



JUNE - AUGUST, 2021

# SUMMER SESSIONS

Refresh your knowledge of essential topics in investing

## Introduction to Investor Behavior

Presented by Ken Froot

### Key Points

- Institutional investors exhibit herding. This persistence as a group combined with price impact causes flows to forecast future returns.
- In contrast to flows, holdings are bounded and mean-reverting. Holdings in excess of benchmarks forecast future returns, but with a negative sign.
- Return predictability is robust. Flows and holdings forecast future returns across countries, economic industries, and asset classes.
- State Street's expansive custody database of over 70,000 portfolios provides a rich environment for Investor Behavior research.
- The Investor Behavior team anonymizes and aggregates funds prior to analysis to preserve client confidentiality.

Visit State Street Global Markets' research platform, [Insights](#), to find the replay of this session and all others. Recordings are available to State Street clients and Insights users, to learn more or to request an account [contact us](#) and we'll get back to you as soon as we can.



State Street provides fund custody services for over 70,000 portfolios which total more than \$40 trillion USD of securities. This expansive custody database provides a rich environment for studying institutional investor behavior. While trades of *all* investors must necessarily sum to zero for every security, trades of *institutional* investors may not. The top priority of State Street's investor behavior research is to preserve client confidentiality. Funds are anonymized and aggregated to avoid revealing the trades or positions of any single investor. Each of the over 500,000 investor behavior indicators State Street produces is checked every day to ensure no single fund is driving that indicator.

One of the key features of institutional investors is that the group exhibits herding. Institutional investors tend to listen to the same company earnings calls, meet with the same company management, and read the same sell-side analyst reports. Persistence in thinking causes persistence in trading. While a given fund may complete its trading of a stock within a few days, other funds will not necessarily trade on the same few days. A single fund may have little persistence, but institutional funds as a group exhibit persistence which lasts months.

Most of the time institutional investors demand liquidity rather than supplying it. By consuming liquidity these investors cause price impact with their trading. This price impact combined with trading persistence

produces return predictability. Since trading today forecasts trading tomorrow, and trading tomorrow pushes prices tomorrow, trading today on average predicts price changes tomorrow.

The investor behavior team also builds indicators based on holdings. A portfolio's holdings can be calculated absolutely or relative to a computed model benchmark. Holdings decay more slowly than flows because holdings take time to accumulate and unwind. Holdings are bounded and over time tend to revert toward benchmark positions on average. This unwinding gives holdings *negative* return predictability; on average positive excess holdings predict negative excess returns and vice versa.


Flows and holdings produce robust indicators. These forecast future returns across industries and countries; they predict future returns in equity, fixed income, and foreign currency markets.

## State Street Associates

Our goal is to bridge the worlds of financial theory and practice with innovative investment research for asset managers and owners. We focus on two fundamental drivers of performance to help State Street's clients exceed their performance goals and manage risk:

**INFORMATION ADVANTAGE:** Our extensive indicator suites provide investors with powerful and practical market intelligence.

**RESEARCH ADVANTAGE:** We partner with renowned academics to develop impactful new ideas for portfolio construction, risk management, and investment strategies.

Learn more about our thought leadership, publications, interactive tools and indicators visit 

### Disclaimers and Important Risk Information

State Street Global Markets® is the business name and a registered trademark of State Street Corporation® and is used for its financial markets business and that of its affiliates. State Street Associates® is a registered trademark of State Street Corporation, and the analytics and research arm of State Street Global Markets.

The products and services outlined herein are only offered to professional clients or eligible counterparties through State Street Bank and Trust Company, authorized and regulated by the Federal Reserve Board. State Street Bank and Trust Company is registered with the Commodity Futures Trading Commission as a Swap Dealer and is a member of the National Futures Association. Please note that certain foreign exchange business, including spot and certain forward transactions, are not regulated.

This document is a communication intended for general marketing purposes, and the information contained herein has not been prepared in accordance with legal requirements designed to promote the independence of investment research. It is for clients to determine whether they are permitted to receive research of any nature. It is not intended to suggest or recommend any transaction, investment, or investment strategy, does not constitute investment research, nor does it purport to be comprehensive or intended to replace the exercise of an investor's own careful independent review and judgment regarding any investment decision.

This communication is not intended for retail clients, nor for distribution to, and may not be relied upon by, any person or entity in any jurisdiction or country where such distribution or use would be contrary to applicable law or regulation. This communication and the information herein does not constitute investment, legal, or tax advice and is not a solicitation to buy or sell securities or any financial instrument nor is it intended to constitute a binding contractual arrangement or commitment by State Street of any kind. The information provided does not take into account any particular investment objectives, strategies, investment horizon or tax status. This communication or any portion hereof may not be reprinted, sold or redistributed without the prior written consent of State Street Global Markets.

The views expressed herein are the views of State Street Global Markets as of the date specified and are subject to change, without notice, based on market and other conditions. The information provided herein has been obtained from sources believed to be reliable at the time of publication, nonetheless, we make no representations or assurances that the information is complete or accurate, and you should not place any reliance on said information. State Street Global Markets hereby disclaims any warranty and all liability, whether arising in contract, tort or otherwise, for any losses, liabilities, damages, expenses or costs, either direct, indirect, consequential, special, or punitive, arising from or in connection with any use of this document and/or the information herein.

State Street Global Markets may from time to time, as principal or agent, for its own account or for those of its clients, have positions in and/or actively trade in financial instruments or other products identical to or economically related to those discussed in this communication. State Street Global Markets may have a commercial relationship with issuers of financial instruments or other products discussed in this communication.

This document may contain statements deemed to be forward-looking statements. These statements are based on assumptions, analyses and expectations of State Street Global Markets in light of its experience and perception of historical trends, current conditions, expected future developments and other factors it believes appropriate under the circumstances. All information is subject to change without notice. Clients should be aware of the risks trading foreign exchange, equities, fixed income or derivative instruments or in investments in non-liquid or emerging markets. Derivatives generally involve leverage and are therefore more volatile than their underlying cash investments. Past performance is no guarantee of future results.

The products and services outlined in this document are generally offered in the **United States and Latin America** by State Street Bank and Trust Company. This communication is made available in **Japan** by State Street Bank and Trust Company, Tokyo Branch, which is regulated by the Financial Services Agency of Japan and is licensed under Article 47 of the Banking Act. **EMEA:** (i) State Street Bank and Trust Company, London Branch, authorised and regulated by Federal Reserve Board,

authorised by the Prudential Regulation Authority, subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of regulation by the Prudential Regulation Authority are available upon request; and/or (ii) State Street Bank International GmbH, authorised by Deutsche Bundesbank and the German Federal Financial Supervisory Authority and, in respect of State Street Bank International GmbH, London Branch, subject to limited regulation by the Financial Conduct Authority and Prudential Regulation Authority. Details about the extent of regulation by the Financial Conduct Authority and Prudential Regulation Authority are available upon request. **Brazil:** The products in this marketing material have not been and will not be registered with the Comissão de Valores Mobiliários - the Brazilian Securities and Exchange Commission ("CVM"), and any offer of such products is not directed to the general public within the Federative Republic of Brazil ("Brazil"). The information contained in this marketing material is not provided for the purpose of soliciting investments from investors residing in Brazil and no information in this marketing material should be construed as a public offering or unauthorized distribution of the products within Brazil, pursuant to applicable Brazilian law and regulations. The products and services outlined in this document are generally offered in **Canada** by State Street Bank and Trust Company. This communication is made available in **Hong Kong** by State Street Bank and Trust Company which accepts responsibility for its contents, and is intended for distribution to professional investors only (as defined in the Securities and Futures Ordinance). Information provided is of a general nature only and has not been reviewed by any regulatory authority in Hong Kong. This communication is made available in **Australia** by State Street Bank and Trust Company ABN 70 062 819 630, AFSL 239679 and is intended only for wholesale clients, as defined in the Corporations Act 2001. This communication is made available in **Singapore** by State Street Bank and Trust Company, Singapore Branch ("SSBTS"), which holds a wholesale bank license by the Monetary Authority of Singapore. In Singapore, this communication is only distributed to accredited, institutional investors as defined in the Singapore Financial Advisers Act ("FAA"). Note that SSBTS is exempt from Sections 27 and 36 of the FAA. When this communication is distributed to overseas investors as defined in the FAA, note that SSBTS is exempt from Sections 26, 27, 29 and 36 of the FAA. This advertisement has not been reviewed by the Monetary Authority of Singapore. The products and services outlined in this document are made available in **South Africa** through State Street Bank and Trust Company, which is authorized in South Africa under the Financial Advisory and Intermediary Services Act, 2002 as a Category I Financial Services Provider; FSP No. 42671. This communication is made available in **Israel** by State Street Bank and Trust Company, which is not licensed under Israel's Regulation of Investment Advice, Investment Marketing and Portfolio Management Law, 1995. This communication may only be distributed to or used by investors in Israel which are "eligible clients" as listed in the First Schedule to Israel's Regulation of Investment Advice, Investment Marketing and Portfolio Management Law 1995. This communication is made available in **Qatar** by State Street Bank and Trust Company and its affiliates. The information in this communication has not been reviewed or approved by the Qatar Central Bank, the Qatar Financial Markets Authority or the Qatar Financial Centre Regulatory Authority, or any other relevant Qatari regulatory body. This communication is made available in **Malaysia** by State Street Bank and Trust Company, which is authorized and regulated by the Federal Reserve Board. State Street Bank and Trust Company is not licensed within or doing business within Malaysia and the activities that are being discussed are carried out off-shore. The written materials do not constitute, and should not be construed as constituting: 1) an offer or invitation to subscribe for or purchase securities or futures in Malaysia or the making available of securities or futures for purchase or subscription in Malaysia; 2) the provision of investment advice concerning securities or futures; or 3) an undertaking by State Street Bank and Trust Company to manage the portfolio of securities or futures contracts on behalf of other persons. This communication is made available in **Turkey** by State Street Bank and Trust Company and its affiliates. The information included herein is not investment advice. Investment advisory services are provided by portfolio management companies, brokers and banks without deposit collection licenses within the scope of the investment advisory agreements to be executed with clients. Any opinions and statements included herein are based on the personal opinions of the commentators and authors. These opinions may not be suitable to your financial status and your risk and return preferences. Therefore, an investment decision based solely on the information herein may not be appropriate to your expectations. This communication is made available in **United Arab Emirates** by State Street Bank and Trust Company and its affiliates. This communication does not, and is not intended to, constitute an offer of securities anywhere in the United Arab Emirates and accordingly should not be construed as such. Nor does the addressing of this communication to you constitute, or is intended to constitute, the carrying on or engagement in banking, financial and/or investment consultation business in the United Arab Emirates under the rules and regulations made by the Central Bank of the United Arab Emirates, the Emirates Securities and Commodities Authority or the United Arab Emirates Ministry of Economy. Any public offer of securities in the United Arab Emirates, if made, will be made pursuant to one or more separate documents and only in accordance with the applicable laws and regulations. Nothing contained in this communication is intended to endorse or recommend a particular course of action or to constitute investment, legal, tax, accounting or other professional advice. Prospective investors should consult with an appropriate professional for specific advice rendered on the basis of their situation. Further, the information contained within this communication is not intended to lead to the conclusion of any contract of whatsoever nature within the territory of the United Arab Emirates. This communication has been forwarded to you solely for your information, and may not be reproduced or passed on, directly or indirectly, to any other person or published, in whole or in part, for any purpose. This communication is addressed only to persons who are professional, institutional or otherwise sophisticated investors. This communication is made available in **Saudi Arabia** by State Street Bank and Trust Company and its affiliates. The information contained in this communication is not intended to invite or induce any person to engage in securities activities nor does it constitute an offer to sell securities or the solicitation of an offer to buy, or recommendation for investment in, any securities within the Kingdom of Saudi Arabia or any other jurisdiction. The information in this communication is not intended as financial advice. Moreover, this communication is not intended as a prospectus within the meaning of the applicable laws and regulations of the Kingdom of Saudi Arabia or any other jurisdiction and this communication is not directed to any person in any country in which the distribution of such communication is unlawful. This communication provides general information only. The information and opinions in this communication are stated as at the date indicated. The information may therefore not be accurate or current. The information and opinions contained in this communication have been compiled or arrived at from sources believed to be reliable in good faith, but no representation or warranty, express or implied, is made by State Street Bank and Trust Company and its affiliates as to their accuracy, completeness or correctness. This communication is made available in **South Korea** by State Street Bank and Trust Company and its affiliates, which accept responsibility for its contents, and is intended for distribution to professional investors only. State Street Bank and Trust Company is not licensed to undertake securities business within South Korea, and any activities related to the content hereof will be carried out off-shore and only in relation to off-shore non-South Korea securities. This communication is made available in **Indonesia** by State Street Bank and Trust Company and its affiliates. Neither this communication nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable Indonesian capital market laws and regulations. This communication is not an offer of securities in Indonesia. Any securities referred to in this communication have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market law and regulations. This communication is made available in **Oman** by State Street Bank and Trust Company and its affiliates. The information contained in this communication is for information purposes and does not constitute an offer for the sale of foreign securities in Oman or an invitation to an offer for the sale of foreign securities. State Street Bank and Trust Company is neither a bank nor financial services provider registered to undertake business in Oman and is neither regulated by the Central Bank of Oman nor the Capital Market Authority. Nothing contained in this communication report is intended to constitute Omani investment, legal, tax, accounting, investment or other professional advice. This communication is made available in **Taiwan** by State Street Bank and Trust Company and its affiliates, which accept responsibility for its contents, and is intended for distribution to professional investors only. State Street Bank and Trust Company is not licensed to undertake securities business within Taiwan, and any activities related to the content hereof will be carried out off-shore and only in relation to off-shore non-Taiwan securities. **Peoples Republic of China ("PRC").** This communication is being distributed by State Street Bank and Trust Company. State Street Bank and Trust Company is not licensed or carrying on business in the PRC in respect of any activities described herein and any such activities it does carry out are conducted outside of the PRC. These written materials do not constitute, and should not be construed as constituting: 1) an offer or invitation to subscribe for or purchase securities or futures in PRC or the making available of securities or futures for purchase or subscription in PRC; 2) the provision of investment advice concerning securities or futures; or 3) an undertaking by State Street Bank and Trust Company to manage the portfolio of securities or futures contracts on behalf of other persons.

Products and services may not be available in all jurisdictions. Please contact your State Street representative for further information. SSA MMD 202 1-02

To learn how State Street looks after your personal data, visit: <https://www.statestreet.com/utility/privacy-notice.html>.

© 2021 State Street Corporation – All Rights Reserved