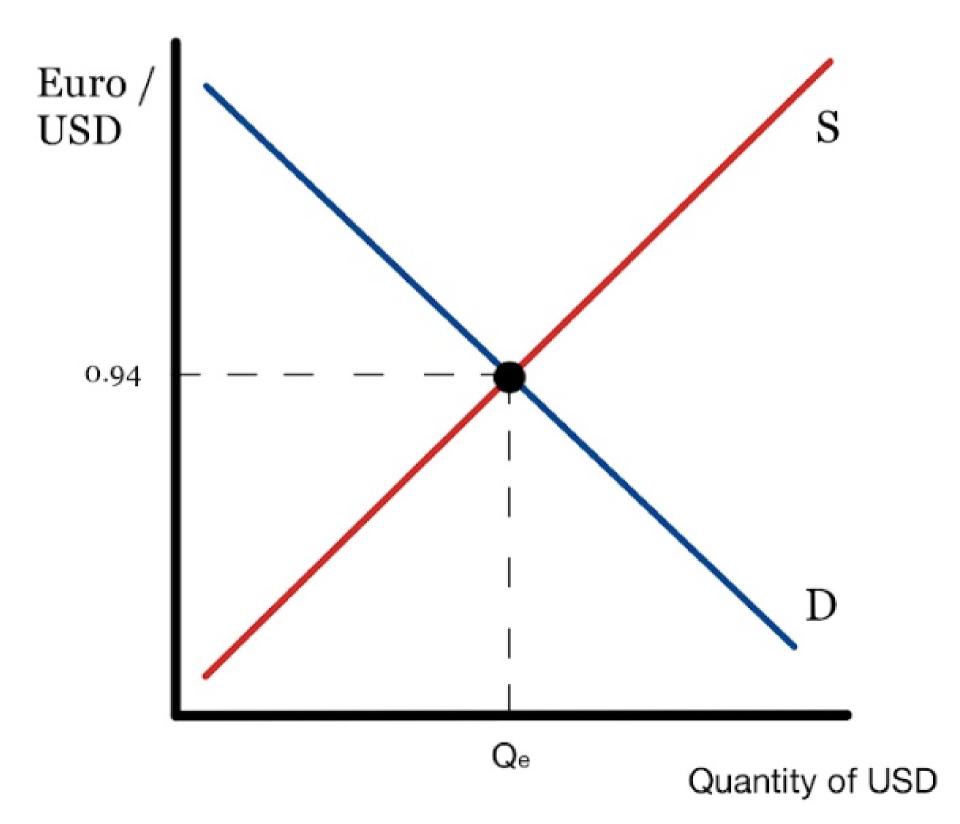
central bank intervention.





## **Floating Exchange Rate**

Market for USD





### Changes in Supply/Demand of Currency



# Causes of Change in Demand of Currency

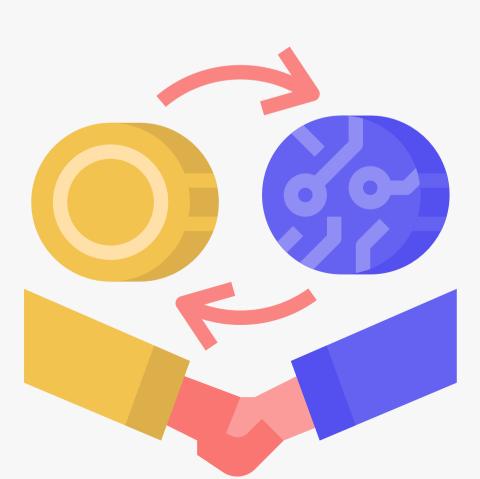
### **Example: USA**

- Foreign demand for US exports
- People who desire to invest in the US (FDI & Interest Rates)
  - Tourists visiting the US
  - Speculation in the FOREX market
    - Central bank intervention









# Causes of Change in Supply of Currency

### **Example: USA**

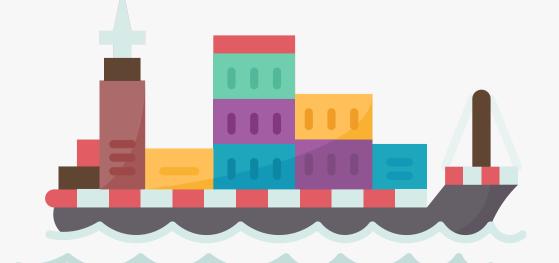
Domestic demand for foreign imports

People who desire to invest outside the US (FDI & Interest Rates)

US Tourists visiting Thailand

Speculation in the FOREX market

Central bank intervention

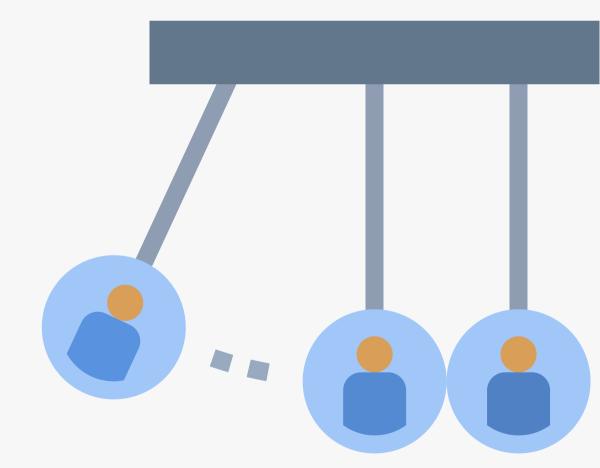




## **Complete List of Influences**

- Foreign demand for exports
- Domestic demand for imports
- Inward/outward foreign direct investment (FDI)
- Inward/outward portfolio investment
- Remittances
- Speculation
- Relative inflation rates
- Relative interest rates
- Relative growth rates
- Central bank intervention







### In a floating exchange rate system ...

### **Appreciation**

When the price of a currency increases in a floating exchange rate system.

Depreciation

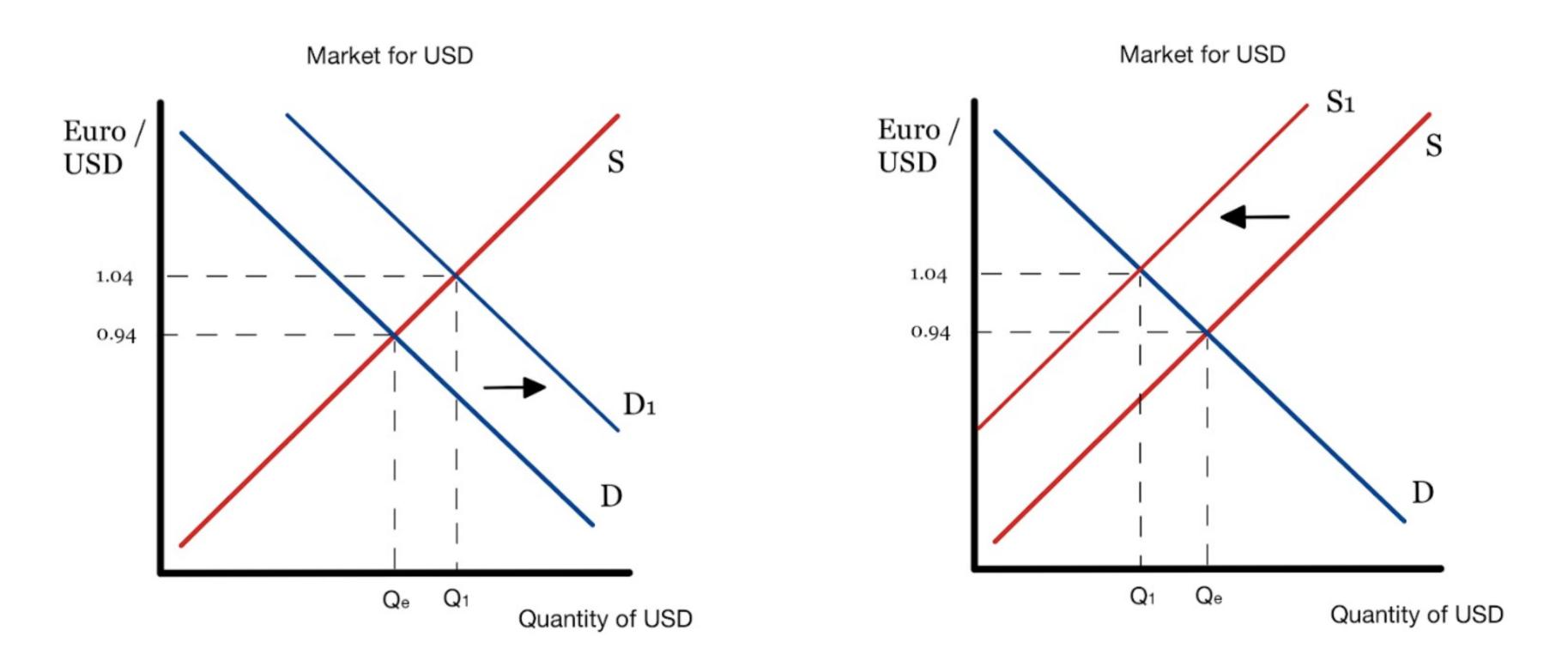
A decrease in the value of a currency in terms of another currency in a floating or

managed exchange rate system.

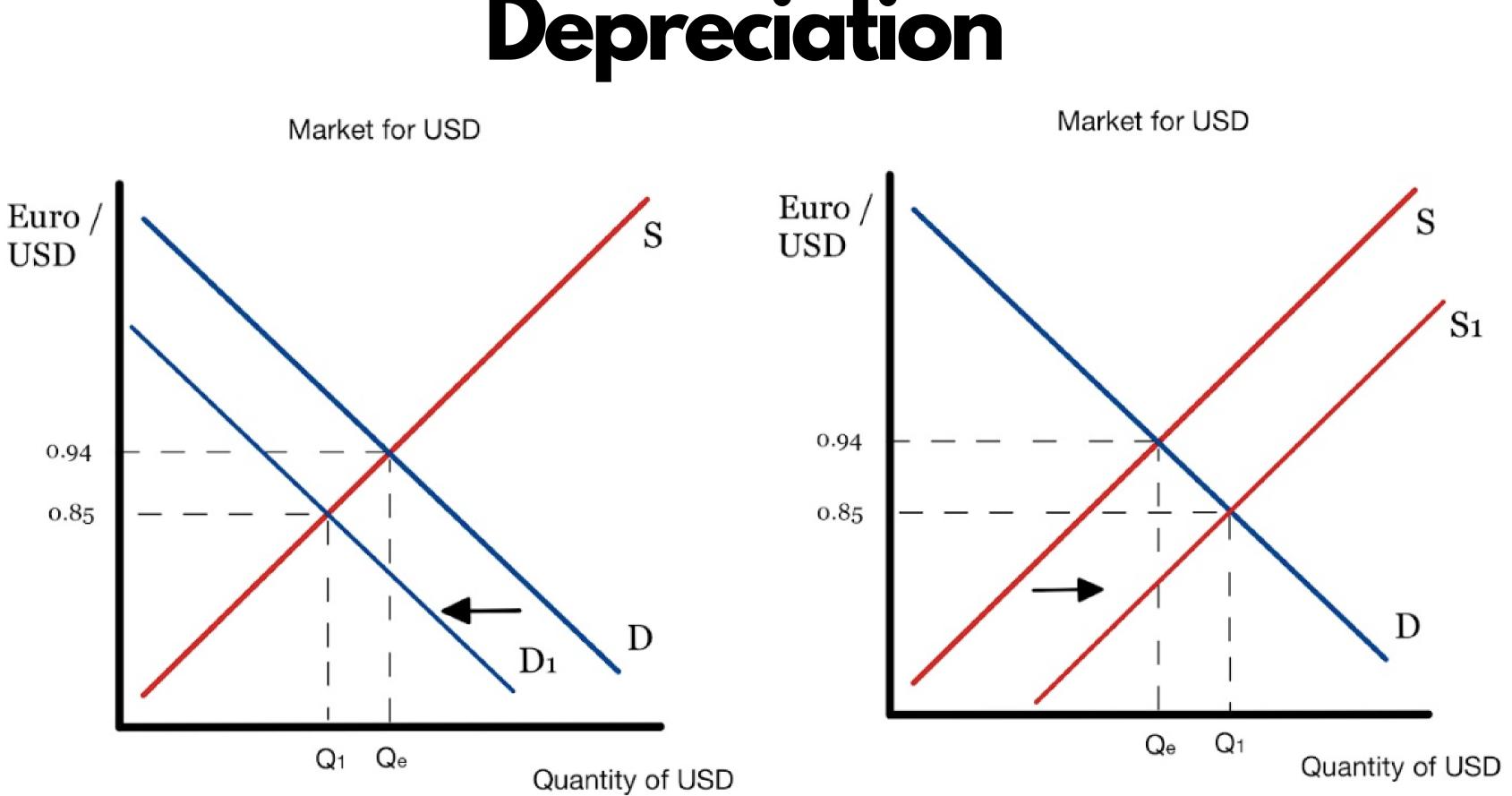




## Appreciation



### Depreciation



## Most Important

### When one country DEMANDS more of a currency, they must SUPPLY their own in

the Forex market.

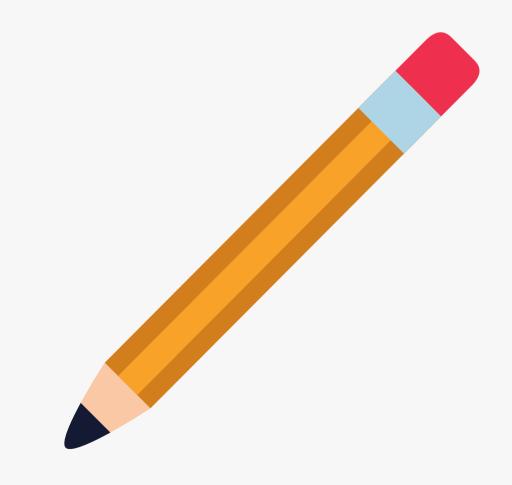




## Example

Draw a USD Exchange Rate diagram comparing USD and Euro. Draw the impact of

**European citizens visiting the USA on vacation.** 



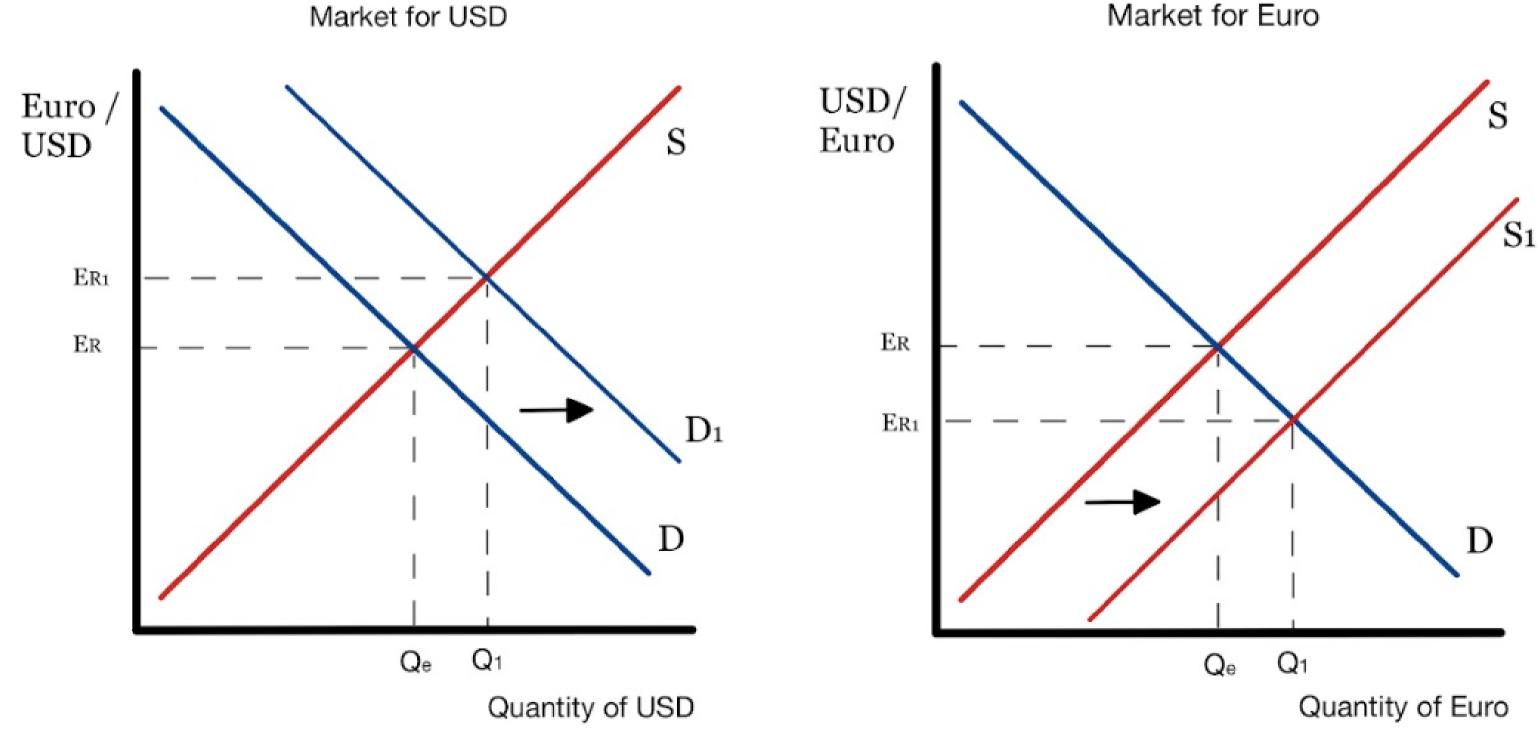






### Draw a USD Exchange Rate diagram comparing USD and Euro. Draw the impact of

### **European citizens visiting the USA on vacation.**



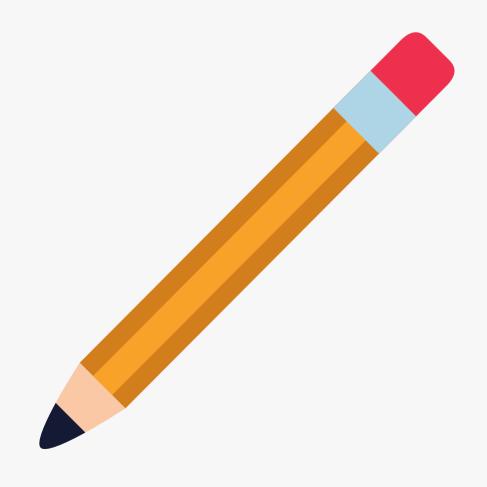
Market for Euro



### Draw an exchange rate diagram for British Pounds and Mexican Pesos. Draw the

### effect of cheaper Mexican goods for export.



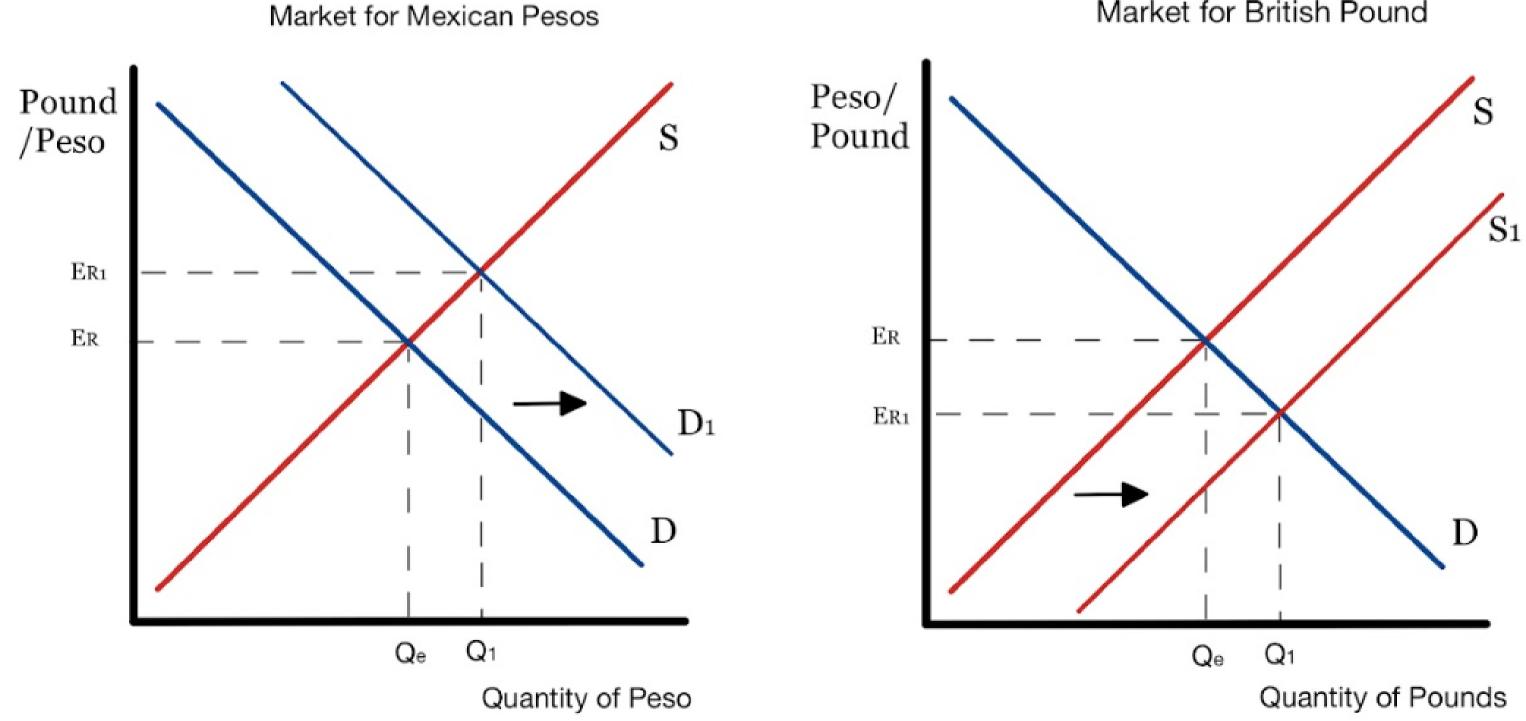




## Example

### Draw an exchange rate diagram for British Pounds and Mexican Pesos. Draw the

### effect of cheaper Mexican goods for export.

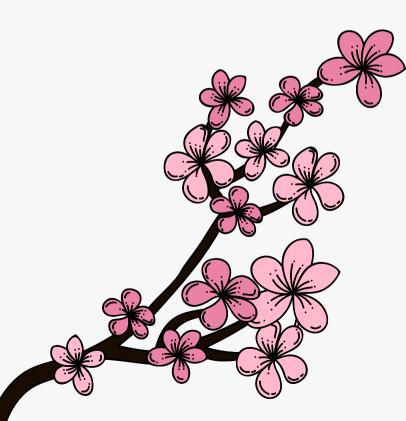


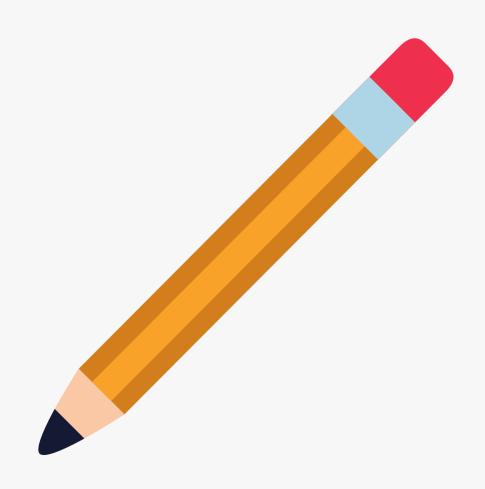
Market for British Pound



### Draw an Exchange Rate diagram comparing the Japanese Yen and Thai Baht. Draw

### the impact of an increase in Japanese interest rates.



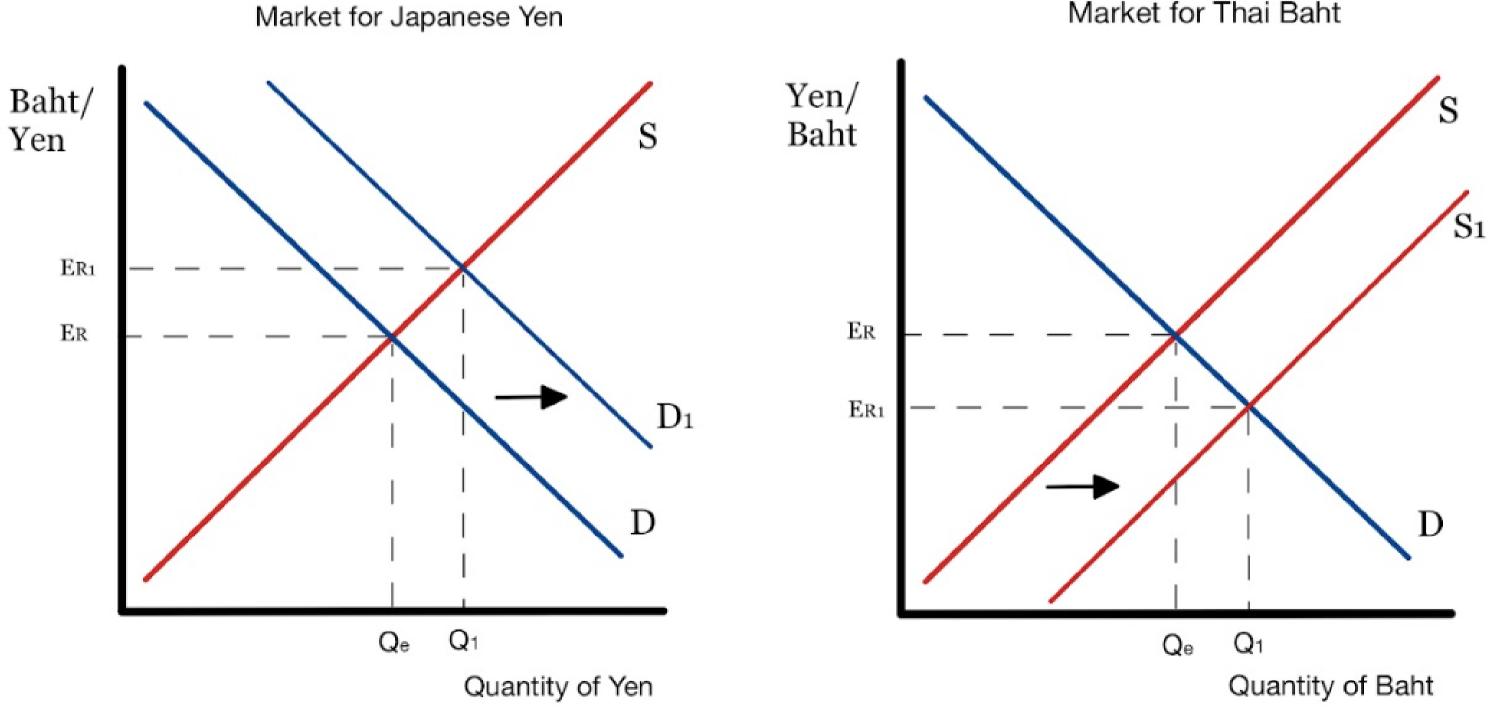




## Example

### Draw an Exchange Rate diagram comparing the Japanese Yen and Thai Baht. Draw

### the impact of an increase in Japanese interest rates.



Market for Thai Baht

### Calculating the Price of a Good in Different Currencies



### Calculations

Assume the exchange rate of the Euro and Indian Rupee is 1 Euro = 83 Rupee

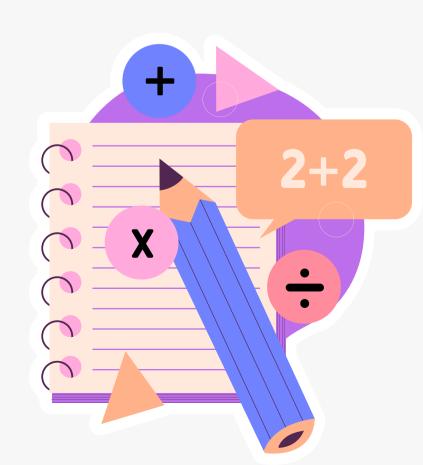
1. How much does a 3 Euro sandwich cost in Rupees?

2. How much does a 28 Euro car wash cost in Rupees?

3. How much is a 1400 Rupee taxi ride cost in Euros?

4. How much is a 800 Rupee museum ticket cost in Euros?





### Calculations

Assume the exchange rate of the Euro and Indian Rupee is 1 Euro = 83 Rupee

1. How much does a 3 Euro sandwich cost in Rupees? 249 Rupees

2. How much does a 28 Euro car wash cost in Rupees? 2324 Rupees

3. How much is a 1400 Rupee taxi ride cost in Euros? 16.87 Euros

4. How much is an 800 Rupee museum ticket cost in Euros? 9.64 Euros



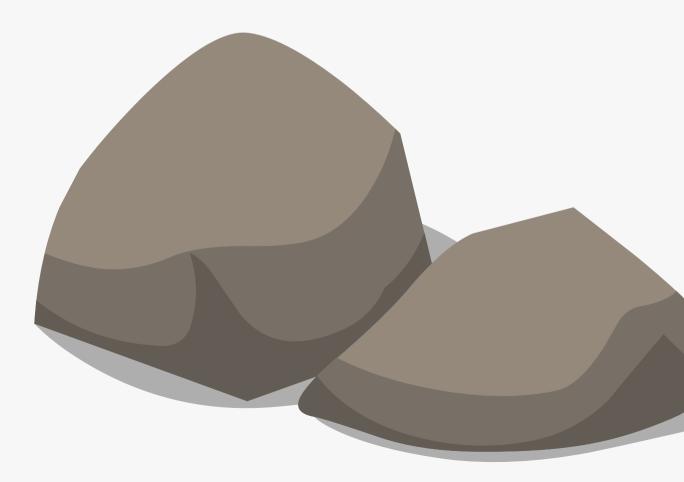
### Consequences of Change in Exchange Rate



# **Consequences of Change in Exchange Rate**

- The inflation rate
  - An increase in inflation leads to higher costs of resources or deflation could make goods cheaper.
- Economic growth
  - Changes in exchange rate impact imports/exports.
- Unemployment
  - As currencies appreciate, exports become less desirable and therefore potential increase in unemployment.
- The current account balance
  - Outflow/Inflow of money affects imports/exports
- Living standards
  - Countries overly reliant on tourism or trade can experience significant impacts on standards of living.

## Fixed Exchange Rates





## Fixed Exchange Rate

An exchange rate system where the exchange rate is fixed, or pegged, to the value of

another currency (or to the average value of a selection of currencies) and maintained

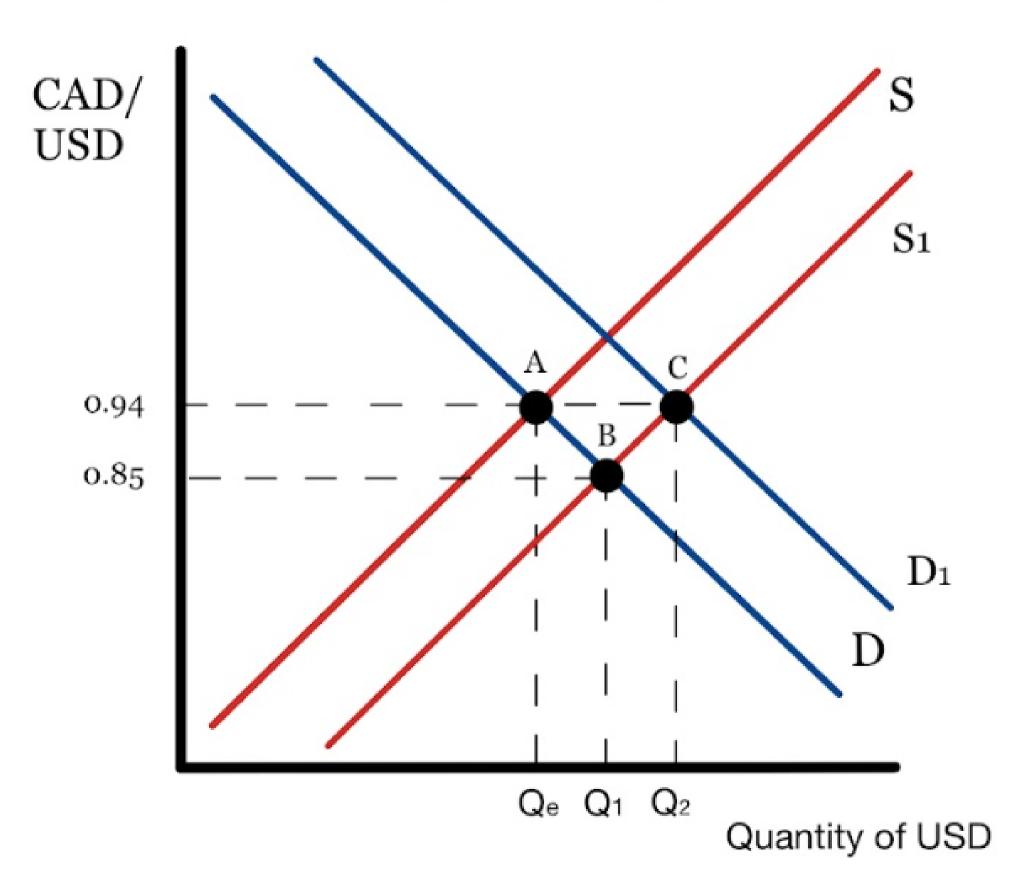
there with appropriate central bank intervention.





## Fixed Exchange Rate

Market for USD





### **Revaluation & Devaluation**

### In a fixed exchange rate system...

### **Revaluation**

An increase in the value of a currency in a fixed exchange rate system.

### **Devaluation**

A decrease in the value of a currency in a fixed exchange rate system.

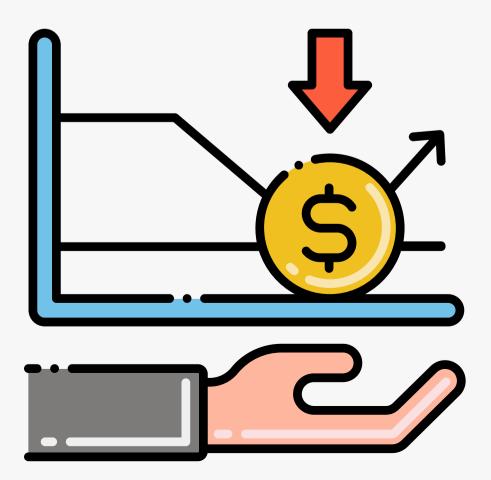


## Managed Exchange Rates



## Managed Exchange Rate

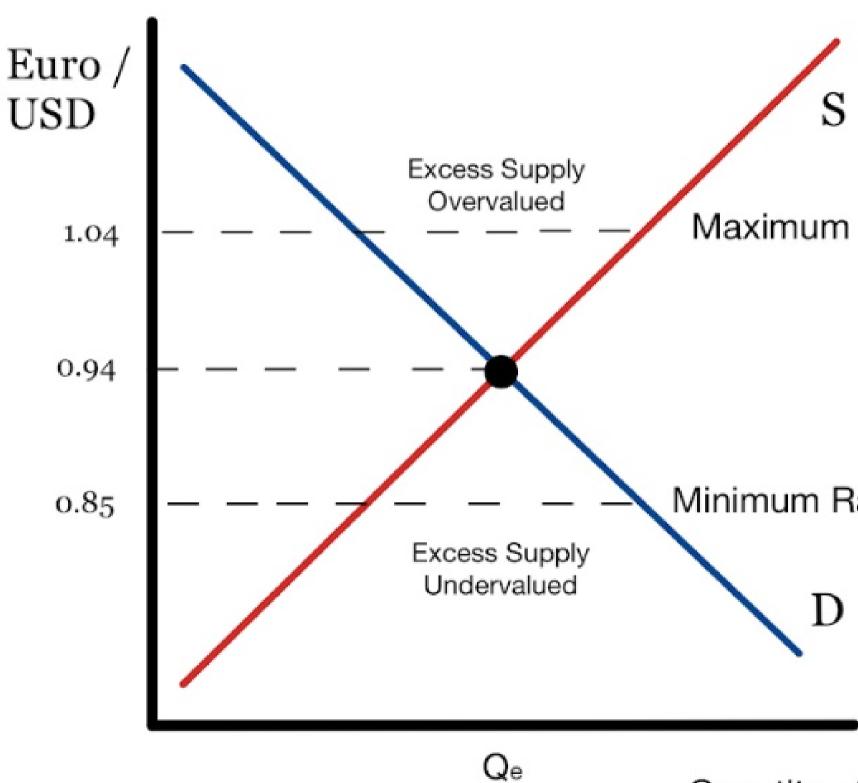
- An exchange rate that floats in the foreign exchange markets but is subject to
- intervention from time to time by domestic monetary authorities, in order to prevent
  - undesirable movements in the exchange rate.





### **Overvalued and Devalued Currencies**

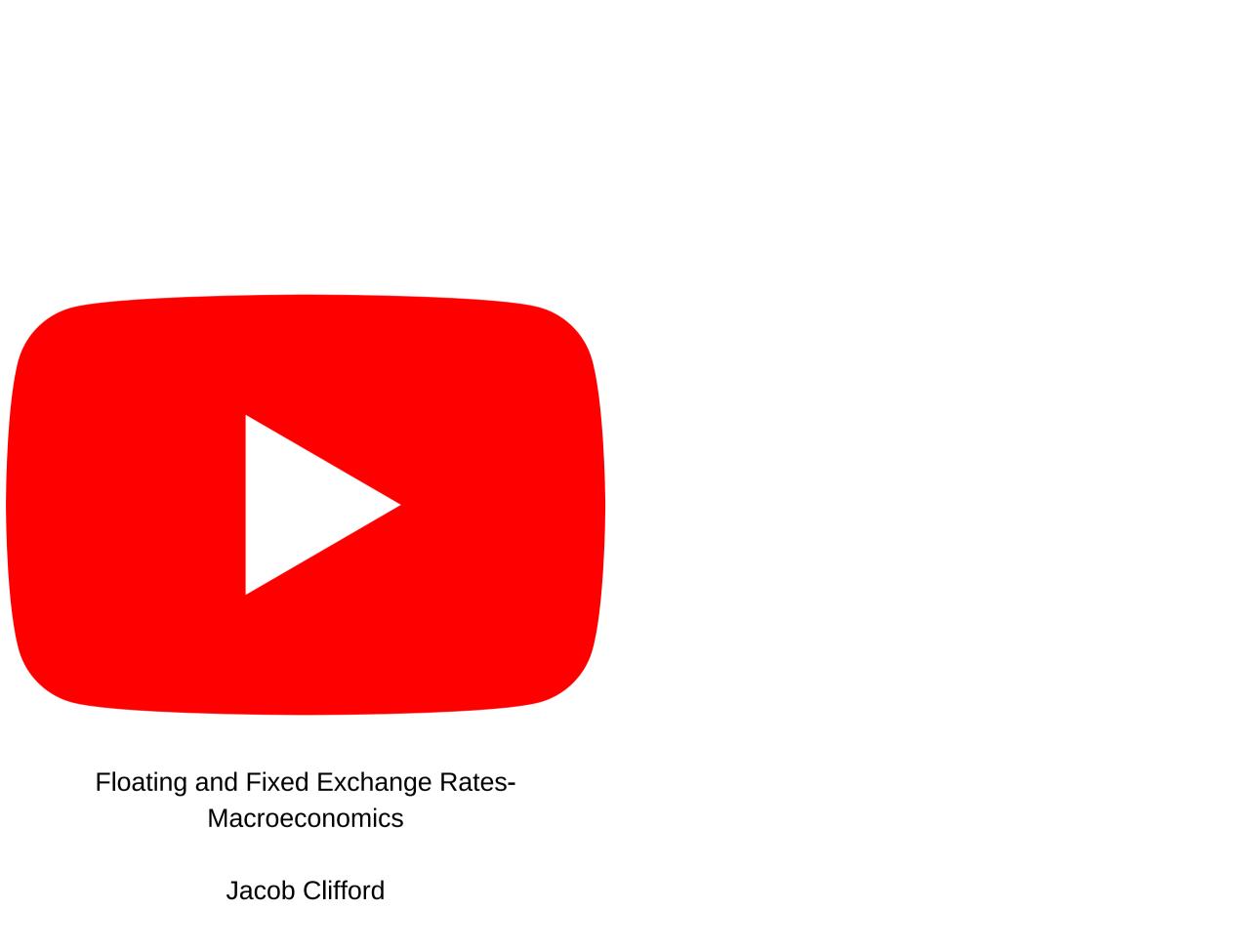
Market for USD



Maximum Range

Minimum Range

Quantity of USD



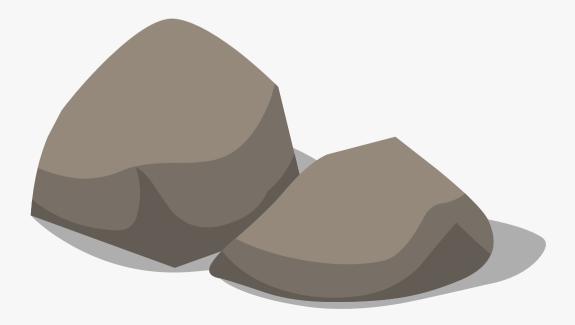
## Fixed Versus Floating Exchange Rate Regimes

(HL only)





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## **Pros and Cons**

**Fixed Exchange Rate Regime** 

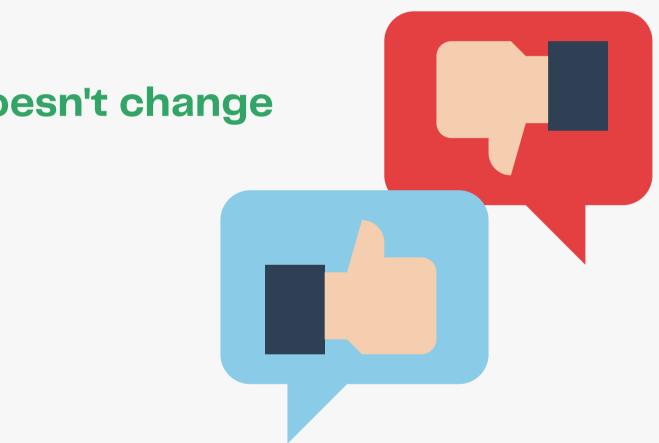
## **Economic stability**

Ease of policy and legislation as the exchange rate doesn't change

## **Difficult and time consuming to adjust**

**Requirement of currency reserves to reset the exchange rate** 





## **Pros and Cons**

**Floating Exchange Rate Regime** 

**Easily adjustable (automatic)** 

**No requirement of currency reserves** 

## Susceptible to speculation and large exchange rate swings

Policies and Legislation may be influenced by current exchange rate.

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# Practice Question





## Paper 2

## N15/3/ECONO/HP2/ENG/TZ0/XX

#### Gulf banks debating currency peg to US dollars

- O
- 0 2013. Inflation is at the highest level since 2009.
- Θ foreign currency.
- 4 booming and experiencing high inflation.
- 6 change a fixed currency regime is when there is no pressure.
- 6 higher inflation

Qatar's central bank suggests some Gulf States\* should consider moving from a fixed exchange rate, with their currencies pegged to the US dollar, to a floating exchange rate system. Bankers and economists throughout the region are debating this issue.

Qatar's central bank governor said the country planned no change to its peg to the dollar, with the exchange rate now fixed at QAR3.64/US\$1. However, "with increasing integration in international trade, services, and asset markets, a higher degree of exchange rate flexibility may become more desirable" he said. Qatar is battling against higher rates of inflation in

Saudi Arabia and the United Arab Emirates (UAE) have pegged their currencies to the dollar for decades. They have been able to do this because their inflation rates have been low and stable, and they have had substantial oil export revenues giving them large reserves of

As a result there has been no need to change official exchange rates, said the chief economist at National Bank of Abu Dhabi: "Fixing the currency gives stability and visibility for business contracts". There are good arguments for pegging the currency to the US dollar. However, it can result in imported inflation from other economies. In 2007, the US was cutting interest rates. This meant that, in order to maintain the fixed exchange rate, the UAE also had to cut its interest rates. This was at a time when the UAE was

Currently there is no pressure on the pegged rate and if necessary a central bank can revalue or devalue its currency when required. It is commonly agreed that the best time to

A senior economist at a commercial bank agrees that the UAE should consider dropping its currency peg to the US dollar and moving to a floating exchange rate for the dirham (the UAE currency). He says that the US dollar's weakness relative to other currencies was a positive stimulus for economic growth. However, growth in the UAE is already quite strong and so having its currency pegged to a weak currency could harm the economy by leading to



## N15/3/ECONO/HP2/ENG/TZ0/XX

- (a) (i) Define the term *fixed exchange rate* indicated in bold in (paragraph <sup>1</sup>).
  - (ii) Define the term *economic growth* indicated in bold in the (paragraph ).
- (b) Using an exchange rate diagram, explain how the United Ara could maintain a fixed value of its dirham to the US dollar if the pressure on the dirham.
- (c) Distinguish between a devaluation and a depreciation of a ci
- (d) Using information from the text/data and your knowledge of e discuss the view that some Gulf States "should consider move exchange rate" to "a floating exchange rate system" (paragrame)

in the text	[2]
he text	[2]
ab Emirates (UAE) there were upward	
	[4]
urrency.	[4]
economics, wing from a fixed	
aph 10).	[8]

 (a) (i) Define the term *fixed exchange rate* indicated in bold in the (paragraph ●).

#### Level

- 0 The work does not reach a standard described by the below.
- Vague definition.
  The idea that a country's currency is fixed by the gove bank).
- 2 Accurate definition. An explanation that a currency's value is fixed against following:
  - the value of another currency
  - · a basket of other currencies
  - gold.
- (ii) Define the term economic growth indicated in bold in the tex (paragraph <sup>(i)</sup>).

#### Level

- 0 The work does not reach a standard described by the below.
- 1 Vague definition. The idea that it is an increase in GDP (output).
- 2 Accurate definition. An explanation that it is the grow

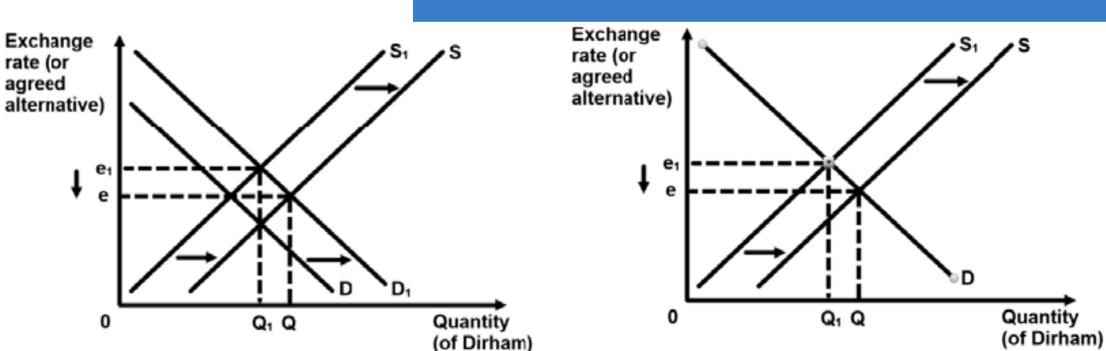
An explanation that it is the growth in the value of real time) or an explanation that it is growth in real GDP (re

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(b) Using an exchange rate diagram, explain how the United Arab Emirates (UAE) could maintain a fixed value of its dirham to the US dollar if there were upward pressure on the dirham.

#### Level

- 0 The work does not reach a standard described by the descriptors below.
- 1 There is a correct diagram or an accurate written response. For drawing a correctly labelled currency diagram showing a fixed exchange rate value, an equilibrium above the fixed value and an increase in the supply curve to return the currency to the fixed value or for explaining that if the currency goes above its fixed value, the central bank (government/UAE) will have to intervene and sell its currency (buy foreign currency) to restore the fixed value of the currency.
- 2 There is a correct diagram and an accurate written response. For drawing a correctly labelled currency diagram showing a fixed exchange rate value, an equilibrium above the fixed value and an increase in the supply curve to return the currency to the fixed value and for explaining that if the currency goes above its fixed value, the central bank (government/UAE) will have to intervene and sell its currency (buy foreign currency) to restore the fixed value of the currency.



### [4]

Marks 0

1 - 2

3 - 4

## Mark Scheme

An alternative correct answer is for the diagram to show a decrease in demand for the dirham to return the currency to its fixed value, with an explanation that the central bank can lower interest rates, making financial investments in the UAE less attractive, thus causing a fall in the demand for the dirham. If correctly explained a diagram showing a decrease in demand should be fully rewarded with a maximum of **[4]**.

Candidates who incorrectly label diagrams can be rewarded with a maximum of [3].

For an exchange rate diagram, the vertical axis may be exchange rate, price of dirham in US\$, US\$/dirham, dirham/US\$, or US dollars per dirham. The horizontal axis should be quantity, or quantity of dirham. A title is not necessary.

#### Distinguish between a devaluation and a depreciation of a currency. (c)

### Level

The work does not reach a standard described by the descriptors below. 0

#### There is limited understanding. 1

A devaluation is the deliberate downward adjustment of the official exchange rate by the central bank (government) to reduce the currency's value in a fixed exchange rate system or in contrast, a depreciation is a fall in the value of a currency due to market forces in a floating exchange rate system.

#### There is clear understanding. 2

A devaluation is the deliberate downward adjustment of the official exchange rate by the central bank (government) to reduce the currency's value in a fixed exchange rate system and in contrast, a depreciation is a fall in the value of a currency due to market forces in a floating exchange rate system.

[4] Marks 0 1-2 3 - 4

Using information from the text/data and your knowledge of economics, discuss (d) the view that some Gulf States "should consider moving from a fixed exchange rate" to "a floating exchange rate system" (paragraph 1).

Responses may include:

definition of floating exchange rate.

Arguments for fixed exchange rate:

- provide greater predictability and certainty for exporters and importers to calculate earnings (paragraph ④)
- creates a stable environment for firms to invest and households to consume due to greater exchange rate certainty
- encourages government policies to maintain low inflation which can be caused by fixing the currency – "inflation rates have been low and stable" (paragraph B)
- can discourage speculation assuming sufficient foreign currency reserves to protect the currency.

Arguments against fixed exchange rates:

- loss of domestic monetary policy freedom if priority is to keep exchange rate fixed then little room to set interest rates to manage AD; was a problem for UAE in 2007 (paragraph ④) when it had to lower interest rates to maintain peg to US dollar
- when the exchange rate is fixed to a currency that is weak, it can lead to imported inflation when the costs of imported resources rise
- low value of US dollar causes relatively cheaper exports and expensive imports hence potential inflationary gap for UAE (paragraph ())
- central bank needs large amounts of foreign reserves to maintain the fixed currency and discourage speculators (paragraph 6) but this is not a problem (currently) for Saudi Arabia and UAE (paragraph €)
- fixing the currency at the most appropriate level is difficult
- can create conflict with trading partners if fixed too low. Copyright Bananaomics

Arguments for floating exchange rates:

- allows current account to be self-correcting
- more freedom to set interest rates and domestic monetary policy
- large amounts of foreign reserves are not required (paragraph **3**).

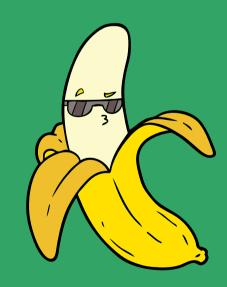
- instability and lack of predictability for firms, consumers, importers and exporters – difficult to plan (paragraph 4)
- governments not required to keep exchange rate fixed, hence there is less incentive for governments to keep inflation in check
- speculative activity can greatly influence the exchange rate.

### [8]

Arguments against floating exchange rates:

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