Westcore Funds®
Denver Investments

Cars, Colleges and Corporations:

Examining lending "bubbles" and their potential impact on the market

Fact-Checking Three Potential "Bubbles"

Headlines in the financial press regarding what the next asset bubble(s) might be are frequent nowadays, and often dramatized to capture your attention. Three areas we have read about are assets backed by 1) subprime auto lending, 2) student loans and 3) "middle market" credit. We examine some characteristics of these markets, concluding that, while each certainly has characteristics that may be concerning, none of the above in isolation is likely to cause problems of the magnitude of the mid-2000s housing bubble. However, asset valuations appear full, and we believe it is a good time to be prudent with your investments, and not reach for risk that bears poor compensation.

Asset Bubbles – Necessary Evil?

The term "asset bubble" has negative connotations to strike fear into the hearts of investors and economists, but also (in the wake of one of the largest bubbles ever) into everyone with any financial or real assets to their name. Where is our blind spot? Over eight years into the current recovery, which is now the third longest on record, fueled by unprecedented monetary stimulus, asset bubbles are, justifiably, of primary concern. It has us thinking where the next bubble may come from; where is the excessive leverage that has fueled asset prices to exuberant levels that are far beyond fundamental justification? Before talking about some posited examples, let's reflect on a particularly thought-provoking theory articulated by Larry Summers and, subsequently, Paul Krugman in 2013. We'll spare a full recap (although would highly recommend you see the links at the end of this piece), but Summers and Krugman discussed negative real equilibrium interest rates, the zero bound of Fed interest rate policy (prior to Central Banks experimenting with negative rates) and question whether in fact we need asset bubbles to achieve close to full employment. The suggestion is that this is the only way our economy has avoided the liquidity trap promoted by Federal Reserve policy in recent cycles. It's an interesting thought. Did we need the tech bubble to attain full employment around the turn of the century, and the real estate bubble to achieve the same in the mid-2000s? While we can't say we necessarily agree with this theory, as over time, one can argue that bubbles tend to be followed by yet bigger bubbles, in the name of "recovering" from the initial bubble – a dangerous spiral that could become highly destructive over

time for both the economy and financial markets. Nevertheless, it's an interesting discussion point.

In recapping these thoughts and theories, we are led back to think about what today's bubbles could be. If our economy is at, or very close to, full employment, are we only there because somewhere there is a bubble? If prospective bubbles are on our radars and in headlines from various publications, they are probably also something investors, advisers, and other market participants are thinking about.

Our goal in this short piece is to share some data and perspective around some areas of lending that have been postulated as concerns to the health of the financial system, if they may end up being based on inflated asset prices. The top ones that come to mind are, 1) subprime auto loans, 2) student loans, and subprime student loans in particular, and 3) middle-market loans to small- and medium-sized business that lack the access to developed public financial markets that is available to large and multinational institutions.

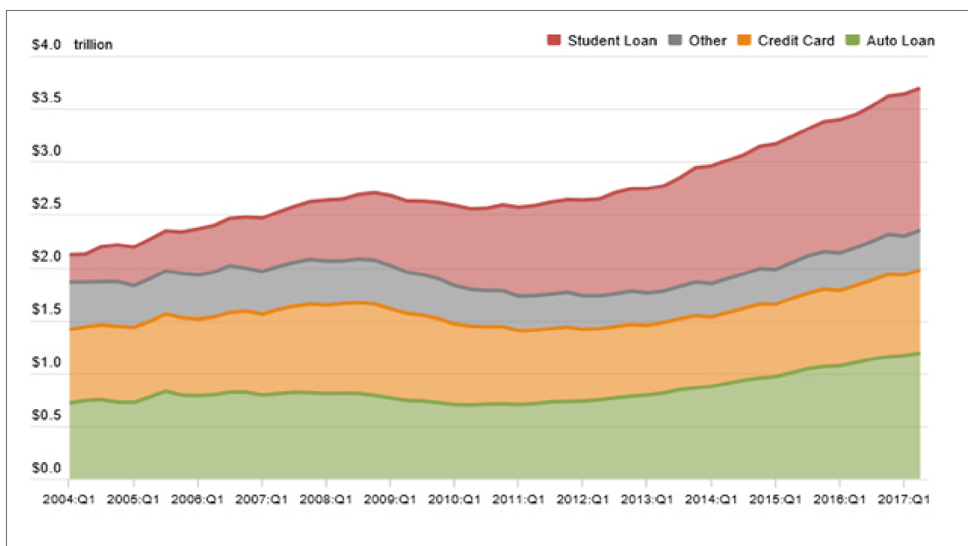
In short, despite dramatized headlines, it is our view that each of these areas of lending in and of themselves are not of a magnitude that could cause systemic problems, but a confluence of all of the above could be highly problematic. Given market valuations, don't let your portfolio stray too far in terms of seeking that marginal unit of return, and protect your principal.

Subprime Auto - loose underwriting and depreciating assets, but limited in scale:

Trends in household borrowing have changed significantly since the financial crisis. Since 2008, mortgage, home equity, and credit card debt have contracted by 7%, 35%, and 12%, but auto and student loans have grown by 48% and 110%, respectively. Today, we therefore see a larger auto loan market, with increasing delinquency rates and significantly easier loan terms. Recall when 60 months was a standard to long-term car loan? Now, 72-month, and even 84-month, loans are not uncommon. Couple this with low to minimal down payments, and the proliferation of lending to subprime borrowers, and it's easy to do the math on how increased defaults could lead to disappointing recovery rates for creditors. Used car values have been under pressure (just look at Hertz stock price over the last 12 months), further eroding the denominator of the "loan to value" equation. Long loans, easy credit, weakening standards, and falling asset prices…sound familiar? It should. However, there are still significant differences between auto loans and real estate loans of a decade ago: autos are likely less indicative of a general overheating of the economy, and despite challenged valuation, the "boom and bust" housing cycling isn't likely to be replicated in the auto markets. One can argue that cars are more mobile, and therefore more easily marketed. It's pretty well known

that a car depreciates as soon as you drive it off the lot, whereas the housing bubble was predicated on ever-increasing asset values. But the real contrast is a critical one – the size of the market. Sounds obvious, after all, how much is your car worth compared to your home? Per TransUnion, the subprime auto lending market totals less than $200 billion, or less than 20% of auto loans outstanding. This compares to a staggering $1.2 trillion of subprime mortgage debt before the 2008 financial crisis, but that doesn't stop sensationalized headlines about the next bubble being subprime auto loan-related. Subprime auto balances are 120% of 2009 levels, but the entire auto loan market is about 1/10th the size of the housing market. Are subprime auto loans of systemic concern? Alone, likely not.

Non-Housing Debt Balance



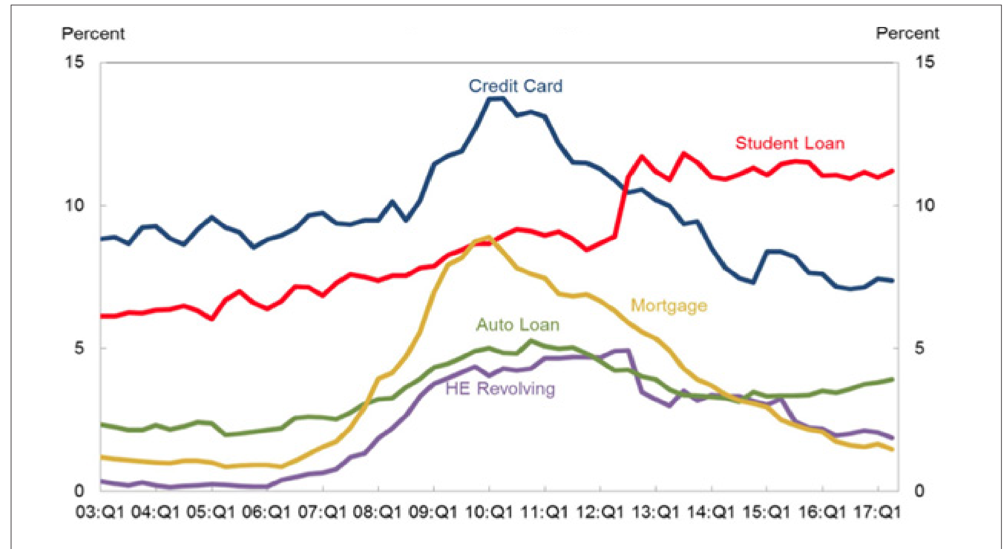
Source: FRBNY Consumer Credit Panel/Equifax. Data as of 12/31/2003 through 3/31/2017.

Student Loans – eye opening default rates, but more a longer-term headwind than "bubble" risk:

Despite arguably grabbing fewer headlines, changes in the student loan market make auto loan growth look relatively benign. As mentioned above, student loan debt outstanding since the end of 2008 has more than doubled. Even more concerning is that close to 30% of student loans are estimated to be to subprime borrowers. Not concerned yet? Keep reading. On average, 3,000 borrowers default on student loans every *day*. A 2017 study by LendEDU found that over 30% of college students surveyed plan to use their student loan funds to pay for spring break getaways (source: https://lendedu.com/blog/spring-break-student-loan-study/). We'll come back to the impact of these trends on productivity and consumption in a minute. But how large is the risk to the private markets? A key differentiator to the non-agency mortgage crisis is that the majority of student loan risk is borne by the government. Additionally, the forms of securitization and risk transformation and allocation that were rampant in the mid-2000s really aren't

applicable to this part of the market. Saving for college is a massive imposition for parents. Delinquency rates are high. But do these problems lead to an asset bubble, specifically in the securitization markets, that can cause systemic problems? Again, in isolation, probably not.

Percent of Balance 90+ Days Delinquent by Loan Type



Source: New York Fed Consumer Credit Panel/Equifax. Data as of 12/31/2002 through *3/31/2017.*

Before we move on, a couple more data points on student loans (in addition to the delinquency rates depicted above). About 44% of millennials hold student debt, or about 33 million Americans; this is, by some estimates, to equate to around $25,000 per millennial. Around 63% of the student loan market rests on the shoulders of millennial borrowers, or something in the region of $825 billion. So, for those that do pay their loans back, around $100 billion of spending from this group annually, is earmarked for student loan repayment. That's over a 0.5% headwind for GDP growth. Remember also that government-backed student loans cannot be extinguished through personal bankruptcy, so there really isn't an effective mechanism for relief. Loans may not be causing a loan-backed asset bubble, but the implications for growth in a consumption-driven economy with an ageing population are significant.

Middle Market Loans – manageable magnitude, but an opaque market with some ambitious assumptions:

Another area that has garnered our attention is lending to small- to medium-sized enterprises (typically <$50 million EBITDA), outside of traditional bank lending. These are known as "middle market loans", and are made by entities such as Business Development Companies, or BDCs, which are public equities, or private credit funds. The

Collateralized Loan Obligation (CLO) and Broadly Syndicated Loan (BSL) markets are typically supported by loans made to large, often multinational institutions, but smaller entities rely on other funding channels, driven in part by restrictive banking regulation. Underwriting standards, deal structures, and debtor profiles may differ, but neither would be immune from the impacts of stress in either area. One of the problems with private credit fund middle market loans is opacity; there really is no public data on the size or exact composition of the market, but educated estimates suggest somewhere in the $200-300 billion range. In keeping with our theme of growth, Wells Fargo estimates that BDC assets, comprising another $80 billion, increased almost 500% between 2010 and 2016. While not all-encompassing, this still indicates rapid growth, and compares to overall growth in Commercial and Industrial loans on bank balance sheets of around 65% over a similar time period. We have also heard anecdotes of loans being made based on "pro-forma" or forward EBITDA, which at times can be assumed to be as much as 30% higher than trailing 12-month data. There is a significant probability this obscures the underlying leverage in these structures. Additionally, covenant protection for creditors is likely to be reflective of the broader high-yield and syndicated loan markets, in that protections are scant. Nevertheless, it is hard to avoid the "magnitude" qualifier in this case also; a $300-400 billion total market isn't likely to cause systemic distress on a stand-alone basis. For comparison, total commercial and industrial loans on U.S. bank balance sheets are in excess of $2 trillion. Despite growth in BDCs and the resurgence of the CLO market, the larger middle market lenders are still large banking institutions, whose capital cushions are far superior to pre-crisis levels.

Portfolio Implications – not the time for heroism; protect principal:

Above, we have highlighted three possible areas of concern in the markets, and concluded that each is unlikely to cause a market or economic "crash" on a stand-alone basis. Underwriting standards appear tighter than a decade ago, and publicly traded securities tend to have more structural protections. But there are cracks appearing, and if these cracks were to combine and converge with a slew of borrower defaults, both personal and institutional, asset prices could be far from immune. What does this mean for portfolio construction? High leverage is accompanied by, in many cases, post-crisis valuation highs. Somewhat esoteric and less liquid asset classes have experienced a great run in returns, as investors eschew liquidity in favor of incremental return. In our view, now is therefore not the time to be chasing that incremental return, as the compensation does not appear adequate. We believe it's a time to "hit singles"- upgrade in quality, stay shorter in terms of spread duration, and earn incremental income from the safest parts of some of these structures. The Fixed Income team has modest allocations to sub-prime auto and to CLO securities, but we are positioned very much on the low-risk end of the spectrum. In times of high uncertainty and expensive valuations, we don't believe that it is a prudent move to take excessive risk on behalf of our clients, favoring principal preservation first and

foremost.

"The care of…the fortune…is considered as the proper business of that virtue which is commonly called Prudence…Security, therefore, is the first and the principal object… (Prudence) is rather cautious than enterprising, and more anxious to preserve the advantages which we already possess, than forward to prompt us to the acquisition of still greater advantages…" (Adam Smith, *Theory of Moral Sentiments*)

P.S. Here are the links to the pieces mentioned above from Summers and Krugman – while they may not mirror our personal views, we think they are worthy of a few minutes of your time. Food for thought as you evaluate your clients' portfolios.

http://www.businessinsider.com/larry-summers-imf-speech-on-the-zero-lower-bound-2013-11

https://krugman.blogs.nytimes.com/2013/11/16/secular-stagnation-coalmines-bubbles-and-larry-summers/?_r=1

As always, if we can help in any way, please don't hesitate to reach out.

Past performance does not guarantee future results.

The views expressed herein are those of Denver Investments Fixed Income Team, are general in nature and do not pertain to all investment strategies offered by Denver Investments or Westcore Funds. The presentation is for informational purposes only without regard to any particular user's investment objectives, risk tolerances or financial situation and does not constitute investment advice nor should it be considered a solicitation or offering to investors.

RISK: It is impossible to protect principal in a down market.

DEFINITION OF TERMS

Subprime is a classification of borrowers with a tarnished or limited credit history. Lenders will use a credit scoring system to determine which loans a borrower may qualify for. Subprime loans carry more credit risk, and as such, will carry higher interest rates as well.

Earnings before interest, tax, depreciation and amortization (EBITDA) is a measure of a company's operating performance. Essentially, it's a way to evaluate a company's performance without having to factor in financing decisions, accounting decisions or tax environments.

A **Business Development Company ("BDC")** is a form of unregistered closed-end investment company in the United States that invests in small and mid-sized businesses.

Collateralized loan obligations (CLOs) are a form of securitization where payments from multiple middle sized and large business loans are pooled together and passed on to different classes of owners in various tranches. A CLO is a type of collateralized debt obligation.

Broadly syndicated loans (BSLs) are often defined as loans with a total deal size in excess of $500 million, while large middle market (LMM) may consist of loans with deal value of $100 million–$500 million.

Of the two companies referenced within this paper, Wells Fargo represents 0.5% of the Westcore Plus Bond Fund as of 8/31/2017 and Hertz is not currently owned in any fixed income portfolios.

An investor should consider investment objectives, risks, charges and expenses of the Fund(s) carefully before investing. To request a prospectus, which contains this and other important information about the Fund(s), please call 800.392.CORE (2673) or visit us online at www.westcore.com. Please read the prospectus carefully before investing.

Westcore Funds are distributed by ALPS Distributors, Inc.

The mountain logo together with "Westcore Funds Denver Investments" is a registered service mark of Denver Investments.

WES0003535 09302018