Cash panickers: Coronavirus market volatility

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- The unfolding global coronavirus pandemic precipitated unusual market volatility during the first half of 2020.
- A small subset of Vanguard U.S. investors—less than 0.5%—panicked, abandoning equities and moving to an all-cash portfolio between February 19 and May 31.
- Through May 2020, more than 80% of these cash panickers would have been better off if they had simply "stayed the course."

The unfolding global coronavirus pandemic precipitated unusual market volatility during the first half of 2020. The global Covid-19 pandemic and its associated lockdowns have caused the sharpest and deepest short-term economic contraction in modern history.[1] U.S. markets reached a peak on February 19, 2020; fell 34% in subsequent weeks, bottoming out on March 23; then rose 36% by the end of May.[2] As this paper goes into production, the markets have largely rebounded, although they are still below peak.

Previous research has shown that market conditions influence investors' attention and trading behavior.[3] This research note examines how a small subset of Vanguard U.S. investors who panicked, abandoning equities and moving the proceeds to cash, fared during this period of heightened volatility. Between February 19 and May 31, only 5% of self-directed defined contribution (DC) plan participants traded and 17% of retail self-directed households traded (see **Figure 1**).[4] Less than 0.5% of Vanguard investors panicked and traded to an all-cash portfolio. These so-called cash panickers, at the median, were in their mid-50s and had been Vanguard investors for 12 or more years. Their median equity allocation as of December 2019 was about 70% for DC plan participants and about 75% for retail households.

Figure 1. Characteristics of cash-panicker households, May 2020

Vanguard self-directed investors who traded to and maintained an all-cash portfolio between February 19, 2020, and May 31, 2020

	DC	Retail
Nontraders	95%	83%
Traders	5%	17%
Cash panickers	**<0.5%**	**<0.5%**
Median values		
Age	55	57
Length of account ownership	12	13
Balance	$105,500	$70,000
Equity allocation as of December 2019	69%	77%
IRA only	–	59%
Taxable only	–	21%
Taxable and IRA	–	20%
Male	37%	46%
Female	63%	29%
Household two-plus	–	25%

Notes: Household trading or exchange activity is the movement of existing account assets from one investment to another. We analyze 18,000 self-directed U.S. retail households and 13,700 self-directed defined contribution plan participants who traded to and maintained an all-cash portfolio between February 19, 2020, and May 31, 2020. Our population is limited to those investors for which we have daily returns for the investments held. For example, some investors hold individual bonds for which daily returns are not available. Some plan participants hold white-label funds for which daily returns are also not available. We exclude from our analysis investors enrolled in Vanguard Personal Advisor Services or the Vanguard Managed Account Program.

Source: Vanguard, 2020.

1 See the 2020 Vanguard research paper *Vanguard Economic and Outlook 2020 Midyear Update: Forecasting in the Time of Coronavirus,* available at vanguard.com.

2 As measured by the S&P 500.

3 See the 2020 Vanguard research note *U.S. Household Trading: Coronavirus Market Volatility,* available at vanguard.com. Also see Sicherman, Nachum, George Loewenstein, Duane J. Seppi, Stephen P. Utkus, 2016. *Financial Attention.* The Review of Financial Studies, 29(4): 863-897, available at https://doi.org/10.1093/rfs/hhv073.

4 Household trading or exchange activity is the movement of existing account assets from one investment option to another. We use the aggregate household portfolio as our basis of measure because we consider individuals in the same household to be investing together. We exclude from our analysis investors enrolled in Vanguard Personal Advisor Services or the Vanguard Managed Account Program.

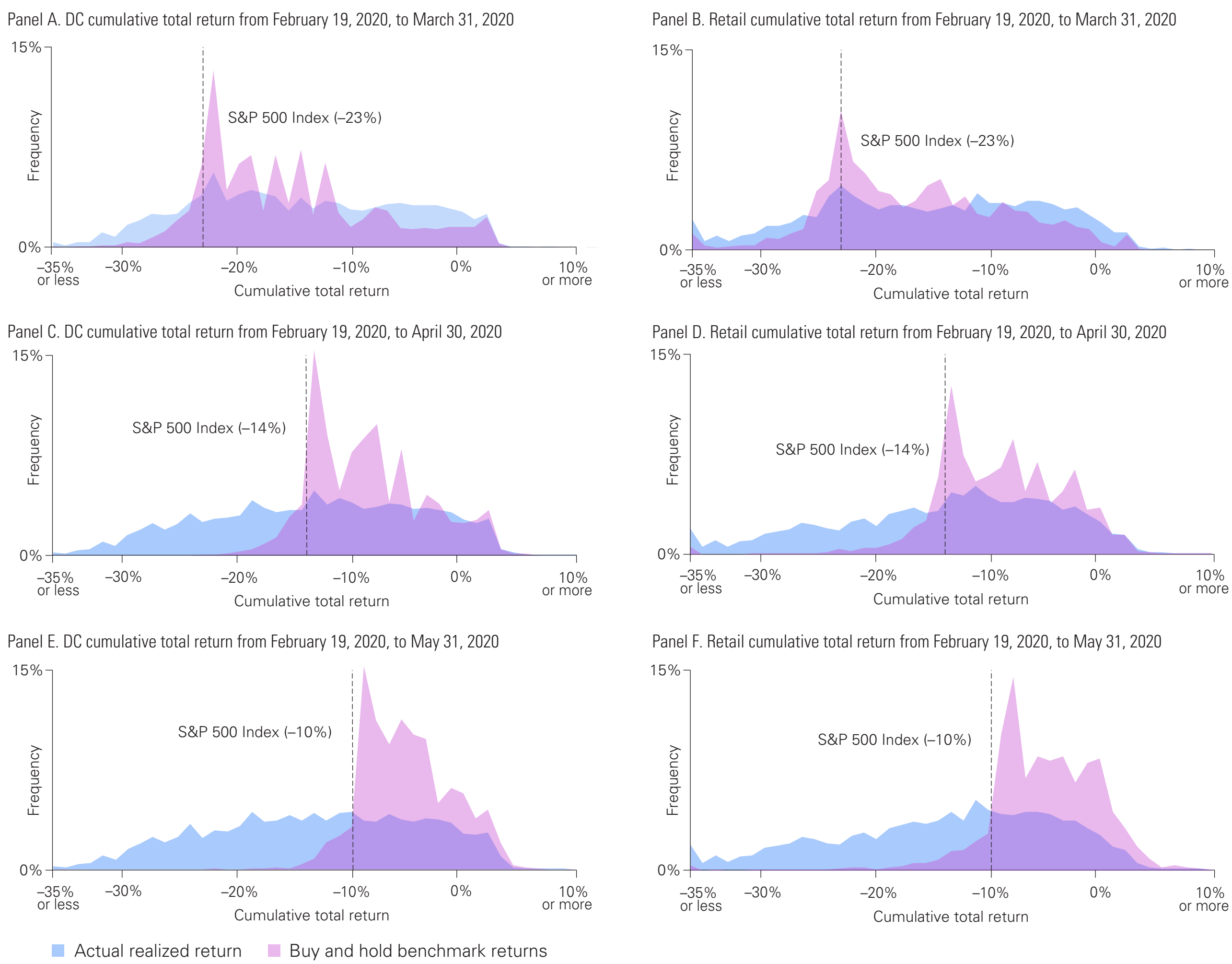
To assess how cash panickers fared, we calculated two return metrics. For the first, we estimated the actual total returns cash panickers realized between February 19 and May 31. For each day and for each investor, we individually calculated daily portfolio returns from position-level daily total returns, weighted by assets, using the portfolio composition as of the prior day's close. This method assumes all transactions occur at the end of the day. The calculation also weights each day equally, regardless of cash flow.

For our second return metric, we calculated the "personal pre-panic benchmark" return for each investor. This return is calculated using the same method as used to calculate the actual total return—but the portfolio composition as of market close on February 18, 2020, is used for the entire period. The personal pre-panic benchmark return represents the return that would have been earned if the investor had not panicked and moved to cash (assuming they reinvested dividends).

In **Figure 2**, we compare the distributions of their actual realized returns to their personal pre-panic benchmark returns. As we move forward from March to April to May, we see their personal pre-panic benchmark returns shifting further to the right, while the distribution of the actual realized returns is fairly static.

Figure 2. Actual total returns of cash panickers compared to buy and hold

Vanguard self-directed households who traded to and maintained an all-cash portfolio between February 19, 2020, and May 31, 2020



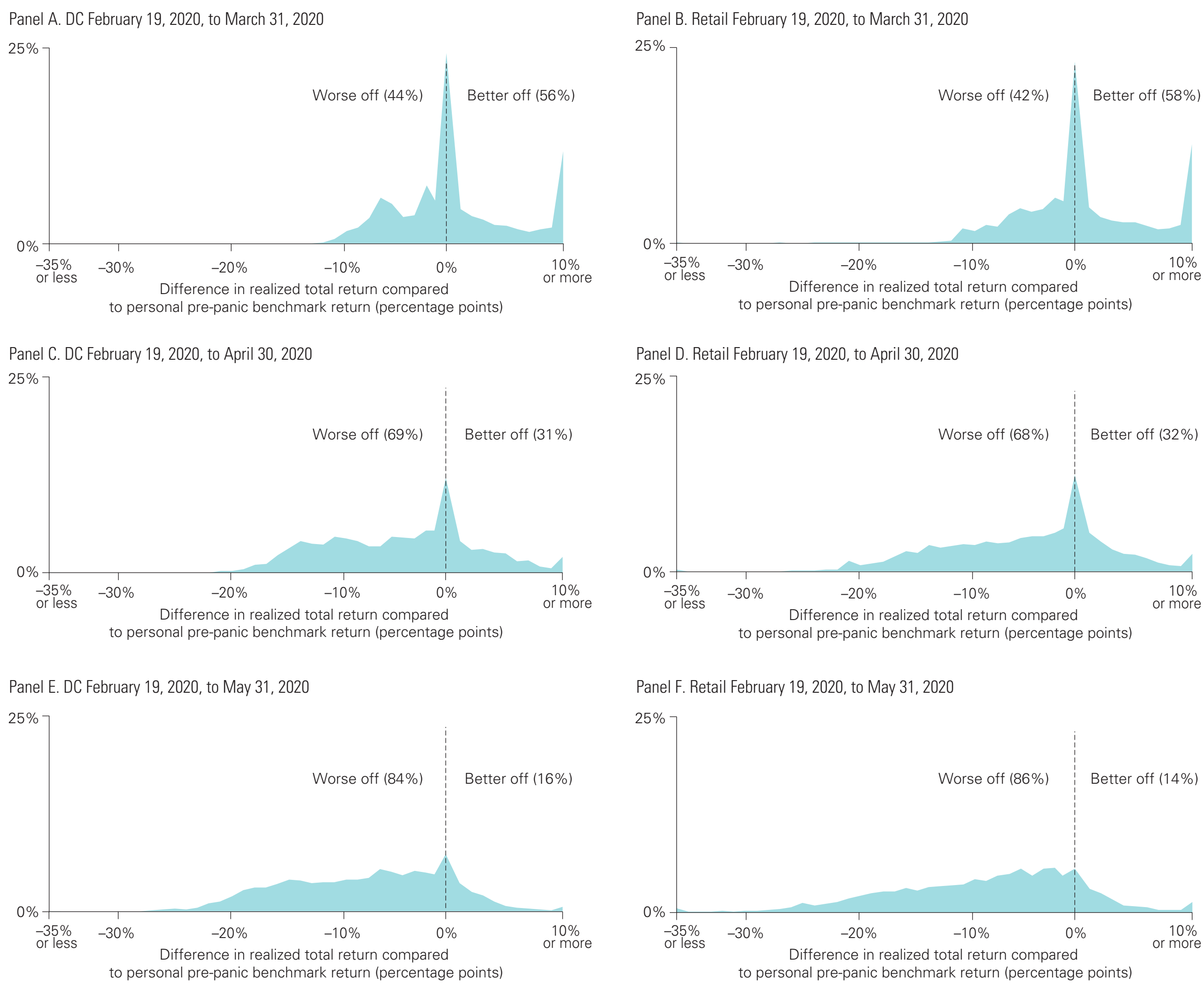
Notes: Actual realized returns are individually calculated for each household. Position-level daily total returns are weighted by assets using the portfolio composition in effect at the prior day's close. Personal pre-panic benchmark returns are individually calculated for each household using the position-level daily total returns, weighted by assets using the portfolio composition in effect on February 18, 2020, at the close of day. Personal pre-panic benchmark returns represent the return that would have been earned if the investor had not panicked and moved to cash, but instead kept her portfolio as it was on February 18, 2020 (reinvesting all dividends).
Source: Vanguard, 2020.

Next we calculate the difference between actual realized returns and their personal pre-panic benchmark returns for each cash panicker (see **Figure 3**). Again, as we move forward from March to April to May, we see that more than 80% of our cash panickers would have been better off had they simply persisted with their February 18 portfolios.

The market's direction—whether up or down—should not inform a long-term investment strategy. Trading in response to market volatility requires an investor to get two timing decisions correct: when to exit equity markets, and when to reenter them. Research shows that portfolio asset allocation accounts for about 90% of investment returns.[5] The vast majority of the cash panickers would have been better off leaving their portfolios untouched; as markets continue to recover, nearly all of them will have realized actual returns lower than their personal pre-panic benchmark portfolio returns. Investors should take heed of these lessons. For advisors, the cash panickers' path underscores the importance of behavioral coaching as markets are likely to experience more volatility in the second half of this year.

Figure 3. Difference in actual total return compared to buy and hold

Difference in cumulative total return over various periods from February 19, 2020, to May 31, 2020



Note: The return difference is calculated for each household by subtracting the household's personal pre-panic benchmark return from the actual realized return.
Source: Vanguard, 2020.

5 See the 2017 Vanguard research paper *The Global Case for Strategic Asset Allocation and an Examination of Home Bias*, available at vanguard.com.

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