Chapter 13, Money and the Economy

I. Money and Prices
   A. The Equation of Exchange:  \( MV = PQ = GDP \)
      1. Velocity defined
      2. Velocity calculated
      3. Verbally: Expenditures (MV) = Sales (PQ)
   B. The Quantity Theory of Money
      1. Stated: Assuming that \( V \) and \( Q \) are relatively constant (fixed), then changes in the Money Supply lead to changes in Prices.
      2. If \( MV = TE \), and \( TE = C + I + G + NX \), then changes in the Money Supply (or in Velocity) lead to a shift in AD.
      3. If \( Q \) (real GDP) is relatively fixed in the short run, then AS is vertical, and changes in the Money Supply lead to changes in prices and nothing else.
      4. Dropping the constancy assumptions..., \( P = \frac{M*V}{Q} \): Prices depend on M, V, Q.

II. Monetarism
   A. Revised assumptions
      1. Velocity changes in a predictable way.
      2. AD depends on \( V \) and the Money Supply, not \( C, I, G, NX \)
      3. SRAS is upward sloping, not vertical.
      4. The self-regulating economy -- flexible wages and prices.
   B. When Velocity or the Money Supply change...
      1. AD will shift in one direction and SRAS will shift in the other to get back to LRAS.
      2. The short run and long run impacts are different.
         a. In the short run, both the price level and RGDP can change.
         b. In the long run, only the price level changes.

III. Inflation
   A. One-Shot Inflation
      1. Demand induced: AD Shift, followed by self-regulating SRAS shift.
      2. Supply-Side induced: SRAS shift, followed by reverse self-regulating SRAS shift.
   B. Continued Inflation: It takes continued increases in AD to cause continued inflation, whether the initial shock is an AD increase or a SRAS decrease.

IV. Money and Interest Rates
   A. Increased MS reduces interest rates through increased supply of loans.
   B. Increased MS also affects interest rates (decrease and increase) through Real GDP
      1. An increase in RGDP increases the demand for bonds, driving up the price of bonds and reducing bond returns (and interest rates).
      2. An increase in RGDP increase business expectations -- to expand they issue more bonds, lowering the price of bonds and increasing bond returns (and interest rates).
   C. Increased MS increases interest rates through prices (inflation, increased borrowing).
   D. Increased MS increases interest rates through inflationary expectations
   E. Which effect dominates? It’s an “empirical issue”....
   F. Real interest rates are nominal interest rates with inflation subtracted.

Chapter 14, Monetary Policy