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Indexing and active fund management: International evidence

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ABSTRACT

We examine the relation between indexing and active management in the mutual fund industry worldwide. Explicit indexing and closet indexing by active funds are associated with countries' regulatory and financial market environments. We find that actively managed funds are more active and charge lower fees when they face more competitive pressure from low-cost explicitly indexed funds. A quasi-natural experiment using the exogenous variation in indexed funds generated by the passage of pension laws supports a causal interpretation of the results. Moreover, the average alpha generated by active management is higher in countries with more explicit indexing and lower in countries with more closet indexing. Overall, our evidence suggests that explicit indexing improves competition in the mutual fund industry.

1. Introduction

Practitioners and academics have long debated the societal benefits and degree of competition in the asset management industry,[1] particularly among equity mutual funds. This debate has focused primarily on two dimensions: the relative value of passive versus active

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management and the question of price competition in the mutual fund industry.[2] In this paper, we contribute to this debate by examining actively and passively managed equity mutual funds in 32 countries. Elucidating this debate is particularly important because much of the recent growth in assets in the mutual fund industry has been in explicitly indexed equity funds [index funds and exchange-traded funds (ETFs)], which have grown from constituting about 14% of assets under management in 2002 to about 22% in 2010. These explicitly indexed funds have thus become a common low-cost alternative for investors to access the stock market, allowing them to buy beta exposure (i.e., investing in a diversified portfolio tracking a stock index) at substantially lower fees compared with active funds.

In a Grossman and Stiglitz (1980) world, one would expect passive and active funds to coexist in equilibrium with their relative market shares depending on information costs and overall market efficiency. Thus, the empirical observation of flows into explicitly indexed funds has implications for how such an equilibrium would be expected to change. Coates and Hubbard (2007) and Khorana and Servaes (2012) suggest that mutual fund markets in the United States and elsewhere are competitive, but that they have different levels of competition.[3] In addition, Wahal and Wang (2011) show that the entry of new active funds that are close substitutes to incumbent funds creates competitive pressure for the incumbent funds to decrease their fees. We build on this evidence and hypothesize that increasing competition from indexed funds will lead active funds to compete via price (by lowering their fees) or product differentiation (by diverging more from their benchmark index) or both. This competitive pressure could benefit fund investors directly through lower fees and indirectly through stronger incentives for skilled active managers to collect information and generate alpha.

The alternative hypothesis is that active and passive fund markets are largely segmented such that investors do not consider these fund types to be substitutes. Instead the investors could perceive active funds as differentiated investment vehicles, which then have higher fees as compensation for alpha generation or for satisfying different investor needs than what is delivered by passive funds.[4] In this case, increasing market shares for indexed funds might not lead to lower fees and higher differentiation by the active funds. Such an outcome would be similar to the generics paradox phenomenon in the pharmaceutical industry, in which researchers have shown that the introduction of generic drugs (which would be analogous to index funds and ETFs in our context) does not necessarily lead to the expected price drops by the branded drugs (which would be analogous to fees of active funds in our context).[5]

In segmented mutual fund markets in which active funds face reduced inflows to their market segment due to the increased presence of index funds, the active funds could increase fees to cover higher marketing expenses. In addition, as the active fund managers care about their relative performance vis-à-vis benchmark indices (Basak and Pavlova, 2013), an increased fear of losing more assets could lead managers to increase the fraction of stocks in the portfolio that belong to their benchmark indices to avoid underperformance. Consistent with this alternative hypothesis, Wurgler (2011) argues that the growth of index-based investing could allow stock prices to be more divorced from the firms' fundamentals, thereby lowering fund managers' incentives to gather information, in which case the managers' funds could perform worse. Thus, the alternative hypothesis posits that an increased market share of indexed funds will lead to active fund managers maintaining their current investment strategy or even becoming less active and resisting downward pressure on their fees. (This argument is based on price effects that are associated with a stock being included in a popular benchmark index. Further, if demand shocks for stocks included in the index lead to sustained price premiums for these stocks, it becomes harder for active managers to outperform by buying stocks that are not included in the index.)

Our multi-country sample with equity mutual funds and ETFs from 32 countries is an ideal testing ground for these hypotheses due to the wide variation in conditions across markets and the fact that financial markets tend to be segmented across countries (e.g., Stulz, 2005). We consider the segmentation in the mutual fund industry through consideration of the countries in which funds are domiciled or sold.

We first document the extent of explicit indexing in each country, finding considerable cross country and time series variation. Over our sample period, the market share of explicitly indexed funds grew from 14% of assets under management in 2002 to 22% in 2010, with the popularity of explicit indexing particularly rising after the 2007–2008 financial crisis. However, not all indexing in mutual funds is necessarily explicit as some so-called active funds are largely passively managed, even if their managers market the funds and charge fees as if they are active (a practice

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[2] For evidence on the value of active management in the mutual fund industry, see, for example, Sharpe (1966), Jensen (1968), Grinblatt and Titman (1989, 1993), Gruber (1996), Wermers (2000), Bollen and Busse (2001), Kacperczyk, Sialm, and Zheng (2005), Avramov and Wermers (2006), Kosowski, Timmermann, Wermers, and White (2006), Kacperczyk and Seru (2007), French (2008), Cremers and Petajisto (2009), and Busse, Goyal, and Wahal (2014). For evidence on competition in the industry, see for example, Elton, Gruber, and Busse (2004), Hortacsu and Syverson (2004), Collins (2005), Coates and Hubbard (2007), Gil-Bazo and Ruiz-Verdu (2009), Wahal and Wang (2011), and Khorana and Servaes (2012).

[3] Some research suggests that perfect competition might not exist in the mutual fund industry or that mutual funds could be perceived as differentiated goods by retail investors due to sizable information and search frictions or investor irrationality (Elton, Gruber, and Busse, 2004; Hortacsu and Syverson, 2004; Choi, Laibson, and Madrian, 2010; Carlin and Manso, 2011).

[4] Collins (2005) argues that funds can differ, for example, on the services provided to fund shareholders. And even if investors care only about returns, passive funds are not pure substitutes to active funds because of the potential for alpha. Berk and Green (2004) and Pastor and Stambaugh (2012) argue that fund managers can have skill and investors invest in active funds even in the absence of ex post average positive alphas.

[5] The empirical literature on generic drugs finds that generics are cheaper and gain market share, but their entry does not result in lower prices for the branded drugs. See, for example, Frank and Salkever (1997) and Vandoros and Kanovos (2012). *The Economist* (2014) makes a similar analogy between indexed funds and white-label goods.