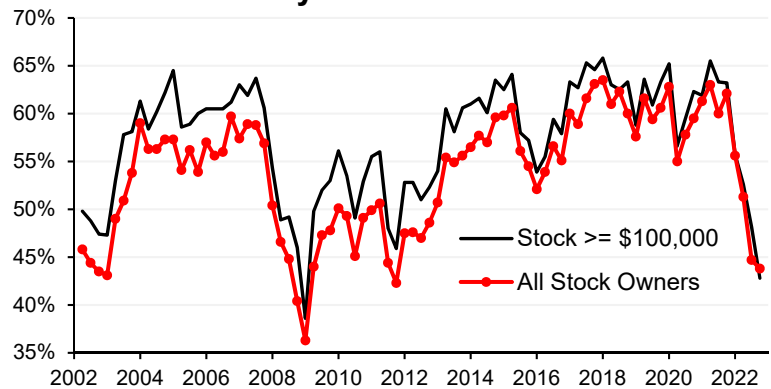


Subject: Stock Ownership and Stock Price Expectations
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Ownership of stocks, including directly held assets as well as assets held in mutual funds and retirement accounts, rose to an average of 69% of all households in 2022, up from 66% in 2018 (see table on next page, left panel). The persistence of high prices means that inflation adjusted returns on interest-bearing financial accounts continue to be negative, which supports continued stock market participation in spite of the considerable declines in major stock market indices since their highs in late 2021. The sharpest increases in stock market participation rates were found among the lower tercile of households by income, which is unsurprising given the growing accessibility of low-cost direct investing in recent years. In contrast, stock ownership rates are little changed for higher income households, which were already elevated relative to other groups. Overall, a growing share of consumers are exposed to fluctuations in the stock market.

Probability of Stock Price Increase



The median value of equities held by stock market participants rose to about \$148,000 in 2021Q4 from \$100,000 in 2017Q4, a 45% increase that was similar in magnitude to growth in the Dow Jones Industrial Average over this time period (see table, middle panel). Given that stock market indices have since declined substantially over the course of 2022, preliminary data for the 4th quarter of this year is also displayed in the table. The most recent data show a 20% decline in median stock holdings over the last four quarters. While higher income households have larger holdings, they also experienced steeper proportional declines in the value of their holdings since 2021. Households in all quintiles of stock holdings saw lower values in 2022Q4 relative to 2021Q4 as well, ranging from 19% to 34% declines in their holdings. In fact, for most demographic groups, the current values of holdings are even lower than five years ago.

Concurrently with this decline in the value of holdings, consumer expectations for stock market performance deteriorated as well. The probability of stock price gain in the year ahead reported by stock owners has fallen continuously since the fourth quarter of 2021 when it reached 62% (see chart and right panel of the table). The current reading is now less than 44%, the lowest since 2012. Unlike the previous few years, those with stock holdings exceeding \$100,000 are no more optimistic about future stock price gains than stock owners overall. The last time a decline of this size and speed was observed in the data was just prior to the Great Recession, in the four quarters following 2007Q3. While this comparison does not necessarily imply that stock owners expect a financial crisis, there is considerable uncertainty going forward regarding various factors affecting financial markets. For example, consumers broadly expect continued interest rate hikes by the Federal Reserve, but it remains to be seen how aggressive the Fed will be, and whether the Fed, along with central banks around the world, can engineer relatively soft landings without ushering in painful recessions, particularly with numerous global factors at play.

This uncertainty is reflected in the considerable turbulence in financial markets this year, which in turn have also influenced consumer sentiment. Higher-income stock holders currently have lower expectations of stock price gains, and larger recent declines in the value of their holdings, than lower-income individuals, which mirrors sentiment: in the most recent reading, the top tercile of income had *lower* sentiment than the lowest tercile, in contrast to the more typical pattern where higher incomes are associated with more favorable sentiment. Given that higher-income consumers are responsible for a disproportionate share of spending, continued tightening by the Fed could generate a notable negative wealth effect on spending. Older stock owners age 65 and older have the lowest stock price expectations, and given their sizable holdings and the 30% declines they have already seen this year, any continued deterioration in financial markets could have an impact on their living standards and spending plans in retirement.



Table: Stock Ownership Rates, Value of Stock Holdings, and Probability of Gains in Stock Prices

	Stock Ownership Rates						Median Holdings					Probability of Stock Price Gain in				
	%						Current \$ in Thousands					Year Ahead				
	(All Households)						(Stock Owners)					(Stock Owners)				
	2017	2018	2019	2020	2021	2022p	2017:4	2021:4	%Chg 17-21	2022:4p	%Chg 21-22	2021:4	2022:1	2022:2	2022:3	2022:4p
All	64	66	66	69	68	69	\$102	\$148	45%	\$119	-20%	62	56	51	45	44
Age of Householder																
18 - 44	62	64	64	67	68	67	\$48	\$49	0%	\$46	-5%	66	61	55	46	48
45 - 64	69	70	71	72	71	72	\$202	\$251	24%	\$233	-7%	61	52	48	44	43
65 or older	61	62	64	66	65	67	\$259	\$306	18%	\$214	-30%	58	53	50	44	37
Household Income																
Bottom Third	34	35	35	38	40	42	\$22	\$22	-2%	\$20	-6%	58	54	49	42	49
Middle Third	71	73	75	77	76	74	\$90	\$90	0%	\$91	2%	62	55	53	44	44
Top Third	90	91	91	92	91	92	\$279	\$362	30%	\$263	-27%	64	57	52	47	42
Top 10%	92	94	94	94	94	94	\$673	\$888	32%	\$588	-34%	63	58	53	52	44
Stock Holdings																
Bottom 20%	100	100	100	100	100	100	\$7	\$6	-17%	\$4	-28%	63	59	50	45	47
Second 20%	100	100	100	100	100	100	\$41	\$50	23%	\$32	-36%	60	54	54	40	47
Middle 20%	100	100	100	100	100	100	\$107	\$148	38%	\$119	-19%	60	53	51	46	42
Fourth 20%	100	100	100	100	100	100	\$305	\$396	30%	\$297	-25%	64	57	52	47	43
Top 20%	100	100	100	100	100	100	\$1,003	\$1,177	17%	\$773	-34%	66	58	54	50	43
Top 10%	100	100	100	100	100	100	\$1,570	\$2,028	29%	\$1,514	-25%	67	59	54	51	53

Note: Stock ownership was defined to include any directly held stock, stock in mutual funds, or any stock held in retirement related accounts.