

Assume that you can buy or sell (or short-sell) any of the following securities:

Risk-free bonds: bonds that mature one year from today earn 2.5% per year and bonds that mature two years from today earn 3.5% per year.

Risky securities:

Security	Price Today	Payoff one year from today if the economy is:		Payoff two years from today if the economy is:	
		Strong	Weak	Strong	Weak
Private Buy	\$300	\$70	\$20	\$500	\$0
Market	\$500	\$50	\$0	\$750	\$250

What set of transactions today will generate an arbitrage profit for you today. In your answer list all transactions required today and all individual and total cash flows today, a year from today, and two years from today. Use a "+" for an inflow of cash and a "-" for an outflow of cash. Note: I recommend setting up a table like is in the notes, but this is not required.

Wall Street Journal Questions are on the back of this page.

Equivalent to Private: Buy market + buy bond that matures for \$20 in one year + short-sell a bond that matures for \$250 in two years.

$$\text{No arbitrage price} = 500 + \frac{20}{1.025} - \frac{233.378}{(1.035)^2} = 286.13$$

Trans(t=0)	CF ₀	CF ₁ (S)	CF ₁ (W)	CF ₂ (S)	CF ₂ (W)
+3 Short Private	+300	+70	+20	-500	0
+3 Buy Market	-500	+50	0	+750	+250
+3 Buy bond that matures for \$20 in one year	-19.512	+20	+20	0	0
+3 short bond that matures for \$250 in 2 years	+233.378	0	0	-250	-250
<u>Total</u>	<u>+13.866</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>