

ABSTRACT

This ~~t~~Thesis provides a comprehensive comparison between ~~e~~Exchange-~~T~~Traded ~~f~~Funds (ETFs) and ~~m~~Mutual ~~f~~Funds. Over the period ~~from~~ of January 1st, 2005~~01/01/2005~~ to December 31st, 2016~~12/31/2016~~ we compare a total of 122 ~~F~~funds and 70 ~~b~~Benchmark ~~i~~Indices. This sample is further divided into the segments ~~e~~Equity ~~I~~Large-~~c~~Cap, ~~m~~Mid-~~c~~Cap, ~~s~~Small-~~c~~Cap and ~~f~~Fixed-~~i~~Income.

Based on daily prices, ~~the~~ average returns are calculated. We find that ETFs and ~~m~~Mutual ~~f~~Funds both underperform their benchmark indices. The greater underperformance of ~~Mutual Funds~~~~mutual funds~~ can be partially ~~distributed~~ to a higher expense ratio. Based ~~on~~ the regression model and standard deviation_s analysis the tracking errors are estimated. Only in the ~~I~~Large-~~c~~Cap section ~~do~~~~provide~~ ETFs ~~provide~~ the less risky investment alternative_s while ~~M~~mutual ~~f~~Funds show lower risk indicators in the other three sections. Finally, we compute the premiums and discount as well as spreads to investigate the major cost sources of ETFs and compare the expense ratios of both types of ~~f~~Funds.

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INTRODUCTION

Exchange-Traded Funds (ETFs), which fall in the group of relatively new financial vehicles, experienced, especially in the United States, more and more attention over the last two decades. This is not surprising since the United States was one of the first countries where-in which Exchange-Traded Products (ETPs) were created. In 1989, the Index Participation Share (IPS) was the very first instrument that replicated the movement of an Index. The IPS was a synthetic portfolio, that had the S&P 500 as the underlying benchmark. Due to its synthetic structure, it soon was forbidden to be traded at sStock eExchanges, which-what resulted in an imminent liquidation. Other creations like the Toronto Stock Exchange Index Participation (TIPs) or Supershares, that aimed to replicate a certain Index also failed because of ana-not unsustainable structure or unmarketable expense ratios (Gastineau, 2001).

Only a little later, the Standard & Poor's Depositary Receipts—well-known as SPDRs—was-were introduced to the market. Although, it experienced less attention and slow growth in the very beginning, which was mainly due to its complex and unfamiliar structure, in the mid 1990's, investors realized the benefits of the investment characteristics and tax efficiency. Nowadays, the SPDR is still the largest ETF and takes second place of-in all actively traded funds behind the Vanguard 500 Mutual Fund. In many publications it is also considered as the very first eExchange-tTraded fFund, although this title belongs to the TIPs. Around the same time the World Equity Benchmark Shares (WEBS), which were later renamed into-iShares MSCI, was-were released. This series of fFunds opened the opportunity, to invest in a basket that only contained foreign stocks. Sector SPDR allowed investors to focus their placement of funds on one particular segment of stocks within the S&P_500.

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Commented [NK7]: I searched this term, and what came up was "Vanguard 500 Index Fund." Is that what you mean or is that something different? (Also I am fairly sure that "index fund" or "mutual fund" should be lowercase.)

Commented [NK8]: Google says it's World Equity Benchmark Series, not Shares. Make sure to double check.