INDUSTRY NOTE

USA | Financials

Consumer Finance

February 22, 2013

Jefferies

EQUITY RESEARCH AMERICAS

Consumer Finance

Return of the Sub-Prime Credit Card? Data Doesn't Show It

Key Takeaway

As several media outlets proclaim the "return of the sub-prime credit card", we have analyzed 7 years of FICO score data, via credit card securitizations representing roughly one-fourth of total revolving consumer credit outstanding, and have found that lenders continue to reign in risky lending, reducing credit outstanding to sub-prime borrowers (<660 FICO) to the tune of $15B over the past 12 months, and roughly $122B since '09.

Major Issuers Still Reigning in Lending to Risky Borrowers - Credit card securitization data shows that over the past 12 months, five major card issuers (JPM, COF, BAC, AXP, DFS - representing 25% of total revolving consumer credit) have continued to reduce outstanding balances to sub-prime borrowers while increasing loans to those borrowers with FICO scores above 660.

We estimate $15B in Total Subprime Credit Reduction in LTM - Extrapolating changes at the credit card trusts to the total outstanding amount of revolving consumer credit, we estimate that ~$15B in total credit has been removed from <660 FICO borrowers and $17B has been extended >660 FICO borrowers in the past 12 months.

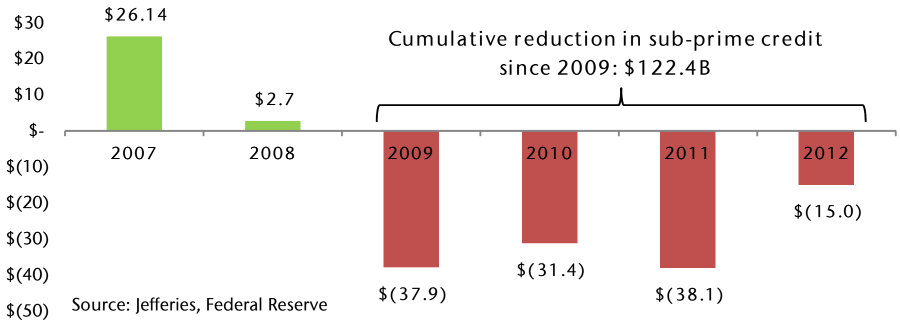
Riskiest Borrowers See Largest Contraction, Banks Not Likely Coming Back - Sub-600 FICO balances contracted the most, which we estimate contracted $12B over the past 12 months. This follows roughly a $23B outflow in '10 and a $30B outflow in '11. Although credit contraction to this bottom rung of borrowers appears to be slowing, we don't expect banks and card lenders to meaningfully re-engage with the customers for the foreseeable future due to the CARD act and other issues.

$122B in Bank Credit Removed from Subprime Since '09 - We estimate that since 2009, approximately $122B in sub-prime (<660 FICO) credit availability has been removed, or roughly 2x the total estimated loan production for pawn and payday lenders in 2012.

Stock Implications:

COF has double the exposure to sub-prime balances versus the other major issuers – we see higher payroll taxes and delayed tax returns having an out-sized impact on credit metrics in the near term. We expect continued modest loan growth at COF, with AXP and DFS continuing to outpace the industry with a focus on low-yielding, promotional balances. Industry wide net interest margins should remain subdued as higher yielding, riskier accounts remain out-of favor due to the difficulties in re-pricing post CARD act and continued weak performance of the US economy. We expect the underbanked industry (FCFS, CSH, DLLR, RM, CRMT) continues to benefit from incremental customers as banks continue to shift resources away from lower credit quality customers.

Estimated Total Change in Revolving Credit Extended to <660 FICO Borrowers



Source: Jefferies, Federal Reserve

Daniel Furtado *
Equity Analyst
(415) 229-1569 dfurtado@jefferies.com
Martin Kemnec, CFA *
Equity Associate
(415) 229-1525 mkemnec@jefferies.com
Steven B. Maltz, CPA *
Equity Associate
(415) 229-1576 steven.maltz@jefferies.com
* Jefferies & Company, Inc.

Return of the Subprime Credit Card? The Data Disagrees.

Media Points to Return of Sub Prime Lending:

"Credit card lenders gave out 1.1 million new cards to borrowers with damaged credit in December, up 12.3 percent from the same month a year earlier, according to Equifax's credit trends report released in March."

Lenders Again Dealing to Risky Clients, ***The New York Times,*** *April 10th, 2012*

Portfolio Manager's Summary:

As several media outlets proclaim the "return of the sub-prime credit card", we have analyzed roughly one-fourth of the total revolving consumer credit outstanding via credit card securitizations, and have found that lenders continue to reign in risky lending, reducing exposure to risky borrowers and increasing exposure to more credit worthy borrowers.

Data Highlights:

- **Changes in credit card securitization data from five different issuers (representing 25% of the Fed's total revolving consumer credit estimate) lead us to believe that the total amount of revolving credit extended to borrowers with FICO scores below 660 has been reduced by $15B in the past year.**
- **We estimate that since 2009, approximately $122B in sub-prime (<660 FICO) credit availability has been removed, or roughly 2x the total estimated loan production for pawn and payday lenders.**
- **Sub-600 FICO balances contracted the most, which we estimate contracted by $12B over the past 12 months. This follows roughly a $23B outflow in '10 and a $30B outflow in '11.**
- **Issuers have INCREASED the percentage of their portfolios comprised of prime balances, or those with FICO scores above 720, now at a multi-year high of 55%, up from just 41% in 2006.**

Stock/Industry Implications:

- **COF has double the exposure to sub-prime balances – we see higher payroll taxes and delayed tax returns having an outsized impact on credit metrics in the near term.**
- **While the pace of contraction to sub-600 borrowers has slowed, we don't expect banks or card lenders to meaningfully reengage with these customers for the foreseeable future due to the CARD act and other issues.**
- **We see continued modest loan growth at COF, with AXP and DFS continuing to outpace the industry with a focus on low-yielding promotional balances.**
- **We expect industry wide net interest margins to remain subdued as higher yielding, riskier accounts, remain out-of favor due to the difficulties in re-pricing post CARD act and continued weak performance of the US economy.**
- **We expect the underbanked industry (FCFS, CSH, DLLR, RM, CRMT) continues to benefit from incremental customers as banks continue to shift resources away from lower credit quality customers.**

Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

Our Methodology

Using publicly available data from credit card master trust filings spanning seven years, we have attempted to quantify how lending patterns have changed towards different segments of borrowers, specifically those classified as "unbanked" or "underbanked", the customer base targeted by many specialty lenders. Given that most filings classify receivables into only four FICO ranges, we have determined these customers would be best represented by the bottom rung, the "<600 FICO" category. The high delinquency rates associated with this category of greater than 50% support our assumption.

For our data set we have included only those trusts that have had recent prospectus filings in 2013 or late 2012, as well as at least one prospectus filing every year since 2006. We estimate our analysis of $210B+ in credit card receivables captures roughly 25% of the total amount of revolving consumer credit outstanding as calculated by the Federal Reserve's G.19 release as of Q4'12.

Chart 1: FICO Score & DQ Rate

FICO Score	Est. Delinquency Rate
300-499	87%
500-549	71%
550-599	51%
600-649	31%
650-699	15%
700-749	5%
750-799	2%
800+	1%

Source: myFICO.com

Chart 2: Trusts Included in Our Analysis

Trust	Latest Refresh Date Available	Total Recievables ($B)
Chase Issuance Trust	Nov'12	$ 48.29
Bank of America Master Trust	Jan'13	$ 62.30
Capital One Multi Asset Execution Trust	Oct'12	$ 33.69
Discover Card Master Trust	Dec'12	$ 34.78
American Express Credit Account Master Trust	Sept'12	$ 31.04
TOTAL		**$ 210.11**
Total Revolving Consumer Credit Outstanding Q4'12		$ 849.8
Trust Receivables as a % of Total Revolving Credit		**24.7%**

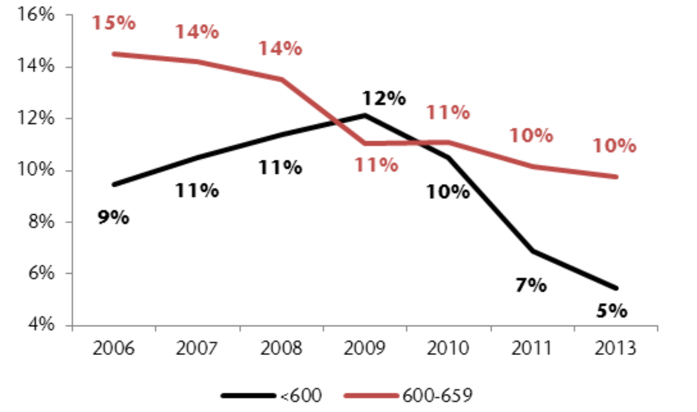
Source: Jefferies, SEC Filings Note: Citi Card Master Trust excluded due to changes in scoring methodology in 2011.

Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

Then and Now: More Prime Exposure

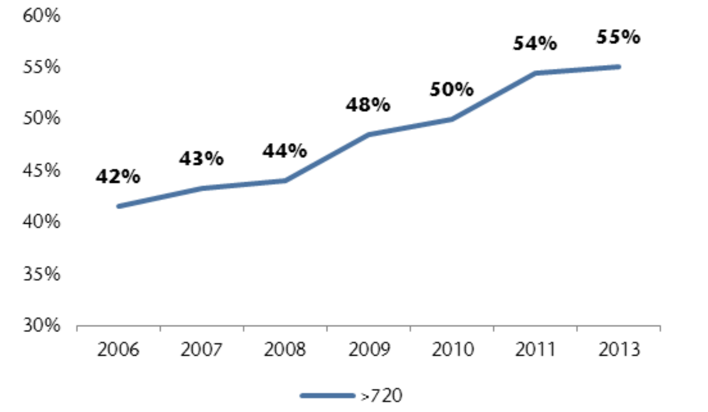
Not surprisingly, over the past several years as credit quality has deteriorated, banks have reduced exposure to the riskiest customers while increasing lending to those with better than average credit. Lending to those with FICO scores above 720 now accounts for almost 55% of trust receivables, up from 42% in 2006. Conversely, lending to borrowers with scores below 600 has declined from about 12% of trust receivables to 5% over the same time frame.

Chart 3: % of Receivables by FICO Score



Source: Jefferies

Chart 4: % of Receivables by FICO Score

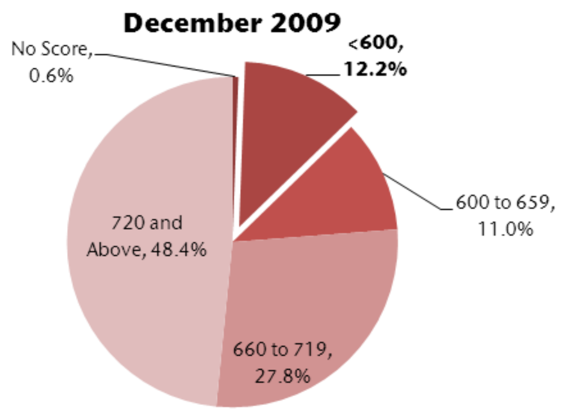


Source: Jefferies

Sub 600 FICO Sees the Biggest Adjustment

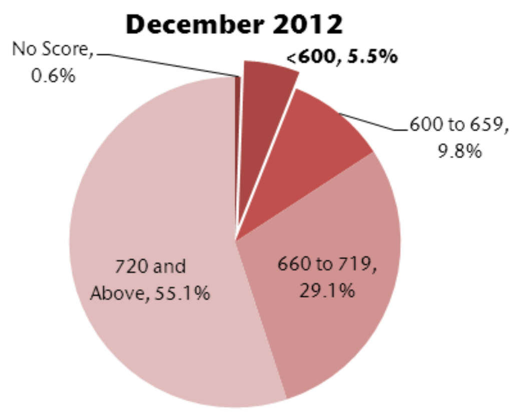
Looking specifically at the <600 bucket, which would encompass most of those customers who might seek specialty loan products, our estimates indicate that subprime credit card lending peaked in 2009 when the percentage of receivables housed within the average master trust was 12.2%. Since 2009 this category has been roughly reduced by half, as the latest data shows the average trust now holds 5.5% of receivables with FICO score below 600.

Chart 5: Average Credit Card Portfolio Composition – YE'09



Source: Jefferies

Chart 6: Average Credit Card Portfolio Composition- YE'12



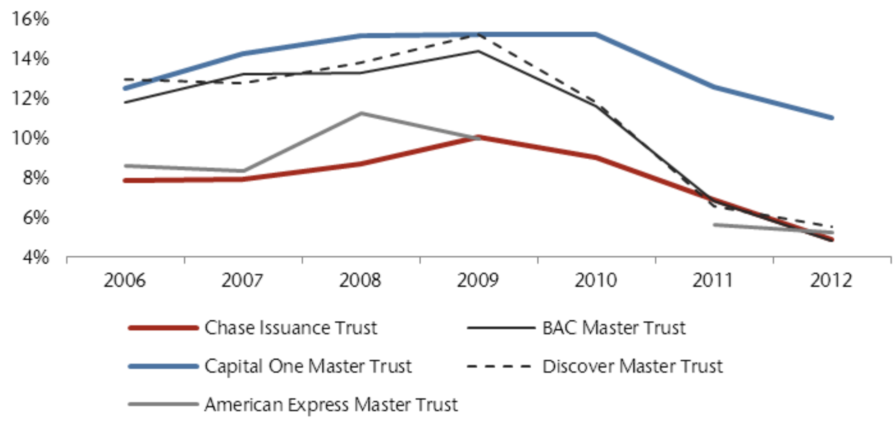
Source: Jefferies

Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

Most Lenders Readjust Post Crisis, Capital One Maintains Barbell Approach

Since sub-prime lending peaked in 2009, all card issuers have seen a reduction in the percentage of their portfolios comprised of lower credit quality borrowers. Discover and Bank of America reduced exposure to <600 FICO accounts the most, as the percentage of the trust comprised of sub-600 FICO accounts declined 969bps and 956bps, respectively, from 2009 to 2012. The reduction in sub-600 FICO exposure at Chase (512bps), and American Express (469bps) was less aggressive, while Capital One was saw the lowest decline of 424bps.

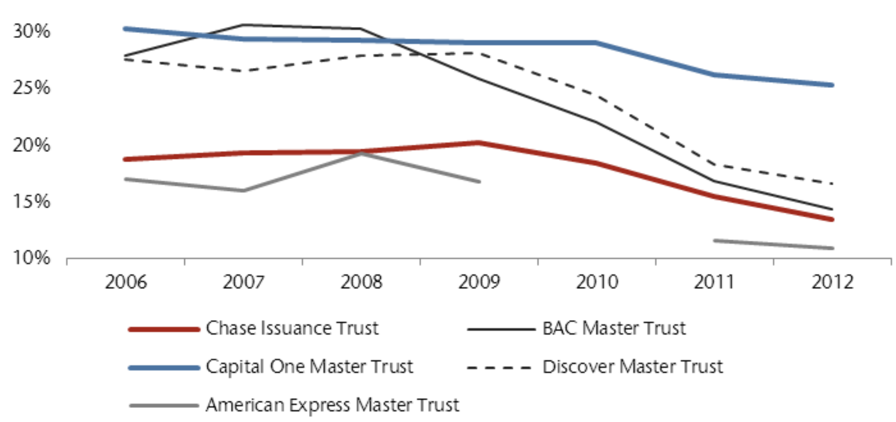
Chart 7: Percentage of Master Trust Receivables <600 FICO



Source: Jefferies, SEC Filings. Note: Year End 2010 Data for AXP unavailable.

In the <660 FICO bucket, again Discover and Bank of America reduced exposure to <660 FICO accounts the most, as the percentage of the trust comprised of sub-660 FICO accounts declined 1162bps and 1151bps, respectively, from 2009 to 2013. The reduction in sub-660 FICO exposure at Chase (676bps), and American Express (584bps) was less aggressive, while Capital One saw a relatively modest decline at 372bps.

Chart 8: Percentage of Master Trust Receivables <660 FICO



Source: Jefferies, SEC Filings. Note: Year End 2010 Data for AXP unavailable.

Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

Capital One Maintains Higher Risk Exposure

Capital One remains most exposed to the riskiest borrowers with sub-600 FICO exposure roughly 2x that of card issuing peers on average. Further, sub-660 FICO exposure is nearly 2x the peer group, on average, at 25.3%.

Chart 9: DFS

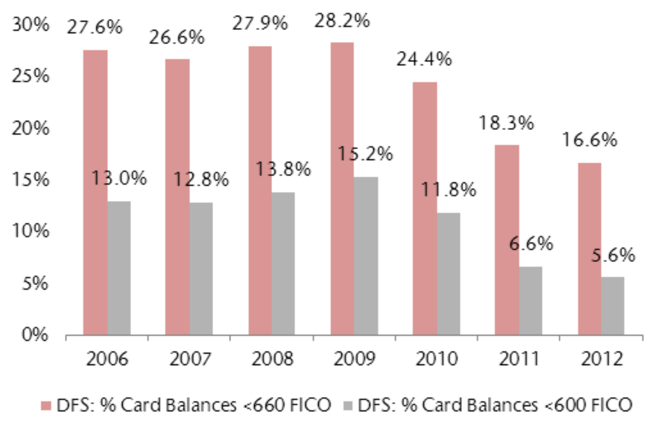


Chart 10: COF

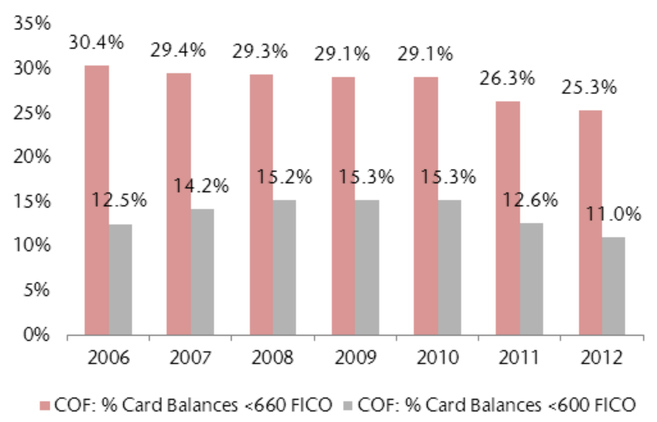


Chart 11: C

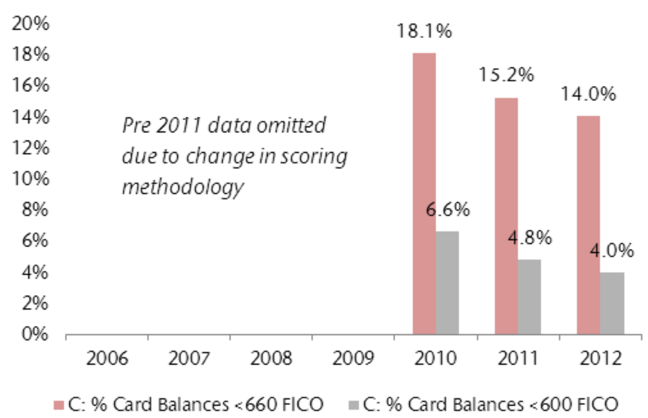


Chart 12: AXP

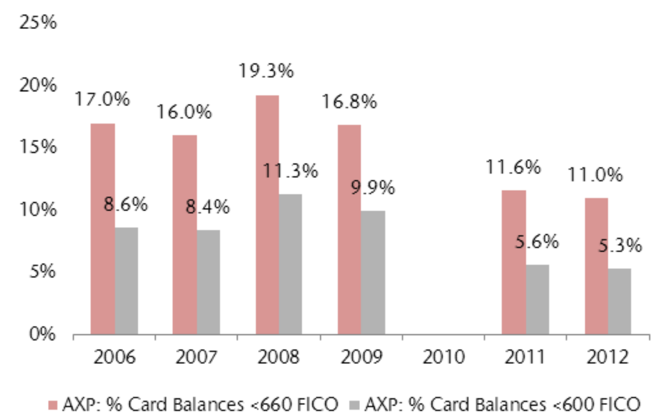


Chart 13: JPM

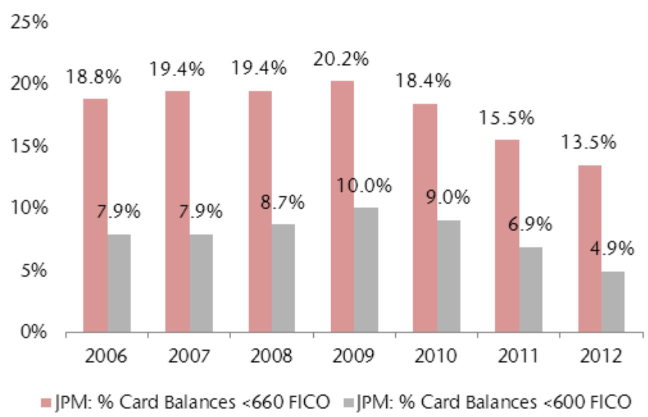
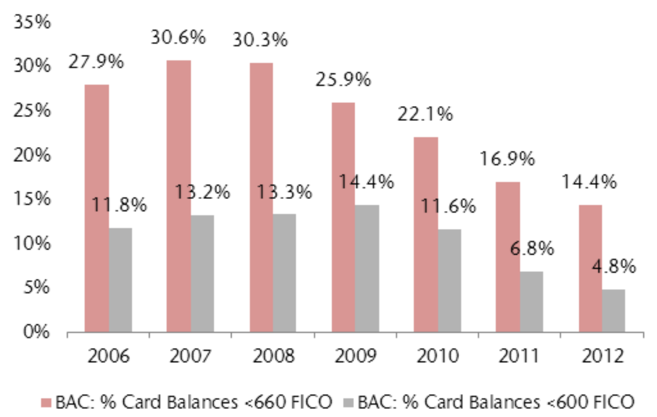


Chart 14: BAC



Source: Jefferies, SEC Filings

Source: Jefferies, SEC Filings. Note: AXP YE'10 data unavailable.

Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

Extrapolating our Findings

Using the latest Federal Reserve estimate for revolving consumer credit, we can extrapolate changes in the trusts to estimate changes for the entire consumer credit market in the US. While we recognize that not all lenders may have responded to the crisis in the same way, we take comfort in the fact that our sample size represents 24.7% of the total amount of consumer credit outstanding and can serve as a decent proxy for changes in the overall consumer credit market.

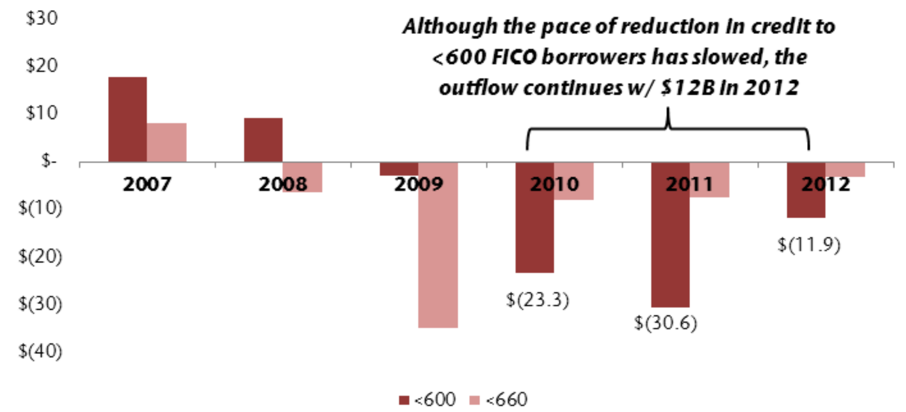
By extrapolating our findings from the master trusts to the Fed estimates in Q4'11 and Q4'12, **we estimate that from 2011 to 2012, credit to <660 borrowers has been reduced by nearly $15B, with ~$12B removed from <600 FICO borrowers and ~$3B from 600-659 FICO borrowers**. We estimate that higher FICO borrowers saw an increase of $17.3B in credit over the same time frame.

Chart 15: Est. Change in Total Revolving Consumer Credit YE'11-YE'12($B)

Source: Jefferies, Federal Reserve

Looking back to 2009, while the pace of reduction in credit to <600 FICO borrowers has slowed, we don't expects banks and card lenders to meaningfully re-engage with these customers for the foreseeable future.

Chart 16: Est. Change in Revolving Credit Extended to <660 FICO Borrowers

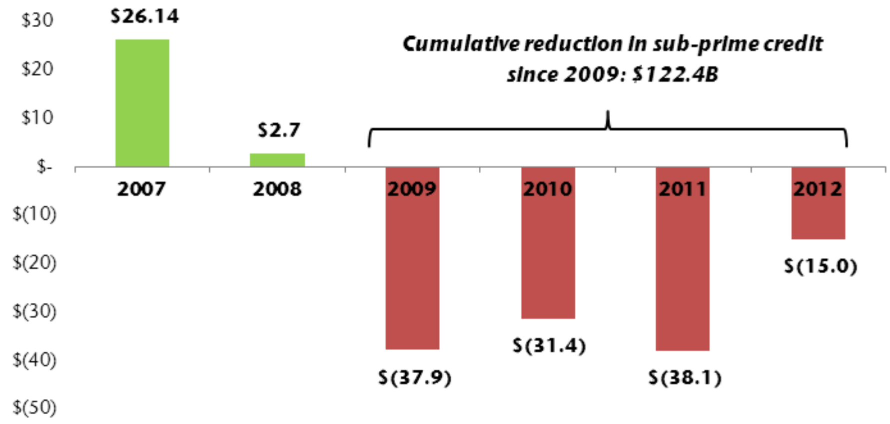


Source: Jefferies, Federal Reserve

Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

Looking back to 2009, we estimate that the total decline in credit availability to <660 FICO borrowers to be approximately $122B, with the majority ($77B) coming out of the hands of <600 FICO borrowers. We note that over the same time, the Fed's G:19 revolving credit has decreased by a total of $160B. Thus, the reduction in credit to sub-prime borrowers represents about 76% of the total.

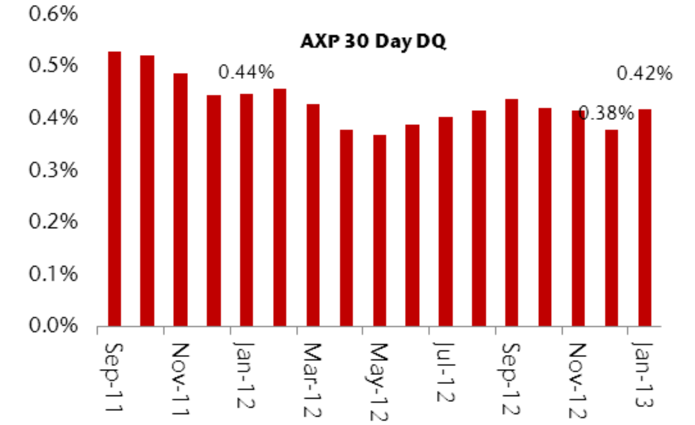
Chart 17: Est. Change in Revolving Credit Extended to <660 FICO Borrowers



Source: Jefferies, Federal Reserve

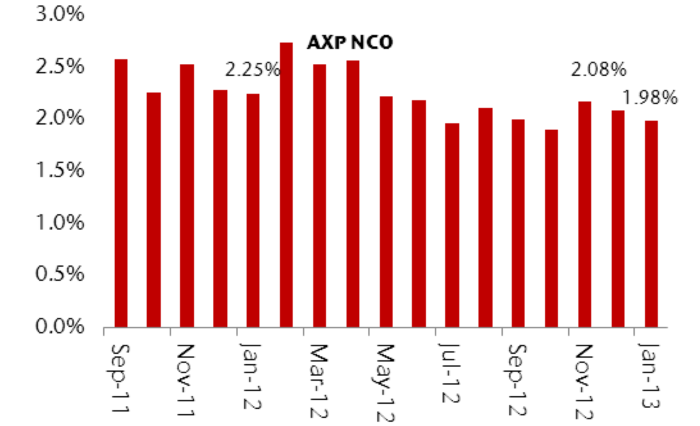
Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

Chart 18: 30-Day Delinquencies



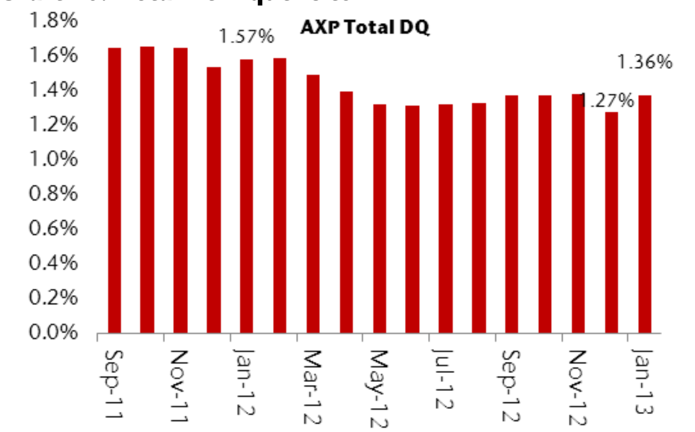
Source: Jefferies & Company Inc. and Company Financials

Chart 19: Net Charge-Offs



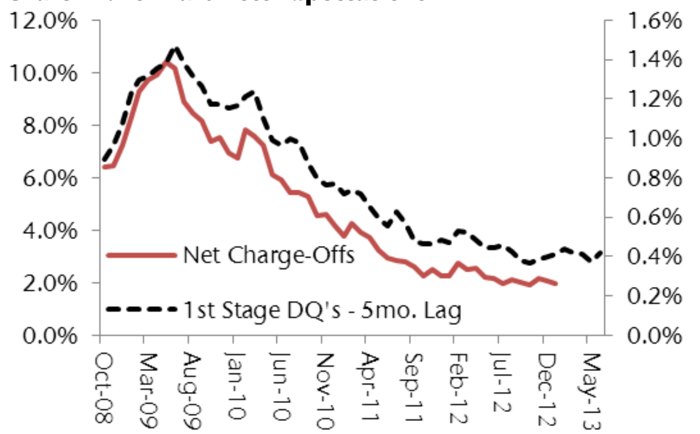
Source: Jefferies & Company Inc. and Company Financials

Chart 20: Total Delinquencies



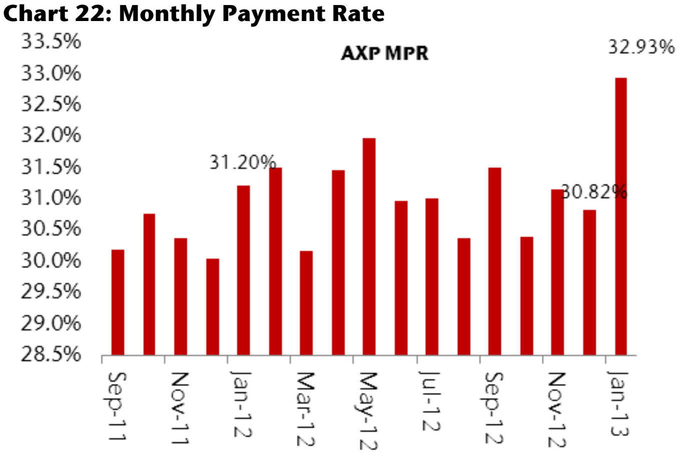
Source: Jefferies & Company Inc. and Company Financials

Chart 21: Forward Loss Expectations



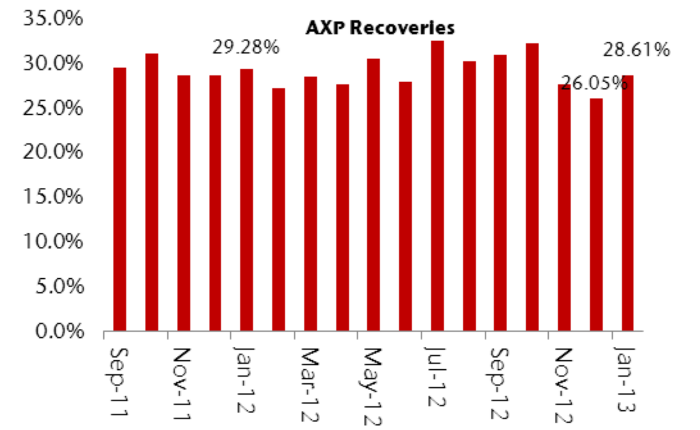
Source: Jefferies & Company Inc. and Company Financials

Chart 22: Monthly Payment Rate



Source: Jefferies & Company Inc. and Company Financials

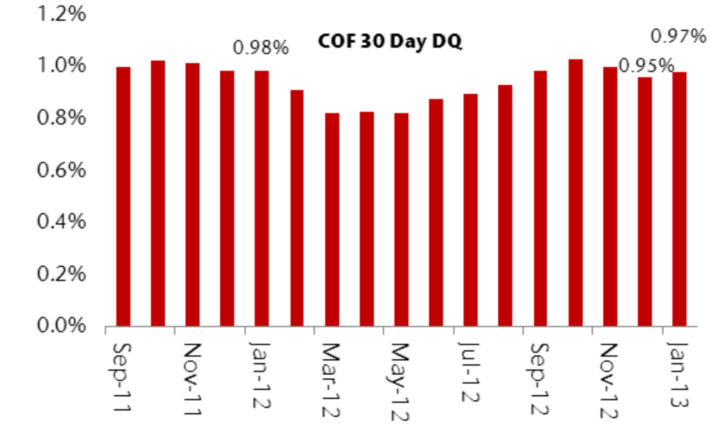
Chart 23: Loss Recoveries



Source: Jefferies & Company Inc. and Company Financials

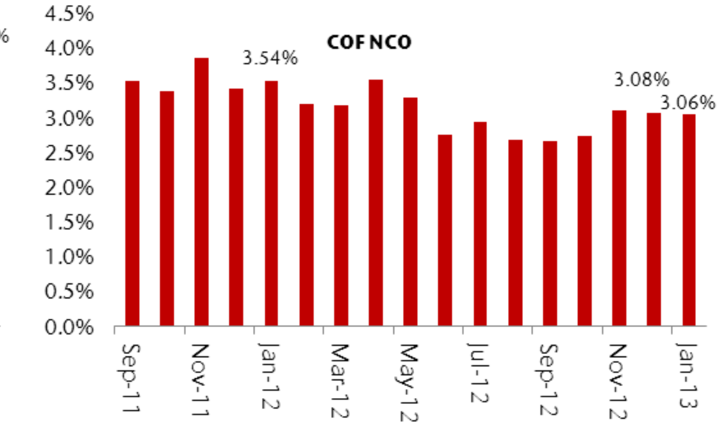
Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

Chart 24: 30-Day Delinquencies



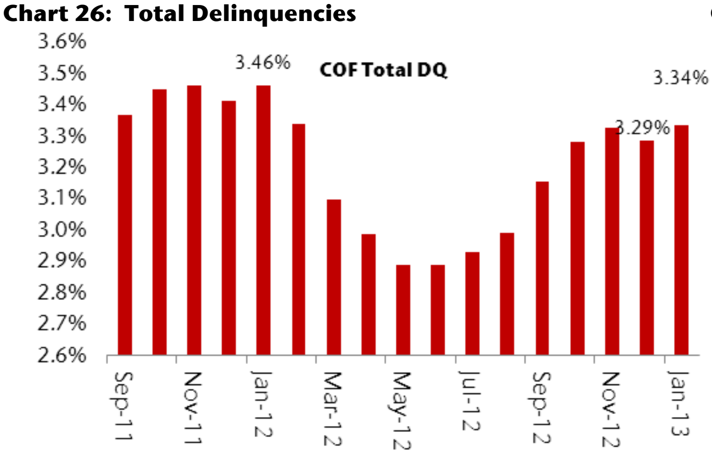
Source: Jefferies & Company Inc. and Company Financials

Chart 25: Net Charge-Offs



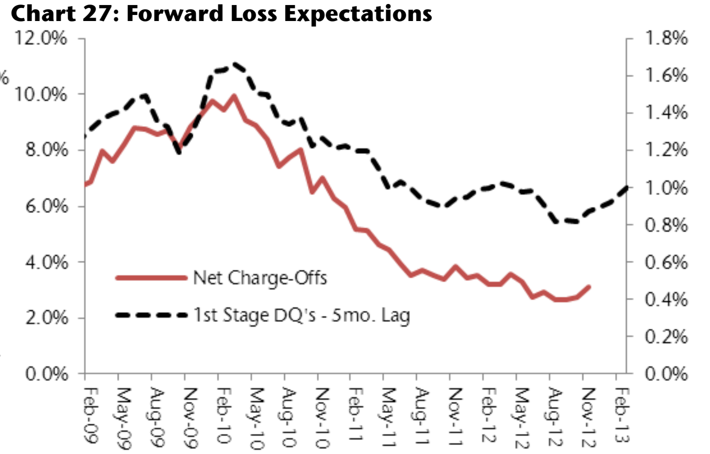
Source: Jefferies & Company Inc. and Company Financials

Chart 26: Total Delinquencies



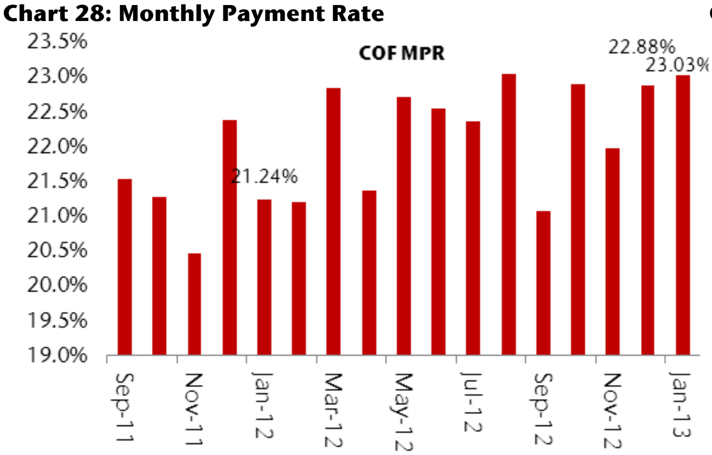
Source: Jefferies & Company Inc. and Company Financials

Chart 27: Forward Loss Expectations



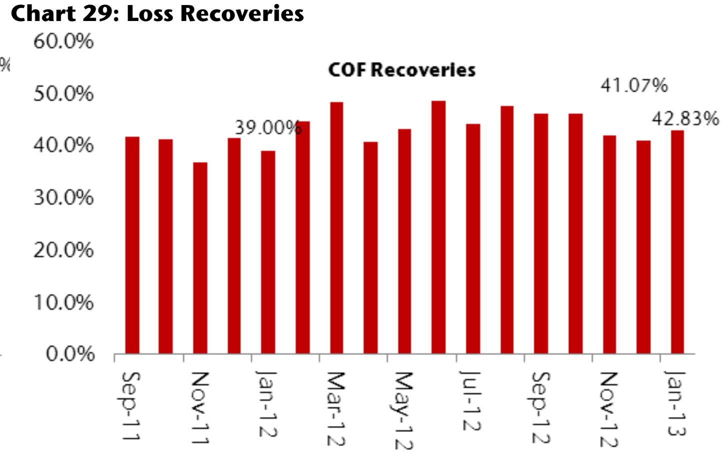
Source: Jefferies & Company Inc. and Company Financials

Chart 28: Monthly Payment Rate



Source: Jefferies & Company Inc. and Company Financials

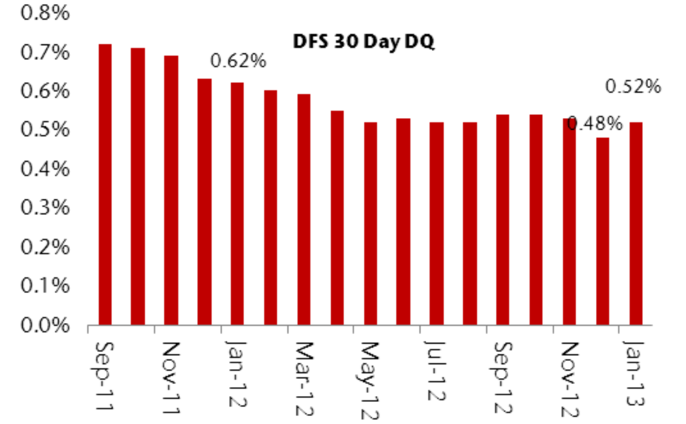
Chart 29: Loss Recoveries



Source: Jefferies & Company Inc. and Company Financials

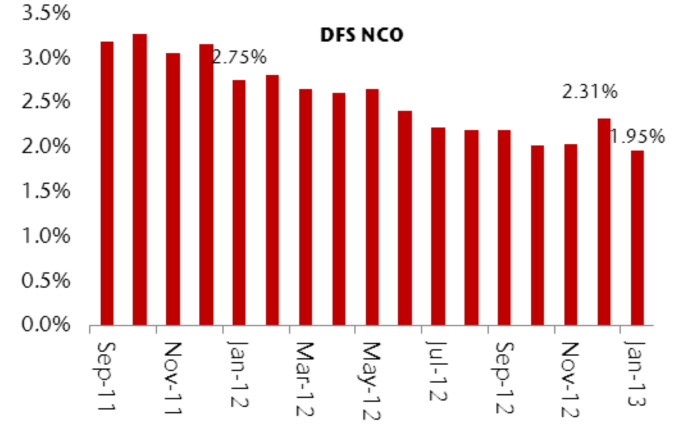
Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

Chart 30: 30-Day Delinquencies



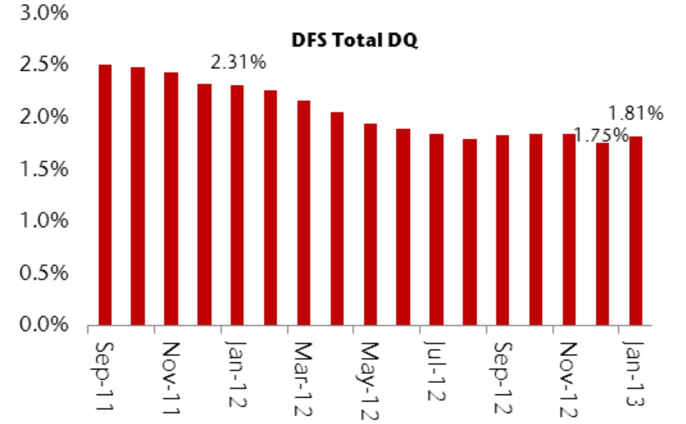
Source: Jefferies & Company Inc. and Company Financials

Chart 31: Net Charge-Offs



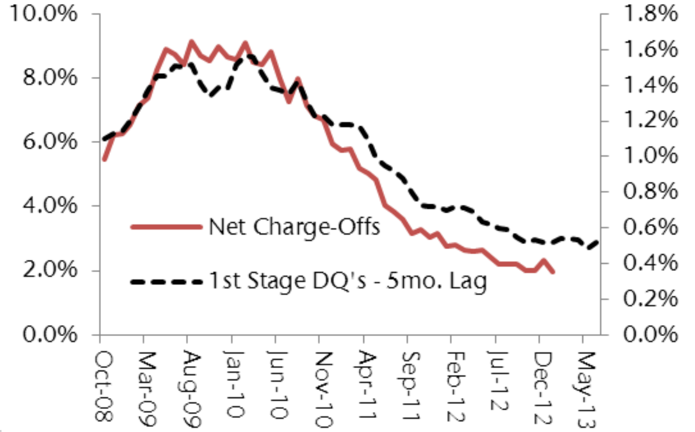
Source: Jefferies & Company Inc. and Company Financials

Chart 32: Total Delinquencies



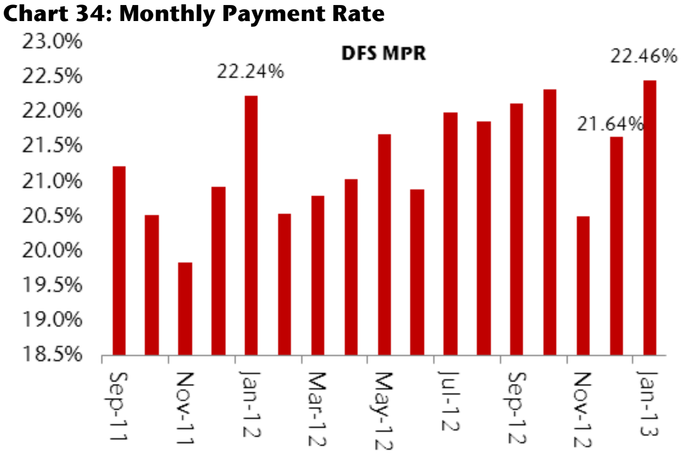
Source: Jefferies & Company Inc. and Company Financials

Chart 33: Forward Loss Expectations



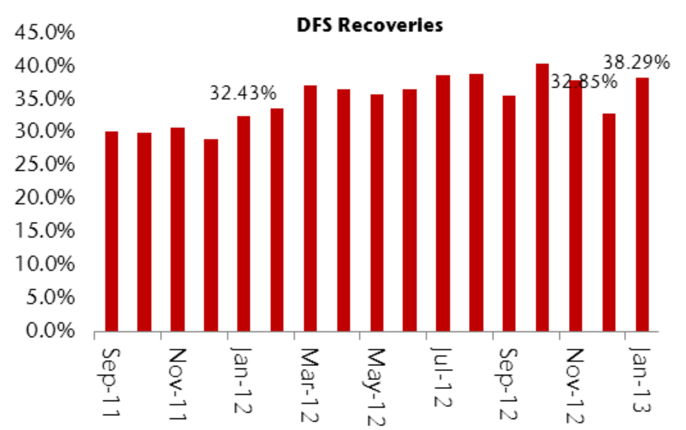
Source: Jefferies & Company Inc. and Company Financials

Chart 34: Monthly Payment Rate



Source: Jefferies & Company Inc. and Company Financials

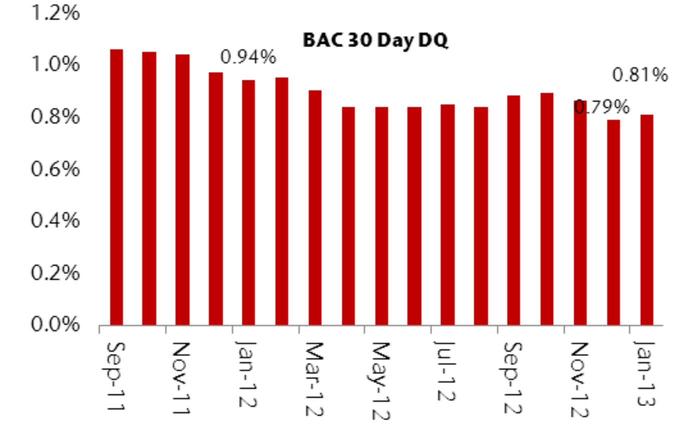
Chart 35: Loss Recoveries



Source: Jefferies & Company Inc. and Company Financials

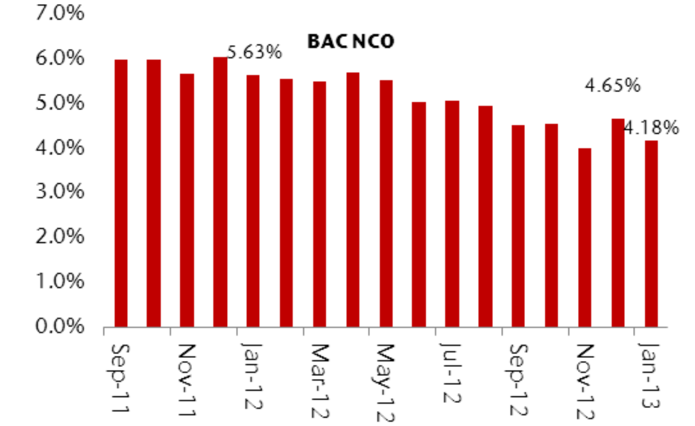
Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

Chart 36: 30-Day Delinquencies



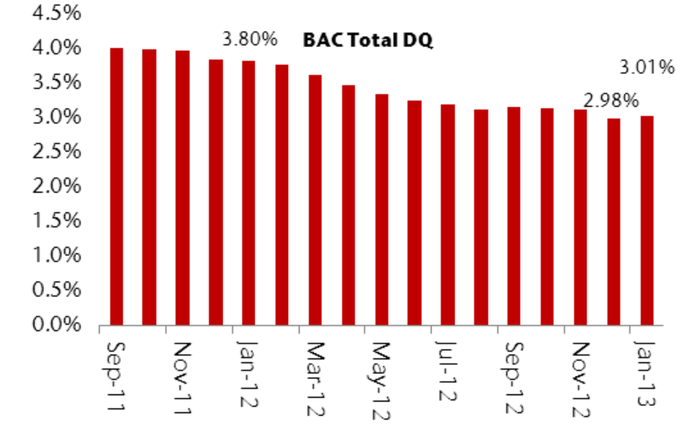
Source: Jefferies & Company Inc. and Company Financials

Chart 37: Net Charge-Offs



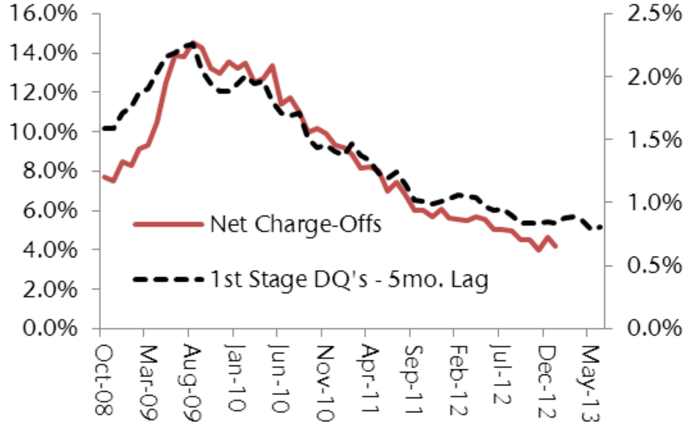
Source: Jefferies & Company Inc. and Company Financials

Chart 38: Total Delinquencies



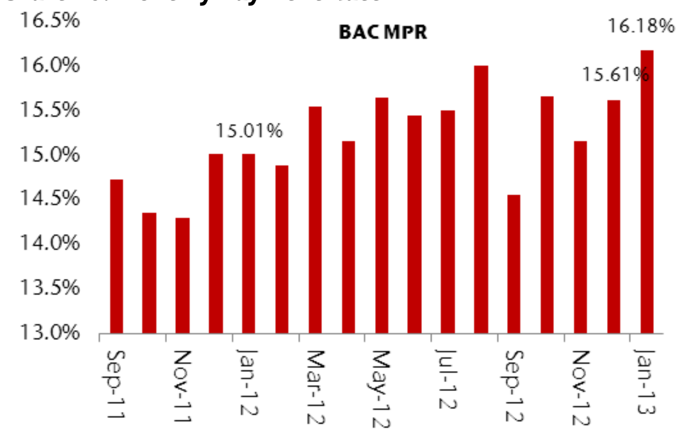
Source: Jefferies & Company Inc. and Company Financials

Chart 39: Forward Loss Expectations



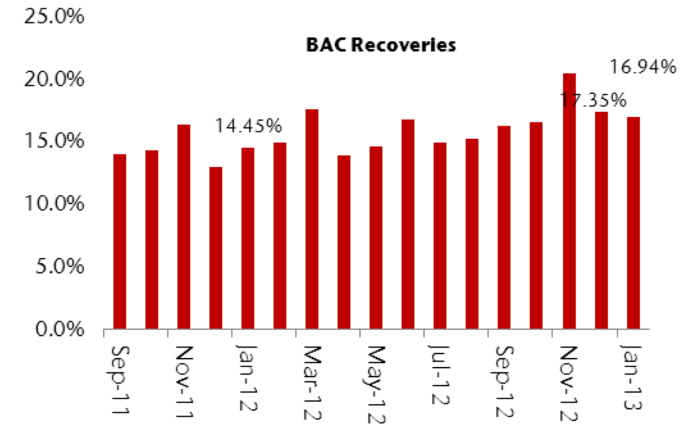
Source: Jefferies & Company Inc. and Company Financials

Chart 40: Monthly Payment Rate



Source: Jefferies & Company Inc. and Company Financials

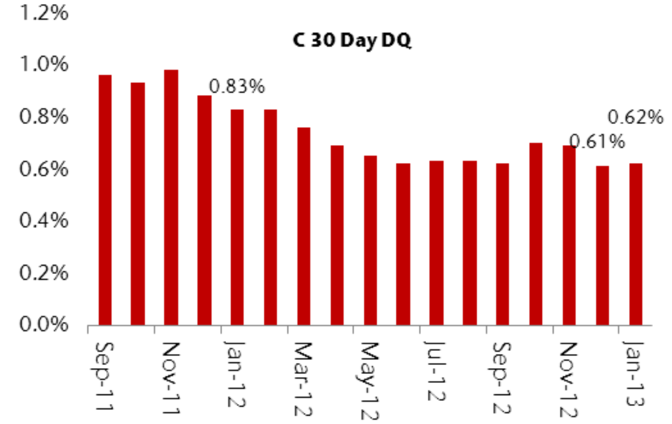
Chart 41: Loss Recoveries



Source: Jefferies & Company Inc. and Company Financials

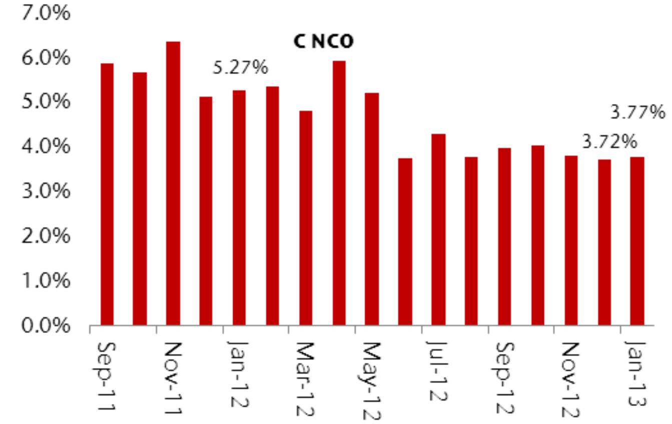
Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

Chart 42: 30-Day Delinquencies



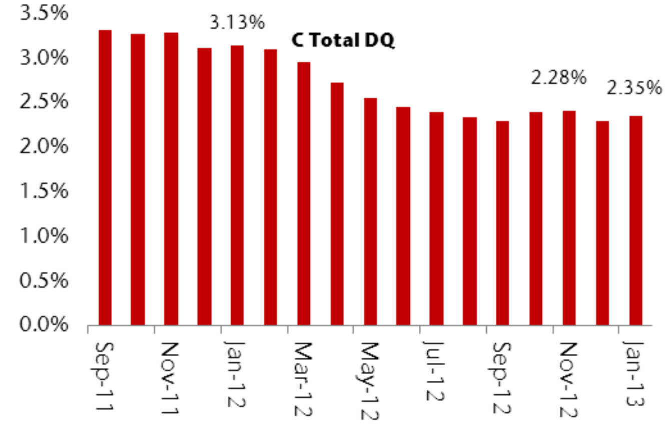
Source: Jefferies & Company Inc. and Company Financials

Chart 43: Net Charge-Offs



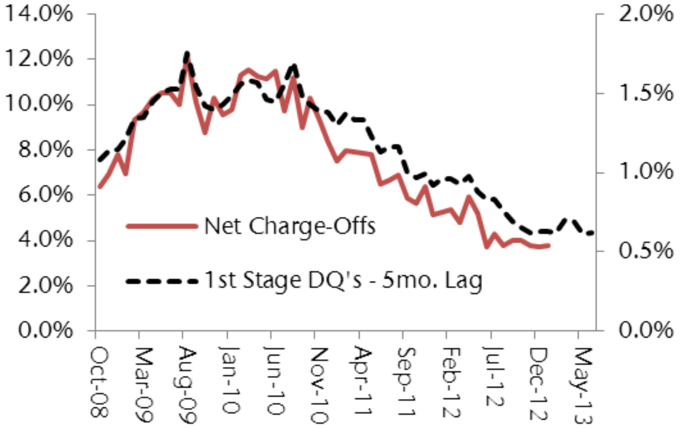
Source: Jefferies & Company Inc. and Company Financials

Chart 44: Total Delinquencies



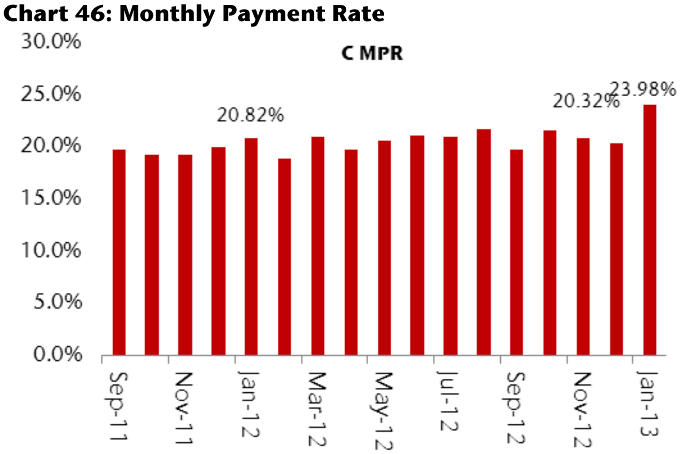
Source: Jefferies & Company Inc. and Company Financials

Chart 45: Forward Loss Expectations



Source: Jefferies & Company Inc. and Company Financials

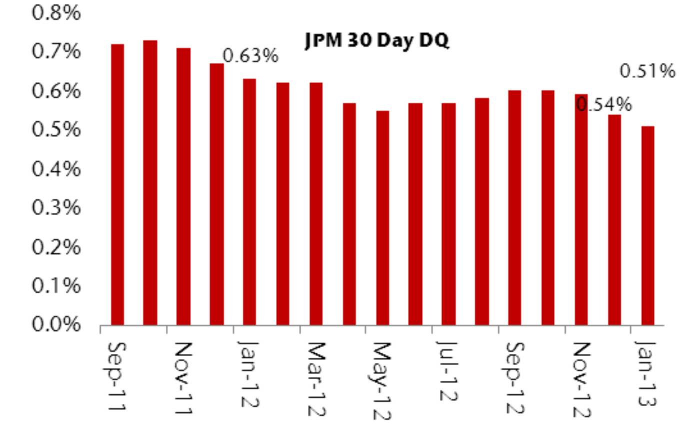
Chart 46: Monthly Payment Rate



Source: Jefferies & Company Inc. and Company Financials

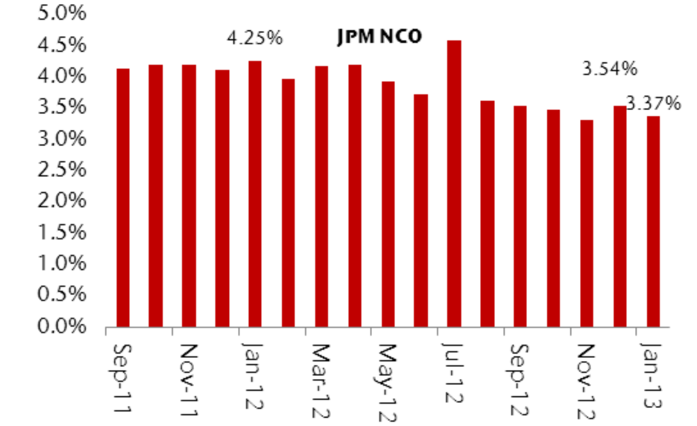
Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

Chart 47: 30-Day Delinquencies



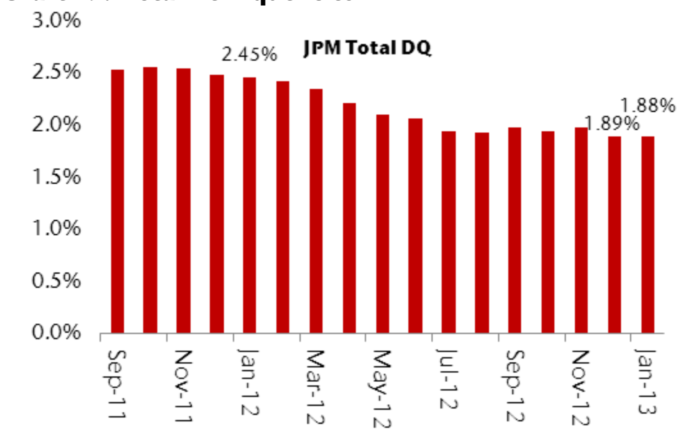
Source: Jefferies & Company Inc. and Company Financials

Chart 48: Net Charge-Offs



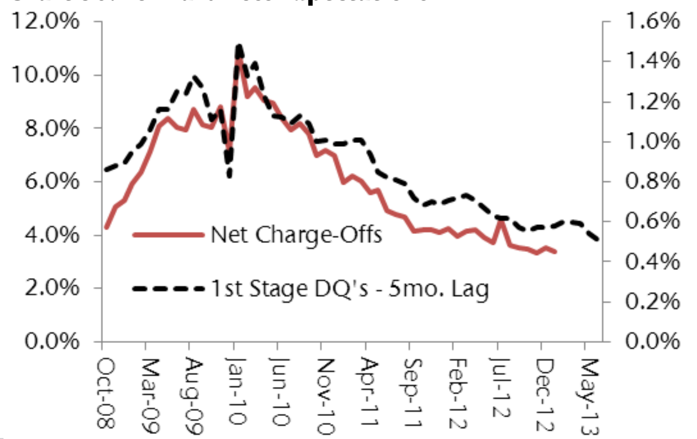
Source: Jefferies & Company Inc. and Company Financials

Chart 49: Total Delinquencies



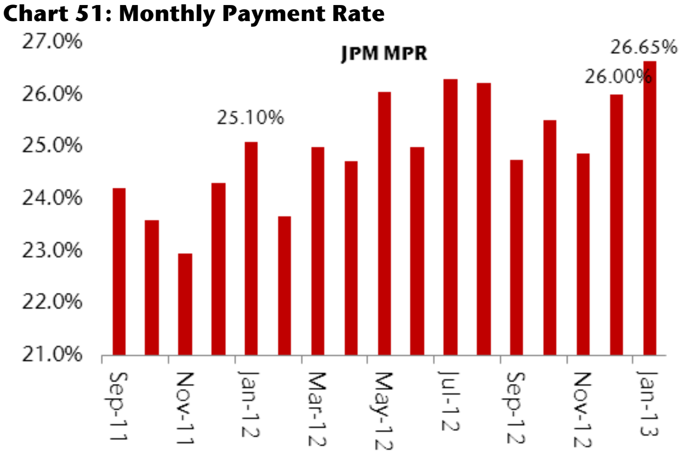
Source: Jefferies & Company Inc. and Company Financials

Chart 50: Forward Loss Expectations



Source: Jefferies & Company Inc. and Company Financials

Chart 51: Monthly Payment Rate



Source: Jefferies & Company Inc. and Company Financials

Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

Analyst Certification

I, Daniel Furtado, certify that all of the views expressed in this research report accurately reflect my personal views about the subject security(ies) and subject company(ies). I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this research report.

I, Martin Kemnec, CFA, certify that all of the views expressed in this research report accurately reflect my personal views about the subject security(ies) and subject company(ies). I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this research report.

I, Steven B. Maltz, CPA, certify that all of the views expressed in this research report accurately reflect my personal views about the subject security(ies) and subject company(ies). I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this research report.

As is the case with all Jefferies employees, the analyst(s) responsible for the coverage of the financial instruments discussed in this report receives compensation based in part on the overall performance of the firm, including investment banking income. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Aside from certain industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgement.

Company Specific Disclosures

For Important Disclosure information on companies recommended in this report, please visit our website at https://javatar.bluematrix.com/sellside/Disclosures.action or call 212.284.2300.

Meanings of Jefferies Ratings

Buy - Describes stocks that we expect to provide a total return (price appreciation plus yield) of 15% or more within a 12-month period.

Hold - Describes stocks that we expect to provide a total return (price appreciation plus yield) of plus 15% or minus 10% within a 12-month period.

Underperform - Describes stocks that we expect to provide a total negative return (price appreciation plus yield) of 10% or more within a 12-month period.

The expected total return (price appreciation plus yield) for Buy rated stocks with an average stock price consistently below $10 is 20% or more within a 12-month period as these companies are typically more volatile than the overall stock market. For Hold rated stocks with an average stock price consistently below $10, the expected total return (price appreciation plus yield) is plus or minus 20% within a 12-month period. For Underperform rated stocks with an average stock price consistently below $10, the expected total return (price appreciation plus yield) is minus 20% within a 12-month period.

NR - The investment rating and price target have been temporarily suspended. Such suspensions are in compliance with applicable regulations and/or Jefferies policies.

CS - Coverage Suspended. Jefferies has suspended coverage of this company.

NC - Not covered. Jefferies does not cover this company.

Restricted - Describes issuers where, in conjunction with Jefferies engagement in certain transactions, company policy or applicable securities regulations prohibit certain types of communications, including investment recommendations.

Monitor - Describes stocks whose company fundamentals and financials are being monitored, and for which no financial projections or opinions on the investment merits of the company are provided.

Valuation Methodology

Jefferies' methodology for assigning ratings may include the following: market capitalization, maturity, growth/value, volatility and expected total return over the next 12 months. The price targets are based on several methodologies, which may include, but are not restricted to, analyses of market risk, growth rate, revenue stream, discounted cash flow (DCF), EBITDA, EPS, cash flow (CF), free cash flow (FCF), EV/EBITDA, P/E, PE/growth, P/CF, P/FCF, premium (discount)/average group EV/EBITDA, premium (discount)/average group P/E, sum of the parts, net asset value, dividend returns, and return on equity (ROE) over the next 12 months.

Conviction List Methodology

1. The aim of the conviction list is to publicise the best individual stock ideas from Jefferies Global Research
2. Only stocks with a Buy rating are allowed to be included in the recommended list.
3. Stocks are screened for minimum market capitalisation and adequate daily turnover. Furthermore, a valuation, correlation and style screen is used to ensure a well-diversified portfolio.
4. Stocks are sorted to a maximum of 30 stocks with the maximum country exposure at around 50%. Limits are also imposed on a sector basis.
5. Once a month, analysts are invited to recommend their best ideas. Analysts' stock selection can be based on one or more of the following: non-Consensus investment view, difference in earnings relative to Consensus, valuation methodology, target upside/downside % relative to the current stock price. These are then assessed against existing holdings to ensure consistency. Stocks that have either reached their target price, been downgraded over the course of the month or where a more suitable candidate has been found are removed.
6. All stocks are inserted at the last closing price and removed at the last closing price. There are no changes to the conviction list during the month.
7. Performance is calculated in US dollars on an equally weighted basis and is compared to MSCI World AC US$.
8. The conviction list is published once a month whilst global equity markets are closed.

Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

Please see important disclosure information on pages 15 - 17 of this report.

9. Transaction fees are not included.
10. All corporate actions are taken into account.

Risk which may impede the achievement of our Price Target

This report was prepared for general circulation and does not provide investment recommendations specific to individual investors. As such, the financial instruments discussed in this report may not be suitable for all investors and investors must make their own investment decisions based upon their specific investment objectives and financial situation utilizing their own financial advisors as they deem necessary. Past performance of the financial instruments recommended in this report should not be taken as an indication or guarantee of future results. The price, value of, and income from, any of the financial instruments mentioned in this report can rise as well as fall and may be affected by changes in economic, financial and political factors. If a financial instrument is denominated in a currency other than the investor's home currency, a change in exchange rates may adversely affect the price of, value of, or income derived from the financial instrument described in this report. In addition, investors in securities such as ADRs, whose values are affected by the currency of the underlying security, effectively assume currency risk.

Other Companies Mentioned in This Report

- America's Car-Mart (CRMT: $47.22, HOLD)
- American Express Co. (AXP: $61.54, HOLD)
- Capital One Financial Corporation (COF: $52.21, BUY)
- Cash America International, Inc. (CSH: $51.00, HOLD)
- DFC Global Corp. (DLLR: $19.16, HOLD)
- Discover Financial Services (DFS: $38.33, BUY)
- First Cash Financial Services, Inc. (FCFS: $54.42, BUY)
- Regional Management Corporation (RM: $17.47, BUY)

Distribution of Ratings

Rating	Count	Percent	IB Serv./Past 12 Mos. Count	IB Serv./Past 12 Mos. Percent
BUY	733	46.19%	122	16.64%
HOLD	723	45.56%	84	11.62%
UNDERPERFORM	131	8.25%	2	1.53%

Other Important Disclosures

Jefferies Equity Research refers to research reports produced by analysts employed by one of the following Jefferies Group, Inc. (“Jefferies”) group companies:

United States: Jefferies & Company, Inc., which is an SEC registered firm and a member of FINRA.

United Kingdom: Jefferies International Limited, which is authorized and regulated by the Financial Services Authority; registered in England and Wales No. 1978621; registered office: Vintners Place, 68 Upper Thames Street, London EC4V 3BJ; telephone +44 (0)20 7029 8000; facsimile +44 (0)20 7029 8010.

Hong Kong: Jefferies Hong Kong Limited, which is licensed by the Securities and Futures Commission of Hong Kong with CE number ATS546; located at Suite 2201, 22nd Floor, Cheung Kong Center, 2 Queen’s Road Central, Hong Kong.

Singapore: Jefferies Singapore Limited, which is licensed by the Monetary Authority of Singapore; located at 80 Raffles Place #15-20, UOB Plaza 2, Singapore 048624, telephone: +65 6551 3950.

Japan: Jefferies (Japan) Limited, Tokyo Branch, which is a securities company registered by the Financial Services Agency of Japan and is a member of the Japan Securities Dealers Association; located at Hibiya Marine Bldg, 3F, 1-5-1 Yuraku-cho, Chiyoda-ku, Tokyo 100-0006; telephone +813 5251 6100; facsimile +813 5251 6101.

India: Jefferies India Private Limited, which is licensed by the Securities and Exchange Board of India as a Merchant Banker (INM000011443) and a Stock Broker with Bombay Stock Exchange Limited (INB011438539) and National Stock Exchange of India Limited (INB231438533) in the Capital Market Segment; located at 42/43, 2 North Avenue, Maker Maxity, Bandra-Kurla Complex, Bandra (East) Mumbai 400 051, India; Tel +91 22 4356 6000.

This material has been prepared by Jefferies employing appropriate expertise, and in the belief that it is fair and not misleading. The information set forth herein was obtained from sources believed to be reliable, but has not been independently verified by Jefferies. Therefore, except for any obligation under applicable rules we do not guarantee its accuracy. Additional and supporting information is available upon request. Unless prohibited by the provisions of Regulation S of the U.S. Securities Act of 1933, this material is distributed in the United States ("US"), by Jefferies & Company, Inc., a US-registered broker-dealer, which accepts responsibility for its contents in accordance with the provisions of Rule 15a-6, under the US Securities Exchange Act of 1934. Transactions by or on behalf of any US person may only be effected through Jefferies & Company, Inc. In the United Kingdom and European Economic Area this report is issued and/or approved for distribution by Jefferies International Limited and is intended for use only by persons who have, or have been assessed as having, suitable professional experience and expertise, or by persons to whom it can be otherwise lawfully distributed. Jefferies International Limited has adopted a conflicts management policy in connection with the preparation and publication

Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com

of research, the details of which are available upon request in writing to the Compliance Officer. Jefferies International Limited may allow its analysts to undertake private consultancy work. Jefferies International Limited's conflicts management policy sets out the arrangements Jefferies International Limited employs to manage any potential conflicts of interest that may arise as a result of such consultancy work. For Canadian investors, this material is intended for use only by professional or institutional investors. None of the investments or investment services mentioned or described herein is available to other persons or to anyone in Canada who is not a "Designated Institution" as defined by the Securities Act (Ontario). In Singapore, Jefferies Singapore Limited is regulated by the Monetary Authority of Singapore. For investors in the Republic of Singapore, this material is provided by Jefferies Singapore Limited pursuant to Regulation 32C of the Financial Advisers Regulations. The material contained in this document is intended solely for accredited, expert or institutional investors, as defined under the Securities and Futures Act (Cap. 289 of Singapore). If there are any matters arising from, or in connection with this material, please contact Jefferies Singapore Limited, located at 80 Raffles Place #15-20, UOB Plaza 2, Singapore 048624, telephone: +65 6551 3950. In Japan this material is issued and distributed by Jefferies (Japan) Limited to institutional investors only. In Hong Kong, this report is issued and approved by Jefferies Hong Kong Limited and is intended for use only by professional investors as defined in the Hong Kong Securities and Futures Ordinance and its subsidiary legislation. In the Republic of China (Taiwan), this report should not be distributed. The research in relation to this report is conducted outside the PRC. This report does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves. In India this report is made available by Jefferies India Private Limited. In Australia this information is issued solely by Jefferies International Limited and is directed solely at wholesale clients within the meaning of the Corporations Act 2001 of Australia (the "Act") in connection with their consideration of any investment or investment service that is the subject of this document. Any offer or issue that is the subject of this document does not require, and this document is not, a disclosure document or product disclosure statement within the meaning of the Act. Jefferies International Limited is authorised and regulated by the Financial Services Authority under the laws of the United Kingdom, which differ from Australian laws. Jefferies International Limited has obtained relief under Australian Securities and Investments Commission Class Order 03/1099, which conditionally exempts it from holding an Australian financial services licence under the Act in respect of the provision of certain financial services to wholesale clients. Recipients of this document in any other jurisdictions should inform themselves about and observe any applicable legal requirements in relation to the receipt of this document.

This report is not an offer or solicitation of an offer to buy or sell any security or derivative instrument, or to make any investment. Any opinion or estimate constitutes the preparer's best judgment as of the date of preparation, and is subject to change without notice. Jefferies assumes no obligation to maintain or update this report based on subsequent information and events. Jefferies, its associates or affiliates, and its respective officers, directors, and employees may have long or short positions in, or may buy or sell any of the securities, derivative instruments or other investments mentioned or described herein, either as agent or as principal for their own account. Upon request Jefferies may provide specialized research products or services to certain customers focusing on the prospects for individual covered stocks as compared to other covered stocks over varying time horizons or under differing market conditions. While the views expressed in these situations may not always be directionally consistent with the long-term views expressed in the analyst's published research, the analyst has a reasonable basis and any inconsistencies can be reasonably explained. This material does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this report is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of the investments referred to herein and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments. This report has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of securities. None of Jefferies, any of its affiliates or its research analysts has any authority whatsoever to make any representations or warranty on behalf of the issuer(s). Jefferies policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis. Any comments or statements made herein are those of the author(s) and may differ from the views of Jefferies.

This report may contain information obtained from third parties, including ratings from credit ratings agencies such as Standard & Poor's. Reproduction and distribution of third party content in any form is prohibited except with the prior written permission of the related third party. Third party content providers do not guarantee the accuracy, completeness, timeliness or availability of any information, including ratings, and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such content. Third party content providers give no express or implied warranties, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use. Third party content providers shall not be liable for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including lost income or profits and opportunity costs) in connection with any use of their content, including ratings. Credit ratings are statements of opinions and are not statements of fact or recommendations to purchase, hold or sell securities. They do not address the suitability of securities or the suitability of securities for investment purposes, and should not be relied on as investment advice.

Jefferies research reports are disseminated and available primarily electronically, and, in some cases, in printed form. Electronic research is simultaneously available to all clients. This report or any portion hereof may not be reprinted, sold or redistributed without the written consent of Jefferies. Neither Jefferies nor any officer nor employee of Jefferies accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this report or its contents.

For Important Disclosure information, please visit our website at https://javatar.bluematrix.com/sellside/Disclosures.action or call 1.888.JEFFERIES

Daniel Furtado, Equity Analyst, (415) 229-1569, dfurtado@jefferies.com