Fixed Income 101

Marist School

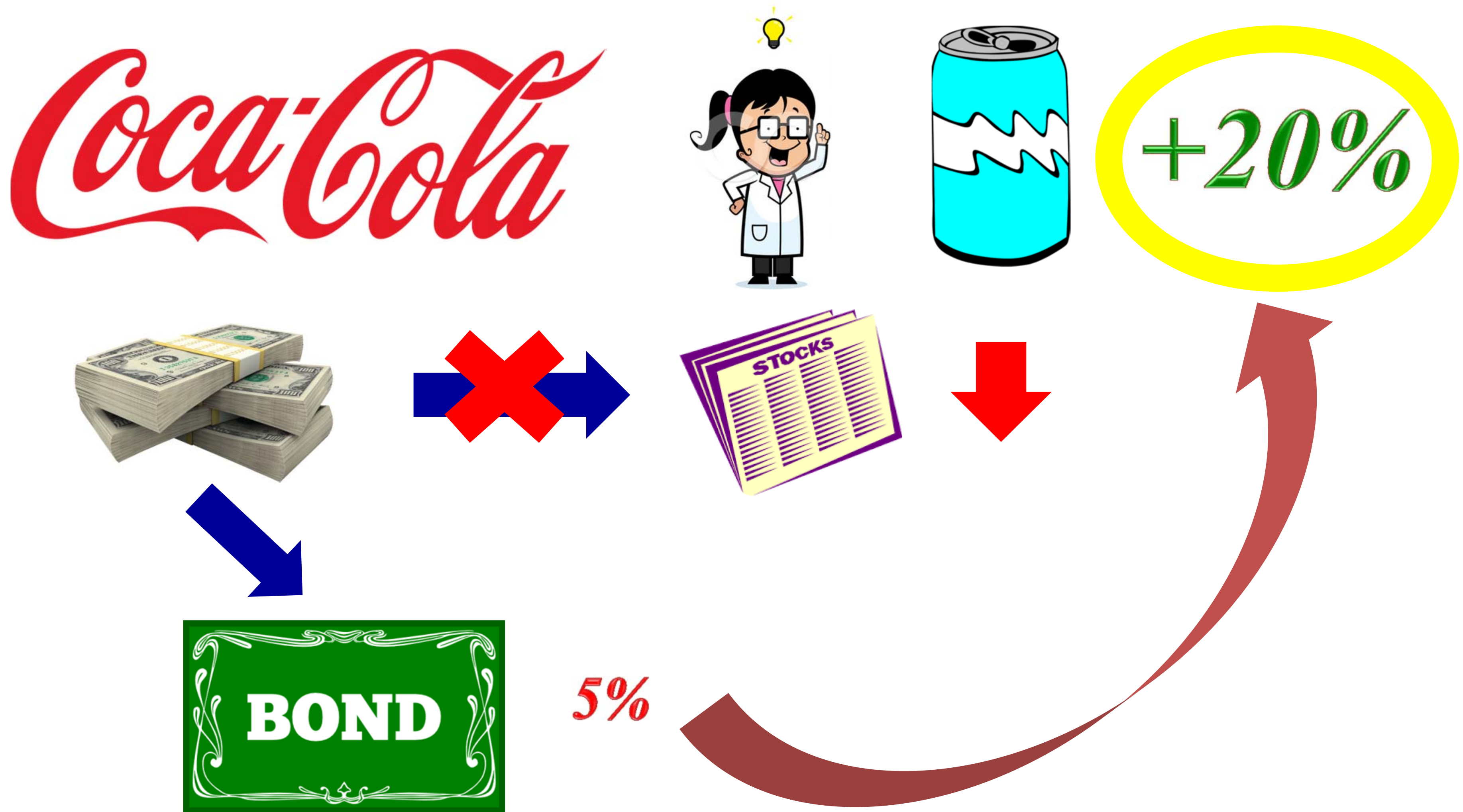
February 8, 2018

Bonds = Debt

Definition: Fixed Income

- Fixed Income is a debt instrument that typically provides fixed payments over a period of time
- Businesses and governments issue debt to finance new projects and/or investments (e.g., Coke issues bonds to build a new bottling center)
- Fixed income represents an investor providing a loan to a business or government
- Fixed income may consist of short-term instruments (referred to as "bills") or longer-term instruments (referred to as "notes")
- An investor receives regular interest payments on the loan until the bond matures or is called away by the issuer:
  - A bond is called away when the issuer repays the principal early
  - Generally the riskier fixed income investments will a pay higher interest rate to entice investors to buy

Why would a company issue a bond?



Bond Components and Terminology

- Face Value (Par Value; Principal):
  - Value the bondholder will receive at maturity
  - A bond trading at a price above face value is trading at a premium (i.e., $100 face value bond trading at $103)
  - A bond trading at a price below face value is trading at a discount (i.e., $100 face value bond trading at $98)

- Coupon Rate:
  - Annual rate of interest payable on the bond, based on face value (e.g., a bond with a $100 face value receiving $8 in annual coupons is said to have an 8% coupon: $8 / $100 = 8%)
  - The coupon rate is normally fixed over the bond's life, but some bonds may have floating rates that adjust with the market's interest rates

- Maturity Date:
  - Date when the issuer pays back the face value of the bond and final coupon payment

Risks of a Bond

- Credit Risk
  - Risk that the issuer (borrower) will default on interest and/or principal payments
  - Bond issuers receive a credit rating from rating agencies (i.e., Moody's, S&P, and Fitch)

- Interest Rate Risk
  - Risk that interest rate changes will negatively affect the price of a bond
  - There is an inverse relationship between interest rates and bond prices: as interest rates increase, bond prices generally decrease
  - The longer the maturity, the higher duration (interest rate sensitivity) a bond has

- Investors must be compensated for the amount of risk they are willing to accept
  - Bonds with lower credit ratings or longer maturities will make larger interest payments to the bondholder

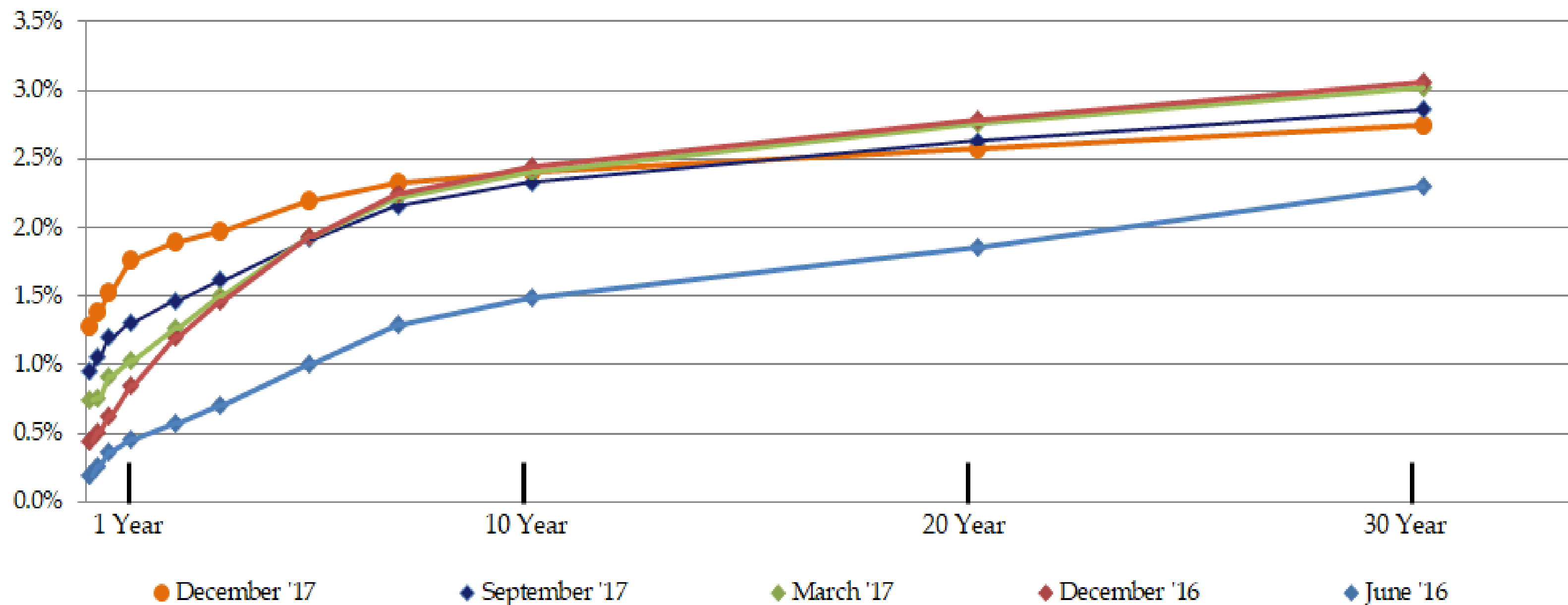
Credit Quality Ratings

- Credit Risk (Continued)
  - Like high school students, bond issues receive "grades" referred to as credit quality ratings
  - Bonds are split into two broad categories based on their credit quality:
    - Investment grade (Baa or above) or non investment grade (below Baa)
    - Lower-rated issues are more likely to miss at least one payment to bondholders
      - The issuer may have too much outstanding debt and/or not enough cash to make payments
  - The lower the credit rating, the riskier the bond, and the higher the return an investor will expect:
    - U.S. Government bonds are rated Aaa by Moody's because investors expect the government to pay its debt obligations
    - To compare, Coca Cola's most recently-issued bonds are rated Aa by Moody's

		Moody's	S&P's	Fitch
Investment Grade	Strongest	Aaa	AAA	AAA
		Aa	AA	AA
		A	A	A
		Baa	BBB	BBB
Non Investment Grade		Ba	BB	BB
		B	B	B
		Caa	CCC	CCC
		Ca	CC	CC
		C	C	C
	Weakest	D	D	D

Yield Curve

- Bond yields change over time due to investor expectations and preferences
  - An investor buying shorter-term bonds (1-3 years) will demand less return than when investing in long-term (20-year) bonds
    - Recessions and other negative economic events are more likely to occur over a longer time period (e.g., 20 years)
    - Additionally, longer-term bonds are more sensitive to changes in market interest rates
  - Healthy economies exhibit an upward-sloping yield curve, meaning that longer-dated bonds return more than shorter-term bonds



Why invest in bonds?

- Bonds provide a predictable stream of income
  - The coupon payment is known at the time of the bond purchase
  - The maturity date is also known at the time of purchase

- Bonds are generally less volatile (less risky) than stocks
  - Relative to stocks, bonds are safer and have less upside given their periodic payments
  - Because they are less risky, bonds generate lower returns than stocks
  - An investor may choose riskier or safer bonds based on his/her risk tolerance

- Bonds offer diversification benefits
  - Events that affect the stock market will not necessarily have the same impact on the bond market
  - Bonds and stocks generally exhibit negative correlation, so their prices move inversely