



Auto Origination Growth Opportunities: Auto Originations Post Pandemic

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The auto finance market has experienced challenges during the pandemic, but is emerging for growth

In this session, we will seek to answer the following:

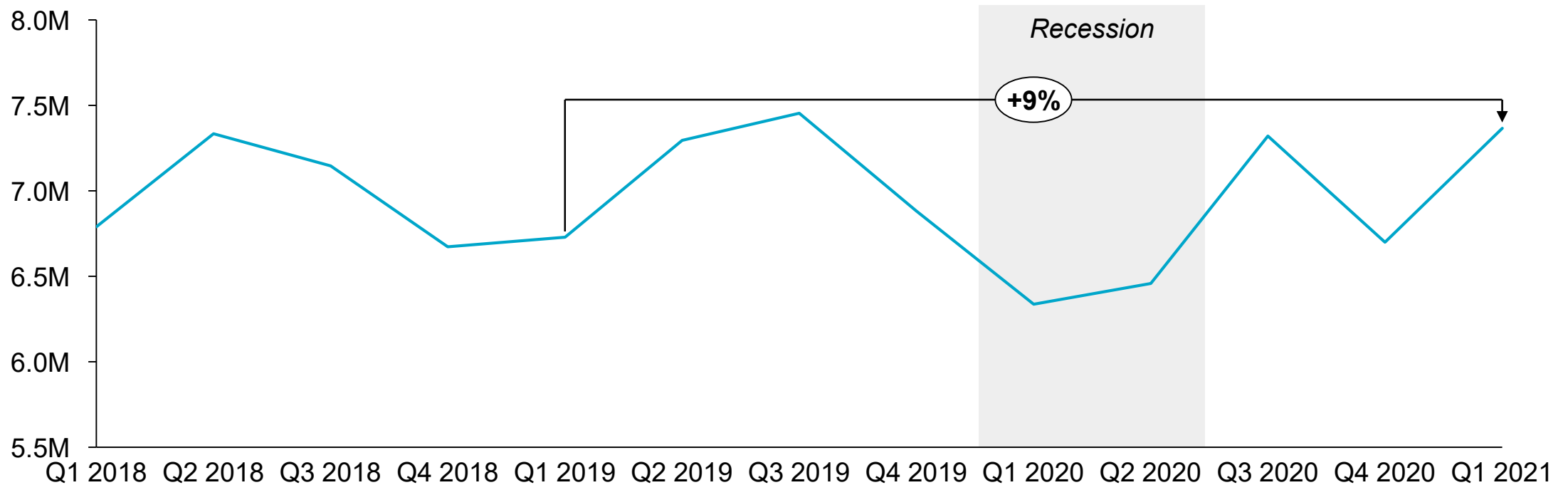
- What have been the main macro trends causing consumer shifts during and after the pandemic?
- How have these trends impacted auto loan originations?
- What additional opportunities exist for auto lenders to grow originations?

Current Macro Trends in the Auto Industry



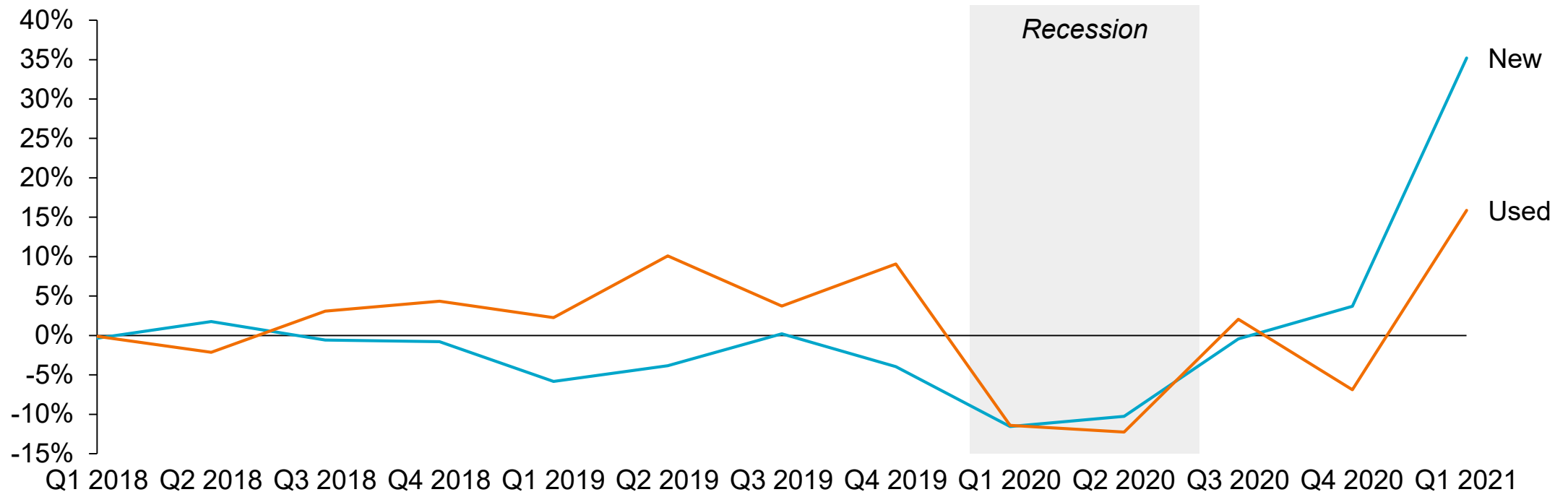
Originations were strong through the pandemic as pent-up demand was caught up in late 2020 through early 2021

Total Auto Loans Originations – Q1 2018 to Q1 2021



Both new and used auto originations grew in H2 2020 to Q1 2021 from the pent-up demand

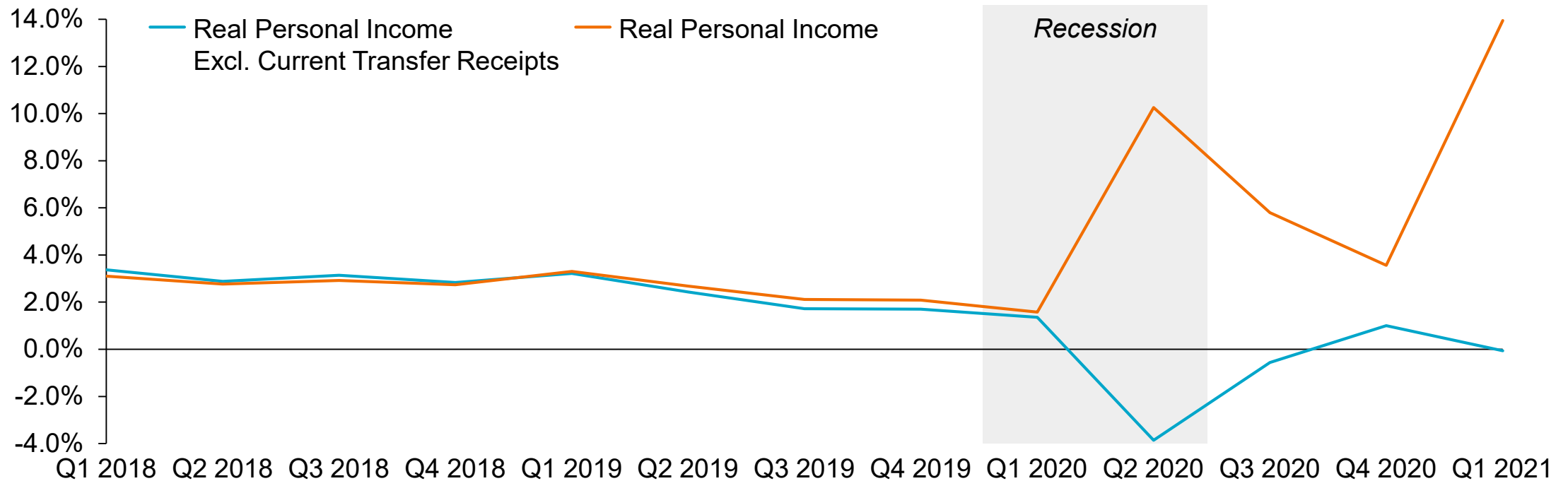
Total Auto Originations (YoY % Change) – Q1 2018 to Q1 2021





Auto originations likely benefited from government stimulus that drove gains in personal income

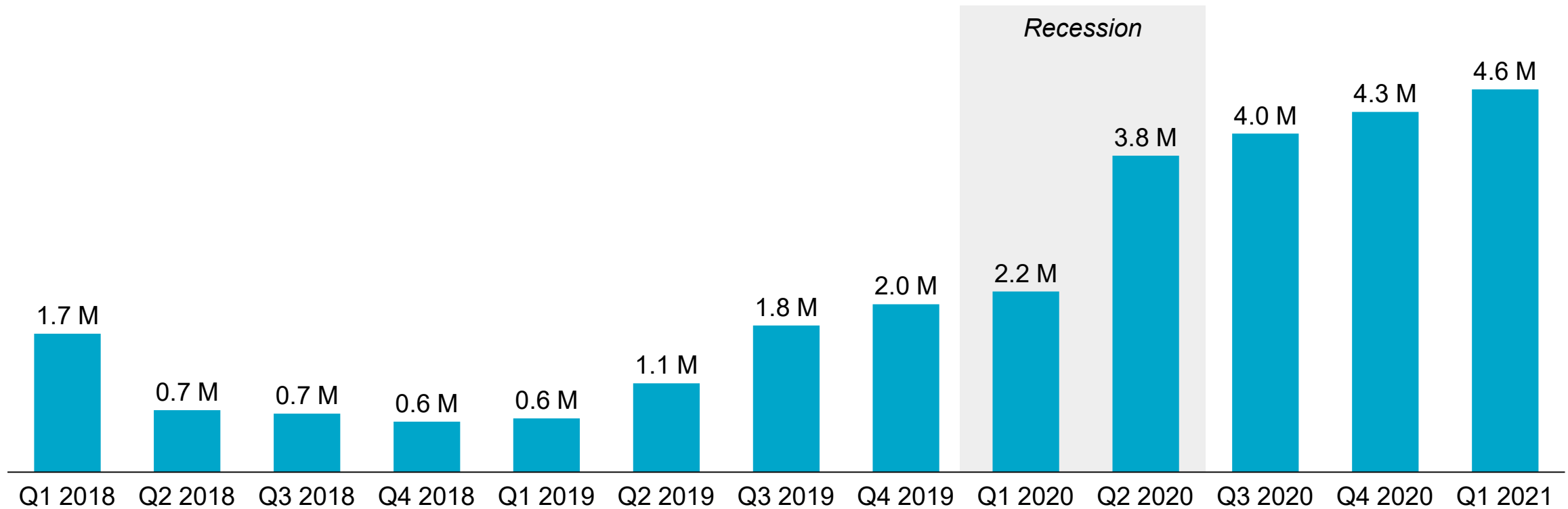
Real Personal Income vs. Real Personal Income Excl. Current Transfer Receipts (YoY % Change) – Q1 2018 to Q1 2021





Consumer liquidity was also bolstered by record numbers of mortgage refinances

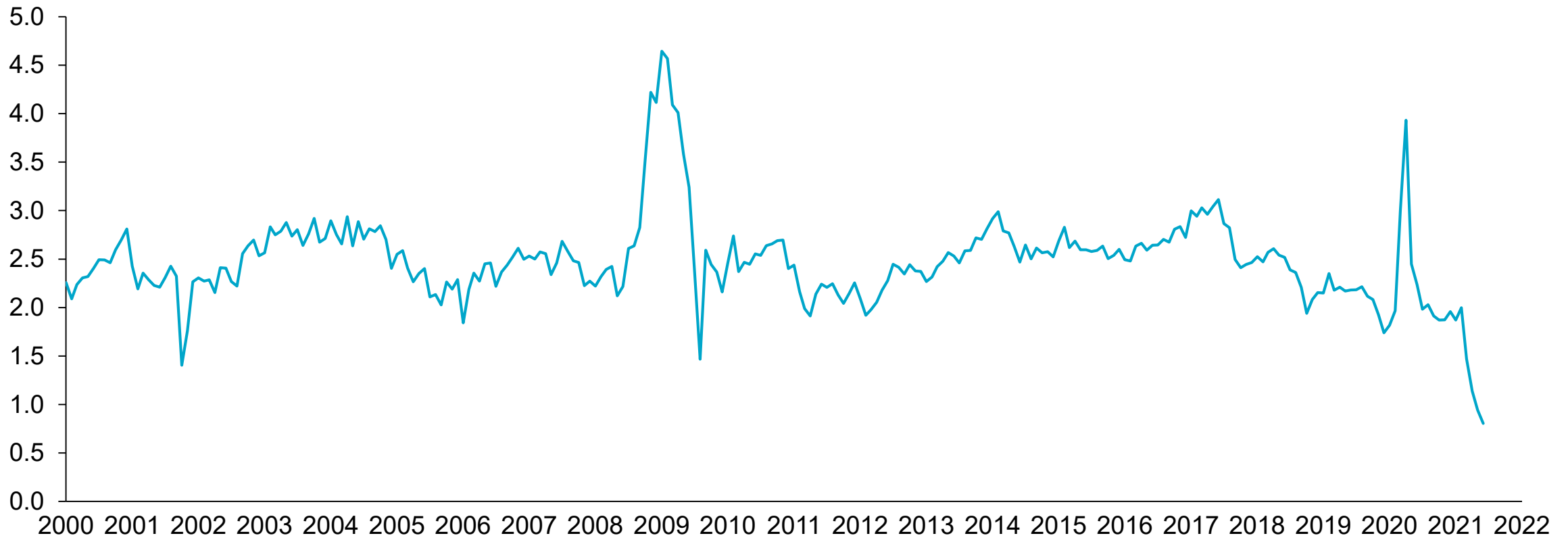
Total Count of Mortgage Refi Loan Originations – Q1 2018 to Q1 2021



Headwinds have emerged – inventories are historically low due to supply chain issues which are expected to persist into 2022



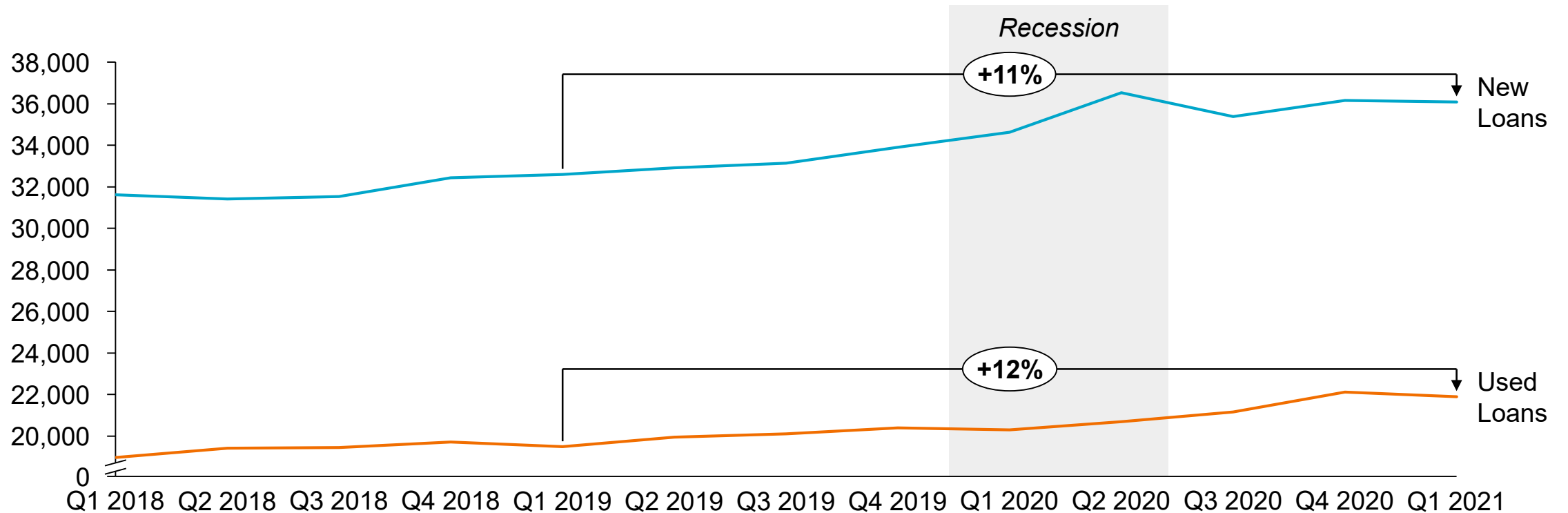
Auto Inventory / Sales Ratio – January 2000 to June 2021





Tight inventories exacerbate the trends of higher new and used vehicle amount financed

Avg. Amount Financed (Loans) – Q1 2017 to Q1 2021



In the face of a changing auto finance market, we set out to answer the following questions

- 1 Did the consumers' changing liquidity impact auto loan originations?
- 2 Did record numbers of mortgage refinances enable more auto loans?
- 3 Are “new to auto” consumers a major factor adding to originations?
- 4 With tight inventories, is pent-up demand building in 2021?

Impact on Auto Loan Originations

To better understand origination drivers, we studied credit attributes for consumers who did and did not originate auto loans



Sample	<i>2 Quarter Observations</i>	<ul style="list-style-type: none">• A risk tier weighted stratified random sample of roughly 2M consumers was selected for each of the 9 two quarter cohorts Q4 2018 – Q1 2019 through Q4 2020 – Q1 2021• Consumers with purchase propensity scores below 50 were excluded
Segments	<i>Observed 2nd Quarter</i>	<ul style="list-style-type: none">• Segment 1 - Originated Auto trades in the following quarter• Segment 2 - Did not originate Auto trade in the following quarter
Profiling	<i>Observed 1st Quarter</i>	<ul style="list-style-type: none">• Liquidity attributes• Mortgage refi behavior• New to Auto indicator• Pent up demand attributes• Purchase propensity score (per TU model)



We identified legacy and CreditVision trended attributes in the consumer credit file to help find answers

Question

Attribute used to answer question

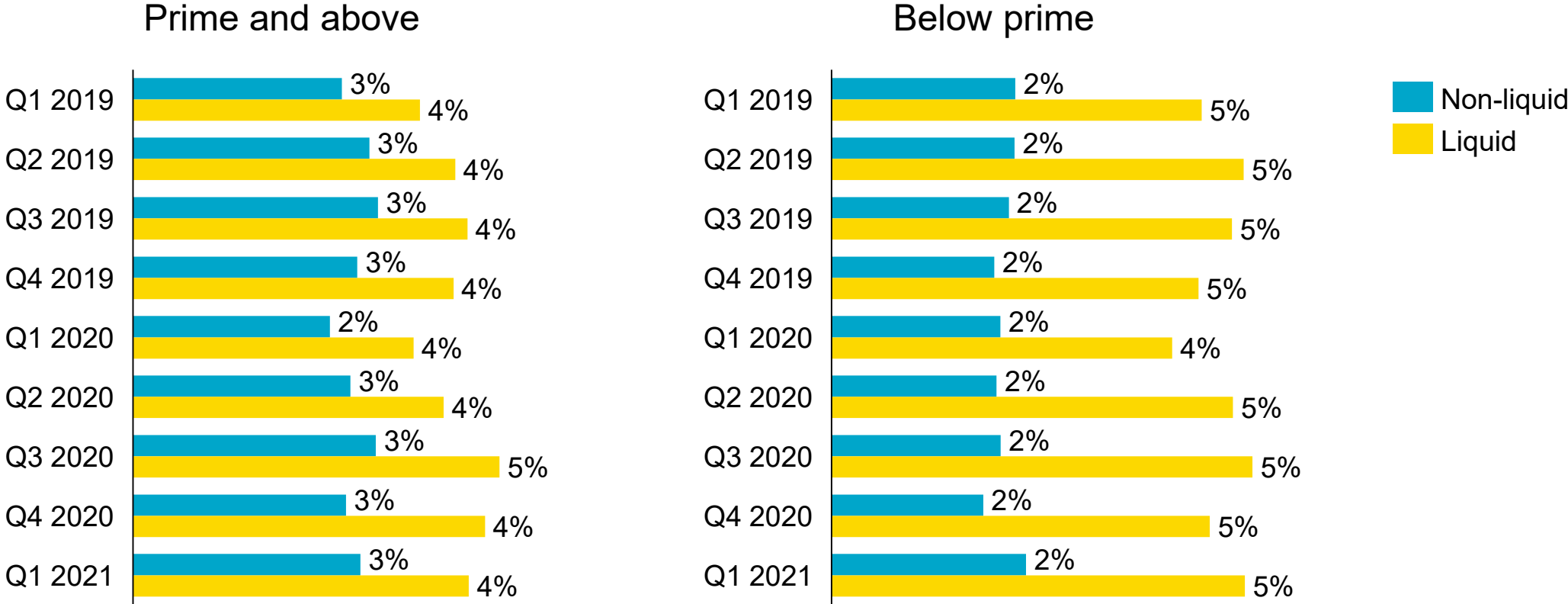
- | Question | Attribute used to answer question |
|--|---|
| 1 Did the consumers' changing liquidity impact auto loan originations? | <ul style="list-style-type: none">Average aggregate excess payments (AEP) within the prior quarter > 90th percentile are "liquid"¹ |
| 2 Did record numbers of mortgage refinances enable more auto loans? | <ul style="list-style-type: none">Mortgage refinance within the prior quarter |
| 3 Are "new to auto" consumers a major factor adding to originations? | <ul style="list-style-type: none">Number of open and closed auto trades = 0 |
| 4 With tight inventories, is pent-up demand building in 2021? | <ul style="list-style-type: none">Average months since latest auto trade was opened |

1. 90th percentile is fixed on the base cohort measured as of Q4 2018



Liquidity is predictive of future auto originations for both prime and above and below prime

Auto loan and lease origination rate for liquid vs. non-liquid



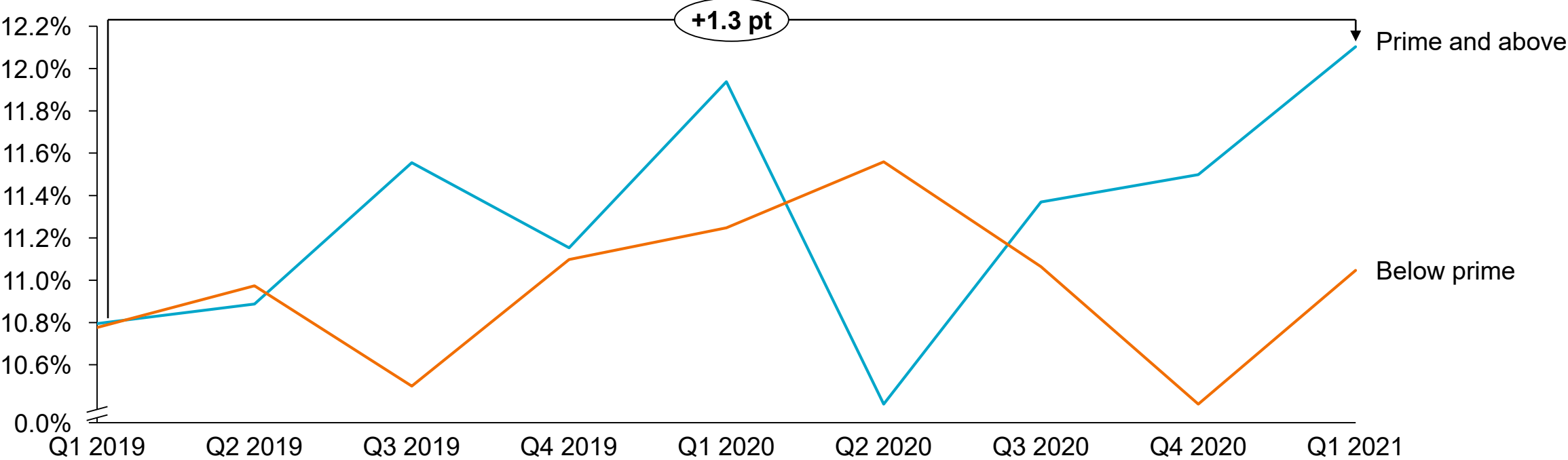
VantageScore® 4.0 risk ranges
Subprime = 300-600; Near prime = 601-660; Prime = 661-720; Prime plus = 721-780; Super prime = 781+





Liquidity improved among prime and above consumers in Q3 2020, followed by a lagged below prime recovery in Q1 2021

Share of liquid consumers – Q1 2019 to Q1 2021



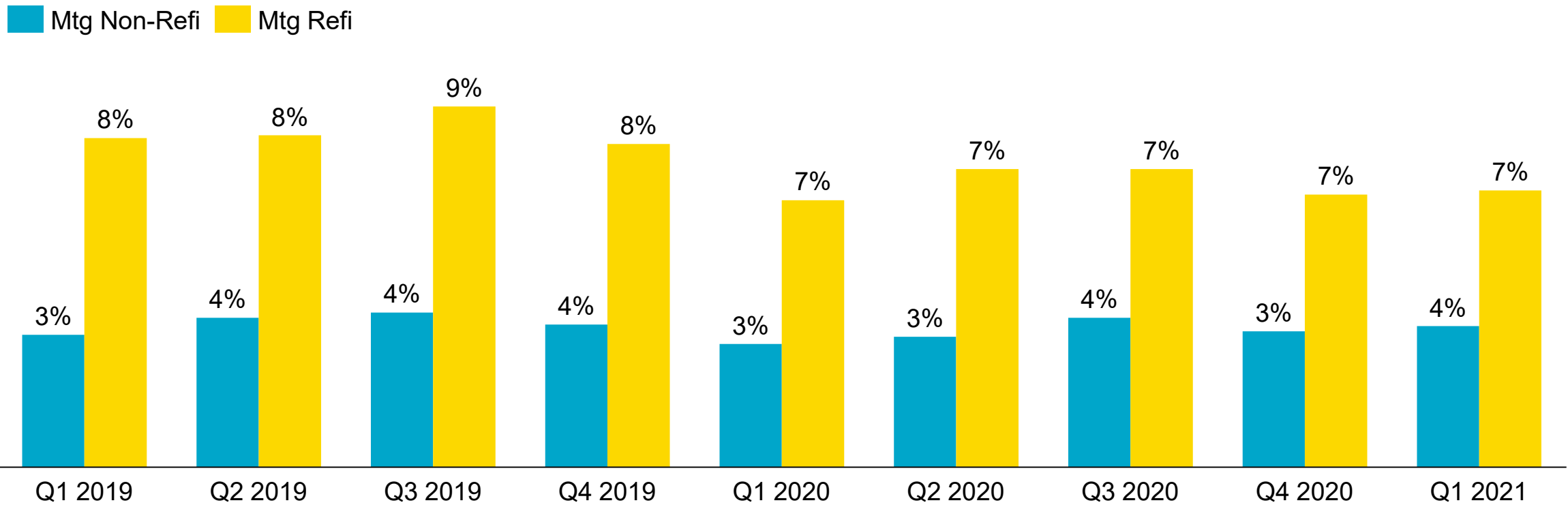
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Consumers who recently refinanced their mortgage are approximately twice as likely to originate an auto loan

Auto loan and lease origination rate for mortgage refi vs. non-refi (prime and above only)



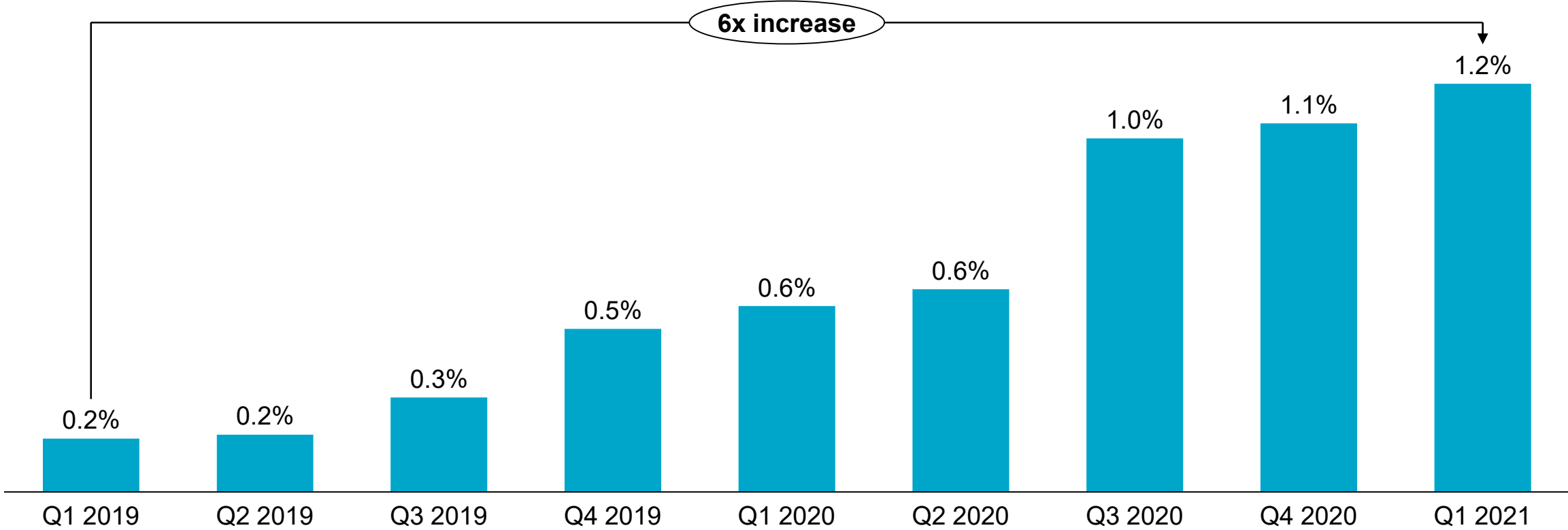
VantageScore® 4.0 risk ranges
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The share of consumers who recently refinanced a mortgage grew significantly

Percentage with mortgage refi (prime and above only)



6x increase

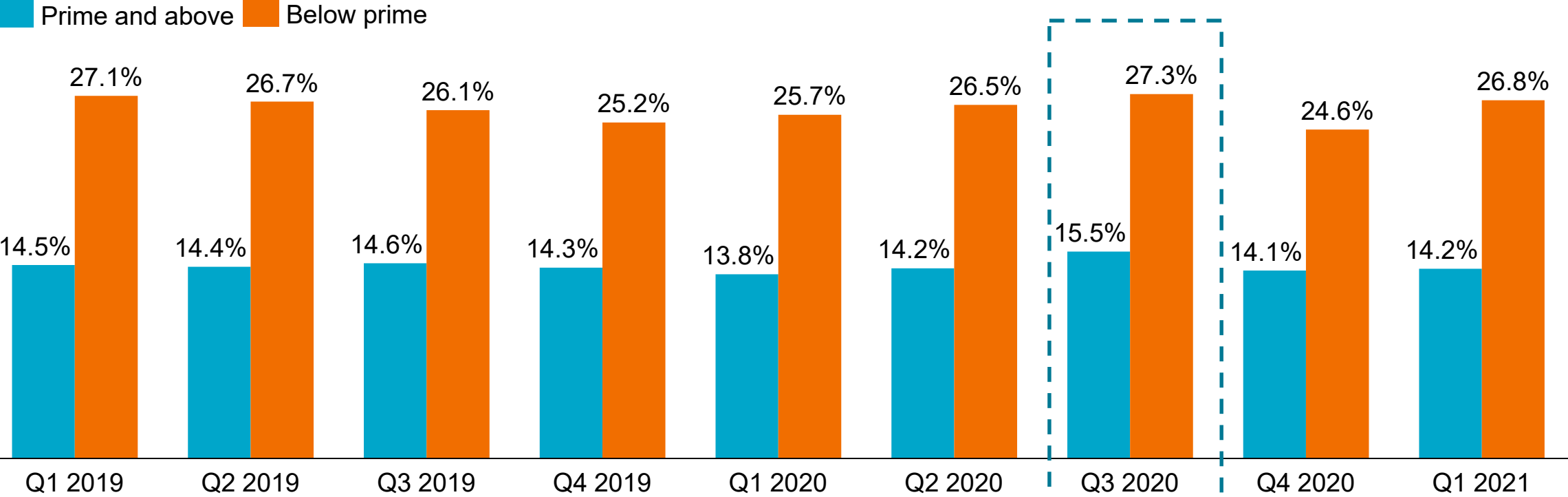
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Share of new to auto originators grew slightly in Q3 2020, but has since returned to normal

Share of new to auto of auto originations – Q1 2019 to Q1 2021



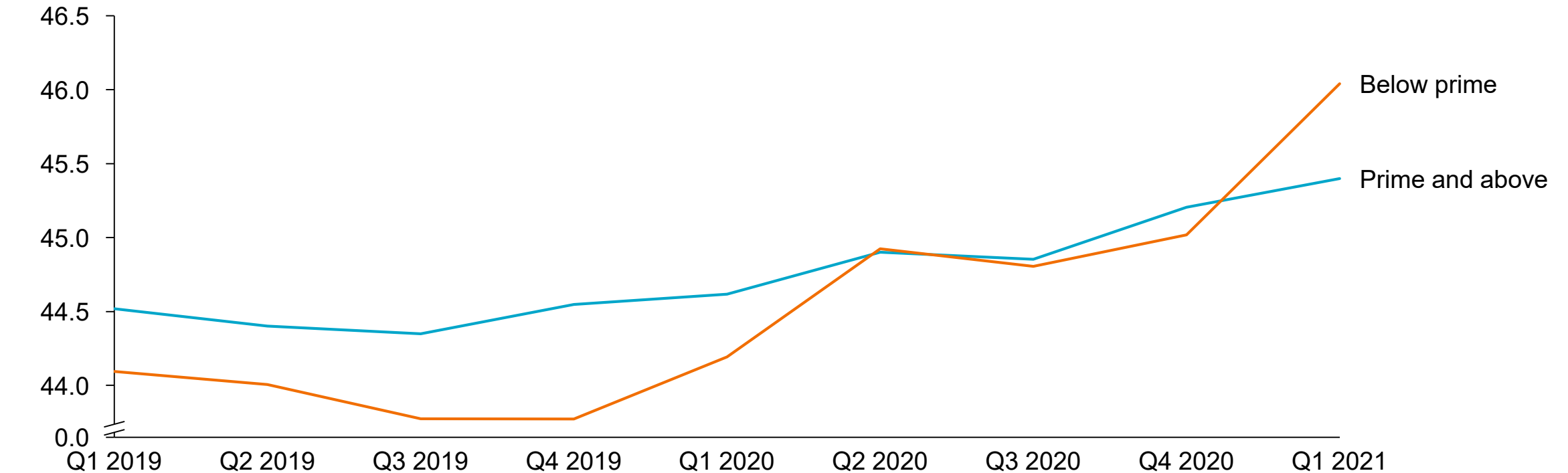
VantageScore® 4.0 risk ranges
Subprime = 300-600; Near prime = 601-660; Prime = 661-720; Prime plus = 721-780; Super prime = 781+





Pent-up demand began to build in Q1 2021 as inventories tightened

Average months since last opened auto trade – Q1 2019 to Q1 2021

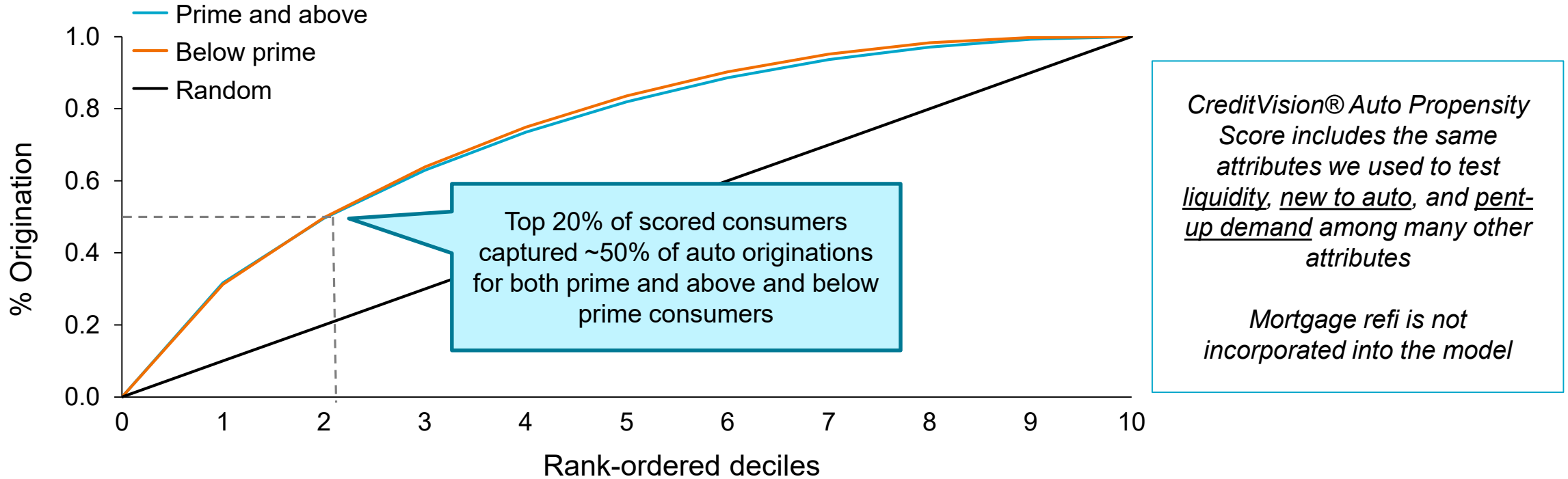


VantageScore® 4.0 risk ranges
Subprime = 300-600; Near prime = 601-660; Prime = 661-720; Prime plus = 721-780; Super prime = 781+



TransUnion's auto propensity model scored very well during the pandemic despite the changing consumer trends

CreditVision Auto Propensity Model Lift Chart – Q1 2019 to Q1 2021



Even while the underlying factors have shifted during the pandemic, propensity models continued to accurately identify consumers likely to originate in auto

VantageScore® 4.0 risk ranges
Subprime = 300-600; Near prime = 601-660; Prime = 661-720; Prime plus = 721-780; Super prime = 781+

Increased liquidity, mortgage refi, and new to auto supported originations; pent-up demand may be building

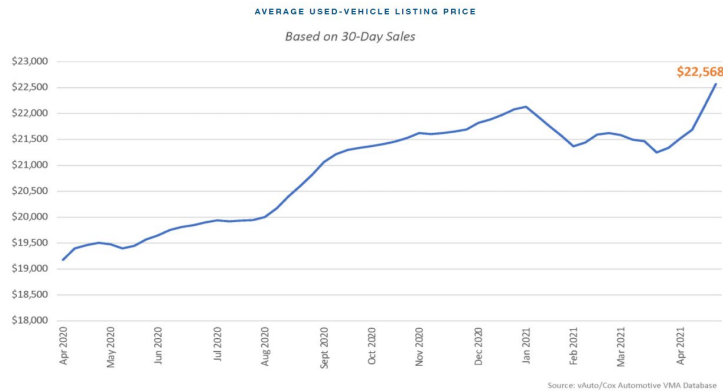
Question	Answer
1 Did the consumers' changing liquidity impact auto loan originations?	✓
2 Did record numbers of mortgage refinances enable more auto loans?	✓
3 Are "new to auto" consumers a major factor adding to originations?	✗
4 With tight inventories , is pent-up demand building in 2021?	✓

While the effects of liquidity and mortgage refi fade with tight inventories potentially restricting new originations, lenders may want to explore Auto Refinance as a growth opportunity

Auto Refinance Opportunities

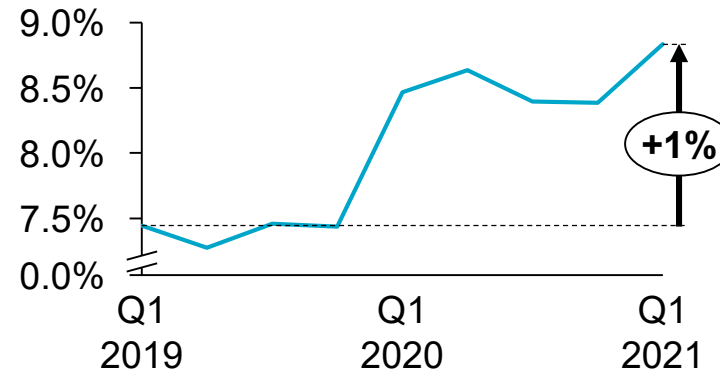
Recent trends in auto lending have created a good environment for refinance

Used auto values up



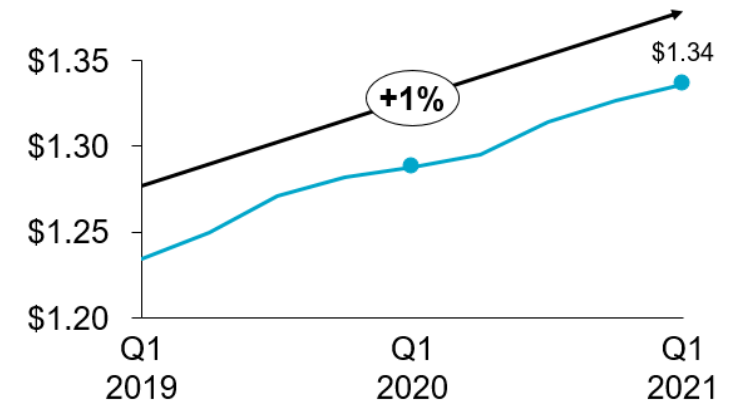
Auto pricing have increased from \$19K to \$22K from April 2020 to April 2021

Used Auto APRs spread up



Spread between average used auto loan APRs vs. 2yr UST rate has increased ~1.5% from Q1 2019 to Q1 2021

Auto loan balances up

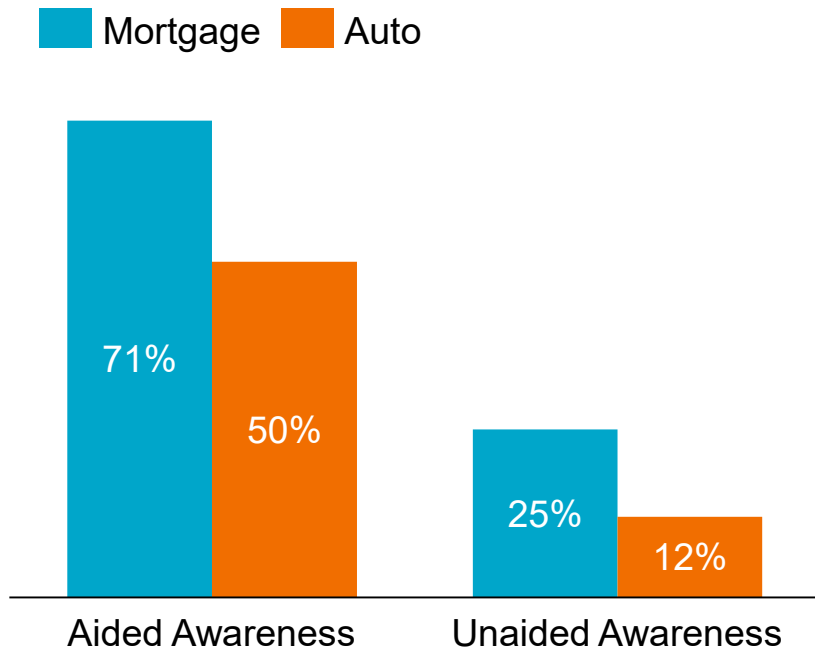


The total balances have increased by a percent from Q1 2019 to Q1 2021

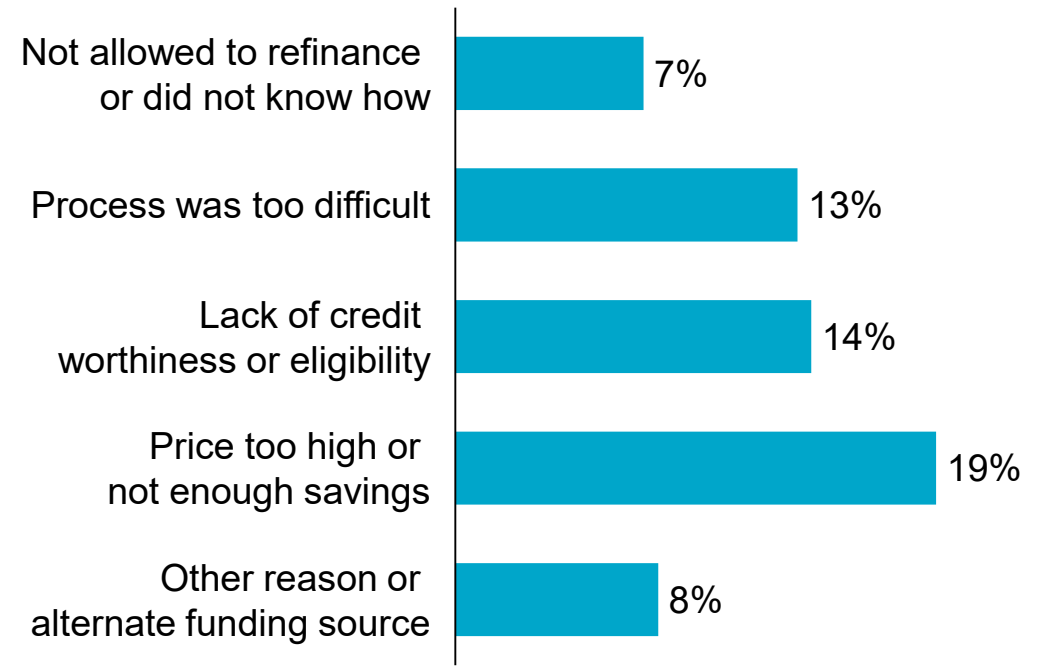


However, our consumer survey indicated that many borrowers are not aware or misinformed about auto refi opportunities

Both aided and unaided awareness of auto refinancing are lower vs. mortgage refinance



Top reasons why consumers with an auto loan who considered refinancing but decided not to

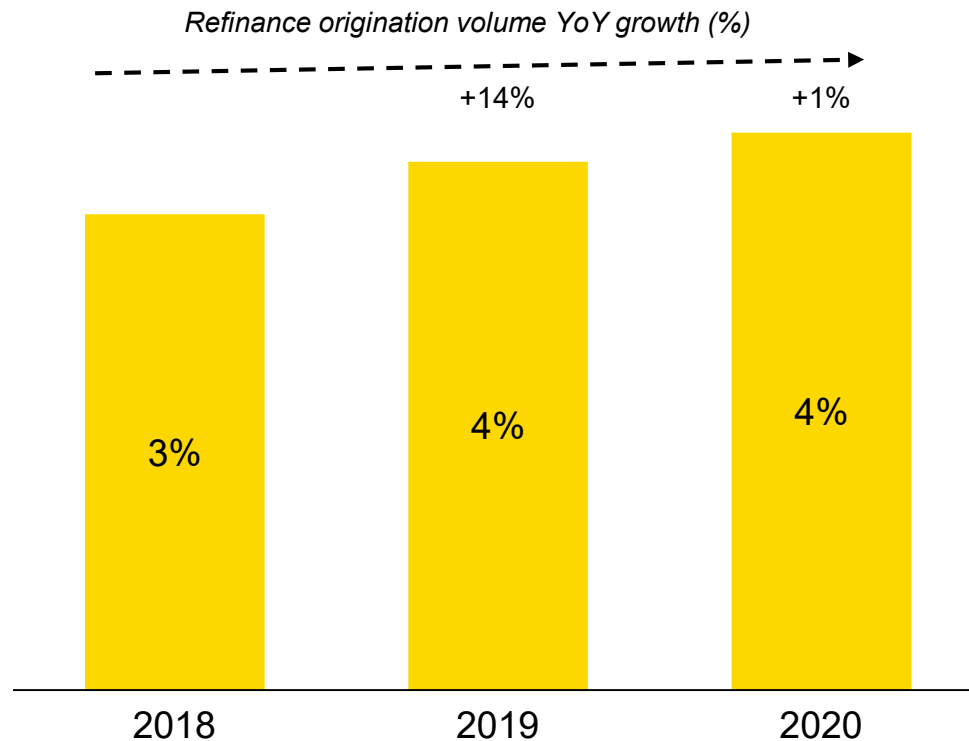


To understand the consumer dynamics of auto
refinance, we looked at auto loan refinances
originated between 2018-2020

Auto loan refinances are a small but growing segment of the auto finance market



Percent of Auto Loan Originations Used for Refi 2018 to 2020



Identifying Auto Refinance Loans

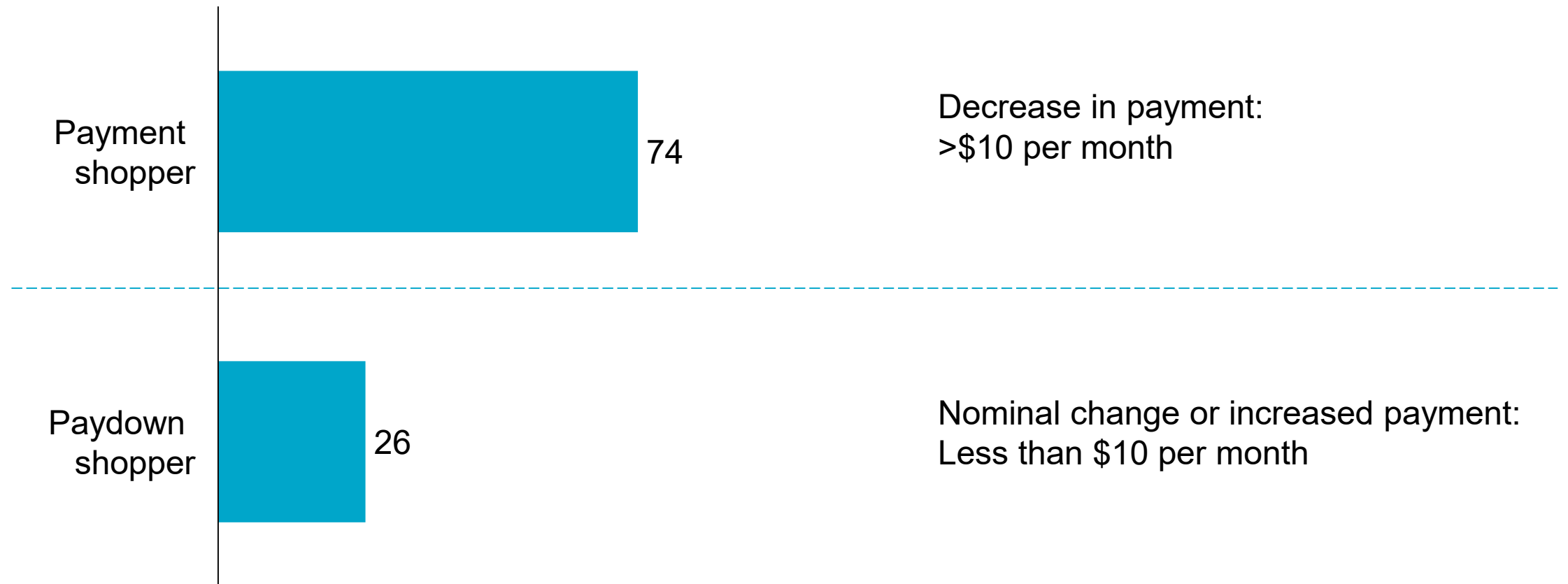
- Opened within a short period of time of the reported closure of another auto loan held by the same consumer
- and-
- Original loan amount approximately the same as the last remaining balance of the prepaid auto loan
- and-
- New loan amount of at least \$5,000
- and-
- New loan issued by a different lender



The majority of consumers who refinance their auto loans do so to reduce their monthly payments

% of Total Auto Loans Refinanced in 2020

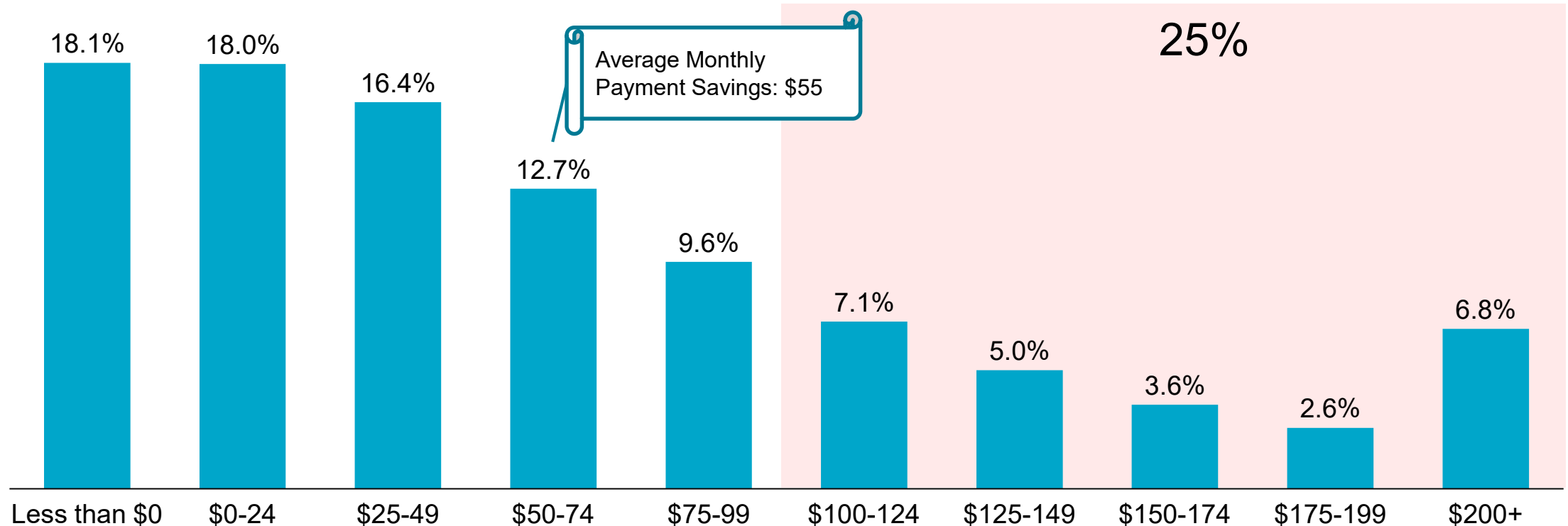
Definition





The average monthly savings in 2020 was \$55 with 25% of refinances resulting in > \$100 monthly payment savings

Distribution of Monthly Payment Savings from Auto Refinance Loans in 2020



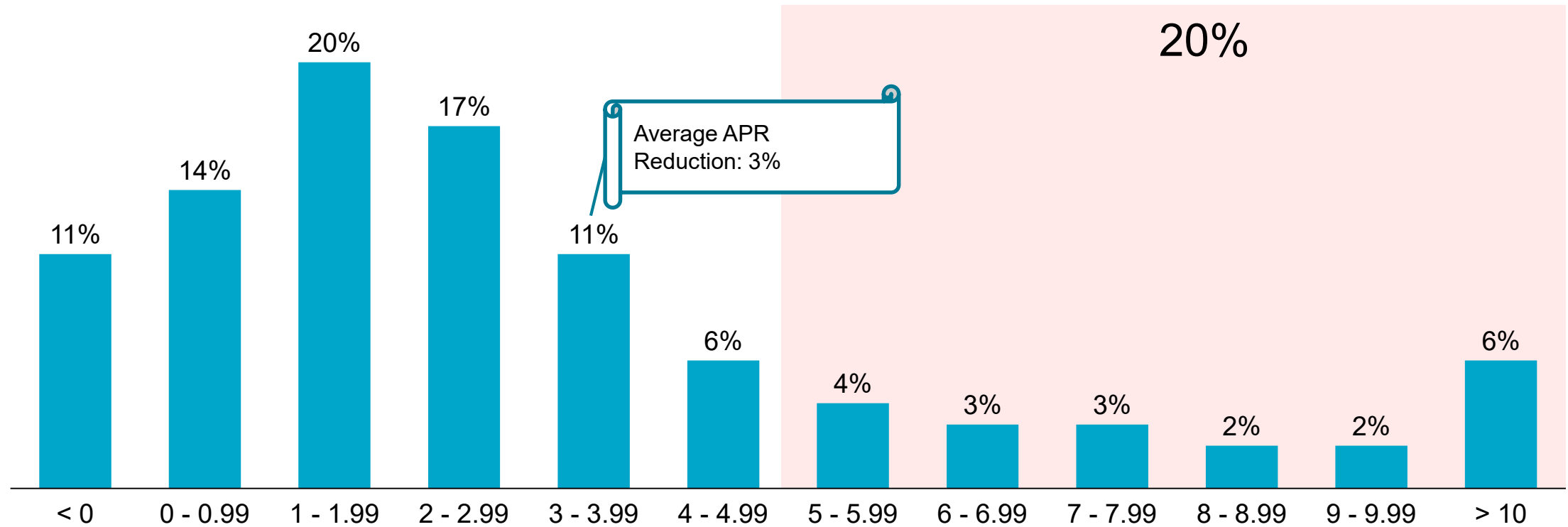
Note: Percentages don't sum to 100 due to rounding.

Source: TransUnion US consumer credit database



On average, borrowers experienced an APR reduction of 3% with 20% of refinanced auto loans seeing a reduction $\geq 5\%$

APR Reduction of Refinanced Auto Loans in 2020

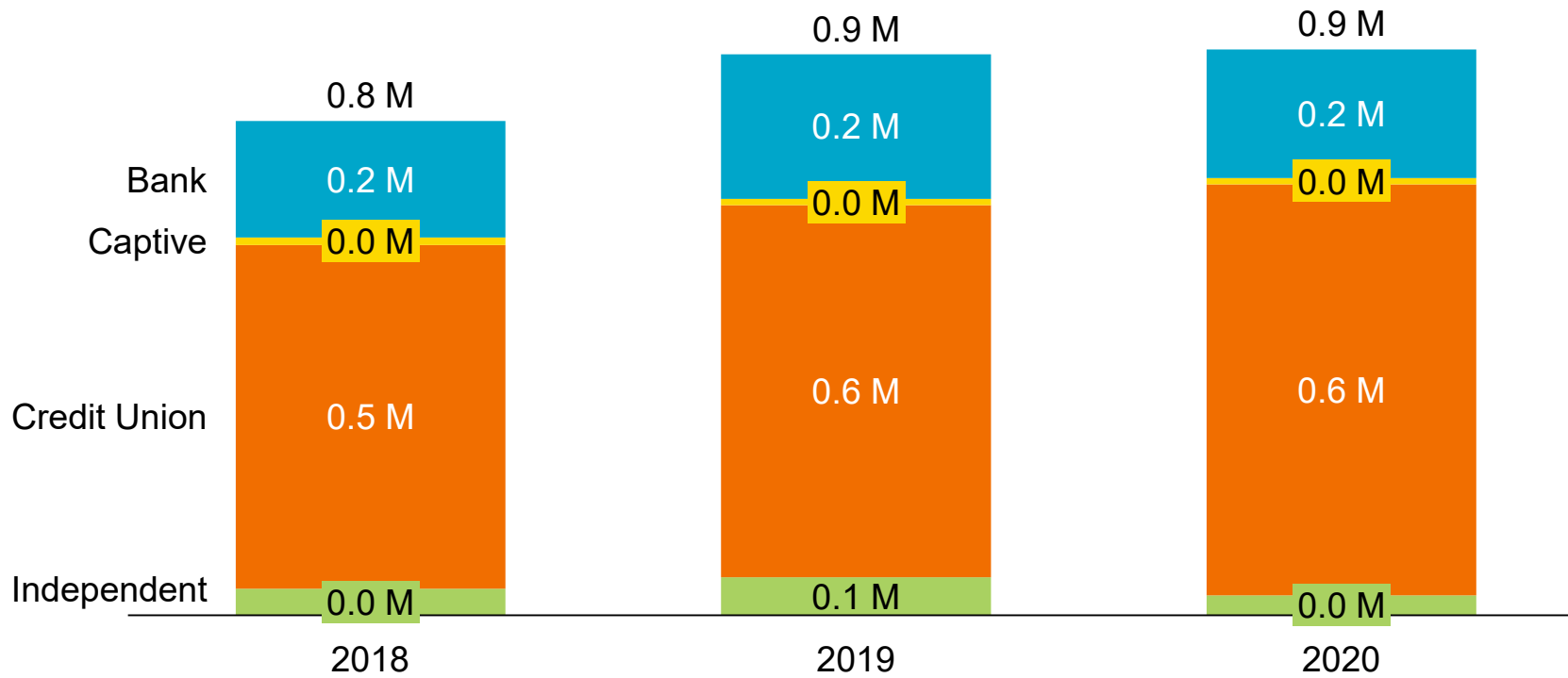


Note: Percentages don't sum to 100 due to rounding.



Credit Unions continue to capture the majority of auto refinance market share in recent years

Refinance Origination Volume by Lender Type Share



What is the refinance opportunity for auto lenders?



We considered a borrower to be “in-the-money” for a refinance if the following conditions were met

“In-the-money” condition	As defined by...
Rate reduction opportunity exists	Estimated APR was above the prevailing auto loan refinance APR* for borrower’s credit score range (e.g., prevailing refinance APR was 5.24% for a credit score between 640-699 and the borrower’s credit score was 660 and current estimated APR was 6.00%)
Current on auto loan payments	Not delinquent on auto loan (30+ DPD)
Enough balance worth refinancing	Minimum \$5000 remaining balance
Equity exists in the vehicle	Remaining loan balance was below estimated vehicle value**

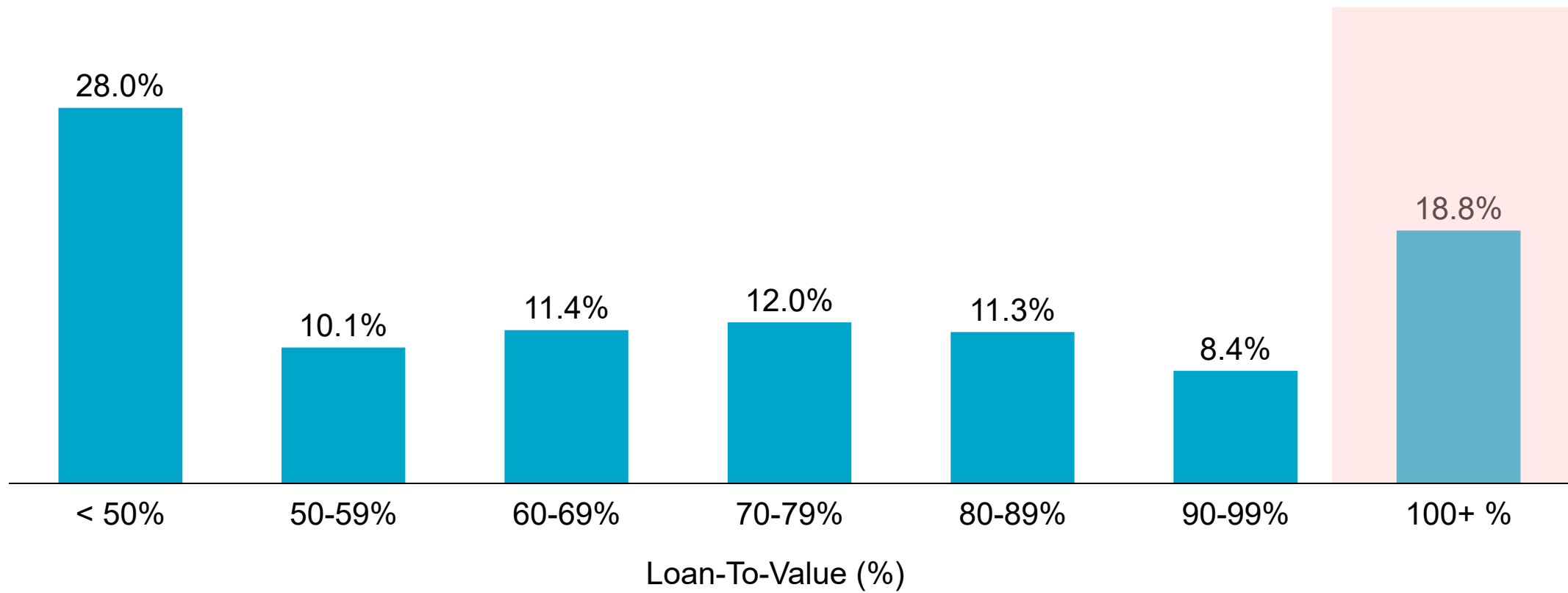
* Prevailing auto loan refinance APRs from nerdwallet.com as of June 19, 2021

** Estimated vehicle value from Kelley Blue Book as of July 1, 2021



Over 80% of new and used auto loan borrowers have positive equity in their vehicles

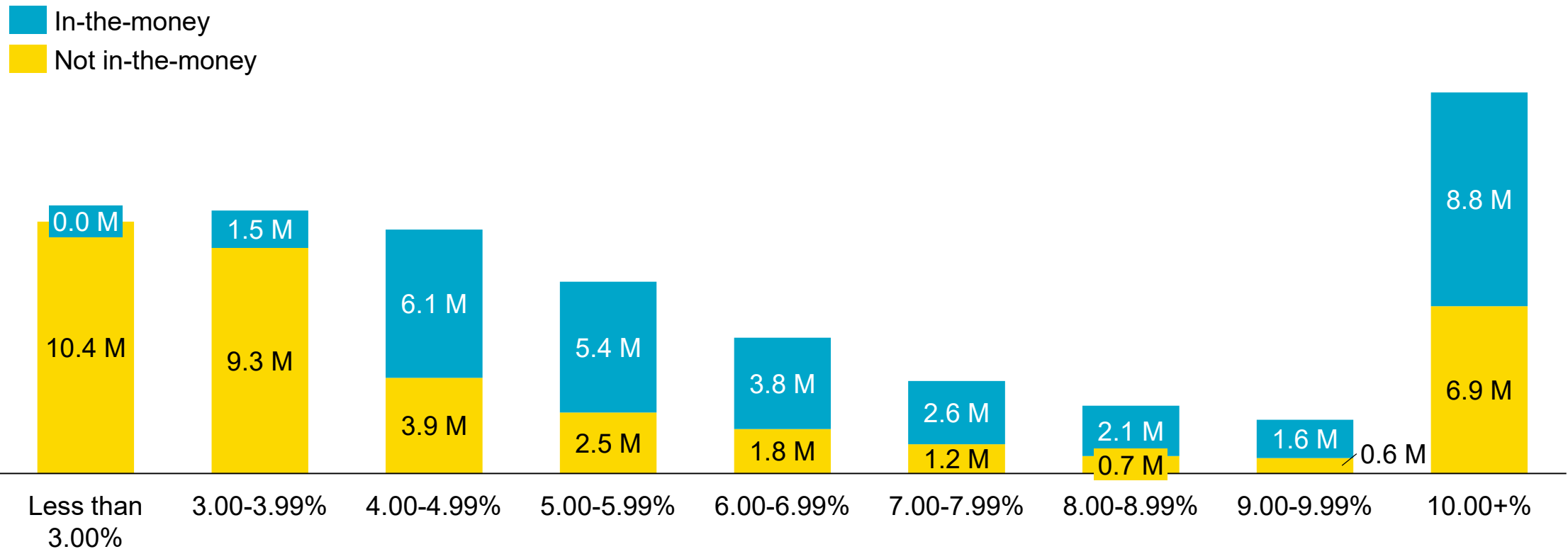
Share of New and Used Vehicles by Loan-to-Value (LTV) %





The refi market presents a large opportunity with an estimated 26M of 73M auto loans (or 36%) in-the-money

All Outstanding Auto Loans “in-the-money” by APR Range (as of June 30th, 2021)



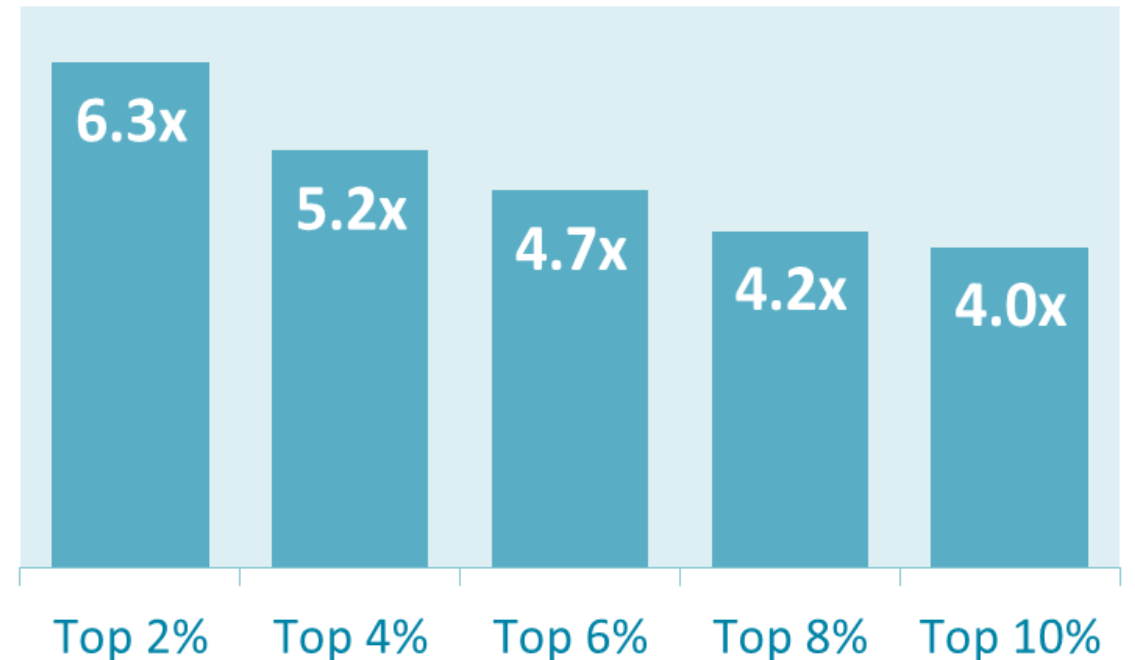


Using CreditVision, TransUnion has created a propensity model to identify those consumers most likely to refinance their auto loan

CreditVision Auto Refinance Propensity Model 2.0

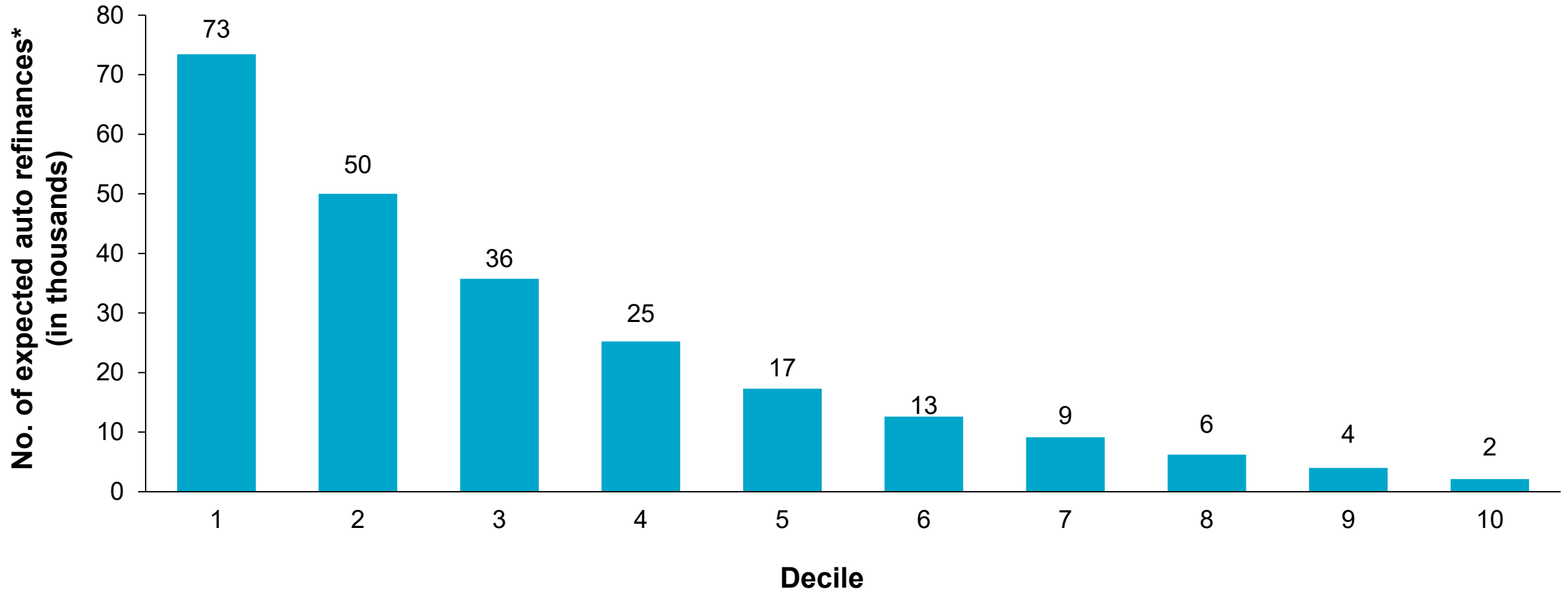
- Designed to identify consumers who will refinance their existing auto loan to one with more favorable terms within 2 – 4 months
- Incorporates CreditVision enriched credit data
- **Consumers in top 10% of the CreditVision Auto Refinance Propensity Model 2.0 range are 4–6x more likely to refinance an auto loan than the eligible population overall**

Identification Lift for Top Scoring Consumers





In the near term, we expect over 235,000 borrowers in the market for refinancing their auto loan (Jan – Feb 2022)

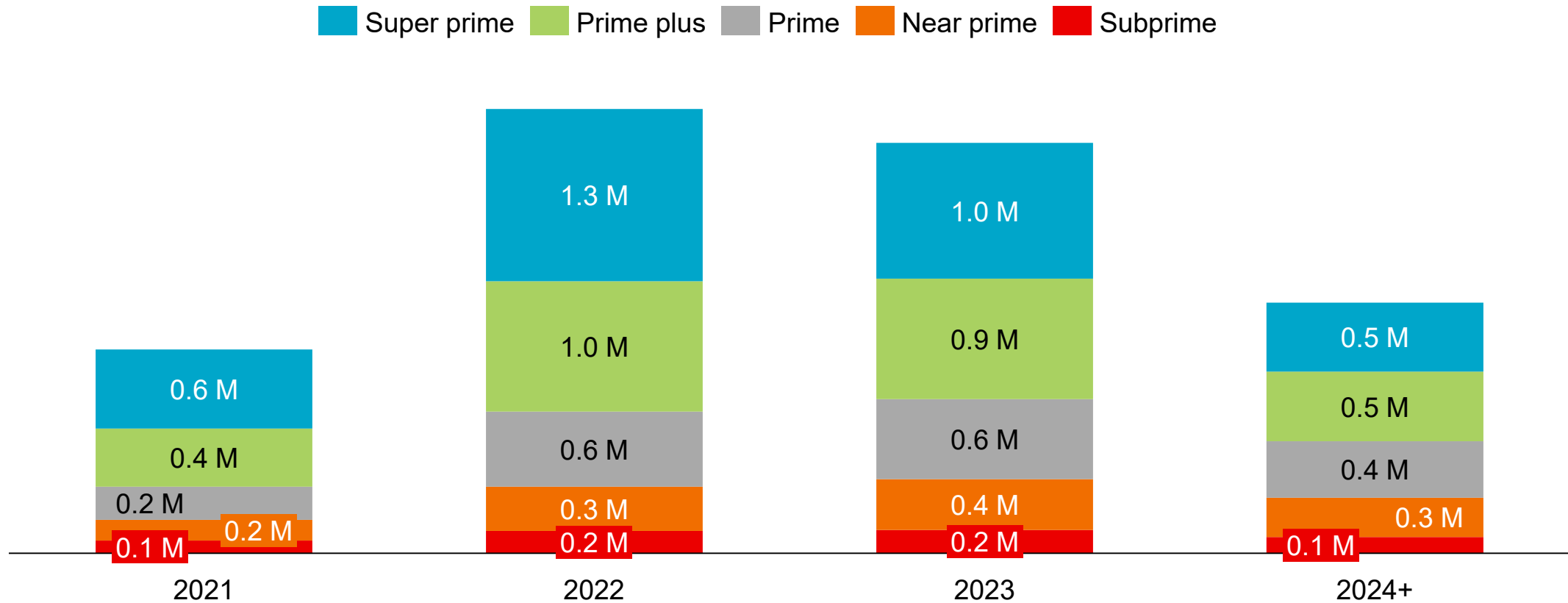


* Auto Loan Refinances expected 1/1/22 – 2/28/22



A tremendous opportunity also exists to offer financing to purchase leases with millions ending from now to 2024

Number of Auto Leases by Lease End Year and Credit Tier



VantageScore® 4.0 risk ranges

Subprime = 300-600; Near prime = 601-660; Prime = 661-720; Prime plus = 721-780; Super prime = 781+



Source: TransUnion US consumer credit database as of June 30th, 2021

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In Summary

Auto borrowers	TransUnion has	Auto lenders can
<ul style="list-style-type: none">• Are good candidates to refinance their auto loans for payment savings or paydown• Are experiencing favorable refinance conditions with low APRs and high vehicle values• However, they may not be aware or are misinformed about the opportunity	<ul style="list-style-type: none">• Examined the population of “in-the-money” auto borrowers and sized it at ~26 million• Built a propensity model with CreditVision trended data to identify consumers likely to refinance their auto loans• Estimated 200,000 borrowers in market for an auto refinance over the next 2 months	<ul style="list-style-type: none">• Target the current auto refinance consumer market immediately to increase originations using the propensity model• Refresh refinance offers over the next 12-18 months as new and used inventory challenges persist• Expand financing offers to borrowers soon to be off-lease

Thank You! Questions?

Contact:

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