

Quiz B for 1:15 Class: 7/11/12

Name Key

Assume that you can buy or sell the following 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
TaxCut	\$240	\$40	\$20	\$350	\$150
Market	\$100	\$20	\$10	\$150	\$50

Assume also that you can buy or short-sell risk-free bonds that mature either a year from today or two years from today for whatever amount you chose. The return on these bonds is 3.5% per year.

- What investment in the market and risk-free bonds will generate cash flows identical to those generated by TaxCut?
- Calculate the no-arbitrage price for TaxCut?

Note: Feel free to answer parts "c" and "d" with a table

- What set of transactions today will generate an arbitrage profit today?
- What cash flows (each trade and total) will your transactions produce today, a year from today, and two years from today? Note: Use a "+" for inflows and a "-" for outflows.

10 a. Buy 2 market, buy bonds that mature for \$50 in 2 yrs

11 b. $2 \times 100 + \frac{50}{(1.035)^2} = 200 + 46.676 = 246.676$

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	cl	\$0	\$1	\$2
Trans				
+3 Buy Taxcut		+3	+3	+3
+2 Short 2 MKT		-240	+40	-300
+3 Short bond		+200	-40	-20
		+46.676	0	0
<u>Total</u>		<u>+6.676</u>	<u>0</u>	<u>0</u>