IS THE SPORTS INDUSTRY COMPETITIVE UP AGAINST OTHER LISTED INVESTMENT FUND MARKETS?

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Abstract

The hypothesis of this paper is to test if a mutual investment fund exclusively based on listed shares from the sports industry (SIF) is competitive to listed Morning Star rated investments funds. The drivers and differentiators of the sporting industry are the unique network structure (Troelsen,2008; Szymanski&Hoehn,1999), managing competitive balance in a league (Troelsen & Dejonghe, 2006; Troelsen, 2008; Downward e.a., 2009) and game theory (Osborne, 2007; Dejonghe,2 007). (Fig1).

PriceWaterhouseCooper (2010) estimated revenues in sports in 2009-2013 from ticketing, media, sponsoring, merchandising et.al. to increase 3.8%/p.a. to US$133b in 2013. Andreff(2008) roughly estimated the global market for all sporting goods and services in 2004 on ¨550-600b. The European Commission defined in 2007 sport in economic terms, the Vilnius Definition of Sport , by which the sport industry represented 3.0-3.6% of private consumption.

Setting up the SIF (SIF only contain listed assets, no derivatives, analyzed in relation to risk and return, the selection algorithm-process blind folded and regulated by the Danish mutual fund legislation –with the 5-10-40% rule– The sports industry consist of a strong network
The co-dependency between clubs, fans, stadiums, sponsors, merchandisers, apparel, consultancy and media are the network creating mutual value added for the sport. (Stabell&Fjeldstad,1998; Dejonghe,2007; Troelsen,2008). Kronenberg (2007) and Szymanski (2010) stated that the economy of clubs and the sports industry is not strongly correlated to the macro-economic business cycles.

Competitive balance
A lower CB, measuring the uncertainty of outcome of matches, results into higher popularity of a sport (Troelsen&Dejonghe, 2006; Troelsen, 2008) keeping fans and media interested. A club would be self-destructive if trying to eliminate the competition (B¸hler&N¸fer, 2010). This phenomenon is counterintuitive to most economics, where eliminating the competition and creating sustainable advantages is key to success.

Winning or profit
In sports stakeholders have conflicting goals between profit or winning. Even in the closed leagues in North America. Game theory is pushing the players salaries over a fair break even for the club   because losing games is even more expensive (Downward e.a.,2009). The outcome of this cocktail is financial losses. Only leagues with tight management can be profitable.

Portfolio Optimization
Portfolio theories states that rational investors prefer higher return to lower, and lower risk to higher - and that higher returns indicates higher risk. Investment theories are analyzed for defining the SIF selection-of-assets-model. (Grinblat&Titman,2004; Gitman& Joehnk,2006; Elton e.a.,2007). Modern-Portfolio-Theory (MPT), Harry Markowitz (Markowitz,1952);The Single-Index-Model (SIM), Sharpe(1963); The constant-correlation-model (CC), Elton&Gruber(1973); Bayesian shrinkage method (BMS), (Ledoit&Wolf,2003). Followed by Post-Modern Portfolio Theory where The Black-Litterman (BL) model after testing is chosen for the portfolio allocation model, developed by Fischer Black and Robert Litterman.

Portfolio Construction
The hypothetical 3y portfolios are constructed based on information from 01-01-2008, using historical data from the previous 3 years (2005-2007). SIF is assigned asset allocation mixes and then held unchanged for the following 3 years (control period 2008-2010). Afterwards SIF is evaluated with other investment funds for the performance in the 3 year control period (2008-2010).

Benchmarks
SIF is benchmarked with other mutual funds but not with PE or hedge funds. There is no limit on geography or industry for the benchmarks. The funds must have been active from 2005-2010 and selected from the largest Danish banks, Danske Bank, Nordea and Jyske Bank. SIF s costs are 1.65%, deducted from the return of the SIF to enable a fair comparison. The analysis of 62 alternative investment funds resulted in BL as a proxy for SIF.

The performance of the benchmarks is better than SIF The returns for the benchmark mutual funds are higher than SIF but with a higher SD which leads to a higher Sharpe s ratio. The improved returns delivered outweigh the lower variation for SIF relative to the benchmarked mutual funds. Interesting is, that in the extra-ordinary circumstances of 2008-2010, the risk of the sports assets was much lower than the benchmarks and in many portfolios with returns close to the benchmarks.

SIF is competitive and ready to serve investors demand Even the average SIF fund performs slightly poorer, 10% of the benchmark funds performed worse when comparing Sharpe s Ratio and only 27.4% of mutual funds outperformed SIF in the 95% confidence. (
This indicates that SIF is worthy of serious investors considerations, providing a competitive risk and return relative to the market. The sports industry will for many investors be a more interesting industry to invest into. The confidence is big and the marketing will be more color- and powerful as part of the growing experience and entertainment industry.

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