

Explaining Changes in Exchange Rates

FIN 204 Lecture 14.1.

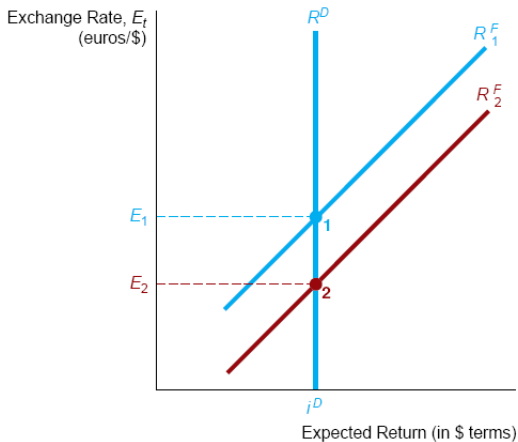
Petar Stankov

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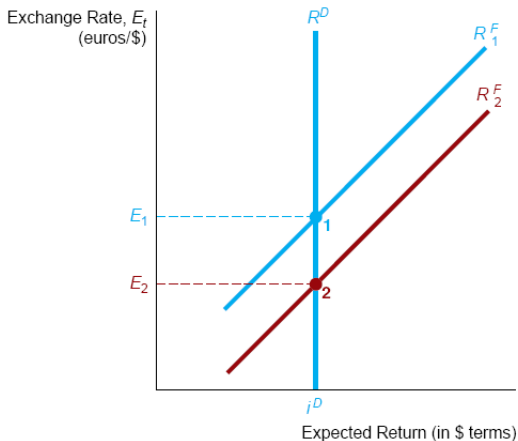
11 May 2008

- 1 How Do the Factors Changing the Exchange Rate Work?
- 2 Monetary Policy Impact on the Exchange Rates
- 3 Empirical Evidence of the Monetary Policy Impact on Exchange Rates

Changes in Expected Returns on Assets Abroad

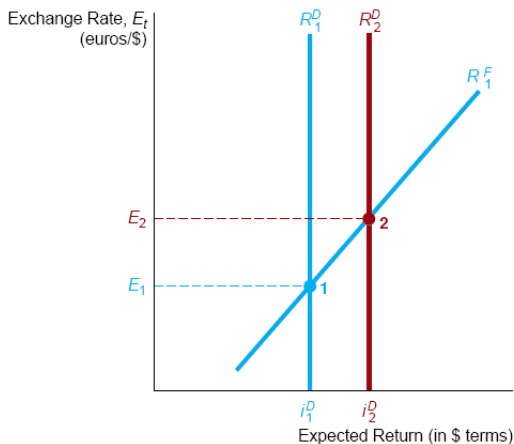


Changes in Expected Returns on Assets Abroad

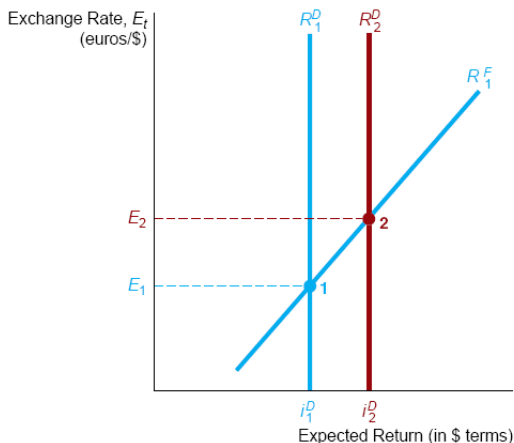


Expected returns on assets, and expected changes in nominal exchange rates shift the Euro ER curve.

Changes in Expected Returns on Assets at Home

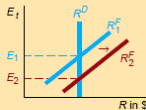
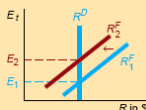


Changes in Expected Returns on Assets at Home

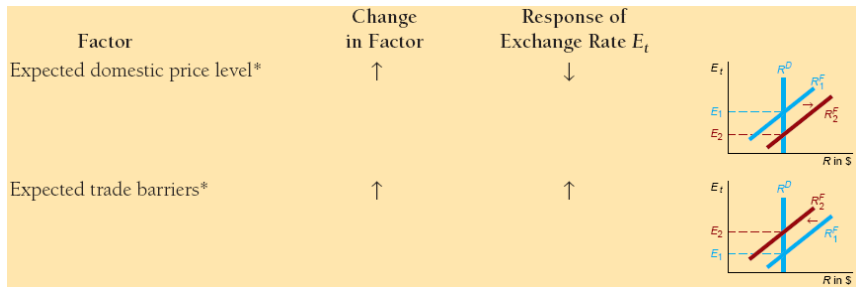


Changes in domestic interest rates shift domestic ER curve.

Changes in Other Factors (1)

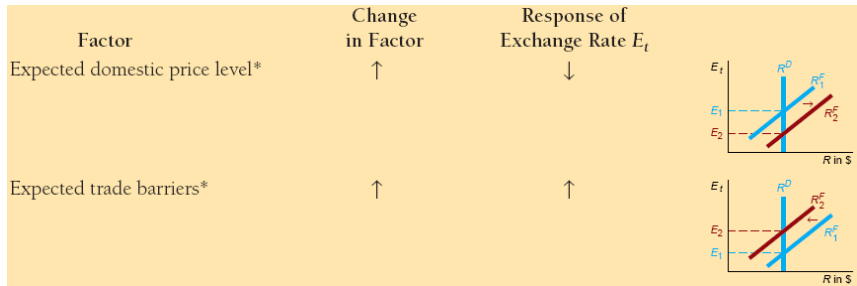
Factor	Change in Factor	Response of Exchange Rate E_t	
Expected domestic price level*	↑	↓	
Expected trade barriers*	↑	↑	

Changes in Other Factors (1)



Changes in domestic price level shifts domestic ER curve to the right.

Changes in Other Factors (1)



Changes in domestic price level shifts domestic ER curve to the right.
 Imposition of trade barriers shifts back the demand for foreign assets.

Changes in Other Factors (2)

Factor	Change in Factor	Response of Exchange Rate E_t	
Expected import demand	\uparrow	\downarrow	<p>The graph shows the exchange rate E_t on the vertical axis and the real interest rate R in dollars on the horizontal axis. A vertical blue line represents the domestic interest rate R^D. Two upward-sloping red lines represent the foreign interest rate R^F, with R^F_1 to the left and R^F_2 to the right. A blue line represents the domestic interest rate R^D. The initial equilibrium is at the intersection of R^D and R^F_1, corresponding to E_1. The new equilibrium is at the intersection of R^D and R^F_2, corresponding to E_2. Since $E_2 < E_1$, the dollar depreciates.</p>
Expected export demand	\uparrow	\uparrow	<p>The graph shows the exchange rate E_t on the vertical axis and the real interest rate R in dollars on the horizontal axis. A vertical blue line represents the domestic interest rate R^D. Two upward-sloping red lines represent the foreign interest rate R^F, with R^F_1 to the right and R^F_2 to the left. The initial equilibrium is at the intersection of R^D and R^F_1, corresponding to E_1. The new equilibrium is at the intersection of R^D and R^F_2, corresponding to E_2. Since $E_2 > E_1$, the dollar appreciates.</p>
Expected productivity*	\uparrow	\uparrow	<p>The graph shows the exchange rate E_t on the vertical axis and the real interest rate R in dollars on the horizontal axis. A vertical blue line represents the domestic interest rate R^D. Two upward-sloping red lines represent the foreign interest rate R^F, with R^F_1 to the right and R^F_2 to the left. The initial equilibrium is at the intersection of R^D and R^F_1, corresponding to E_1. The new equilibrium is at the intersection of R^D and R^F_2, corresponding to E_2. Since $E_2 > E_1$, the dollar appreciates.</p>

Changes in Exchange Rates and Monetary Policy

An application (1): Increase in expected inflation at home

Suppose $i_r^{US} = i^{US} - \pi_e^{US}$, and $i_r^{EU} = i^{EU} - \pi_e^{EU}$.

Changes in Exchange Rates and Monetary Policy

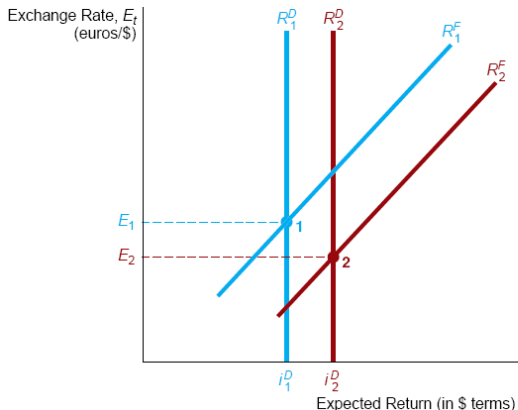
An application (1): Increase in expected inflation at home

Suppose $i_r^{US} = i^{US} - \pi_e^{US}$, and $i_r^{EU} = i^{EU} - \pi_e^{EU}$. Suppose $\pi_e^{US} \uparrow$.

Changes in Exchange Rates and Monetary Policy

An application (1): Increase in expected inflation at home

Suppose $i_r^{US} = i^{US} - \pi_e^{US}$, and $i_r^{EU} = i^{EU} - \pi_e^{EU}$. Suppose $\pi_e^{US} \uparrow$.



Inflation in US rises more than in the EU, and the US \$ depreciates.

Changes in Exchange Rates and Monetary Policy

An application (2): Increase in M_s at home

Suppose $M_s^{US} \uparrow \Rightarrow i_r^{US} \downarrow$.

Changes in Exchange Rates and Monetary Policy

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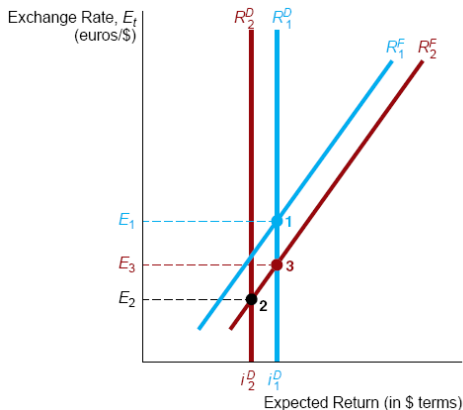
Moreover, $M_s^{US} \uparrow$ leads to $\pi_e^{US} \uparrow$.

Changes in Exchange Rates and Monetary Policy

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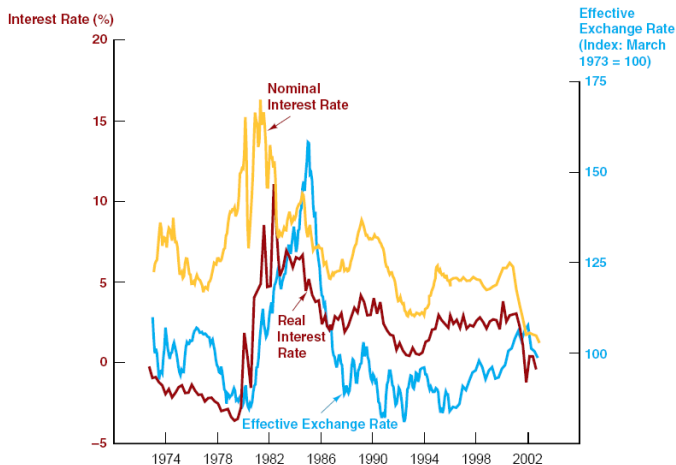
Moreover, $M_s^{US} \uparrow$ leads to $\pi_e^{US} \uparrow$.



Money supply in US rises, and the US \$ depreciates.

Changes in Exchange Rates and Monetary Policy

Empirical evidence



In the long-run, the exchange rate follows the movements of the Real Interest Rate.