#### The Benchmark Inclusion Subsidy

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# Benchmarking: China stock non-inclusion in 2015

#### FINANCIAL TIMES

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# China stocks' inclusion in global index put on hold

Josh Noble in Hong Kong and Nicole Bullock in New York



China will have to wait to join MSCI's global benchmarks due to lingering investor concerns about international access to one of the world's largest equity markets.

The provider of equity indices said on Tuesday that it would include China A-shares, which are listed in Shanghai and Shenzhen, but only once quota, liquidity and ownership issues were resolved.

The Shanghai Composite was down 1.9 per cent in Wednesday morning trading while Shenzhen was off 0.9 per cent.

Tracked by funds worth close to \$1.7tn, the MSCI index is the key barometer for investors in emerging markets. China's eventual inclusion would lead to a rebalancing of global investment, forcing funds to buy shares to match the new index.

# Benchmarking: China stock inclusion in 2017

6/21/2017

#### MSCI, Inc.

#### China stocks hit 18-month high on MSCI inclusion

Decision on benchmark a milestone in Beijing's efforts to attract foreign funds



YESTERDAY by: Jennifer Hughes in Hong Kong and Nicole Bullock in New York

Chinese stocks hit an 18-month high following MSCI's decision to include them in its global benchmark equity index for the first time, marking a milestone in Beijing's efforts to draw international funds into the world's second-largest market.

MSCI's move means mainland equities, known as A-shares, will next year be included in its flagship emerging markets index, obliging the estimated \$1.6tn of investment funds that track the index to buy the stocks.

On Wednesday the CSI300, an index comprising the top 300 stocks on both the Shanghai and Shenzhen exchanges, closed up 1.2 per cent at 3,588, its highest level since December 2015.

### 2017 China event: Portfolio rebalancing across countries



Based on data as of June 19, 2017

# 2017 China event: Portfolio rebalancing across industries

#### How A-shares will reshuffle the MSCI China index (in percent)



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#### Paper Overview

The paper is on a very **important topic**  $\rightarrow$  the consequences of benchmarking for corporate policies

**Tractable model** of asset management industry in CARA-normal (mean-variance) framework which enables stating the results in closed-form

The authors study firm **investment** problem, **M&A** decision, and **IPO** incentives in the presence of asset managers whose incentives are driven by performance compensation that is linked to benchmarking

### Results

- The share price of a firm that is inside the benchmark is higher than that of its 'twin' that is not
- There is a benchmark inclusion subsidy: when a firm inside the benchmark acquires an asset (from outside of the benchmark), the combined value exceeds the sum of the initial firm value and the value of the asset
  Subsidy = "index effect" + "covariance subsidy"
- **Cross-sectional heterogeneity** of the magnitude of the subsidy depending on risk characteristics
- 'Discount rate effect' → Model's logic breaks common wisdom that an asset acquisition that does not alter any cash flows (of either target or acquirer) should not create any value
- Textbook 'asset beta' valuation does not hold  $\rightarrow$  the value of a project depends on which firm adopts it

#### Summary

The paper has much to like about it, and I thought quite a lot about it.

In my view, the value of a theory work is especially when the theory introduces a new way for us to think about a given problem or phenomenon.

100% true in this case. I really like this paper.

In addition, I much appreciate that the model can deliver testable predictions.

But I am here to provide comments...

#### Comment 1: Why is mechanical demand insensitive to b?

Asset managers receive compensation from shareholders

$$w = a r_x + b (r_x - r_b) + c$$
, with  $a \ge 0$  and  $b > 0$ 

**Benchmark inclusion subsidy** follows from asset manager's demand for an asset that is part of the benchmark

$$x_1^{AM} = \frac{1}{a+b} \frac{\mu_1 - S_1}{\alpha \sigma_1^2} + \frac{b}{a+b}$$

If a = 0, arguably quite plausible,  $\frac{b}{a+b} = 1$ . Hence the number of shares that the **manager always holds is a constant**, specifically, it is independent of the strength of performance incentive *b*.

Since this mechanical demand for the benchmark is **critical for all the results**: Is the low sensitivity to the magnitude of *b* intuitive? How robust is this feature? What assumption drives it?

Comment 2: What if benchmark is market portfolio? Two-factor CAPM obtains

$$\mathbf{E}(R_i) - 1 = \beta_i^{\mathbf{m}} \gamma_{\mathbf{m}} - \beta_i^{\mathbf{b}} \gamma_{\mathbf{b}}$$
  
with  $\beta_i^{\mathbf{m}} = \frac{Cov(R_i, R_{\mathbf{m}})}{Var(R_{\mathbf{m}})}$  and  $\beta_i^{\mathbf{b}} = \frac{Cov(R_i, R_{\mathbf{b}})}{Var(R_{\mathbf{b}})}, i = 1, ..., n$ 

Empirically, **most common benchmarks** are S&P 500 index and broad MSCI indexes—proxies for the market portfolio—suggesting

$$\beta_i^{\mathbf{m}} \approx \beta_i^{\mathbf{b}}$$
 and  $\gamma_{\mathbf{m}} \approx \gamma_{\mathbf{b}} \Rightarrow \mathbf{E}(R_i) = 1, i = 1, ..., n$ 

With benchmarking, are expected returns driven down to risk less rate? At the same time, in the model, benchmarking makes firms' cash flows in the economy more correlated  $\rightarrow$  more risk.

GE vs. PE: Maybe it is important to think what forces determine the size of the asset management industry, now,  $\lambda_{AM}$  is constant.

Possibly additional unique empirical predictions if the model features 'broad' and 'narrow' benchmarks.

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#### Comment 3: Case of passive investment management

Authors think about passive management as

$$w = a r_x + b (r_x - r_b) + c$$
, with  $b \to \infty$ .

Indexers talk about minimizing 'tracking error', for example

 $\min_{x} \{ Var(\epsilon_{x,t}) \} \text{ from regression } r_{x,t} = \alpha + \beta_{x}^{\mathbf{b}} r_{\mathbf{b},\mathbf{t}} + \epsilon_{x,t},$ 

suggesting that compensation of a passive manager is related to

$$w \propto b \; (r_{\scriptscriptstyle X} - r_{\scriptscriptstyle {f b}})^2$$
, with  $-\infty < b < 0$ .

and that trading costs are important. Due to trading costs, indexers do not hold the exact benchmark portfolio.

The passive investment management case requires more attention. Think carefully about how indexers' incentives drive demand for assets. ' $b \rightarrow \infty$  limit' approach maybe too simplistic.

# Rise of indexing

#### Passive attack

Index funds swell globally to nearly \$10tn after post-crisis growth spurt (\$bn)



Index funds have revolutionised investing, saving millions of people untold billions of dollars in fees that would otherwise have gone to fund managers with a dismal long-term record of actually beating the market. It is no exaggeration to say that the rise of <u>passive investing</u> is probably one of the most consequential financial inventions of the past half-century. It is rewiring markets and reshaping the finance industry.

### Benchmarking vs. Indexing

Implications of indexing for corporate policies are not known, and the phenomenon is of similar importance to benchmarking

**Implications might be different.** For example, if indexers want to minimize trading costs, they may have incentives to block M&As initiated by benchmark firms, as these events change benchmark weights and thus trigger need to trade  $\rightarrow$  opposite to the current model

Distinguishing benchmarking from indexing is needed at the level of incentives. The absence of theory holds back and confuses empirical work in this area.

#### Benchmarking vs. Indexing: Aberdeen example

#### Investors warn of risks as Chinese A-shares join MSCI indexes

High volatility, trading halts and poor governance issues raise red flags

NIKKI SUN, Nikkei staff writer MAY 30, 2018 22:27 JST



The two-stage inclusion of A-shares into MSCI's indexes later this year is expected to bring in between \$17 billion and \$20 billion to China's onshore equity markets over the first year, according to major banks and brokerages. While passive investors are obligated to increase their holdings in A-share companies based on the weightings in the indexes, some active fund managers who track the indexes but do not have such requirements appear not ready to make a move.

Aberdeen Standard Investments, one of world's largest investment houses with over \$400 billion under its management, said MSCI's decision will not affect its investment approach to A-shares.

"MSCI inclusion has no practical application for us as a stock-picker," Nicholas Yeo, head of China equities at Aberdeen, said in an email to Nikkei. "It doesn't affect our view of whether a company is good or bad, nor do we feel any need to adjust our portfolios." Instead, he believes the number of investable A-share companies remains limited for now.

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#### Benchmarking vs. Indexing: Aberdeen example

They may be volatile, but A-shares offer the best access to the nation's structural growth

Many global investors will view China's onshore stock market as a bit of a basket case. Having sunk more than 30% last year, it has yo-yoed back sharply since the start of 2019.

This is an inefficient market, after all, where 80% of turnover emanates from local retail investors more easily swayed by the latest headlines than the earnings prospects of A-share companies.

Investors were bombarded with negative news last year about China's slowing economic growth, rising bankruptcies and US trade tariffs. It undermined confidence and put the brakes on businesses' spending plans.

There are compelling reasons for international investors to view this market favourably, particularly over the longer run

#### Edinburgh Dragon Trust PLC (LSE:EFM)

To achieve long term capital growth through investment in the Asia. The benchmark index of company is the MSCI All Country Asia (ex Japan) Index.

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# Best of luck with the paper!

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