www.PhiladelphiaFed.org | @PhiladelphiaFed

FEDERAL RESERVE BANK PHILADELPHIA

Current State of the Auto Lending Market

Sharon Tang and Grace Bai Retail SMT FRB Philadelphia



The views expressed here are the authors' and are not official views of the Federal Reserve Bank of Philadelphia, the Federal Reserve Bank of New York, or the Board of Governors of the Federal Reserve System.

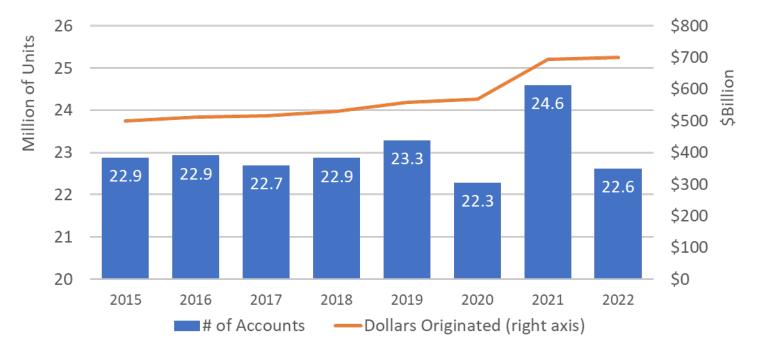


Auto Loan Originations



Auto Loan Originations

• Auto loan origination balances jumped to a new high in 2021 and have remained elevated despite a lower number of auto loan originations in 2022.

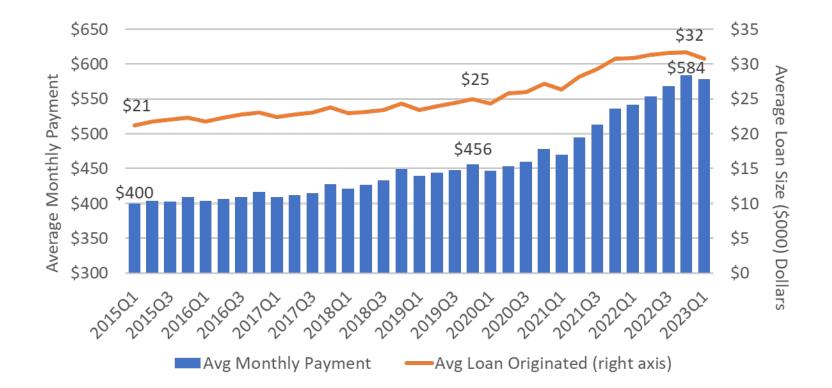


Auto Loan Originations by Year



Average Loan Size and Monthly Payment

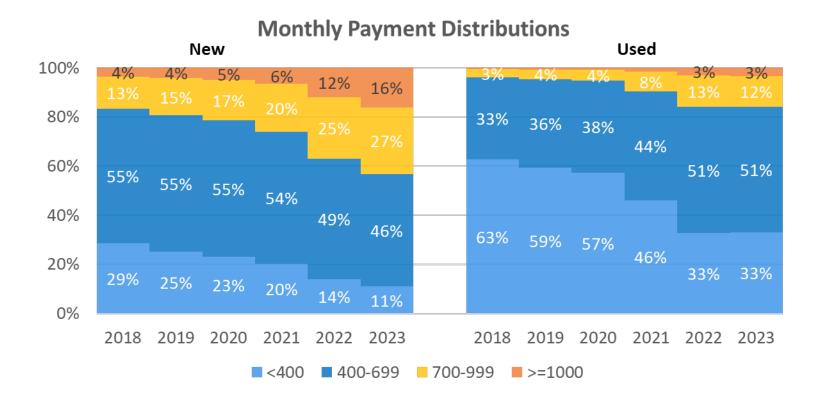
• The average loan size and average monthly payment dipped slightly this most recent quarter, which provided some borrower relief.





Shifts to Higher Monthly Payments

• The percentage of vehicle loans with monthly payments above \$700 have been growing in share over the past three years.

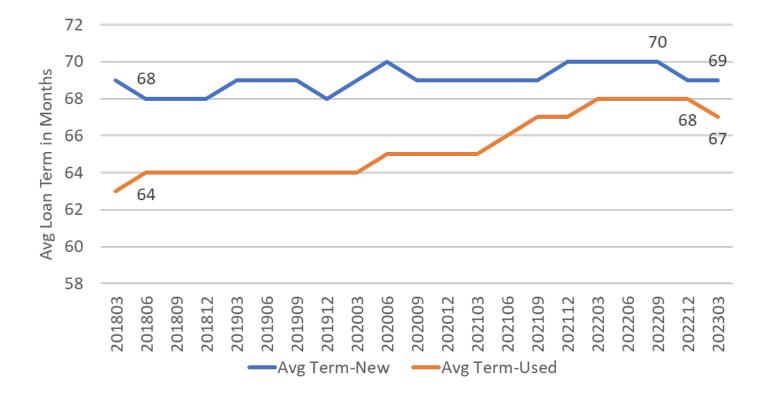


Data source: Experian Velocity/AutoCount



Average Loan Term

• The average loan term increased by two months for new vehicle loans and four months for used vehicle loans.

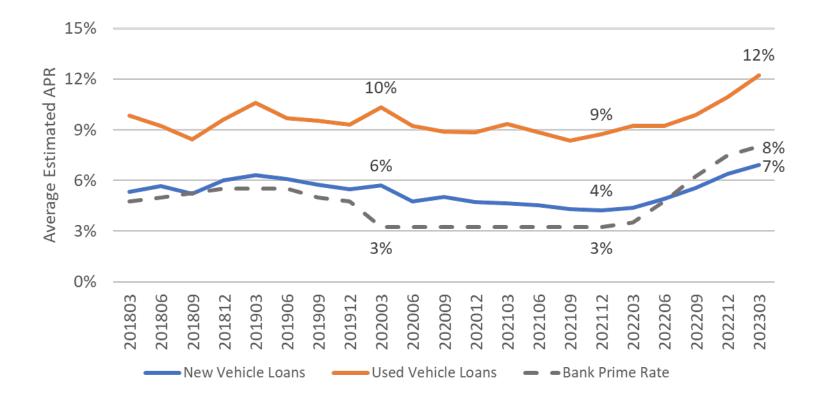


Data source: Experian Velocity/AutoCount



Average Estimated APR of New Originations

• Auto APRs are lagging the bank prime loan rate.

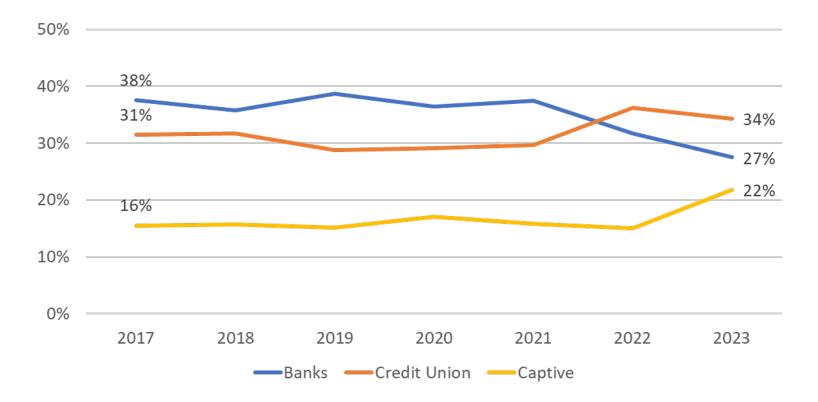


Data source: Experian Velocity/AutoCount



Auto Loan Originations by Lender Types

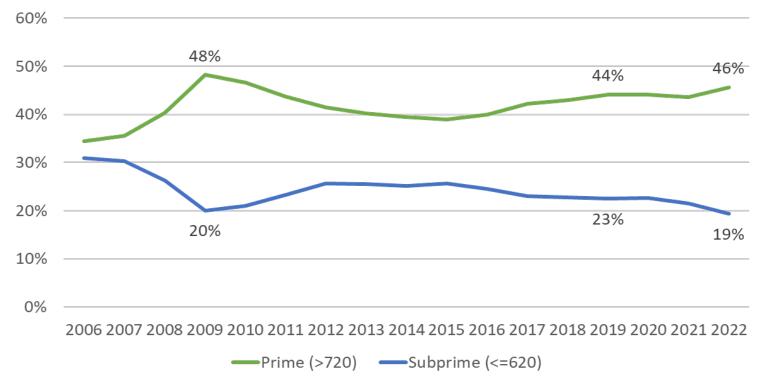
• The Credit Union share of new originations increased in 2022 while the share of Captive firms has shown a large increase in 2023:Q1.





Originations by Risk Segment

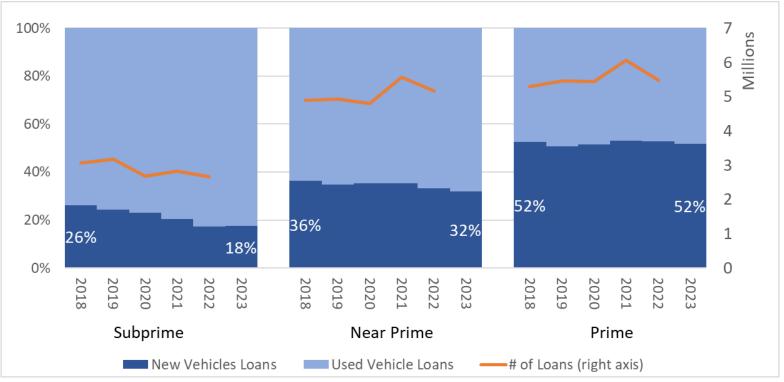
The share of new originations in the prime segment (Equifax Risk Score > 720) increased while the subprime segment (Equifax Risk Score <=620) share decreased.





Share of Origination by Risk Segment

- Prime segment (Experian Risk Score > 720)
 - The number of originations has been increasing despite the share of new vehicle loans remaining steady.
- Subprime segments (Experian Risk Score <= 620)



- A significant drop in loan originations, as well as the share of new vehicle loans, was observed.

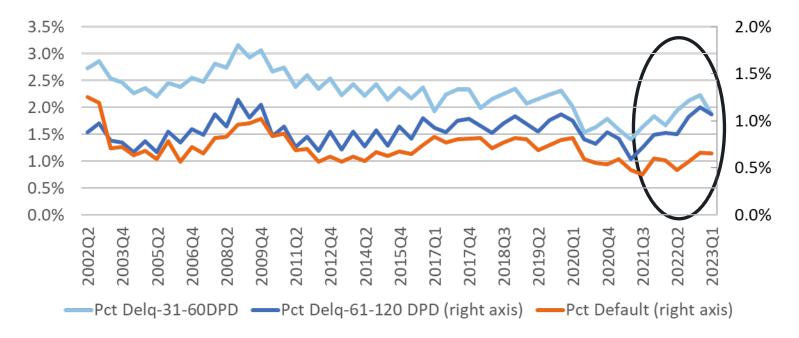
Data source: Experian Velocity/AutoCount

Auto Loan Performance



Auto Loan Performance

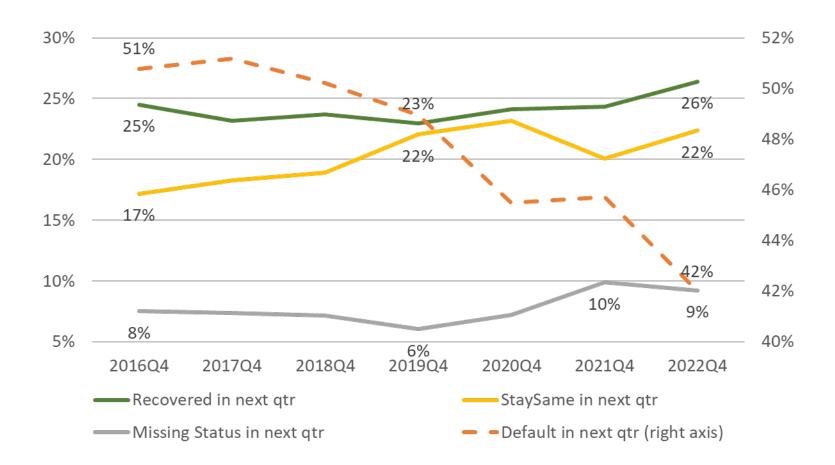
- The 60+ DPD is nearing GFC levels.
- The percentage of accounts transitioning to default is trending upwards.



Portfolio Delinquency and Default Rates

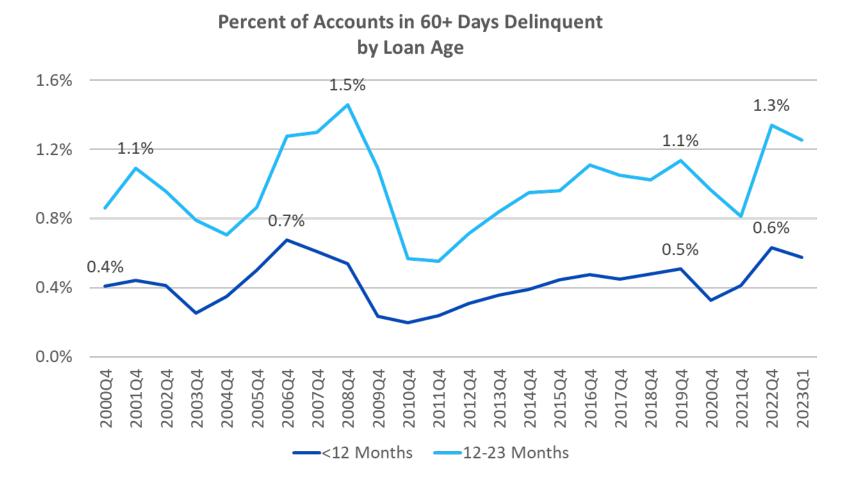


Status Change of Loans in 60+ DPD





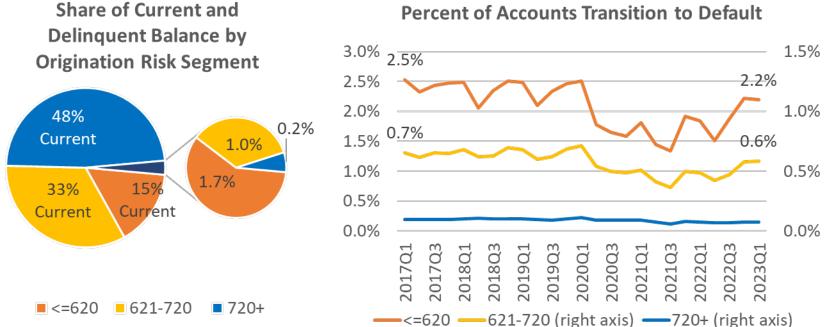
Delinquency by Loan Age





Loan Performance by Origination Risk

- There were \$1.4 trillion of auto loan outstanding balances as of March 2023 and 2.9% of balances were 30+ DPD.
- Default rates are trending towards pre-pandemic levels across all risk segments.

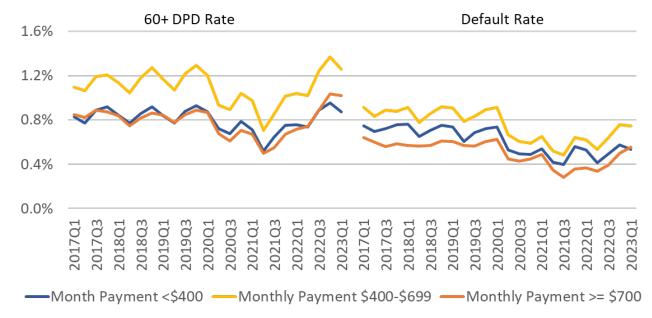


Percent of Accounts Transition to Default



Delinquency and Default by Monthly Payments

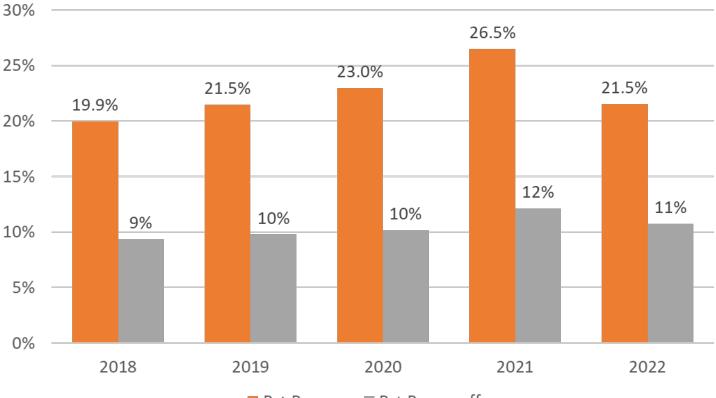
- Accounts with monthly payments between \$400 and \$699 have the highest 60+days delinquent rate and default rate.
- Accounts with monthly payments of less than \$400 have higher default rates than accounts with monthly payments of \$700 and above.





Auto Prepayments

• The percent of accounts with prepayments decreased in 2022.



Pct Prepay Pct Prepayoff

Data source: FRBNY Consumer Credit Panel/Equifax Data

Auto Consumers



Profile by Product Mix

- 78% of auto borrowers hold a credit card; their average Equifax Risk Score is 8 points higher visà-vis the overall auto loan average.
- 40% of auto borrowers also carry a mortgage; on average, they are older and show a significantly higher Risk Score.
- Auto borrowers who are carrying student loans have a much lower Risk Score and tend to be younger.
- 13% of auto borrowers have no other major credit products. These borrowers have the lowest Risk Score, the lowest auto balance outstanding, and the highest 90+ DPD transition rates.

Product Mix *	Freq	Risk Score	Age**	Auto 90+ Transition	Auto Bal	Card/Mort/ Stu Bal
w/ Card	78%	715	48	0.66%	\$23,726	\$7,578
w/ Mortgage	40%	752	50	0.22%	\$25,948	\$256,100
w/ Student Loan	22%	675	41	0.97%	\$22,417	\$42,397
Auto Only	13%	663	47	2.83%	\$13,062	
All Auto	100%	707	48	0.86%	\$21,581	

Auto Consumer Profile by Product Mix as of 2023Q1

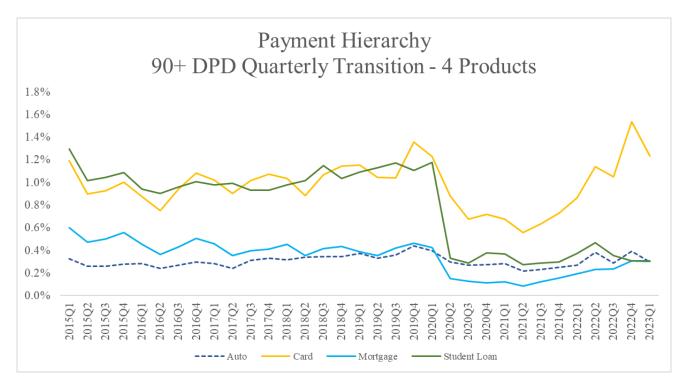
* Not mutually exclusive; consumers can show up in multiple categories

** Approximated based on birth year



Payment Hierarchy – 4 Products

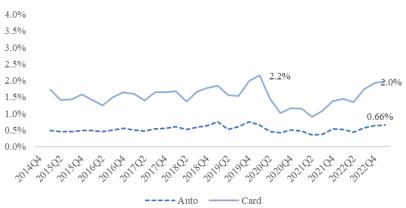
- For consumers with auto, card, mortgage, and student loans, auto loans were the last to default leading up to the pandemic.
- The mortgage and student loan default rates saw a significant drop and remained low throughout the pandemic due to loan forbearance.



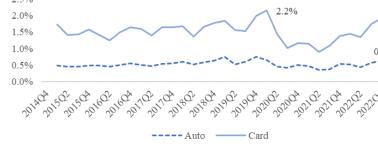


Payment Hierarchy – 2 Products

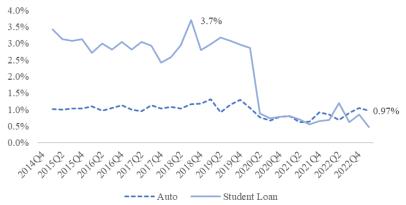
- 2-product priority patterns are consistent with the 4-product mix.
- In 2023:Q1, auto borrowers with ulletstudent loans are much more likely to become 90+ DPD than other product mix.

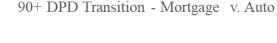


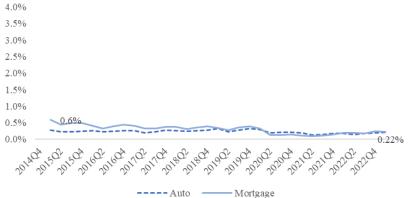
90+ DPD Transition - Card v. Auto









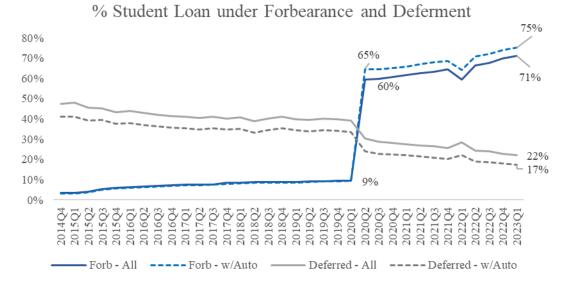


Auto consumers can show up in multiple charts



Student Loan Payment Resumption

- Student loan interest will resume accruing in Sept, and payments will be due starting in October.
- Less than 10% of student loans were in non-deferral forbearance (measured by no scheduled payment) prior to the pandemic. The forbearance rate suddenly increased to 60% in 2020:Q2, and it now sits at 71%.
- Overall, adding loans currently in deferment, 90%+ of student loans had no scheduled monthly payment as of 2023:Q1.
- 18% of auto loan borrowers have at least 1 student loan in forbearance. The resumed student loan payment for those consumers could be \$245 on average or \$160 as a median.



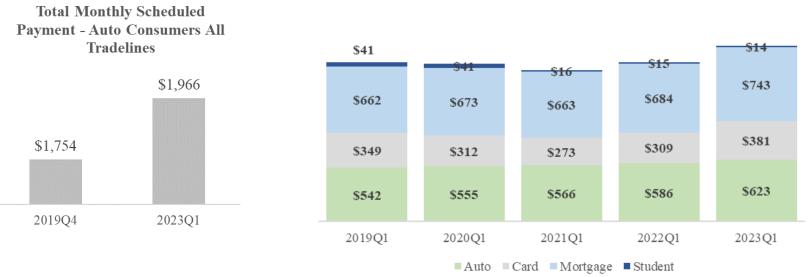
Expected Monthly Student Loan Payment after the Resumption -Auto Consumers





Total Scheduled Payment - Auto Consumers

- Auto loan borrowers' monthly obligations across all tradelines increased during the pandemic; now they are approaching \$2000.
- As of 2023:Q1, average auto consumers were scheduled to pay \$623 on auto loans, \$381 on credit cards, \$743 on mortgages, and \$14 on student loans.

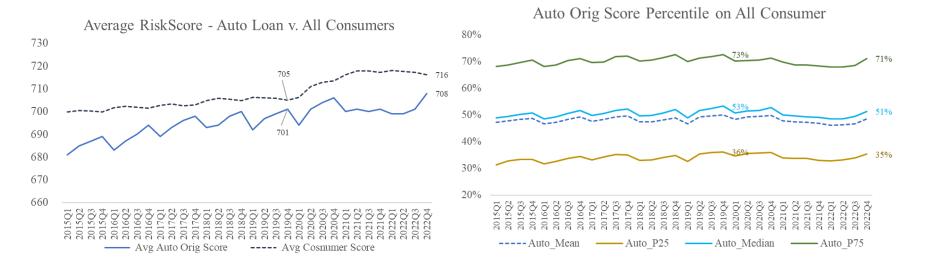


Average Monthly Scheduled Payment - Auto Consumers



Origination Score Ranking

- The average consumer score migrated to a higher level during and after the pandemic.
- The average auto origination score also increased by 7 points between 2019:Q4 and 2022:Q4.
- The auto origination score's ranking among all consumers remains stable despite the score migration.
 - Before and after the pandemic, the median auto origination score ranked around the 53rd and the 51st percentile, respectively, among all concurrent consumer risk scores.





Questions?

