

L'ÚLTIM DIA DE CLASSE...



**A V U I**

# 1. Taxa d'interès real

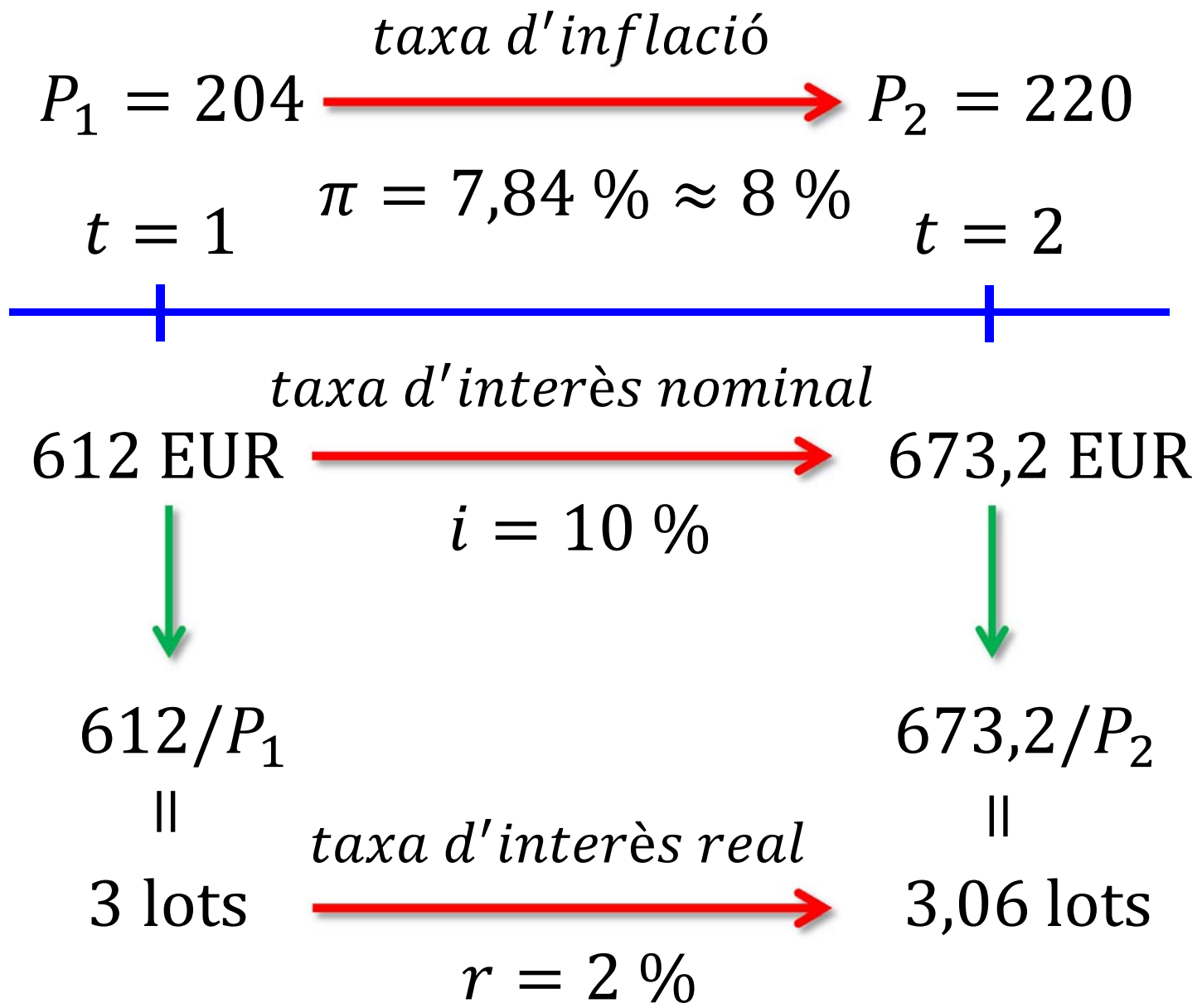
- Exemple numèric
- Equació de Fisher

$$i = r + \pi$$

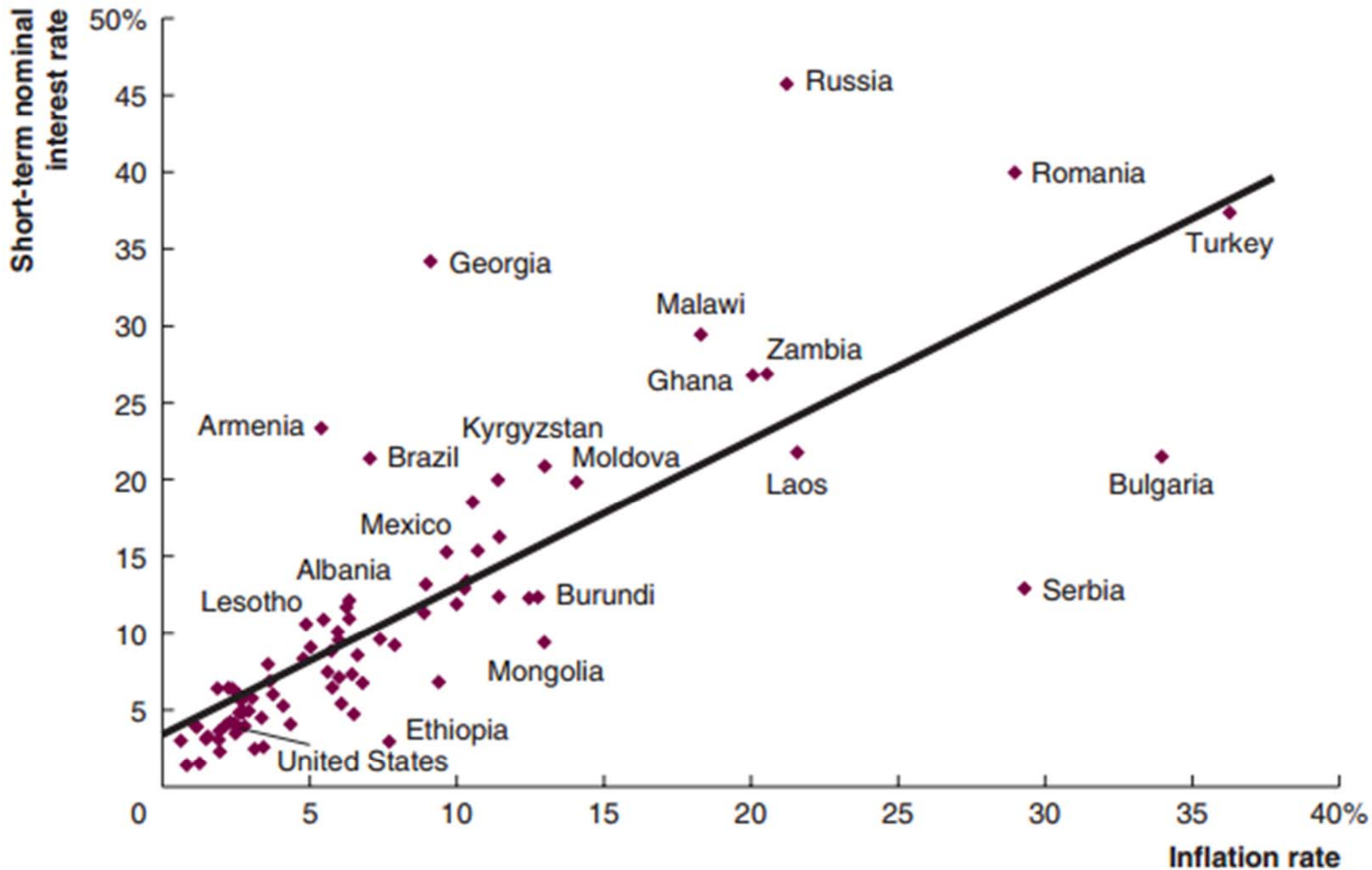
- Efecte Fisher

$$\uparrow \pi \Rightarrow \uparrow i$$

- Paradoxa de Lucas



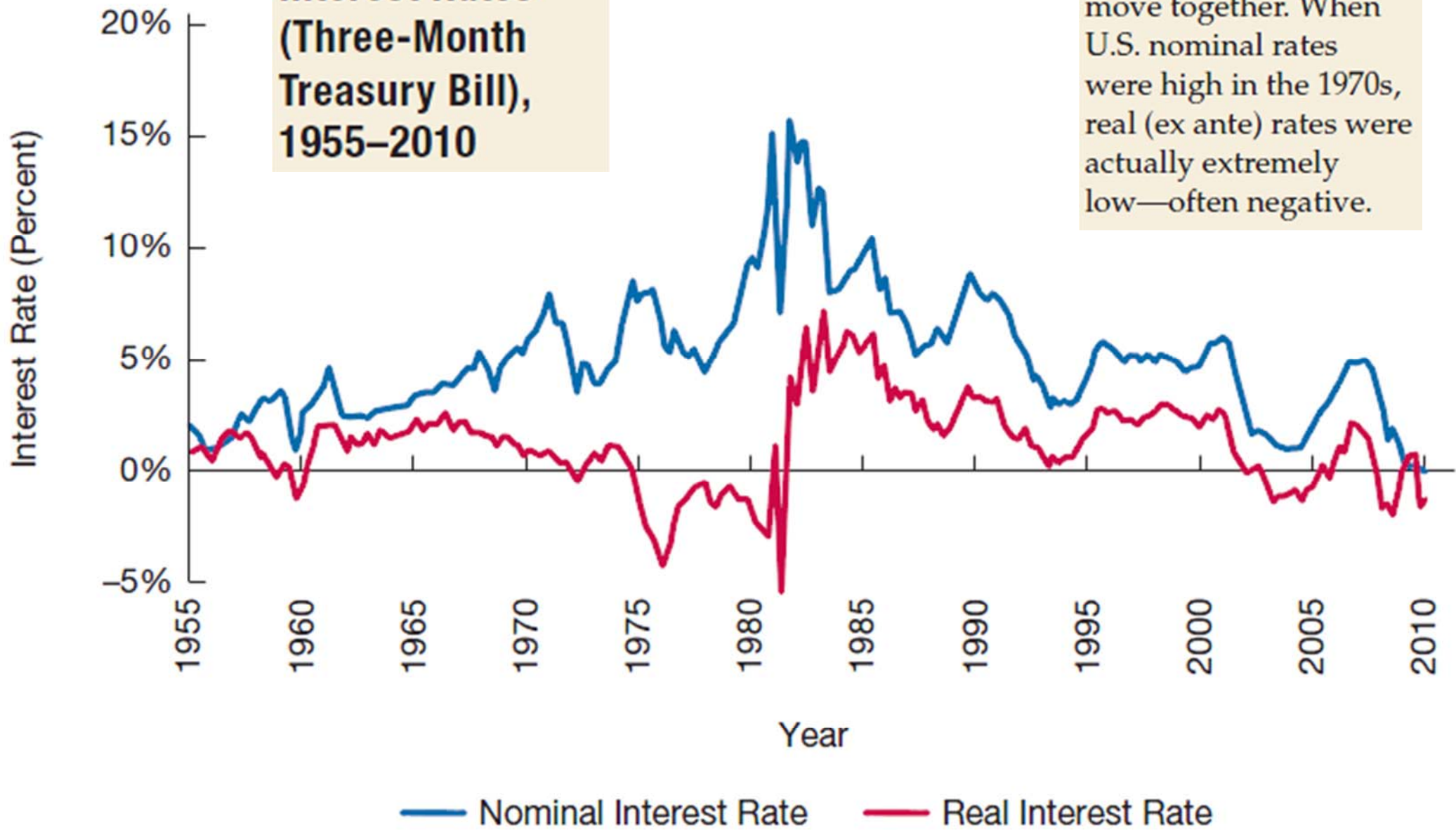
PODER DE  
COMPRA



RG Hubbard, AP O'Brien, M Rafferty (2012): Macroeconomics, p. 204

### Real and Nominal Interest Rates (Three-Month Treasury Bill), 1955–2010

Nominal and real interest rates often do not move together. When U.S. nominal rates were high in the 1970s, real (ex ante) rates were actually extremely low—often negative.



Frederic S Mishkin (2011): *Macroeconomics. Theory and practice*, p. 40

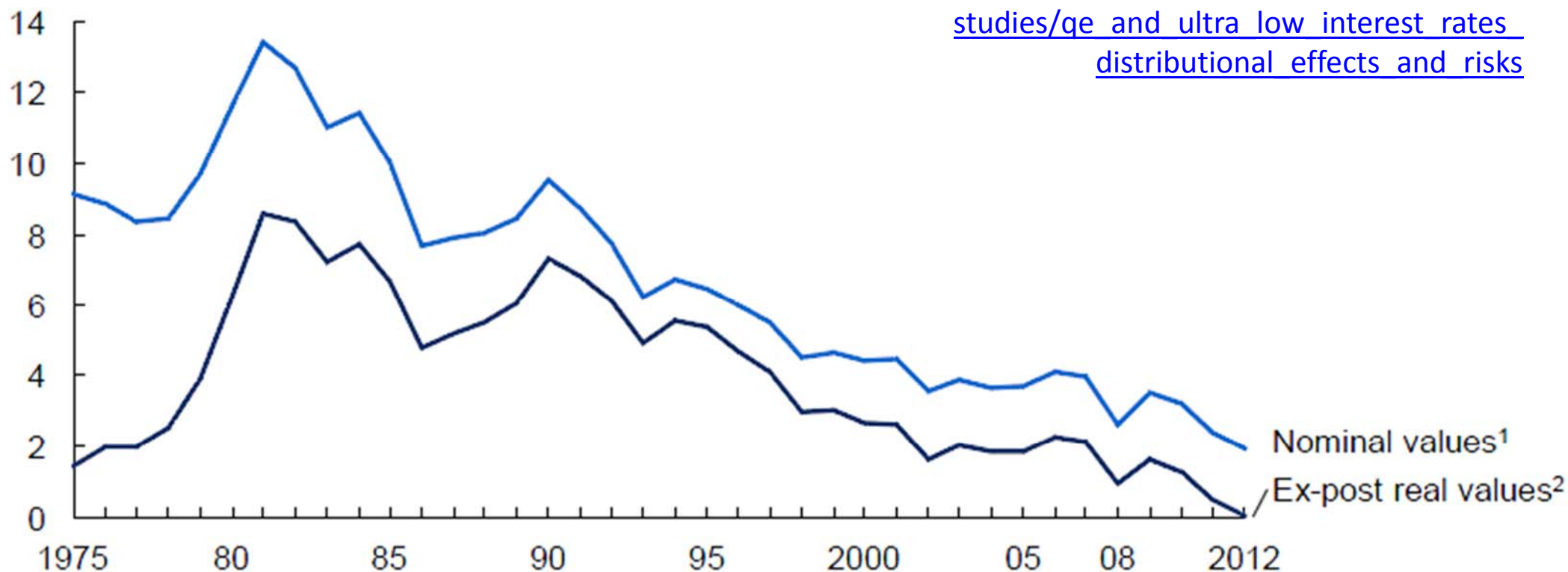
# Central bank action has come at the end of a 30-year period of declining real and nominal interest rates

## Long-term interest rates in developed economies

Yield to redemption on long-term government bonds, 1975–2012

%, GDP-weighted average

[http://www.mckinsey.com/insights/economic\\_studies/qe\\_and\\_ultra\\_low\\_interest\\_rates/distributional\\_effects\\_and\\_risks](http://www.mckinsey.com/insights/economic_studies/qe_and_ultra_low_interest_rates/distributional_effects_and_risks)

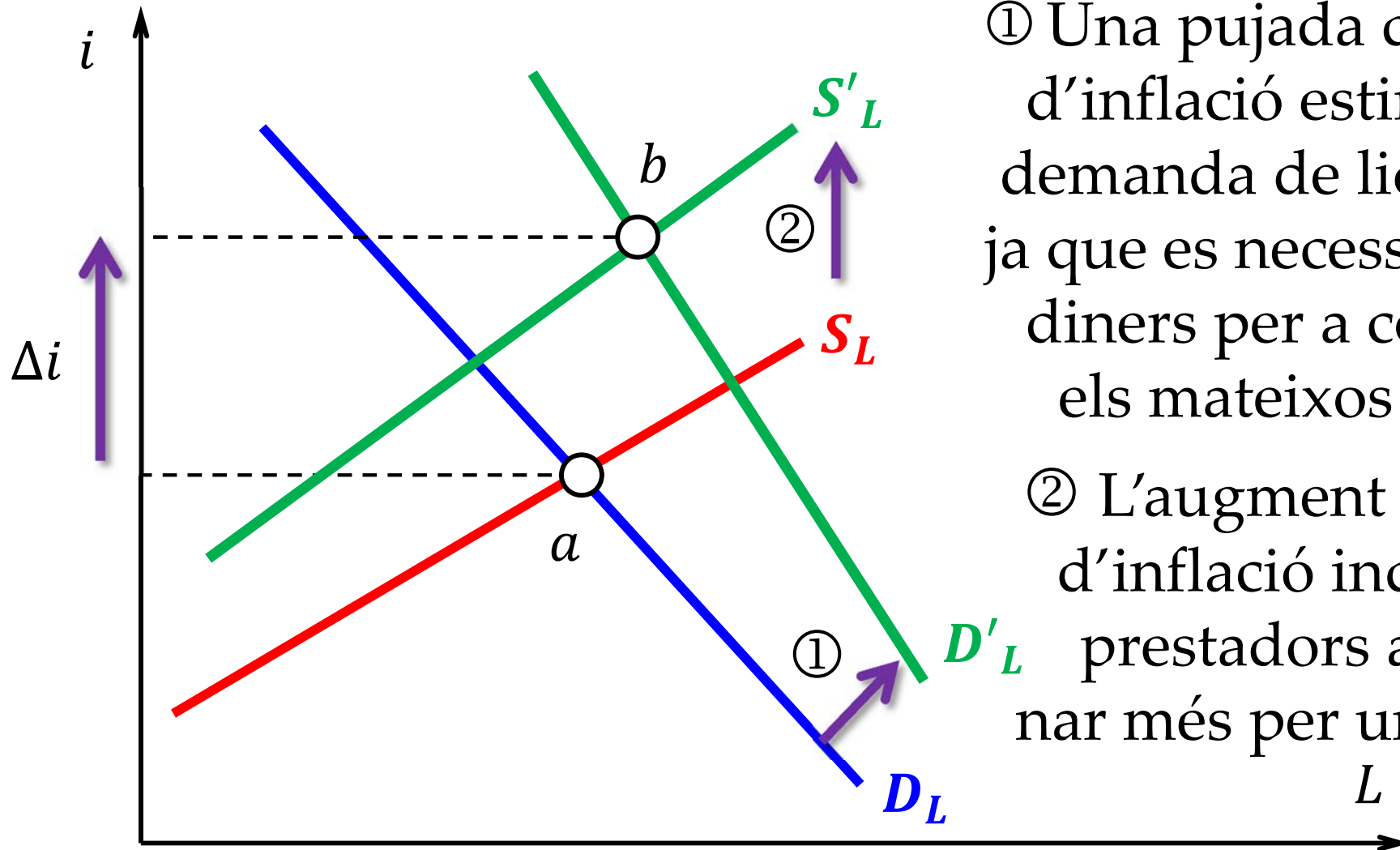


1 Ten-year government bonds, where available, for Australia, Canada, France, Germany, Italy, Japan, South Korea, Spain, the United Kingdom, and the United States.

2 Ex-post real values calculated as nominal yield on ten-year bonds in current year minus average realized inflation over next ten years. IHS Global Insight inflation estimates used for 2012–22.

SOURCE: International Monetary Fund International Financial Statistics; IHS Global Insight; Bloomberg; Organisation for Economic Co-operation and Development; McKinsey Global Institute analysis

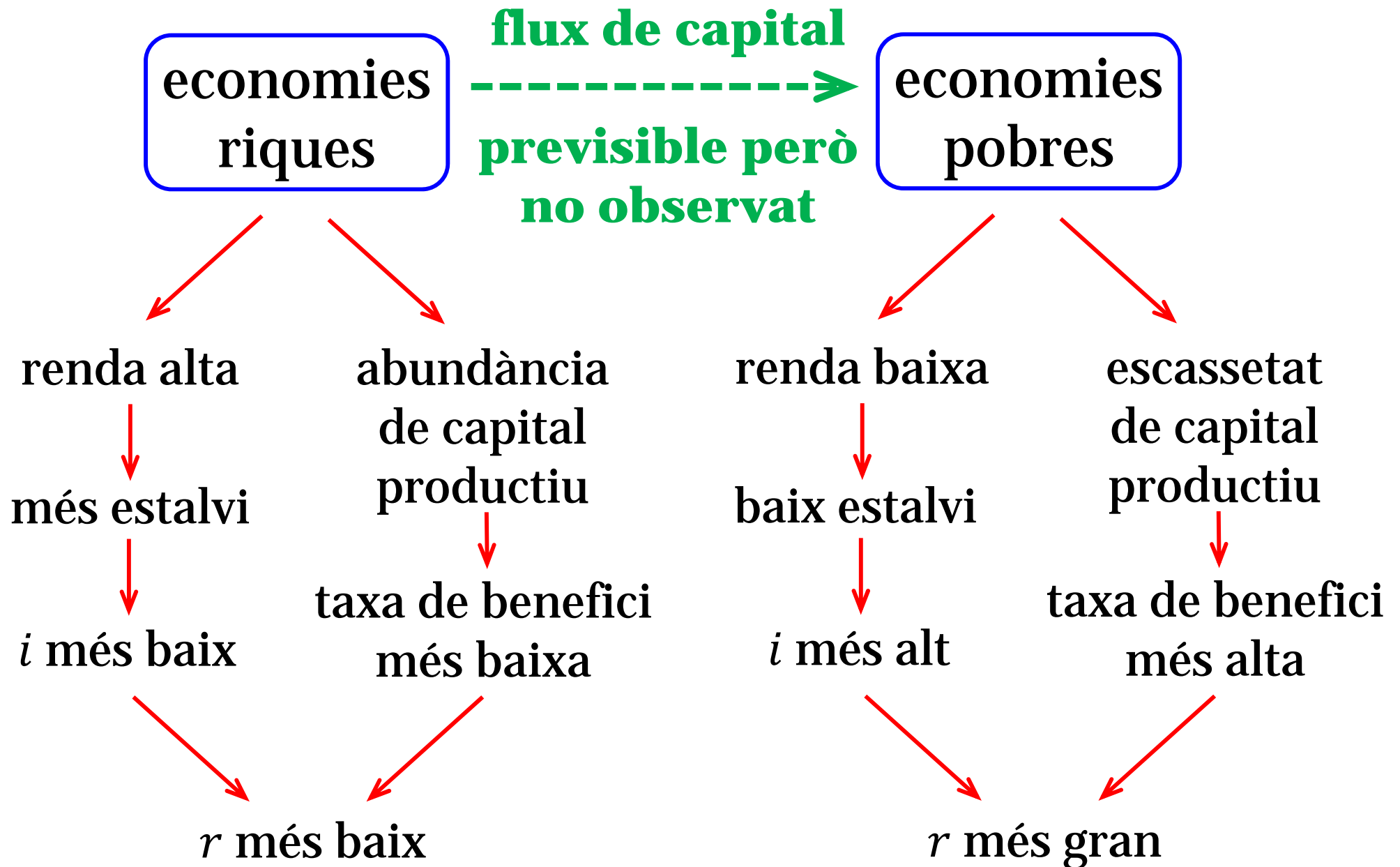
# L'efecte Fisher



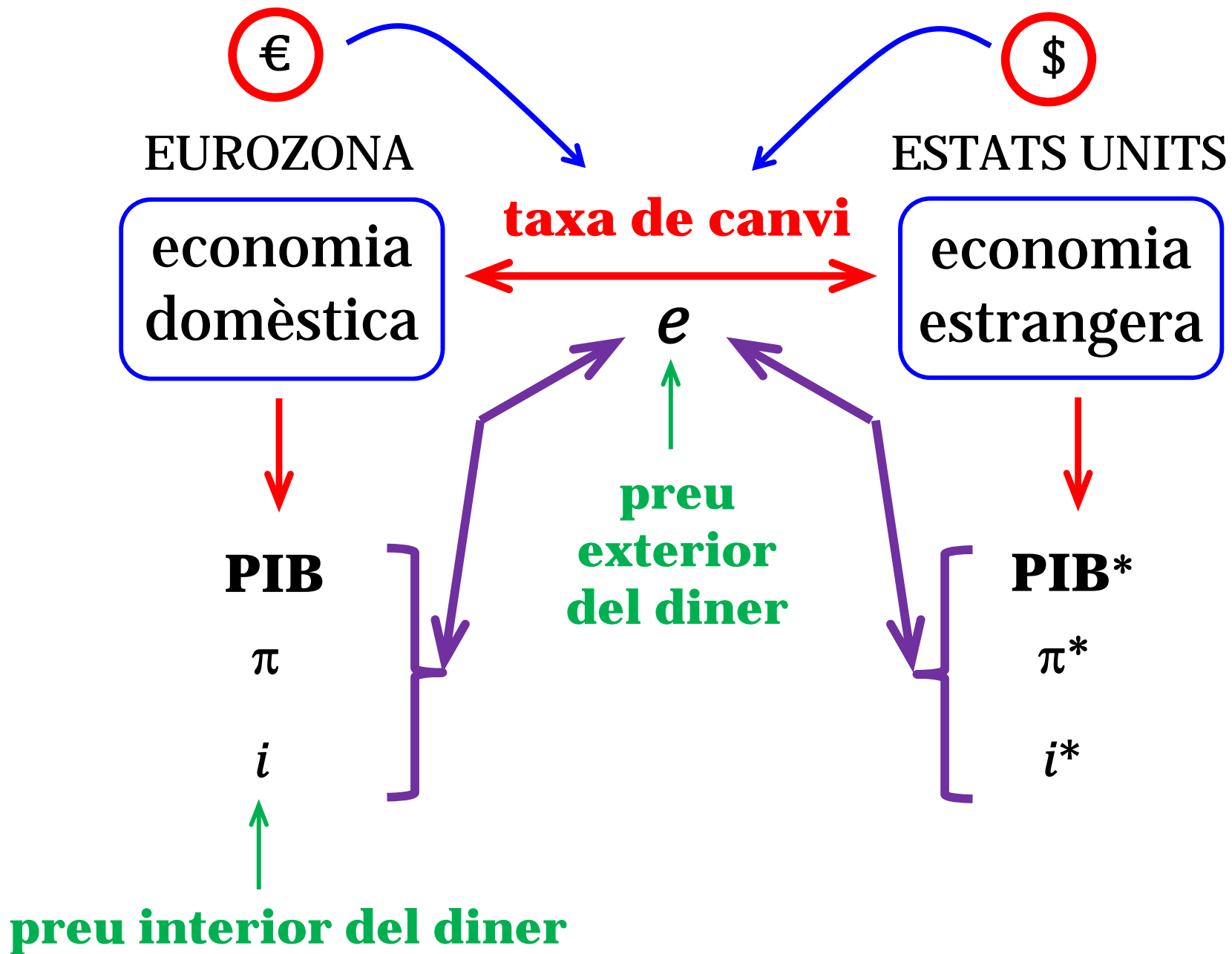
① Una pujada de la taxa d'inflació estimula la demanda de liquiditat, ja que es necessiten més diners per a comprar els mateixos béns.

② L'augment de la taxa d'inflació indueix els prestadors a demanar més per un préstec.

# Paradoxa de Lucas

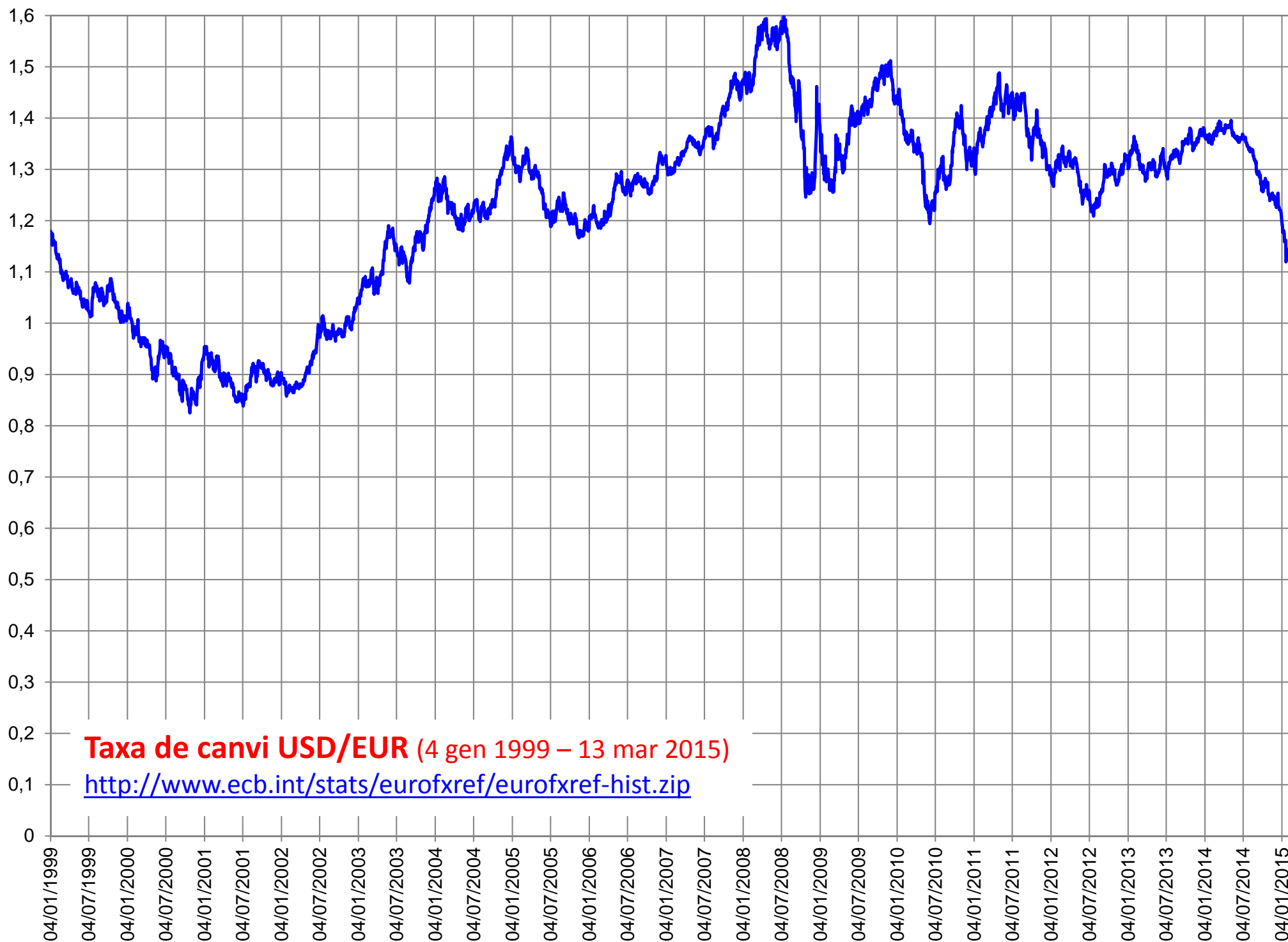






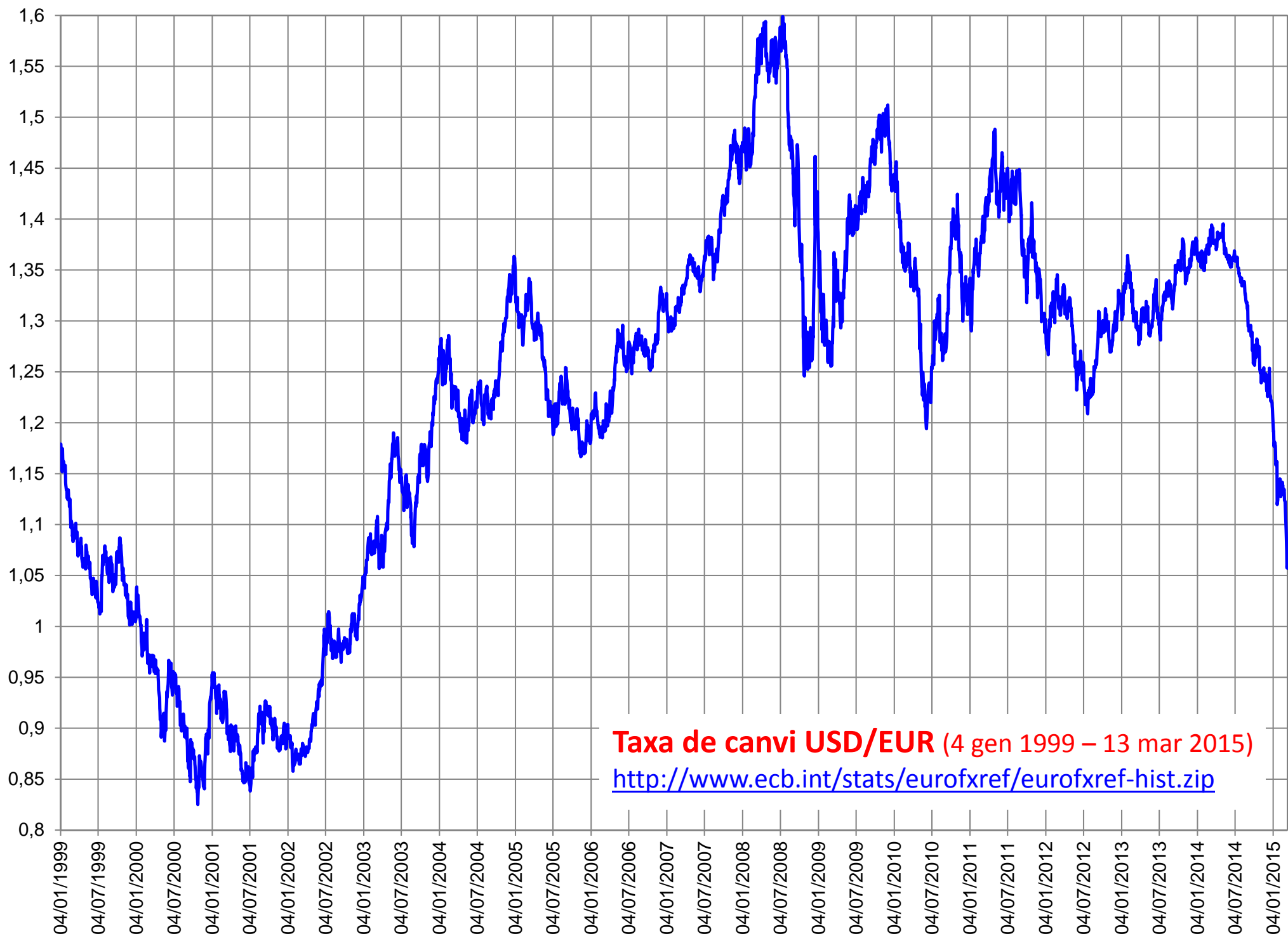
## 2. La taxa de canvi

- Definició: preu relatiu entre dues divises (monedes)
- Cotització directa i cotització indirecta
- Apreciació / depreciació
- Característiques del mercat de divises: el mercat més gran i més líquid del món



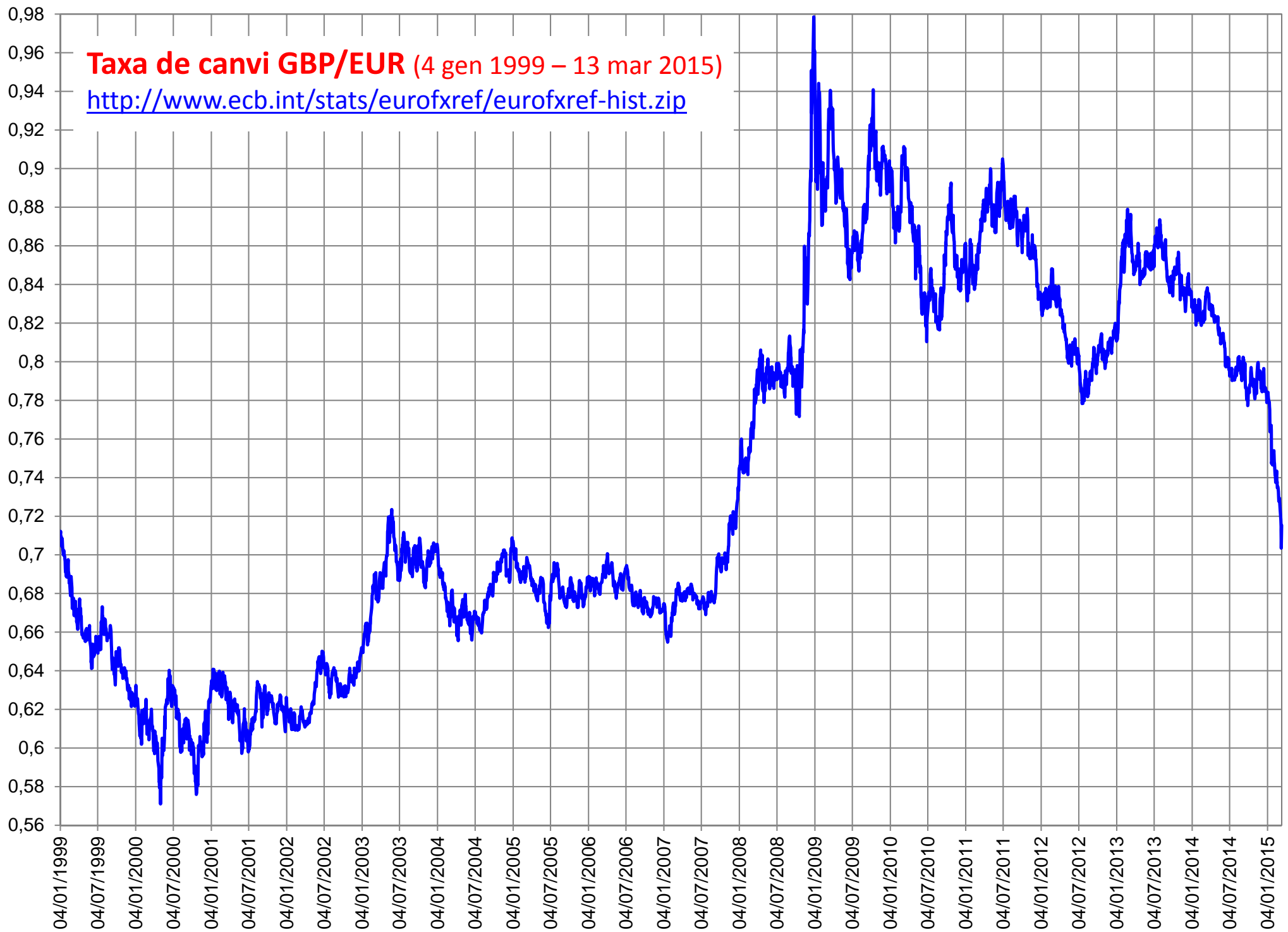
**Taxa de canvi USD/EUR (4 gen 1999 – 13 mar 2015)**

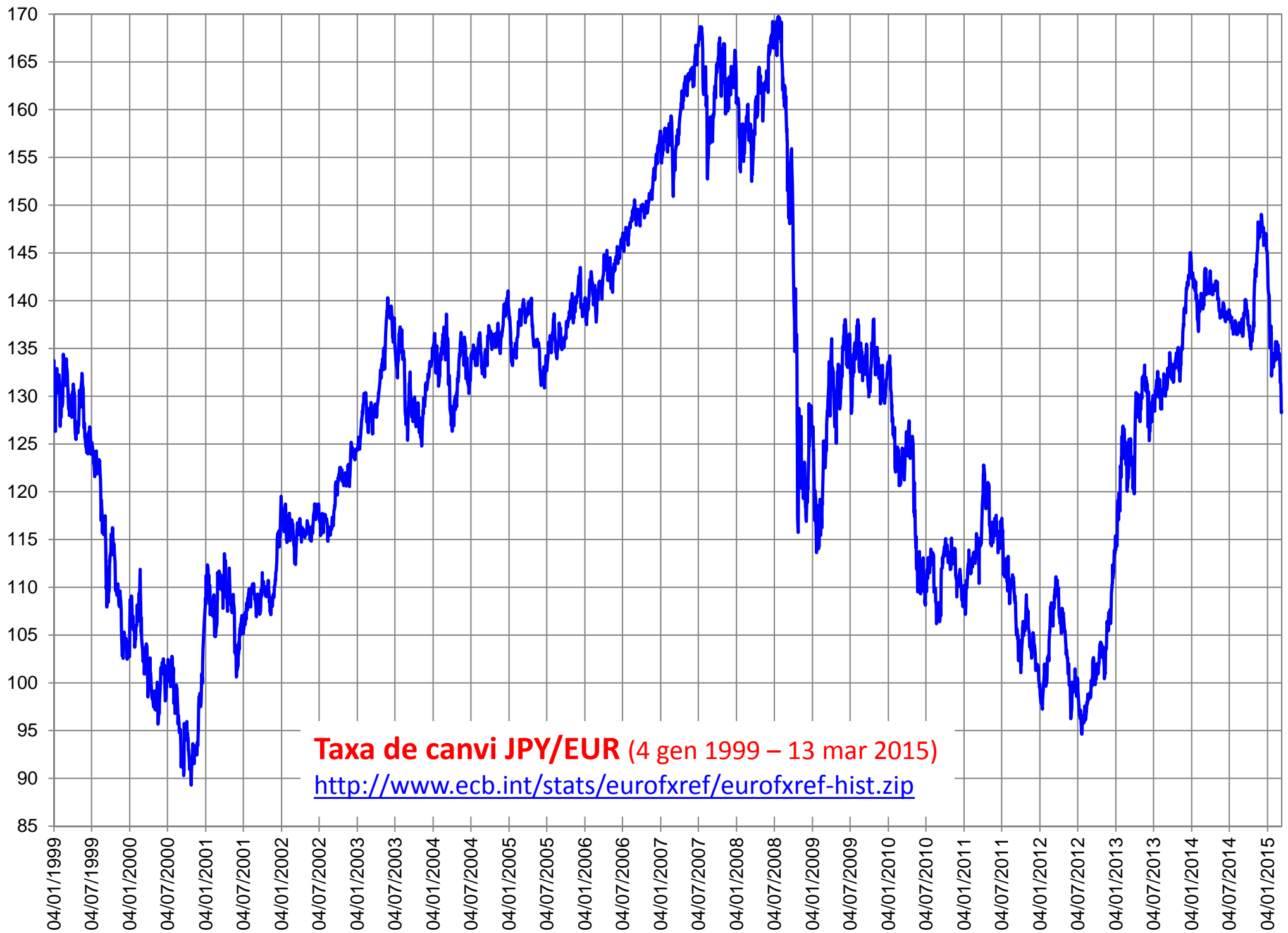
<http://www.ecb.int/stats/eurofxref/eurofxref-hist.zip>



**Taxa de canvi USD/EUR (4 gen 1999 – 13 mar 2015)**

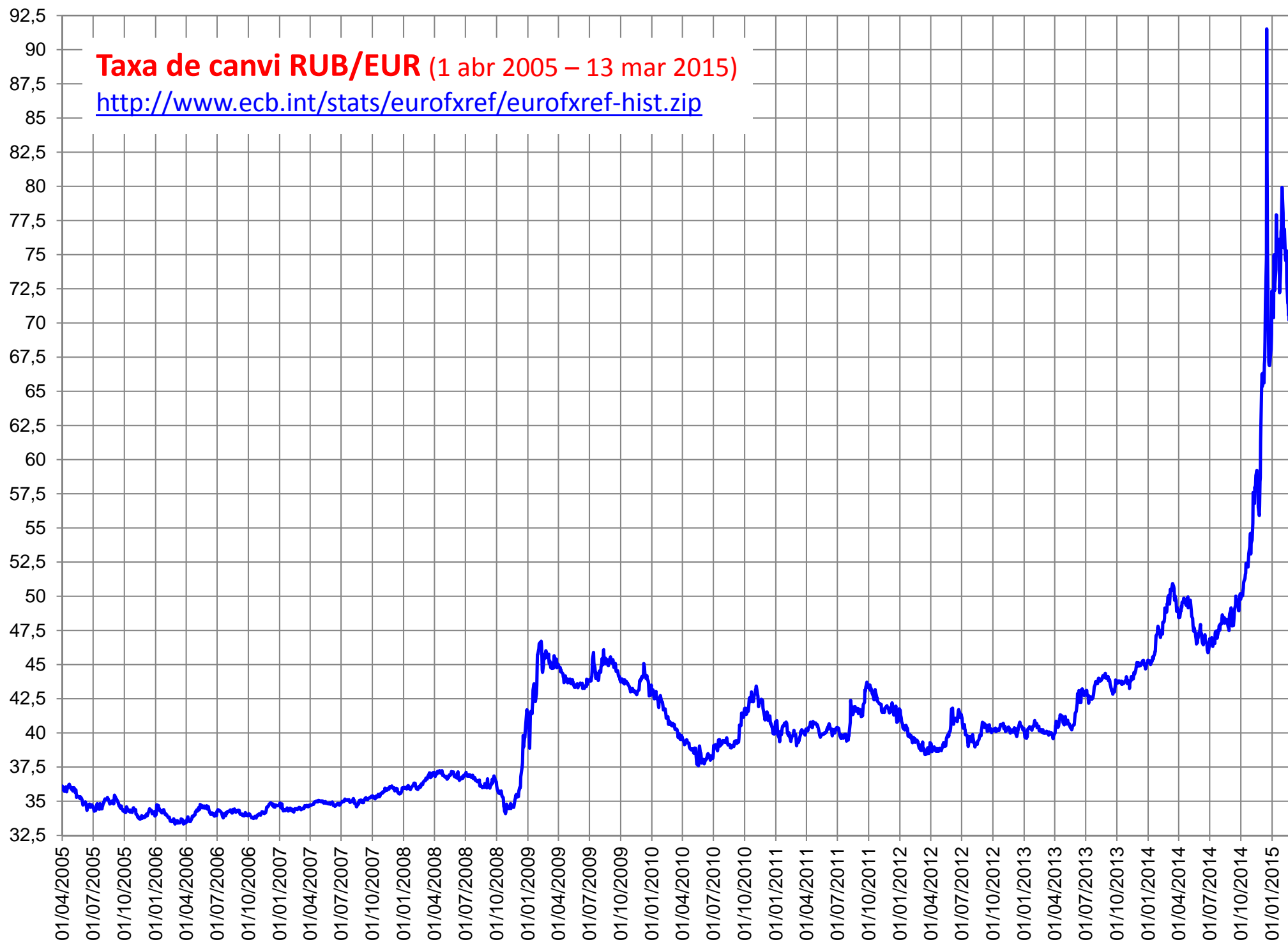
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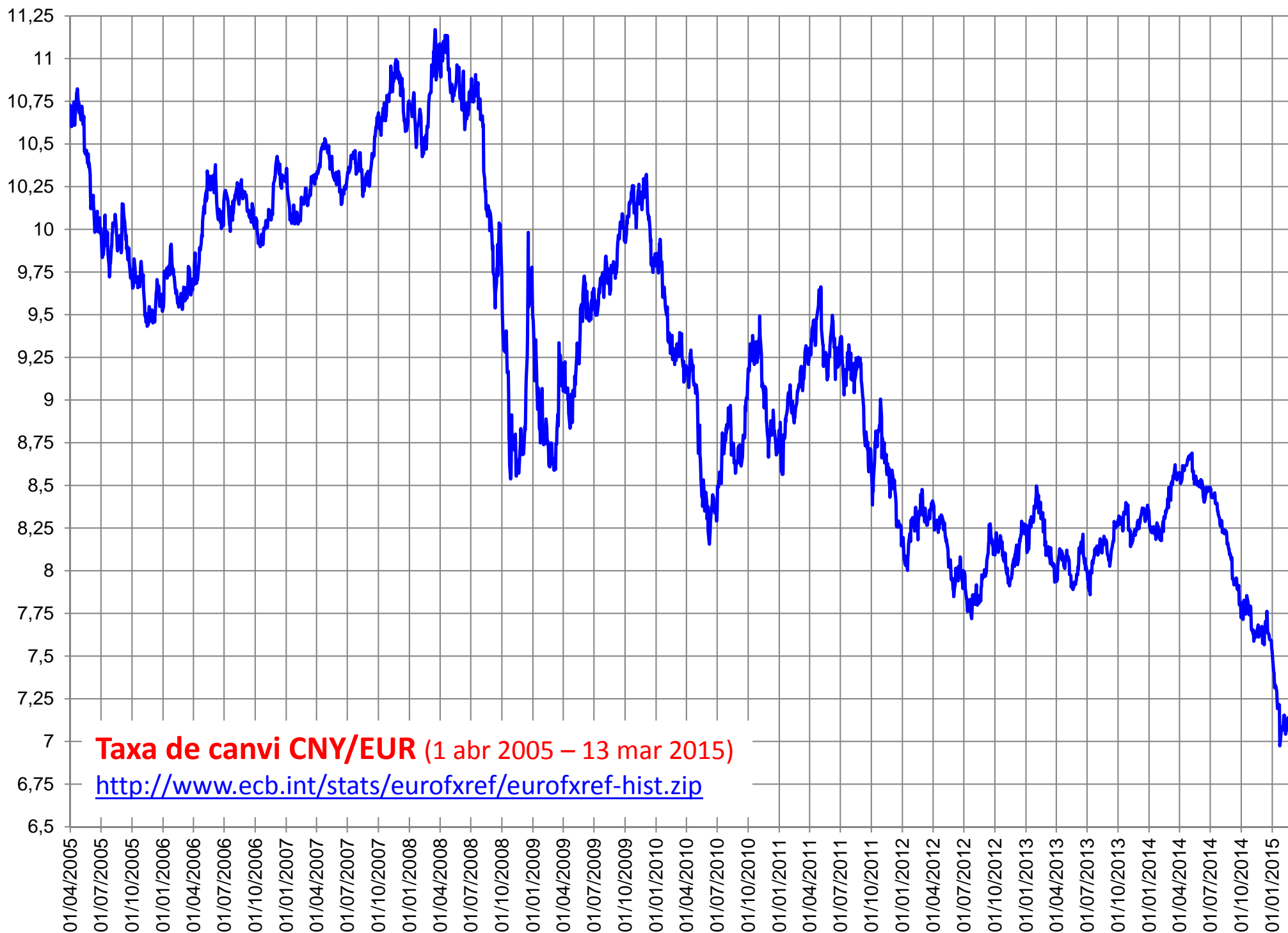




**Taxa de canvi JPY/EUR (4 gen 1999 – 13 març 2015)**

<http://www.ecb.int/stats/eurofxref/eurofxref-hist.zip>





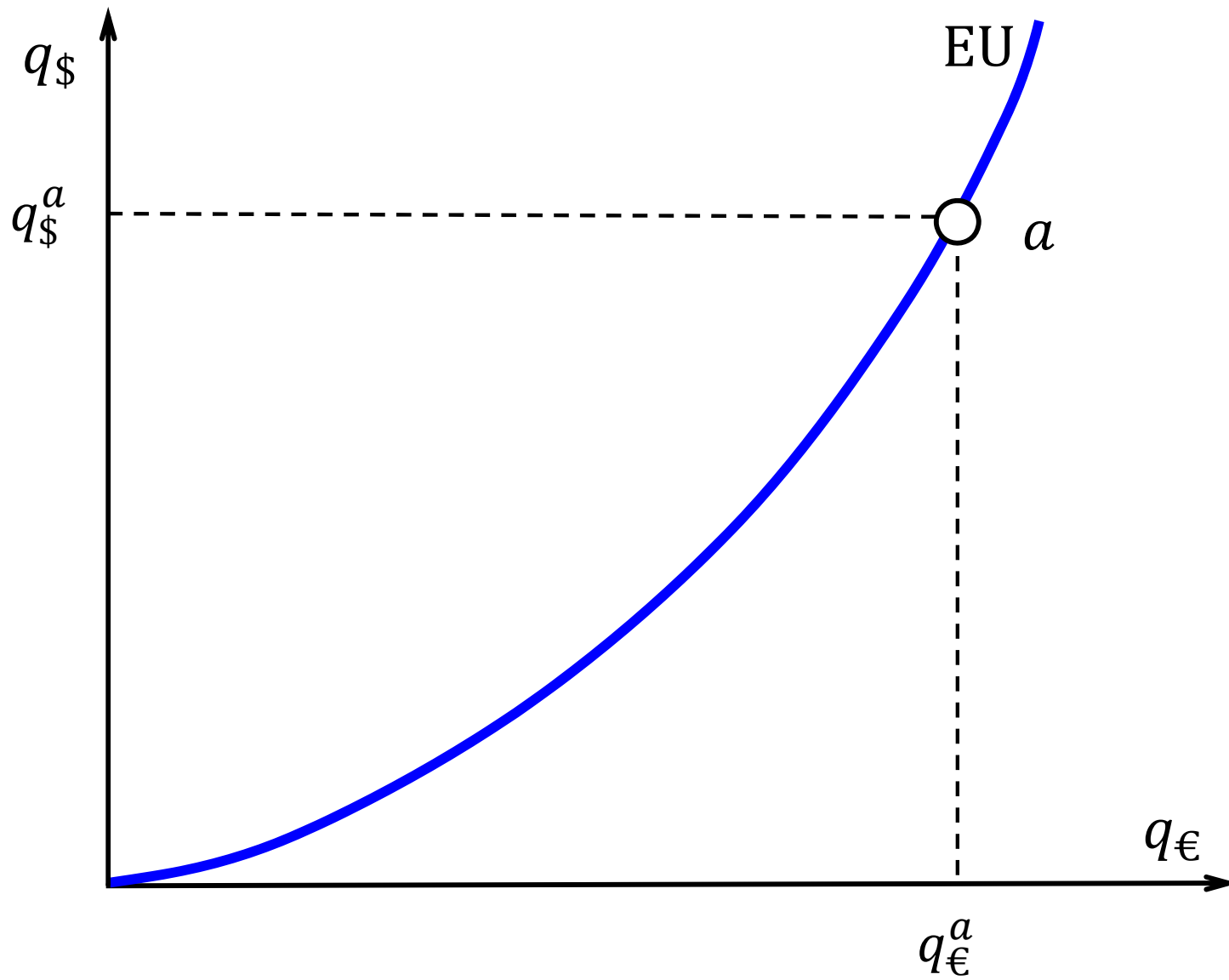
**Taxa de canvi CNY/EUR (1 abr 2005 – 13 març 2015)**

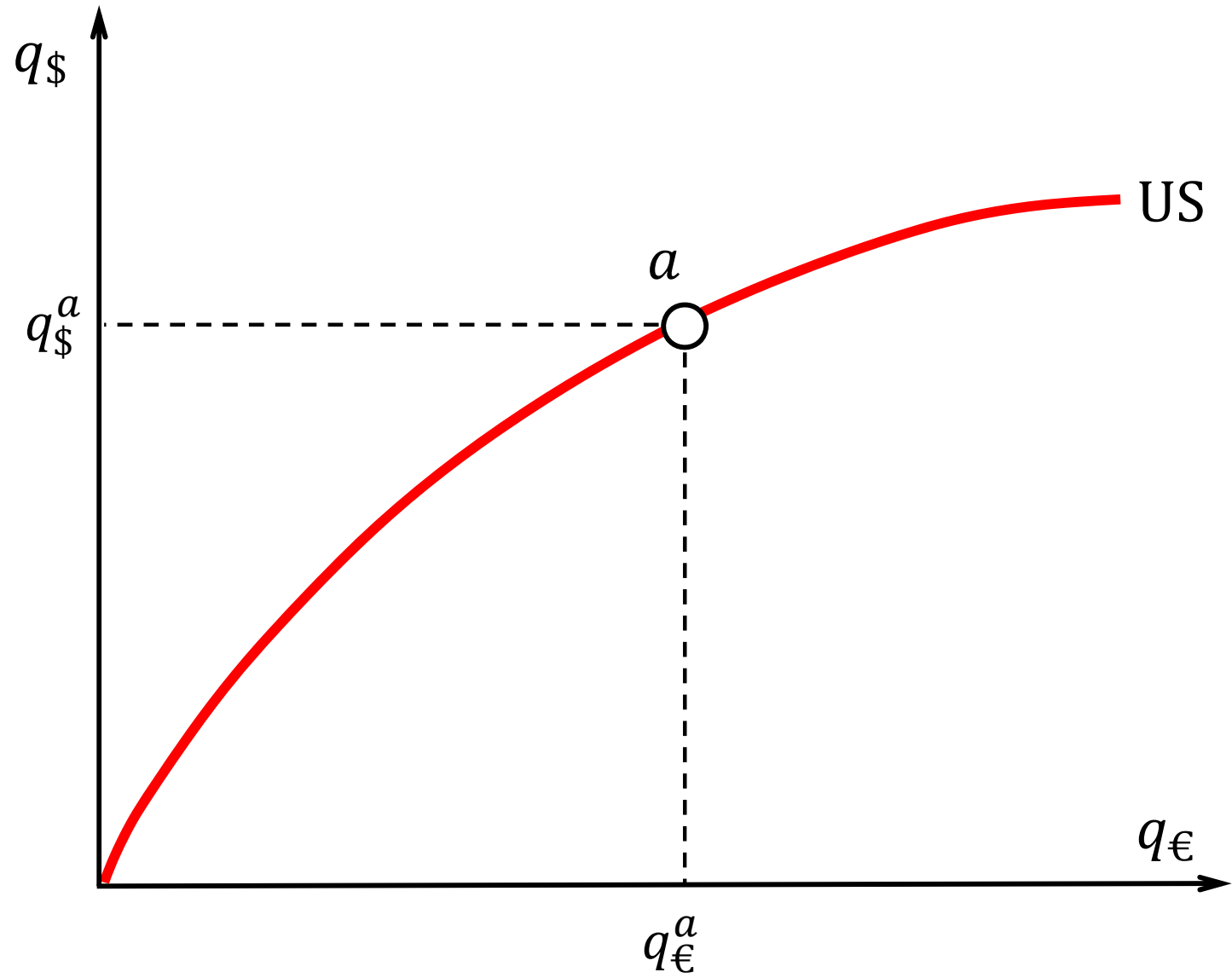
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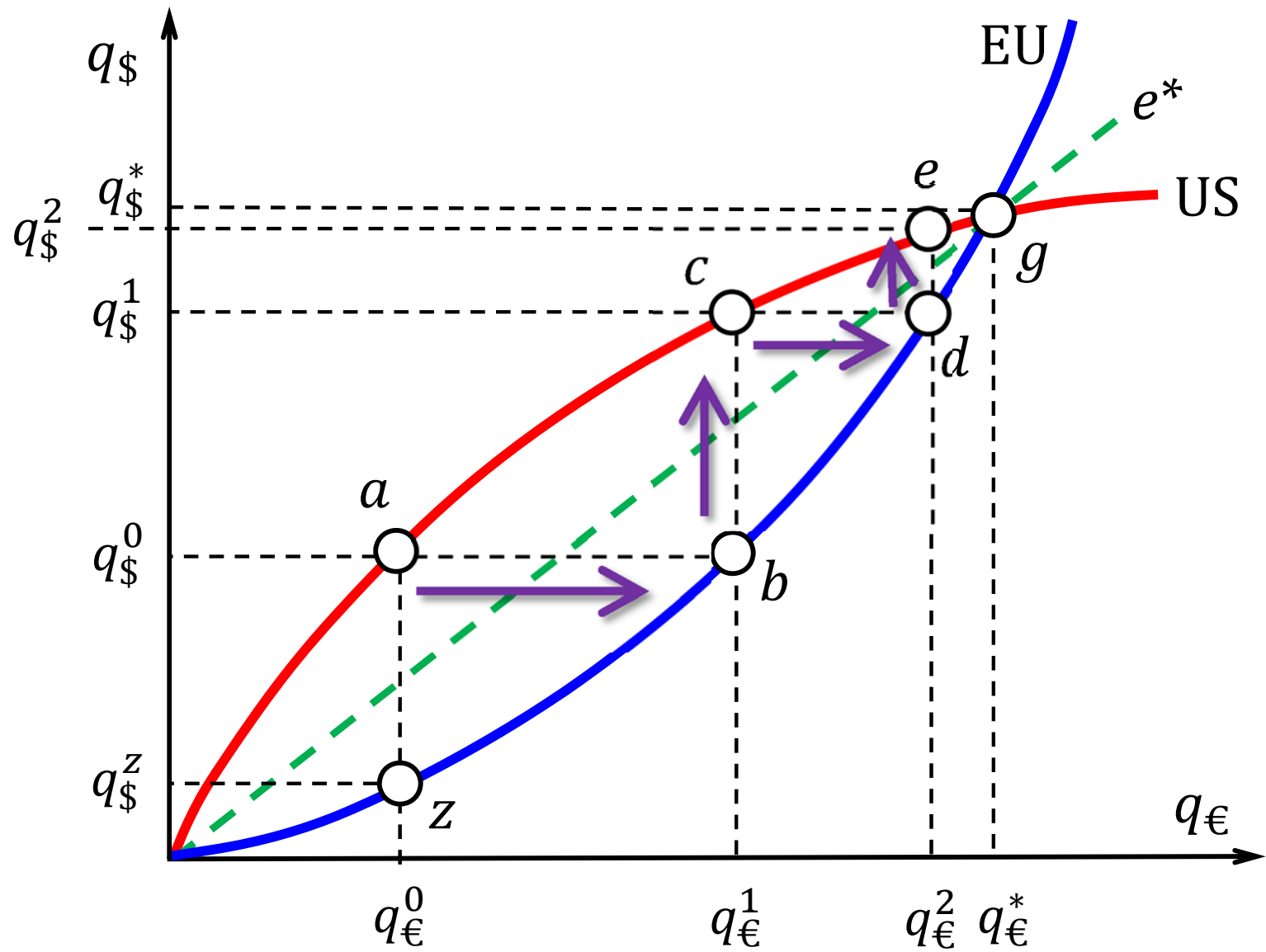


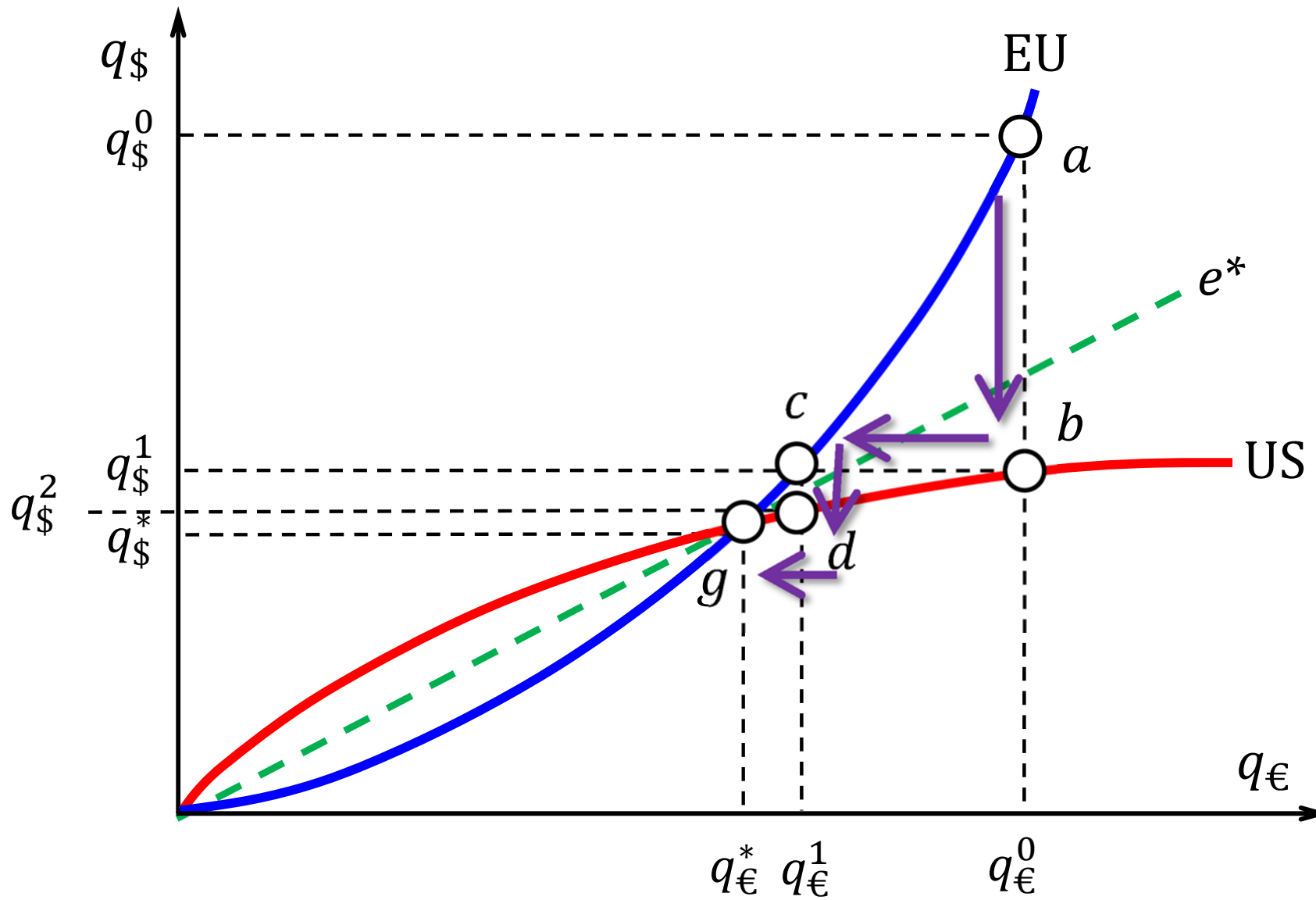
### 3. El model del mercat de divises

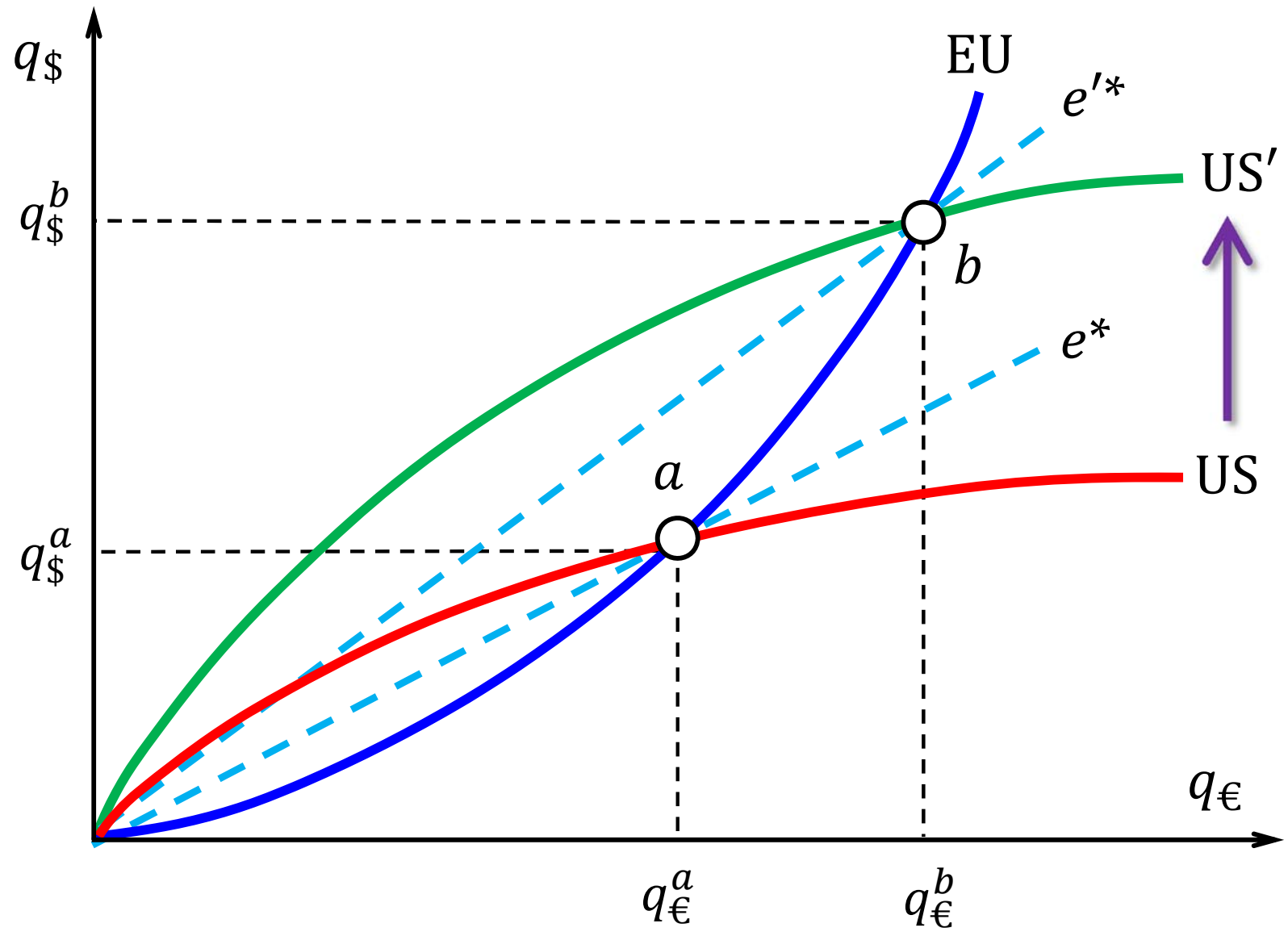
- Oferta d'euros feta pels europeus (demanden \$)
- Demanda d'euros feta pels americans (ofereixen \$)
- Taxa de canvi d'equilibri  $e^*$
- Estàtica comparativa: efecte sobre  $e^*$  d'un canvi en
  - el PIB domèstic
  - el PIB estranger
  - la taxa d'inflació domèstica
  - la taxa d'interès estrangera

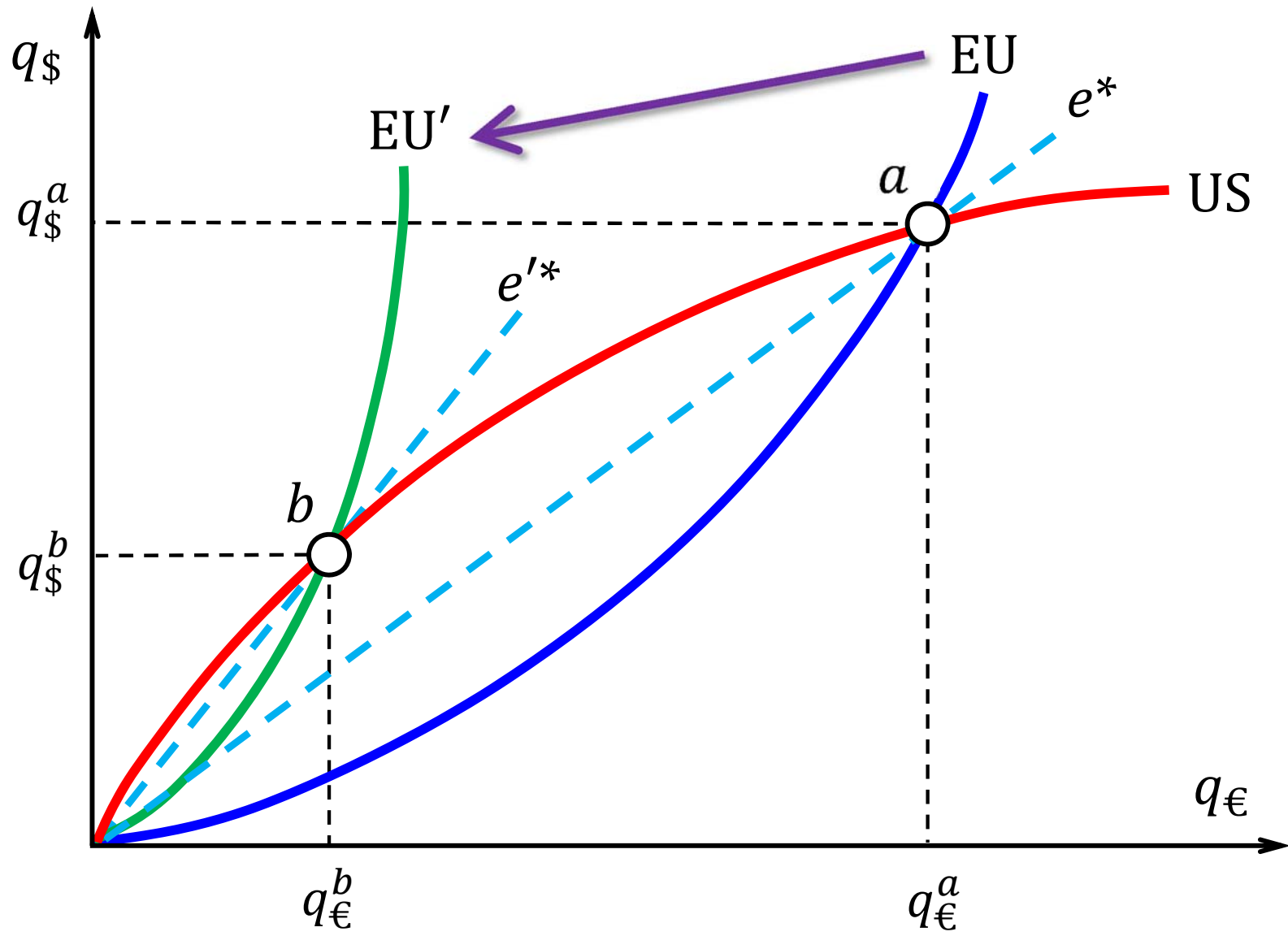


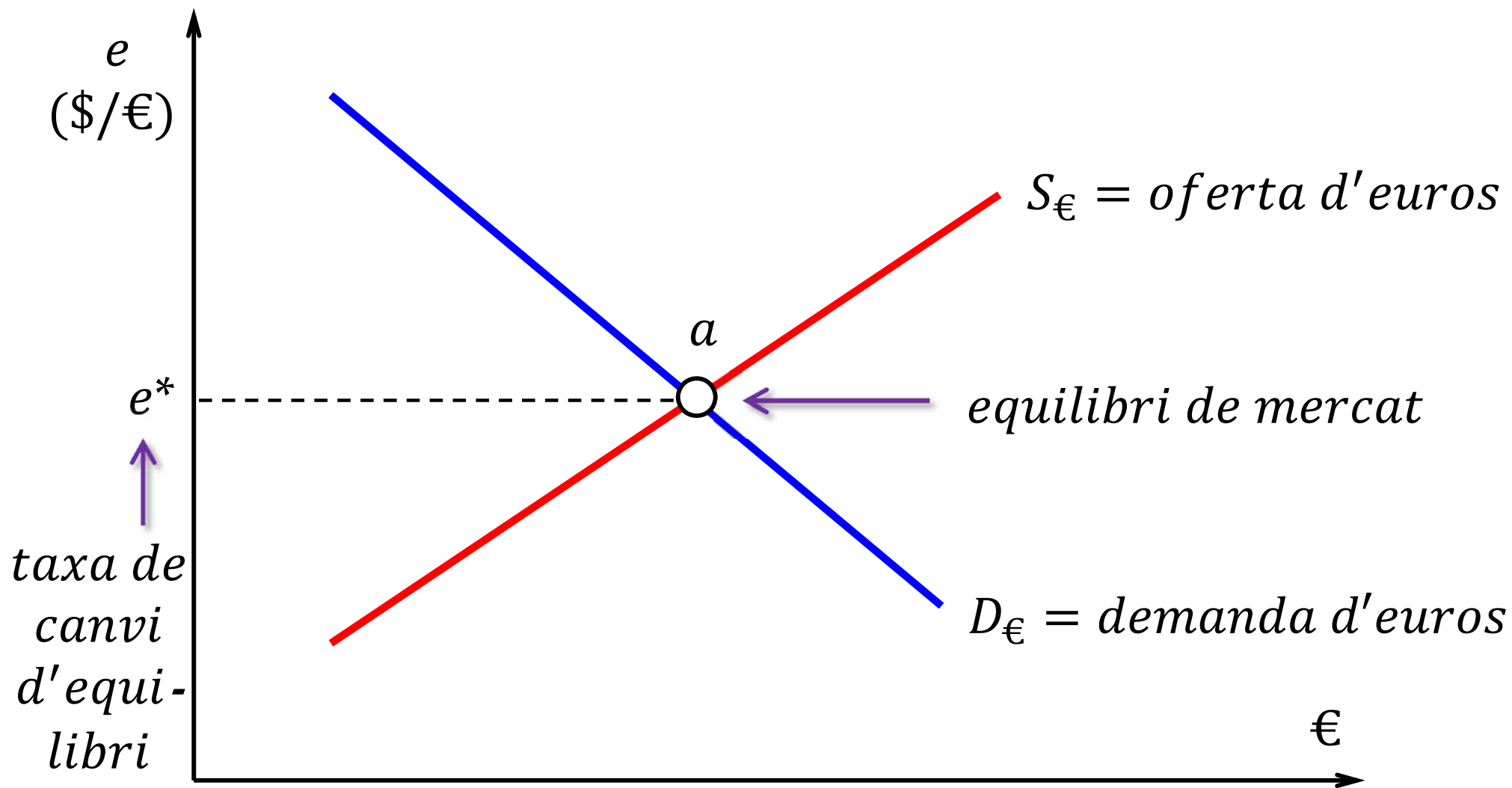






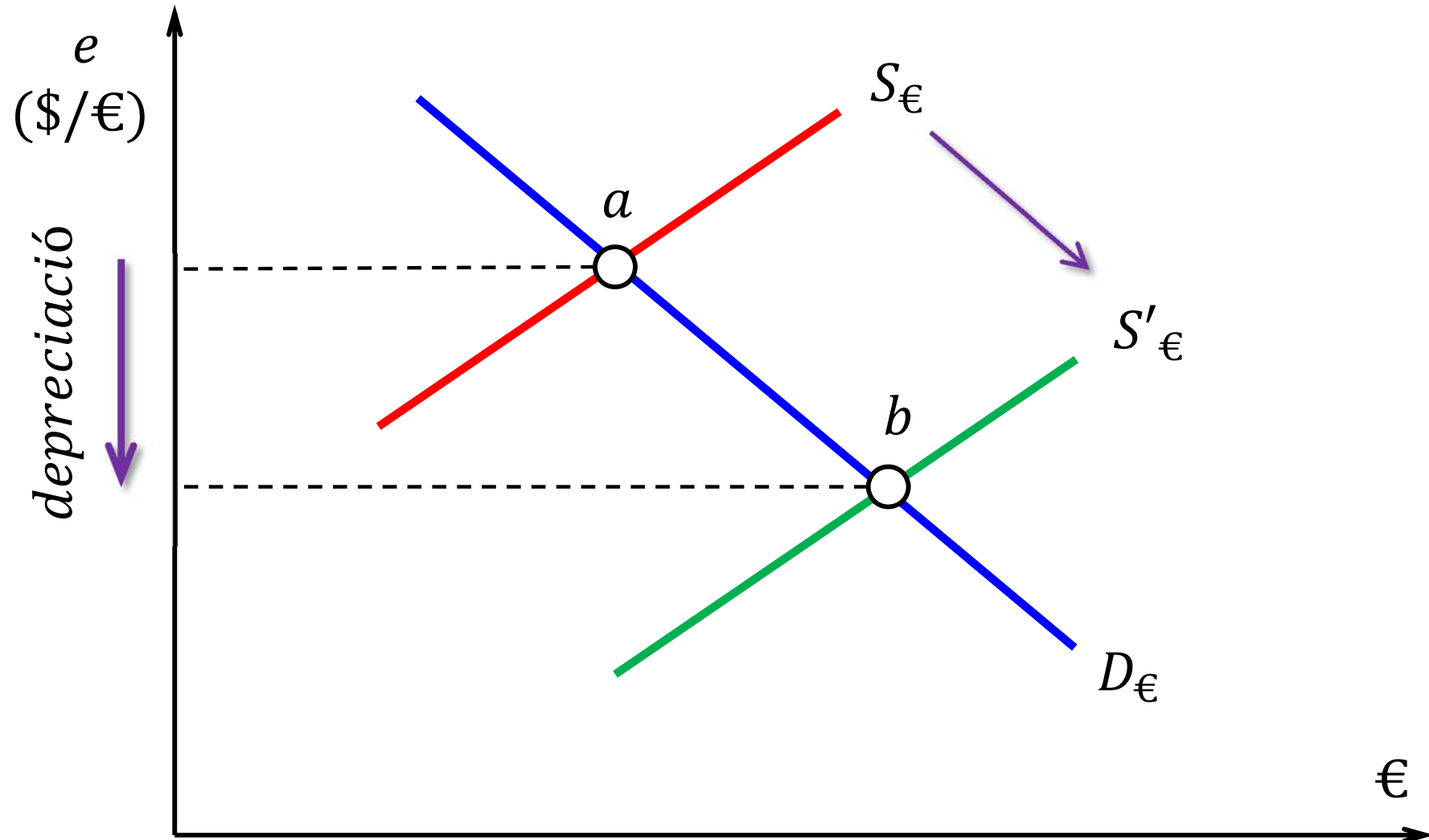




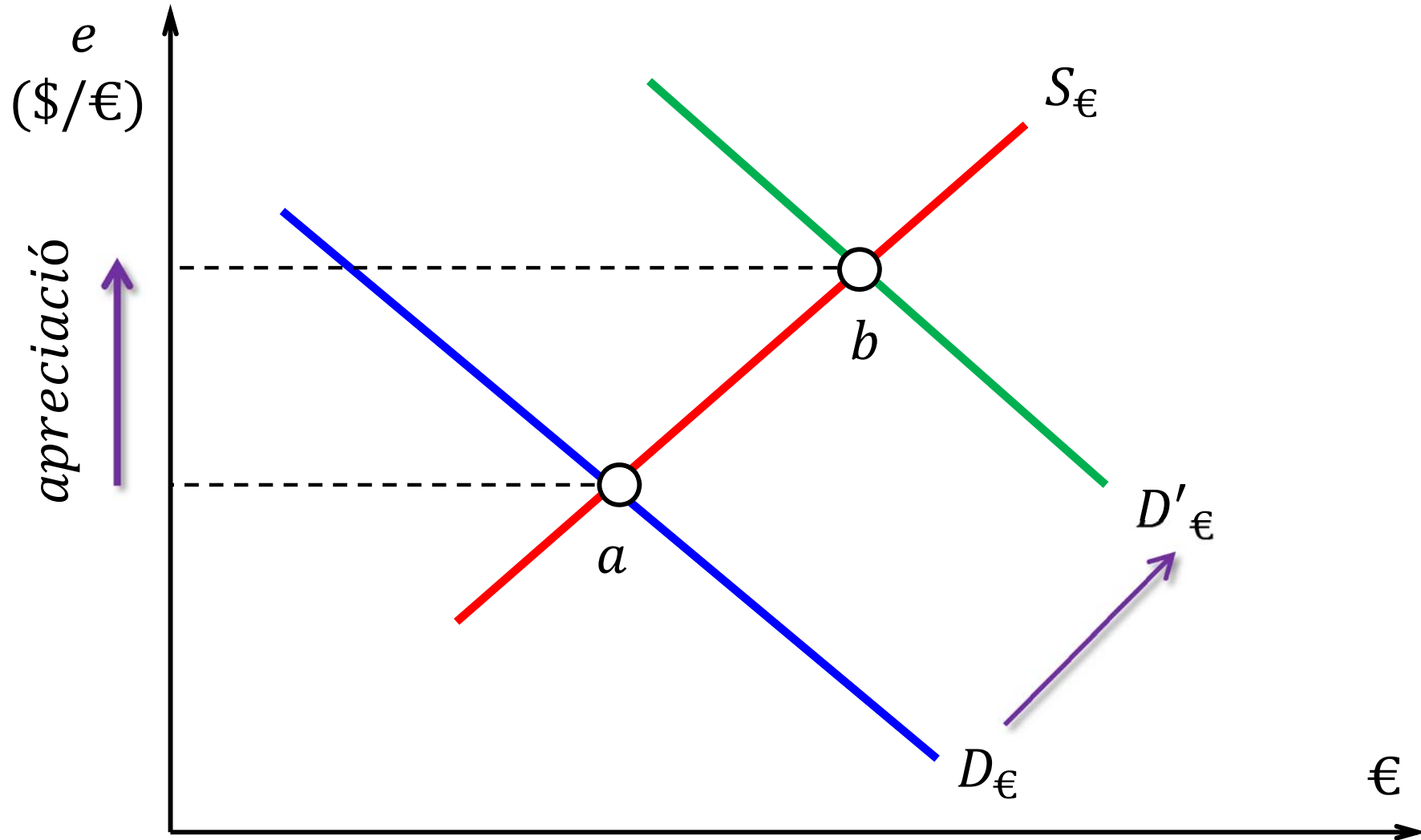




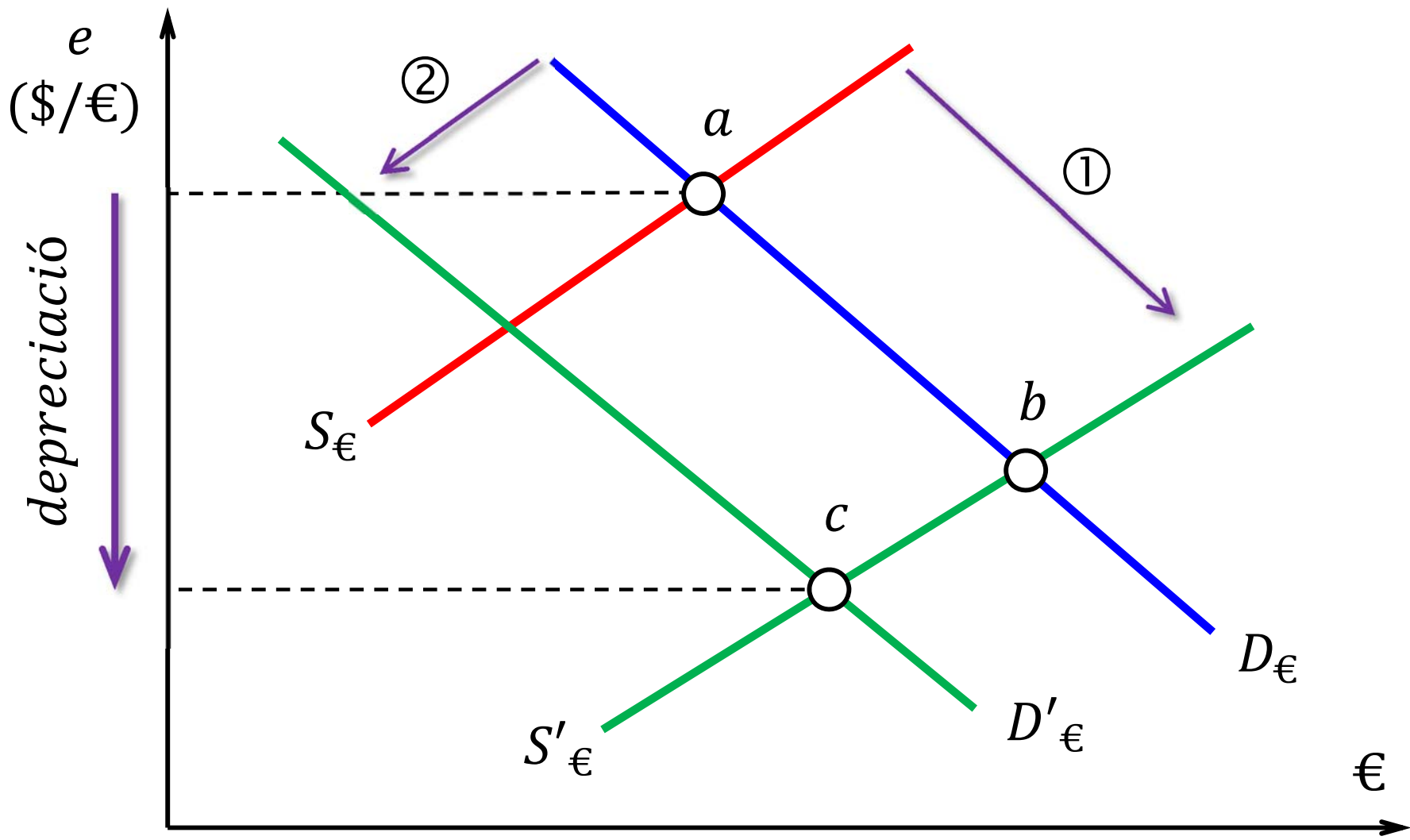
$$\uparrow \text{PIB}_{\text{EU}} \Rightarrow \uparrow \text{IM}_{\text{EU}} \Rightarrow \uparrow D_{\$} \Rightarrow \uparrow S_{\text{€}} \Rightarrow \downarrow e$$



$$\uparrow \text{PIB}_{\text{US}} \Rightarrow \uparrow \text{IM}_{\text{US}} \Rightarrow \uparrow D_{\text{€}} \Rightarrow \uparrow e$$



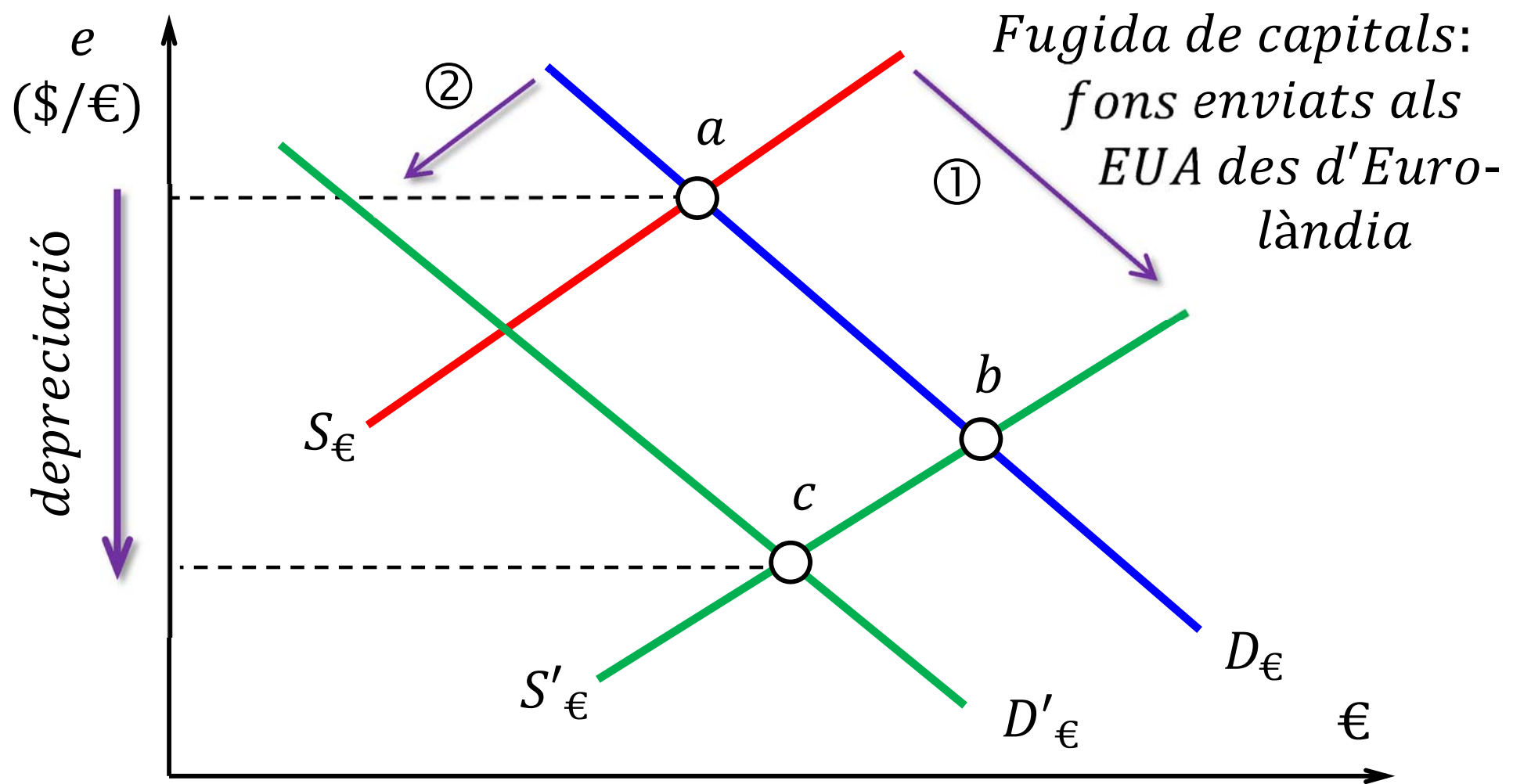
$\uparrow \pi_{\text{EU}} \Rightarrow$ 
 $\begin{cases} \textcircled{1} \nearrow \uparrow \text{IM}_{\text{EU}} \Rightarrow \uparrow D_{\$} \Rightarrow \uparrow S_{\text{€}} \Rightarrow \downarrow e \\ \textcircled{2} \searrow \downarrow \text{IM}_{\text{US}} \Rightarrow \downarrow D_{\text{€}} \Rightarrow \downarrow e \end{cases}$



$\uparrow i_{US} \Rightarrow$

①  $\uparrow D_{\text{actius fin.US}}^{\text{DELS EUROPEUS}} \Rightarrow \uparrow D_{\$} \Rightarrow \uparrow S_{\text{€}} \Rightarrow \downarrow e$

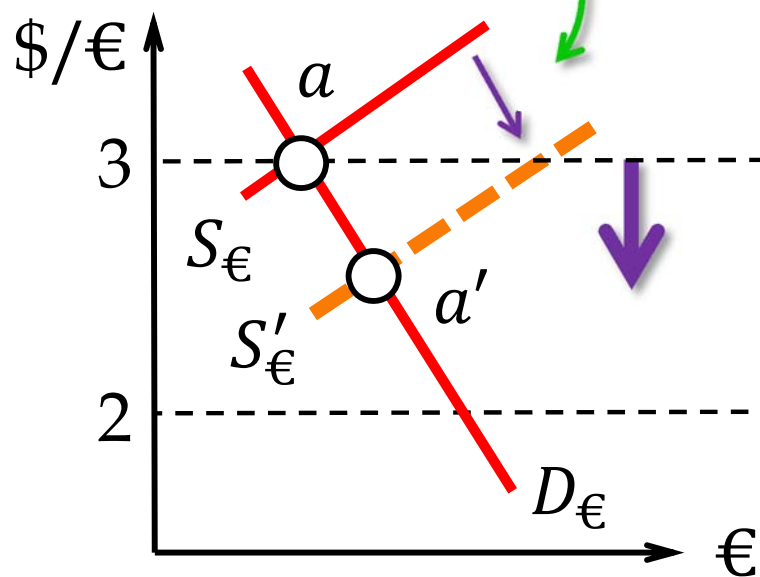
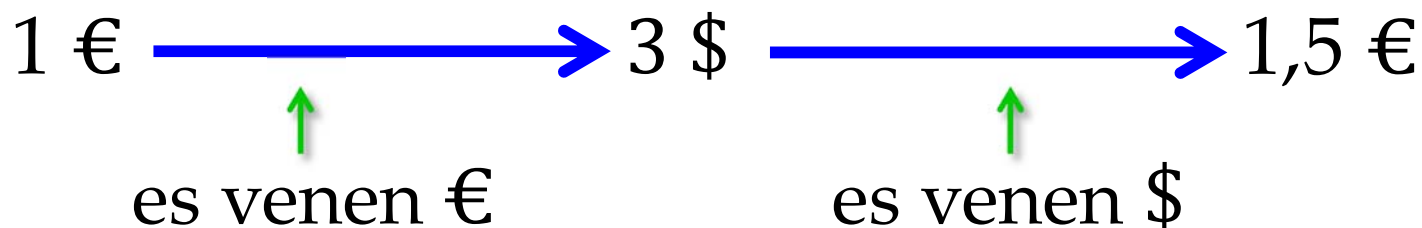
②  $\downarrow D_{\text{actius fin.EU}}^{\text{DELS AMERICANS}} \Rightarrow \downarrow D_{\text{€}} \Rightarrow \downarrow e$



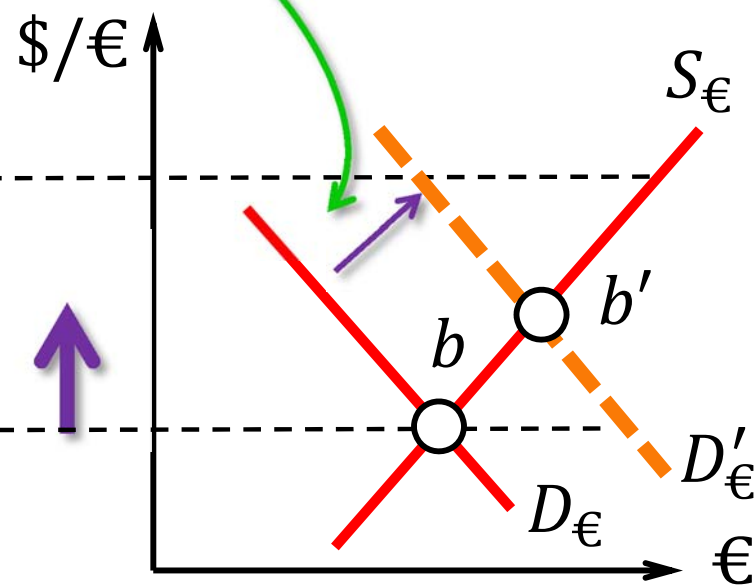
## 4. Arbitratge i especulació

- Arbitratge espacial – integra mercats de divises geogràficament
- Arbitratge triangular – integra diferents mercats de divises
- Especulació
  - anar curt – comprar expectant caiguda de preu
  - anar llarg – comprar expectant puja de preu

# Arbitratge espacial

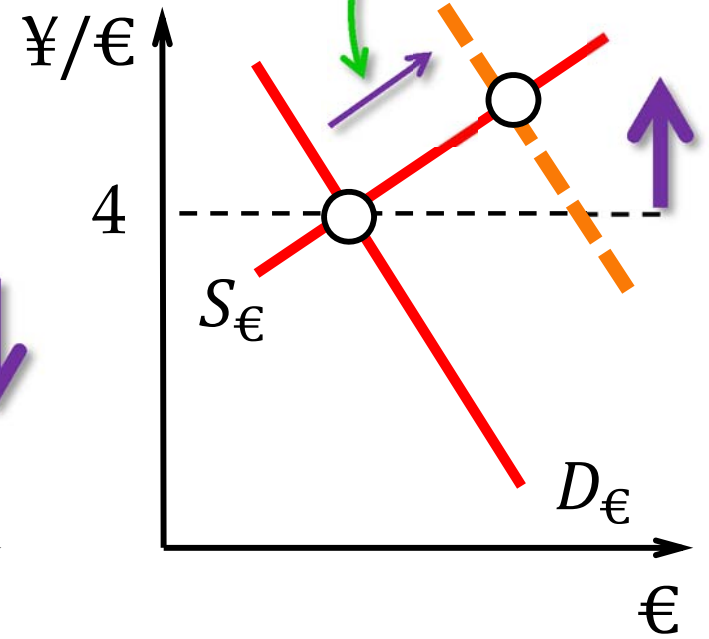
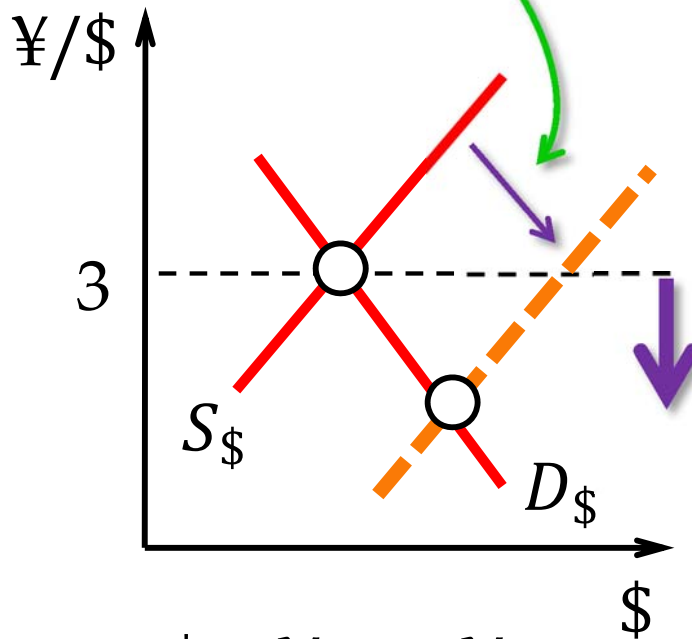
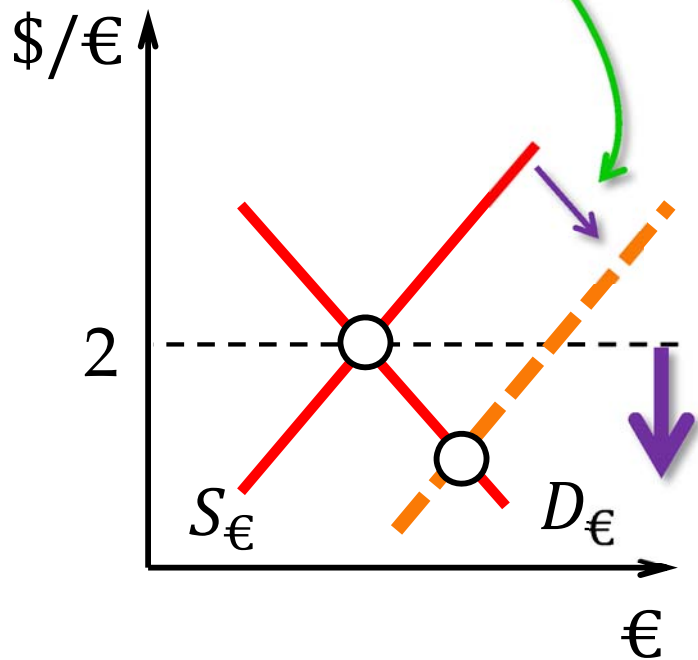
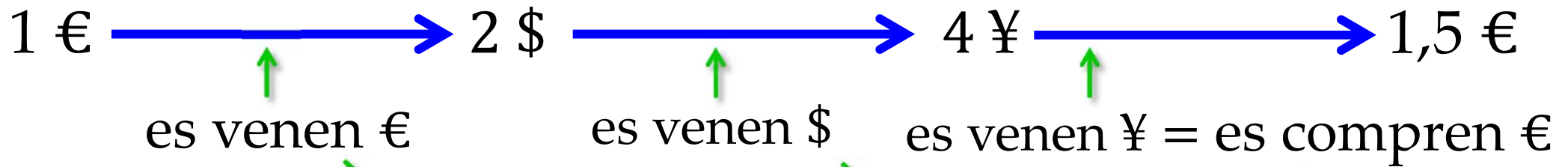


*Nova York*



*Londres*

# Arbitratge triangular



$\frac{\text{\$/€}}{\text{€}} \frac{\text{¥/\$}}{\text{\$}} > \frac{\text{¥/€}}{\text{€}}$

*amb arbitratge* →      ← *inicialment*

↓      ↓      ↑

# Intervenció en el mercat de divises

