EC566 – Macroeconomics for Business

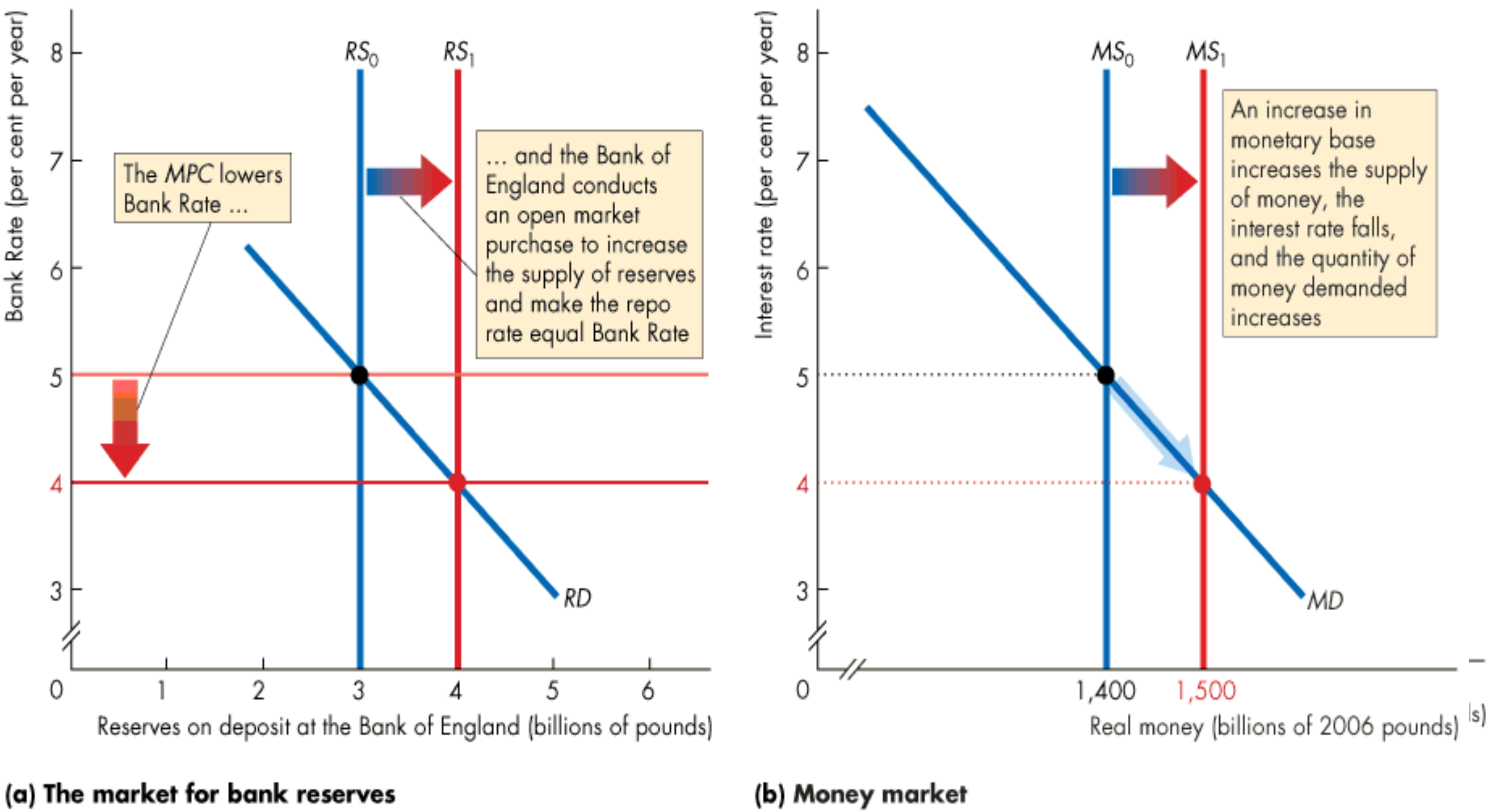
Revision

Monetary Policy

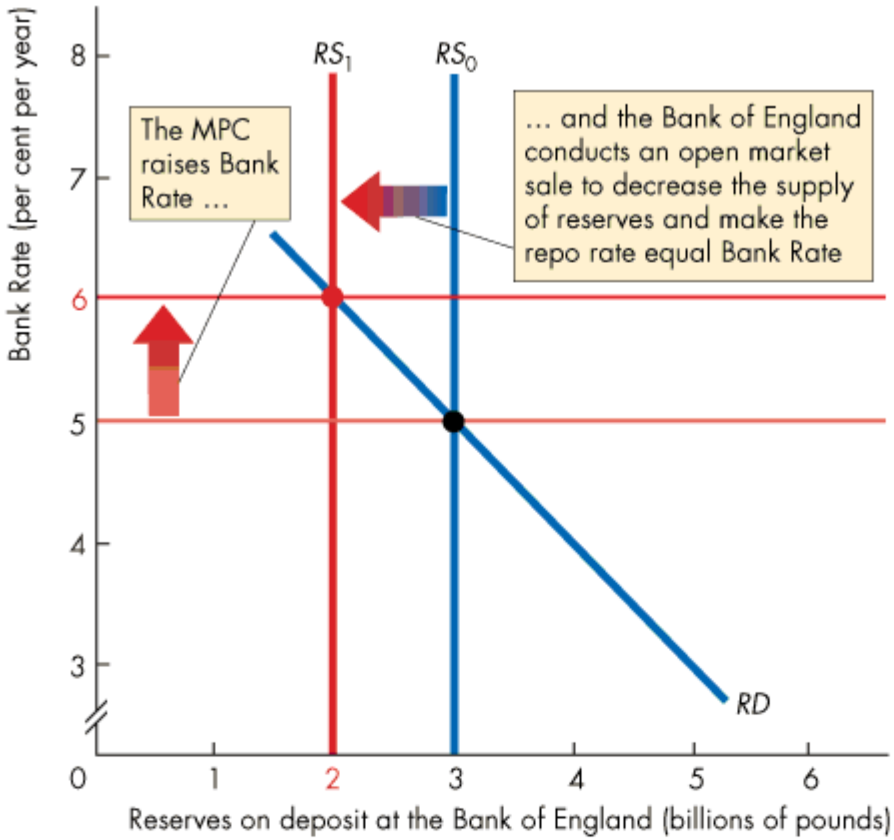
Instruments of Monetary Control

- Three ways to change the Interest rate in desired direction:
  - Open market operations
  - Reserve requirements
  - Bank Rate(UK) or Fund rate (USA) ; Interbank rate;
- Focus nowadays on setting interest rates
  - This involves setting the interest rate and accepting the equilibrium level of money necessary to deliver this rate

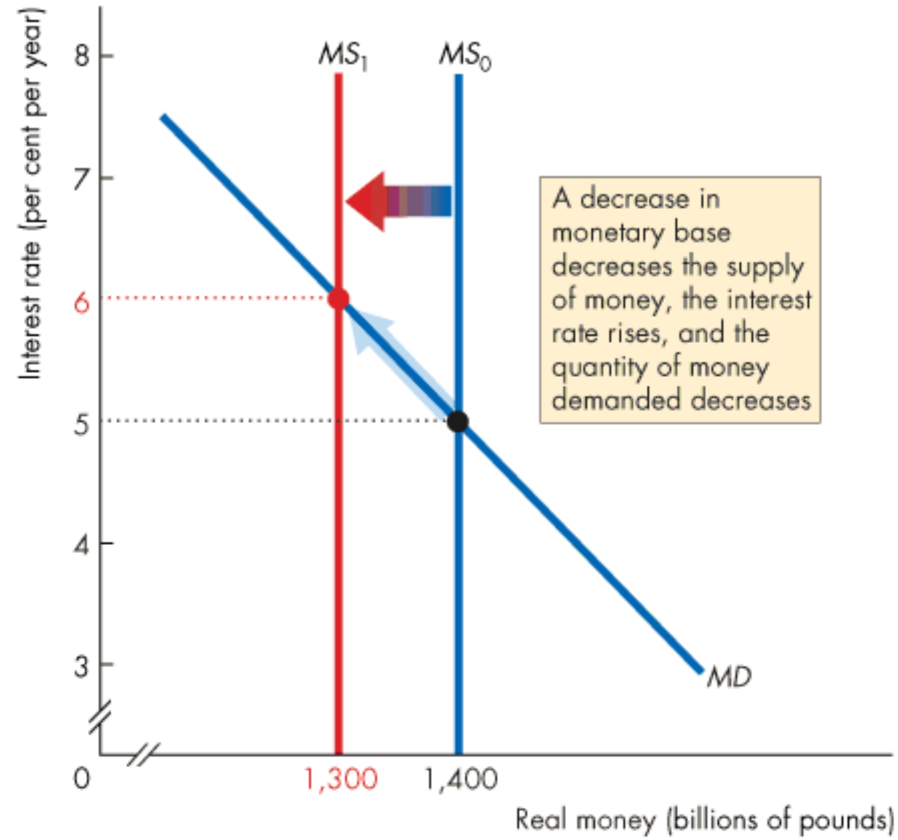
Setting Interest Rates Using Open Market Operations
Reduction in Bank Rate



Setting Interest Rates Using Open Market Operations
Increase in Bank Rate



(a) The market for bank reserves

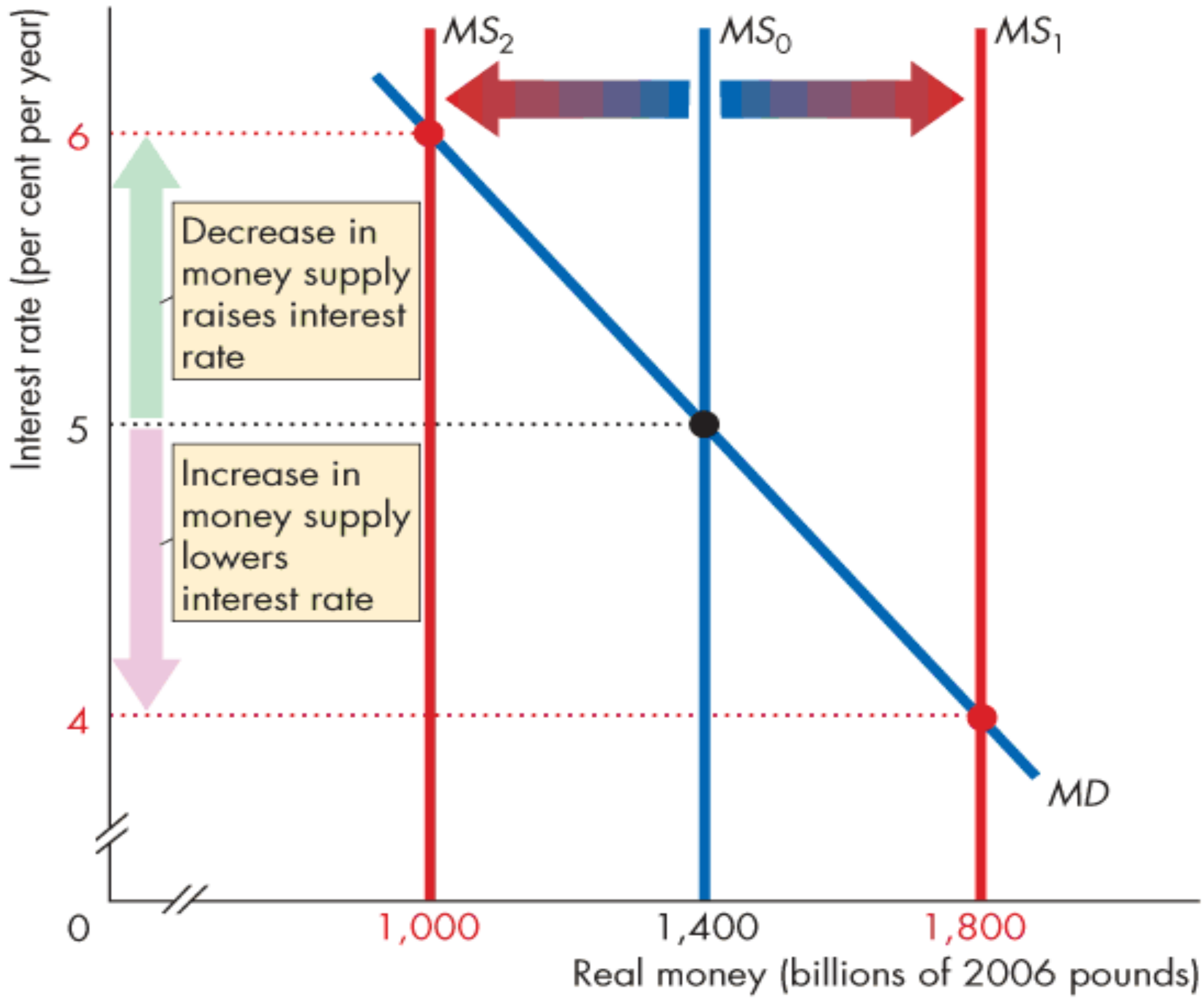


(b) Money market

Monetary Policy and Monetary Transmission Mechanism

- **Keynesian Transmission Mechanism:**
  - $\Delta M \xrightarrow{\text{BoE}} \Delta i \xrightarrow{\text{firms}} \Delta I \xrightarrow{\text{multiplier}} \Delta Y$
- **Monetarist Transmission Mechanism:**
  - $\Delta M \xrightarrow{\text{short run}} \Delta PY \xrightarrow{\text{long run}} \Delta P$
- Note: Δ means change in an economic variable (i = interest rate; I = investment; PY = nominal GDP)

Keynesian Monetary Transmission Mechanism



Monetary Transmission Mechanism

- Interest rate channel which impacts the costs of borrowing which affects investment (Keynesian)

- Asset price channel
  - For instance, an excess of money balances directly raises firms' equity prices. As a result, firms need to issue less new shares of stock in order to finance any new investment project. That is, investment becomes less costly for the firm.
  - Changes in asset prices (e.g., equities, real estate) also have an impact on consumption (*wealth effect*)

- Exchange rate channel
- AD stimulation by increase in AE from higher consumption spending and Net export increase effect

Unconventional Monetary Policy after financial crisis

- Drying up of credit in the aftermath of crisis – BoE took extraordinary measures to avert the collapse of broad money:

➢ Interest rate cuts – Interest rate lowered to maximum i.e. .5% from March 2009

➢ Banks bailouts – Lloyds TSB and HBO as well as RBS , practically nationalised

➢ Enhanced Liquidity support – long-term repos, wider collateral

➢ Quantitative Easing and Funding for Lending

➢ QE – Purchase of medium and long maturity govt. securities in secondary market and small amount of corporate purchases to improve market functioning

- QE1 – March 2009 – Jan. 2010 ; £200 bn
- QE2 & 3 – By Nov. 2012 - £175 bn in response to the growing Euro crisis

Cont…

- QE to go round the banks and increase asset prices through ‘Portfolio rebalancing’ channel
- Purchases through a subsidiary – BoE Asset Purchase Facility (APF)
- boosted cash reserves of the banks;
- bought long-term assets in the money market to lower their rates
- Purchase of financial assets from non-bank sector i.e. pension funds and insurance companies
- An attempt to lower the yields on longer term assets – portfolio balancing channel to stimulate deposits , lending and investment

Cont…

- Most studies of macro effects suggested – QE1 played a significant role in warding off output losses and deflation ; Bridges and Thomas (2012) Ashworth and Goodhart (2012)
- Clear effects on financial markets ; gilt yields fell and other asset prices rallied
- Portfolio balance effect – Joyce et al (2011)
- Large increase in corporate bond and equity issuance
- Impact of later purchases – more difficult to measure as markets grew familiar with role of asset purchase in BoE’s toolkit – Euro area also partly offset the effects by increasing risk aversion and reducing portfolio balancing

Funding for Lending Scheme (FLS)

- FLS launched by BoE and HM Treasury in 2012 as a response to protracted weakness of bank lending and euro crisis which increased funding costs facing banks
- To provide funding for an extended period – at below market rates with a direct link between quantity and price of funding from scheme and participating banks' performance in lending to real economy.
- Designed to encourage banks and building societies lending to businesses and households

Cont…

- FLS - Complementary to QE – goes directly through banks , not round them
- Reduces bank funding costs while QE reduces costs of capital market issuance
- Increased incentives for banks to lend to SMEs
- Widespread participation - 40 Banking groups i.e over 80% stock of eligible loans
- Reduction in terms and availability of credit for household borrowers and large corporates

Monetary expansion

- Analyze the impact of an increase in nominal money supply on the economy in the short run and in the long run

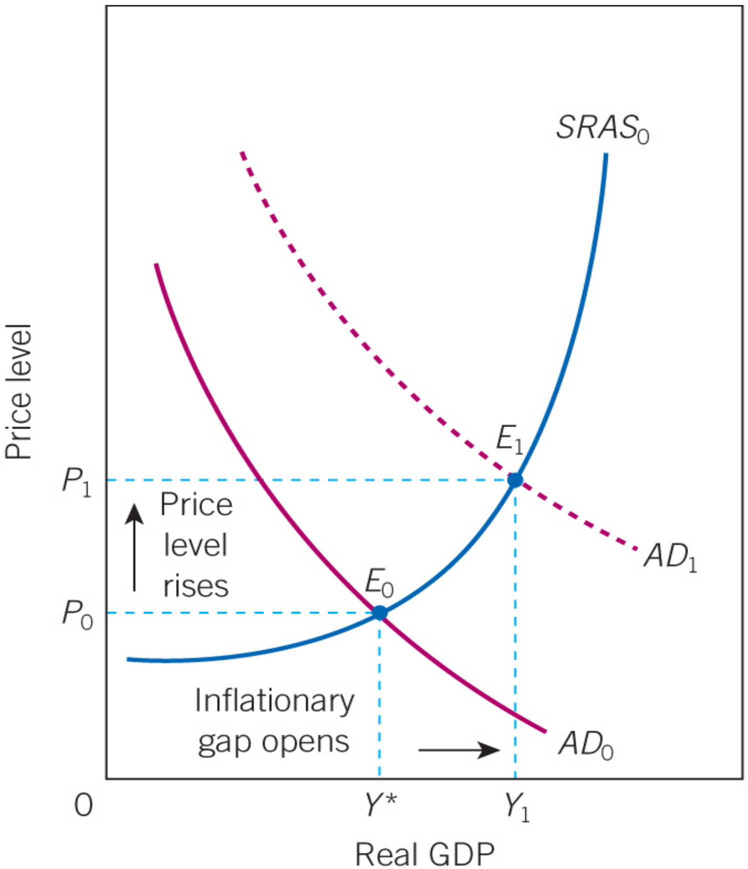
Monetary expansion

- Short run:
  - Nominal money increases
  - Real money stock (M/P) increases
  - Interest rate goes down (why?)
  - Increase in output
  - AD curve shifts to the right

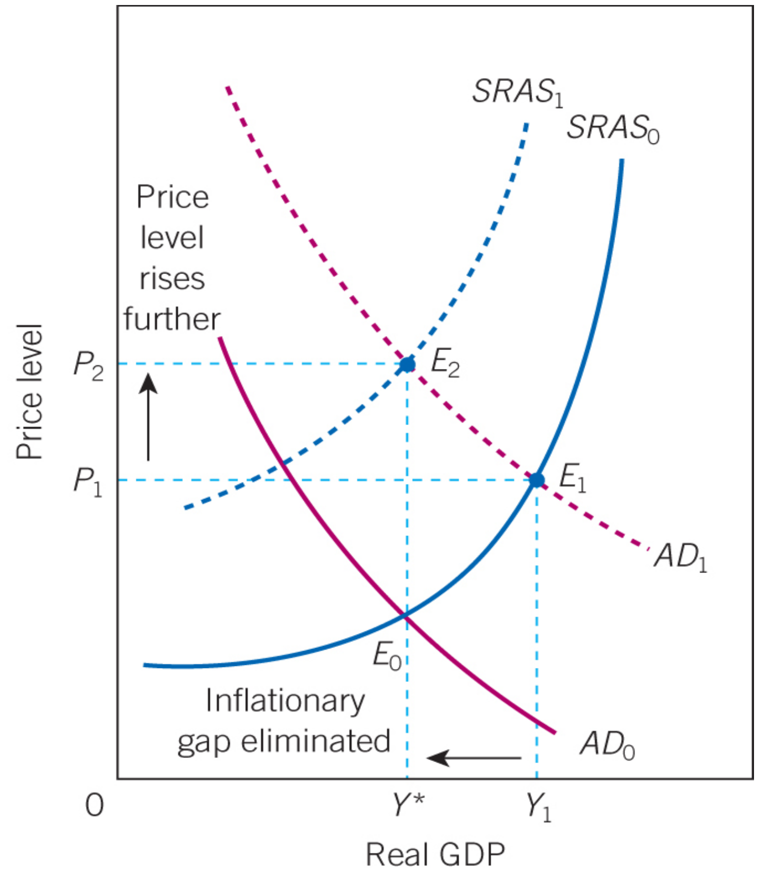
Monetary expansion

- Long run:
  - Factor prices and interest rate adjusts
  - Aggregate supply curve shift to the left
  - Output and interest rate return to their long-run level

Increase in nominal money supply



(i) Autonomous increase in aggregate demand



(ii) Induced shift in aggregate supply

Neutrality of money

- Increase in money supply
- Short run:
  - increase in output
  - decrease in interest rate
  - increase in price level
- Long run:
  - Proportional increase in price level
  - No effect on output
  - No effect on interest rate

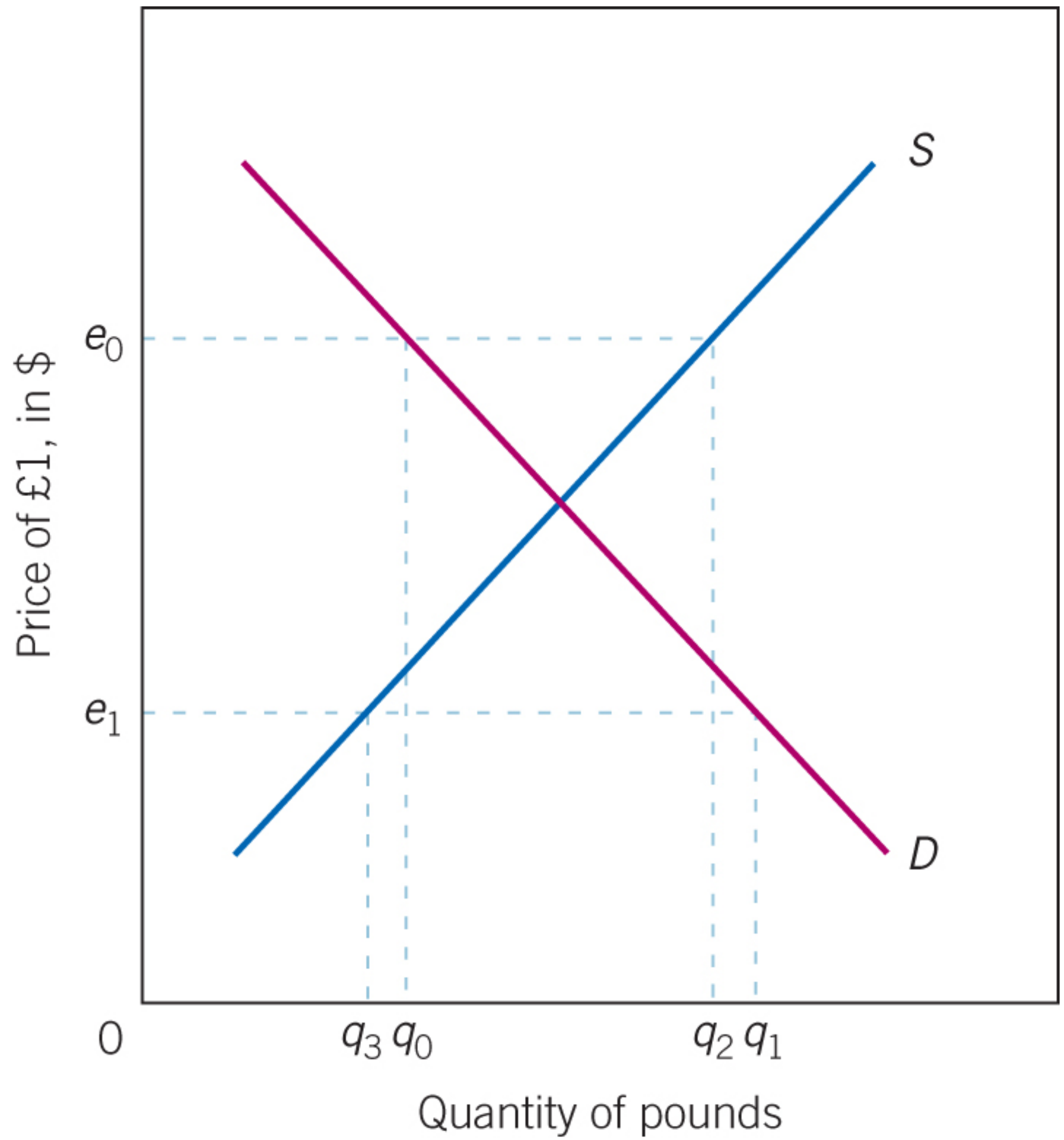
The demand for pounds

- The demand for pounds arises from all international transactions that generate a receipt of foreign exchange:
  - UK exports
  - Income payments and transfers
  - Capital inflows
  - reserve currency

Note!

The demand curve for pounds in the foreign exchange market is negatively sloped when it is plotted against the dollar price of £1.

The market for foreign exchange



The supply of pounds

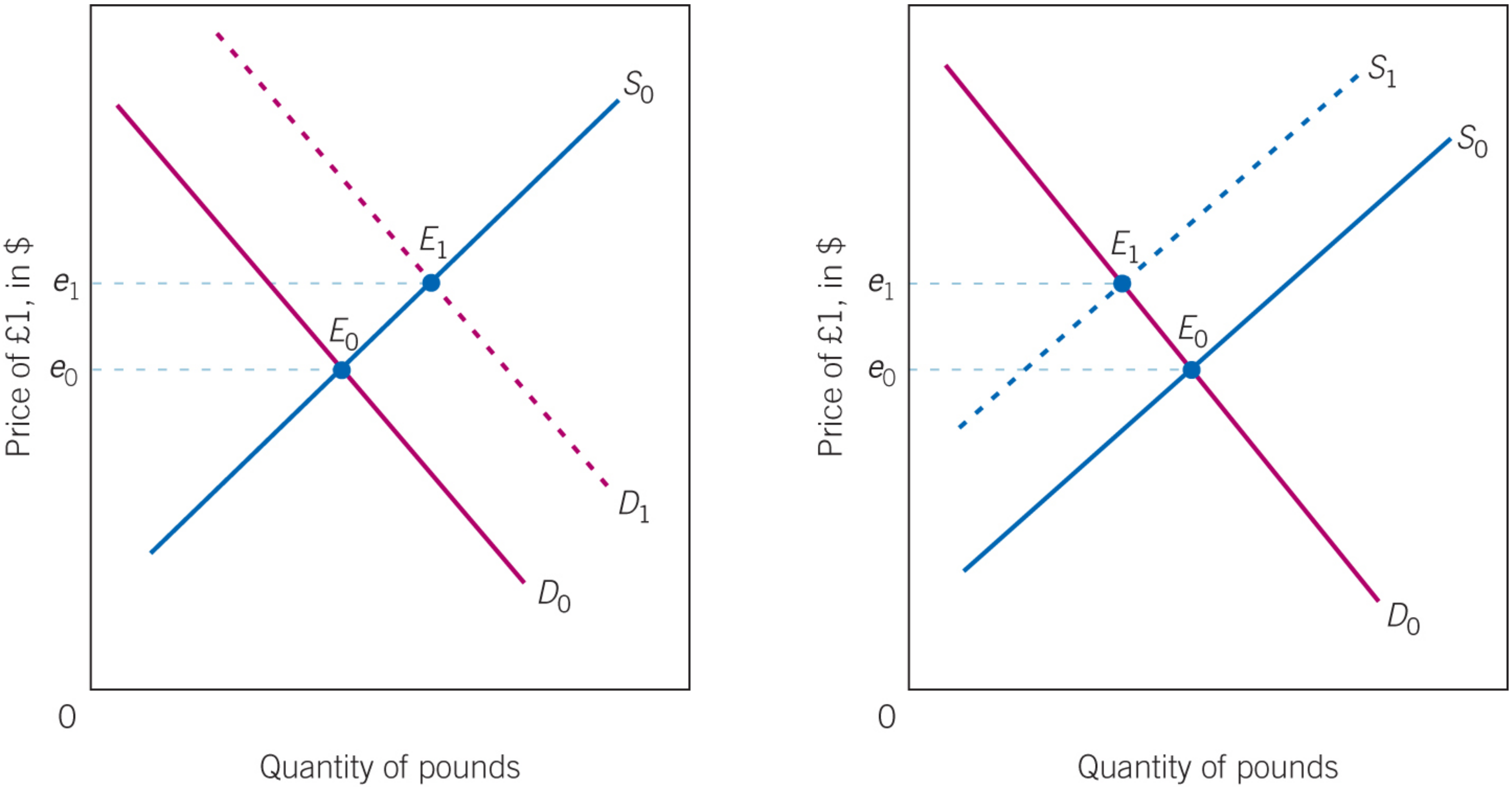
- The sources of supply of pounds in the foreign exchange market are merely the opposite side of the demand for dollars.

- The supply curve of pounds in the foreign exchange market is positively sloped when it is plotted against the dollar price of £1.

Changes in exchange rates

- What causes the shifts in demand and supply that lead to changes in exchange rates?
  - a rise in the domestic price of exports (Increase in price of UK made equipment; demand for pounds related to price elasticity of foreign demand for UK goods)
  - a rise in the foreign price of imports
  - Changes in price levels
  - Capital movements (short-term and long-term capital movements)

Changes in exchange rates



(i) Demand shifts

(ii) Supply shifts

Capital movements

- Major capital flows can exert a strong influence on exchange rates

- ***A significant movement of investment funds has the effect of appreciating the currency of the capital-importing country and depreciating the currency of the capital-exporting country.***

Implications of overshooting

- Over- shooting of the exchange rate in response to interest rate changes may be one of the most important elements of the monetary transmission mechanism.
- Central banks using monetary policy to attain domestic policy target i.e inflation – can result in large fluctuations in exchange rate
- Tight monetary policy – appreciation of exchange rate and may lead to recession through decreased demand for domestic exports
- Two UK recessions in early 1980s and 1990s – tight monetary policy – overvalued exchange rate

Balance of Payments

- A country's **balance of payments accounts** records its international trading, borrowing, and lending.
- **Current account** records goods and services to other countries (exports), minus payments for goods and services bought from other countries (imports), plus the net amount of interest and transfers received from and paid to other countries.

Balance of Payments

- **Capital and financial account** records foreign investment in a country minus the country's investment abroad.
- **Official settlements account** records the change in a country's official reserves.
- **Official reserves** are the government's holdings of foreign currency.
- Next slide shows the U.S. balance of payments in 2015.

The U.S. Balance of Payments Accounts in 2015

Current account	**(billions of dollars)**
Exports of goods and services	+2,261
Imports of goods and services	−2,761
Net interest	+193
Net transfers	−156
Current account balance	**−463**
Capital and financial account	
Foreign investment in the United States	+402
U.S. investment abroad	−200
Other net foreign investment in the United States	−1
Statistical discrepancy	+268
Capital and financial account balance	**+469**
Official settlements account	
Official settlements account balance	**−6**