

High yield & the credit cycle

October 2016



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High yield bond spreads peaked in Q1 of 2016 but rallied shortly thereafter. Investors remain concerned that the current credit cycle is aging, which might imply that high yield bonds should be underweighted in portfolios. In this research piece we work to understand the current credit environment to help better determine appropriate high yield positioning, while acknowledging that forecasting credit cycle movement is extremely difficult. First, we revisit the characteristics of high yield debt. Second, we examine typical high yield behavior during various stages of the credit cycle. Third, we take a look at the current credit environment and attempt to put recent behavior into a historical context. Our conclusion is that we believe the credit cycle is later in the expansion phase, but that the economy may continue to muddle along for some time. The traditional catalysts for a credit cycle downturn are not particularly apparent today, but other unique risks are worthy of concern. Ongoing monitoring of the credit markets may present investors with opportunities to pick up attractive yield once we see further turmoil.

Revisiting the characteristics of high yield debt

High yield bonds are often believed to offer diversification and income to portfolios, while providing some protection against rising interest rates. However, investors should be aware of the risks of investing in the space. Specifically, high yield bonds have been strongly correlated with equities and typically exhibit higher volatility than U.S. Treasury or investment grade bonds.

EXHIBIT A – CORRELATION

	US Large Cap Equity	US Treasury	US Core	US High Yield
US Large Cap Equity	1			
US Treasury	-0.3	1		
US Core	0.0	0.9	1	
US High Yield	0.7	-0.2	0.2	1

Trailing 10-year correlation, as of 12/31/15

Source: MPI

EXHIBIT B – VOLATILITY

	U.S. Large Cap Equity	U.S. Treasury	U.S. Core	U.S. High Yield
Standard Deviation	15.1%	6.5%	3.2%	10.6%

10-year annualized standard deviation, as of 12/31/15

Source: MPI

As evidenced in Exhibit B, high yield bonds have historically delivered higher volatility compared to U.S. Core bonds, more in-line with U.S. equities, despite exhibiting a lower overall duration profile. As such, high yield bonds provide a positive sensitivity to improving economic and market conditions.

High yield bond behavior through various stages of the credit cycle

There are three distinct periods in a typical business cycle: downturn, repair and expansion. Downturn conditions are caused when economic activity slows thereby making it more difficult for businesses to service their debt. Bank lending conditions typically become more stringent and spreads widen in anticipation of increasing defaults. Safe assets such as U.S. Treasury or high-quality corporate bonds tend to outperform high yield bonds.

During the repair phase, businesses look to improve their balance sheets by trimming unproductive assets and paying off or restructuring debt. Default risk during these periods tends to decline as overall economic activity is increasing, thereby making it easier for businesses to service their debt. High yield bonds have historically outperformed U.S. Treasury and investment grade bonds during these periods as falling default rates, narrowing credit spreads and larger coupons all contribute to excess returns. Volatility has generally been low during this phase of past cycles.

EXHIBIT C – HIGH YIELD YIELDS/SPREADS DURING ECONOMIC CYCLES

High Yield Spreads	507	476	575	617	677	916	818	816	1018	824	708	874	1036	890	772	613	549	418	441	410	382	309	352	385	354	371	313	335	344	289	285	298	419	591
Yield to Worst	11.0	11.0	11.9	12.3	12.6	14.1	12.8	13.1	14.2	12.7	11.9	12.9	13.4	11.9	10.7	8.8	8.5	7.6	7.4	8.0	7.5	6.9	7.9	7.8	7.9	8.2	8.1	8.6	8.2	7.8	7.6	8.1	8.6	9.6
US GDP Growth	4.6	4.6	4.7	4.2	5.3	4.1	2.9	2.3	0.9	0.5	0.2	1.4	1.4	2.3	2.0	1.6	2.0	3.2	4.4	4.4	4.2	3.4	3.1	3.6	3.4	3.3	3.0	3.2	2.9	2.2	2.4	1.2	1.7	2.3
	Sep-99	Dec-99	Mar-00	Jun-00	Sep-00	Dec-00	Mar-01	Jun-01	Sep-01	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Sep-03	Dec-03	Mar-04	Jun-04	Sep-04	Dec-04	Mar-05	Jun-05	Sep-05	Dec-05	Mar-06	Jun-06	Sep-06	Dec-06	Mar-07	Jun-07	Sep-07	Dec-07

High Yield Spreads	816	730	1093	1803	1684	1033	770	622	571	699	616	531	471	535	826	709	589	629	564	526	480	514	479	400	377	353	440	504	482	500	662	695	705	621
Yield to Worst	10.8	10.8	13.9	19.4	18.5	12.8	9.9	8.8	8.2	8.9	7.6	7.4	6.9	7.2	9.4	8.1	7.1	7.2	6.5	6.1	5.7	6.6	6.2	5.7	5.3	5.0	6.1	6.6	6.2	6.7	8.1	8.8	8.4	7.4
US GDP Growth	1.9	1.1	0.8	-0.3	-2.8	-3.5	-4.1	-3.3	-0.2	1.6	2.7	3.1	2.7	1.9	1.7	1.2	1.7	2.8	2.5	2.4	1.3	1.1	0.9	1.5	2.5	1.7	2.6	2.9	2.5	2.9	2.7	2.1	2.0	2.1
	Mar-08	Jun-08	Sep-08	Dec-08	Mar-09	Jun-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Jun-11	Sep-11	Dec-11	Mar-12	Jun-12	Sep-12	Dec-12	Mar-13	Jun-13	Sep-13	Dec-13	Mar-14	Jun-14	Sep-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16

Source: Bloomberg, Bank of America, as of 6/30/16

During economic expansion, general economic and credit conditions are improving. Banks are willing to lend to meet working capital. Investor confidence continues to improve and as a result high yield bond spreads narrow. As the cycle begins to age, interest rates begin to rise as the Federal Reserve tightens monetary policy to slow the economy. High yield bonds should be expected to outperform U.S. Treasury and investment grade bonds during this period.

The current credit environment

Economic and credit cycles have tended to rhyme, though nuances exist. For this reason, forecasting turning points in the credit cycle is no less difficult than forecasting turns in the economic cycle. Common causes of credit cycle downturns include: declining economic growth which leads to stressed ability to service debt, broad bond defaults due to overzealous borrowing, and tightening monetary policy. These broad causes of downturns can be further divided into individual credit cycle characteristics, shown below.

EXHIBIT D – CHARACTERISTICS OF CREDIT CYCLES

	Expansion	Downturn	Repair	Recovery	Current
Economic Growth	↑	↓	→	↑	→
Credit Growth	↑	↓	→	↑	↓
Inflation	↑	→	→	↑	→
Monetary Policy	↓	↑	↑	→	→
Risk Appetite	↑	↓	→	↑	→
Liquidity	→	↓	→	↑	↓
Fundamentals*	→	↓	→	↑	↓
Credit Spreads	→	↑	→	↓	→
Volatility	→	↑	→	↓	→

*Fundamentals may include corporate leverage, interest coverage and EBITDA growth

In general, we appear to be in the later stages of the economic/business/credit cycle.

The characteristics displayed above can be lumped into even broader categories: the economy, investor sentiment, market fundamentals, and market activity. We examine the current state of the credit markets by identifying how these characteristics behaved during past economic cycles. In this research we focus specifically on characteristics that have a direct relationship with the economic and credit cycle. We do not focus on risk appetite or monetary policy here. We avoid discussing risk appetite because of difficulties in quantifying this effect, and monetary policy because the current monetary regime is extremely unique and difficult to evaluate in a historical context.

Start and end dates of economic cycles are clearly documented, but the credit cycle is more difficult to pin down. We use economic recessions as a rough proxy for turns in the credit cycle (see gray bars in charts throughout the document).

Stress in the energy sector has had significant effects on the high yield debt market. We should keep this in mind when examining current spread, default, and other market data.

U.S. economy

Economic growth is a major contributor to the health of the credit markets as businesses receive increased revenues to support servicing of debt and lenders are more willing to create loans.

The U.S. has seen a period of moderate, below-average economic growth following the financial crisis.

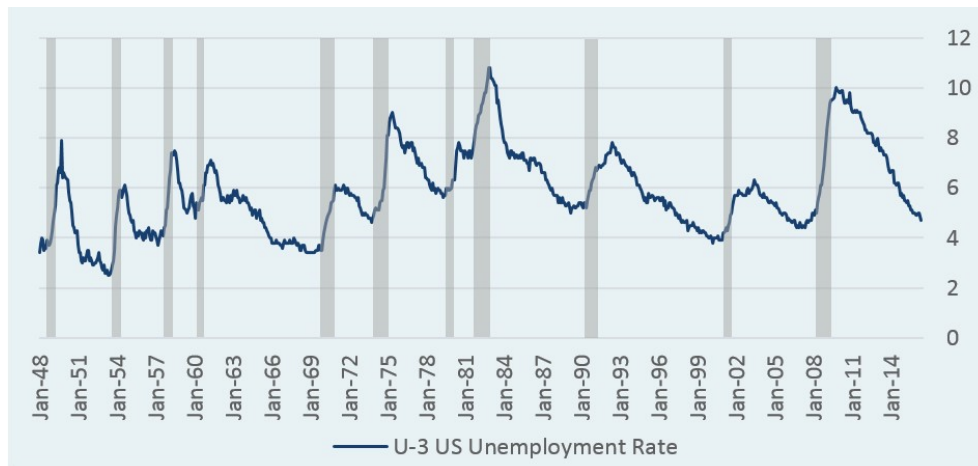
Unemployment has decreased to below-average levels, though slack still exists as some job-seekers have given up on their search for employment. From Exhibit F below we can see that unemployment typically begins to rise immediately prior to, or at the onset of, a recession.

EXHIBIT E – REAL U.S. GDP GROWTH



As of 5/31/16

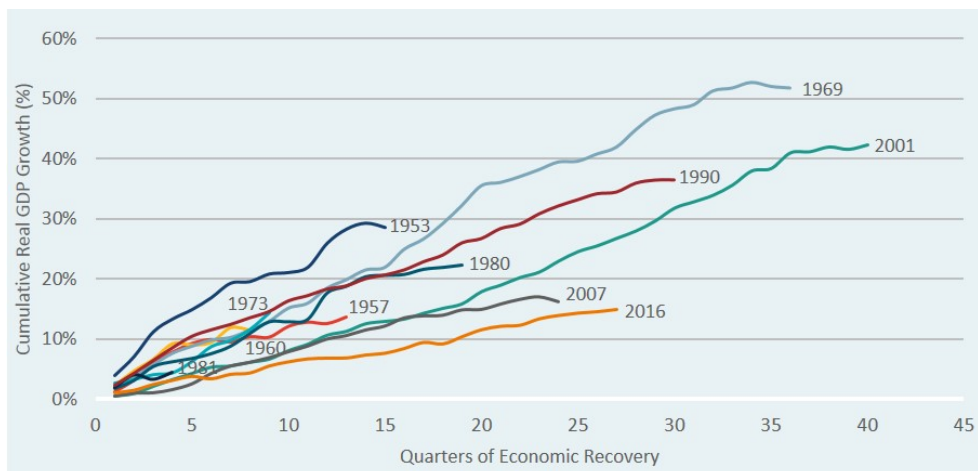
EXHIBIT F - UNEMPLOYMENT



As of 3/31/16

Market pundits have expressed concern that the current economic cycle has extended for a particularly long period of time and that we may be due for a correction. However, as illustrated in Exhibit G, although the tenure of our current expansion is slightly longer than usual absolute growth has been somewhat lackluster.

EXHIBIT G – REAL ECONOMIC RECOVERIES OF PAST 60 YEARS



Source: Verus, as of Q1 2016

NOTE: X-axis value of “0” represents the beginning of an economic expansion. “Expansion” is defined by the National Bureau of Economic Research (NBER) as a period between an economic trough and peak.

Investor sentiment

Spreads are an important indicator of health across the credit market. Spreads represent investors' expectations for future borrower defaults, and investors' general risk appetite. Spreads can also move based on underlying credit market liquidity, which is currently low and therefore represents an additional contribution to spread.

During the past two economic recessions spreads have risen significantly either before or during the time of economic downturn. Rising credit spreads result in losses (sometimes large) to investors.

Bid-ask spreads can be an indicator of market participant confidence in their ability to trade the underlying credit instruments.

EXHIBIT H – CREDIT SPREADS

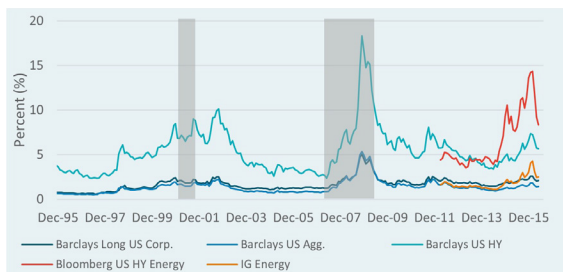


EXHIBIT I – BID-ASK SPREADS



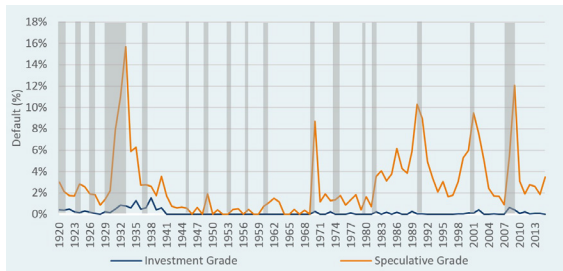
Market fundamentals

Bond default rates are slower moving and typically rise as a result of a deteriorating economic environment. As seen in the chart below, default rates began trending higher prior to the previous two recessions. Absolute moves in defaults are often large, making default trends an especially important consideration for total returns.

Default rates have begun to trend higher, in part due to high default rates in the energy sector.

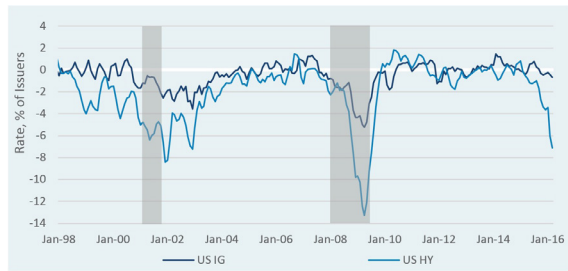
Credit rating migration is defined as the aggregate movement of credit issuers to higher credit ratings (+) or to lower credit ratings (-). Historically, ratings agencies have been active in lowering credit ratings prior to the technical start of recessions.

EXHIBIT J – ANNUAL DEFAULT RATES



Source: Moody's, as of 2015 year-end

EXHIBIT K – CREDIT RATING MIGRATION



Source: BofAML, as of 3/31/16

EXHIBIT L – IG INTEREST COVERAGE

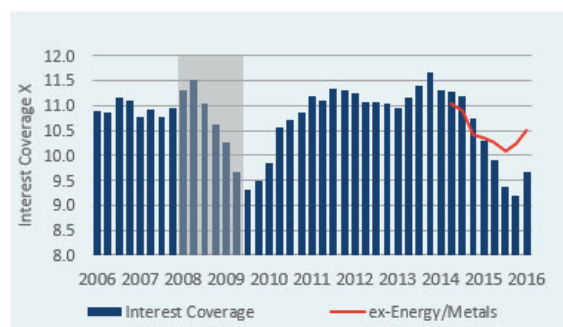


EXHIBIT M – HY INTEREST COVERAGE

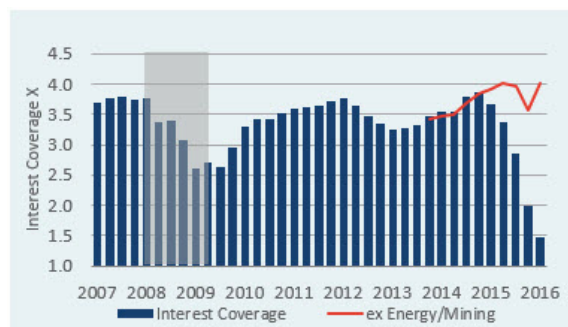


EXHIBIT N – IG DEBT GROWTH

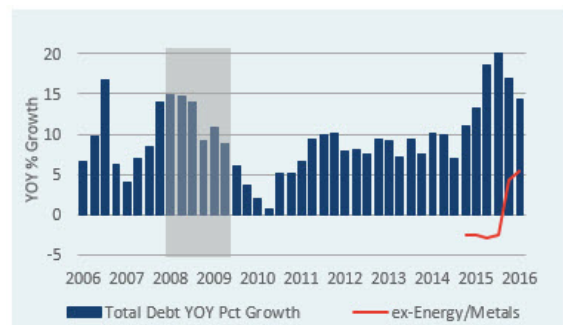
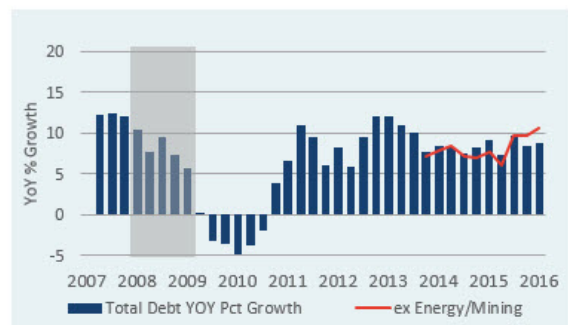


EXHIBIT O – HY DEBT GROWTH



Source: Deutsche Bank, as of 3/31/16

Market activity

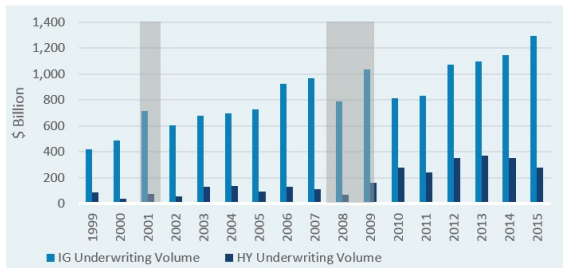
Bond issuance activity is an indicator of investor appetite for risk, and also of the perceived health of corporate balance sheets. In past cycles it is less clear how issuance acts before and during a recession.

Following the most recent recession, investors' appetite for risk was supportive of significantly higher levels of issuance as investors tried to capture additional yield in a low interest rate

environment. Given current spreads, investors may not be appropriately compensated for the amount of risk taken.

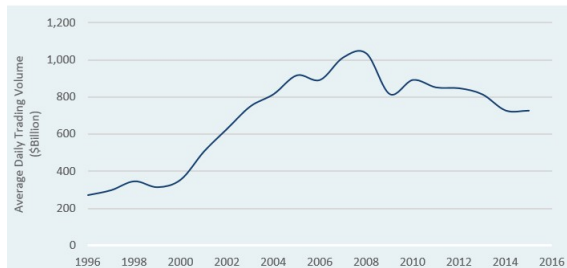
Following the implementation of the Dodd-Frank Act, trading volume and market liquidity have declined across bond markets. Though we do not believe lower volume has been driven by market fundamentals, the effect may nonetheless add to volatility during the next downturn.

EXHIBIT P – HY ISSUANCE



Source: Bloomberg, as of 6/30/16

EXHIBIT Q – U.S. BOND MARKETS



Source: Sifma, as of 2015 year-end

Conclusion

We seem to be late in an expansion phase but the economy may continue to muddle along for some time. Common causes of credit cycle downturns include: Fed tightening of interest rates in attempt to cool down the economy, a decline in economic growth which leads to stressed ability to service debt, and broad bond defaults due purely to overzealous borrowing. We do not see these traditional risks as particularly apparent today. A more unique risk of today's environment is the unprecedented liquidity which was injected into the system post financial crisis, which has led the economy to take on greater leverage to benefit from record-low interest rates. This environment has also allowed weaker companies to survive perhaps longer than they would otherwise.

In the current environment we believe it is wise to keep higher on the credit quality spectrum and to maintain liquidity. We will continue to watch the health of the credit markets as we progress through the cycle. A downturn may present opportunities to pick up attractive yield in the current low-yield environment. Please reach out to a Verus consultant regarding specific implications of these views on your portfolio.

Notes & Disclosures

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