GANSALO CAPITAL

The inherent instability of the US economy

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Credit drives economic growth while planting the seeds for a contraction…

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A key driver of economic growth is the same thing that sets in motion conditions for an economic contraction. That driver is credit which, once used, becomes debt. The hypothesis is Hyman Minsky's (1986), and can be easily explained in the context of an individual with an annual income of x and $0.5x$ credit card limit. It follows that the individual can spend 150% of his income at any point in time. Once he draws down the credit, he creates debt; the expenditure from the debt is additional income for someone else and would drive economic growth. At some point in the future, his debt payments relative to his income will increase[1], and the individual must curtail spending to pay down the debt; consequently reducing income and economic growth. The reduced growth causes risk aversion on the part of the lender who would tighten lending standards, which further constrains spending, income and economic growth.

As the economy slows, so will the individual's income and ability to pay down the debt, causing, in the extreme, a default and loss to the lender. That loss, together with losses from other borrowers' default, would cause panic and a potential *"run"* on the lender's liabilities, forcing indiscriminant sale of assets to cover redemptions. And if the lender's assets are illiquid – as is likely to be true since the lender's appetite for risk was high prior to the contraction – the asset prices would collapse sharply, the lender would become insolvent, and widespread panic would reverberate throughout the economy. This oversimplified scenario underscores Minsky's hypothesis that credit drives economic growth while planting the seeds for an economic contraction.

The hypothesis is equally or more relevant when put in the context of corporations who issue debt based on an outlook of future cash flow. The more optimistic that outlook, the higher their propensity to issue more debt, especially when the cost of debt is low. Debt capital must be spent with an expectation of a return that exceeds the cost of debt. Increased spending drives-up income and economic growth which feeds further growth, as investors lift animal spirits and increase the supply of credit. Eventually the debt burden on corporations will reach an unsustainable level around the time when the economy starts to overheat, triggering the Fed to raise short-term rates. The combination of increased debt burden, higher short term rates and diminishing returns on capital reduces corporations' propensity to issue more

[1] This will happen for a number reasons: (a) principal and interest payments grow faster than his income as the individual draws down more credit, (2) interest rates rise as the economy expands and the Fed intervenes to abate inflation, or (3) a segment of the economy experiences a shock that propagates throughout the economy, and drives down spending and income.

debt.[2] That alone curtails spending, reduces income and economic growth. Moreover, under these circumstances, corporations become increasingly vulnerable to a shock to the economy. Investors' animal spirits dampen; *credit spread (the risk premium for below investment grade debt relative to investment grade debt)* rises, locking-up credit markets and further reducing spending and economic growth. A recession ensues and defaults rise along with redemptions. Assets are sold indiscriminately to cover redemptions; capital markets fall along with demand for raw materials, driving down commodity prices.

The Fed intervenes by lowering short-term rates to unlock the credit markets – though this will not be effective if rates are close to zero to begin with. Corporations deleverage, spending continues to fall and the recession persists. After a period of deleveraging, investors' memory of the events that led to the recession fades, risk tolerance and credit supply increases along with spending. Credit spreads narrow as yield-hungry investors willingly reduce risk premiums in exchange for higher yield; and the cycle starts all over again!

Credit spread reflects risk appetite and the availability of credit in the economy…

There are three useful economic indicators of *'Minskian'* trends: (1) the spread between investment grade options-adjusted spread (OAS) and below investment grade OAS (henceforth *"credit spread"*); (2) corporations' free cash flow relative to debt service; and (3) consumer debt service payments relative to income. Credit spread and consumer debt service relative to income are published quarterly by the Fed. Corporations' free cash to debt service is not readily available but can be proxied by, for example, total debt relative to historical net worth or GDP. However, credit spread alone gives sufficient insight into risk appetite and fragility of the economy. When low, animal spirits are high, investors are more risk-tolerant, and credit supply is abundant – unleashing economic growth while planting seeds for a recession.

[2] As rates rise, debt service rise along with the cost of rolling over debt, putting a strain on spending.

Putting credit spread in context

In normal circumstances, we would expect credit spread to exceed the risk-free rate. Stated differently, the default risk inherent in below investment grade securities should be well above the risk in a security with no default risk. When credit spread falls below the risk free rate, it follows that risk tolerance is high and asset prices are significantly inflated. And the longer it remains below the risk-free rate, the more severe the impending contraction.

Figure 1 – Spread between below investment grade OAS and Investment grade OAS

Figure 2 – Credit Spread as a ratio of Risk-Free Rate

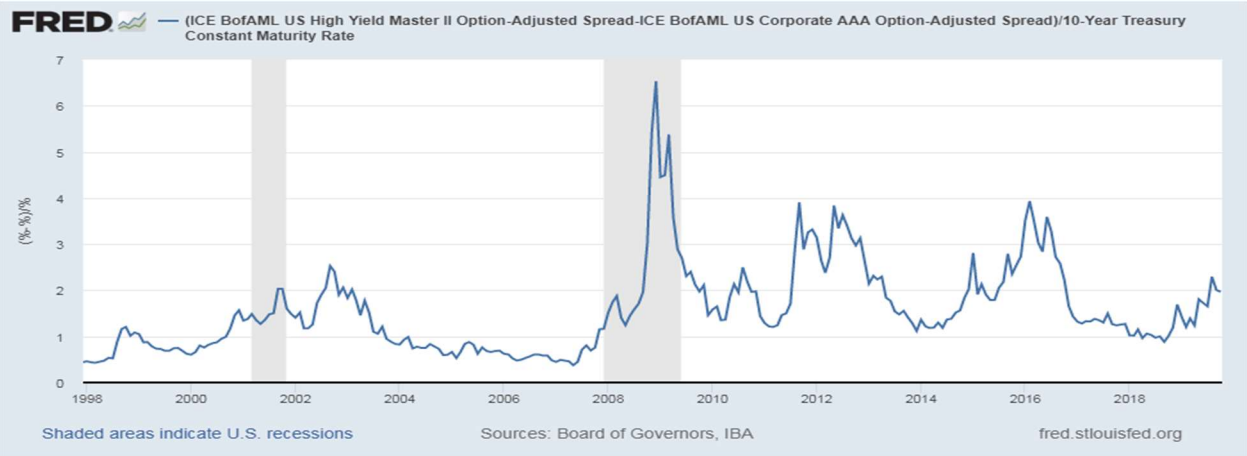

Figure 3 – (a) Credit Spread and (b) Russel 1000 Index

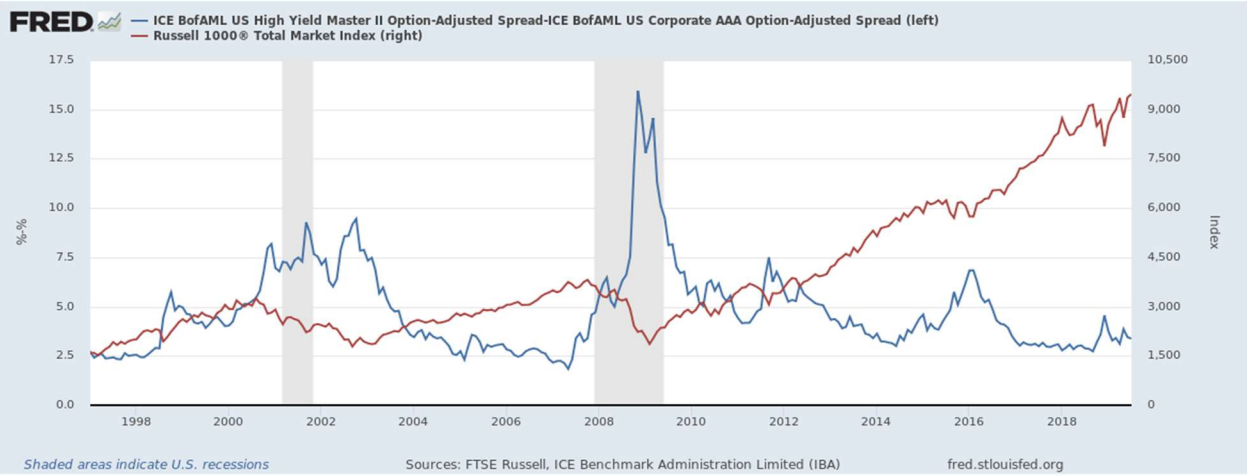

Figure 4 – (a) Credit Spread and (b) VIX

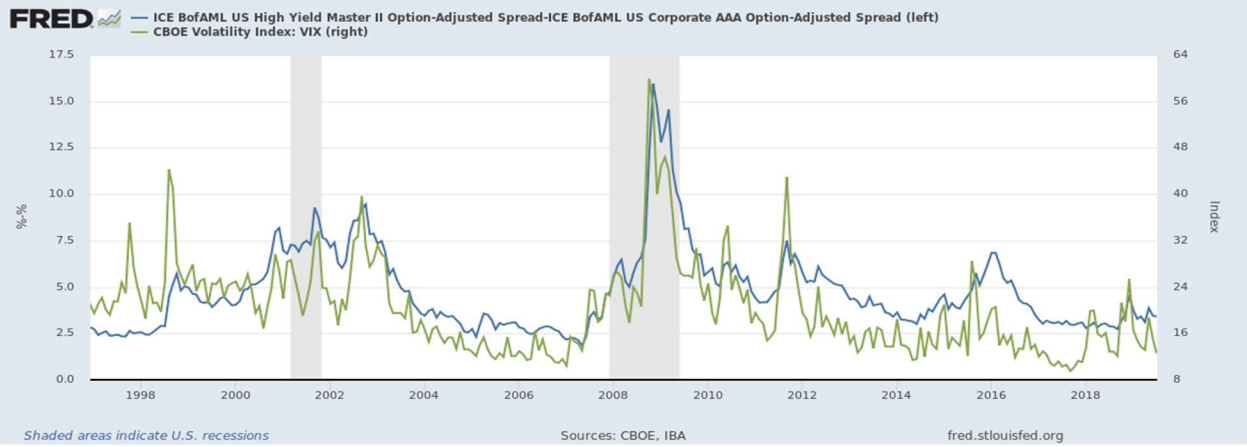

Figure 5 – (a) Credit Spread and (b) Gold-to-Copper ratio

Generating alpha from the inherent instability

When credit spread falls to pre-2008 crisis low (below 3%) or below the risk-free rate, it means credit is abundant, growth and earnings will be strong in the short term, VIX is at its floor (below 15, see Gansalo Paper 3), and contraction is imminent. In this state of the economy, we would exit long debt and equity positions and buy VXX (an ETN that tracks VIX). When the equity market corrects (VIX velocity, or the difference between the 30 and 90-day moving average of VIX, exceeds 10), we would aggressively buy equity and bonds of companies with strong *"past performance value"* priced, respectively, near or below tangible book value and at a deep discount to par (see Gansalo Paper 2). We would hold these positions until credit spread thins and VIX reaches it floor again. We would supplement the strategy with short-dated calendar spreads on S&P futures options, through the cycle.

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