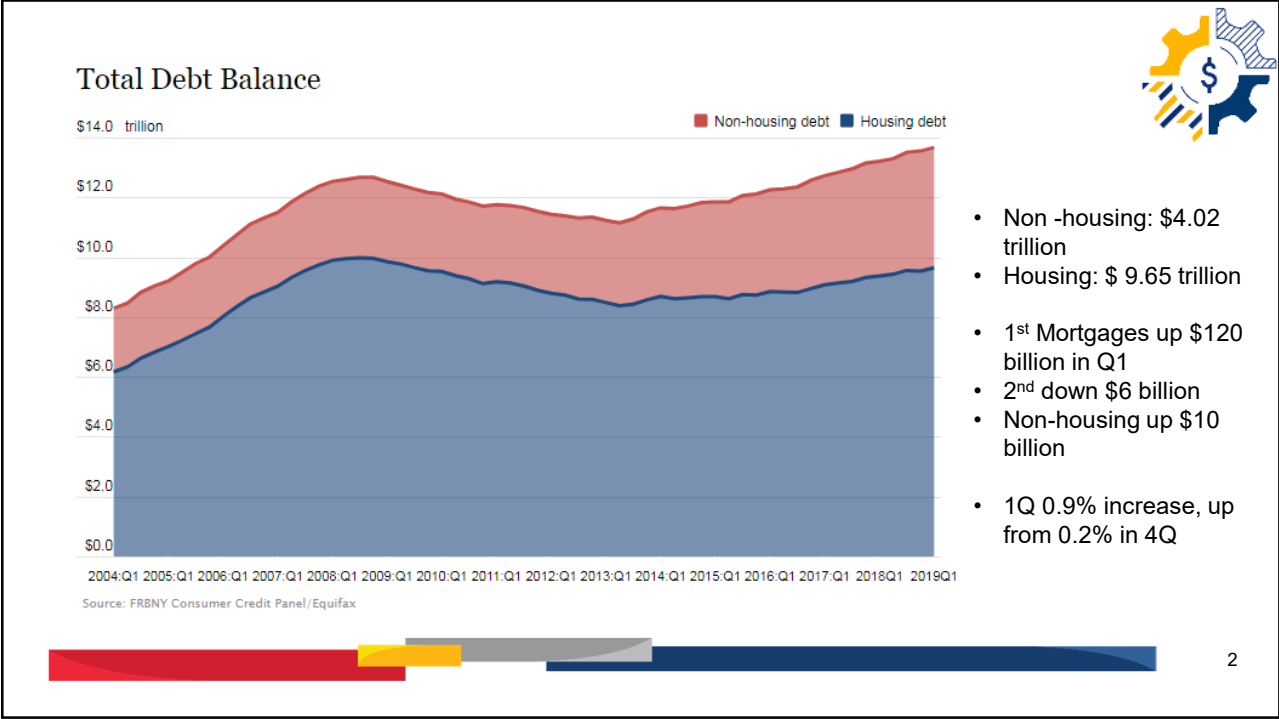


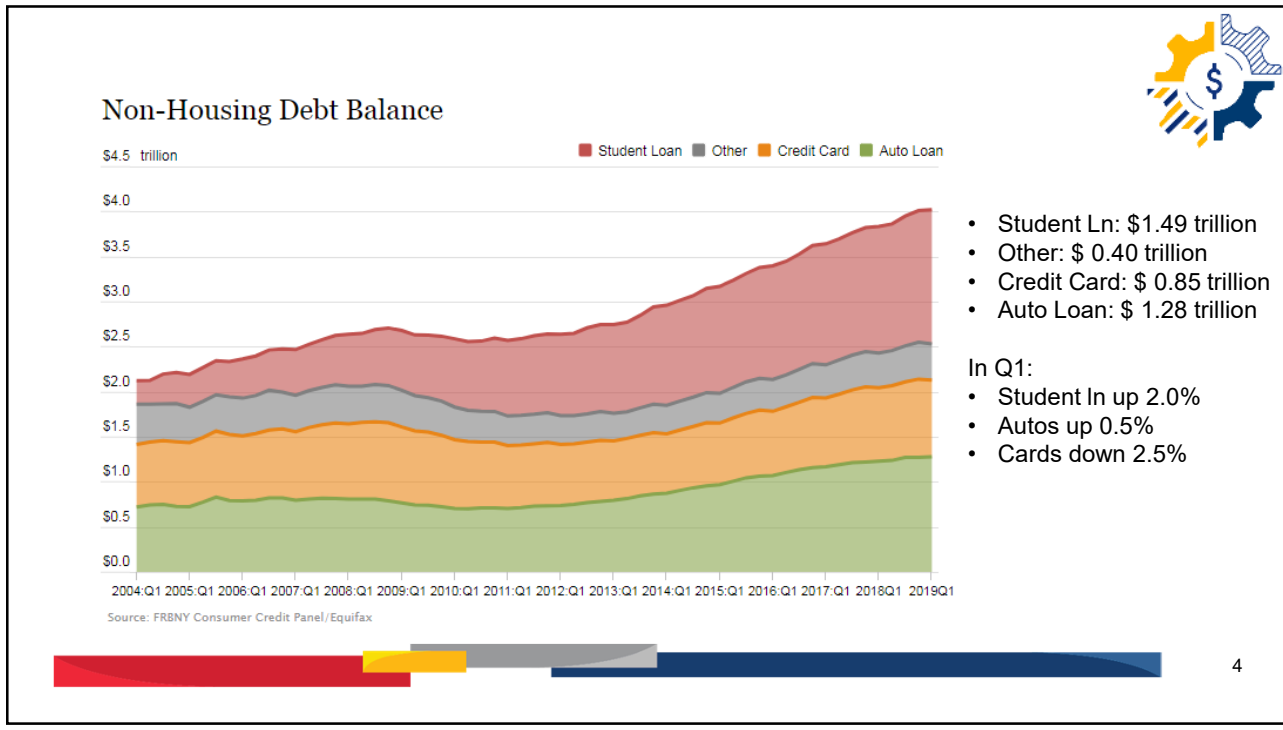
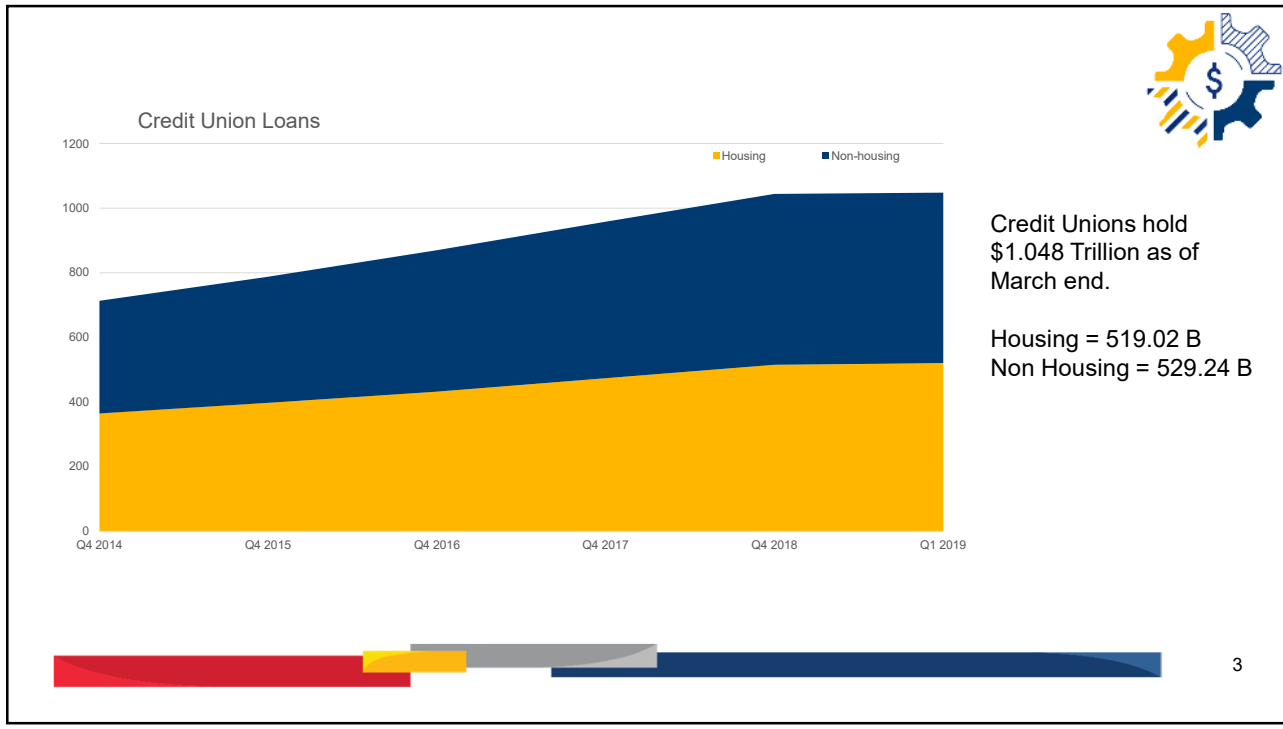


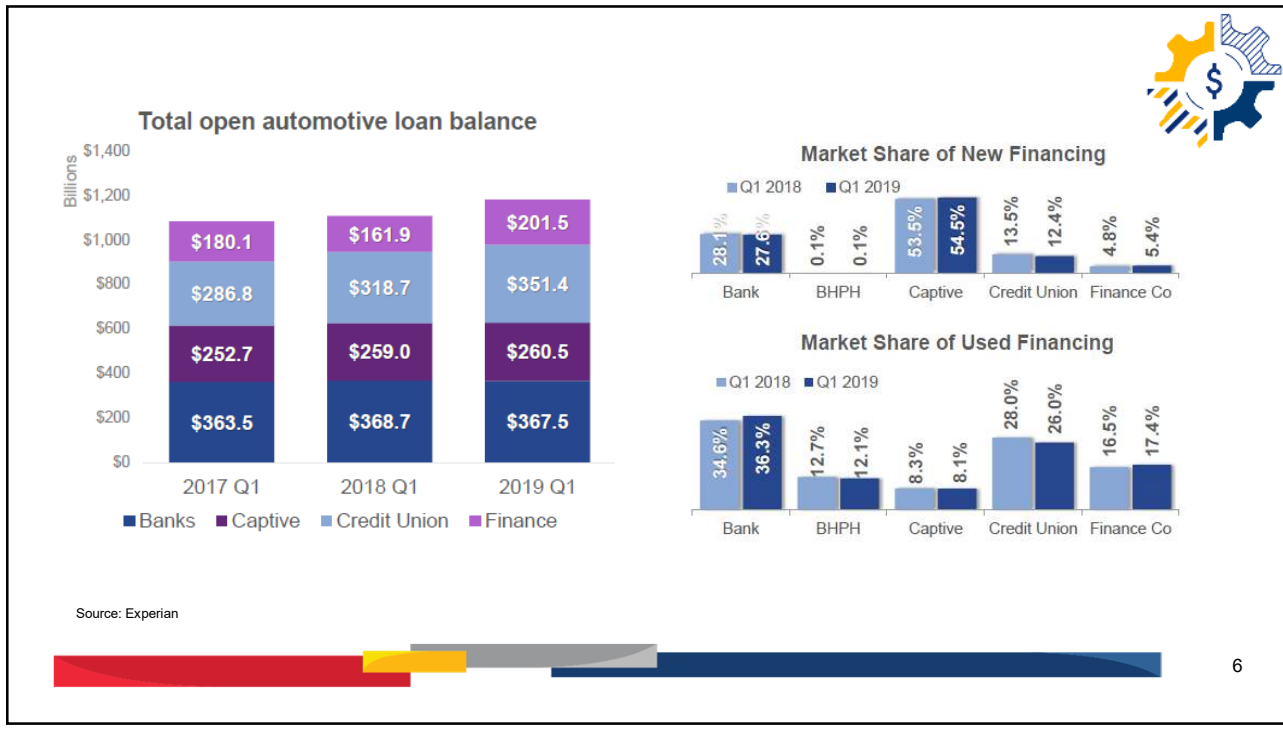
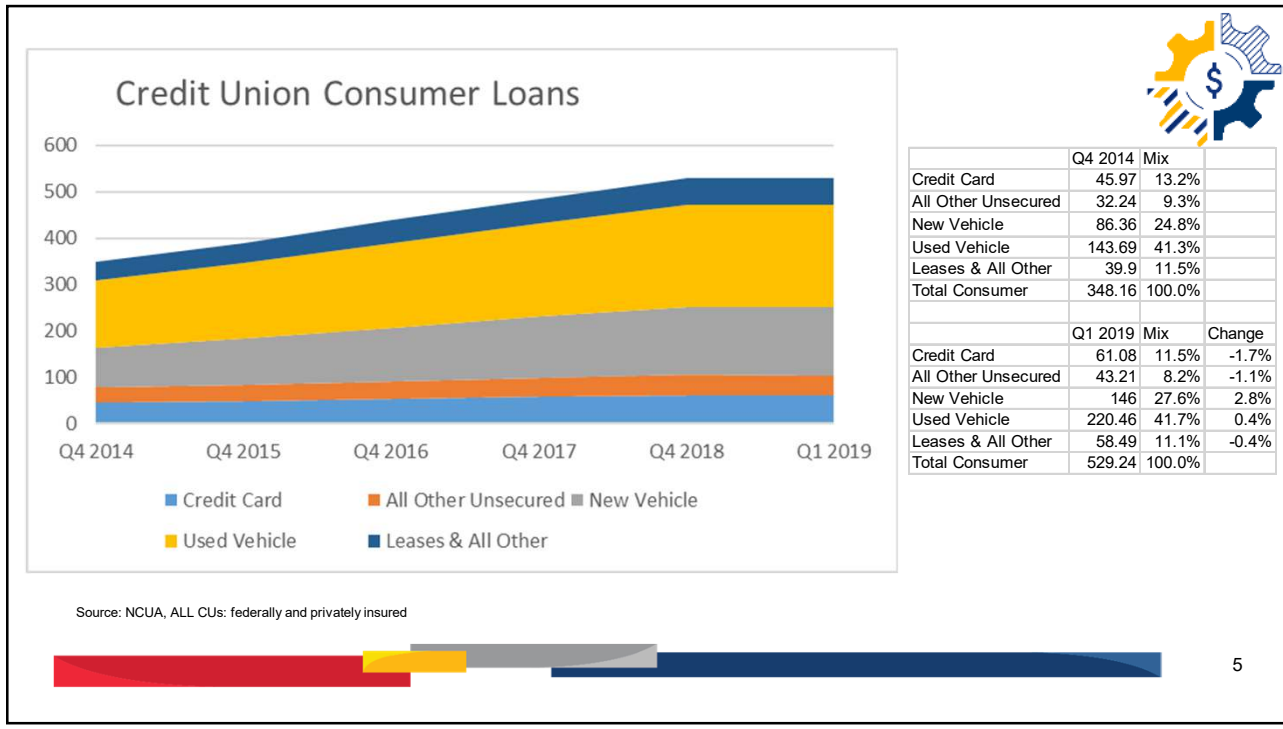

FINANCIAL STRATEGY SYMPOSIUM
 JULY 25 | LAGUNA CLIFFS
 DANA POINT, CALIFORNIA

Trends, Challenges & Implications

Aaron Martini, CTP
 Manager ALM client Services









What is the average term of a new auto?

What is the average term of a used auto?

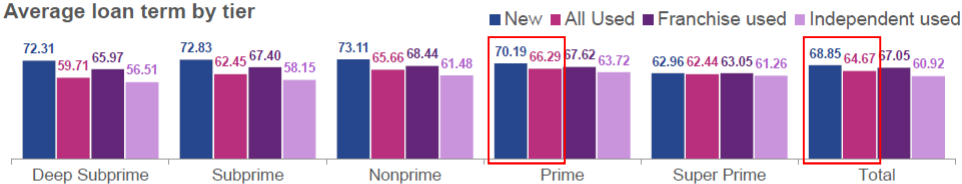


7

New loan term decreases; used terms increase



Average loan term by tier



Year-over-year change in used loan term



8



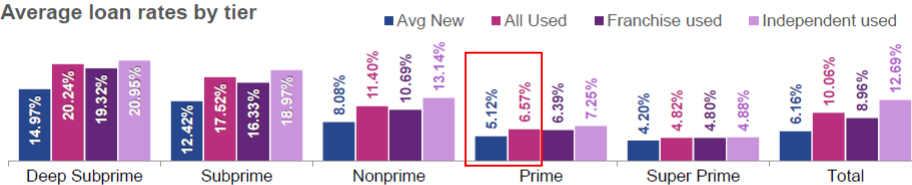
What is the average rate of a prime new auto?

What is the average rate of a prime used auto?

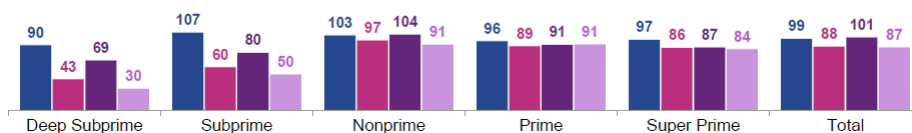


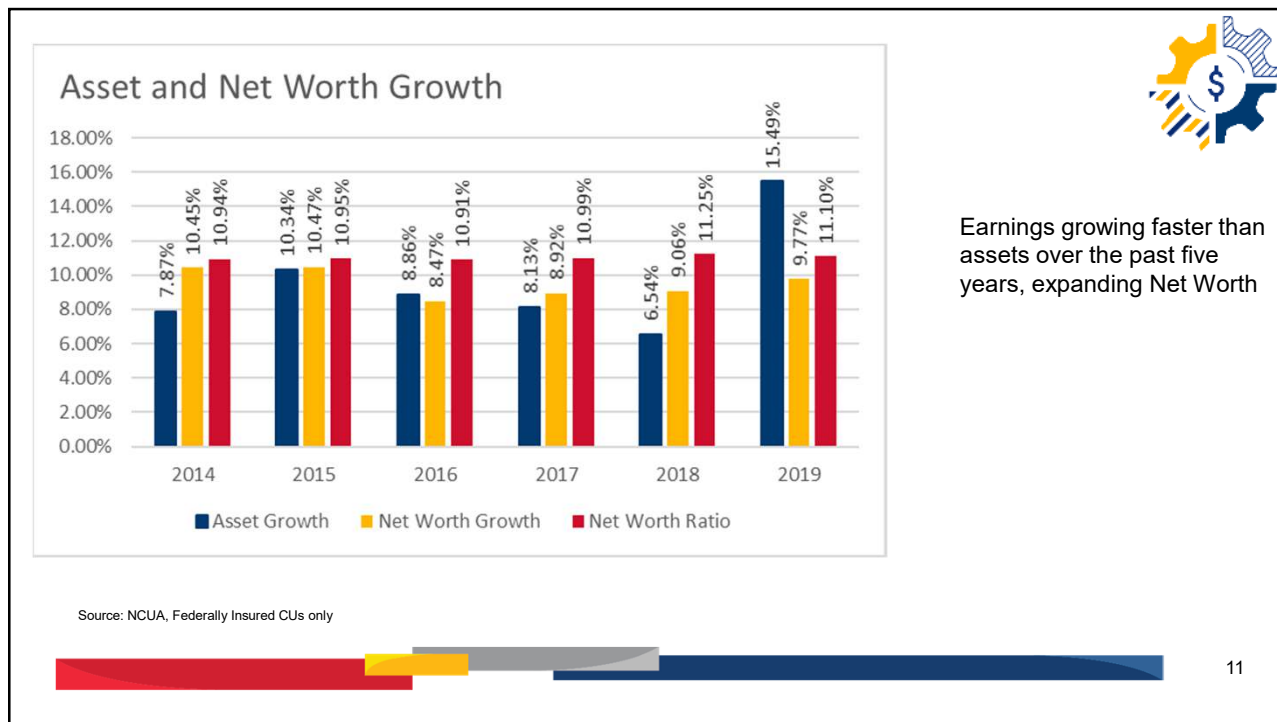
New rates remain over 6% and continue to increase across all risk segments

Average loan rates by tier




Year-over-year change (bps) in loan rate





	<\$2M	\$2-10M	\$10-50M	\$50-100M	\$100-500M	\$500M+	Total
Industry Statistics							
Average Asset Size (000s)	\$877	\$5,450	\$26,539	\$71,757	\$222,242	\$2,000,384	\$337,658
Pct of Number of Credit Unions	6.87%	15.69%	28.98%	13.29%	21.59%	13.57%	100%
Pct of Industry Assets	0.04%	0.23%	1.14%	3.08%	9.55%	85.95%	100%
GROWTH RATES							
Total Assets	1.30%	6.03%	10.09%	11.40%	13.54%	16.19%	15.41%
Total Loans	-8.20%	-1.86%	0.08%	-0.69%	0.86%	3.33%	2.77%
Total Shares	2.41%	6.79%	11.04%	12.32%	14.93%	19.69%	18.37%
Net Worth	-1.49%	1.69%	4.67%	5.14%	6.55%	10.29%	9.29%
CAPITAL ADEQUACY							
Net Worth Ratio	18.73%	15.73%	12.85%	11.76%	11.20%	11.02%	11.15%
Equity Capital Ratio	18.67%	15.67%	12.73%	11.55%	10.90%	10.74%	10.87%
Capital Ratio	20.00%	16.35%	13.21%	12.02%	11.45%	11.38%	11.48%

Source: NCUA, ALL CUs: federally and privately insured



12



	<\$2M	\$2-10M	\$10-50M	\$50-100M	\$100-500M	\$500M+	Total
BALANCE SHEET COMPOSITION							
Loans/Assets	46.45%	49.76%	49.62%	54.22%	62.35%	68.06%	66.39%
Vehicle Loans/Net Loans	69.04%	66.81%	48.71%	41.66%	41.69%	35.20%	36.55%
RE Loans/Net Loans	2.08%	8.70%	33.15%	42.09%	43.27%	52.83%	50.82%
1st Mtg Loans/Net Loans	1.89%	5.47%	24.53%	32.83%	33.92%	43.91%	41.85%
Commercial Loans/Net Loans	0.09%	1.68%	2.25%	6.13%	7.92%	9.92%	9.40%
LIQUIDITY POSITION							
Cash & Short-Term Invs/Assets	37.84%	27.80%	22.39%	19.75%	14.47%	13.17%	13.79%
Borr. & NM Deposits/Shares & Liab.	90.91%	84.56%	82.69%	78.51%	76.59%	72.54%	73.54%
Net Liquid Assets/Shares & Liab.	36.94%	25.19%	25.05%	25.25%	22.18%	23.01%	23.01%
Net Long-term Assets/Assets	3.42%	7.87%	19.92%	26.35%	33.26%	41.93%	39.66%
LOAN QUALITY							
Delinquency Rate	3.10%	1.98%	1.15%	0.96%	0.95%	0.86%	0.89%
Net Charge-off Rate	1.89%	1.38%	0.75%	0.61%	0.53%	0.43%	0.46%
Net Charge-off Rate	1.21%	0.60%	0.40%	0.35%	0.42%	0.43%	0.43%

Source: NCUA, ALL CUs: federally and privately insured



	<\$2M	\$2-10M	\$10-50M	\$50-100M	\$100-500M	\$500M+	Total
EARNINGS							
Investment Yield	1.25%	1.82%	2.06%	2.09%	2.29%	2.47%	2.40%
Loan Yield	6.43%	5.83%	5.28%	4.95%	4.84%	4.51%	4.58%
Asset Yield	4.07%	4.12%	3.79%	3.77%	3.99%	3.95%	3.85%
Cost of Funds	0.47%	0.50%	0.43%	0.53%	0.61%	0.90%	0.74%
Gross Net Margin	3.60%	3.62%	3.36%	3.24%	3.38%	3.05%	3.11%
Provision Expense	0.65%	0.32%	0.20%	0.20%	0.28%	0.34%	0.33%
Net Interest Margin	3.53%	3.56%	3.54%	3.48%	3.73%	3.48%	3.44%
Net Operating Expense	4.00%	3.31%	3.02%	2.89%	2.99%	2.47%	2.57%
Net Income (Return on Assets)	-0.47%	0.25%	0.52%	0.59%	0.74%	1.01%	0.87%

Source: NCUA, ALL CUs: federally and privately insured



ROA							
Highest ROA - All Cus				Lowest ROA - All Cus			
ROA	Charter	CU	Region	ROA	Charter	CU	Region
31.02%	24767	UNIFIED HOMEOWNERS OF ILLINOIS	Western	-204.14%	68535	STAR	Western
23.22%	24862	THE FINEST	Eastern	-65.24%	24016	BETHANY BAPTIST CHRISTIAN	Eastern
21.05%	24863	SENECA NATION OF INDIANS	Eastern	-51.19%	24882	COMMUNITY HOPE	Western
16.96%	22314	CHOCTAW	Southern	-24.40%	6239	O. F. TOALSTON	Eastern
11.39%	24848	COMMUNITY PROMISE	Eastern	-24.05%	24336	FIRST MIAMI UNIVERSITY STUDENT	Eastern
Highest ROA - Eastern				Lowest ROA - Eastern			
ROA	Charter	CU	Region	ROA	Charter	CU	Region
23.22%	24862	THE FINEST	Eastern	-65.24%	24016	BETHANY BAPTIST CHRISTIAN	Eastern
21.05%	24863	SENECA NATION OF INDIANS	Eastern	-24.40%	6239	O. F. TOALSTON	Eastern
11.39%	24848	COMMUNITY PROMISE	Eastern	-24.05%	24336	FIRST MIAMI UNIVERSITY STUDENT	Eastern
9.27%	20157	ST. THOMAS MORE	Eastern	-18.44%	5098	CONSTELLATION	Eastern
9.27%	24823	URBAN UPBOUND	Eastern	-6.69%	22351	NBC (N.Y.) EMPLOYEES	Eastern
Highest ROA - Southern				Lowest ROA - Southern			
ROA	Charter	CU	Region	ROA	Charter	CU	Region
16.96%	22314	CHOCTAW	Southern	-22.39%	68424	CREDIT UNION SOUTH	Southern
7.13%	22005	ENGAGE	Southern	-21.72%	60261	GRAPHIC ARTS	Southern
6.07%	24898	CIVIC	Southern	-17.82%	14193	FORREST COUNTY TEACHERS	Southern
6.03%	24867	REDEEMER	Southern	-15.45%	62777	OAK POINT EMPLOYEES	Southern
5.34%	67602	CEN TEX MANUFACTURING	Southern	-14.44%	67498	ORANGE COUNTY TEACHERS	Southern
Highest ROA - Western				Lowest ROA - Western			
ROA	Charter	CU	Region	ROA	Charter	CU	Region
31.02%	24767	UNIFIED HOMEOWNERS OF ILLINOIS	Western	-204.14%	68535	STAR	Western
10.40%	10442	UNITED ADVANTAGE NW	Western	-51.19%	24882	COMMUNITY HOPE	Western
6.75%	24889	CLEAN ENERGY	Western	-23.75%	24736	PACOIMA DEVELOPMENT	Western
5.13%	3602	FROID	Western	-19.26%	24852	NORTHERN EAGLE	Western
4.10%	12608	OLATHE	Western	-14.14%	9590	ESPEECO	Western



- Crazy results
- Little CUs have unstable earnings

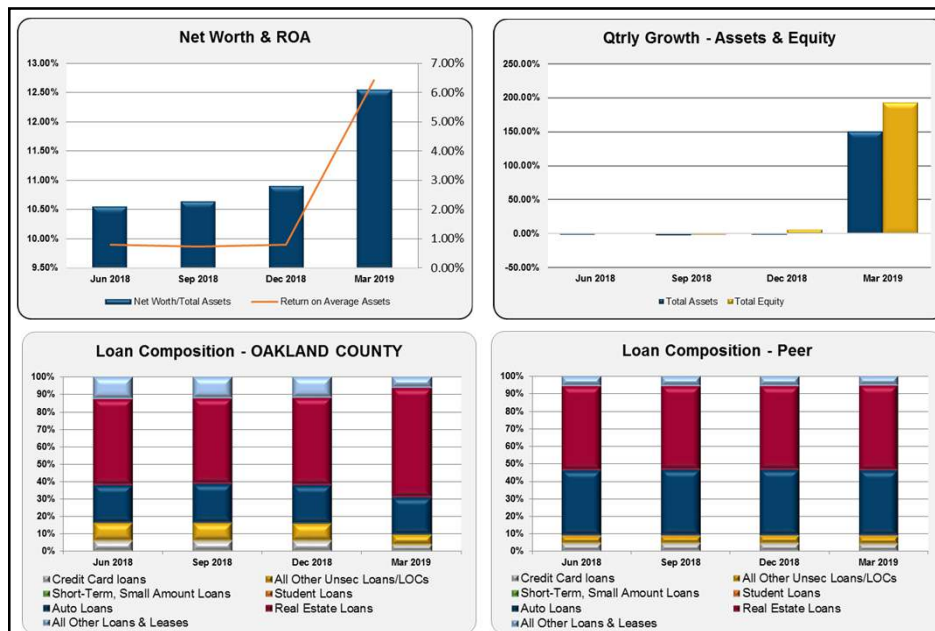


ROA							
Highest ROA - All Cus				Lowest ROA - All Cus			
ROA	Charter	CU	Region	ROA	Charter	CU	Region
6.43%		61522 OAKLAND COUNTY	Eastern	-18.44%	5098	CONSTELLATION	Eastern
5.05%		68573 EMORY ALLIANCE	Southern	-2.04%	24495	APPALACHIAN COMMUNITY	Southern
2.91%		62801 WEST COMMUNITY	Western	-1.92%	1404	NASSAU FINANCIAL	Eastern
2.64%		24563 ESL	Eastern	-0.71%	61755	FRANKENMUTH	Eastern
2.56%		8905 SUNBELT	Southern	-0.69%	68623	GCS	Western
Highest ROA - Eastern				Lowest ROA - Eastern			
ROA	Charter	CU	Region	ROA	Charter	CU	Region
6.43%		61522 OAKLAND COUNTY	Eastern	-18.44%	5098	CONSTELLATION	Eastern
2.64%		24563 ESL	Eastern	-1.92%	1404	NASSAU FINANCIAL	Eastern
2.42%		1021 FIRST FINANCIAL	Eastern	-0.71%	61755	FRANKENMUTH	Eastern
2.39%		61797 ELGA	Eastern	-0.62%	15095	PINNACLE	Eastern
2.24%		3830 MASS. INSTITUTE OF TECH.	Eastern	-0.45%	64884	GOLD	Eastern
Highest ROA - Southern				Lowest ROA - Southern			
ROA	Charter	CU	Region	ROA	Charter	CU	Region
5.05%		68573 EMORY ALLIANCE	Southern	-2.04%	24495	APPALACHIAN COMMUNITY	Southern
2.56%		8905 SUNBELT	Southern	-0.48%	60160	PIEDMONT ADVANTAGE CREDIT UNI	Southern
2.36%		67915 WESTEX COMMUNITY	Southern	-0.45%	67668	FLORIDA CENTRAL	Southern
2.25%		67521 GUARDIANS	Southern	-0.38%	404	GREATER NEW ORLEANS	Southern
2.25%		159 THREE RIVERS	Southern	-0.20%	61800	FORT MCCLELLAN	Southern
Highest ROA - Western				Lowest ROA - Western			
ROA	Charter	CU	Region	ROA	Charter	CU	Region
2.91%		62801 WEST COMMUNITY	Western	-0.69%	68623	GCS	Western
2.54%		64049 DUPACO COMMUNITY	Western	-0.68%	10790	SOLANO FIRST	Western
2.47%		65722 FREEDOM NORTHWEST	Western	-0.60%	60383	CENTRAL MISSOURI COMMUNITY	Western
2.27%		63189 WHITE EAGLE	Western	-0.60%	62031	HEARTLAND	Western
2.18%		63199 LINCOLN COUNTY	Western	-0.42%	4900	COOPERATIVE CENTER	Western



- Looking at those with at least 100 mil in assets normalizes results

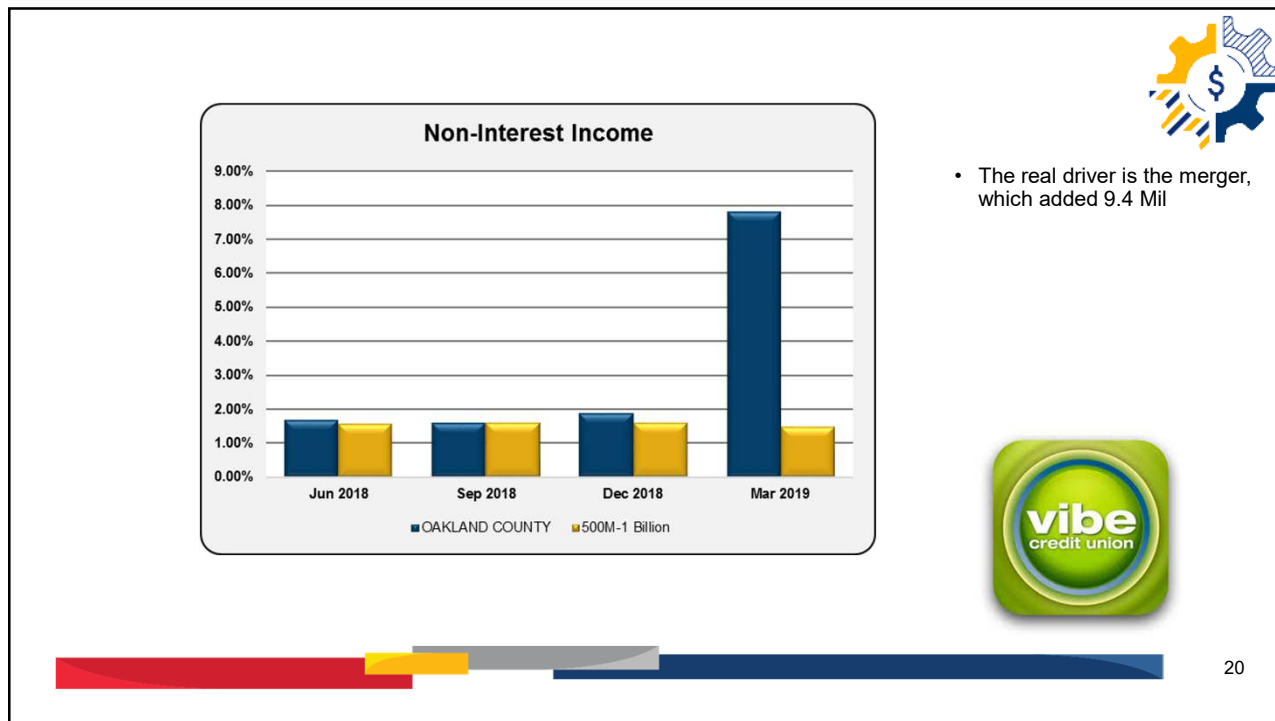
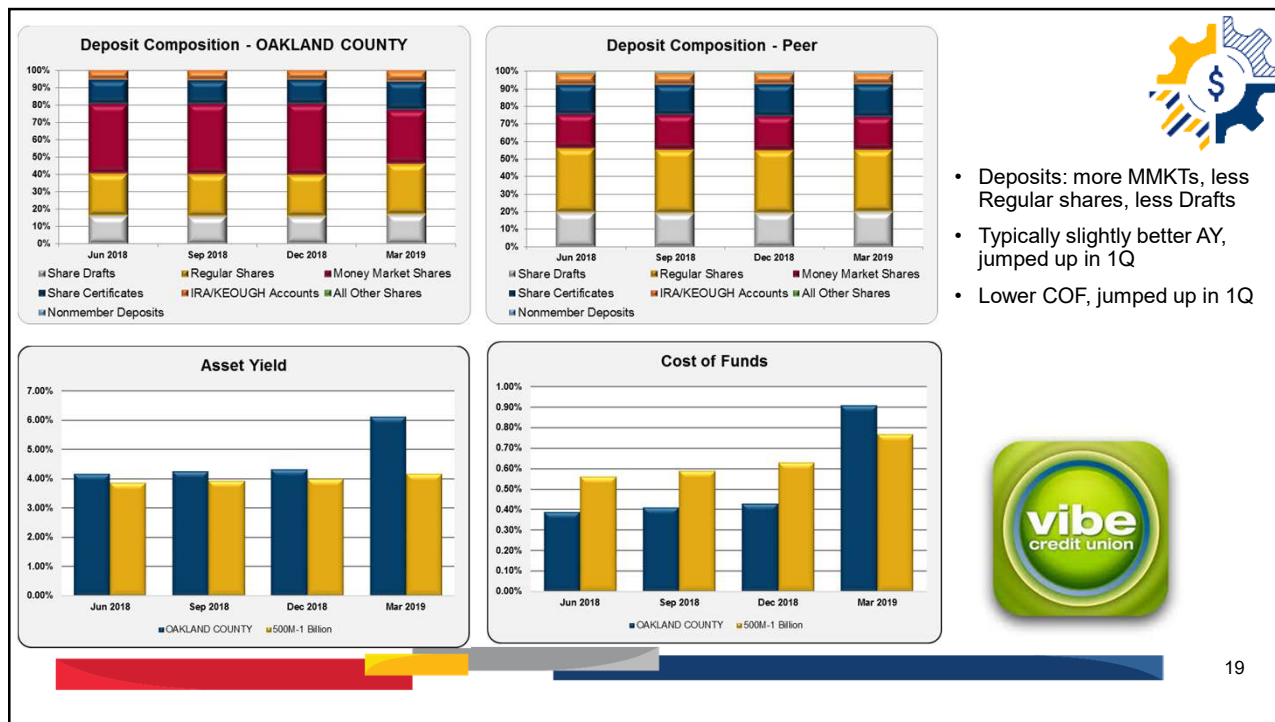
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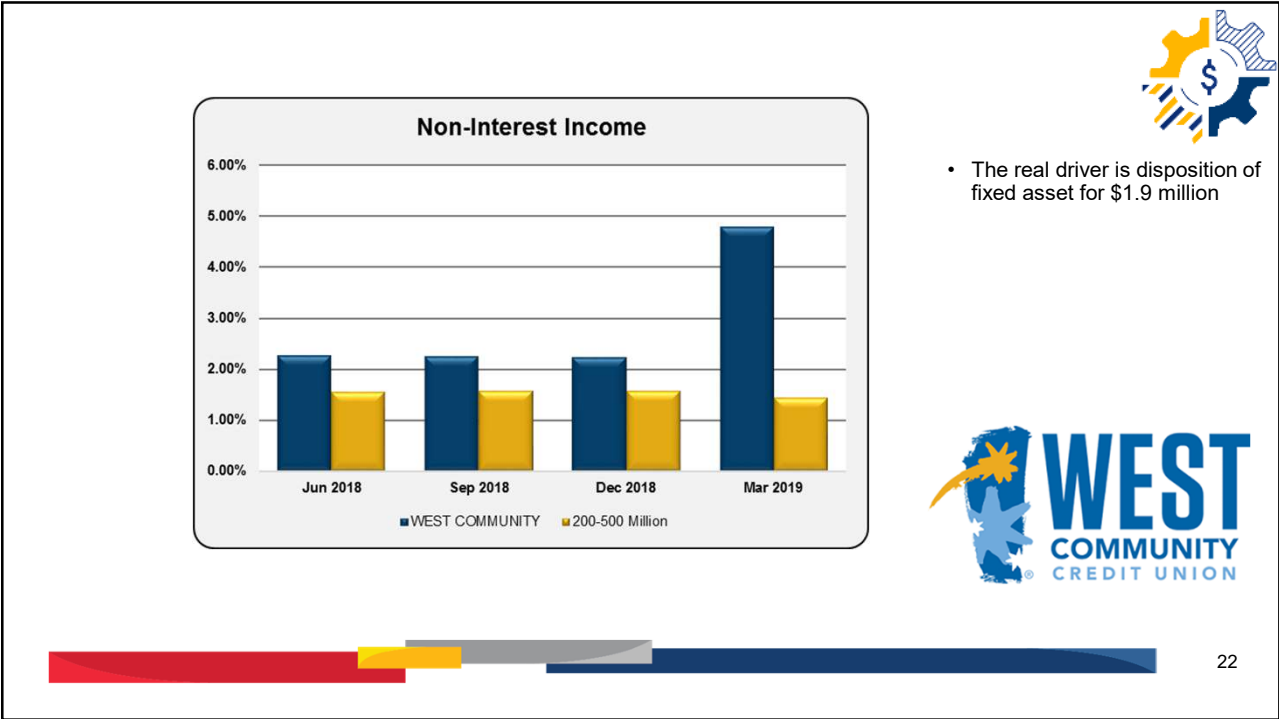
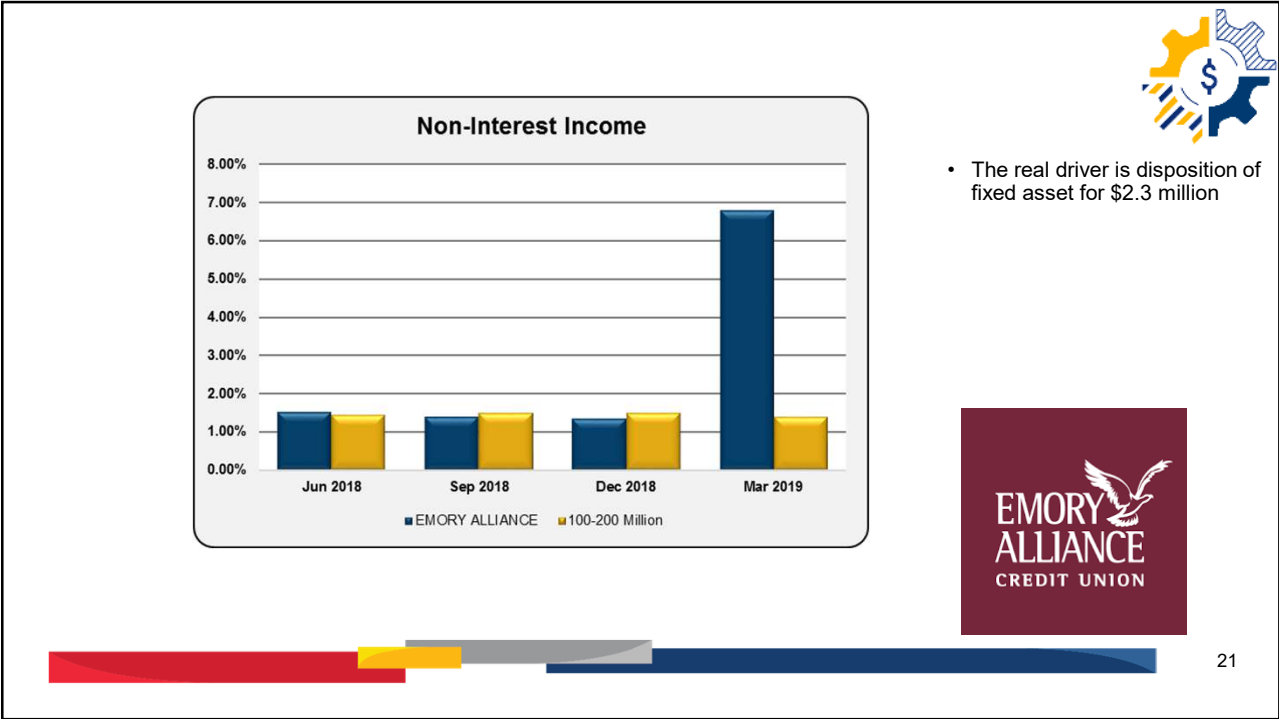


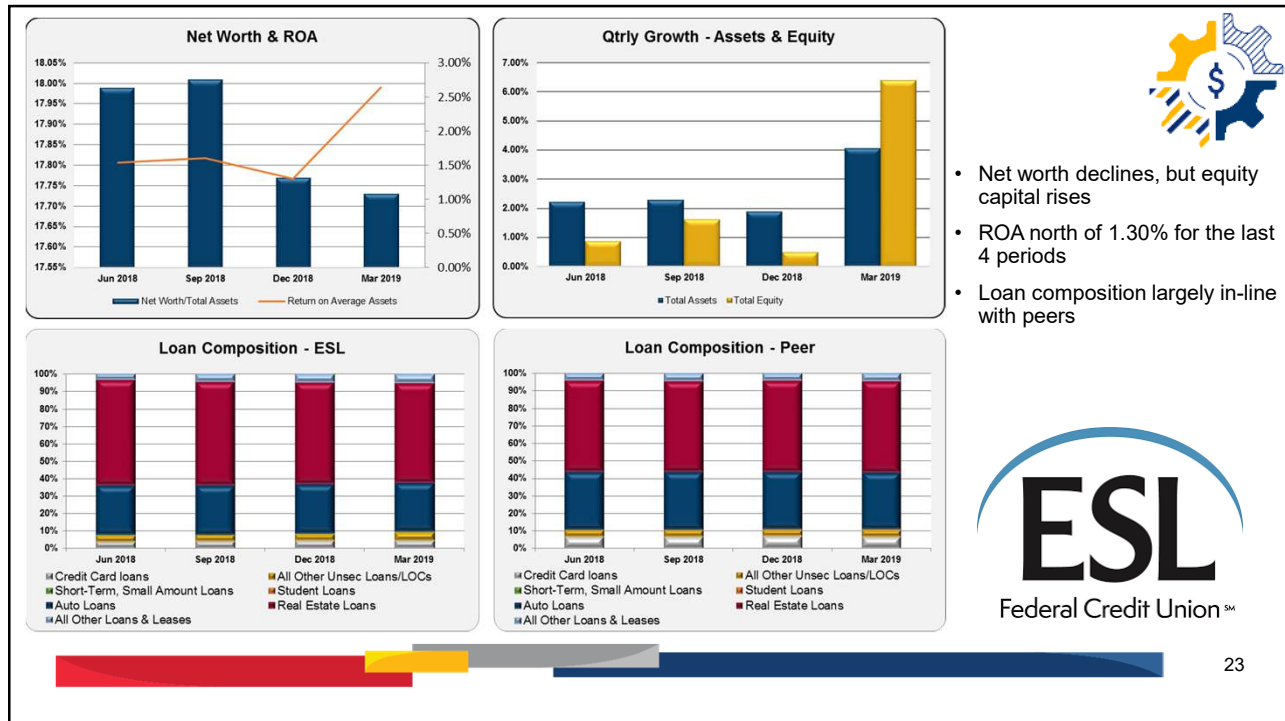
- Assets rose to 909 Mil from 362 Mil
- RE 62.81% v 48.51%
- Autos 21.22% v 37.04%
- Cards 6.26% v 5.43%
- Total Loans 70.68% v 70.39%

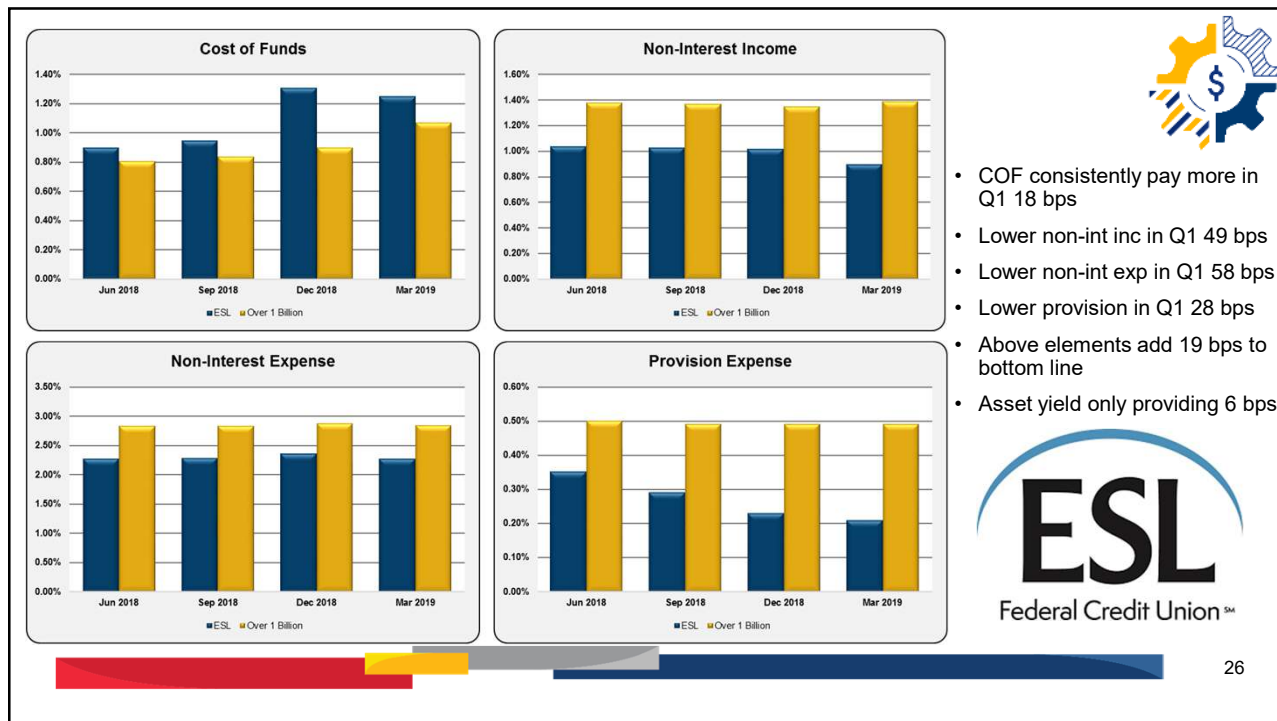


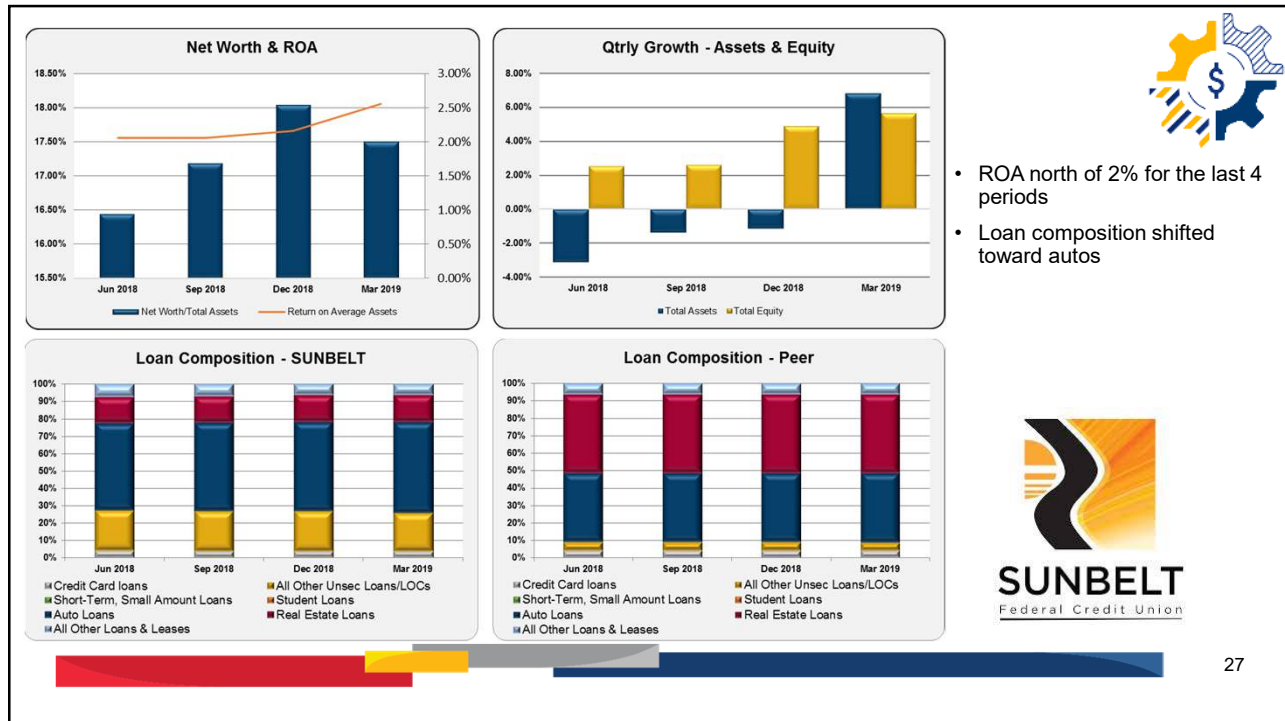
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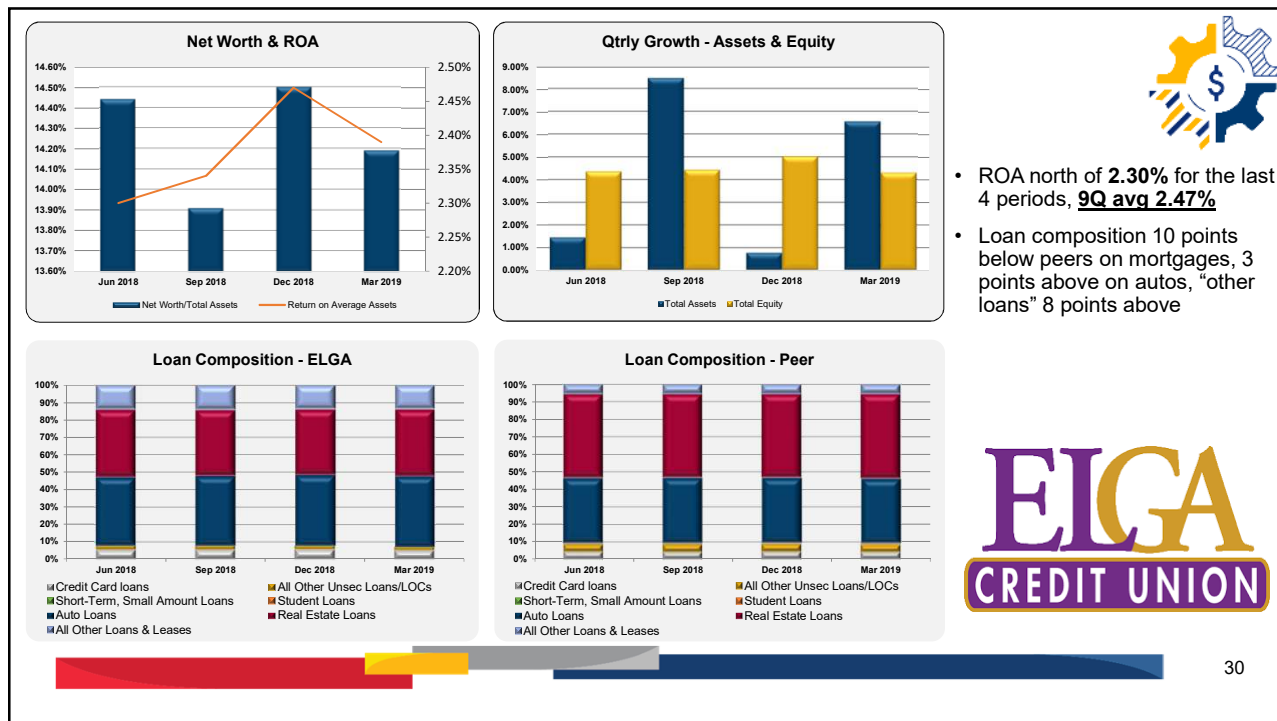
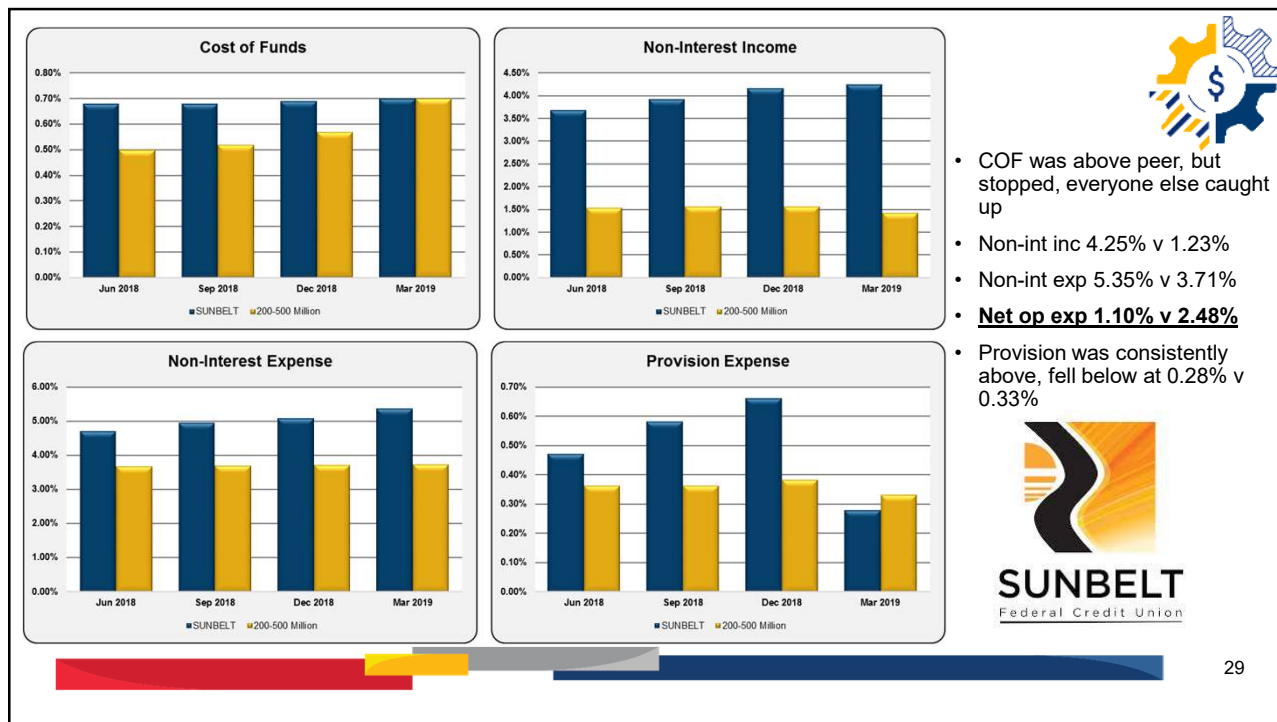


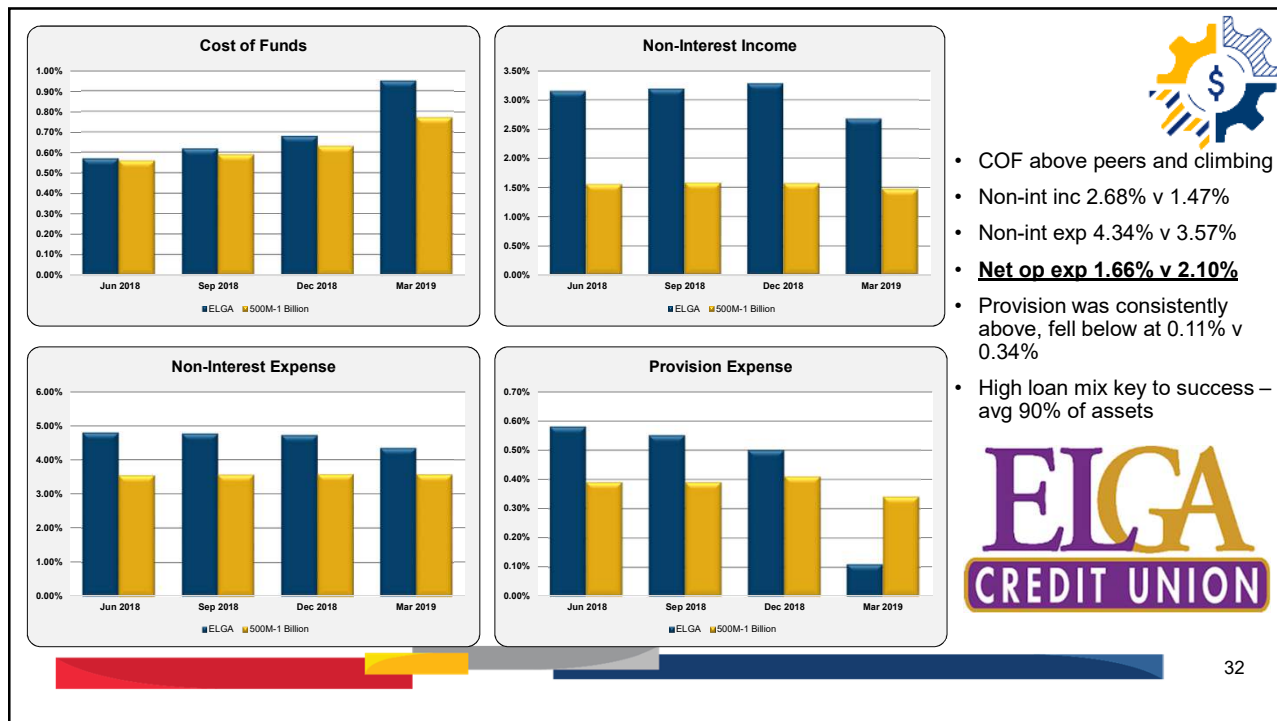
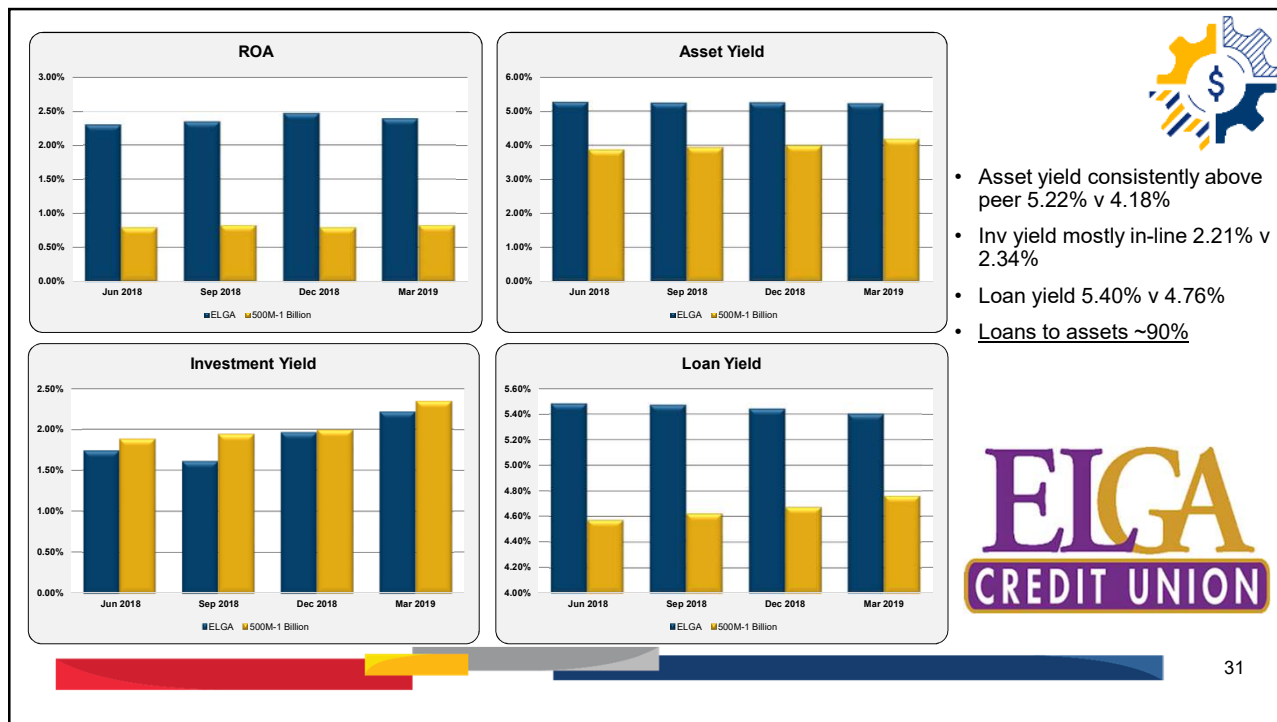














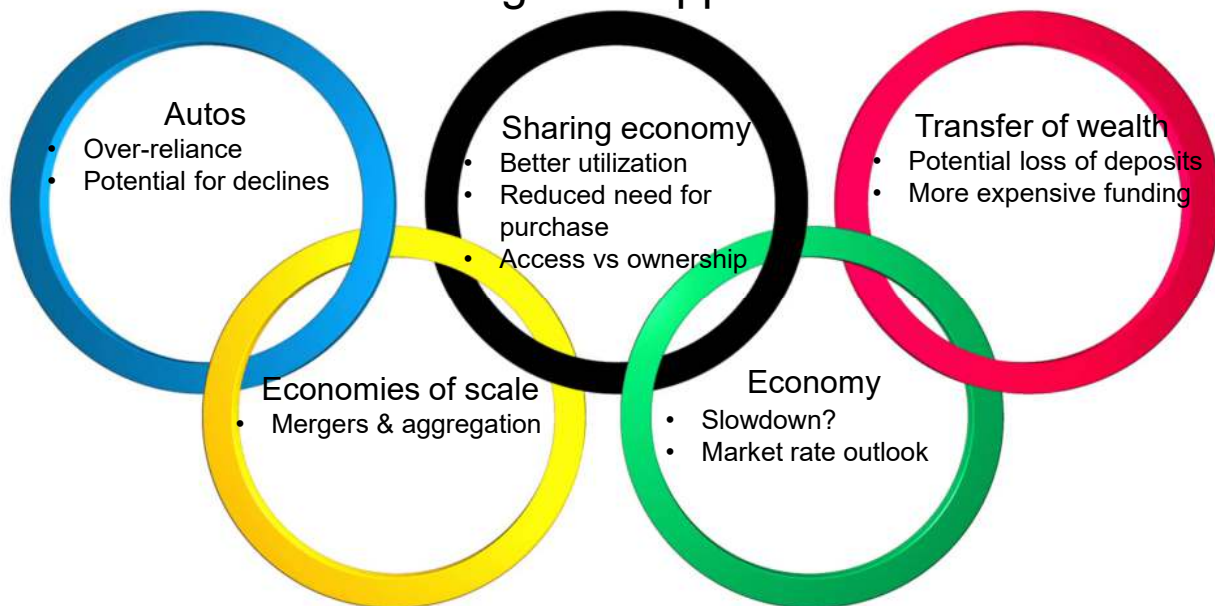
Changing Exams

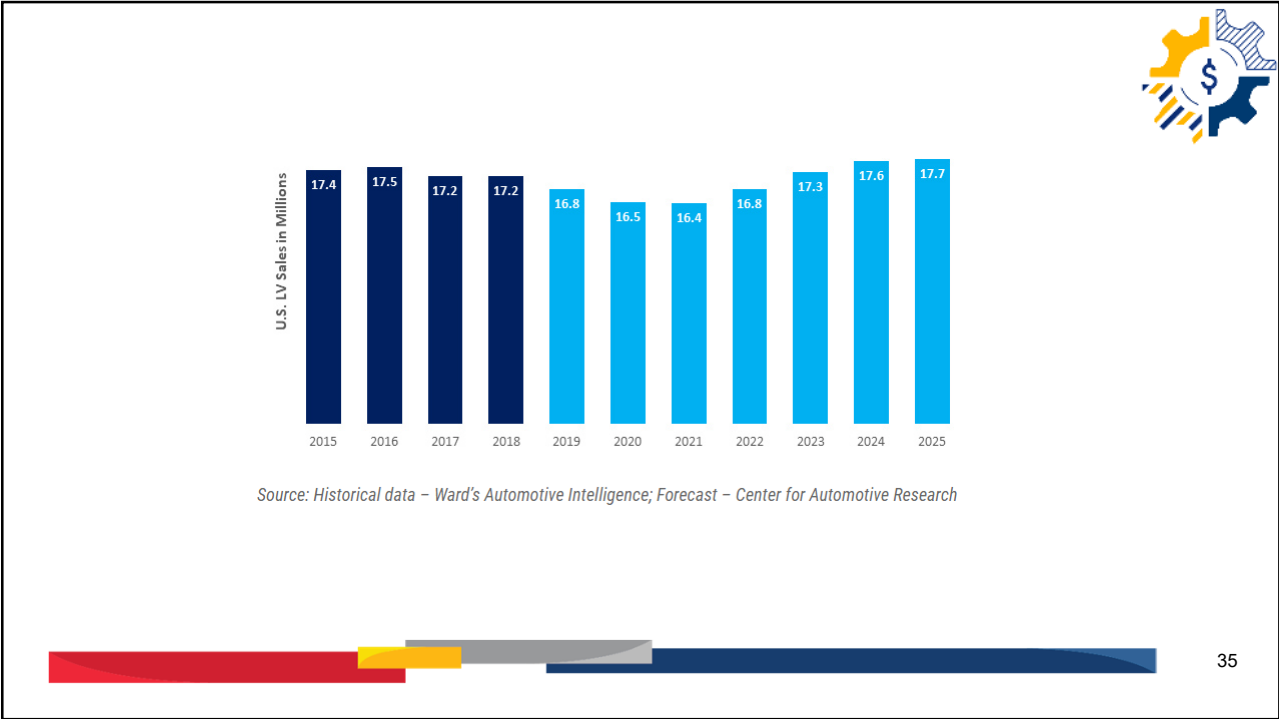
- The agencies intend to limit the use of numerical thresholds or other “bright-lines” in describing expectations in supervisory guidance. Where numerical thresholds are used, the agencies intend to clarify that the thresholds are exemplary only and not suggestive of requirements.
- Examiners will not criticize the institution for a "violation" of supervisory guidance. Citations will be for violations of law, regulation, or non-compliance with enforcement orders or other enforceable conditions. However, examiners may still identify unsafe or unsound practices or other deficiencies in risk management, including compliance risk management, or other areas that do not constitute violations of law or regulation.
- Multiple issuances of supervisory guidance on the same topic will be limited.



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Challenges & Opportunities





Level 4 HIGH AUTOMATION - Capable of performing all safety-critical driving functions while monitoring environments/conditions in defined use cases
 Per NHTSA, this is full self-driving automation. Per SAE, Self-driving is fully possible in most road conditions and environments without need of human intervention. A functional driver cockpit is still in place (steering wheel, brake/acceleration pedal, etc.)


Level 3 CONDITIONAL AUTOMATION/LIMITED SELF-DRIVING -
 The car becomes a co-pilot
 The vehicle manages most safety-critical driving functions in known (mapped) environmental conditions. A human driver is still present and expected to manage vehicle operation.

Level 2 PARTIAL AUTOMATION/COMBINED AUTONOMOUS FUNCTIONS - Key automated capabilities become standard but driver still in control
 At least two simultaneous autonomous tasks become are managed by the vehicle in specific scenarios

Level 1 DRIVER ASSISTED/FUNCTION-SPECIFIC -
 Intelligent features add layer of safety and comfort
 A human driver is required for all critical functions. The car can alert the driver to conditions, environment and obstructions. It can also offer assisted/smart performance and driving capabilities.

Level 0 ZERO AUTOMATION - Driving as Usual
 A human driver is required to operate the vehicle safely at all times.

- More electric
- More automation – connectivity, updates
- More sharing – run more frequently, shorten replacement cycles
- More fleet sales



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- Exchange vehicles
- Roadside assistance
- Fast service
- No maintenance fees
- No hidden fees
- No vehicle depreciation
- No long-term commitment

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Select your preferred tier:

Tier 1	Tier 2
 Small SUVs, Small Trucks, Full-size Sedans (Mid-weight Pickup Trucks, SUVs, and Sedans to be added)	 Regular SUVs, Large Trucks, Luxury Sedans plus Tier 1 (All other vehicles, SUVs, Trucks, and Sedans to be added)
\$999 / month*	\$1399 / month*

*Taxes excluded. Upon subscription approval, there is a one-time enrollment fee of \$250. Terms & conditions apply.

How it works:

- Subscribe**
Subscribe now using your Hertz Gold Plus Rewards® member number. Not a member? Join now.
- Schedule**
Hertz My Car will call to confirm your subscription status, vehicle preference (SUVs, Trucks, Sedans) and schedule your first pick-up.
- Drive**
Pick up your car and go.
- Exchange**
Need a different car? Exchange your vehicle at no extra charge, up to twice per month.

Car subscriptions

- Access by BMW \$1399 - \$2699
- Book by Cadillac -not accepting new members
- Care by Volvo \$700- \$800
- Even dealers getting into the game

Include everything but the fuel!

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Sharing economy – Why?

- Economic
- Environmental
- Social
- Practical



Auto space alone

- Uber/Lyft - HyreCar
- Kangaride/ rdvous – long distance carpooling
- Turo - car sharing marketplace
- Zipcar - car sharing network
- Car2go/ sharenow

The future is shared

Imagine a world with one million fewer cars on the road, and cities with more green space than parking lots. We do.



Future mode
 10% of the population is expected to adopt car sharing as their primary mode of transportation by 2025.



Personally owned cars
 Every Zipcar takes 13 personally-owned vehicles off the road.



Gallons saved
 90% of Zipsters drive 5,200 miles or less per year, saving 32 million gallons of oil (749 gallons each).



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TURO Where Dana Point, CA, USA From 07/16/2019 10:00 AM Until 07/23

SORT BY PRICE BOOK INSTANTLY DELIVERY MORE FILTERS - 1



AUDI Q5 2012
 ★★★★★ 12 trips All-Star Host
 BOOK INSTANTLY



FORD F-150 2010
 ★★★★★ 75 trips All-Star Host
 BOOK INSTANTLY



MAZDA MX-5 MIATA 2015
 ★★★★★ 30 trips All-Star Host



TESLA MODEL S 2013
 ★★★★★ 118 trips All-Star Host



Explore

Search the marketplace for vehicles that fit your needs and see the price. Filter, then choose. SHOWS Our car sharing app helps you find affordable nearby rental cars for ride sharing.



Book

Connect with owners. Confirm desired date of rental. Pay through TURO's trusted payment portal. Find affordable vehicles in your area today.



Drive

Use your car to earn money in the on-demand industry. Listing for services like Uber, Lyft, or Lyft. Drive your rental car and earn money daily.

There's even services to rent you a car to drive for uber/lyft!

HyreCar

How it works



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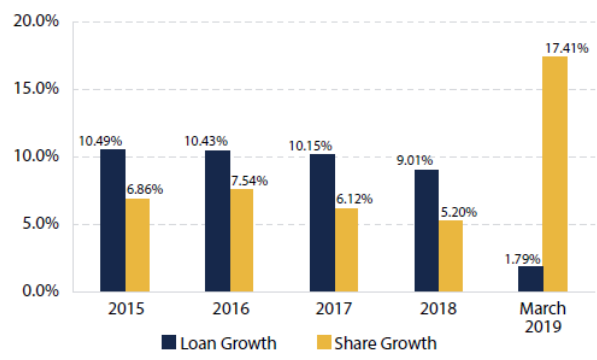


- Over the next 25 years, \$68 trillion expected to change hands
- 70% or \$48 trillion from Boomers aged 50-70
- Only 10% expect to receive inheritance in the next 10 years
- Less than ¼ plan to use services of trusted financial institution or advisor to handle inheritance

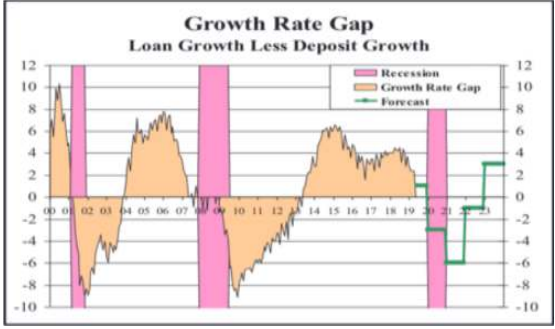
Sources: Cerulli Associates, FIS Pace 2018



Loan Growth vs. Share Growth

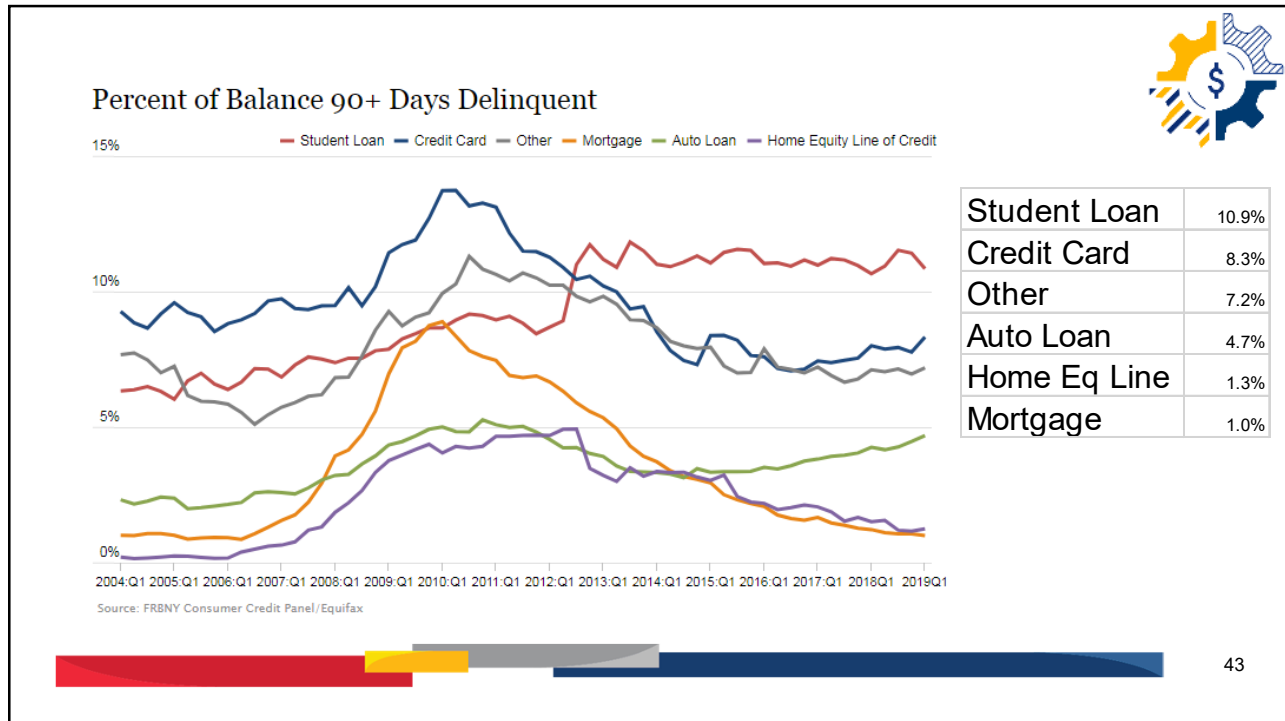


Source: NCUA Financial Trends in Federally Insured Credit Unions Mar 31, 2019



Source: Steve Rick CUNA Mutual





How many of you raised your dividend rates this year?

Dividend cuts are happening already!!!

In June:

Marcus - cut it's rate to 2.15% from 2.25%

Ally – cut it's rate to 2.10% from 2.20%





Positioning for a flat to declining rate environment

Asset Side:

- Extend duration, buoy yields
- Reduce negative convexity
- Limit ARMs and floaters
- Bullet vs callable investments
- Consider credit/delinquency impacts

Liability Side:

- Have ability to reduce dividend expense
- Shorten funding term

Other factors:

- Higher liquidity?
 - Deleveraging
 - Flight to safety
 - Wealth transfer
 - Competition
- Credit concerns

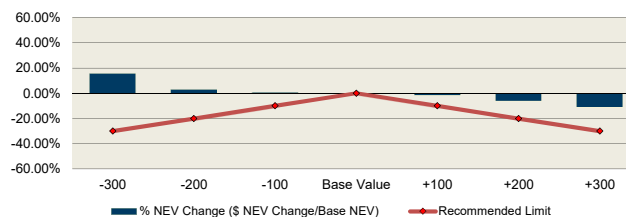


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Example 1:

140 mil assets
 loan mix = 64%
 Autos = 54.4%
 RE = 7.1%
 Asset yield = 4.56%
 COF = 1.24%

NEV Volatility



Key points

High COF can fall

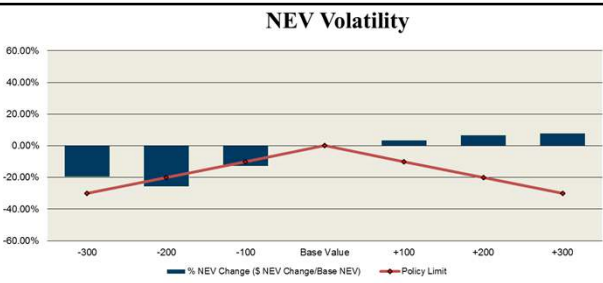
Projected Earnings Analysis June 30, 2019	Projected Income/Expense (Year 1)						
	-300	-200	-100	Base Case	+100	+200	+300
Interest Income	5,732	5,970	6,382	6,794	7,188	7,569	7,943
Interest Expense	743	998	1,401	1,866	2,331	2,950	3,570
Net Interest Income	4,989	4,972	4,980	4,928	4,857	4,619	4,374
Dollar Change	61	44	52		(71)	(309)	(554)
Percent Change	1.24%	0.89%	1.06%		-1.44%	-6.27%	-11.25%
Non Interest Income	1,431	1,431	1,431	1,431	1,431	1,431	1,431
Non Interest Expense	4,341	4,341	4,341	4,341	4,341	4,341	4,341
Provision for Loan Losses	1,275	1,275	1,275	1,275	1,275	1,275	1,275
Net Income	804	787	795	743	672	434	188
Dollar Change	61	44	52		(71)	(309)	(554)
Percent Change	8.21%	5.94%	7.05%		-9.55%	-41.60%	-74.63%
Projected ROA	0.59%	0.58%	0.58%	0.54%	0.49%	0.32%	0.14%



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Example 2:

123 mil assets
 loan mix = 47%
 Autos = 23.5%
 RE = 16.0%
 Asset yield = 3.45%
 COF = 0.11%



Key points

low COF can't fall
 Investment yield falls fast

Projected Earnings Analysis June 30, 2019	Projected Income/Expense (Year 1)						
	-300	-200	-100	Base Case	+100	+200	+300
Interest Income	3,447	3,639	4,008	4,314	4,579	4,824	5,057
Interest Expense	124	124	124	141	473	625	778
Net Interest Income	3,323	3,515	3,884	4,174	4,106	4,199	4,279
Dollar Change	(851)	(659)	(290)		(68)	25	105
Percent Change	-20.39%	-15.79%	-6.95%		-1.63%	0.60%	2.53%
Non Interest Income	2,680	2,680	2,680	2,680	2,680	2,680	2,680
Non Interest Expense	5,366	5,366	5,366	5,366	5,366	5,366	5,366
Provision for Loan Losses	190	190	190	190	190	190	190
Net Income	447	639	1,008	1,298	1,230	1,323	1,403
Dollar Change	(851)	(659)	(290)		(68)	25	105
Percent Change	-65.59%	-50.78%	-22.34%		-5.24%	1.92%	8.12%
Projected ROA	0.36%	0.52%	0.82%	1.06%	1.00%	1.08%	1.14%



Questions?

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