

Quiz A 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	\$160	\$20	\$10	\$250	\$50
Market	\$100	\$10	\$5	\$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 2.5% 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, short bond that matures in 2 yrs for 50

8 b. $200 - \frac{50}{(1.025)^2} = 200 - 47.591 = 152.409$

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Trans	\$0	\$1	\$2	\$3	\$4
+3 Short TaxCut	+160	-20	-10	-250	-50
+2 Buy 2 mkt	-200	+20	+10	+300	+100
+3 short bond	+47.591	0	0	-50	-50
<u>Total</u>	<u>+7.591</u>	0	0	0	0