ECO 301: Money and Banking **Name:** ____________________________

In-class Exercise: Supply and Demand for Bonds

Learning Objective: LO3: Predict changes in interest rates using fundamental economic theories including present value calculations, behavior towards risk, and supply and demand models of money and bond markets.

Directions: Work in groups of up to four people and answer the following questions. All papers will be collected, but only one member's paper will be randomly selected and graded and all members of the group will receive the same grade.

By signing below, you agree that the following work represents the efforts of everyone in the group, and you are willing to accept as your own grade for the group project the grade earned from this representation of your group's work. Every member must agree to these terms to earn a non-zero grade for this assignment.

____________________	____________________	____________
Signature Group Member 1	Print Name	Date
____________________	____________________	____________
Signature Group Member 2	Print Name	Date
____________________	____________________	____________
Signature Group Member 3	Print Name	Date
____________________	____________________	____________
Signature Group Member 4	Print Name	Date

1. Suppose businesses have an optimistic outlook and expect an increase in sales and profits over the next several years. Describe and illustrate the impact on the market for bonds. What is the equilibrium impact on the price of bonds, the interest rate on bonds, and the quantity of trading?

2. Suppose consumers expect a decrease in interest rates over the next few months and years. Describe and illustrate the impact on the market for bonds with maturity dates between one and two years. What is the equilibrium impact on the price of bonds, the interest rate on bonds, and the quantity of trading?

3. Suppose an improvement in machine learning technology allows for more reliable ratings of bonds, allowing for businesses and consumers to trade larger quantity and greater variety of bonds with more confidence. Describe and illustrate the impact on the market for bonds. What is the equilibrium impact on the price of bonds, the interest rate on bonds, and the quantity of trading?

4. The Federal Reserve can print money and also owns reserves of Treasury bonds and other securities. Recently the Fed has kept interest rates extremely low (the Federal Funds rate is between 0% and 0.25%).

   (a) (10 points) Use a supply and demand market for *money* to illustrate how the Fed can keep interest rates so low. Explain what action the Fed must be taking.

   (b) (10 points) Use a supply and demand market for bonds to illustrate how the Fed can keep interest rates so low. Explain what action the Fed must be taking.

   (c) (10 points) How might the Fed's actions on money supply affect expected inflation? If this happens, describe and illustrate the impact in the bond market? What happens to equilibrium bond prices, quantity of bonds, and interest rates?

5. (10 points) Suppose there is an increase in *uncertainty* about future interest rates. Describe and illustrate the impact on equilibrium interest rates and bond prices for long-term bonds. Describe and illustrate the impact on short-term bonds? Describe the impact on the difference between short-term and long-term bonds.

6. Suppose people expect government deficits to continue to grow and the government to do little or nothing to reduce national debt.

   (a) (10 points) Describe and illustrate the impact of this expectation on expected future interest rates.

   (b) (10 points) Describe and illustrate the impact the *expectation* that you describe in part (a) has on the bond market today.

   (c) (10 points) How does this effect investment in new capital equipment, such as construction of new buildings, factories, and machines? What impact will this have on GDP today? What impact will this have on GDP in the long run?