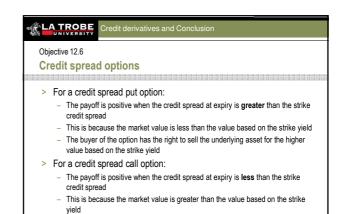


- Credit spread put option
 - An option that grants the buyer the right, but not the obligation, to sell a reference obligation at a price calculated by the strike credit spread over a reference benchmark
- Credit spread call option
 - An option that grants the buyer the right, but not the obligation, to buy a reference obligation at a price calculated by the strike credit spread over a reference benchmark
- > To protect against credit risk, an investor would buy a credit spread put option (because an increase in the credit spread will cause the price of the reference obligation to fall)



The buyer of the option has the right to buy the underlying asset for the lower

value based on the strike yield

LA TROBE

Objective 12.6

LA TROBE Example 12.6.1 ? **Credit spread options** > A portfolio manager buys a credit spread put option to protect against credit risk > The reference obligation of the credit spread option is an 8% 10-year credit risky bond selling to yield 8% > The benchmark is the 10-year Treasury yielding 6% > The strike is set at 300 basis points and expiry is in 6 months > At the end of 6 months the 9.5-year Treasury rate is 6.5% and the reference obligation's market price is \$82.59

Credit spread options > If the underlying is a credit spread on a reference obligation, the payoff for a call option and a put option are defined as follows: Credit spread call option payof • (credit spread at exercise - strike credit spread) x notional amt x risk factor Credit spread put option payoff (strike credit spread - credit spread at exercise) x notional amt x risk factor > The risk factor is the percentage change in the price of a reference obligation from a 100 basis point change in interest rates To protect against credit risk, an investor would buy a credit spread call option (because an increase in the credit spread will result in a positive payoff under the option) > Note that the payoff is not affected by changes in the benchmark



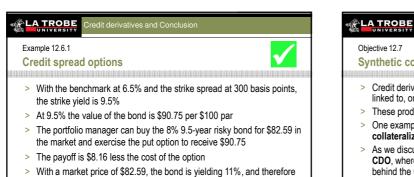
> What is the payoff at expiry to the holder of the option?

has a credit spread of 450 basis points

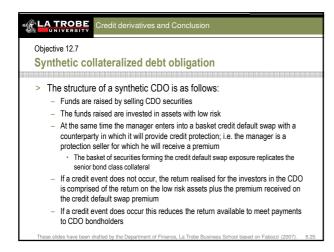
> The strike yield is 9.5% – less than the market yield of 11% – and the

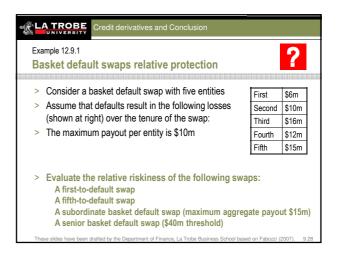
strike spread is 300bp - less than the market credit spread of 450bp

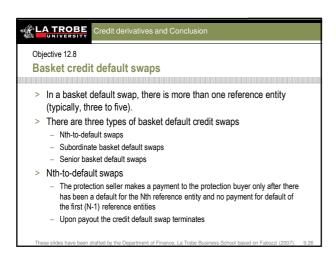
> The put option is in the money; a call option would be out of the money

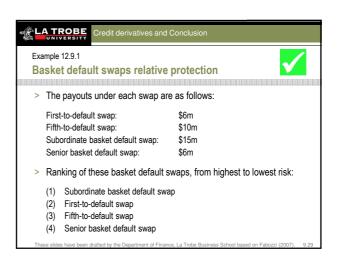


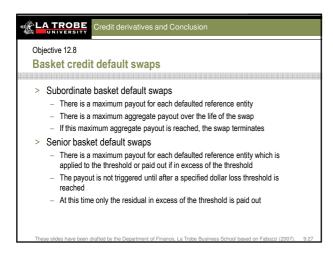
Synthetic collateralized debt obligation Credit derivatives can be used to create a structure with a payoff linked to, or derived from, a reference obligation or entity These products are called structured credit products One example of a structured credit product is a synthetic collateralized debt obligation As we discussed in Lecture 11, a CDO can be classified as a cash CDO, where the collateral manager purchases the pool of assets behind the CDO, or a synthetic CDO> Under a synthetic CDO: - The collateral manager does not actually own the pool of assets A synthetic CDO absorbs the credit risk, but not the legal ownership, of the underlying assets

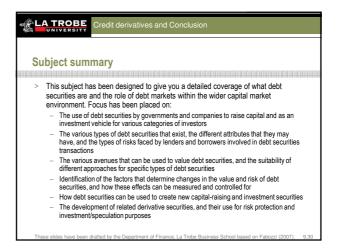


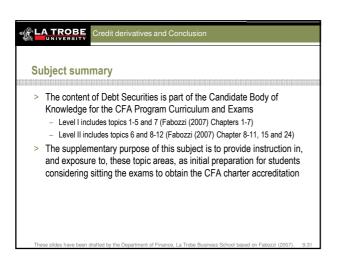


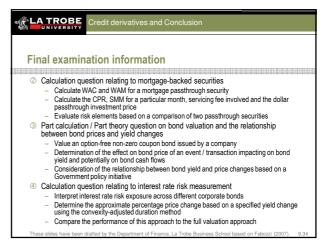


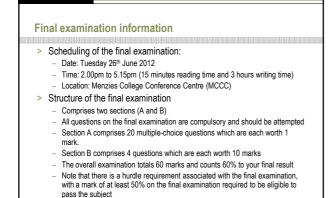




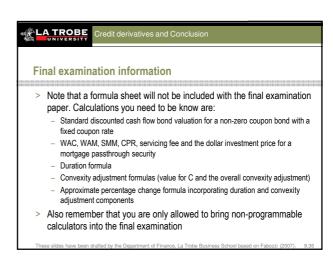


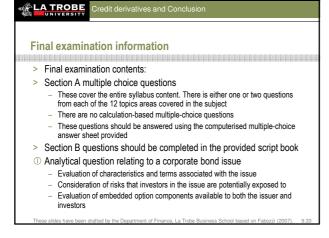


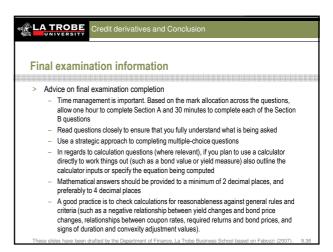


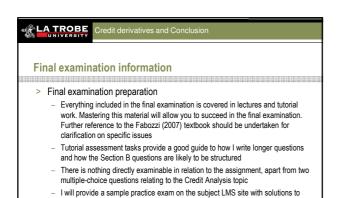


LA TROBE









Those elides have been drafted by the Department of Finance Le Trobe Business Caheel based on Februari (2007) 0.3

examination paper might look like

multiple-choice and calculation questions to give you an idea about what the final

