Econ 2 - Lecture 15 - 5/21/25

Lecture Quiz # 7 Released today, due next Wednesday
↳ No lecture on Monday (Memorial Day)

Discussion Activity # 4: Gamification Exploration → Play the game before section!

Final Exam: June 10th, 40 Multiple Choice Questions

↳ Practice Exam Posted → Post Answer Key in week 10

Next Part of Class: Monetary Policy (Chapter 6)

Last Class: Categories of Money

M1 Money: Highly Liquid forms of money → Cash, Checking Acct.

M2 Money: M1 + Less Liquid forms

Certificate of Deposits (CDs)
Money Market Funds

Credit Cards? Money? X Short-term Loans
↳ Means of Payment
↳ Not a store value

Role of Banks
↳ Firms that maximize profit
↳ Broker services between savers + borrowers
Charging interest for loans (Price = P)
Incentivize savers by paying interest (AUC = interest rate on savings)

Fractional Reserve Banking System:
Banks can create money to lend out, not 100% backed

Federal Reserve: Central Bank of US

↳ Bank for banks

↳ Monetary Policy Makers

Meet 8 times/yr → next meeting June 17th

Chair: Jerome Powell, 6 Board Members,

12 Branch Presidents

→ Easier to enact monetary policy → fewer voices

Federal Reserve: Dual Mandate

1. Maximize employment
2. Stabilize Prices → 2% inflation target

Monetary Policy: changing the M1 money supply

↳ open market operations ⇒ alter M1 Money Supply

↳ targeting short-term interest rates

→ Federal funds Rate: Interest rate charged on overnight, bank-to-bank lending

Lower bound on interest rates in financial system

If FFR ↓ ⇒ 30-yr mortgage rate ↓

FFR ↑ ⇒ 30-yr mortgage rate ↑

Open market Purchases: Fed buys bonds from public

→ Public gets cash ⇒ M1 increases

Open market Sales: Fed sells bonds to public

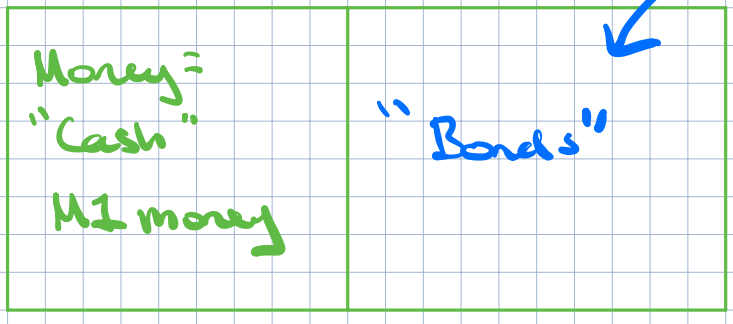
→ Public gives up cash ⇒ M1 decreases

Develop a market for money

Supply & Demand for money

What makes you want to hold on to M1 money instead of a bond?

Wealth Box



Other Assets
⇒ Real Estate, Stocks, Bonds, etc.

Benefit of holding M1 Money:
Buy goods/services without transaction costs

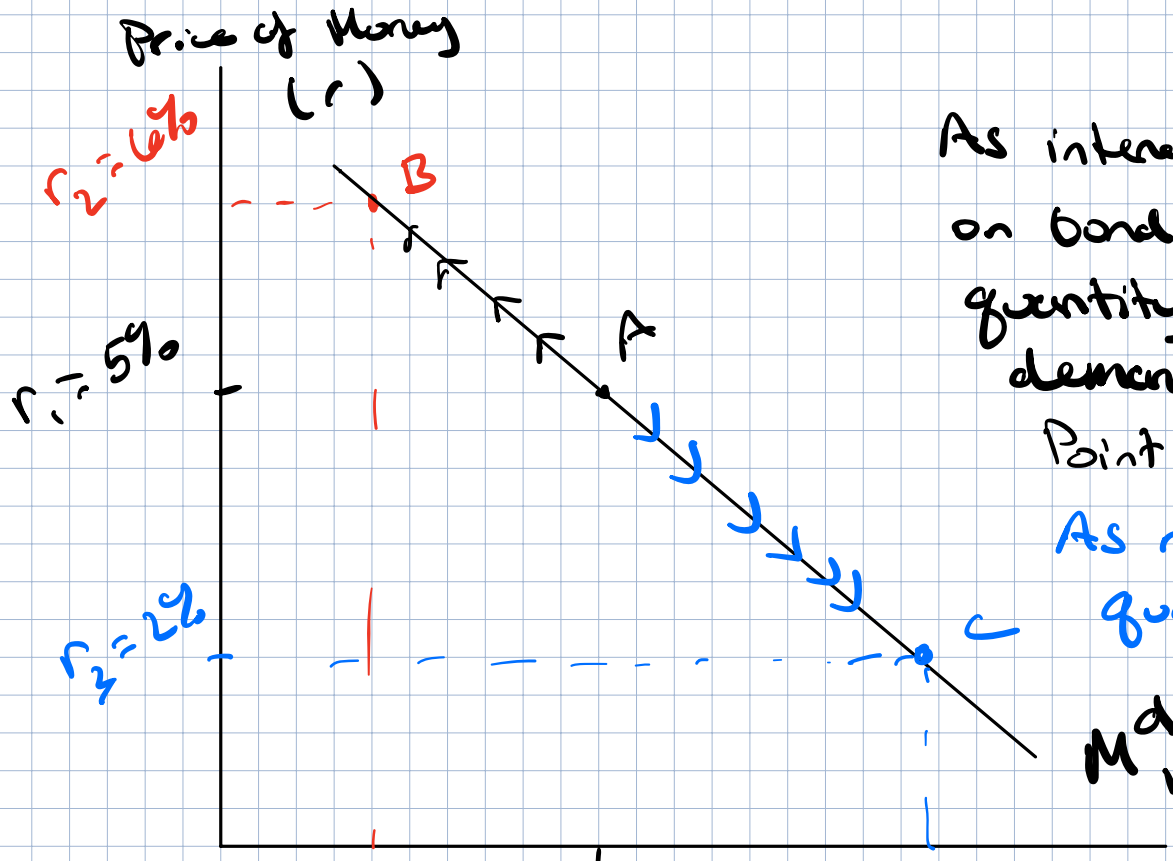
Cost of holding M1 money:
Return on "other assets" = "bonds"

Opportunity cost of M1 money:
foregoing interest rate on bonds

Price of M1 money = interest rate = r

Convert relationship between price of money (r) and quantity of M1 money that households demand

Demand for Money (M1)



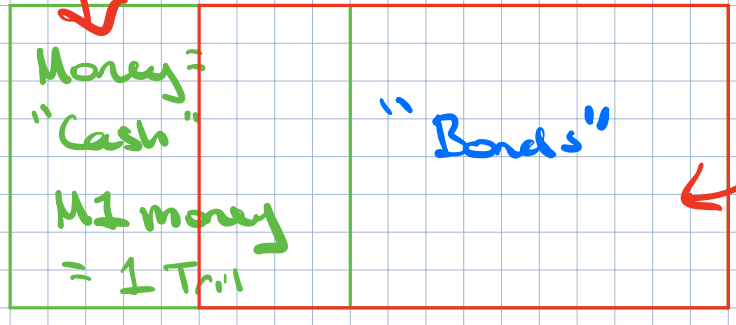
As interest rate on bonds increases, quantity of money demanded decreases Point A to Pt. B

As r ↓ quantity of money demanded ↑

Less Cash Demanded

Wealth Box

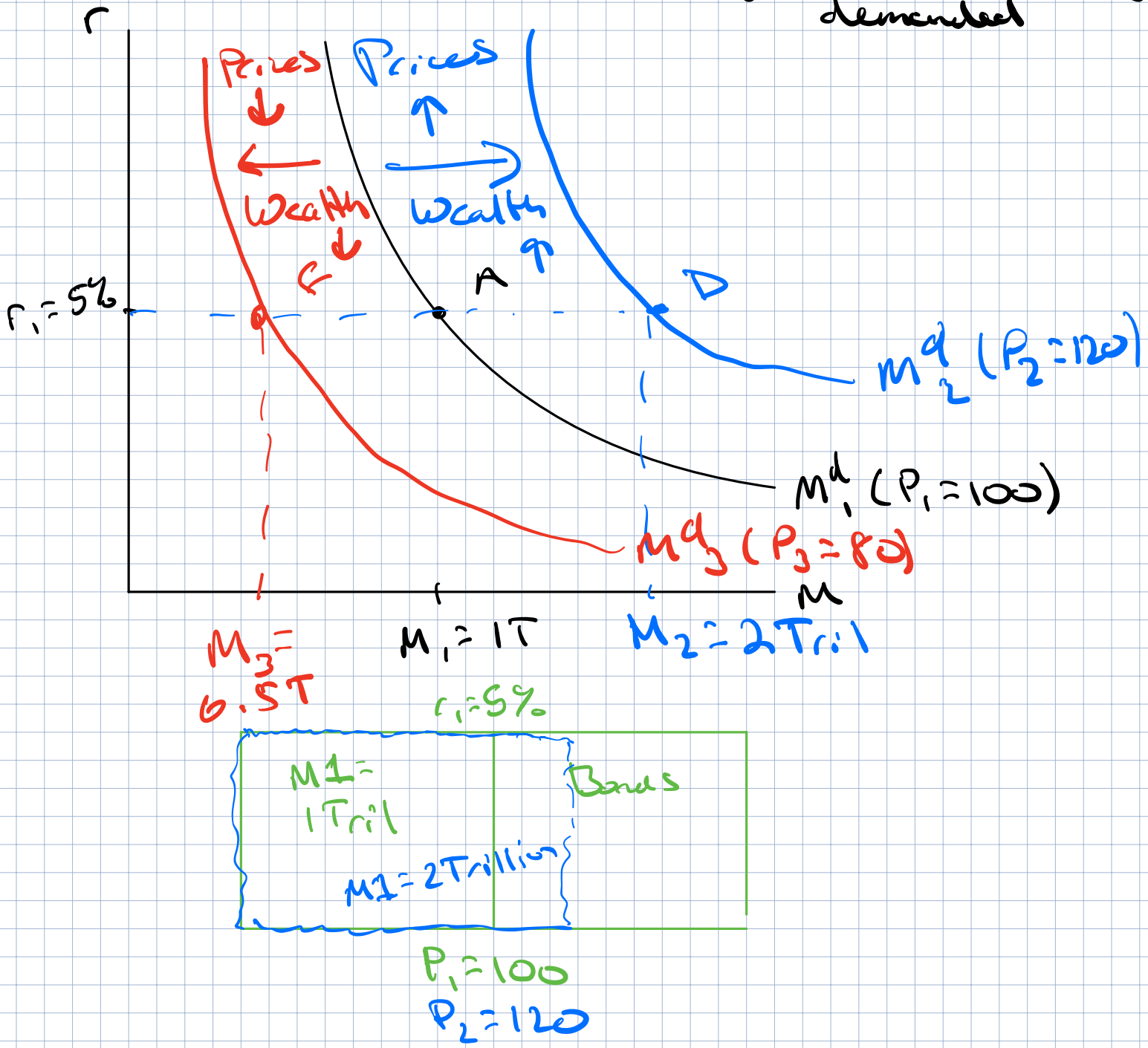
r_1 = 5% → r_2 = 6%



Amount of bonds demanded increase

What shifts M^d curve?

M^d Curve: interest rate vs. quantity of money demanded



1.) Prices

Prices increase from $P_1 = 100$ to $P_2 = 120$

Need more cash → goods are more expensive

If prices fall from $P_1 = 100$ to $P_3 = 80$

Need less cash → goods are cheaper

2) Size of Wealth Box

Assume Wealth / Y = 2, and $P_1 = 100$, $r_1 = 5\%$

Quantity of Money Demand = 1 Tril

Wealth Box ↓ to Y = 1

Quantity of Money Demand = 0.5 T

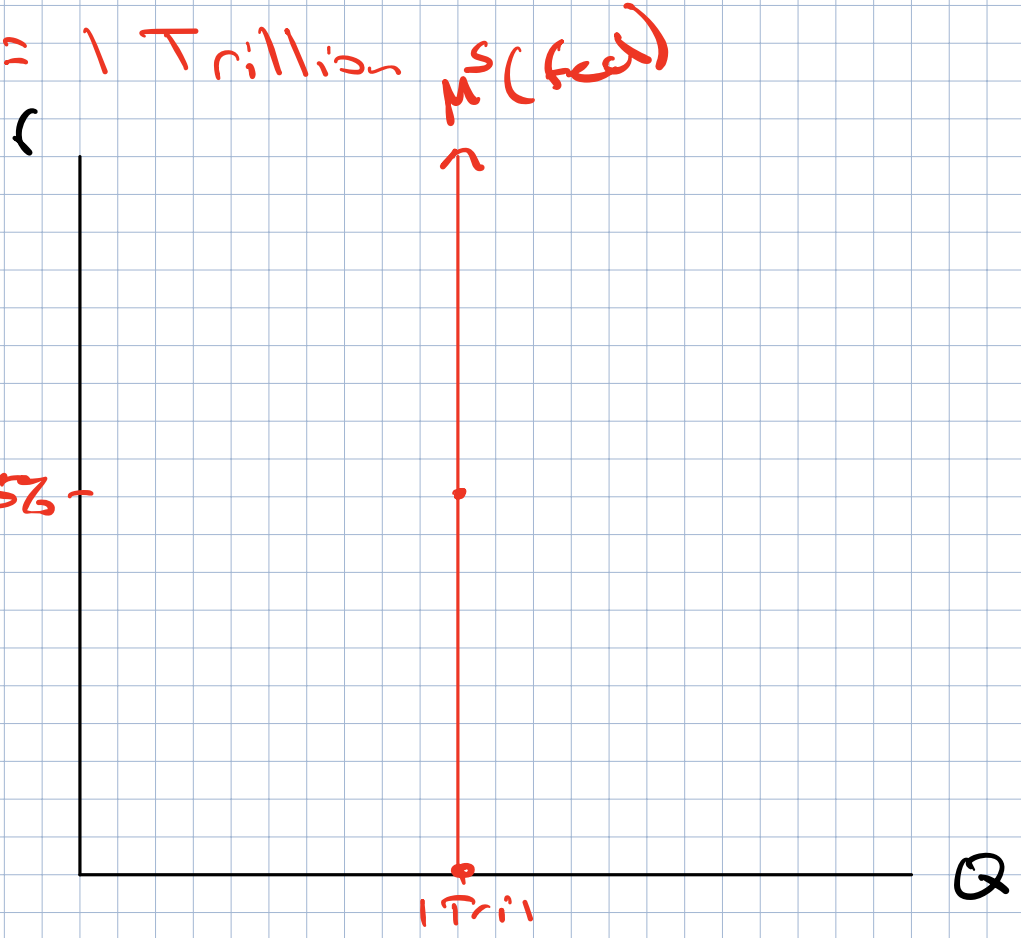
Supply of Money: Amount of M1 in circulation

→ Set by federal Reserve = "Fed"

→ Open market operations: buy/sell bonds to public

Change M^S = Money Supply

Set M^S = 1 Trillion



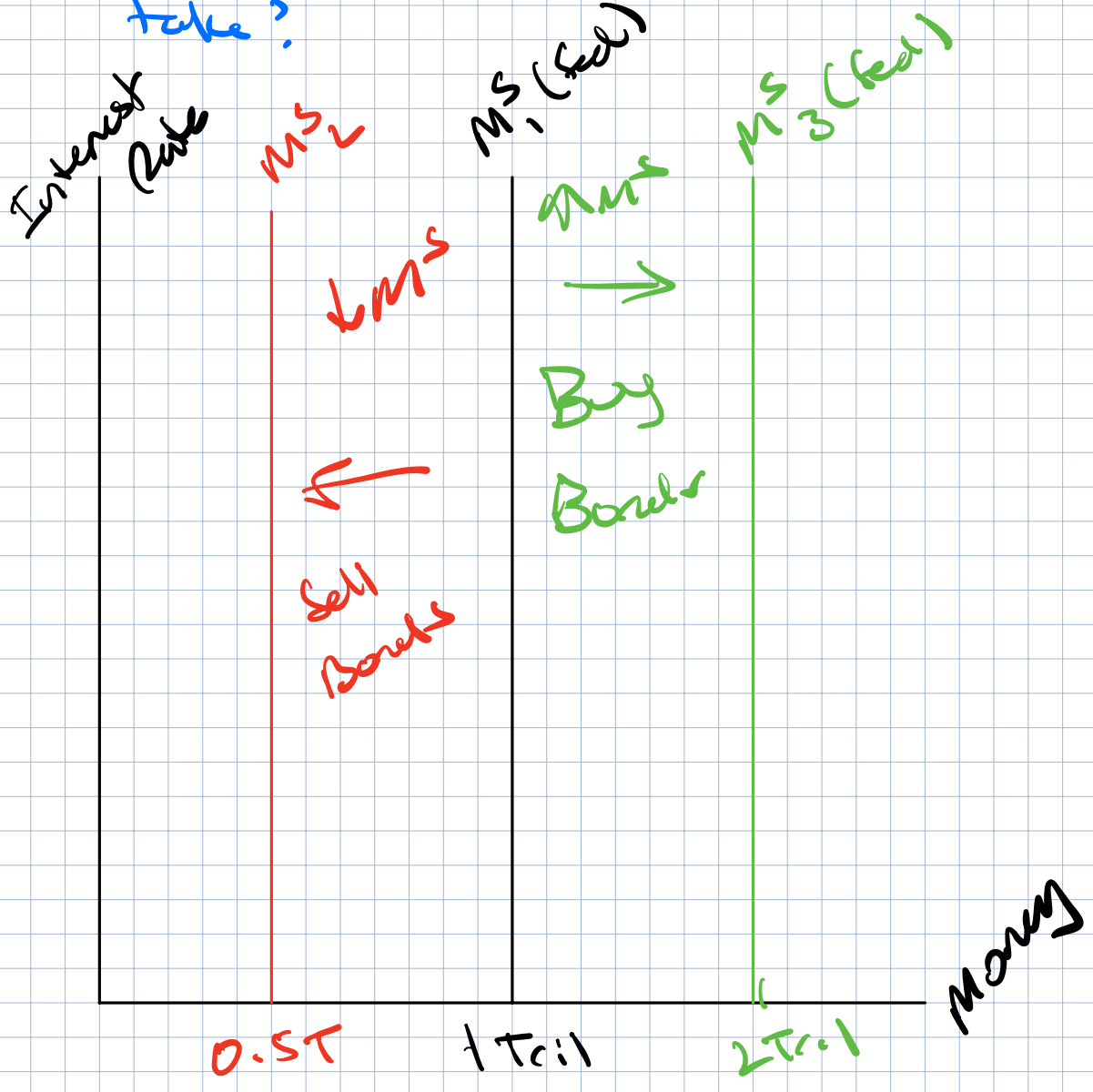
If r = 0%
M^S = 1 Tril

If r = 5%
M^S = 1 Tril 5%

If r = 100%
M^S = 1 Tril

Fed sets money supply → fixed

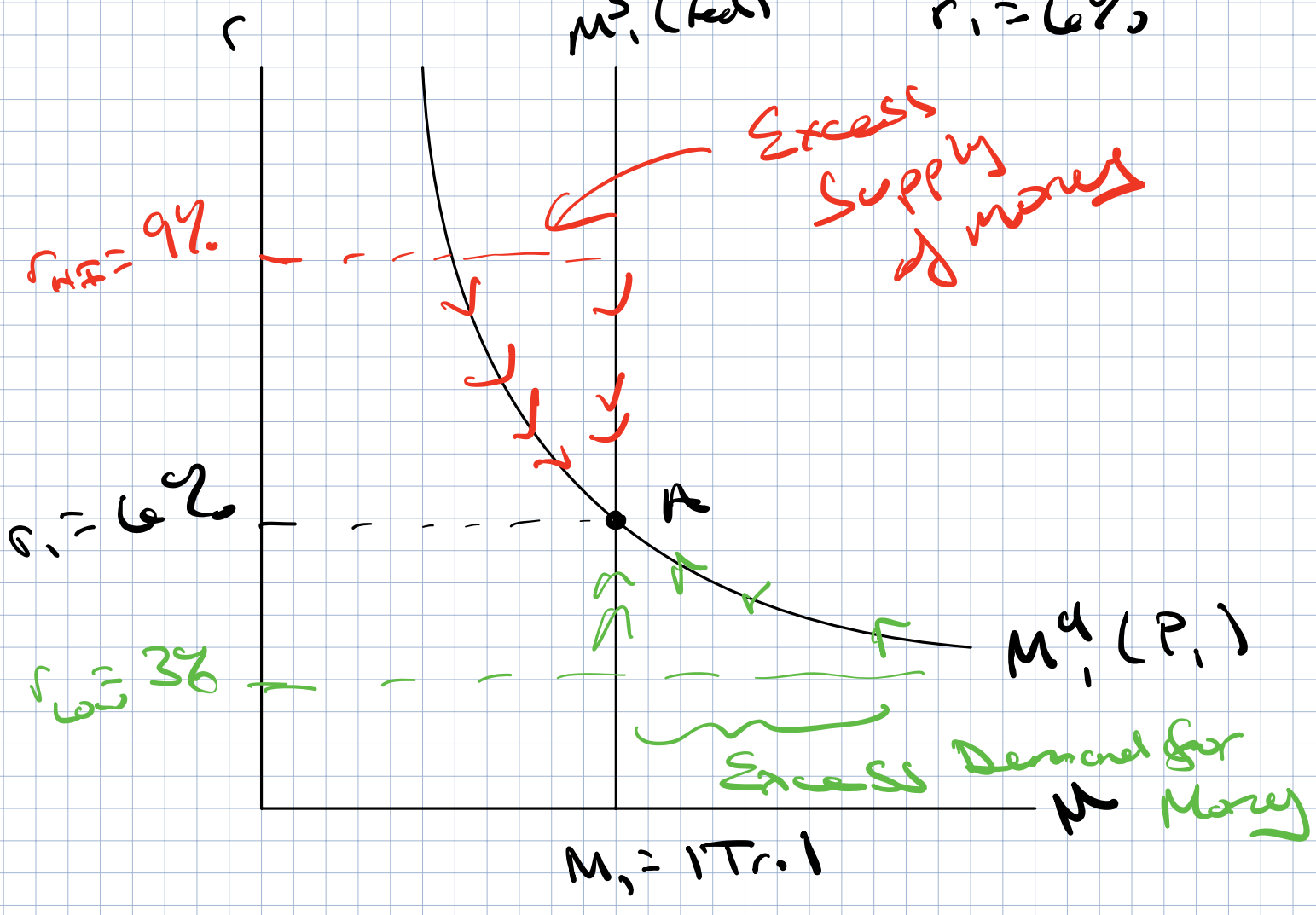
Want to decrease the amount of M1 in circulation, what action should they take?



Decrease M^S_1 → remove M1 from households
↳ Fed sells bonds to public
Public gives up M1 cash

Increase M^S_1 ⇒ give M1 to households
↳ Fed buys bonds from public
Public gets M1 cash

Money Market Equilibrium, $M^S = 1\text{Tr.}1$



Equilibrium @ Pt. A

Fed Set $M^S = 1\text{Tr.}1$.

Quantity of Money Demanded at 6% is 1Tr.1

Imagine if $r_{HI} > 6\% = 9\%$

Excess Supply of Money

Excess Demand for Bonds ⇒ Bond Price ↑

Bond Price ↑ ⇒ Interest Rate ↓