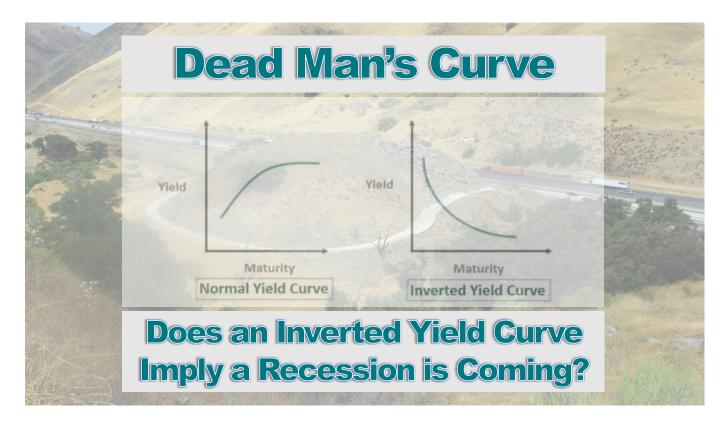
Dead Man's Curve: Does An Inverted Yield Curve Imply a Recession is Coming?



For many investors, a yield curve is a little known and even less understood aspect of their investment journey. In general, when the financial media starts writing about yield curves it is almost always about an "inverted" yield curve and how it foreshadows a coming recession – hence the term "Dead Man's Curve". But what is a yield curve, why is an inverted one a doomsayer, and what does all this mean for investments in the stock market?

Introduction - What is a Yield Curve?

The yield curve is a graph which depicts how the yields on bonds – typically government bonds - vary as a function of their years remaining to maturity. In general yield curves typically have a "normal" shape, in which yields are higher for longer dated bonds than for shorted dated (or cash-like) instruments of the same credit risk profile.

This makes perfect sense. One expects longer dated bonds – which are sensitive to changes in interest rates – to have more risk (or uncertainty) associated with them, and therefore one would expect a greater compensation – in the way of higher yields – to invest in the longer bonds. So for a normal shaped yield curve, the longer the maturity of the bond the greater the yield (or income) – but the greater the variability in value before the bond matures.

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What Does an Inverted Yield Curve Mean?

An inverted yield curve occurs from time to time when short-term bonds and other debt instruments have higher yields than long-term instruments of the same credit risk profile. This seems odd to most investors – why would you buy a longer term bond that has more volatility *and* lower yield than a short term bond? The short answer is that some investors (ie insurance companies) have a need for longer bonds as they hedge their liabilities.

But if you think of the yield curve as representing the future path of interest rates – and this is how the financial media interpret it – then an inverted yield curve reflects bond investors' expectations that interest rates will go up in the short term to a level that sends the economy into a recession, and then rates will need to come back down to get the economy moving again.

Since the middle of 2022 the US yield curve (the yield on US Treasury bonds of different maturities) has been inverted. So should we expect a recession in the US in the coming months? Let's take a step back before answering that question.

Changes in the US Yield Curve: December 2021 to December 2022

Chart 1 below shows that way back at the end of 2021 - when inflation was "transitory" - the US yield curve reflected the expectation that yields would stay low for some time. But by early 2022 it was clear that inflation was not temporary and was rising at the fastest pace in over 40 years. Central banks would need to do something to bring inflation back to their target band of 2% - 3%, but they only have one tool to do that – and that's to raise the official cash rate. Raising rates makes borrowing more expensive, which leaves consumers with less money to spend, which therefore slows an economy and inflation comes down. An outcome of higher official cash rates is that bond yields will also be higher.

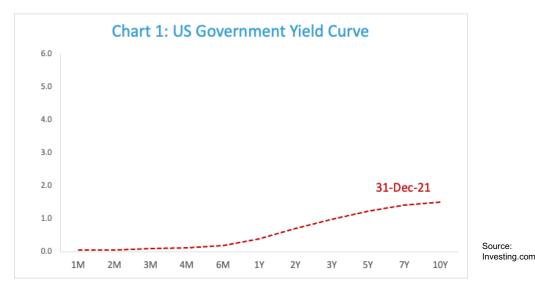
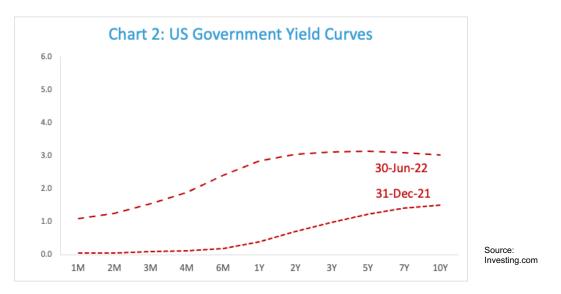
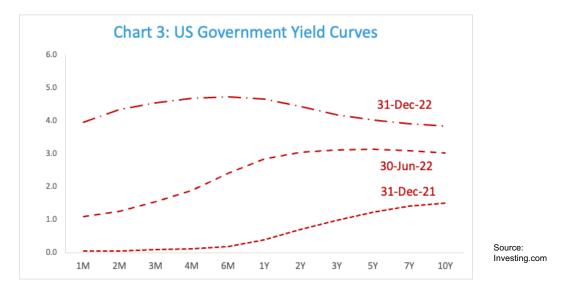


Chart 2 shows that by the middle of 2022 the bond market expected yields to peak at around 3% in around 12 months' time and stay at that level for the next few years. In other words, the Federal Reserve would raise rates modestly which would have the desired effect of slowing inflation without causing too much economic pain and rates would stay at that level for the foreseeable future – a welcome return to pre-Covid normalcy.



But interest rates are a blunt instrument – by not raising them fast enough or high enough, inflation may persist, and the economy can stagnate with lower growth. By raising them too fast and too high, the economy can slow drastically, and a recession ensues. It's a balancing act Central Banks must navigate.

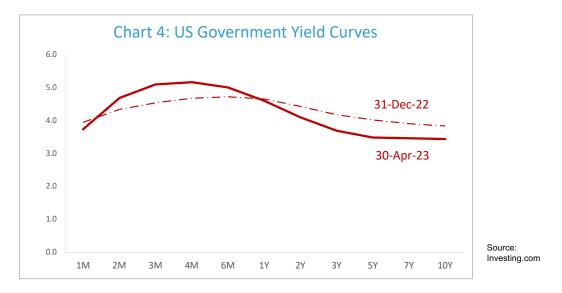
Chart 3 shows the US yield curve at the end of December 2022. The bond market is now clearly putting their money on a recession – the implication is that inflation is so high the Federal Reserve will have no choice but to raise rates to the point that the economy will crater, and rates will need to come down by 2024.



The Current Yield Curve Shape

But the inverted yield curve took a turn for the worse in March of 2023, when several regional banks in the US collapsed and Credit Suisse was forced into a sale to rival Swiss bank UBS, causing widespread fears that another global financial crisis was around the corner.

Chart 4 shows the shape of the yield curve as at the end of April 2023. The US yield curve is now *significantly* inverted – a clear indication from the bond market that yields (now predicted to top out north of 5%) will have the desired effect of bringing inflation down but bringing the economy down with it. The current curve implies that rates will start coming down before the end of this year.



But wait: The Yield Curve is not just an Interest Rate Curve

But there are some important considerations before jumping to the conclusion that a recession is imminent. While the yield curve is often interpreted as a proxy for interest rates (and to be fair it is often called an interest rate curve) in fact rates are only a part of what goes into the price of a bond.

Those mysterious bond yields are just the market prices that the bonds are trading at on the day. Those prices represent bond traders' expectations around several economic factors that include inflation, unemployment, productivity, GDP growth *as well as* interest rates (or more accurately overnight cash rates).

To be more concise: Bond yields are just a reflection of supply and demand forces for bonds of a particular maturity. They change constantly as new information comes to the market, just as the price of a stock at any time represents the collective view of the risk-return characteristics of that stock.

Hard Landings and Soft Landings

Nonetheless, an inverted yield curve does represent the view that the economy will slow in the future. But there is no surprise here – a slowing economy is exactly what the Federal Reserve wants. When economic times are getting tough, it is the norm for people to think that the economy is headed to a recession. The term "economic slowdown" is rarely used when this happens – because the media prefer the word "recession" – but most times it's just an economic slowdown taking place.

Although these both negatively affect the economy, the causes, degree and manner in which they take affect will differ.

- A recession is really a technical term that is defined by a decline in the Gross Domestic Product for two consecutive quarters. This means that the value of services and products produced in a year significantly declines. As a result, consumer behavior changes, with low consumption as people lose confidence in the economy. Raising interest rates that send the economy into recession is known as a "hard landing."
- A slowdown refers to a situation whereby economic growth occurs but at a reduced or slow rate. This means that the gross domestic product has declined as compared to other quarters. While the effects of a slowdown may not be as harsh as compared to a recession, it still leads to a decrease in the demand for services and products. Raising rates to slow the economy without causing a recession is known as a "soft landing."

What action should I take as an investor?

We will see if the US economy does indeed go into a recession or whether the economy just slows sufficiently to bring inflation back to the "target band" of 2% - 3%. At this stage the jury is still out. But there are a few things to keep in mind before considering making any changes to your investment strategy:

- Bond traders do believe they are Masters of the Universe, infinitely wiser and more knowledgeable than feeble stockbrokers. But it turns out they are quite bad at predicting the future. Just go back to Chart 1 to see that at the end of December 2021 the bond market thought that yields would never get much higher than 1%.
- 2. We do know that economic data is backward looking, while the stock market is forward looking. While no-one can know all the effects of a slowing economy or a recession, the market has already priced in its expectations.
- 3. Economic downturns and even recessions are a normal part of a well-functioning economy. Stock markets go up and down but are not highly correlated to what the economy is doing.
- 4. A balanced, diversified portfolio of stocks and bonds is now more important than ever. If yields do start falling in the next little while, then bonds will have a capital appreciation as well as the income they are earning as we reach the apex of this particular interest rate cycle. And if the stock market does correct, bonds can now provide their usual role as a counterbalance and a safe-haven asset.

Our message for investors is the same as always: Maintain perspective, tune out the day-to-day noise that can lead to impulsive decisions, be true to your goals, and put your faith in a history that has rewarded those who embrace the long term.

Dr Steve Garth 16 May 2023