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Investment-grade fixed-income: Is the Bull Market over?

From a long-term perspective, the U.S. bond market has performed quite well for over three decades. Now, rising rates and other valuation factors may threaten to end its run. Investment managers should have a strong understanding of the historical fundamentals driving the market so that they can decide when and how to adjust their strategies.

Executive Summary

The bull market in U.S. bonds has lasted for over three decades. From the early 1980's, the market has boasted an average return just shy of 8 percent with generally low volatility. The market's outperformance began after Federal Reserve Chairman Paul Volcker tightened monetary policy dramatically in 1980, pushing the 10-year Treasury yield to a high-water mark above 14 percent. The decline in rates over the subsequent 37 years has been the main driver of the market's performance.

We expect that rising inflation and the Fed's proposed tightening and tapering will weigh on the market's performance going forward. In fact, the bull market might already have ended—we will not know for sure for several years. However, since fixed income's risk-adjusted returns remain attractive, we continue to advocate an overweight position in bonds.

While we expect nominal interest rates to rise, the true driver of the market's performance will be the behavior of real interest rates. In this paper, we examine four factors that will affect these rates: the term premium, government deficits, the savings glut, and the unwinding of the Fed's quantitative easing (QE) policy.

Background

The bull market in U.S. bonds began after 1980 when Paul Volcker took over as chairman of the Federal Reserve and began a program to quash inflation by raising interest rates sharply; this set up a peak in rates not reached since. The decline in rates over most of the 37 years that followed was the principal driver of the market's outperformance. Now, the Fed's plan to incrementally raise its benchmark interest rate, and worries about potential inflation, have market participants concerned that the bull run might be over.

The market's run might have already ended in the fourth quarter of 2016. We will not be able to say definitively for a few years, when it becomes clear whether a new trend has started. In this paper, we will evaluate the factors driving the market over the next two to three years, in order to ascertain its probable course.

To analyze the history of the bull market, it is useful to refer to the U.S. Barclays Aggregate Index. While the market is admittedly more diverse than the index, it is a useful benchmark for overall performance.

Contributor

— Greg Staples, Co-head of Fixed Income North America



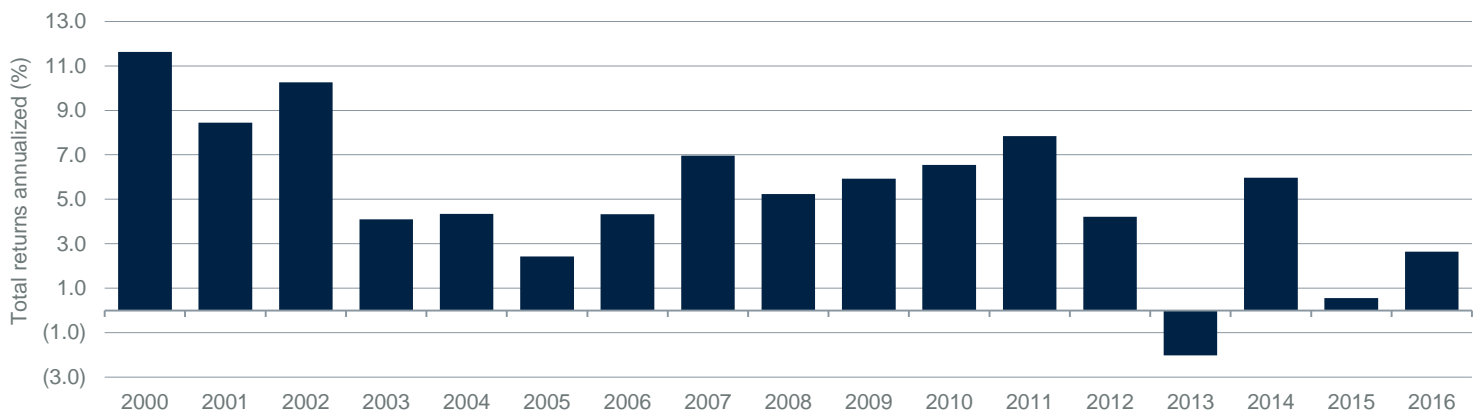
It shows that the bond market's performance has been outstanding (see [Figure 1, which dates back to 2000](#)). It has had positive performance for 34 of the 37 years following 1980, with an average return of just shy of 8 percent. The worst year was 1994, with a negative return of only 2.9 percent. Turning to our more recent timeframe, 2000 to 2016, the market has had positive returns for 16 of 17 years. The sole negative year was 2013, when the Barclays index returned negative 2.0 percent. The market has had a 15-year total rate of return averaging 4.58 percent.

The risk characteristics of the market have been equally outstanding. That 4.58 percent over the last 15 years had a

standard deviation of only 3.48 percent and a Sharp ratio of 0.93. Compare that with the S&P 500 over the same period. It underperformed by three basis points, returning 4.55 percent, but had a standard deviation of over 14 percent and a Sharp ratio of 0.29.

Based on risk versus return, in a risk-constrained portfolio, investing in the Barclays Aggregate's components was the better choice. Given this history, and despite the factors indicating that the bull run might be over, our strategic asset allocation models continue to advocate an overweight position in bonds.

Figure 1: Returns for U.S. Barclays Aggregate Index



Source: Barclays indices. Returns as of Dec. 31, 2016. Past performance is not indicative of future results.

Market Prospects

There is some sense that the fundamentals of the bond market are running out of room. There is at least conceptually a lower bound for rates at zero; it may not be a hard bound, but it is certainly a soft one. We believe there will be resistance, at least in the United States, to U.S. Treasury rates going negative. Recent history hints at this: looking back, three of the last four years saw the Barclays Aggregate's weakest performance since the start of the last decade. Positive momentum seems to be slowing.

To get a longer perspective on the market's prospects, it may be useful to set aside tactical speculation about the Federal Reserve's tightening schedule, or whether the 10-year bond might break 2.75 percent. Rather, to determine if the 37-year

rally is likely to continue, put the market's performance into context by looking at some slightly deeper trends.

Looking back over the bull market's history, the journey from 14 percent to 2 percent was surprisingly consistent. It did have several 200 basis point backups for short periods in 1983 and 1984, and from 1986 to 1987. Similarly, it had multi-year directionless periods from 1987 to 1990 and 2003 to 2007. Other than that, rates have been steadily declining.

More recently, the decline has shallowed. For example, the longest period of mostly sideways rate movements was from 2011 to early 2017. Also, the 10-year U.S. Treasury in the first quarter of 2017 was around 2.25 percent, plus or minus 10 basis points. That means 10-year yields were above where they were five years earlier, the first time this has happened since 1980, with a brief exception with a short period in the summer of 2007.

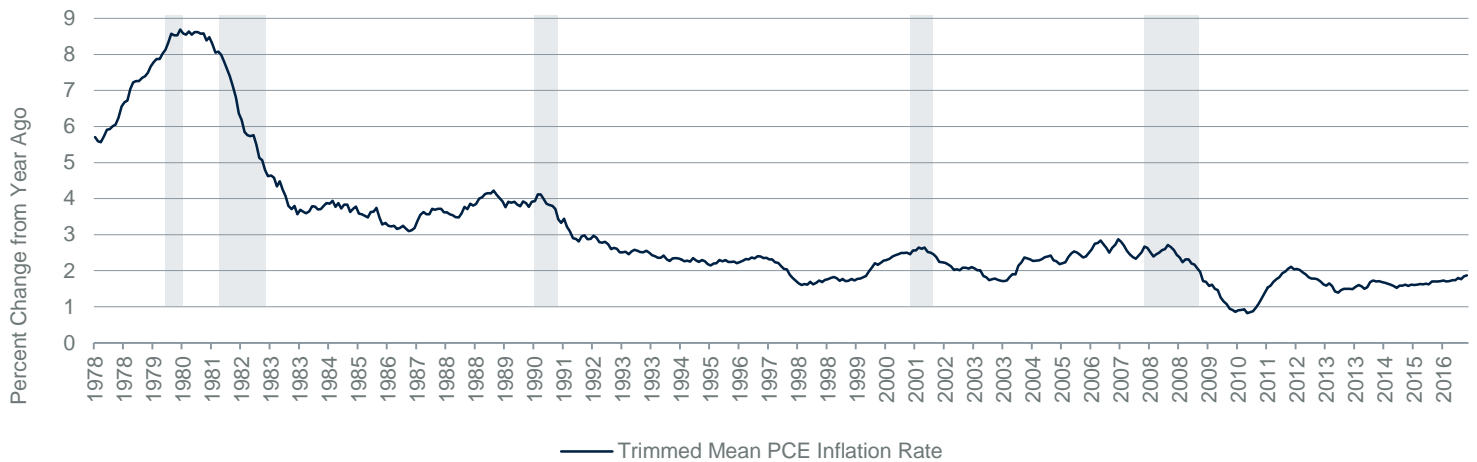
Inflation and Rates

For another perspective, we can decompose the 10-year Treasury rate into its inflation component and its real component. One of the leading explanations of the decline in rates has been the decline in inflation. However, note that most of the contribution from falling inflation was over by early

to mid-1990s, when the economy first moved into a consistent 2.25 to 2.50 percent inflation regime.

Inflation now hovers on either side of two percent, just about where it was 20 years ago. Note that what we present here is ex post inflation data. We use the Dallas Fed's Trimmed Mean PCE (personal consumption expenditures) figures, which throw out higher and lower outliers.

Figure 2: Trimmed Mean PCE Inflation Rate



Source: Federal Reserve Bank of Dallas, March 2017.

Until the Treasury Inflation Protected Securities (TIPS) market matured, it was very difficult to determine the bond market's inflation expectations, disaggregating them from nominal rates. However, looking back at the most recent history, the Dallas Fed's measurement of inflation has matched break-evens quite closely.

The break-even reduction really drove the bond market for the early part of bull market, but it has gone sideways for the most part since then. So will the inflation trend be a positive or negative factor for nominal yields going forward? Given the recent thinking out of the Fed, we believe it leans towards the negative.

There is some discussion of allowing inflation to run north of 2 percent, which of course implies that it is something that the Fed can dial up at will. While their role may be more passive, we do think the Fed is going to allow inflation to increase slightly.

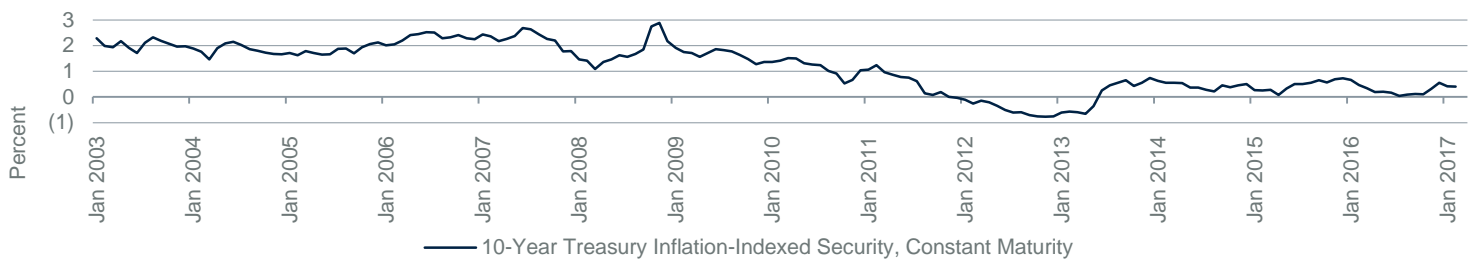
A far more complex puzzle is the behavior of real interest rates—that is to say rates after the inflation returns are extracted, or the return on TIPS. Here we see the driver of most of the bond market performance, as measured by the Barclays Aggregate, since 2000.

The longer picture is also somewhat fuzzy, because prior to the TIPS market's coming into its own early in the last decade, the data set is incomplete. Real rates as measured by TIPS did run north of 4 percent for much of the 1997 to 2001 period. We question the information value of these data because the market was only starting to get comfortable with TIPS and demanded a premium until liquidity improved in that marketplace.

TIPS returns did step down to 2 percent in the 2002 to 2007 period, then spiked briefly due to liquidity concerns during the financial crisis. They then descended to near, and then below, zero briefly in 2012, and then hovered slightly north of zero as they are now.

The behavior of real rates may provide much of the predictive power for the returns of the Barclays Aggregate going forward. While there are multiple theories to explain the interest rate behavior that drove the bull market, it is useful to examine the outlook for four potential drivers and see what they say about the future. These are the term premium, the government deficit, the savings glut and the Fed's quantitative easing (QE) policy.

Figure 3: 10-Year Treasury Inflation-Indexed Security, Constant Maturity



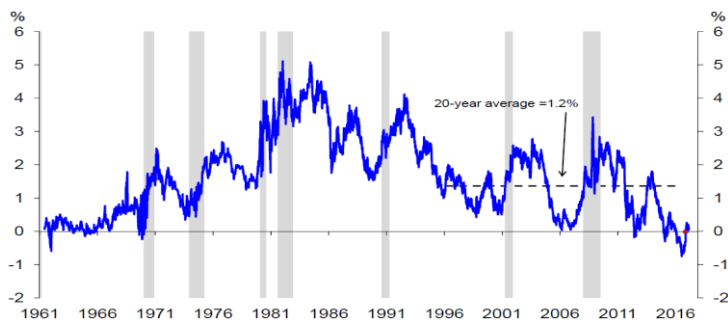
Source: Board of Governors of the Federal Reserve System (U.S.), March 2017.

The Term Premium

This is a concept that is widely discussed, but there is often no precise common agreement as to what it means. In layman's terms, it is best described as the compensation that investors demand above the path of future interest rates to compensate them for the risk of added uncertainty, volatility and inflation. It is a theoretical construct, not a simple calculation.

The New York Fed and Morgan Stanley, among others, publish term premium forecasts. They often come up with different results. Nonetheless, since 1991, the Fed, the Treasury, and the Federal government overall have gained credibility by keeping long-term inflation low, allowing the term premium to decline in some periods to zero. We remain close to historical lows, with some analysts saying the term premium is currently negative. You could call that a term discount. Our interpretation is that the term premium is slightly negative in its effect on real rates. Looking forward, since the term premium is so low, there is little room for it to contribute further to reducing interest rates.

Figure 4: New York Fed term premium estimate: 10 year



Source: FRBNY, Haver Analytics, DB Global Markets Research. March 2017.
Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

Deficits

The second potential contributor to real interest rates is future government deficits. The usual theory is that a government that is running an unsustainable deficit level will cause higher interest rates. The Congressional Budget Office is projecting an increase in deficits, and therefore, a greater future supply of government debt. However, that will not necessarily require higher interest rates to attract investors, as there might be ample demand to absorb greater supply.

The budget deficit has been a boogeyman for the bond market ever since the Reagan years, but it never seems to have caused higher rates. The market has never had significant difficulty financing the deficit. If anything, the statistical correlation between supply and rates has been somewhat negative. Based on this, if one ignores the accepted theoretical link between deficits and interest rates, one could argue that, historically, higher deficits have led to lower interest rates. This reality is likely attributable to the causality of a weaker economy to lower tax receipts and higher relief spending, and subsequent monetary easing. The projected deficit's effect on interest rate expectations is uncertain, probably neutral.

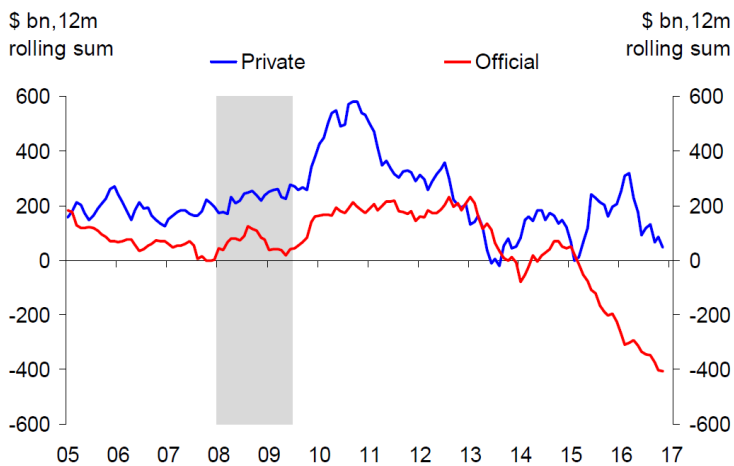
The Savings Glut

This is a favorite argument of former Fed Chair Ben Bernanke and runs as follows. During the last decade, emerging economies in Asia, the oil exporting nations and elsewhere, targeted export-led growth. This led to significant current account surpluses, due to savings and the monetary reserves some emerging economies built up after the liquidity crises of the late 1990s.

These were recycled in the global capital markets mainly through massive buying of U.S. Treasuries, keeping demand high and pushing rates lower. This is a strong argument, but it is not necessarily relevant going forward.

Data from the Treasury and the Fed shows that foreign investors invested significantly into U.S. Treasuries during and immediately after the Global Financial Crisis. Foreign holdings of Treasuries went from \$2.1 trillion at the end of 2006 to \$5.8 trillion at the end of 2013.

Figure 5: Net foreign purchases: treasury bonds & notes



Source: Treasury, Haver Analytics, DB Global Markets Research. February 2017

Since then it has hit a wall, standing at \$5.9 trillion at the end of 2016. In fact, holdings by China, Japan and some OPEC countries are beginning to decline as oil revenues fall and as Asian countries move towards consumer-led rather than export-driven economies.

We believe the savings glut was a contributing factor to the interest rate declines of 2005 to 2013. However, it is very unlikely to be a positive contributor going forward.

Quantitative Easing

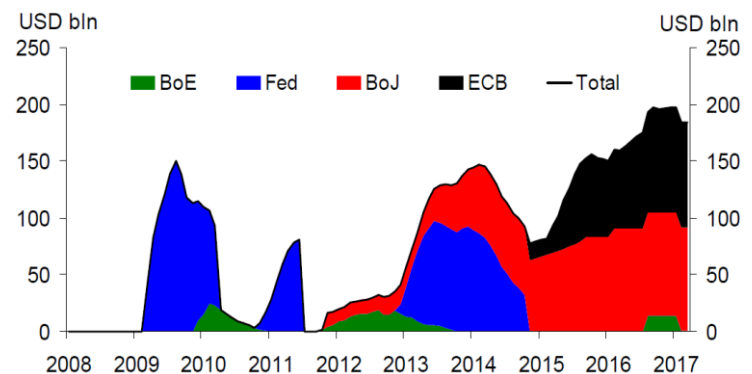
In recent years, the strongest support to the bond market has almost certainly been from quantitative easing—and it has become a global phenomenon. However, we believe that QE in its various forms is a policy tool that has passed its prime.

While in the early stages of a recession, aggressive monetary easing is almost certainly a positive, there is a growing recognition that longer-term QE has collateral damage,

including the negative effects on savers and financial institutions, and the distortions it causes in the capital markets. Going forward, quantitative easing will be reversed through tapering; the only question is at what pace.

How tapering will impact the bond market is the question. Intentionally or not, QE is as much about maturity transformation as it is about monetary supply. The Fed's portfolio of \$4.4 trillion has a duration of about 5 1/4 years. The Fed mostly finances its holdings through currency in circulation, and interest on excess reserves (in essence, a short-term rate). That means it runs a maturity mismatch of over five years. The \$4.4 trillion at five+ years duration has the duration equivalent of seven years of Treasury issuance, given the current deficit. Depending on the pace of tapering, this could represent a material and market-impacting net increase in supply in the intermediate term.

Figure 6: Monthly Fed, ECB, BoE, and BoJ asset purchases



Note: 12m moving average.

Source: DB Global Markets Research. February 2017

It is worth noting that, in recent years, this borrow short/lend long mismatch has generated annual remittances—profit—of over \$90 billion/year for the U.S. Treasury (on a capital base of about \$40 billion.) However, every 25 basis points that the Fed hikes reduces that net carry by about \$6 billion. Moreover, in the fourth quarter of last year, while it did generate a book profit of \$23 billion on its carry income, the Fed lost about \$161 billion on mark-to-market unrealized losses. For a private institution, this would clearly be untenable. However, the Fed, with its ability to create money, truly never has to lose money on any of holdings because it can hold them to maturity. Even so, the Fed runs significant political risk. Nobody from the Fed wants to be brought up to Capitol Hill to explain why, optically at least, it lost \$100 billion of taxpayer money on this portfolio. For this, and other reasons, it is clear that some of the Fed Governors are becoming uncomfortable with size of the Fed's balance sheet. They would like to begin reducing it sooner rather than later.

St. Louis Fed President James Bullard has talked about creating space on the balance sheet to facilitate future policy needs. Likewise, some Governors would like to raise rates in order to have the potential to lower them again as a viable tool to fight future crises. Bullard advocates reducing the QE portfolio so the Fed can add to it again if there is another crisis. We believe unwinding QE is going to be negative for real rates.

Forecast

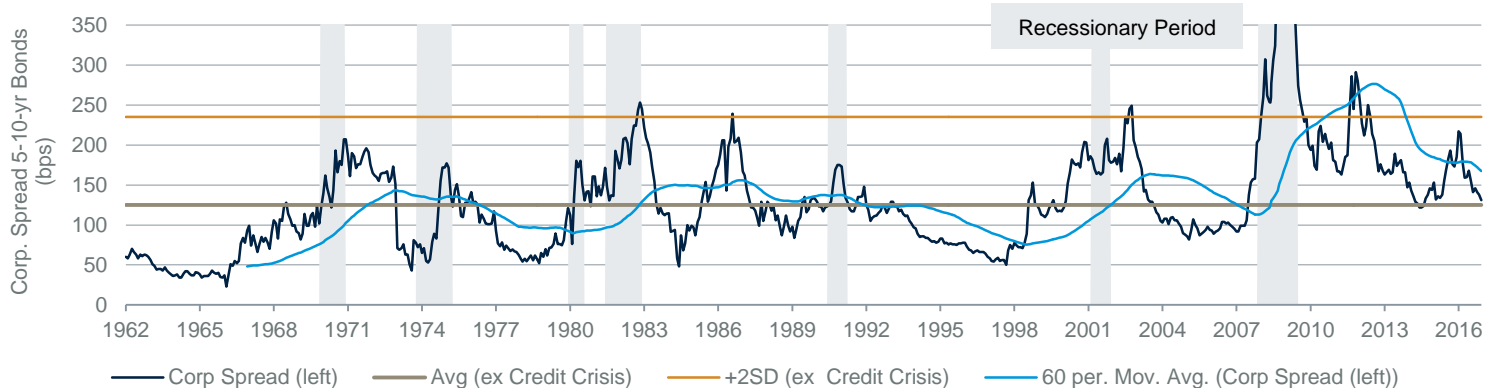
These four indicators run from neutral to negative, with the most negative being the unwinding of the Fed's balance sheet—beginning in late 2017, and perhaps early 2018. Is there a potential positive for the bond market as a whole?

Of course, the Barclays Aggregate is not just comprised of U.S. Treasuries; it has spread assets as well. Mortgages, to a large degree, will behave similarly to Treasuries. But about the 25 percent of the index is comprised of credit instruments, currently spreading perhaps 118 basis points over Treasuries? Could we get more performance there, as we did in 2016 when there were solid excess returns of 442 basis points for that sector?

It is possible. Right now, we are at the tighter end of the historical range. Carry perhaps could add 25 basis points overall to the index's returns. Also, we do think that there is a little bit of room for tightening, perhaps 10 to 15 basis points, which would provide another 30 or 40 basis points of return.

Whether that happens this year or further down the road is unclear. We do not think spread carry or spread tightening alone is enough to reverse the overall trend in bonds.

Figure 7: Intermediate IG Corporate OAS



ML C6A0 Corp Index (5-10 yrs). Source: Merrill Lynch

As of December 31, 2016

Source: Bank of America Merrill Lynch

Past performance is not indicative of future results. Forecasts are not a reliable indicator of future returns. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

Conclusion

To return to the original question: Is the bull market in bonds over? If the definition of the bull market in bonds is “running a four percent average total rate of return over extended future periods”, then yes, the bull market is absolutely over. Does that mean that a bear market has begun? Not necessarily. We expect, for this year and going forward, that total rates of return will be in the one percent to two percent range, as measured by the Agg. We are likely to have negative returns in one out of every three or four years.

If investors still think that those returns are unacceptable, they are going to have to be creative. They will need to find managers with expertise in security selection and perhaps sector rotation. They will need to consider expanding their investment universe, looking beyond core to opportunities further down the credit spectrum. Structured notes might be another opportunity. Floating rate notes could be another, especially since they may benefit as the Fed tightens.

Overall, we think it is going to be a challenging time, but one in which proactive investors may be able to continue to achieve the returns they require.

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