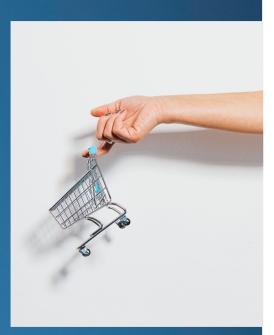
W U T I S



Global Markets Division U.S. Consumers

Unveiling the fragility of U.S. consumers' unsustainable spending and capitalizing on opportunities across various affected sectors.

Investment Horizon: 12 Months

Wilhelm Hartung, Marina Nefedova, Maximilian Bittl, Emilia Kalss, Niklas Paul Müller

Vienna, February 2nd, 2024

Team Overview

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Global Markets Division



Wilhelm Hartung



- Task Distribution
- Macroeconomic Analysis
- Trade Strategy







BSc (WU) in Economics



Marina Nefedova



Macroeconomic Analysis



BSc (WU) in Business and Economics – 3rd semester



Maximilian Bittl

Analyst

- Company Research
- Company Analysis



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Emilia Kalss

Analyst

Macroeconomic Analysis



BSc (WU) in Economics

– 3rd semester



Niklas Paul Müller

Analyst

- Company Research
- Company Analysis





BSc (WU) in International Business Administration – 5th semester





Macroeconomic Overview

Economic snapshot



The U.S. economy is resilient, the data shows a positive trend

Overview



Contrary to forecasts, **economic growth** has not slowed in 2023, mainly due to higher-than-expected consumer spending

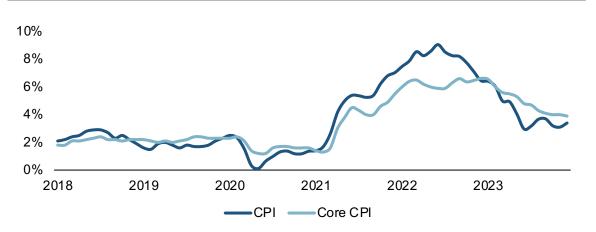


Inflation has fallen sharply from its high in 2022, but still remains above the target inflation of 2%

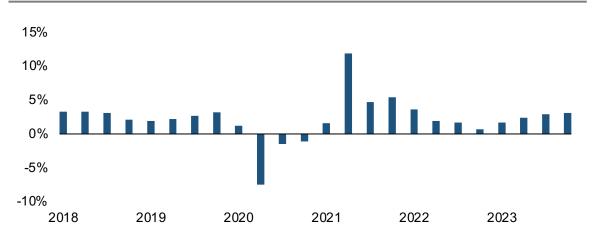


Unemployment rate is at a low level, job openings are higher than the pre-pandemic level, but have been falling steadily since 2022

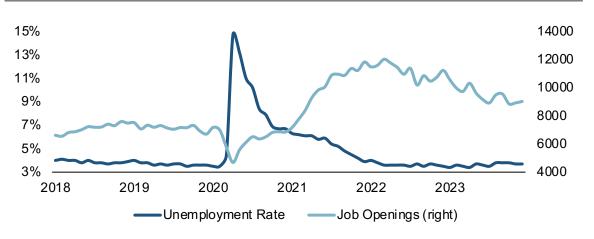
Consumer Price Index (YoY)



Gross Domestic Product (YoY)



Labor market









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Overall U.S. 2024 outlook is positive

GDP

\$

Real GDP is expected to grow slowly but steadily at 1.5% YoY Unemployment



Unemployment rate is said to rise 0.5% reaching 4.1%

Inflation



CPI is presumed to approach the target with a 2.7% YoY rate Interest rates



The FED is expected to lower interest rates by around 1% this year **Consumer spending**



Consumption is still developing positively at 1.5% YoY Recession

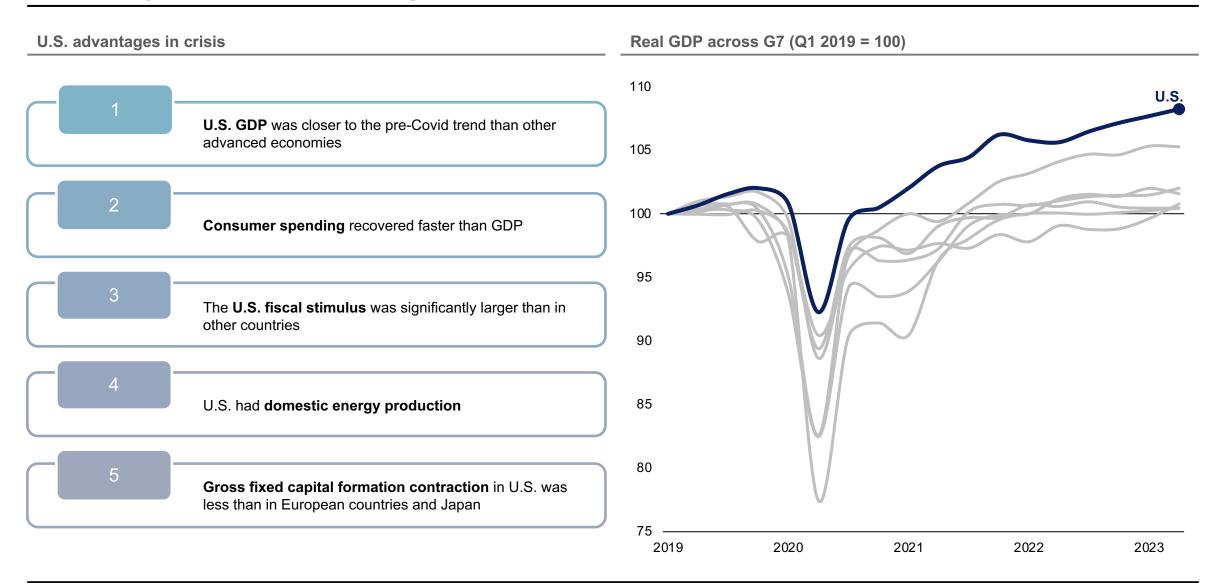


U.S. is thought to avoid a recession with an expected probability of 55%

Recovery of the U.S. economy



U.S. recovery after COVID-19 was stronger than the other G7 countries



Consumers as a key factor of recovery









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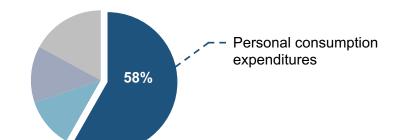
The U.S. consumer determines the trajectory of the U.S. economy

Contribution to U.S. GDP growth, 2022 - 2023 6% 5% 4% 3% 2% 1% 0% -1% -2% -3% -4% Q1 2022 Q2 2022 Q3 2022 Q4 2022 Q1 2023 Q2 2023 Q3 2023 Q4 2023 Government consumption expenditures and gross investment Net exports Gross private domestic investment

Personal consumption expenditures

Contribution of U.S. consumers in Q4 2023







Excessive personal consumption as a determining element of the U.S. recovery from **Covid**



Consumer spending makes up a crucial amount of U.S. GDP, especially in Q4 2023





Personal **savings** rate **decreased by over 90%** comparing 2020 and 2022



Due to generous **government stimulus**, consumers could spend what they held back during the pandemic

Consumer as a key factor for recovery



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Government stimulus during Covid-19 gives opportunity to spend more

Timeline of government support to U.S. consumers



Cumulative effect on the U.S. economy

Federal government made **direct payments** to individuals totaling \$931 billion to address pandemic-related financial stress 12% 6% 0% This is **8.59 times higher** than similar payments during the Great Financial Crisis in 2008-2009 -6% 2018 2019 2020 2021 2022 2023

Private consumption expenditures (YoY)

Development of consumer debt levels





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U.S. consumer debt continues to increase, reaching a new all time high

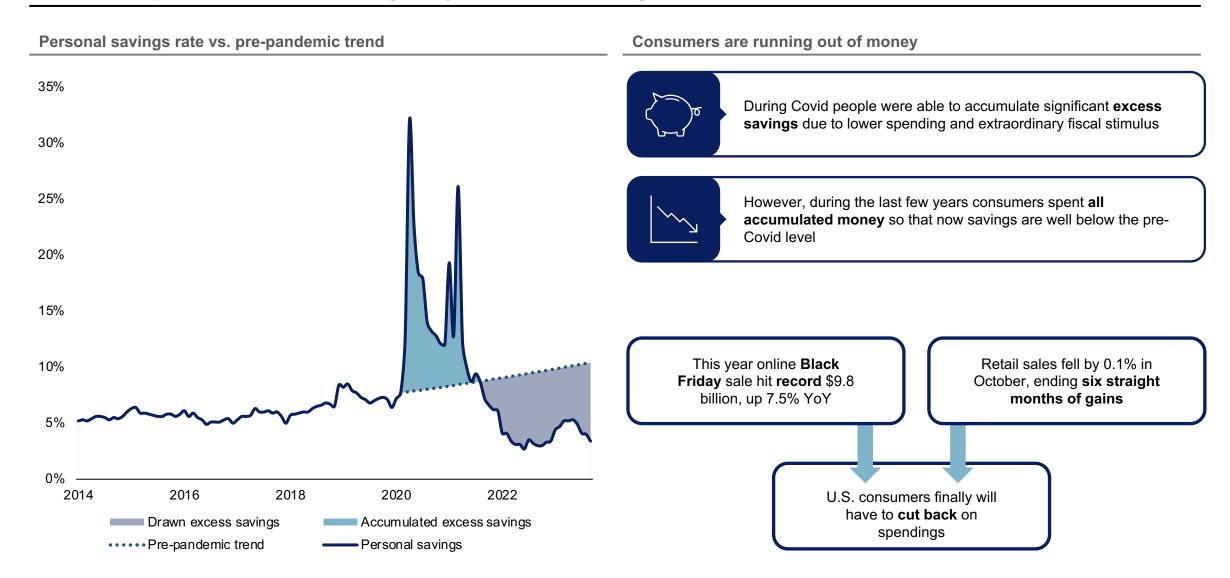
Spending behavior Debt size of different loan types (in tn \$) **Total household debt** hit a record of \$17.29 trillion in Q3 2023, led by mortgage, credit card & student loans Credit card debt balances spiked to a \$1.08 trillion record Average debt per capita also hit a record of \$60,690.00 Especially in recent years the debt growth rate accelerated Consumers are still tending to finance minor expenses 2003 2006 2009 2012 2015 2018 2021 with money they don't have ■ HE Revolving ■ Mortgage Auto Loan ■ Credit Card ■ Student Loan ■ Other

Savings dynamics for U.S. consumers



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Consumers spent all the excess savings they accumulated during Covid



Problems for consumers ahead









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10y-2y yield spread as a predictor of upcoming recession



Despite a strong U.S. economy, there are signs of a possible recession

Last 4 times 10Y-2Y **yield spread** reached its minimum

12-18 months later U.S. economy entered **recession**

Consumer Sentiment Index



Labor market starts to weaken

The U.S. economy added **216,000 jobs in December** 2023, surpassing the 199,000 added in November



That is still **below the average** monthly gain of 240,000 observed over the past year



Consumer Sentiment Index is at **one of the lowest** levels in 21st century

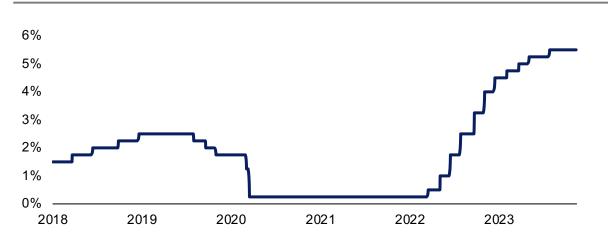
High interest rate environment

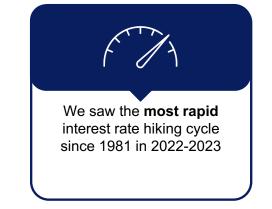


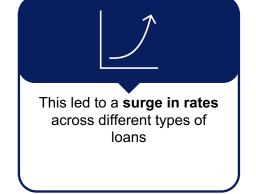


High interest rates make debt problems more noticeable

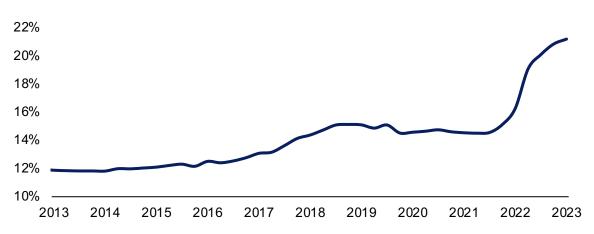
Fed funds rates



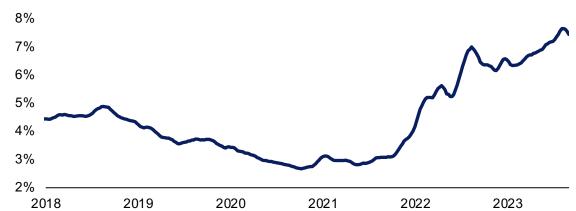




Commercial bank interest rate on credit card plans



30-year fixed rate mortgage average

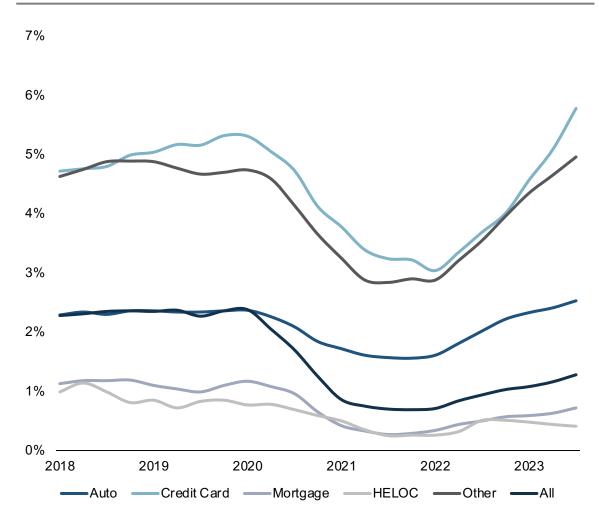


Delinquency Rates



The interest rate hikes are leading to rising delinquency rates

New seriously delinquent Balances by loan type (excl. student Loans)



Delinquency in detail



Share of **newly delinquent credit card users** rose again in Q3 and has now surpassed pre-pandemic levels

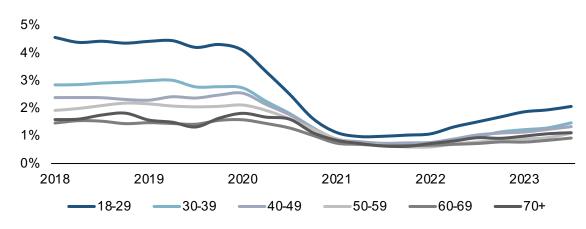


Delinquency is over proportionally **driven by** people with relatively higher credit card balances



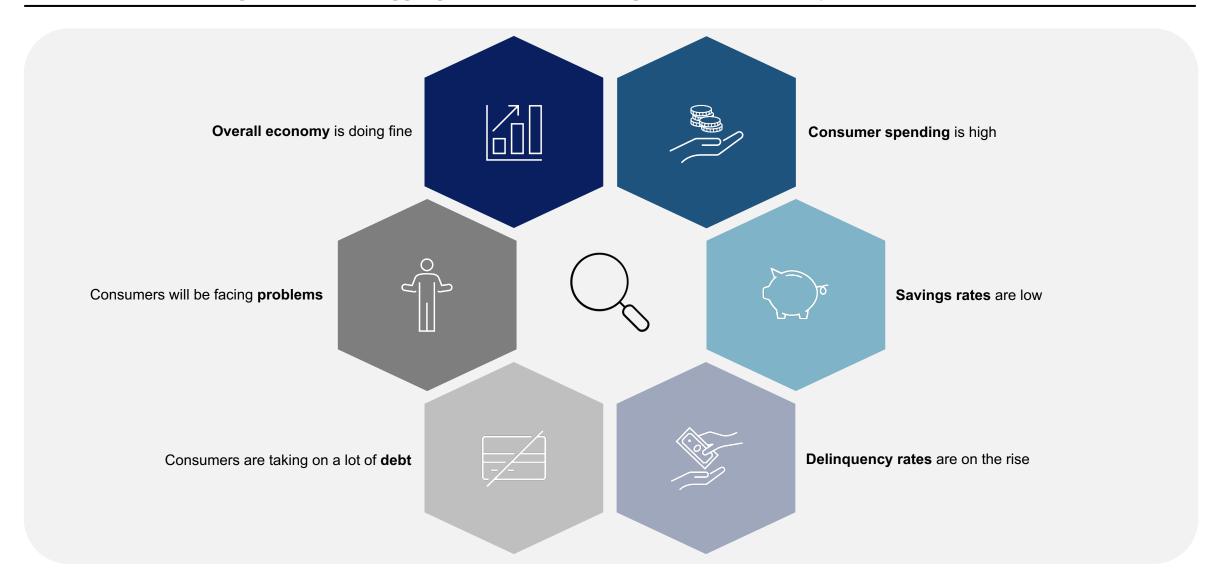
Serious delinquency is strongest among **young people** & the rate is way steeper now than it has been before

Transition into serious delinquency by age



Summary

The U.S. consumer might soon be struggling to maintain such high levels of consumption



Affected Sectors

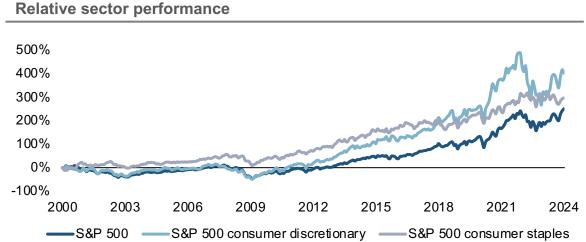


Consumer Discretionary



Looking for sectors most affected by a weak U.S. consumer

Automobiles & components Consumer services Consumer durables & apparel Retail



Screening criteria

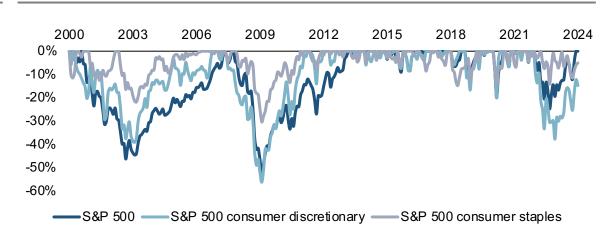
Sectors highly affected by consumer spending

Market capitalization higher than 1.000 M

Operations mainly in the U.S.

Flaws in the business model or in the financials

Sector drawdowns



Overview of subsectors







Analysis of the U.S. retail and the U.S. digital banking sector

U.S. retail



\$7.7 trillion Market size



3.9% p.a. Growth in past 5 years



52 million Jobs supported by Retail



\$3.9 trillion Total GDP Impact

U.S. digital banking



\$3.9 trillion Deposits



\$2.0 trillion Loan value



208 million U.S. users in 2023

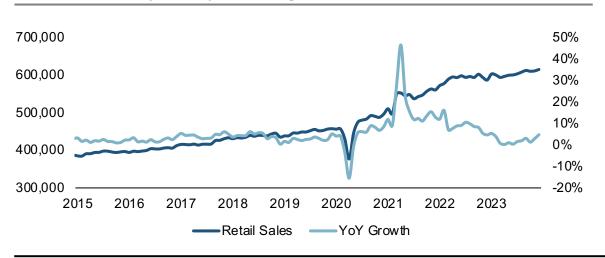


\$457.29 billion expected market size in 2024

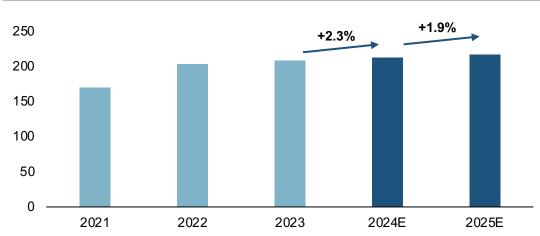
The U.S. retail industry is a major driver of the US economy, but it grapples with challenges like e-commerce growth, shifting consumer preferences, rising labour costs, and an anticipated dip in 2024 consumer spending.

The U.S. digital banking industry is a rapidly growing industry. Therefore, it is highly competitive, with many players rivaling for market shares. Furthermore, it is adversely affected by rising delinquency rates.

U.S. retail sales (in mn \$) and YoY growth



Number of digital banking users in the U.S. (in mn)



Company insights



Macy's Inc. Overview



An omnichannel retail company in the specialty retail sector.

Company description

Macy's Inc is an omnichannel retail company. It operates department stores, websites, and mobile apps, offering apparel, home furnishings, cosmetics, and accessories under private label brands.



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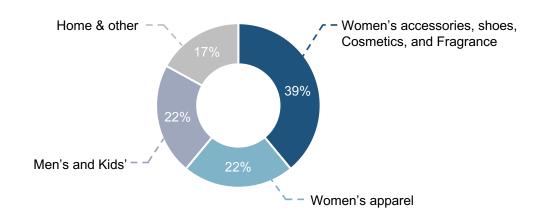


Employees 94,570

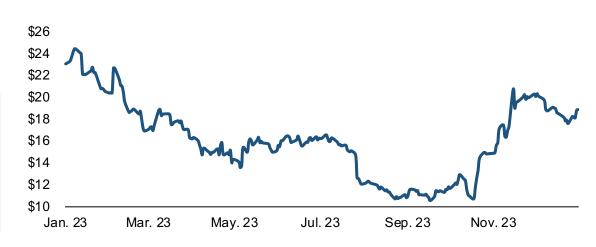
Headquarters New York

Geography U.S. only

2022 revenue breakdown by source



Stock performance (LTM)



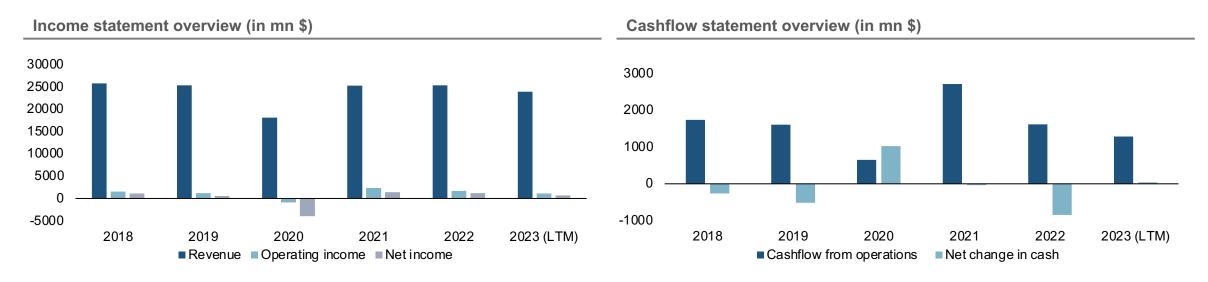
Shareholder structure



Macy's Inc.



Overview of financial statements



Key facts

Revenues
decreased by 5.43%
compared to 2022

Operating income declined by more than 30%

Net income declined by 41.88% compared to last year Cashflow from operations is declining through the last 3 years but still positive

Net change in cash is slightly positive for the first time in last 5 years, except 2021

Macy's Inc.

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Overview of financial statements

Selected ratios

Ratio	2019	2020	2021	2022	2023 (LTM)
Quick ratio	0.2x	0.4x	0.4x	0.2x	0.1x
Lt Debt / Equity	102.5%	297.4%	176.6%	146.0%	145.5%
Total Debt / Equity	116.2%	322.9%	185.7%	154.2%	149.4%
Inventory turnover	2.9x	2.7x	3.7x	3.5x	2.3x
Avg. days inventory outstanding	125.4	132.8	99.3	102.9	155.8

Company has liquidity and solvency issues



In the last 3 years **cash** strongly declined, especially during 2023, compared to 2022 it **decreased by 57.8%**



Macy's has a very low Quick Ratio. In 2023 it was 0.1x – the lowest in last 5 years



Long-term debt/equity and total debt/equity ratio are higher than 100% which shows that the **company has a lot of debt**

Company has problems with sales



In 2023 there was significant growth in company's inventories. They increased by 41.2% in comparison with 2022



Inventory turnover ratio is low showcasing the **company has problems converting their inventories to sales**



Average days inventories outstanding reached **155.8 days** which is the maximum in last 5 years

News on Macy's Inc.



Company plans to **close** 5 stores



Company plans to **layoff** 2,350 workers



Company might be a target for takeover

SoFi Technologies overview

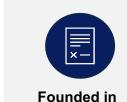


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SoFi Technologies is a Financial Service provider mostly operating in the U.S.

Company description

SoFi Technologies **offers financial services** across lending, technology platforms, and financial services, including **personal**, **student**, **and home loans**, as well as **tech solutions and various financial services** for individuals and institutions.



Employees

4.000+

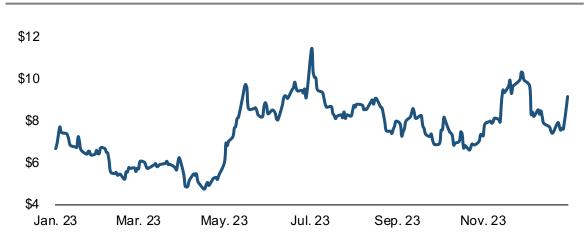


San Francisco



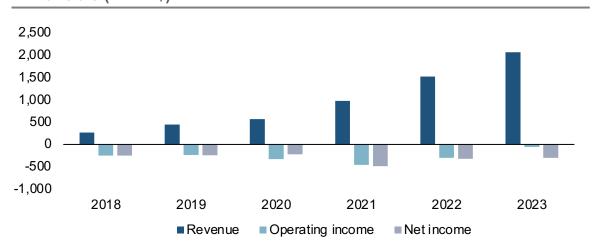
Geography 95% US

Stock performance LTM

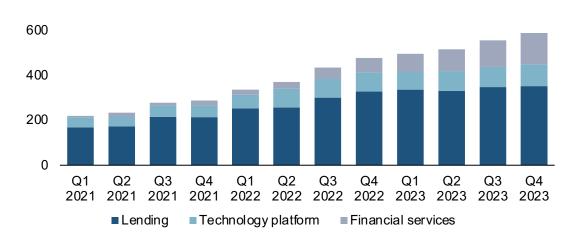


Financials (in mn \$)

2011



Revenue is reliant on lending (in mn \$)



Assets and delinquencies



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Strong reliance on personal loans and skyrocketing delinquency rates

Growth of personal loans



Growing importance of personal loans

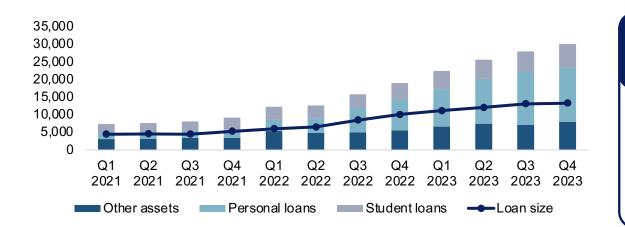


Personal loans make up 51% of total assets & 60% of Revenue

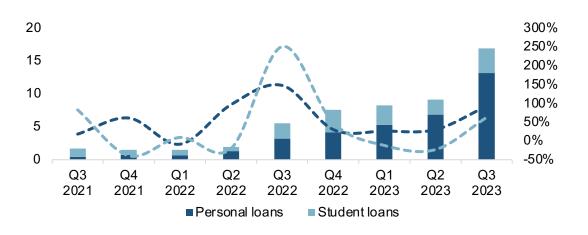


Loan size increased significantly as it nearly tripled

Growth of assets (in mn \$)



Delinquent loans by type (in mn \$)



Growth of delinquencies

Total growth of delinquent loans

Personal loans factor of 33x

Student loans factor of **4.4x**

Average delinquency growth QoQ

Personal loans by **54.68%**

Student loans by 39.69%

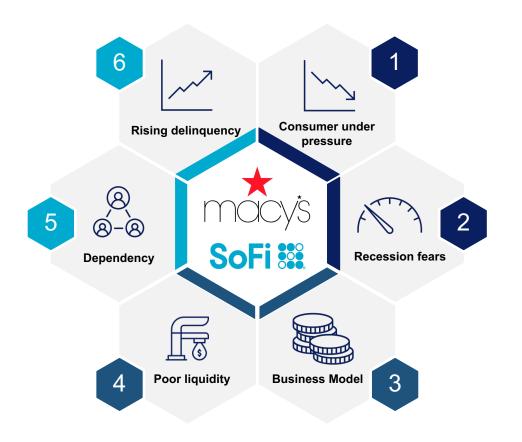
Delinquencies outgrew assets

Personal loans factor of **4.5x**

Student loans factor of 3.7x

Summary

A struggling consumer might cause problems for \$M and \$SOFI



Consumers are spending their savings and have record levels of debt, all while interest rates are very high

An inverse yield curve, a weakening labor market and a high interest rate environment are causing fears of recession

Macy's outlook is dire and lead them to lay-off workers and close stores

Macy's is facing liquidity and solvency issues

SoFi is heavily dependent on the consumer as the majority of its assets and revenues are directly linked to them

SoFi is already confronted with an enormous growth rates of delinquencies







Translating the macroeconomic analysis into trades

The strategy

Bear Call Spread

A bearish strategy that involves both purchasing and selling call options with varying strike prices but the same maturity, leading to **limited potential losses and profits**.



Why options instead of directly short selling the shares?

Lower and more controllable risk

Lower capital requirement

Easier implementation



Why selling options instead of buying them?

Profit from high implied volatility of \$SoFi and \$M

Benefitting from time decay

Possibility to reinvest the premium

Key risks

1

Better than expected performance of the general economy and/or the specific companies – we are betting against the **consensus of a soft landing**

2

U.S. presidential elections could bring stimuli that further strengthen the consumer. Equity markets deliver good returns on average in election years

3

Due to the **low trading volume of options on Macy's** we have a wide spread and an exit before the expiration date might be difficult

4

According to CEO Jeff Gennette, Macy's is open to takeover offers - an **acquisition of Macy's** by another company would strengthen the stock

Trade structure

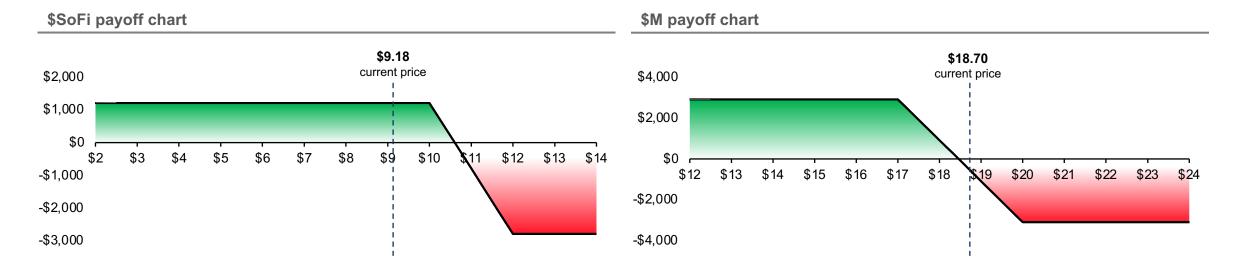


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Placing bear call spreads on \$Sofi and \$M maturing in January 2025

Trade details

Buy/Sell	Size	Option	Bid/Ask	Strike	Expiration	Break Even Point	Net Credit/Debit	Max Loss		Max. Profit	Max Risk	Risk/Reward
Buy	20	SOFI 1/17/25 C12	\$1.48	\$12	47.04.0005	#40.04	. \$4.040.00	#0.700.00				
Sell	20	SOFI 1/17/25 C10	\$2.07	\$10	17.01.2025	\$10.61	+\$1,210.00	-\$2,790.00				
										+\$4,120.00	-\$5,880.00	1.43 : 1
Buy	20	M 1/17/25 C20	\$2.45	\$20	17.01.2025	¢10.46	+\$2,910.00	¢2 000 00	/	'		
Sell	20	M 1/17/25 C17	\$3.90	\$17	(7.01.2025	\$18.46	+92,910.00	-\$3,090.00				





Source Name	Source Name Link		Used for		
FRED	https://fred.stlouisfed.org/	13.12.2023	Economic Data		
Federal Reserve Bank of New York	https://www.newyorkfed.org/microecon omics/hhdc	26.11.2023	Household Debt, Delinquency Data		
Barron's	https://www.barrons.com/market- data/stocks/sofi/company- people?mod=quotes#subnav	08.12.2023	Description SoFi		
S&P Capital IQ	https://www.capitaliq.com	15.11.2023	Financial Data		
Yahoo Finance	ance https://finance.yahoo.com/quote/SOFI/history?p=SOFI		Historical stock prices		
SoFi Technologies	https://www.sofi.com	05.12.2023	Company specific information		
U.S. Bank	https://www.usbank.com/investing/financial-perspectives/market-news/consumer-spending.html#:~:text=Consumer%20spending%20is%20credited%20as,the%20nation%27s%20Gross%20Domestic%20Product.	11.12.2023	Consumption Information		
U.S. Government Accountability Office	https://www.gao.gov/products/gao-22- 106044	16.11.2023	U.S. Fiscal Stimulus During Covid-19		

Source Name	Link	Date of Retrieval	Used for
U.S. Government Accountability Office	https://www.gao.gov/products/gao-22- 106044	16.11.2023	U.S. Fiscal Stimulus During Covid-19
Reuters	https://www.reuters.com/business/retai l-consumer/adobe-says-black-friday- online-sales-hit-record-9-bln-2022-11- 26/	01.12.2023	Black Friday Online Sales
CNBC	https://www.cnbc.com/2023/11/15/who lesale-prices-fell-0point5percent-in- october-for-biggest-monthly-drop- since-april-2020.html	01.12.2023	Retail Sales
Trading Economics	https://tradingeconomics.com/united- states/consumer-confidence	29.11.2023	U.S. Consumer Sentiment Index
J.P. Morgan	https://www.jpmorgan.com/insights/out look/economic-outlook/october-2023- jobs- report#:~:text=The%20Bureau%20of %20Labor%20Statistics,slightly%20fro m%20the%20previous%20month	16.11.2023	U.S. Job Openings
Statista	https://www.statista.com/outlook/fmo/b anking/digital-banks/united-states	30.1.2024	Digital Banking Analysis
TIME	https://time.com/6564377/macys- closes-5-stores-job-cuts-union/	27.01.2024	News on Macy's

Source Name	Link	Date of Retrieval	Used for	
Statista	https://www.statista.com/outlook/fmo/banking/digital-banks/united-states	30.1.2024	Digital Banking Analysis	
Mordor Intelligence	https://www.mordorintelligence.com/industry-reports/united-states-digital-lending-market#:~:text=United%20States%20Digital%20Lending%20Market%20Analysis,period%20(2024%2D2029).	30.01.2024	Digital Banking Expected Market Size	
AP News	https://apnews.com/article/macys- arkhouse-brigade-takeover- c9167d79c3fe39a192a0ac4c8034140 8#	27.01.2024	Macy's Rejects Takeover Bid	
NRF	https://nrf.com/research- insights/retails-impact	29.01.2023	Overview of U.S. Retail Sector	

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Option Chain 29/01/2024 21:30

Strike	Ticker	Bid	Ask	Last	Volm	Olnt	IV	DL	GL	VL	TL
10	SOFI 1/17/25 C10	2.16	2.20	2.18	11,141	69,427	64.82	-0605	-0.658	-0.0348	0.0037
12	SOFI 1/17/25 C12	1.55	1.60	1.58	3,886	21,727	63.94	0.488	0.0691	0.0360	-0.0037
17	M 1/17/25 C17	3.80	4.00	3.90	9	1,475	37.74	-0.710	-0.0498	-0.0624	0.0047
20	M 1/17/25 C20	2.29	2.60	2.45	11	3,089	36.63	0.543	0.0594	0.0722	-0.0049

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