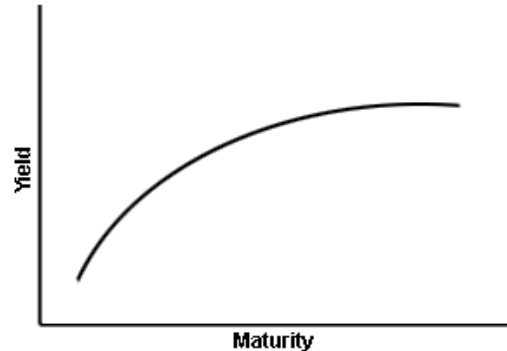


Yield Curve

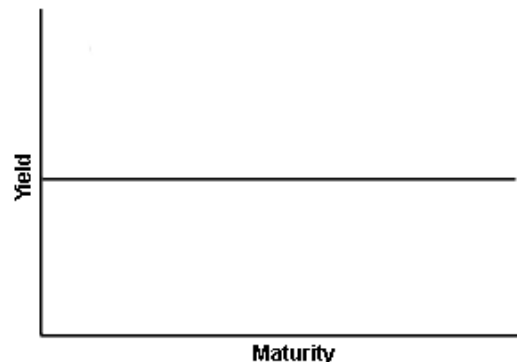
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The yield curve is defined as **a line that plots the interest rates, at a set point in time, of bonds having equal credit quality, but differing maturity dates**; translation, when people talk about the yield curve, they are typically referring to the different rates paid by U.S. Treasuries at different maturities, (meaning for different lengths of time such as six months, one year, five years, etc.) As we run through the business cycle the yield curve typically starts off with an upward slope, with short-term rates lower than long-term rates as is shown in the chart at right, which is referred to as a normal yield curve. This makes intuitive sense as lending someone money for six months is less risky than lending it to them for ten years. A lot can happen in ten years that can change the borrower's ability to repay the loan. A lot can happen that might make you wish you hadn't lent them the money by say year three. In order to compensate for the greater risks of lending for a longer period of time, the interest you get paid on that loan must be higher, the longer you lend.



When investors expect that interest rates are not going to change over time the yield curve flattens, so that short-term rates are the same as long-term rates, giving investors little incentive to lend for longer periods of time. The consequence to this is that borrowers tend to have shorter-term loans than they would like. For example, say you are building a factory and need to borrow a portion of the funds needed to build the factory. Given that it will take some time to build it and have the factory generating enough money to start paying off the loan, you would like to get a long-term loan. If investors are not interested in lending long-term thanks to a flat yield curve, you will need to either forgo the project or take the risk of borrowing on a shorter time frame than you would like. What's the risk there? Say you are only able to borrow the funds you need for 3 years. This means you need to either pay back the entire amount or get a new loan in 3 years time, but the factory isn't expected to be built and fully functional to the degree that it will generate sufficient cash to even pay the interest on the loan for 4 years. This factory is expected to generate an 8% return. Today you borrow at 3%, which means you make 5% net with this factory. You decide to risk it, but at the end of the third year interest rates have unexpectedly tripled to 9%. With this new cost of borrowing, the factory no longer makes financial sense because it actually loses money, (generates 8% but borrowing costs 9% so you lose 1%). No bank is going to lend you the funds you need at this point, so you default on your loan and now the lenders own a partially constructed factory that in the current climate never should have been built. Everyone gets hurt.



Sometimes the flat yield curve is an intermediary step to an inverted-yield curve, shown at right. This is when short-term rates are actually higher than longer-term rates. This is the rarest form and is often the precursor to a recession. The yield curve inverted in 2000 and again in 2006/2007, prior to the financial crisis.

