Vanguard

Unrecognized trends in indexing

Introduction

The rise of 'passive' investing over the last few decades has led to this seeming paradox: Investors are using index funds to build portfolios with active exposures. That's the finding of "How Investors Use Passive for Active," a research paper authored by Vanguard's Jan-Carl Plagge, Haifeng Wang, and Jim Rowley. The paper was recently published in The Journal of Beta Investment Strategies.

"Investors often use index funds to build active exposures," said Plagge, the head of active-passive portfolio research at Vanguard. "They do this by investing in index funds whose objective is to track an index that is a subset of an equity market. To the extent that these building blocks are not weighted in proportion to the market capitalization of their holdings, the aggregate index fund portfolio bears active risk."

And the nature of active risk that investors take changes over time, depending on investors preferences. Plagge said that over the last decade, investors' use of "non-total market index funds" has moved beyond those that predominantly focus on the largest stocks of a given market, such as funds based on the Standard & Poor's 500 Index to those that focus on a wider range of other segments of the market.

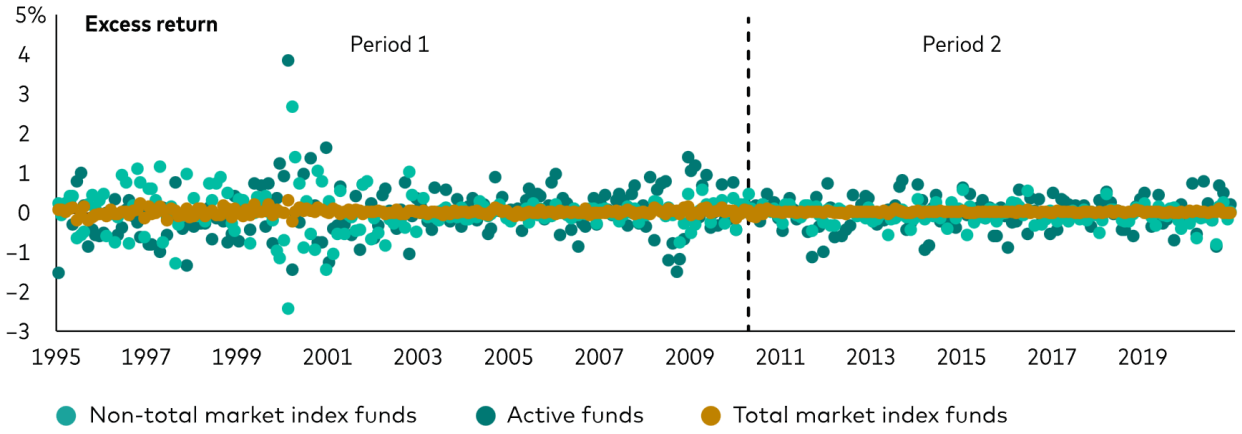
To illustrate the active nature of non-total market index funds, the study offers several empirical analyses, including a review of relative returns through time, an analysis of factor-based styles, and an analysis of industry allocations.

Relative returns through time

The authors compare the performance of three constructed aggregate portfolios (non-total market index funds, active funds, and total market index funds) to that of the Dow Jones Total Stock Market Index over two time periods (1995–2009 and 2009–2020). Non-total market index funds are those index funds that do not track a total U.S. equity market index. Total market index funds are defined as those that have the objective to track a total U.S. equity market index. Active funds are traditional actively managed funds. The performance of each of the three derived portfolios is calculated as the asset-weighted average of all U.S. equity funds that fall into the respective category.

As expected, the aggregate of total market index funds closely tracks the Dow Jones index, while the returns of the aggregate of active funds differ noticeably from those of the index. But what's important to note is how much the performance of the aggregate of non-total market index funds diverges from that of the market. Although the level of deviation is not as high as that of active funds, it is clearly higher than that of the total market index funds.

The aggregate of non-total market index funds doesn't seem to track the market



Notes: The chart displays monthly gross excess returns of the aggregate of non-total market index funds, active funds, and total market index funds relative to the Dow Jones Total Stock Market Index. Time period observed: January 1995 to December 2020.

Sources: Vanguard calculations, based on data from Morningstar, Inc.

Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Factor-based style analysis

The authors also test whether systematic style exposures might have caused the monthly return deviations of the aggregate of non-total market index funds from the total market index. Their models suggest that systematic factors do explain a noticeable portion of the variability of returns.

Their results showed that, in fact, parts of these return deviations were driven by systematic style exposures. These exposures changed over time, indicating the changing choices made by investors. During the first time period (1995–2009), investors made choices that resulted in an aggregate portfolio of relatively higher beta stocks[1], larger-cap stocks, and value stocks while in the second period (2009–2020), the aggregate investor portfolio consisted of relatively lower-beta stocks and smaller-cap stocks. This shift is another indication that, for many investors, their investment exposure in non-total market index funds is active in nature.

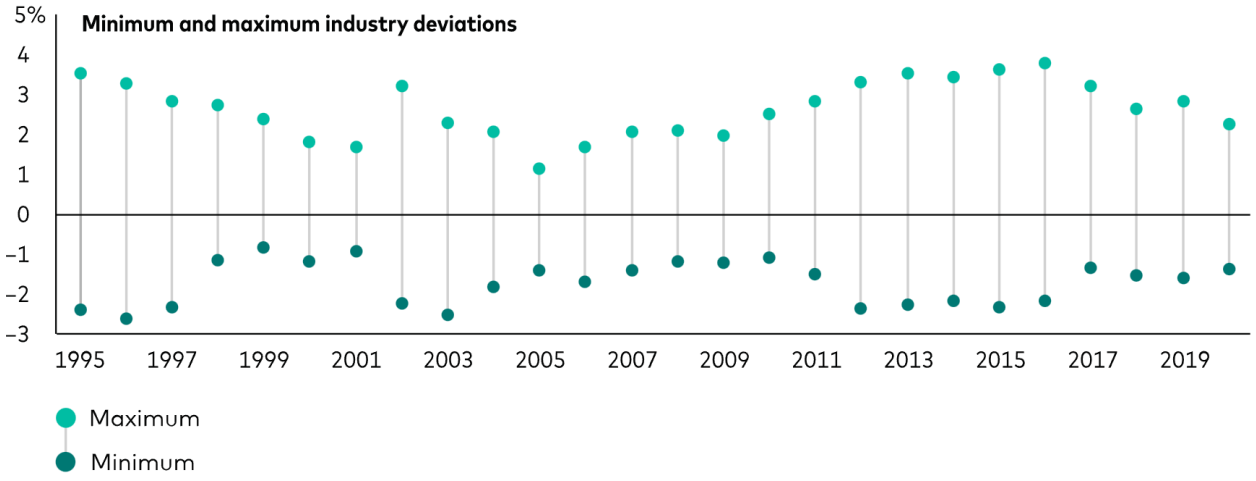
Deviations in industry allocations

It stands to reason that if investors choose index funds to build truly passive portfolios, the asset-weighted aggregate of all index funds should equal the total market, and every cross-section should be proportional to the comparable subset of the total market.

But that doesn't hold up. The active nature of the aggregate of non-total market index funds also manifests itself in industry weights that are not aligned with those of the broader U.S. equity market. The magnitude and consistency of the deviations differ by industry. To be clear, no industry was found to have been either underweighted or overweighted over the entire time period. However, deviations were more stable for some industries. For example, real estate has been overweight in 233 out of 313 months observed, while financial services has been underweight in 279 of the 313 months.

[1] See Vanguard Economic and Market Outlook for 2022: Striking a Better Balance.

Industry weights of non-total market index funds are not market-cap proportional



Notes: This chart displays the range of deviations in industry allocations between the asset-weighted non-total market index fund portfolio and the underlying U.S. equity market represented by the Russell 3000 Index. Time period observed: January 1995 to December 2020.
Source: Authors' calculations based on data from Morningstar, Inc.

Using index funds to construct portfolios that are active in nature

The study's results suggest that investors are using non-total market index funds to construct portfolios with active exposures. This conclusion rests on three observations linked to the asset weighted aggregate of non-total market index funds: the existence and variability of excess returns relative to the total U.S. equity market, significant exposures to style factors such as size and value, and industry allocations that are not identical to those of the total U.S. equity market.

"Our observations are important for two reasons," said Wang, a portfolio manager in Vanguard Quantitative Equity Group. "They stress the importance of analyzing strategies as opposed to whether a fund is active or index, and they illustrate the active use that investors make of passive strategies."

Notes:

- All investing is subject to risk, including the possible loss of the money you invest.

Important Information

VIGM, S.A. de C.V. Asesor en Inversiones Independiente ("Vanguard Mexico") registration number: 30119-001-(14831)-19/09/2018. The registration of Vanguard Mexico before the Comisión Nacional Bancaria y de Valores ("CNBV") as an Asesor en Inversiones Independiente is not a certification of Vanguard Mexico's compliance with regulation applicable to Advisory Investment Services (Servicios de Inversión Asesorados) nor a certification on the accuracy of the information provided herein. The supervision scope of the CNBV is limited to Advisory Investment Services only and not all services provided by Vanguard Mexico.

This material is solely for informational purposes and does not constitute an offer or solicitation to sell or a solicitation of an offer to buy any security, nor shall any such securities be offered or sold to any person, in any jurisdiction in which an offer, solicitation, purchase or sale would be unlawful under the securities law of that jurisdiction. Reliance upon information in this material is at the sole discretion of the recipient.

Securities information provided in this document must be reviewed together with the offering information of each of the securities which may be found on Vanguard's website: https://www.vanguardmexico.com/institutional/products/en/list/overview or www.vanguard.com

Vanguard Mexico may recommend products of The Vanguard Group Inc. and its affiliates and such affiliates and their clients may maintain positions in the securities recommended by Vanguard Mexico.

ETFs can be bought and sold only through a broker and cannot be redeemed with the issuing fund other than in very large aggregations. Investing in ETFs entails stockbroker commission and a bid-offer spread which should be considered fully before investing. The market price of ETF Shares may be more or less than net asset value.

All investments are subject to risk, including the possible loss of the money you invest. Investments in bond funds are subject to interest rate, credit, and inflation risk. Governmental backing of securities applies only to the underlying securities and does not prevent share-price fluctuations. High-yield bonds generally have medium- and lower-range credit quality ratings and are therefore subject to a higher level of credit risk than bonds with higher credit quality ratings.

There is no guarantee that any forecasts made will come to pass. Past performance is no guarantee of future results.

Prices of mid- and small-cap stocks often fluctuate more than those of large-company stocks. Funds that concentrate on a relatively narrow market sector face the risk of higher share-price volatility. Stocks of companies are subject to national and regional political and economic risks and to the risk of currency fluctuations, these risks are especially high in emerging markets. Changes in exchange rates may have an adverse effect on the value, price or income of a fund.

The information contained in this material derived from third-party sources is deemed reliable, however Vanguard Mexico and The Vanguard Group Inc. are not responsible and do not guarantee the completeness or accuracy of such information.

This document should not be considered as an investment recommendation, a recommendation can only be provided by Vanguard Mexico upon completion of the relevant profiling and legal processes.

This document is for educational purposes only and does not take into consideration your background and specific circumstances nor any other investment profiling circumstances that could be material for taking an investment decision. We recommend getting professional advice based on your individual circumstances before taking an investment decision.

These materials are intended for institutional and sophisticated investors use only and not for public distribution.

Materials are provided only for the recipient's exclusive use and shall not be distributed to any other individual or entity. Broker-dealers, advisers, and other intermediaries must determine whether their clients are eligible for investment in the products discussed herein.

The information contained herein does not constitute an offer or solicitation and may not be treated as such in any jurisdiction where such an offer or solicitation is against the law, or to anyone for whom it is unlawful to make such an offer or solicitation, or if the person making the offer or solicitation is not qualified to do so.

THESE MATERIALS ARE PROVIDED AT THE REQUEST OF AND FOR THE EXCLUSIVE USE OF RECIPIENT AND CONTAIN HIGHLY CONFIDENTIAL INFORMATION, WHICH SHALL NOT BE REPRODUCED OR TRANSMITTED TO ANY THIRD PARTIES WITHOUT VANGUARD'S PRIOR WRITTEN CONSENT. THE CONTENTS OF THESE MATERIALS SHALL NOT BE UNDERSTOOD AS AN OFFER OR SOLICITATION TO BUY OR SELL SECURITIES IN BRAZIL AND VANGUARD IS NOT MAKING ANY REPRESENTATION WITH RESPECT TO THE ELIGIBILITY OF ANY RECIPIENT OF THESE MATERIALS TO ACQUIRE THE INTERESTS IN THE SECURITIES DESCRIBED HEREIN UNDER THE LAWS OF BRAZIL. SUCH SECURITIES HAVE NOT BEEN REGISTERED IN BRAZIL AND NONE OF THE INTERESTS IN SUCH SECURITIES MAY BE OFFERED, SOLD, OR DELIVERED, DIRECTLY OR INDIRECTLY, IN BRAZIL OR TO ANY RESIDENT OF BRAZIL EXCEPT PURSUANT TO THE APPLICABLE LAWS AND REGULATIONS OF BRAZIL.

PROVIDED AT THE REQUEST OF AND FOR THE EXCLUSIVE USE OF THE RECIPIENT. THE CONTENTS OF THIS DOCUMENT SHALL NOT BE UNDERSTOOD AS AN OFFER OR SOLICITATION TO BUY OR SELL SECURITIES IN BRAZIL AND VANGUARD IS NOT MAKING ANY REPRESENTATION WITH RESPECT TO THE ELIGIBILITY OF ANY RECIPIENT OF THIS DOCUMENT TO INVEST IN SECURITIES DESCRIBED HEREIN.

This document is provided at the request of and for the exclusive use of the recipient and does not constitute, and is not intended to constitute, a public offer in the Republic of Colombia, or an unlawful promotion of financial/capital market products. The offer of the financial products described herein is addressed to fewer than one hundred specifically identified investors. The financial products described herein may not be promoted or marketed in Colombia or to Colombian residents, unless such promotion and marketing is made in compliance with Decree 2555/2010 and other applicable rules and regulations related to the promotion of foreign financial/capital market products in Colombia.

The financial products described herein are not and will not be registered before the Colombian National Registry of Securities and Issuers (Registro Nacional de Valores y Emisores - RNVE) maintained by the Colombian Financial Superintendency, or before the Colombian Stock Exchange. Accordingly, the distribution of any documentation in regard to the financial products described here in will not constitute a public offering of securities in Colombia.

The financial products described herein may not be offered, sold or negotiated in Colombia, except under circumstances which do not constitute a public offering of securities under applicable Colombian securities laws and regulations; provided that, any authorized person of a firm authorized to offer foreign securities in Colombia must abide by the terms of Decree 2555/2010 to offer such products privately to its Colombian clients.

The distribution of this material and the offering of securities may be restricted in certain jurisdictions. The information contained in this material is for general guidance only, and it is the responsibility of any person or persons in possession of this material and wishing to make application for securities to inform themselves of, and to observe, all applicable laws and regulations of any relevant jurisdiction. Prospective applicants for securities should inform themselves of any applicable legal requirements, exchange control regulations and applicable taxes in the countries of their respective citizenship, residence or domicile.

This offer conforms to General Rule No. 336 of the Chilean Financial Market Commission (Comisión para el Mercado Financiero). The offer deals with securities not registered under Securities Market Law, nor in the Securities Registry nor in the Foreign Securities Registry of the Chilean Financial Market Commission, and therefore such securities are not subject to its oversight. Since such securities are not registered in Chile, the issuer is not obligated to provide public information in Chile regarding the securities. The securities shall not be subject to public offering unless they are duly registered in the corresponding Securities Registry in Chile. The issuer of the securities is not registered in the Registries maintained by the Chilean Financial Market Commission, therefore it is not subject to the supervision of the Chilean Financial Market Commission or the obligations of continuous information.

Esta oferta se acoge a la norma de carácter general No. 336 de la Comisión para el Mercado Financiero. La oferta versa sobre valores no inscritos bajo la Ley de Mercado de Valores en el Registro de Valores o en el Registro de Valores extranjeros que lleva la Comisión para el Mercado Financiero, por lo que tales valores no están sujetos a la fiscalización de ésta. Por tratarse de valores no inscritos, no existe la obligación por parte del emisor de entregar en Chile información pública respecto de esos valores. Los valores no podrán ser objeto de oferta pública mientras no sean inscritos en el Registro de Valores correspondiente. El emisor de los valores no se encuentra inscrito en los Registros que mantiene la Comisión para el Mercado Financiero, por lo que no se encuentra sometido a la fiscalización de la Comisión para el Mercado financiero ni a las obligaciones de información continua.

The securities described herein have not been registered under the Peruvian Securities Market Law (Decreto Supremo No 093-2002-EF) or before the Superintendencia del Mercado de Valores (the "SMV"). There will be no public offering of the securities in Peru and the securities may only be offered or sold to institutional investors (as defined in Appendix I of the Institutional Investors Market Regulation) in Peru by means of a private placement. The securities offered and sold in Peru may not be sold or transferred to any person other than an institutional investor unless such securities have been registered with the Registro Público del Mercado de Valores kept by the SMV. The SMV has not reviewed the information provided to the investor. This material is for the exclusive use of institutional investors in Peru and is not for public distribution.

The financial products described herein may be offered or sold in Bermuda only in compliance with the provisions of the Investment Business Act 2003 of Bermuda. Additionally, non-Bermudian persons may not carry on or engage in any trade or business in Bermuda unless such persons are authorized to do so under applicable Bermuda legislation. Engaging in the activity of offering or marketing the financial products described herein in Bermuda to persons in Bermuda may be deemed to be carrying on business in Bermuda.

Vanguard does not intend, and is not licensed or registered, to conduct business in, from or within the Cayman Islands, and the interests in the financial products described herein shall not be offered to members of the public in the Cayman Islands.

The financial products described herein have not been and will not be registered with the Securities Commission of The Bahamas. The financial products described herein are offered to persons who are non-resident or otherwise deemed non-resident for Bahamian Exchange Control purposes. The financial products described herein are not intended for persons (natural persons or legal entities) for which an offer or purchase would contravene the laws of their state (on account of nationality or domicile/registered office of the person concerned or for other reasons). Further, the offer constitutes an exempt distribution for the purposes of the Securities Industry Act, 2011 and the Securities Industry Regulations, 2012 of the Commonwealth of The Bahamas.

This document is not, and is not intended as, a public offer or advertisement of, or solicitation in respect of, securities, investments, or other investment business in the British Virgin Islands ("BVI"), and is not an offer to sell, or a solicitation or invitation to make offers to purchase or subscribe for, any securities, other investments, or services constituting investment business in BVI. Neither the securities mentioned in this document nor any prospectus or other document relating to them have been or are intended to be registered or filed with the Financial Services Commission of BVI or any department thereof.

This document is not intended to be distributed to individuals that are members of the public in the BVI or otherwise to individuals in the BVI. The funds are only available to, and any invitation or offer to subscribe, purchase, or otherwise acquire such funds will be made only to, persons outside the BVI, with the exception of persons resident in the BVI solely by virtue of being a company incorporated in the BVI or persons who are not considered to be "members of the public" under the Securities and Investment Business Act, 2010 ("SIBA").

Any person who receives this document in the BVI (other than a person who is not considered a member of the public in the BVI for purposes of SIBA, or a person resident in the BVI solely by virtue of being a company incorporated in the BVI and this document is received at its registered office in the BVI) should not act or rely on this document or any of its contents.

Any person who receives this document in the BVI (other than a person who is not considered a member of the public in the BVI for purposes of SIBA, or a person resident in the BVI solely by virtue of being a company incorporated in the BVI and this document is received at its registered office in the BVI) should not act or rely on this document or any of its contents.

This document does not constitute an offer or solicitation to invest in the securities mentioned herein. It is directed at professional / sophisticated investors in the United States for their use and information. The financial products describe herein are only available for investment by non-U.S. investors, and this document should not be given to a retail investor in the United States. Any entity responsible for forwarding this material, which is produced by VIGM, S.A. de C.V., Asesor en Inversiones Independiente in Mexico, to other parties takes responsibility for ensuring compliance with applicable securities laws in connection with its distribution.

Connect with Vanguard®

Vanguard®