

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 1.5% per year and bonds that mature two years from today earn 2.5% per year.

Risky securities:

Security	Prices Today:		Payoff one year from today if the economy is:		Payoff two years from today if the economy is:	
	Bid	Ask	Strong	Weak	Strong	Weak
Galaxy One	\$550	\$555	\$400	\$100	\$800	\$50
Market	\$150	\$155	\$100	\$0	\$250	\$0

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.

$$\text{Equiv portfolio} = 3 \text{ Market} + PV(100 @ t=1) + PV(50 @ t=2)$$

$$\text{Price to buy} = 3(155) + \frac{100}{1.015} + \frac{50}{(1.025)^2} = 611.11$$

$$\checkmark \text{ Price to sell} = 3(150) + \frac{100}{1.015} + \frac{50}{(1.025)^2} = 596.11 < 555$$

Trans	CF <sub>0</sub>	CF <sub>1</sub>		CF <sub>2</sub>	
		S	W	S	W
+2 Buy SA	-555	+400	+100	+800	+50
+2 Short 3 Mkt	+450	-300	0	-750	0
+2 Short 1-year risk-free	+98.52	-100	-100	0	0
+2 Short 2-year risk-free	+47.59	0	0	-50	-50
<u>Total</u>	+41.11	0	0	0	0