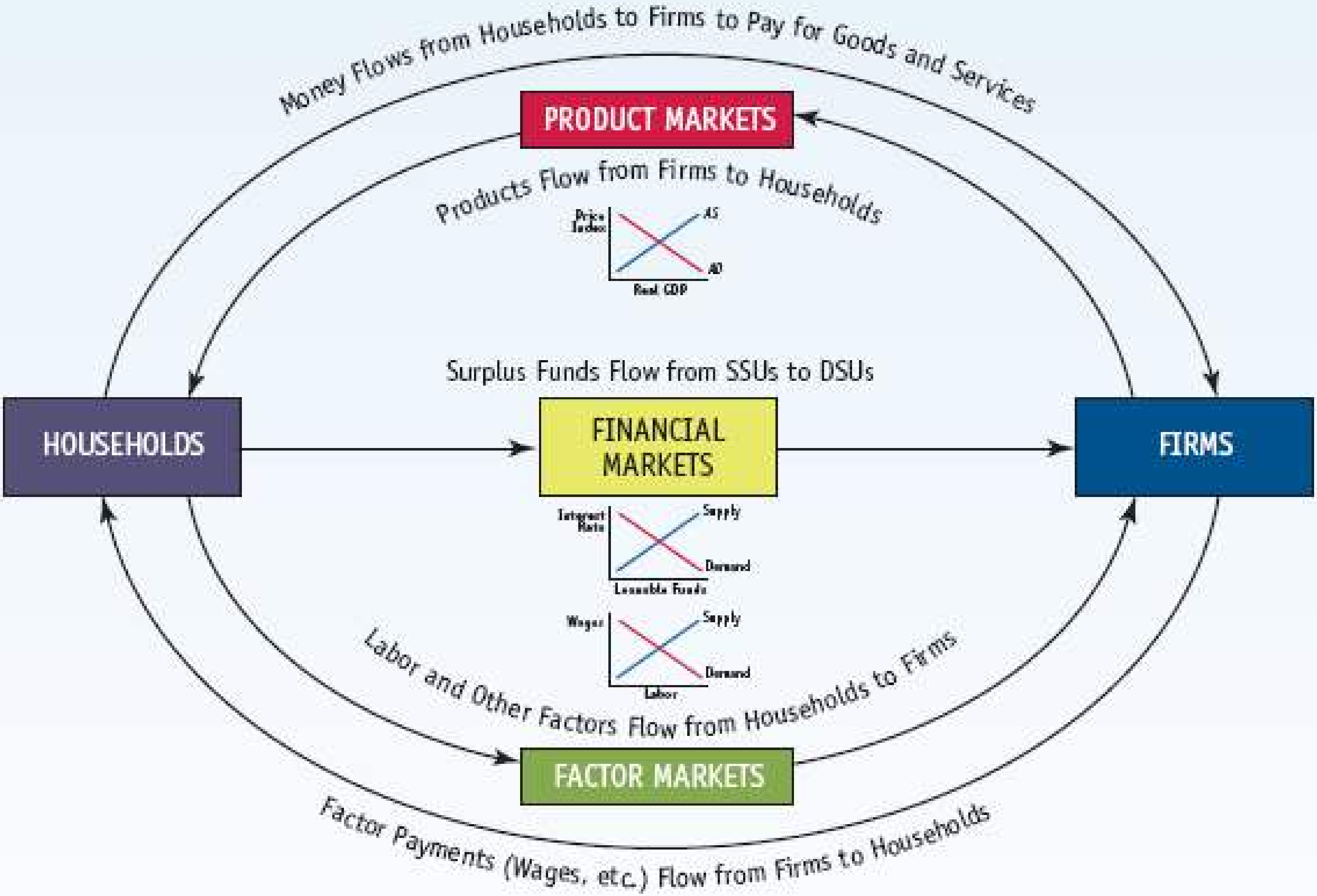
The Role of Money and Credit

The Circular Flow of Income and Expenditure

- The circular flow analysis reveals the patterns of order that link households, firms, financial markets, and financial intermediaries
  - we will assume a simplified economy where firms and households meet in three markets
    - product (output) market
    - factor (input) market
    - financial market

The Circular Flow Diagram



The Circular Flow Diagram

- Real flows of products and the services of factors of production flow in one direction
- Money flows in payment for the products and the use of factors of production flow in the opposite direction

The Circular Flow Diagram

- Households supply labor and other factors of production
  - money flows from the businesses to households in payments for the services of labor and the other factors of production
    - these payments for factor services are household income

The Circular Flow Diagram

- Households purchase consumer goods and services and new houses from businesses
  - households usually do not spend all of their income on goods and services
- The financial system links these net lenders with net borrowers
  - the net borrowers are usually businesses that borrow funds to purchase investment goods

The Circular Flow Diagram

- Prices in the output, factor, and financial markets adjust to coordinate and balance the supplies and demands resulting from the plans of households and businesses to produce, spend, borrow, and lend
  - any change in one market will be felt throughout all markets in the form of price and quantity adjustments

The Role of Firms in the Circular Flow

- Firms supply
  - goods and services to the product market
- Firms demand
  - investment goods supplied by other firms
  - factor services in the factor (input) market
  - funds from the financial market

The Role of Households in the Circular Flow

- Households demand
  - goods and services in the product market
- Households supply
  - factor services in the factor (input) market
  - funds to the financial system

The Role of Markets in the Circular Flow

- The various markets coordinate and balance the supplies and demands
- A change in supply or demand in one market will have repercussions in other markets
  - we cannot analyze the financial system without examining the other markets

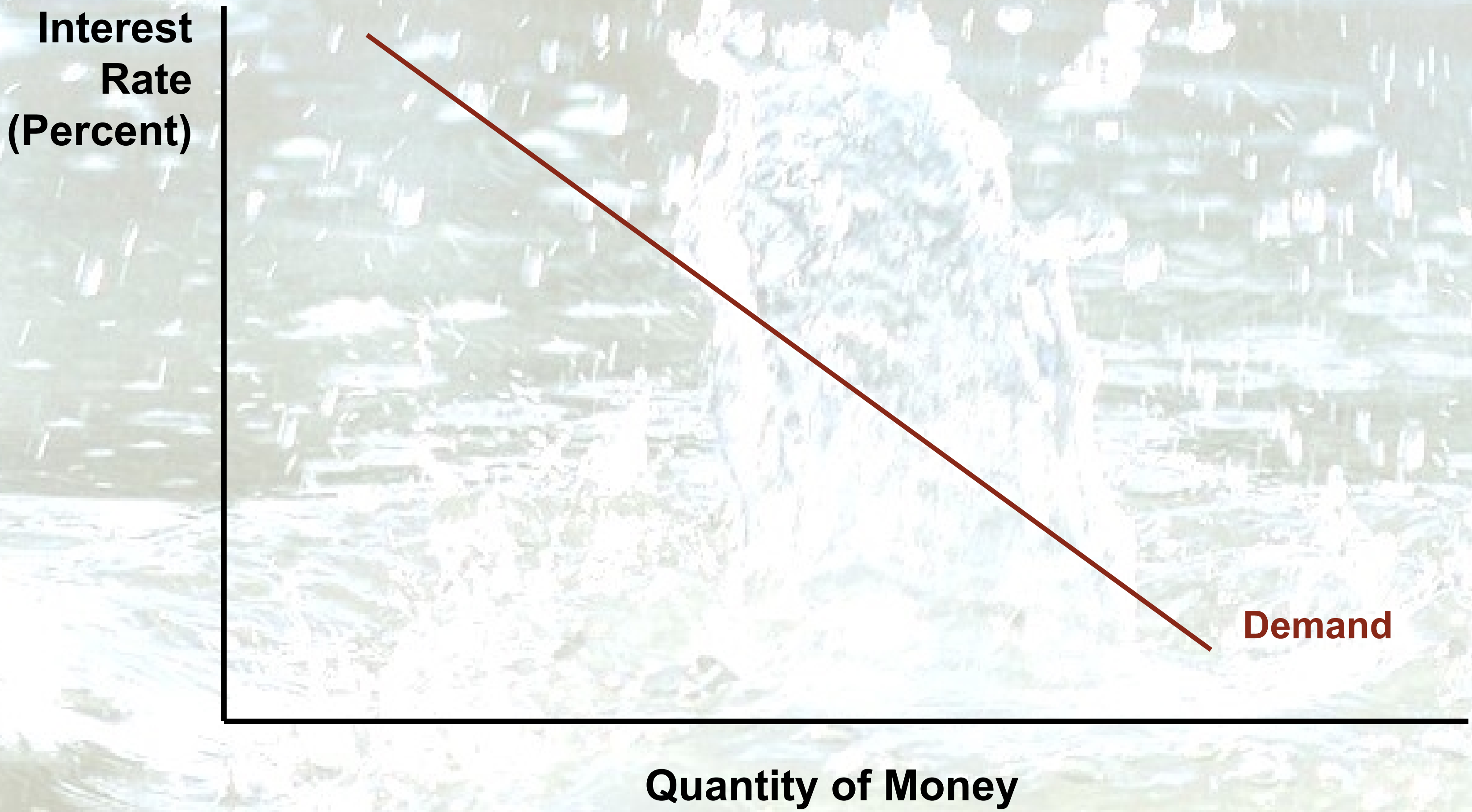
Money

- To understand money's role in the financial system, it is helpful to view money as an asset
- The interest rate is the cost to borrowers of obtaining money and the return on money to lenders
  - the interest rate is a rental rate
  - the interest rate is the cost of credit

The Demand for Money

- The quantity demanded of money is the amount of money that spending units wish to hold at a specific interest rate (price)
  - holding other factors constant, there is an inverse relationship between the quantity demanded of money and the interest rate
    - as the interest rate rises, the quantity demanded of money falls
    - as the interest rate falls, the quantity demanded of money rises

The Demand for Money



The Demand for Money

- The demand for money is primarily determined by spending plans and by the need to pay for purchases
- Spending plans are influenced by income
- Thus, the demand for money is positively related to income

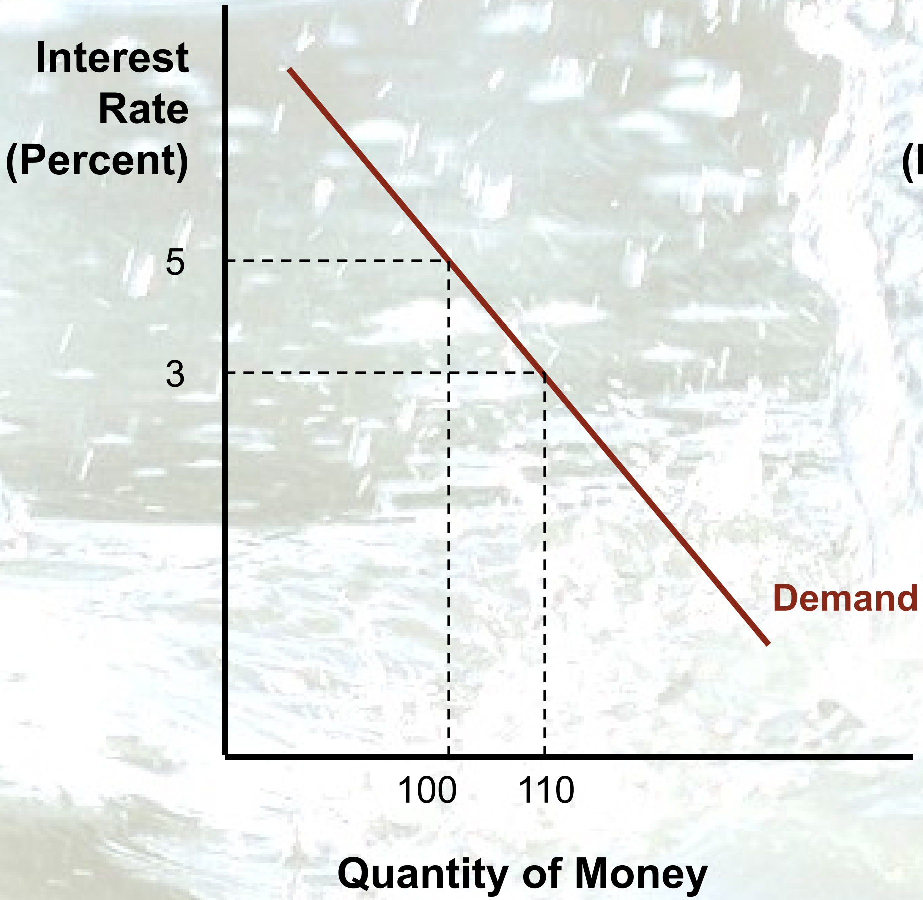
The Demand for Money

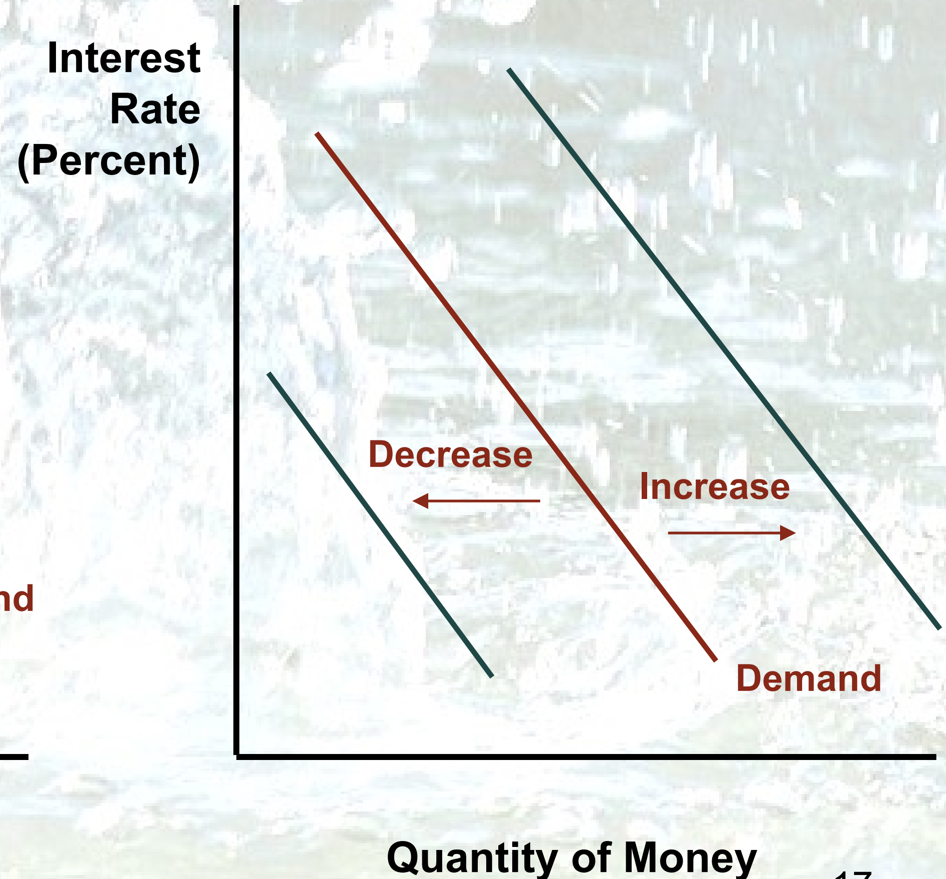
- The demand for money is also determined by other factors
  - inflation
  - changes in computer and telecommunications technologies that affect the payments mechanism
  - changes in the risk and liquidity of other financial instruments

The Demand for Money

- When the demand for money changes, the entire demand curve shifts
  - a decrease in demand is a shift to the left
  - an increase in demand is a shift to the right
- When the interest rate changes, we move along a single money demand curve
  - change in quantity demanded

Changes in the Quantity Demanded of Money Versus Changes in the Demand for Money





The Supply of Money

- Financial intermediaries that issue checkable deposits hold reserve assets equal to a certain fraction of these deposits
  - these reserves may be held as either vault cash or deposits at the Fed

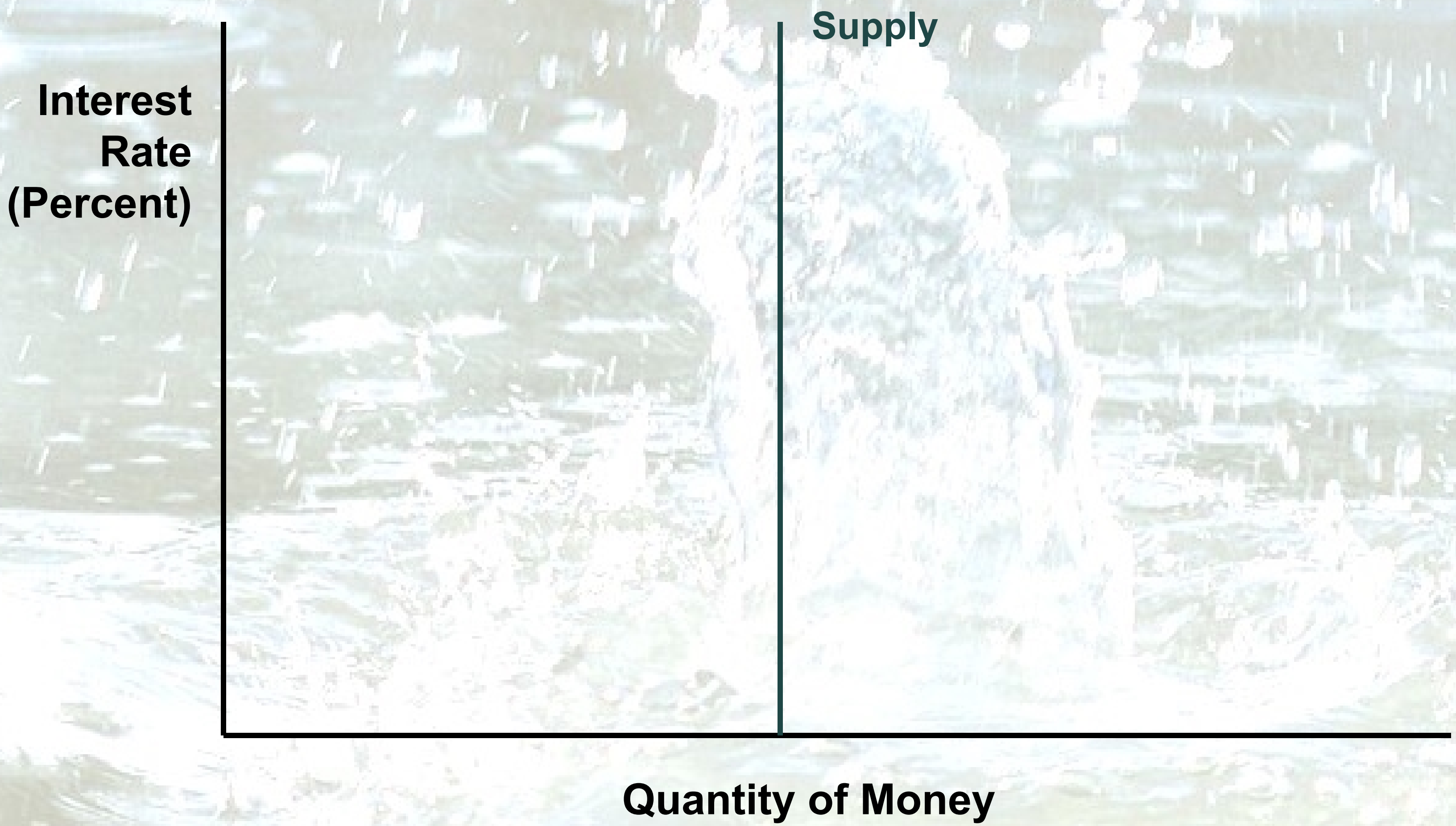
The Supply of Money

- A depository institution must have reserve assets equal to a certain percentage of its deposit liabilities
  - this percentage is called the required reserve ratio
- The Fed influences the amount of cash assets outstanding and hence available for reserves

The Supply of Money

- Since the Fed controls the amount of funds available for reserves and sets the required reserve ratio, it has significant influence on the money supply
  - the relationship between the quantity supplied of money and the interest rate will be a vertical line

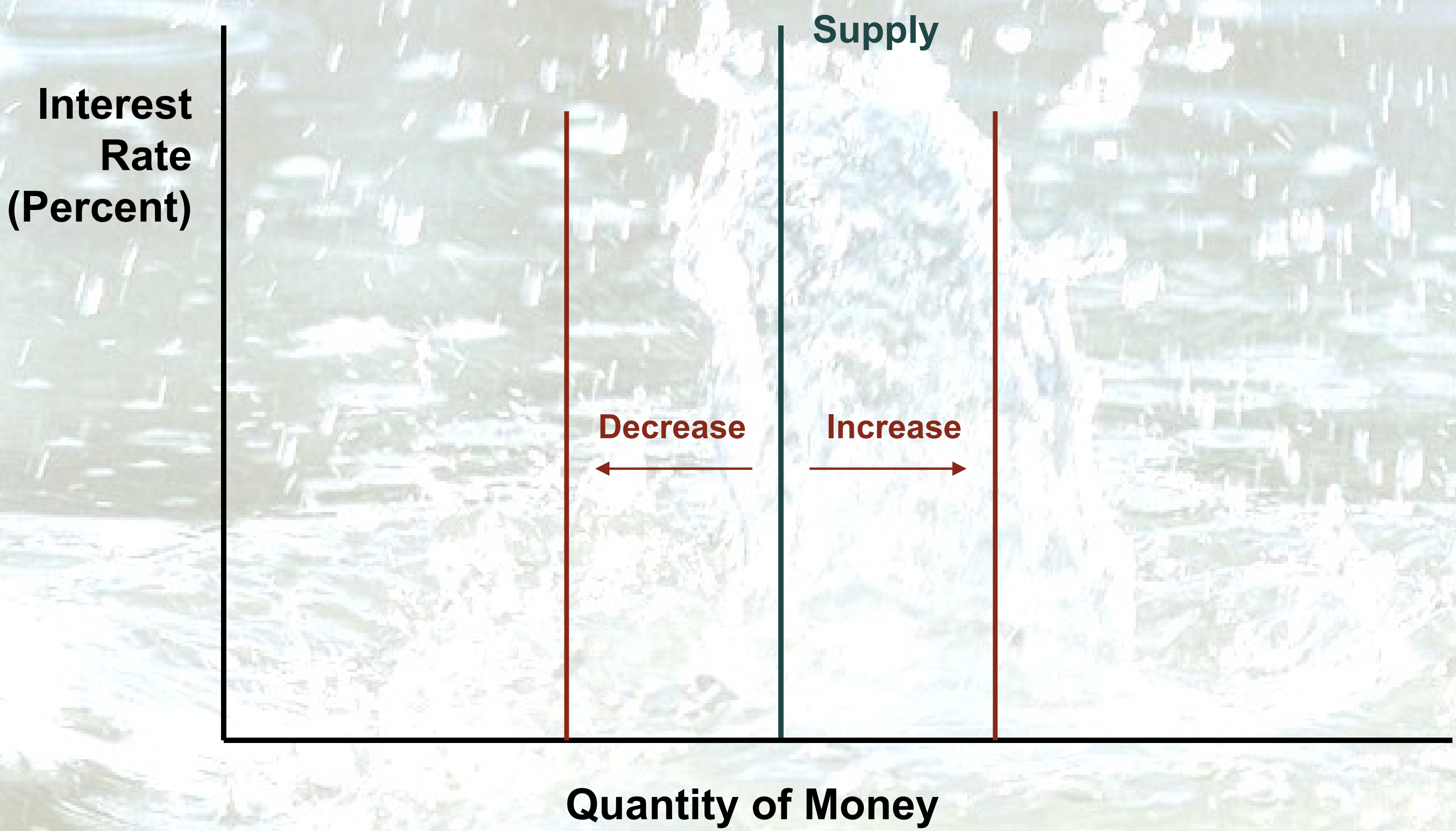
The Supply of Money



The Supply of Money

- Changes in the money supply are initiated by the Fed
  - if the Fed speeds up the provision of reserves or reduces the required reserve ratio, the money supply curve shifts to the right
  - if the Fed slows down the provision of reserves or increases the required reserve ratio, the money supply curve shifts to the left

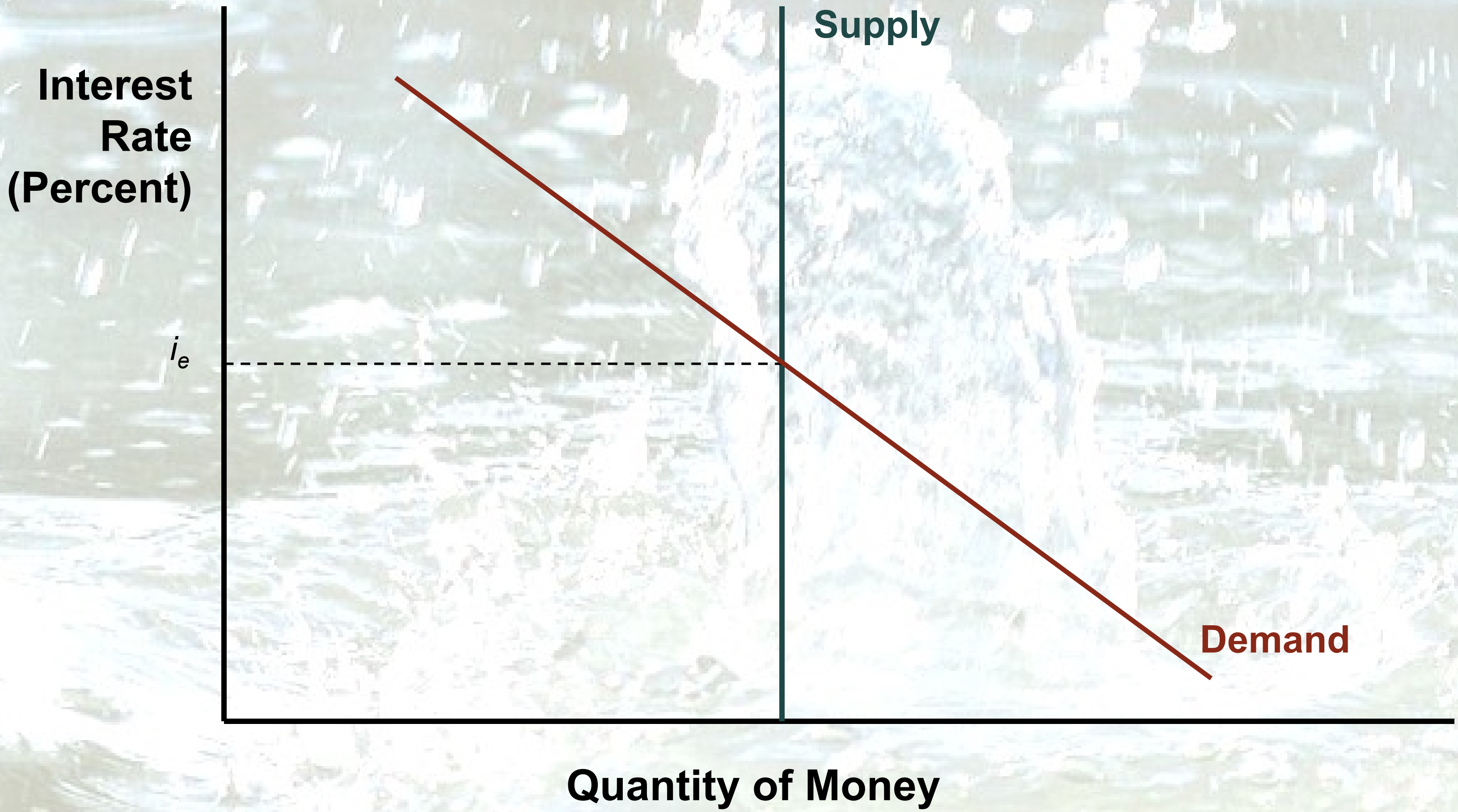
Changes in the Supply of Money



Money and Interest Rates

- The money market gravitates to the equilibrium interest rate (i_e)
  - occurs where the quantity supplied of money is equal to the quantity demanded of money
  - if the interest rate > i_e, there is an excess quantity supplied of money
    - there will be downward pressure on the interest rate
  - if the interest rate < i_e, there is an excess quantity demanded of money
    - there will be upward pressure on the interest rate

Market Equilibrium



Changes in Market Equilibrium

- Changes in the supply of or demand for money will affect the interest rate
- Suppose that the demand for money rises
  - there will be excess quantity demanded at the original interest rate
  - the interest rate will rise until the market moves to a new equilibrium