Why a Curve Inversion Matters

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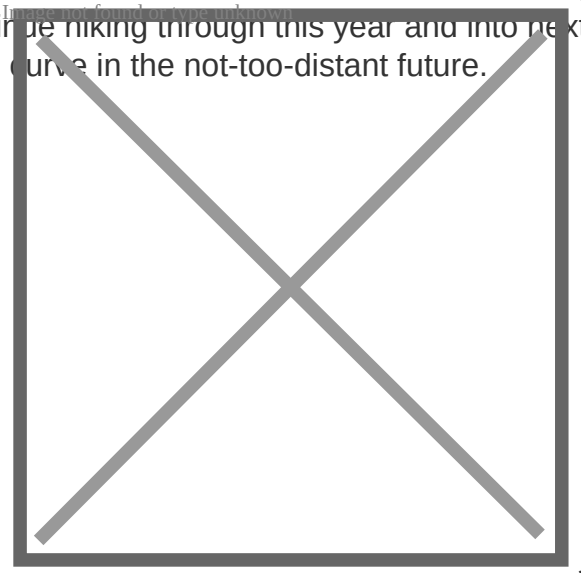
"That men do not learn very much from the lessons of history is the most important of all lessons that history has to teach."
-ALDOUS HUXLEY

Lessons of the Curve

A recurring theme in various EVAs over the years is the importance of the yield curve. Sorry, I know a term like that can literally throw non-professional investors—i.e., those with a real life—for a curve. But, unlike with so many human relationships, it's NOT complicated.

The yield curve is simply the difference between the *yield* on short-term bonds and those further out on the maturity *curve*—hence the name. For example, right now a two-year treasury note yields 2.51% while a ten-year note produces 2.97%. Thus, the difference is about 0.46% (46 basis points) which is still positive. (If it was 3.5% vs 3%, the yield curve would be considered negative, or, that dreaded term, inverted.)

However, the current differential is unusually tight, certainly by the standards of the post-financial crisis world and it has been narrowing rapidly. Should the Fed deliver on its plan to continue hiking through this year and into next, it's not a flight of fancy to envision an inverted yield curve in the not-too-distant future.



Source: Bloomberg, Evergreen Gavekal (as of 5/2/2018)

This month's Gavekal EVA describes a unique view of the yield curve courtesy of my friend, partner, and all-around hero in life, Charles Gave. As you will read, Charles is using two non-government interest rates to determine if the yield curve is generating any kind of warning impulse. His logic for using the two he has chosen—the prime rate and BBB-rated (also, known as Baa-rated) corporate bonds—is that central banks have radically distorted the yields on government bonds around the world. (FYI, roughly half of investment grade debt is rated

BBB/Baa these days.)

It's certainly fair to note central bank fabrication of trillions in digital reserves that they've used to buy government debt has distorted all interest rates, including those from corporate bonds. However, it's reasonable to believe that non-government yields are less manipulated. And in the US, at least rates have risen back to something measurable instead of the still mostly non-existent yields seen in much of the developed world (with some $8 trillion of debt remaining at negative interest rates).

Charles is further making an interesting, but defensible, assertion that longer-term BBB rates typically offer yields around the GDP trend-line including inflation (i.e., nominal). He further notes that corporate profits are closely tied over time to GDP growth. If you think about it, those make sense and history has proven that to be the case (though there are times when there is some deviation).

For those who have read Charles over the years, you are aware that he is a big believer in the theories of the long-deceased Swedish economist, Knut Wicksell. The latter contended that when the market rate rises above the natural rate of interest (basically, the economy's intrinsic growth rate), bad things happen. That's certainly been the case with inverted yield curves over many decades.

Accordingly, a key aspect is that short-rates are market rates while longer yields roughly correspond to the natural rate. As Charles postulates, the prime rate is a decent proxy for market rates while BBB/Baa yields have long been closely linked to the economy's inherent growth rate and, therefore, to the "natural" rate. Per the following chart, you can see that BBB/Baa bond yields have indeed generally closely tracked nominal GDP.*

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Source: Bloomberg, Evergreen Gavekal (as of 5/3/2018)

The huge, though temporary, divergence was in 2009 when corporate bond yields soared even as the economy collapse due to ultimately unfounded fears of widespread defaults. (As very long-time EVA readers recall, this newsletter was repeatedly urging investors to buy corporate yield securities during that panic.)

The bottom-line is that based on this approach, a yield curve inversion is near at hand. At this point, this measure isn't in the danger-zone, but it is definitely a concerning development and Charles provides a few reasons why this is the case. (By the way, his "zombie" company

comment refers to those highly leveraged entities that would likely fail if interest rates weren't artificially depressed.)

As is the case with a number of key financial indicators, the warning bells will start clanging much louder should the Fed deliver on its commitment to continue hiking short-term (i.e., market) rates. Based on its meeting this week, that looks highly likely despite the market turbulence that rate rises are creating. Unfortunately, with inflation on the rise, the Fed doesn't have much choice. But, as those who have studied financial cycles are well aware, this is how all expansions—and bull markets—meet their maker.

**The GDP we are accustomed to hearing and reading about is "real" GDP, which is net of inflation. Thus, if nominal GDP, inclusive of inflation, was 5% and the CPI was 2%, then real GDP would be 3%.*

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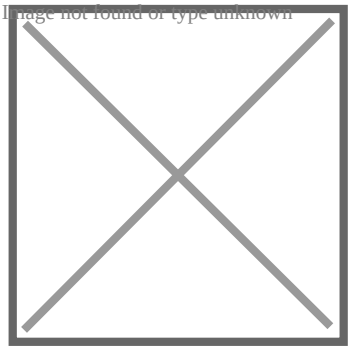

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WHY A CURVE INVERSION MATTERS
By Charles Gave

Investors are increasingly obsessed about the flattening of the US yield curve, leading to talk of the dreaded "I" word. This is not surprising as inversions have usually been followed by a US recession and attendant equity bear market. However, I have always found standard explanations of how and why this shift plays out to be unsatisfactory. A more persuasive argument comes from Wicksellian theory, as an inverted yield curve signifies that the "market rate of interest" has exceeded the "natural rate of interest".

For Knut Wicksell, the late 19th century Swedish economist, economic cycles stem from the interaction between these two key interest rates:

1. The "natural rate" for me equates to the structural growth of corporate earnings. Over the long term it can be thought of as tracking the structural growth of private sector GDP.
2. The "market rate" is the rate at which companies can borrow.

Wicksell contended that when the market rate moves above the natural rate, it no longer makes sense to borrow. This is because the cost of capital has exceeded the structural growth rate of earnings. At such points, firms tend to repay debt and a recession usually becomes unavoidable. If short rates are taken as a proxy for the market rate, and long rates as a proxy for

the natural rate, then it quickly becomes clear why a yield curve inversion is so worrying.

It makes sense to use these proxies if you assume that an economy with an open capital account sees, over the long run, a convergence of long-rates and the nominal growth rate. And since the structural growth of GDP can be assumed to match the structural growth of corporate profits, it follows that when long-rates are below the market rate, they must also be below the structural growth rate of corporate profits (i.e. the Wicksellian condition for a recession to unfold).

The problem with this approach is the quality of the proxy relationships, as the classical yield curve's two key interest rates are not ideal stand-ins for the Wicksellian natural rate and market rate. For example, recent recessions in Japan occurred without the official yield curve ever inverting. This was because in deflationary Japan, the very low market rate was always above the natural rate due to nominal GDP declining (this is no longer the case).

Hence, as a Wicksellian, I'd argue that what matters is not the public sector's yield curve (the government can always borrow), but that of the private sector. Hence, for simplicity's sake, let's assume that the US economy's natural rate is represented by the yield of a long-dated, seasoned industrial bond rated Baa by Moody's. The market rate can be taken as the prime lending rate charged by US banks. The result is shown in the chart below.

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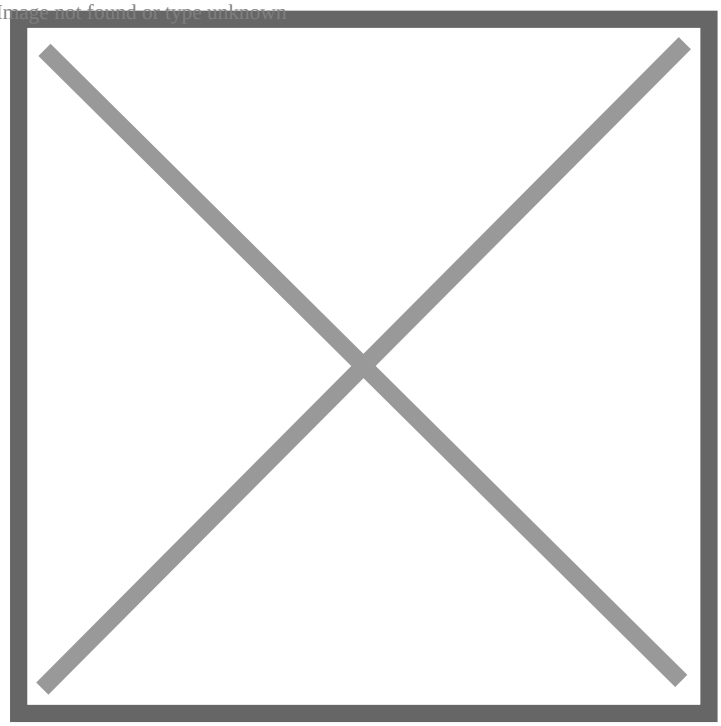

Now things become clearer. Each time the private sector yield curve has inverted (red shaded area below zero), it can be seen then either a US recession has occurred within a year, or a financial accident has afflicted economies which run fixed currency links with the US dollar.

- In 1994 Mexico ran a US dollar currency link, yet its corporate earnings growth was far behind that of the US. Hence, when the US moved to raise interest rates at the start of a "deflationary boom" period, it could handle a higher market rate; Mexico could not.
- In 1997-98 the same collapse scenario roiled emerging Asia and Russia.
- 2015-2016 offers a different case as falling US industrial production caused me to call for a US recession. I said this despite the market rate being below the natural rate. At that time,

the eurozone had a big problem as the market rate in most economies was above their natural rate. This was due to a currency link with Germany, through the euro. At this time, China had a quasi-fixed exchange rate with the US dollar, which negatively impacted Chinese industries and fed through to weak US IP.

Consider a set of behaviors that firms will likely adopt in the event that the prime rate charged by banks is below the Baa bond rate.

- Borrow at the prime rate, rather than issue new debt.
- Borrow from banks to repay debt, buy back their shares, or do other forms of financial engineering. The impact will be to increase overall indebtedness in the system.
- Have no trouble servicing their debt, allowing “zombies” to survive.

As a result, in such periods banks will be able to earn a lot of “artificial” money. Yet in the event that the prime rate moves above the Baa rate, all bets should be taken off. Today, the private sector yield curve reading stands at zero, or right on the threshold where trouble can be expected to begin.

Should this spread move into negative territory, I would expect a financial accident to occur outside of the US, a US recession, or possibly both. In the latter two scenarios, US firms will no longer want to borrow and financial engineering will start to unravel. Zombie companies will fail and capital spending will be cut, as firms move to service debt and repay principal. Workers will get laid off and the economy will move into recession.

In such periods, US commercial and industrial bank loans usually plummet, and indeed that is the case right now. For this reason, I would advise investors to keep a beady eye on the spread between the Baa bond rate and the prime lending rate. If the spread does turn negative in the next few weeks or months with the Federal Reserve raising short rates, then some kind of economic or financial accident is almost certain in the following 12 months.

We are entering dangerous territory.

OUR CURRENT LIKES AND DISLIKES

Changes highlighted in **bold**.

LIKE

- Large-cap growth (during a deeper correction)
- International developed markets (during a deeper correction)
- Cash
- Publicly-traded pipeline partnerships (MLPs) yielding 7%-12% (use the recent additional weakness as a buying opportunity)
- Gold-mining stocks
- Gold
- Select blue chip oil stocks
- Mexican stocks (at lower prices after this year’s robust rally)
- Bonds denominated in renminbi trading in Hong Kong (dim sum bonds)
- Short euro ETF (due to the euro's weakness of late, refrain from initiating or adding to this short)

- Investment-grade floating rate corporate bonds
- One- to two-year Treasury notes
- Canadian dollar-denominated short-term bonds
- **Select European banks**

NEUTRAL

- Most cyclical resource-based stocks
- Short-term investment grade corporate bonds
- Mid-cap growth
- Emerging stock markets, however a number of Asian developing markets, ex-India, appear undervalued
- BB-rated corporate bonds (i.e., high-quality, high yield)
- Long-term Treasury bonds
- Long-term investment grade corporate bonds
- Intermediate-term Treasury bonds
- Long-term municipal bonds
- Emerging bond markets (dollar-based or hedged); local currency in a few select cases
- Solar Yield Cos (taking partial profits on these)
- Large-cap value
- Canadian REITs
- Intermediate-term investment-grade corporate bonds, yielding approximately 4%
- Intermediate municipal bonds with strong credit ratings
- US-based Real Estate Investment Trusts (REITs)
- Short yen ETF

DISLIKE

- Small-cap value
- Mid-cap value
- Small-cap growth
- Lower-rated junk bonds
- Emerging market bonds (local currency)
- Emerging market bonds (local currency)
- Floating-rate bank debt (junk)
- US industrial machinery stocks (such as one that runs like a certain forest animal, and another famous for its yellow-colored equipment)
- Preferred stocks

securities discussed in this communication may or may not be held in such portfolios at any given time.