

Market Insight: Subprime Auto ABS

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Why we still like subprime auto asset-back securities (ABS)

We started investing in subprime auto ABS securities in 2012. At the time, our investment thesis was based on a view that the sector would benefit from very attractive yields, strong structural support, conservative underwriting, pent-up demand in the auto market and improving consumer balance sheets and labor markets. We focused our investments in the subordinated classes of two of the top tier subprime auto issuers, AmeriCredit Financial (AMCAR) and Santander Consumer USA (SDART), which we believed represented excellent relative value versus the broad fixed income market, especially compared to other ABS alternatives. Since then, the sector has seen strong collateral performance and investment returns, despite the stigma associated with subprime borrowers following the financial crisis.

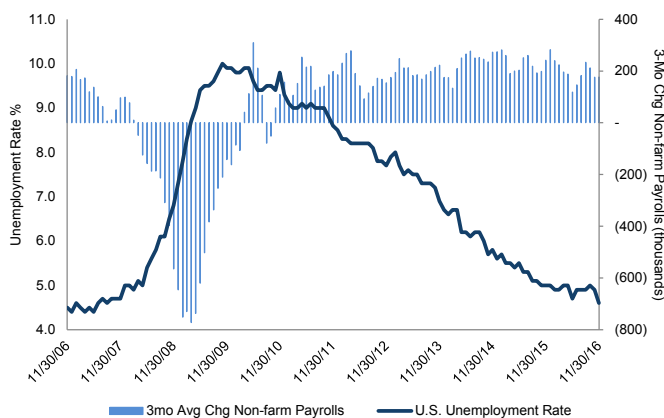
We believe the sector still offers a compelling investment opportunity, however, in light of the recent negative headlines surrounding subprime auto lending and the modest deterioration in credit trends, we thought it was prudent to take an in-depth look into the sector to reassess our views. As we make the case for subprime auto ABS we will focus on four key areas: the macro economic environment, credit trends, structural support provided in auto ABS, and finally, relative value considerations.

Positive economic environment and healthy consumer fundamentals

The credit trends for auto finance, and in particular subprime auto lending, are closely tied to the overall economic cycle. The economic recovery since the financial crisis has been modest at best, but the one bright spot has been the strength of U.S. labor markets. Job and wage growth are critical factors in determining the health of the consumer and performance in the auto ABS sector.

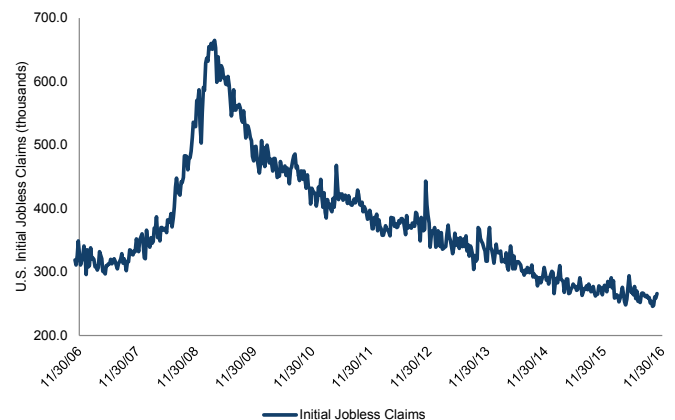
Below, the chart on the left highlights the solid improvement in the labor market with the unemployment rate falling from 10.0% to 4.6% and non-farm payrolls averaging over 200,000 new jobs per month over the past three years. The graph on the right illustrates initial jobless claims, another leading indicator for the labor market, which has been below 300,000 per month for the past two years and is currently at record low levels. Finally wage growth has been muted since the crisis, but is now showing signs of accelerating at a year-over-year rate of 2.4%. These are all positive indicators for the health of the consumer and contribute to the steady climb of consumer confidence measures since the financial crisis.

U.S. Labor Markets



Source: Bloomberg

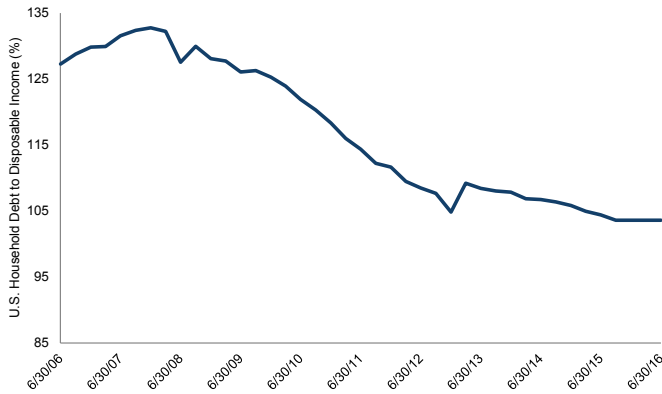
U.S. Labor Markets



Source: Bloomberg

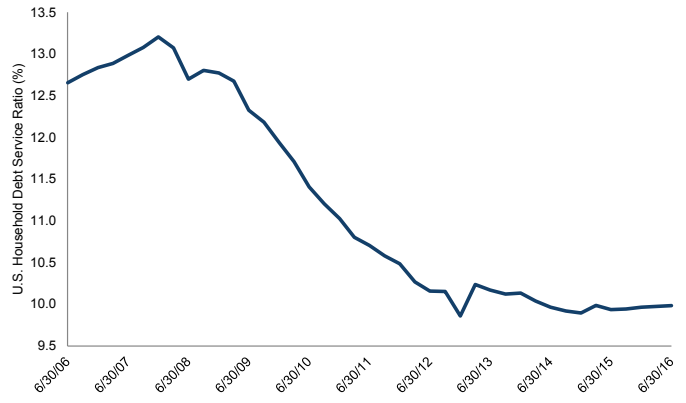
Another positive sign for the consumer is the improvement in consumer balance sheets. Household debt levels have started to rise modestly from the trough in 2013, but importantly are still below the peak levels in the third quarter of 2008.¹ In addition, with the improvements in the labor markets and decline in borrowing rates, household debt-to-income and debt-service levels have improved significantly since the crisis.

Consumer Balance Sheets - Debt-to-Income



Source: Bloomberg

Consumer Balance Sheets - Debt-Service Ratio



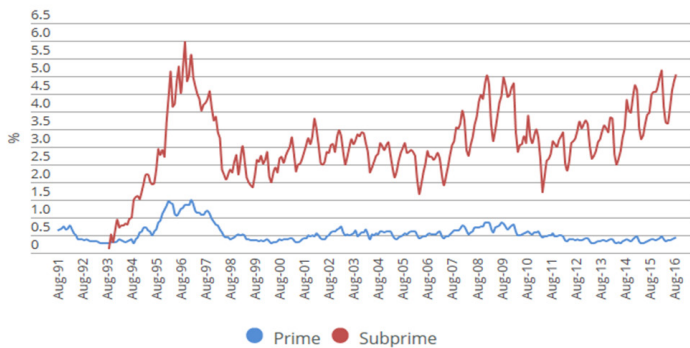
Source: Bloomberg

Lastly, it remains to be seen what changes will occur under the Trump administration, but it seems likely that its pro-growth policies will have the potential to extend the current economic expansion. Tax cuts could also benefit consumers and auto ABS by providing increased disposable income to service debt.

Credit trends

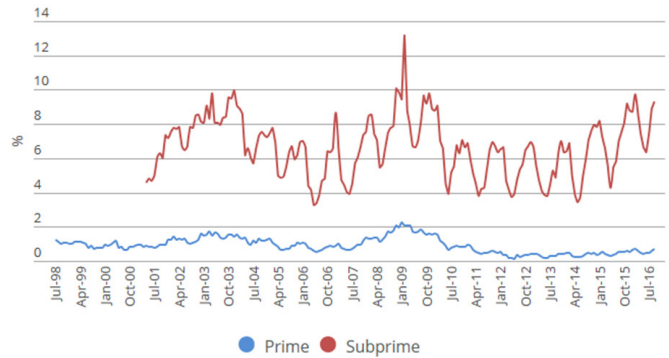
Subprime collateral performance has been supportive since the crisis, but over the past year, the trend has been weaker in both delinquencies and in annualized loss rates. The charts below highlight the performance for both prime and subprime auto ABS collateral. The annualized net losses for subprime breached 9% in September 2016 and delinquencies moved to 5%. The deterioration warrants monitoring, but remains within the expectations for subprime collateral and is also influenced by the shifting mix of issuers that comprise the index. Over the past several years, the deterioration in the subprime auto credit indices has been skewed higher with the addition of new issuers that focus on lower subprime borrowers. As an example, in 2013, AMCAR and SDART, two of the larger subprime platforms, represented 83% of the index versus only 54% in August of 2016.²

Auto Loan 60+ Delinquency Index



Source: Fitch Ratings

Auto Loan Annualized Net Loss (ANL) Index

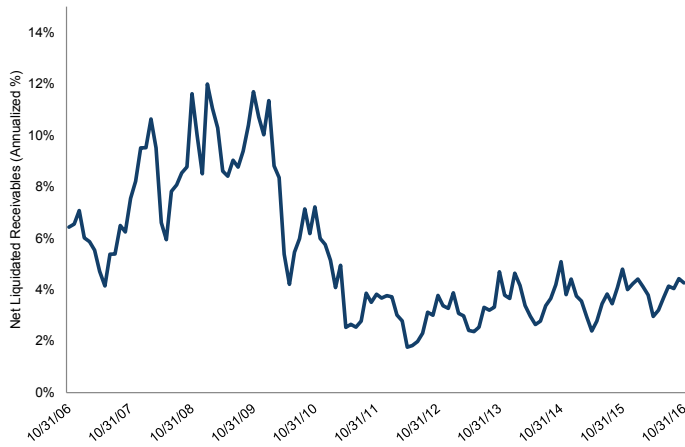


Source: Fitch Ratings

¹N.Y. Federal Reserve Quarterly Report on Household Debt and Credit, November 2016

²Fitch Ratings – Subprime Auto Indices September 2016

AMCAR - Net Liquidation Rate



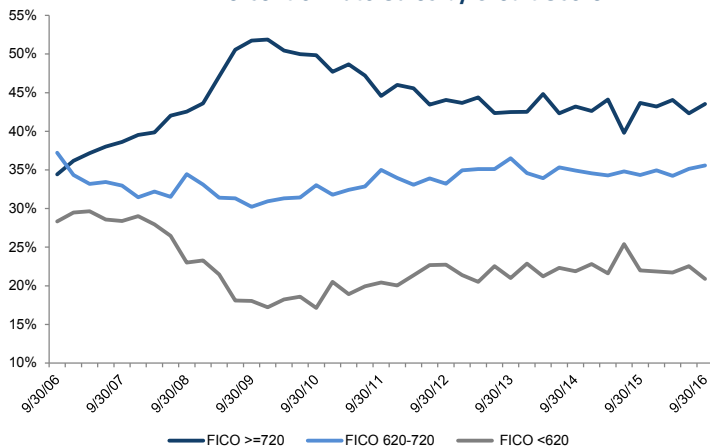
Source: GM Financial

Many of the negative media headlines regarding subprime auto financing warn of a bubble developing and draw parallels to the housing crisis. The common areas of concern are the potentially deteriorating underwriting standards and that subprime financing is fueling an increase in auto sales. In general, underwriting standards have been very stable, especially in the top tier issuers such as AMCAR and SDART. The one area that has seen some loosening of underwriting standards has been in the term of auto loans, which have been gradually increasing to approximately 70 months. On the other hand, FICO scores and loan-to-values are stable or improving across the sector. The table below highlights the consistent underwriting of the last twelve ABS deals from SDART.

Origination Statistics	SDART 2016-2	SDART 2016-1	SDART 2015-5	SDART 2015-4	SDART 2015-3	SDART 2015-2	SDART 2015-1	SDART 2014-5	SDART 2014-4	SDART 2014-3	SDART 2014-2	SDART 2014-1
Weighted Average Original Term	70.66	71.65	71.12	71.11	71.25	70.88	70.50	71.47	70.42	69.39	70.41	70.23
Weighted Average LTV	107.26%	109.09%	107.58%	110.03%	110.01%	110.00%	110.00%	113.00%	114.00%	112.00%	113.00%	114.10%
Weighted Average Credit Bureau Score	600	600	600	600	597	598	595	598	598	593	594	589
Min Credit Bureau Score	394	362	385	381	334	381	336	379	367	360	341	358
Max Credit Bureau Score	893	891	889	896	891	900	878	882	900	888	899	889
Used %	65.61%	59.06%	59.85%	61.44%	60.10%	66.08%	67.47%	63.90%	66.79%	66.15%	68.36%	65.57%
New %	34.39%	40.94%	40.15%	38.56%	39.90%	33.92%	32.53%	36.10%	33.21%	33.85%	31.64%	34.43%

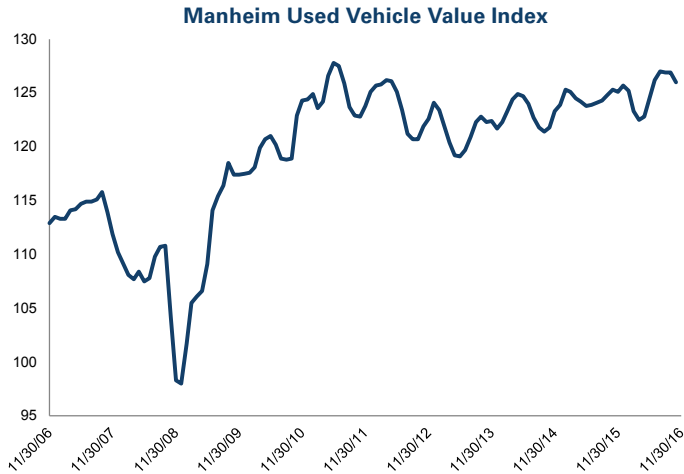
Source: Santander Consumer USA

Percent of Auto Sales by Credit Score



In addition, we don't believe the data supports the notion that subprime auto financing is driving auto sales and creating a bubble. Auto financing was the first area to recover following the financial crisis and while the availability of credit certainly helped support auto sales, we believe strong auto sales were more a function of pent-up demand and the aged auto fleet. With regards to subprime borrowers specifically, it appears the sector hasn't had an outsized influence on sales and data from the New York Federal Reserve shows that the subprime share of auto sales has actually declined over the past ten years from 28% to 21%.

Source: New York Federal Reserve



Source: Bloomberg

One final area to address with regards to credit trends is the market for used cars. Auto ABS is securitized by auto loans, which are backed by the underlying vehicles. In the event of an auto loan default and liquidation, the value of the vehicle will determine the recovery on the defaulted receivable. Used car prices have recovered significantly since the crisis and have recently stabilized, but there are signs of a peak in auto sales and that a potentially large inventory of autos coming off lease could pressure car prices.

ABS structure provides solid, time tested support

The strength and time tested support provided by the auto ABS structure is a key positive factor for the sector, even in the face of softening credit trends for subprime loans. The subprime sector existed prior to the crisis, and the structures held up extremely well through the stressful great recession period. In fact, over the 1993 to 2015 period, no AAA or AA rated securities experienced any impairment; and investment grade rated ABS have a historical impairment rate of only 0.1%.³

Auto ABS is a sequential payment structure that allocates principal to the most senior (highest rated) bonds first and allocates losses to the most junior (lowest rated) bonds. The bonds utilize credit enhancement in the form of subordination, overcollateralization, and non-declining reserve accounts to protect the senior bonds from potential losses. In addition, the structures benefit from excess spread, the difference between the auto loan rate and the rate paid to bondholders, to further support the structures. The credit enhancement required by the rating agencies has been stable and, in our opinion, conservatively underwritten. In addition, the sequential payment priority results in rapid deleveraging or building of credit enhancement as the security ages. This rapid deleveraging has resulted in only rating upgrades to the sector since the crisis, as lower rated bonds build enhancement over time.

The table below for the AMCAR 2015-2, illustrates the conservative initial underwriting, rapid deleveraging from the sequential pay structure and the potential for ratings upgrades. The initial credit support to the AAA rated bonds was 34.7% and for the single A rated bonds the enhancement was 18.5%. The rating agencies size the credit enhancement based on expected losses on the underlying loans. In this case Moody's expects cumulative net losses on the collateral of 9%.⁴ It's worth noting that the worst losses on the underlying collateral experienced during the crisis for the AMCAR shelf was the 2007-D deal, with 18.91% cumulative net loss and none of the bonds incurred any impairment.⁵ The second point to highlight from the table is the rapid deleveraging that has occurred in the AMCAR 2015-2, which has been outstanding for only twenty months. The credit enhancement on remaining AAA rated classes has grown to 63.9% and the original single A rated bond now has 34.4% enhancement and has been upgraded to AAA.

	Original Issue as of 4/2015			Current Issue as of 11/2016		
	Amount Millions	Moody/S&P	Total Credit Enhancement	Moody/S&P	Amount Millions	Total Credit Enhancement
A1	\$200.0	P-1/A-1	34.7%	P-1/A-1	Paid off	
A2 A	\$181.0	Aaa/AAA	34.7%	Aaa/AAA	\$9.2	63.9%
A2 B	\$215.7	Aaa/AAA	34.7%	Aaa/AAA	\$10.9	63.9%
A3	\$257.9	Aaa/AAA	34.7%	Aaa/AAA	\$257.9	63.9%
B	\$92.1	Aa1/AA+	27.5%	Aaa/AAA	\$92.1	50.7%
C	\$114.3	A1/A+	18.5%	Aaa/AAA	\$114.3	34.4%
D	\$112.4	Baa2/BBB+	9.6%	Aa3/A	\$112.4	18.3%
E	\$26.7	NR	7.5%	NR	\$26.7	14.5%

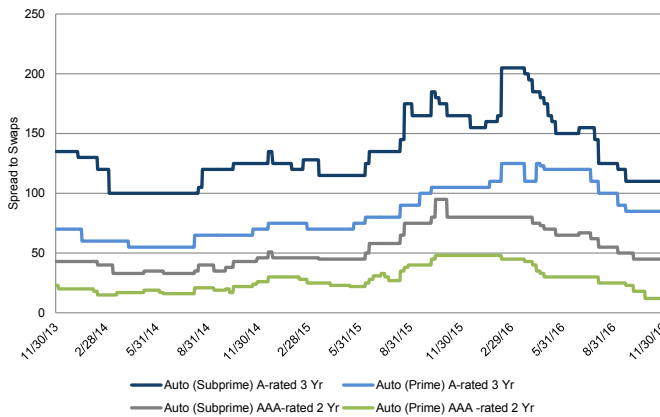
Source: Bloomberg

³Moody's, JPM – Subprime Auto ABS Outlook, August 2016⁴Moody's AMCAR 15-2 Presale Report, April 2015⁵AMCAR

Relative value still attractive

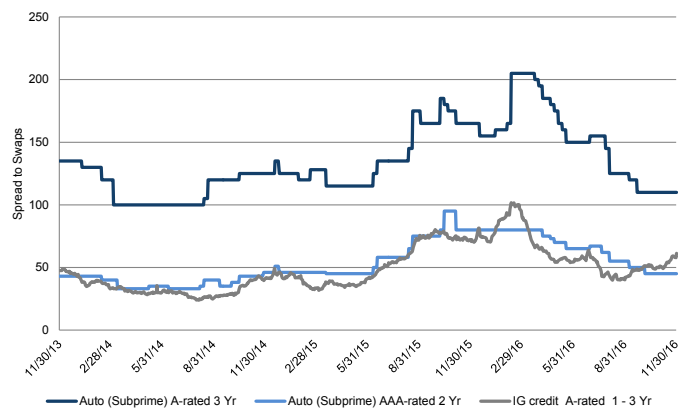
We believe the relative value for subprime auto ABS is still compelling. The sector provides attractive yields for a short average life security. On a historical basis, the yield spreads have improved over the past year, but in our opinion have room to tighten further. In addition, the sector looks attractive versus other similar average maturity and rating asset classes. The chart below on the left shows yield spreads on AAA and A rated subprime auto ABS versus comparable prime auto ABS. The chart on the right compares subprime auto ABS versus 1 to 3 year A rated credit.

Subprime vs. Prime Auto ABS



Source: J.P. Morgan

Subprime ABS vs. Credit



Source: J.P. Morgan

Concluding thoughts

After reviewing the key drivers of performance for subprime auto ABS, we conclude that the sector still provides a compelling investment opportunity, in our opinion. The fundamental backdrop remains supportive for subprime auto ABS with modest economic growth, solid labor markets, and strong consumer balance sheets. It's also possible that the Trump administration's pro-growth policies will improve or extend the later stages of the business cycle. Credit trends have shown some softness in the aggregate and deserve close monitoring going forward. But the top tier issuer performance has been more stable and within the underwriting expectations. The auto ABS structure has faced the challenging stress test of the great recession and passed with flying colors. Lastly, we believe the relative value for a short maturity investment grade rated asset stacks up very favorably versus other ABS sectors and versus similarly rated credit bonds.

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