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DWS

Just Go with the Flow

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"Be greedy when others are fearful, and fearful when others are greedy"
Warren Buffett

IN A NUTSHELL

— The Federal Reserve has a rich, granular, and intuitive dataset called the Financial Accounts. They are used as a building block for the National Income numbers, but we invoke them for insights into the equity flow behavior of US Households.

— The data illustrates the equity culture of the US, but shows that the way in which America invests has changed very significantly over the decades, from almost entirely direct investments to a more balanced mix of direct and indirect.

— The relationship between quarterly equity market returns, and quarterly individual flow data, shows a strong negative association. Contrary to what many might ordinarily assume, individual investors tend to buy when markets are down, and sell when they are up. We applaud them.

The Amateur Mindset

When it comes to investing, it's likely many think they are professionals, and not amateurs. And, regardless of their classification, they probably believe their strategies, timings, and approaches are stellar. In this brief note, we will evaluate one aspect of this claim, whether amateur investors, properly defined, tend to do the right thing during down markets.

To do that, we'll need to clarify several terms, not least of which – what are amateurs, and what is the "right thing"? Fortunately, there is an extremely robust data set that we can use to help us answer these questions. The Federal Reserve has a voluminous set of information (see References) called the Financial Accounts (it used to be called the Flow of Funds Accounts) which are a building block of the National Income accounts.

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The information is helpful for several reasons. Firstly, it is relatively granular, intuitive to use, and goes back a long way (to 1959 for the set we used), which enables us to build up a robust picture of behavior over several decades. Secondly, they helpfully break down wealth holders into three categories: households, nonfinancial businesses, and banks. It's the first of these that we focus on. Finally, they break household wealth down into different asset classes, and, perhaps most usefully of all, the access method for the assets. So, for example, we will focus just on the equity component of wealth, and, specifically, that which is "directly held" by households, in contrast to "indirectly held." This indirect category includes household investments in pension funds, insurance companies, retirement funds, and mutual funds. By excluding these, and focusing on the directly held equity wealth of households, we believe we have a very good proxy for self-directed amateur flow, i.e., the actions of individual investors.

The Big Picture

Before we get into those specific behaviors, let's set the scene with some bigger context. Figure One shows the development of how US Households have held their equity investments over time. Two points of interest stand out to us. The first is that, just 65 years ago, virtually all market participation was direct (i.e. not via a pooled vehicle). It's easy for us to forget this today, but the creation, and widespread adoption, of pooled vehicles with professional money managers – such as mutual funds and ETFs - is a relatively recent phenomenon. The increase in the proportion of indirectly held equity speaks to the creation and growth of these vehicles.

The second feature is the reversal of this trend in more recent years. It's clear from the chart that, over the last decade or so, the direct ownership percentage is increasing. David Bianco, our Head of Active Equities in the US, and CIO for the Americas, cites three reasons why direct ownership may remain strong: large, single stock positions of, predominantly, big tech companies; retail platform direct index investing; and separately tax managed accounts. Ultimately though, this is a topic for another paper, because it's the behavior *within* the directly held section that we want to focus on, not the changing composition *between* the direct and indirect holdings.

Figure Two is also worth examining for context. It shows the percentage of all household financial assets that are held in equities. Again, we make two observations. Firstly, the chart reflects the reputation of America as an "equity culture." That today, and for the last several decades, US households have held around a third of their total wealth in the stock market shows a degree of comfort, and faith that they have had in equity ownership as a sensible place to park savings. Secondly, we note that this chart is confounding two variables which we will momentarily dissect. The percentage of household wealth held in equities moved both with the market itself, and with the flows that households choose to move in and out of the market. This is both a trivial, but important, distinction as we try to understand behavior. It's almost as though the market move is an externally imposed, and uncontrollable component of one's equity wealth, and the flow moves are the personally directed, and deliberately controlled component. It's this latter part to which we will now turn our attention.

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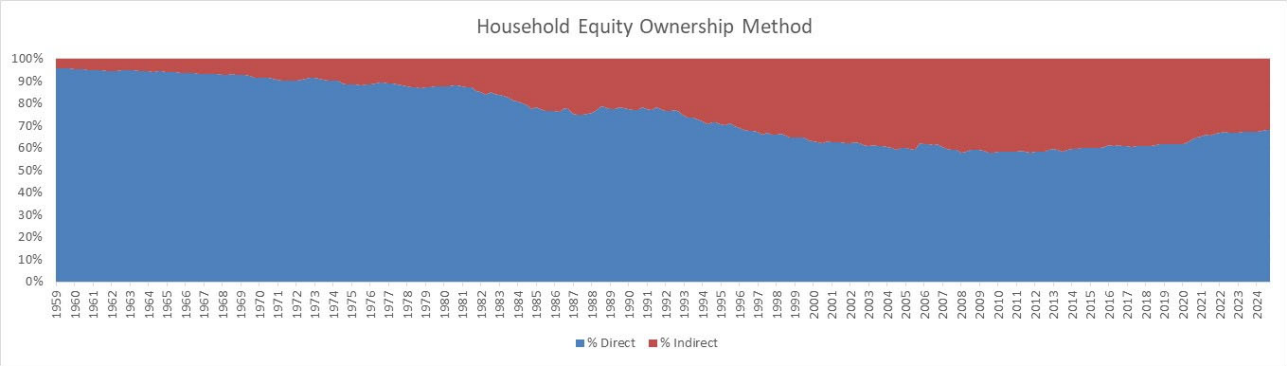
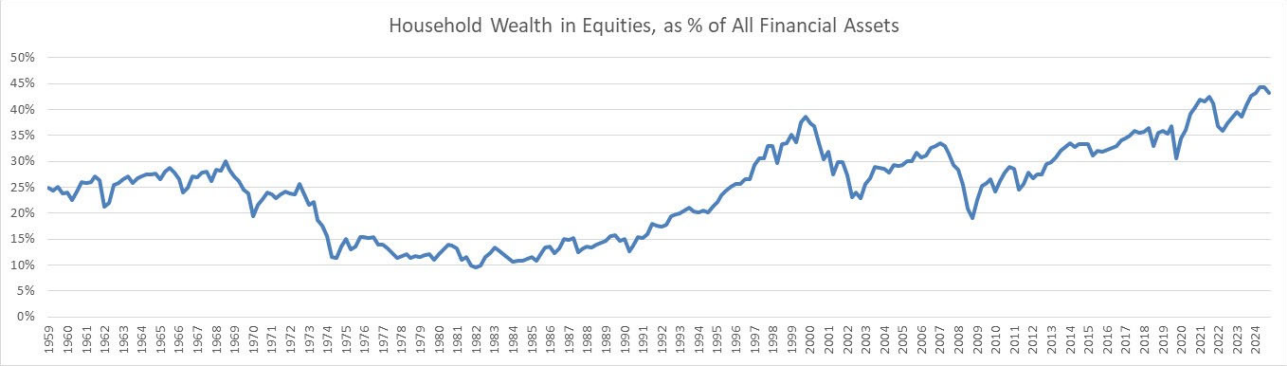
Figure One: The Direct, and Indirect, Equity Holding Methods of US Households



Source: FRED, as of 7/25

Figure Two: The Equity Wealth of US Households, as % of All Financial Assets



Source: FRED, as of 7/25

Going with the Flow

As we note above, equity market wealth can be broadly broken into two parts, what the market gives you (or takes away!), and what (and when) you as an investor decide to allocate and redeem. Essentially, the former is the change in the value of one's stock due to market moves, and the latter is the change in the value due to fresh sales and purchases (flow). This last section will analyze the relationship between these two parts, essentially trying to glean whether there is causality between them, and whether, if there is, it is to the benefit of the individual investor (i.e., the "right thing" from our introduction).

Since we don't want to inundate you with countless scatterplots, we will focus on just three of the countless possible permutations of these two factors. Firstly, the relationship between the change in flow one quarter and the market return in the same quarter. Secondly, we will show the relationship between the change in flow the following quarter, and the market return the previous quarter. Finally, we will reverse the causality, and look at the relationship between the

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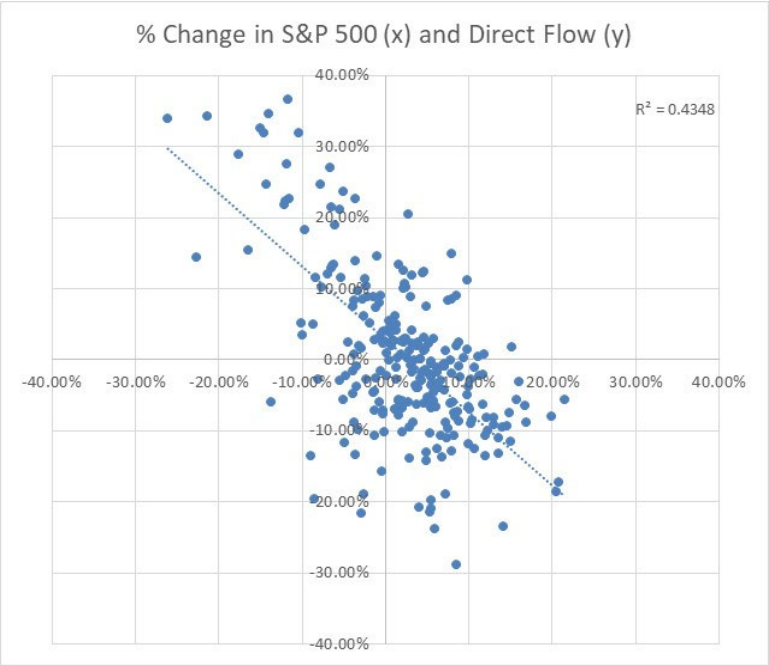
market return one quarter, and the change in flow the previous quarter. All these relationships - contemporaneous, lagged, and leading - are of interest in our view.

Figure Three shows the first of these, and demonstrates what is, to us, the most important finding in this paper. Again, it is showing the relationship between the change in flow of US households' direct equity holdings, against the return of the S&P 500 (all data is quarterly from Q2 1959 – Q1 2025). For us, the very strong, quite surprising, and strangely reassuring message is that individual investors in the US behaved exactly as they ought to in the face of weak equity markets – they tended to invest. This is good news for two reasons. Firstly, because it challenges the common belief that they buy and sell at the wrong times, indeed it suggests that they are doing exactly the opposite, buying on market dips, and redeeming after rallies. Secondly, as we will show shortly, they appear to have benefited from strong performance in subsequent quarters. Put another way, the decisions appear to have paid off, just as one might hope.

One caveat though that we ought to add to this behavior is that, although the data does a good job of isolating the *actions* of individual investors, it can't speak to their *motivations*. David Bianco, our Head of Active Equities in the US, and CIO for the Americas, whom we cite above, also holds the view that most individual investors are likely advised by professional Financial Advisors. So, while they might own the ultimate decision, professional guidance may well have steered them there.

Figure Three: The Return of the S&P 500 (x-axis) vs the Change in Direct Flow of US Households (y-axis), (Quarterly, Q2 1959 – Q1 2025)



Source: FRED, Bloomberg, as of 7/25

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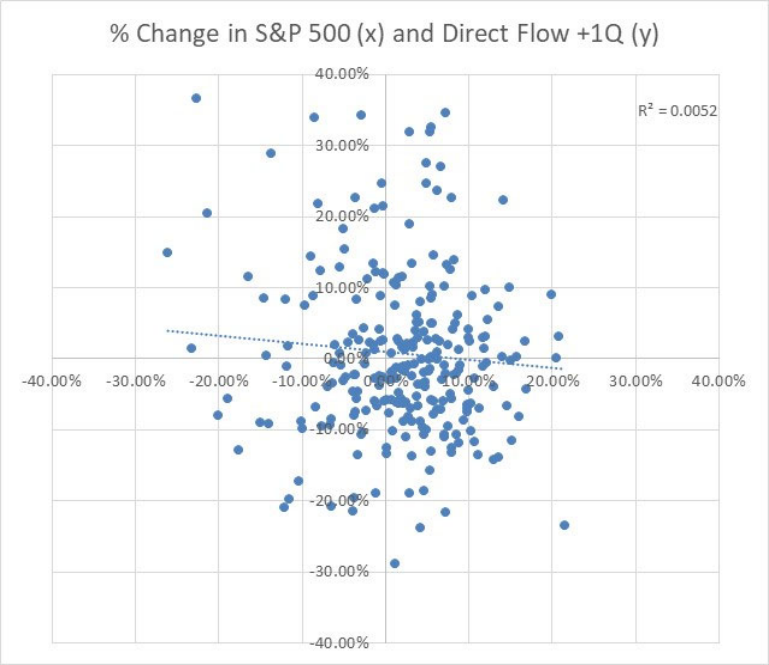
Figure Four shows the next of the relationships (or lack thereof). Instead of a contemporaneous relationship in the same quarter, we are now looking at the same market return from above, but, this time, compared to the change in flow the following quarter. The idea is to try and gauge whether individual investors changed their allocations after the fact, essentially allowing the market to sway their subsequent decisions. The data suggests there is little to no relationship there (the correlation is 0.07). Again, we think this is a positive result because it confirms the findings of Figure Three, that action was taken in a timely manner in the same quarter as market moves, and not as an afterthought.

Figure Four: The Return of the S&P 500 (x-axis) vs the Change in Direct Flow of US Households in the subsequent quarter (y-axis), (Quarterly, Q2 1959 – Q1 2025)



Source: FRED, Bloomberg, as of 7/25

The final relationship we observe is in Figure Five. This time we are switching the causality, and trying to see if flow in the preceding quarter related to the subsequent quarter's change in the equity market. The plot shows another strong positive association (correlation of 0.67) which suggests that individual positioning in the previous quarter explains much of the equity market's movement in the subsequent quarter. However, before readers leap to the exciting conclusion that we have uncovered an infallible leading indicator of the stock market, we would caveat two thoughts - one practical, one theoretical.

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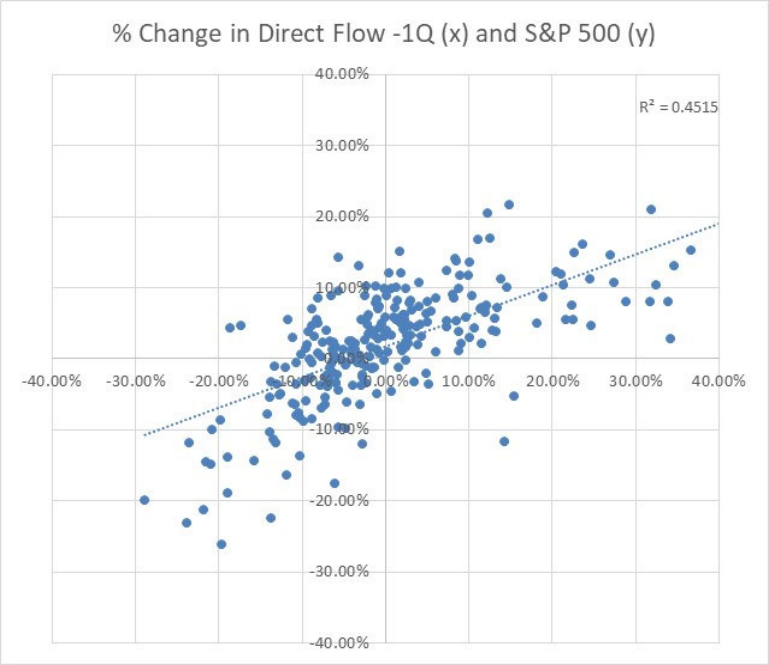
Figure Five: The Change in Direct Flow of US Households in the preceding quarter (x-axis), vs the return of the S&P 500 (y-axis), (Quarterly, Q2 1959 – Q1 2025)



Source: FRED, Bloomberg, as of 7/25

Firstly, the Fed's National Accounts data is an extremely complex dataset and takes a long time to compile. As such the flow data is released with too significant a lag to trade on. Secondly, there might be a more subtle way to explain the relationship in Figure Five. At first glance it seems as though the flow behavior is driving the stock market return. But, given what we saw in Figure Three, where individual investors simply increased their exposure in down markets, coupled with the tendency for quarterly market returns to be uncorrelated, we wonder if this is more a result of that behavior rather than a predictor. Put another way, if investors tend to increase their equity weights when markets are down, and one down quarter does not necessarily lead to another down quarter, then would we not expect to see this relationship anyway? Of course, this could be over-thinking the relationship, and we leave readers to draw their own conclusions. For us, the most interesting relationship remains that in Figure Three which is somewhat myth-busting, and potentially augurs quite well for long-term success in the equity markets.

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Conclusions

The Federal Reserve Financial Accounts dataset is a rich source of information for financial researchers. We used the change in US Households' directly held equity wealth, and adjusted it for the stock market return, to isolate what we believe is a reasonable proxy for individual flow (albeit potentially professionally advised). We conclude:

- That there appears to have been a long run trend for a strong equity ownership culture in the US, and that it has shifted significantly over the decades from being almost entirely directly held towards a more balanced position of direct and indirect access (with perhaps a slight trend over the last decade back towards more direct access, for the reasons we cite above).

- After examining several permutations of the relationships between equity market returns, and flow changes, our most interesting observation is that there was a strongly negative relationship between these two variables in the same quarter. Put more simply, individual investors appear to add to their holdings when times are bad, and reduce them when times are good. This is quite counterintuitive to the often-ingrained idea that this cohort performance chases, and exhibit a herd mentality. Congratulations!

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References

https://fred.stlouisfed.org

https://www.federalreserve.gov

Glossary

Correlation: the statistical relationship between two variables, indicating to what extent they tend to be away from their means at the same time.

Exchange-traded fund (ETF): a security that tracks an index or asset like an index fund, but trades like a stock on an exchange.

Federal Reserve: the bank of the United States

Financial Assets: instruments such as cash, stocks, and bonds that are non-physical, and derive their value from a contractual claim on future cash flows or ownership stakes.

Flow: the change in an investors' wealth due to allocated and redeemed money, so adjusting for the market move.

Index Investing: a passive strategy that involves buying and holding a portfolio of investments designed to track a market index.

Mutual fund: a mutual fund combines funds from many investors with the intention of purchasing securities.

National Income numbers: a government bookkeeping system that records a country's economic performance by measuring the value and composition of factors such as income and output.

Passive Investing: an investment strategy that seeks to replicate as closely as possible the performance of an index.

S&P 500: an index that includes 500 leading U.S. companies capturing approximately 80% coverage of available U.S. market capitalization.

Tax Managed Account: an investment approach designed to minimize an investor's tax liabilities and maximize after-tax-returns.

Volatility: the degree of variation of a trading-price series over time. It can be used as a measure of an asset's risk.

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