THE DEVIL'S ADVOCATE REPORT

December 2, 2019

Credit Acceptance Corp.

(SELL)

Price:	$433.00	**Ticker:**	CACC
52-Week Range:	$356.12-$437.89	**Dividend:**	Zero
Shares Outstanding:	18.8 million	**Yield:**	Zero
Market Capitalization:	$8.1 billion		

Data As of December 2, 2019

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Investment Thesis

Credit Acceptance Corporation (CACC) has an $8.1 billion market capitalization. It is a consumer finance company that specializes in automobile financing for consumers with FICO scores of less than 650 or no FICO score at all. Approximately 96% of its customer base falls into this category. The business has expanded substantially in the past five years and revenue has increased by 89%. Because there is an economy of scale aspect to its business model, CACC's net income has increased more rapidly than revenue, by 127%, or almost 18% per annum and has generated close to a 40% average annual return on equity (ROE) over the past decade.

Growth and economic returns of this order explain why the company trades at 3.6x book value. By the same token, they have attracted increasing competition. This, in turn, has led to significantly narrower interest spreads for CACC; this measure has declined steadily from a high of 36% in 2009 to just 20% in the most recent quarter.

There is also the issue of market saturation, with a long period of sustained loan growth that well exceeds the expansion rate of the population of borrowers. To make auto loans more affordable, CACC has stretched out the average *initial* term for a loan to 58 months, compared to just 38 months in 2009. Industry-wide, the most commonly used auto loan had a 72-month term and the 84-month loan was the second most popular loan in the third quarter. There is even a 96-month term available. Thus, it is possible that CACC's average term will continue to stretch out as these longer-term loans become more mainstream. However, most new vehicles only retain around 30% of their value after eight years, and perhaps just half as much if the vehicle is sold in a wholesale/auction process after being repossessed.

The benefit of longer payback periods in enabling CACC to continue expanding its loan book at a greater rate than the supply of sufficiently creditworthy subprime borrowers, though, must be weighed against the increased default risk that is associated with such actions. When consumers could pay off their vehicle in 38 months, they very quickly reached a point at which they had significant equity in their vehicles and, therefore, were more reluctant to default. With 58-month terms —not to mention 96 months—it could take many years to reach the point at which the vehicle is worth meaningfully more than the remaining debt and, therefore, the propensity to default is considerably greater during those first few years, particularly if consumers experience economic hardship. Consequently, should CACC further lengthen its payback terms, it is unlikely to experience the same benefit relative to the risk assumed (from the vehicle's deteriorating collateral value) as has been the case in the past decade. This is an instance in which historical recovery rate data will not be reliable in assessing the credit and balance sheet risk during CACC's next credit downcycle experience.

When a customer falls behind with payments, general practice is to renegotiate a loan even to the degree of permitting a customer to purchase a newer, albeit still used, vehicle for a longer-term loan and reduced monthly payments. The ratio of under-water (negative equity) trade-ins has expanded from approximately 19% to 33% over the past decade[1]. The result of this practice is that consumers get new vehicles and loans that are considerably greater than the value of the vehicles. This practice has helped the industry expand by forestalling defaults and increasing the value of loans outstanding, but it introduces substantial risks, since loan-to-value ratios increase, and the more negative equity consumers have in their vehicles, the higher the chance that they will default in a deteriorating economy.

The average yield on CACC's $7.1 billion lending portfolio was 21% in the third quarter—a figure that has declined steadily from almost 35% in 2010. That said, since the company pays just 4% for its $4.2 billion of outstanding debt, substantial profits can be realized. The problem is that the periodic provision of credit losses appears low given the creditworthiness of the customer base (or lack thereof). For example, in the first three quarters of 2019, CACC recorded only $23 million of provision for credit losses, which is just shy of a rounding error for a $7 billion credit portfolio comprised of the lowest FICO scores in the nation. In fact, provision for credit losses in the first nine months of 2019 was 17% lower than in the same period in 2015, despite the fact that the loan portfolio is 122% larger. These provisions represented approximately 3% of the loan in 2016-2017, but just about 1% since. Thus, while this reduction in annual provisions has added to earnings, a similar boost over the next few years is unlikely, unless provisions turn negative, which actually happened briefly in 2009. Conversely, should provisions expand back to the 3.3% recorded in 2017, pre-tax earnings in 2019 would be approximately 20% lower.

The Financial Accounting Standards Board (FASB) has issued an Accounting Standards Update, which includes an impairment model known as the current expected credit loss (CECL) model. As a result of this implementation, CACC's earnings are expected to decline 17% next year, based on Wall Street's consensus, as the company will have to assume higher default rates and charge offs. While this will not have an impact on free cash flow, it will impact reported earnings growth, GAAP earnings and adjusted earnings. To what extent, if any, the P/E ratio will be impacted remains to be seen. As of this writing, CACC trades at 12.3x consensus 2019 earnings but 15.0x consensus 2020 earnings. Should the 2020 EPS be valued at the company's 10-year average P/E of 10.6x, the shares would be worth $366.

The past decade has been characterized by economic expansion, interest rates and unemployment rates that have declined to all-time lows, and a complete lack of recessions. Thus, it has been a highly accommodating environment for subprime lending. In an economic downturn, CACC's earnings could deteriorate as a result of higher default rates and increasing cost of capital. Even at the current earnings level, as if such an increase in

[1] Source: https://www.caranddriver.com/news/a29831248/americans-not-researching-auto-loans/

default rates and the attendant increase in the company's borrowing rates did not negatively impact its earnings, the mere reversion of its P/E ratio to the 2009 average of 5.9x would cause the shares to decline by more than half. On the other hand, at 15x next year's projected earnings —a 42% premium to its 10-year average and almost twice its peer group's valuation—the upside appears limited. Therefore, shares of Credit Acceptance Corp. are recommended for sale or short sale.

Company Overview

Credit Acceptance Corp. (CACC), headquartered in Southfield, Michigan, provides dealer financing programs that enable automobile dealers to sell vehicles to consumers, regardless of credit history. This means that it attracts consumers with the lowest, if any, credit scores. The company was founded by Donald Foss in 1972 and came public in 1992. Mr. Foss, currently 74 years old, is the son of a used car salesman and, together with his wife, holds approximately 29% of the shares outstanding.

Of the more than 300 million Americans with a credit history, 32% have Fair Isaac Corporation (FICO) scores below 650 and loans to such individuals are considered subprime. For many years, 96% of CACC's borrower have had FICO scores below 650, or completely lacked a FICO score. While the delinquency and default rates in the sub-prime auto market are high, that is not an insurmountable problem in and of itself since the interest rate on loans to consumers with low FICO scores is set high enough as to attempt to compensate for the default rate. For example, average industry interest rates (but not necessarily CACC's rates, which are not disclosed) for certain brackets of FICO scores are as follows:

FICO Score	Rate Charged
640-659	13.1%
580-619	17.4%
560-579	19.6%
Less than 560	21.4%

Source: LendingTree

To its credit, CACC has resisted the impulse to leverage the balance sheet, at least to the degree that is possible for an interest rate spread-based financing business. Equity equals 34% of total assets, which must be considered conservative in its class.

CACC has two programs: the Portfolio Program and the Purchase Program. The former loans accounted for two-thirds of the loan volume in the third quarter, a slightly decrease from 70% in calendar 2018, while the purchased loans accounted for the remainder.

Portfolio Program
Under this program, the dealer generally receives as payment for the vehicle:

- a down payment from the consumer;
- a non-recourse cash payment (advance) from CACC; and
- after the advance balance (cash advance and related dealer loan fees and costs) has been recovered by CACC, the cash from payments made on the consumer loan, net of certain collection costs and servicing fee charged by CACC.

CACC then records the amount advanced to the dealer as a dealer loan. The company generally requires dealers to group advances into pools of at least 100 consumer loans. All advances within a dealer's pool are secured by the future collections on the related consumer loans assigned to the pool. For dealers with more than one pool, the pools are cross-collateralized so the performance of other pools is considered in determining eligibility for dealer holdback.

Since typically the combination of the advance and the consumer's down payment provides the dealer with a cash profit at the time of sale, the dealer's risk in the consumer loan is limited. CACC cannot demand repayment of the advance from the dealer except in the event the dealer is in default of the dealer servicing agreement. For accounting purposes, the transactions described under the Portfolio Program are not considered to be loans to consumers. Instead, CACC's accounting reflects that of a lender to the dealer. Perhaps for that reason, CACC does not disclose interesting consumer metrics, such as its borrower's FICO score breakdown, delinquency and default rates, nor the salvage values for repossessed vehicles.

Purchase Program
The Purchase Program differs from the Portfolio Program in that the Dealer receives a one-time payment from CACC at the time of assignment to purchase the consumer loan instead of a cash advance at the time of assignment and future dealer holdback payments. For accounting purposes, the transactions described under the Purchase Program are considered to be originated by the dealer and then purchased by CACC.

There are close to 60,000 auto dealers in the United States, and approximately 12,500 of them have been active in CACC's loan programs in the current year.

Originations
CACC's originations, in terms of loan unit volume, increased by just 0.3% year-to-date, as of the end of the third quarter, whereas based on dollar volume, it increased 6.0%. The stagnation in unit volume could be a sign of intense competition and CACC's inability to

expand without extending larger loans to ever-riskier borrowers for ever-longer payback periods.

During the third quarter, the average monthly payment of newly originated loans increased to $403.84. This could be compared to the third quarter of 2015, when the figure was $321.13— 20.5% lower. Given the increase in loan repayment terms, CACC needs the average borrower of loans originated in third quarter to remain current for 15.6% longer while making 25.8% larger monthly payments, compared to the same period in 2015, for a total payment increase of 45.3%, to simply break even and recover the amount paid to purchase the loan.

CECL- New Accounting Standard

Current Expected Credit Losses (CECL) is a new credit loss accounting standard model that was issued by the Financial Accounting Standards Board (FASB) on June 16, 2016 but is taking effect on December 15, 2019. CECL replaces the current Allowance for Loan and Lease Losses (ALLL) accounting standard. Under the new standard, preparers will need to consider not only their method for estimating CECL, but also the evidence and documentation their governance and internal control framework should produce to support their estimates. An entity will recognize an allowance for credit losses based on the difference between contractual future net cash flows and its estimate of expected future net cash flows. The new guidance also changes the scope of the special accounting for loans acquired with significant credit deterioration. CACC has announced that the adoption of ASU 2016-13 will have a material impact on its consolidated financial statements and related disclosures as the company will be forced to change its accounting policies for loans.

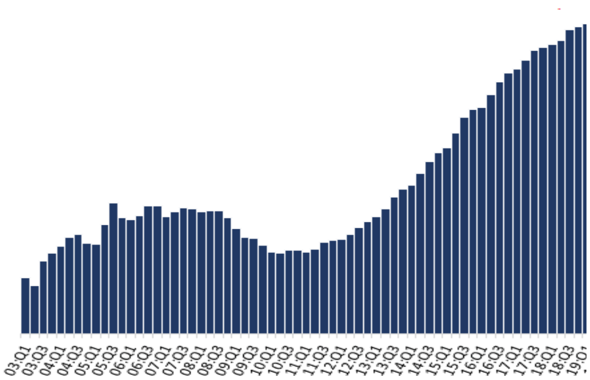
While CACC's earnings could be more than 20% lower in 2020[2] as a result of CECL, the adoption of CECL should also result in higher volatility of the company's future earnings. On January 1, 2020, the company expects to increase its loans receivable balance by 30% to 40%, offset by an equivalent increase in allowance for credit losses. Going forward, CACC will record a provision for credit losses at origination between 12% and 15% of the amount of the loan because that is the amount that is estimated not to be repaid from the contractually owed amount. Wall Street's consensus forecast for 2020 EPS indicate a 17% decline relative to 2019. Interestingly, the company's competitors are not expected to be impacted by this accounting rule and they are all expected to grow their earnings year-over-year in 2020. Yet, CACC's P/E ratio is approximately twice as high as the average for the peers.

The Auto Loan Market

The consumer finance industry in the United States had approximately $4.11 trillion of outstanding borrowings as of the end of the third quarter, including vehicle loans and leases, credit cards, home equity lines of credit, private student loans, and personal loans. CACC's

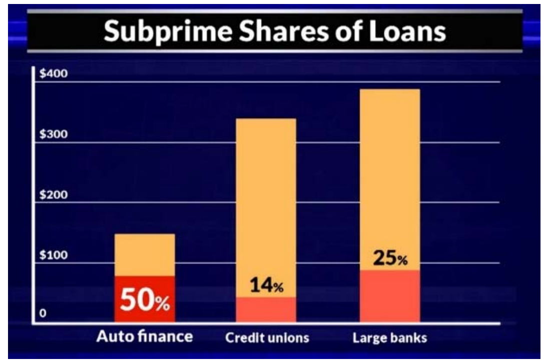
[2] Based on certain estimates by Wall Street

primary focus is the vehicle finance segment, which accounts for approximately $1.32 trillion of auto loans outstanding, as of the end of September. This figure has increased by 75% in the past nine years:



(In trillions of dollars. Source: NY Federal Reserve)

Drilling down further, the subprime segment, which is CACC's main focus, represents just over 20% of the market value, or approximately $270 billion:

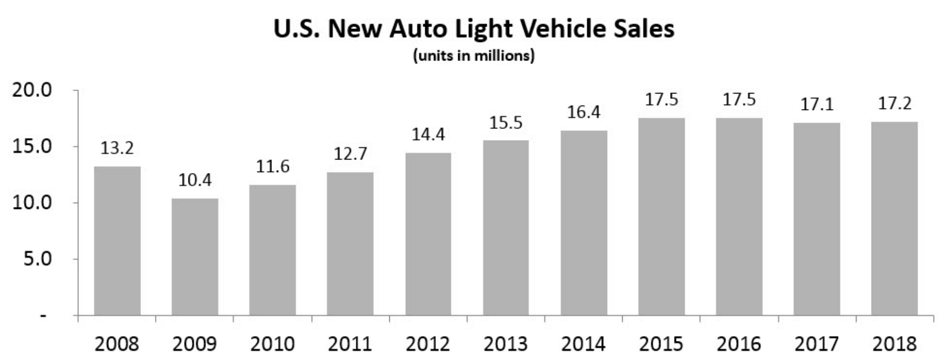


Source: New York Federal Reserve

Of this amount, auto finance companies such as CACC and Santander Consumer (a prior subject of this report) have approximately a 50% market share.

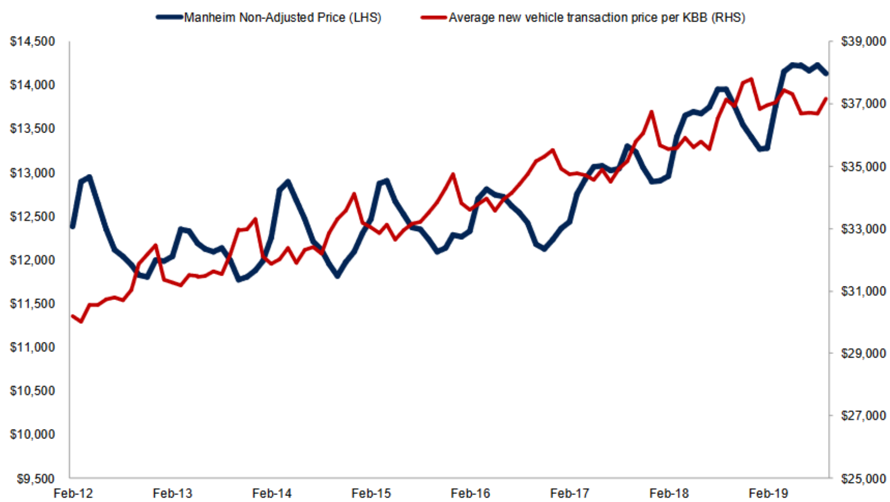
According to the New York Fed, auto finance companies have a much higher percentage of subprime loans than banks and credit union. Banks have to be accountable to federal regulators who are reviewing safety and soundness as well as risks, whereas auto finance companies, lacking that type of regulation, can assume more risk so as long as they are achieving adequate returns and can raise capital from investors.

In 2018, there were 17.2 million new cars sold in the U.S. and approximately 85% of total new auto sales were financed. Following the decline during the financial crisis and the subsequent recovery, new auto sales appear to have plateaued over the past five years at just over 17 million units per year:



Source: Ward's Automotive Reports; U.S. Department of Commerce: Bureau of Economic Analysis

Year to date, auto light vehicle sales are 1.1% lower compared to the same period in 2018, although hidden in this relatively stable figure is the fact that sales of passenger cars declined 16.4% year-over-year in the most recent month (October), which could be a warning sign[3]. Pick-up trucks and SUVs, though, increased 6.4% y-o-y in the month. In terms of price, both new and used auto prices have increased around 15-20% in the past 8 years:



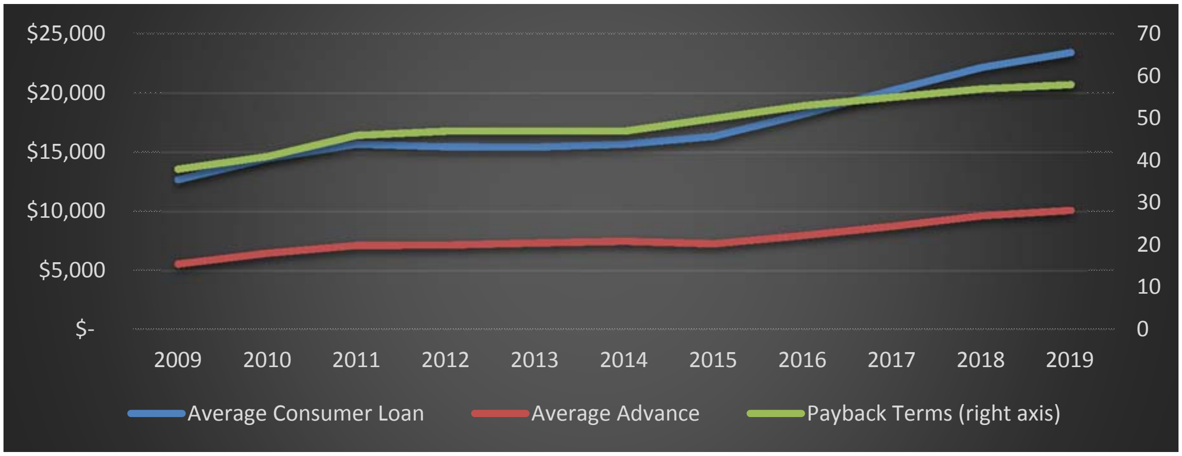
The value of auto loans outstanding has increased 4.3% year-over-year in 2019, even though new-vehicle unit sales has declined and used-vehicle unit sales have been lackluster. The increase in outstanding loans is almost entirely the result of higher average transaction prices for both new and used vehicles, rising loan-to-value ratios, lengthening average duration of auto loans and the rising popularity of leases by people who could otherwise would have paid cash for their vehicles.

Competition and Increasing Systematic Stress

Following the systemic stress the auto loan industry experienced in 2008-2009, lenders have generally responded by extending the initial term of low-grade auto loans. Most recently, CACC's average had increased further to 58 months, compared to the 38 months term average in 2009. The term expansion has no doubt reduced the monthly payment for consumers relative to what they otherwise would pay, but given that the average amount of the auto loan has increased even more, the average monthly auto payment for a CACC borrower has increased to $404 now, from $334, while the payments continue for a 53% longer period relative to 2009. While the economic improvements, in terms of

[3] https://www.marklines.com/en/statistics/flash_sales/salesfig_usa_2019

unemployment and wage increases, justifies some of this, had it been easy for consumers to make the monthly payments, there would not have been such demand for ever longer-duration loans. The average amount of a CACC loan has increased from $12,689 in 2009 to $23,423 in the most recently reported quarter—an 85% increase:



(Right axis represents number of months)

This could be compared to the increase in the Consumer Price Index (CPI) of 19% and population growth of 8% during the period. Thus, on an inflation-adjusted per-capita basis, the burden of these loans has increased. Also, after being essentially unchanged from 2011 to 2014, the amount of the average consumer loan has increased 50% since the end of 2014. This, no doubt, has boosted CACC's growth rates, but will be very difficult to repeat that over the next five-year period since that would mean that the average consumer loan would have to increase to just over $35,000 by 2024. While the increase in the average consumer loan amounts have been supported by longer payback periods as well as declining interest rates and declining unemployment rate in a steadily expanding economic environment, this appears to unlikely to offer the same support over the next decade.

According to Edmunds.com:

"The most common term currently is for 72 months, with an 84-month loan not too far behind. It's been creeping up: 10 years ago, the most common new-car loan term was 60 months, followed closely by 72 months. Loans for used cars are about as long: The most common term for a used car in 2018 was 72 months. Even though people are financing about $10,000 less for used cars than they do for new cars, it takes them roughly the same amount of time to pay off the loan."

While 84-month loans are the second most common term, 96-month loans are generally also available. According to credit reporting agency Experian, the terms of loans reached record highs in the second quarter, averaging 72.9 months for subprime new vehicle loans. Thus, CACC is actually below the average with 'just' a 58-month (but rising) average.

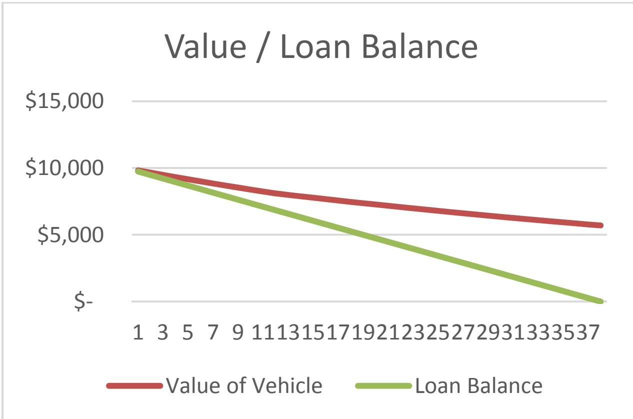
Already, a side effect of the longer payment terms is that some used vehicles are being traded in despite the owner being 'under-water' on the loan, which is to say having negative equity. Lenders and auto dealers have long accepted under-water trade-ins, but these have become increasingly popular. Also known as upside-down trade-ins, these simply add the remaining balance on the trade-in to the new loan required for the new vehicle (which could also be a used vehicle, but new to the buyer) being purchased.

In fact, almost a third of cars traded in in 2017 were worth less than the loans that had been financing them, according to car-shopping website Edmunds. All that does is strap more debt onto the consumer and makes it even more difficult to pay off the new vehicle. The Wall Street Journal recently wrote about one particular consumer who took out a loan to buy a car in 2017. In two years, he signed up for four auto loans, each time trading in the previous car and rolling the unpaid balance into the next loan. He recently bought a $27,000 Jeep Cherokee with a $45,000 loan from Ally Financial Inc.[4] This appears to be an example of 'extend and pretend' (that the loan will ever be repaid)—a strategy that cannot last.

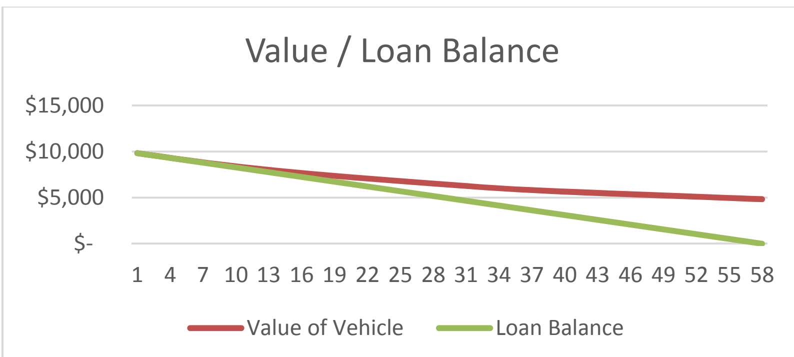
Thus, while it was obviously possible to extend the repayment period from 38 months to 58 months in the past decade, it is highly doubtful that a similar extension can be implemented during the next 10 years since that would result in a payment period of more than 6.5 years. The problem with that is that the borrower would essentially have no equity in the vehicle for the first few years, which would provide a greater incentive to default during that period. In contrast, borrowers with a 38-month term loan in 2009 quickly reached a point at which their equity in the vehicle was positive and growing, at which point they would be more reluctant to default.

According to carsdirect.com, "On average, a new vehicle depreciates 19 percent in the first year, half of which occurs immediately after you take possession. Fortunately, depreciation does not continue at this rate. You can expect a 15 percent drop in the second and third years.". Using this depreciation schedule, during the 38-month term of the loans extended in 2009, the downside to the lender was limited, since the value of the vehicle, even if no down-payment was made, was always positive and rapidly expanding:

[4] https://www.wsj.com/articles/a-45-000-loan-for-a-27-000-ride-more-borrowers-are-going-underwater-on-car-loans-11573295400



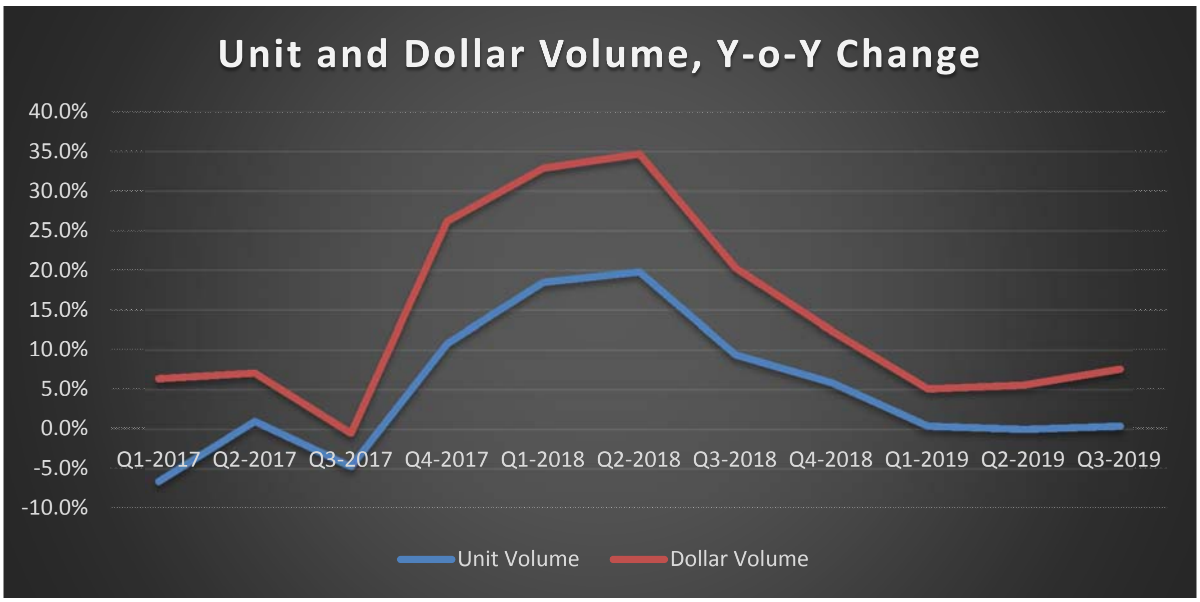
For a 58-month loan, though, again assuming zero down payment, the consumer has just over $100 of equity in the vehicle after one year, whereas in the case above, with a 38-month loan, the same consumer would have more than $1,200 of equity in the vehicle after one year. Thus, the propensity to default will be greater the longer the term of the loan, all else equal, since the consumer has much more to lose by defaulting on a shorter loan, should the vehicle get repossessed.



Most new vehicles only retain around 30% of their value after eight years, and perhaps just half as much if the vehicle is sold in a wholesale/auction process after being repossessed. For example, according to kbb.com, the 2011 Chevy Suburban originally had a Manufacturer's Suggested Retail Price (MSRP) of $42,000, which could reach as high as $65,000 with options for additional features, but now, the residual value is $5,800-$8,700 if this vehicle is being sold to a dealer. Similarly, a 2011 Ford Escape could originally be purchased new for an MSRP of $30,500, which could range up to $40,000 fully equipped. Today, the residual value is $2,700-$4,500 if sold back to a dealer. Consequently, 90% depreciation is possible in an 8-year period, which would render the consumer essentially without any equity in the vehicle until the very end of the loan term – particularly if they were upside-down on their trade-ins.

While it is difficult to assess the extent to which longer pay-back terms have helped reduce the default rate (because of lower monthly payments), attract additional customers (which can afford the lower payments) and support higher initial loan amounts, it appears this is unlikely to continue. Since an automobile is a depreciating asset and its collateral value must fall over time, there is a limit to how far the loans can be extended. Even if the trend of longer loan terms does not reverse but, rather, remains at the present length, the result should be an increase in defaults, fewer incremental new customers and a stagnation in the initial loan amount. Should the trend actually reverse, toward shorter payment periods, all these factors will should become exponentially worse. Normalization should lead to much lower profitability on these loans, with less revenue growth and a considerably lower valuation for the company.

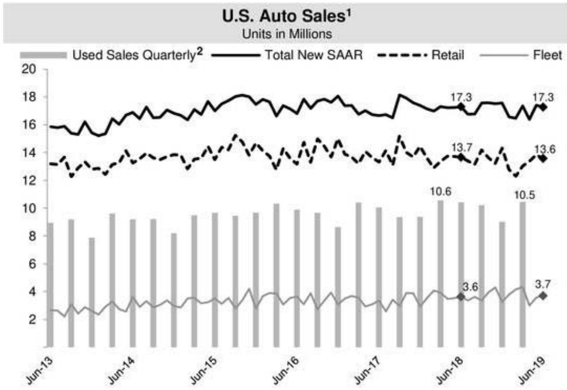
During the past three years, the CACC unit increase (number of loans) has averaged 5.0% per year:

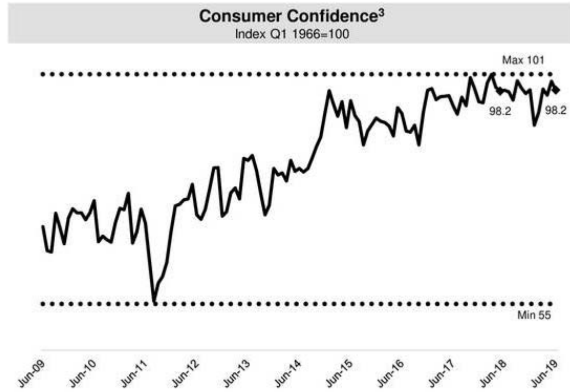


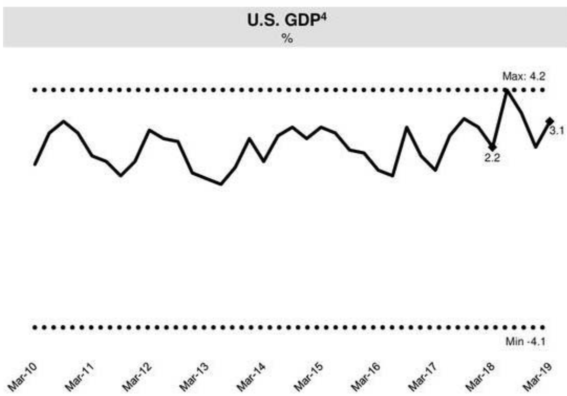
Since the amount of each loan has increased 9.4% on average, the dollar volume has increased at a rate of 14.3%, although as the chart above indicates, most of this increase was derived in the hump between the fourth quarter of 2017 and the third quarter of 2018. More recently, there has been just 0.2% year-over-year unit volume growth in the two most recent quarters, while dollar volume has increased 6.4%. However, the increasing dollar amounts have been manageable by the borrowers to a large degree because repayment terms have lengthened, which has kept the monthly payment relatively steady.

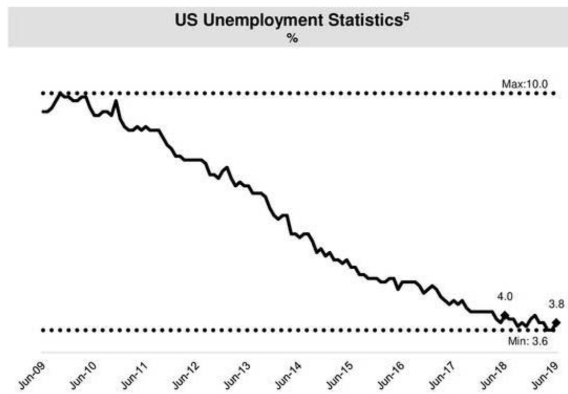
<u>Delinquencies and Defaults on the Rise</u>

Although it may be unintentional, it appears that the interest rate and credit system is now designed to gravitate towards increasingly extreme forms of financial behavior, until the stresses placed upon it become unbearable. Until this point, though, the economic development has been very favorable to CACC:

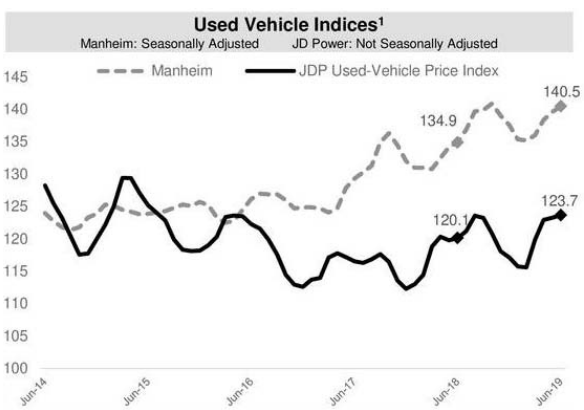


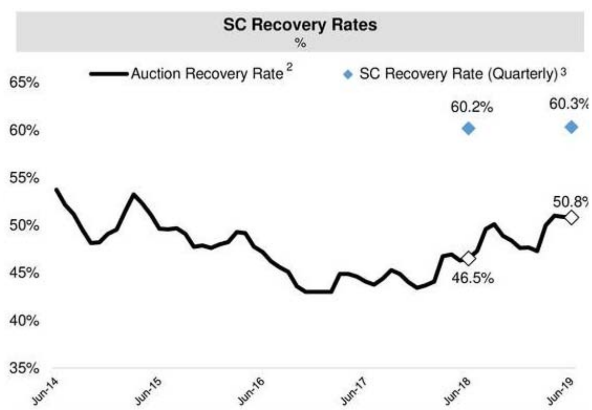






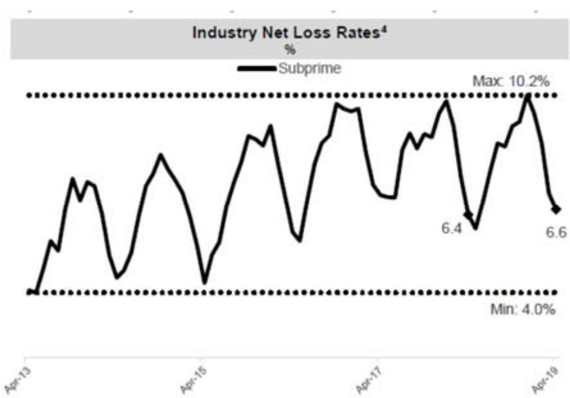
1) New car: JD Power Index, monthly data as of June 30, 2019 2) Used car: Edmunds' data, one quarter lag, data as of March 31, 2019 3) University of Michigan, monthly 4) US Bureau of Economic Analysis, one quarter lag, monthly as of March 31, 2019 5) US Bureau of Labor Statistics, monthly

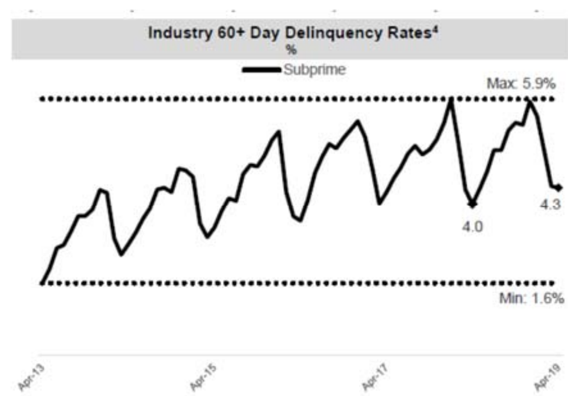




1) Manheim, Inc. Indexed to a basis at 1995 levels; JD Power Used-Vehicle Price Index (not seasonally adjusted). 2) Auction Only – includes all auto-related recoveries including inorganic/purchased receivables from auction lanes only 3) Recovery Rate – Per the financial statements includes insurance proceeds, bankruptcy/deficiency sales, and timing impacts 4) Standard & Poor's Rating Services (ABS Auto Trust Data – two-months lag on data, as of April 30, 2019)

Yet, in the past five years there has not been any improvement in industry net loss rates or delinquencies, as the two charts below indicate.

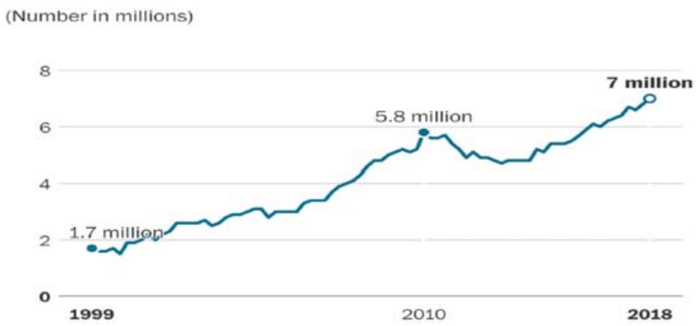




In fact, auto loan delinquency rates in the US, at a recent 4.71%, are higher than in any period dating back to December 2011. In the aftermath of the financial crisis, this measure reached 5.27% in the fourth quarter of 2010, but the current rate is equivalent to the rate experienced in the third quarter of 2009, at which time it was in the middle of a spike from just 2.1% in early-2006. In dollar terms, auto loans that are 90 days or more past due reached a historic high of $62 billion as of the third quarter of 2019, according to the New York Fed:

Source: New York Federal Reserve. In billions of dollars.

As the chart indicates, the high during the financial crisis occurred in 2010 at approximately $38 billion of delinquent loans. Similarly, a record seven million consumers are 90 days or more behind on their auto loan payments, according to the Federal Reserve Bank of New York, which actually represents around one million additional borrowers compared to 2010:

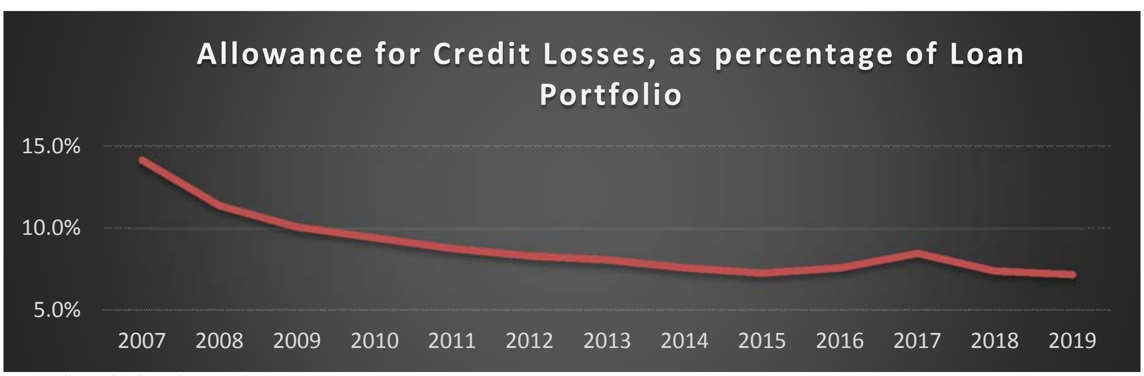


Although the market is considerably larger now, so the facts that the dollar amount is higher and more consumers are delinquent do not necessarily mean that there are greater risks compared to 2010, the charts indicate that the stress levels in the subprime industry are at least elevated.

Interestingly, fewer than 1% of auto loans issued by credit unions are 90 days or more overdue, compared with 6.5% of loans issued by auto finance companies such as CACC[5]. This is partly a reflection of the fact that credit unions make fewer subprime loans as a percentage of the total, but also partly because they appear to have higher credit standards.

Narrowing Margins

CACC provides limited disclosures regarding the creditworthiness of its borrowers; it only indicates that in every year since 2013[6] the percentage of total loan unit volume with FICO scores below 650, or no FICO scores at all, has been 96%. While there has been no discernable improvement in that metric, CACC's allowances for credit losses have been declining steadily:

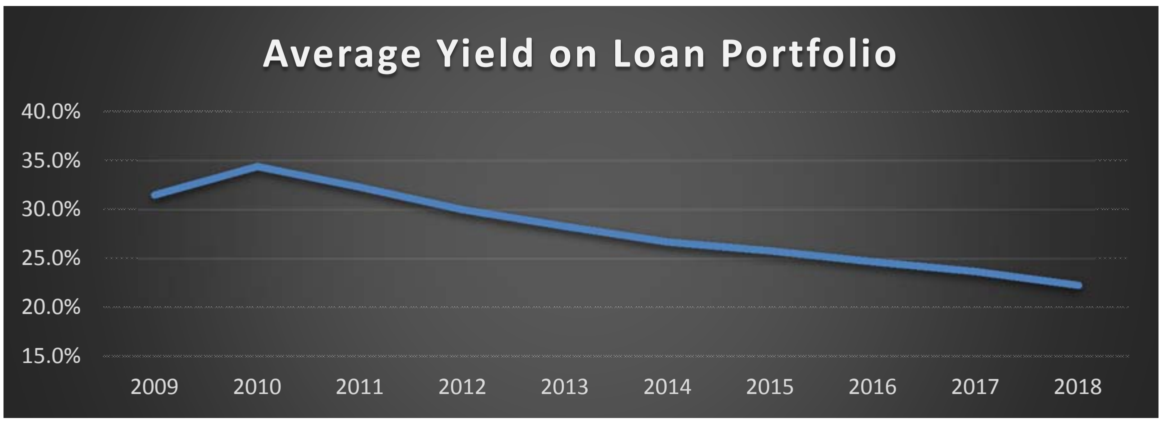


2019 reflects the first nine months

[5] CACC does not disclose delinquency rates or default rates for loans that it owns or services
[6] There are no disclosures of FICO scores prior to 2013

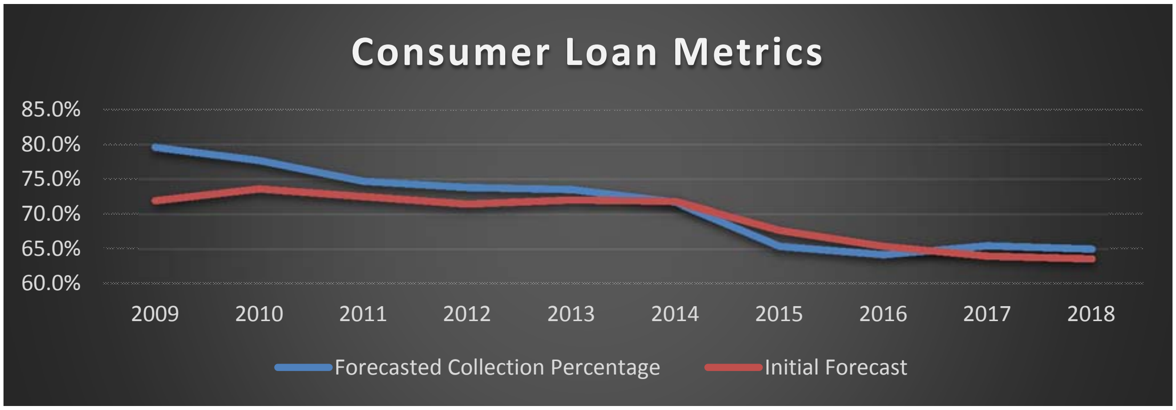
The percentages of provisions declined by approximately half since 2007. Thus, should this measure return to the 2007 level, another $500 million of allowances would be required. In relation to the current size of the portfolio, a full year's worth of net income would be eradicated.

In 2018, CACC's average loan portfolio balance was $5.19 billion, and the company collected $1.176 billion in interest. Note, this is not the interest charged but the interest collected. That amounts to an effective earned yield of 22.7%. As elevated as that might appear, this measure has been in a steady decline from 34.4%, which peak was reached in 2010:



CACC presumes that it will collect 63.6% of the sums that are dispensed as loans. Which means that it anticipates that about 36.4% of those monies will never be repatriated. The initial collection forecast has been in decline since 2009. CACC provides the following consumer loan metrics in its 10-K. It illustrates how both the initial projections for the collection percentage[7] of loans by their yearly vintages have declined —both in terms of the initial forecasts as well as the most recently updated forecasts, which is the end of 2018:

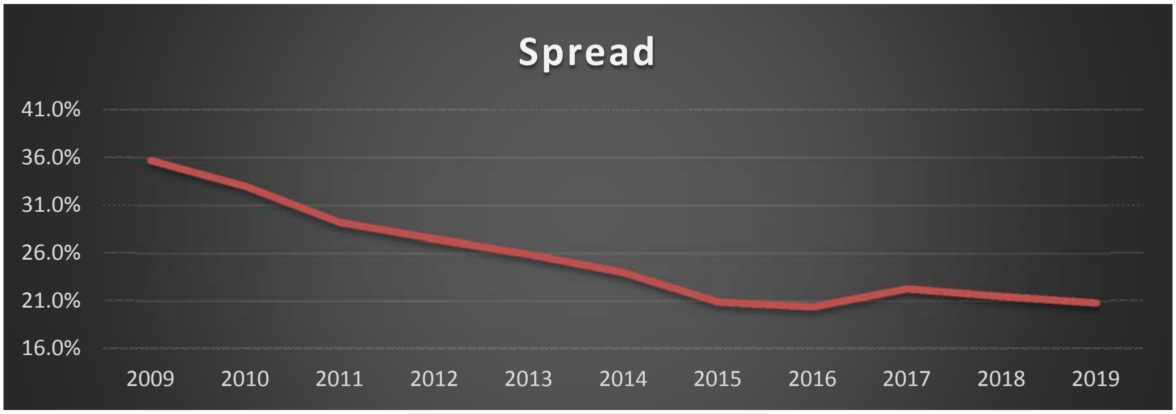
[7] Repayment forecasts include both principal and interest



For example, in 2013, the company expected to recover 72.0% of the capital extended, and by the end of 2018, it expected to recover 63.6%. It is entirely reasonable that the forecasted collection rates should decline as the company makes credit available to increasingly less creditworthy borrowers. However, that is not necessarily a problem as long as the cost of funding is sufficiently low, and the rate charged on loans is sufficiently high.

From that perspective, it should be concerning to CACC's investors that the initial forecast of a 63.6% collection rate for the 2018 loan assignment years represents the lowest in the past decade, and considerably below the 2009 loan assignment year (which was a period of financial distress for many consumers) of 71.9%. While the initial forecast turned out to be too conservative from 2009-2013 (the actual collections being better than the initial forecasts), this has been more mixed in the past five years, three of those years having experienced deterioration relative to the initial forecasts, while the updated forecasts for other two years have just improved marginally.

CACC's overall collection rate on a loan is derived by adding the 'advance' (the amount paid to dealers on consumer loans assigned and purchased) and the 'spread' (interest and fees collected). While CACC's advance has been relatively steady over the past decade at approximately 43-47% of the loan amount, all the variability in the overall collection rate has come from the spread (interest and fees collected), which has been in steady decline:



The spread, which was 35.7% in 2009 when the competitive environment was unusually favorable, has narrowed by more than 40% now, simply because the competition has become more intense. This measure reached a new low of 20.2% for the loans originated in the third quarter of 2019. In history, only in 2001 and 2007 was the spread at similar levels (approximately 21.5% at those points). As a result of the narrowing spread, the yield on the company's loan portfolio has declined more or less linearly from 34.4% in 2010 to 21.6% in the third quarter of 2019, as mentioned above.

The sub-prime loan system is able to function because the 70-80% of the borrowers who do pay their loans essentially subsidize the ones who default in one way or another. In order to grow, CACC must find additional borrowers, and those borrowers will likely to have low FICO scores or even no FICO scores. Since their default rates will continue to be ever greater, which is to say the company's collection rates will be ever lower—as has been the experience throughout this portion of the credit cycle—this will require an ever-greater subsidy from the paying contingent of sub-prime borrowers, or from the Federal Reserve in the form of yet more severe interest rate suppression. If the under-water borrowers start to default with loans that are considerably greater than the value of their vehicles, charge-offs could accelerate rapidly.

Valuation

Historical Valuation

Since May 2008, CACC's shares have appreciated 18.6-fold. They now trade at about 4.6x book value, which is a very rare valuation level for any type of company engaged in lending activity and even more extraordinary for a company involved in high-risk lending. In the third quarter of 2009, at the time the CACC stock traded at approximately $35, the company's unit loan volume was 26,069, compared to 86,331 in the same period this year, indicating a growth rate of 12.7% per annum. The stock's annual rate of appreciation, however, is 28.5% over the same period, the valuation expanding considerably more rapidly than the underlying business.

CACC's focus on the least creditworthy segment of borrowers has historically resulted in a low P/E multiple—not infrequently in the single-digits. While it is currently trading above 12x the 2019 Wall Street consensus, this is, in effect, a doubling compared to the levels experienced in 2009, and above the 10.4x average P/E since 2008:

Furthermore, given the expected reduction in earnings for 2020, CACC trades at a record-high 15.0x that consensus earnings estimate. Because of CECL, the 2021 CACC EPS could be as low as $24 based on some Wall Street forecasts. At just 10.4x the 2020 earnings, in line with the historical valuation, CACC would trade at just $300. Not much, in terms of an economic slowdown or increases in delinquency rates, appears to be required to make earnings considerably lower. Thus, should any but the most optimistic scenario materialize, both earnings and the P/E multiple could deteriorate rapidly.

Relative Valuation

CACC, as a pure-play subprime auto lender, competes mainly with banks and credit unions, so most such companies are not similar enough for a relative valuation to be useful. However, compared to the only other subprime pure-play, Santander Consumer USA, a company whose stock this publication recently recommended for short sale, CACC trades at almost twice the 2020 P/E. It also trades at a substantial premium compared to Ally Financial and OneMain Holdings, while being the only company in the group without a dividend:

Company	Symbol	Price	2020 P/E	Div. Yield	P/Tan BV	Market Cap
Ally Financial	ALLY	$32.22	7.7x	2.1%	0.89x	$12.8B
Santander Consumer USA	SC	$23.46	7.8x	3.8%	1.12x	$8.3B
OneMain Holdings	OMF	$43.00	6.4x	2.3%	1.43x	$5.8B
	Average:		7.3x	2.7%	1.15x	
Credit Acceptance Corp.	CACC	$430.00	14.9x	0.0%	3.39x	$8.1B

A significant portion of CACC's premium valuation might be explained by the company's fair value accounting, which provided significant earnings stability compared to peers. However, with CACC's adoption of CECL, significant earnings volatility could become the norm—a development that should also reduce CACC's valuation premium. Interestingly, the three peer companies are not expected to be impacted by CECL as they are all expected to expand between 5-13%, with an 8% average, whereas CACC's earnings are expected to be more than 17% lower compared to 2019. At the peer group's average P/E of 7.3x, CACC's shares would be worth $211.

Ally Financial is not focused on sub-prime, since its average auto loan customer had a FICO score of approximately 700 in 2018, compared to 593 for Santander (CACC does not disclose this measure), and it has considerably higher revenues from the auto lending business and less than half the loan loss provisions (which appears justified given the higher creditworthiness of its borrowers). OneMain provides consumer loans, and though it does not provide an average FICO score, it discloses that almost exactly half of its borrowers have scores above 619 with the other being lower. Hence, assuming 619 is the average as well as the median, that is still considerably higher than Santander's 593 average. Given CACC's similar market focus, it is reasonable to assume that CACC's average borrower consumer FICO score is almost identical to Santander's. Therefore, since it appears CACC's credit risks are greater than Ally's and OneMain's a discounted valuation might be warranted. If the company were valued in line with Santander, at 7.8x 2020 earnings, or $225, its shares would decline by almost 50%.

Investment Summary

CACC, like the rest of the industry, has attempted to keep growing by extending payback terms, which has allowed consumers to assume higher loan amounts. With six-year terms now being the industry norm, with seven-year loans being the second more common and even eight-year loans being available, it appears that the limit will soon be reached. Another factor that has allowed the industry to expand is the increasing acceptance of under-water trade-ins, which saddles consumers with ever-increasing loan balances, and considerably higher loan-to-value ratios. That means that borrowers increasingly have no equity in their vehicles for ever-longer periods of time and, as such, should be more likely to default.

Even if these metrics do not reverse, they will no longer boost the industry as they no doubt have in the past decade. Recently, loan demand is declining and CACC's unit volume growth was essentially zero in the first nine months of the year, while the increase in loan amount was 6%. Without ever-expanding payback terms, it will be difficult to keep the expansion going. To the extent that it is possible, the company might be taking on greater risk while accepting lower returns, which is difficult to analyze given CACC's lack of FICO score disclosures. Yet, if it can be accepted that it is extending larger and larger loans to ever-less-creditworthy consumers, the company's premium valuation is at risk.

It is questionable whether current investors will be compensated for the risks that CACC assumes. During the past decade, the major economic measures have been favorable for used auto lenders:

- Rising GDP;
- Declining unemployment;
- Rising consumer confidence;
- Rising used vehicle prices, and
- Rising used vehicle recovery rates.

Yet, the industry has experienced rising sub-prime net loss rates and rising sub-prime delinquency rates. Despite that, CACC has recently recorded declining provisions for credit losses even as it has expanded its loan book. In an economic downturn, and with the entire balance sheet, more or less, in the lower echelons of sub-prime loans, CACC will be among the hardest hit lenders. The least creditworthy borrowers, who presumably are too risky to qualify for the standard 5% that prime auto loans carry, are instead expected to pay, in some cases, over 20%. Should the default rate rise on subprime in a material manner, which will happen eventually, the subprime auto lenders are in serious trouble. On the other hand, if the default rate does not rise, the limited size of the subprime market prevents meaningful growth. With a valuation that is considerably higher than its historical reference as well as its peer group, even though CACC's earnings are widely expected to decline significantly in 2020, the risk-reward appears to favor the short seller. Consequently, shares of Credit Acceptance Corp. are recommended for sale and short sale.

CREDIT ACCEPTANCE CORPORATION
CONSOLIDATED BALANCE SHEETS
(UNAUDITED)

(Dollars in millions, except per share data)

	As of	
	September 30, 2019	**December 31, 2018**
ASSETS:		
Cash and cash equivalents	$ 24.7	$ 25.7
Restricted cash and cash equivalents	329.8	303.6
Restricted securities available for sale	59.8	58.6
Loans receivable	7,072.8	6,225.2
Allowance for credit losses	(509.1)	(461.9
Loans receivable, net	6,563.7	5,763.3
Property and equipment, net	58.5	40.2
Income taxes receivable	10.8	7.9
Other assets	23.7	38.1
Total Assets	$ 7,071.0	$ 6,237.4
LIABILITIES AND SHAREHOLDERS' EQUITY:		
Liabilities:		
Accounts payable and accrued liabilities	$ 184.6	$ 186.4
Revolving secured line of credit	52.2	171.9
Secured financing	3,228.3	3,092.7
Senior notes	940.2	544.4
Mortgage note	11.5	11.9
Deferred income taxes, net	271.2	236.7
Income taxes payable	0.2	2.5
Total Liabilities	4,688.2	4,246.5
Commitments and Contingencies		
Shareholders' Equity:		
Common stock,18,796,770 shares issued and outstanding	0.2	0.2
Paid-in capital	155.7	154.9
Retained earnings	2,226.0	1,836.1
Accumulated other comprehensive income (loss)	0.9	(0.3
Total Shareholders' Equity	2,382.8	1,990.9
Total Liabilities and Shareholders' Equity	$ 7,071.0	$ 6,237.4

CREDIT ACCEPTANCE CORPORATION
CONSOLIDATED STATEMENTS OF INCOME

(Dollars in millions, except per share data)	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2019	2018	2019	2018
Revenue:				
Finance charges	$ 349.9	$ 303.0	$ 1,013.3	$ 863.0
Premiums earned	12.9	12.2	38.2	34.2
Other income	15.9	16.8	51.6	45.8
Total revenue	378.7	332.0	1,103.1	943.0
Costs and expenses:				
Salaries and wages	47.9	41.1	143.9	123.3
General and administrative	17.2	14.1	47.9	41.3
Sales and marketing	16.6	16.3	53.1	51.3
Provision for credit losses	19.3	14.0	49.2	39.2
Interest	50.4	41.1	145.2	114.3
Provision for claims	8.2	7.0	23.1	19.5
Total costs and expenses	159.6	133.6	462.4	388.9
Income before provision for income taxes	219.1	198.4	640.7	554.1
Provision for income taxes	53.7	47.4	146.5	132.0
Net income	$ 165.4	$ 151.0	$ 494.2	$ 422.1
Net income per share:				
Basic	$ 8.73	$ 7.76	$ 26.08	$ 21.69
Diluted	$ 8.73	$ 7.75	$ 26.06	$ 21.68
Weighted average shares outstanding:				
Basic	18,944,672	19,465,563	18,948,140	19,456,389
Diluted	18,950,866	19,473,978	18,967,552	19,472,197