

The fast-growing ETF industry: Challenge to active asset management?

Koen Van de Maele, CFA

Business Confidential: This document and any attachment to it may contain confidential and/or privileged information and/or information protected by intellectual property rights. This information is intended for the person to whom it is addressed only. If you have received this document in error, please notify the sender immediately and arrange for the prompt destruction of the material and any accompanying attachments; you should not copy, print, use this document or its attachments in any way nor disclose its contents to anyone. You should not forward this document or its attachments to your personal mailbox (e-mail transmission cannot be guaranteed to be secure or to be free of errors or viruses). No responsibility is accepted by Candriam for any loss or damage arising any way from its use.

ETFs: a solution for all problems?

I.

ETFs are attractive

II.

But some elements are often overlooked!

III.

Looking into the future

Success factors of ETFs



REAL-TIME LIQUIDITY

- ETFs can be bought or sold on secondary markets at various times throughout the day.
- They can be held on margin, shorted, optioned, and so forth. Anything you can do with a single stock, you can do with an ETF.



EASY TO ACCESS

- Democratization of investment access.
- Available from individual to institutional investors, everyone who wants to allocate tactically or long term.



COST EFFECTIVE

- No entry fees or minimum investment size.
- Cheaper than traditional mutual funds, and costs are further trending downwards.



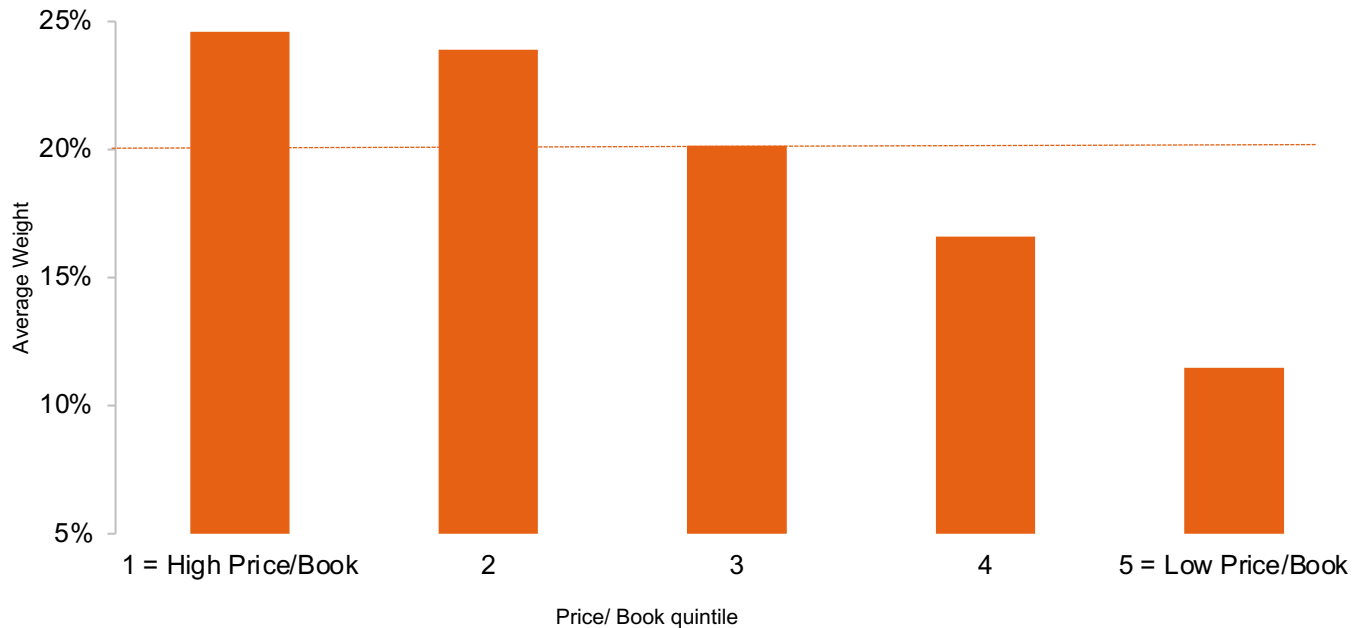
TRANSPARENCY

- Investors know what is in their fund on a daily basis.
- More extensive reporting and information displayed by ETF issuers than mutual funds.

Disadvantages of Market Cap weighted indices

Overweight expensive stocks

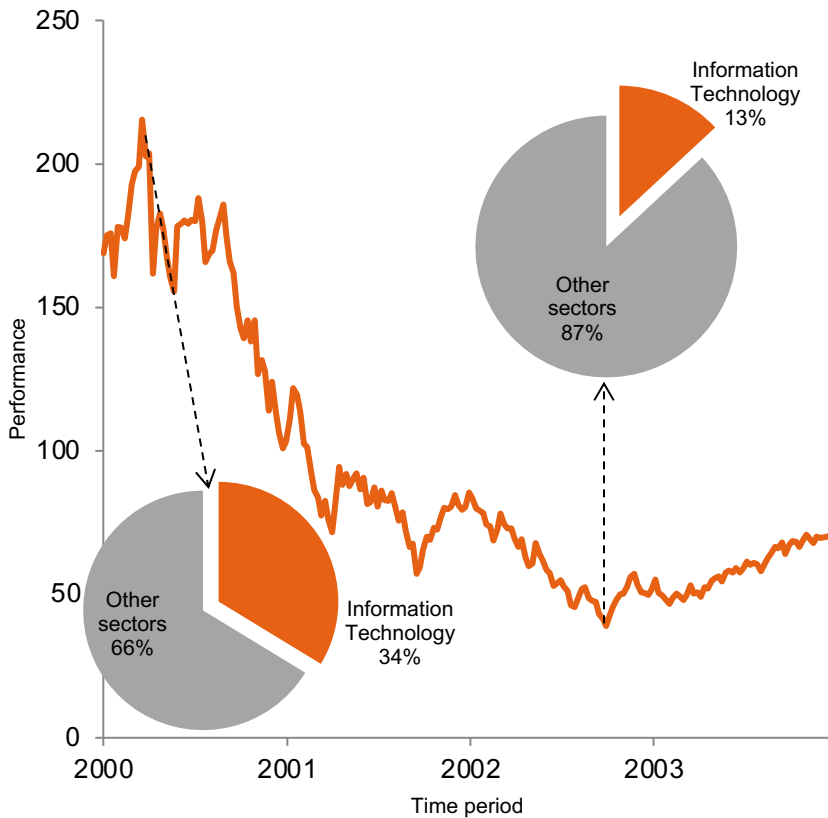
Price/Book quintiles - Average weight in Market Cap weighted index



Sources: MSCI, FactSet

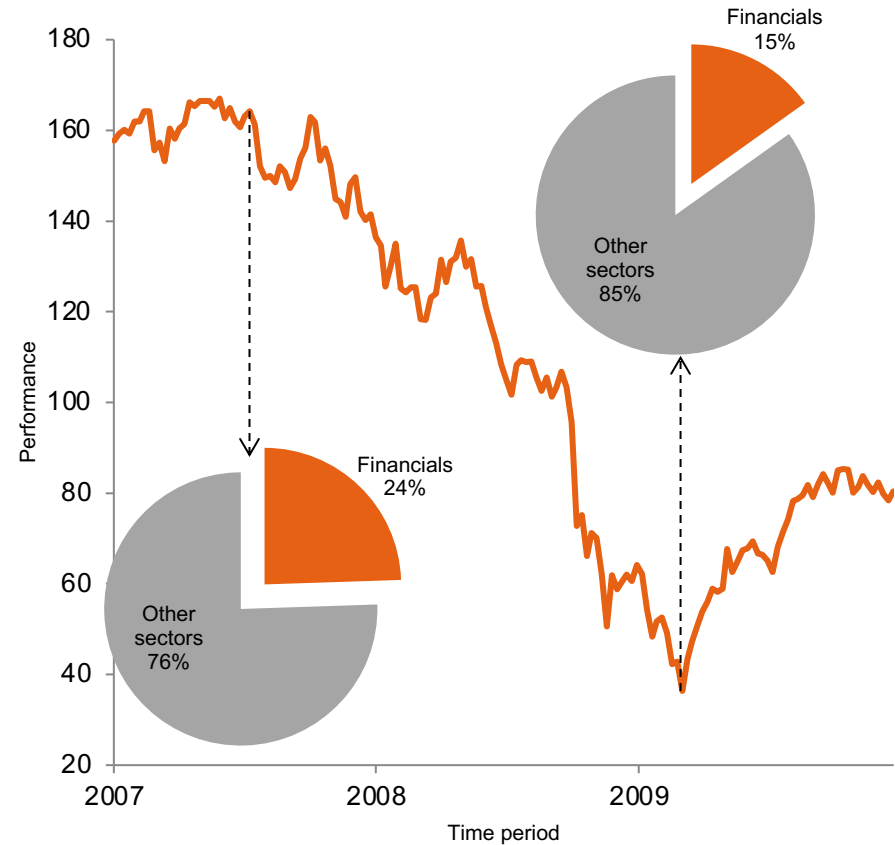
Disadvantages of Market Cap weighted indices

Importance of IT sector since 2000



Source: MSCI

Importance of Financials since 2008

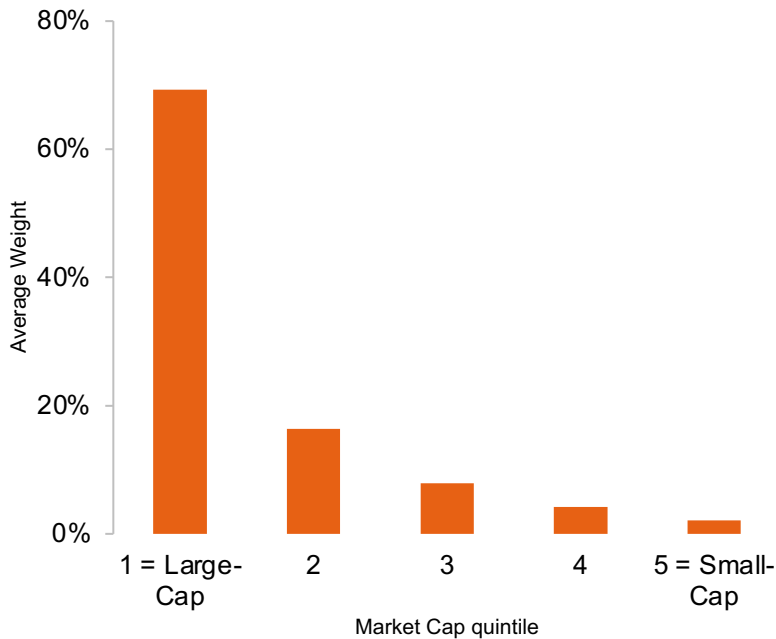


Source: MSCI

Disadvantages of Market Cap weighted indices

Large Cap concentration

Market Capitalization quintiles - Average weight in Market Cap weighted index



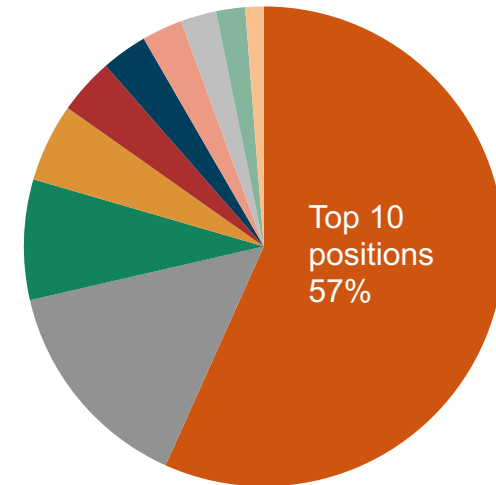
Sources: MSCI, FactSet

Index concentration

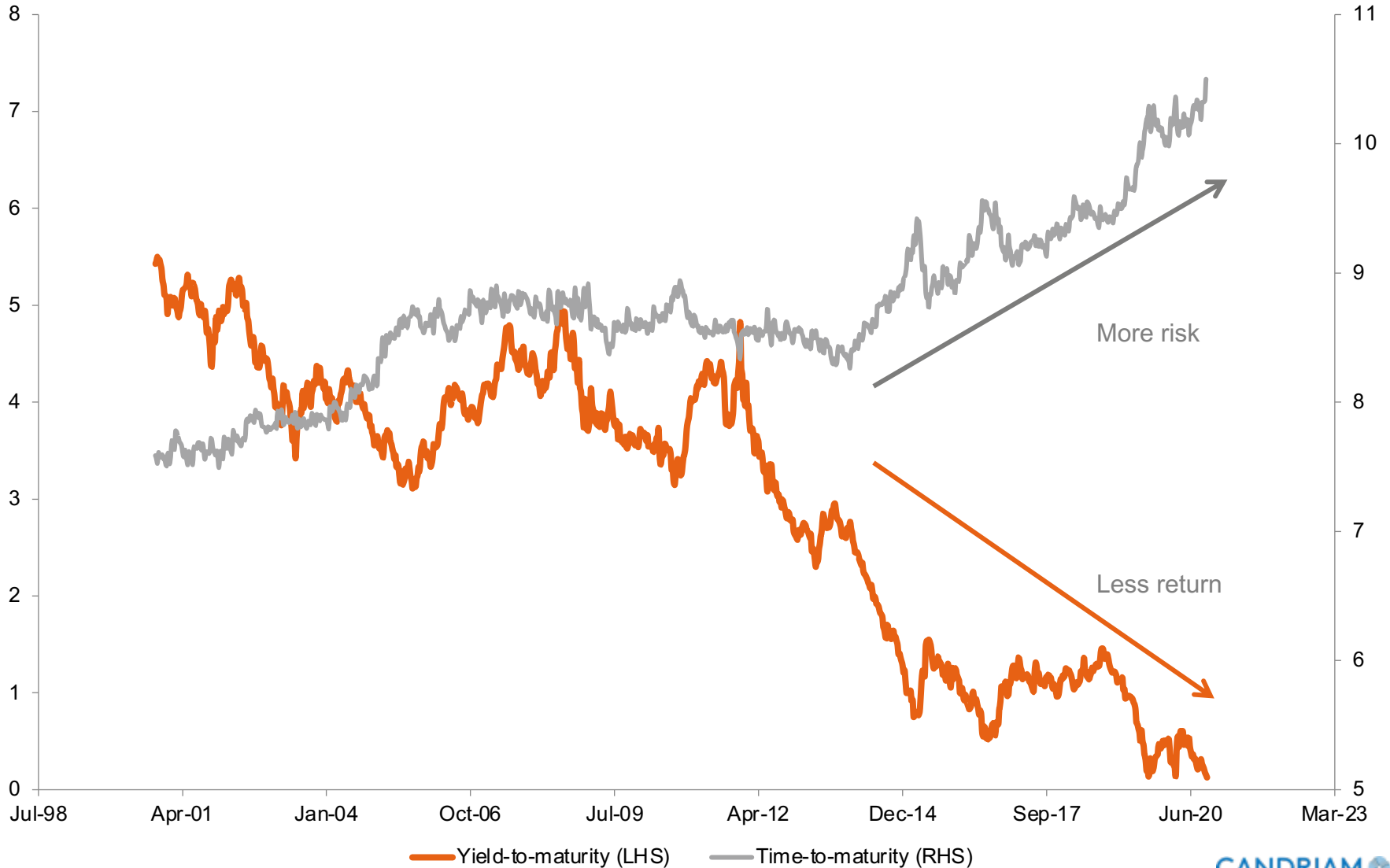
- The 10 largest stocks in the Nasdaq-100™ capture more than 50% weight of the index

Company	Weight
Apple	13.6%
Amazon	11.03%
Microsoft	10.7%
Alphabet (A+C)	6.8%
Facebook	4.2%

Source: Bloomberg



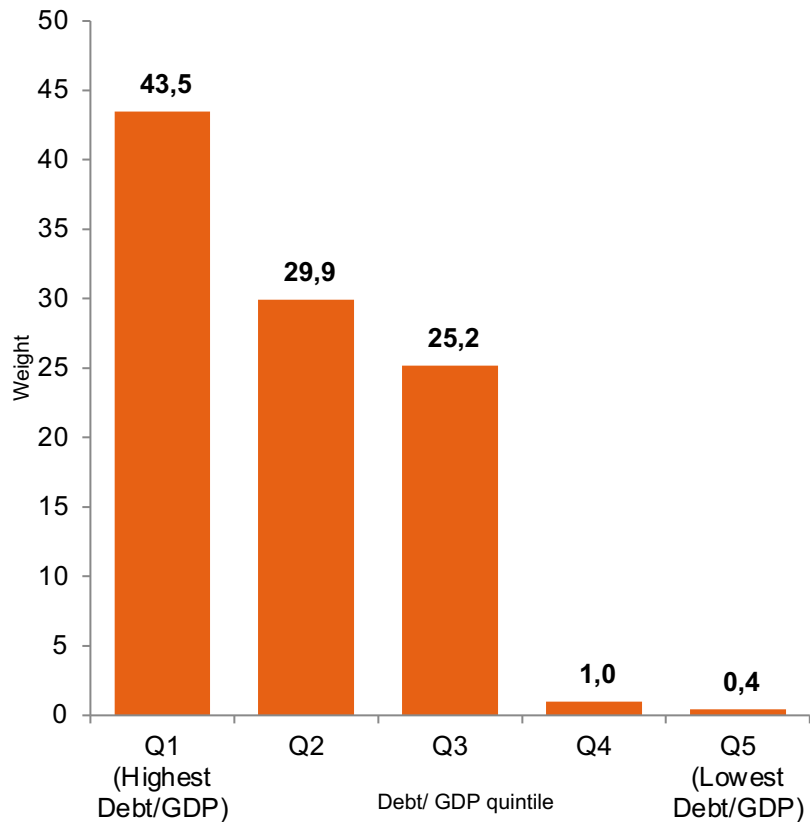
Disadvantages of Market Cap weighted indices



— Yield-to-maturity (LHS) — Time-to-maturity (RHS)

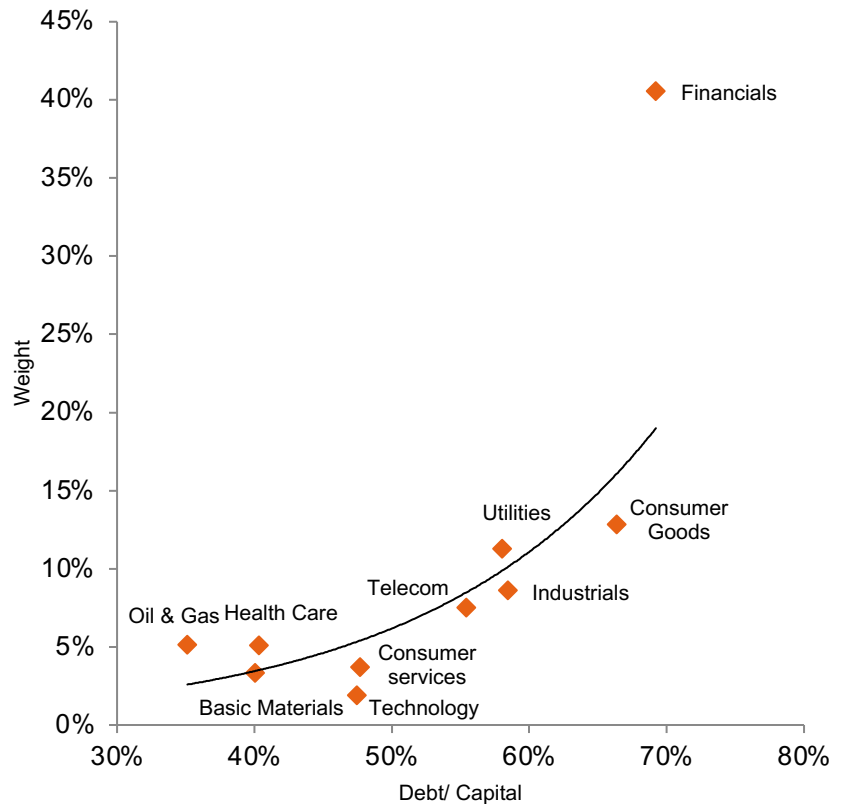
Disadvantages of Market Cap weighted indices

European Government bonds



Sources: iBoxx, Bloomberg

European Corporate bonds



Sources: iBoxx, Bloomberg

Disadvantages of Market Cap weighted indices

Controversial Weapons

The Belgian law forbids to finance companies that are involved in the production, sales, and distribution of Cluster Munitions / anti-personnel mines or supply important parts, or provide financing.

However, in S&P 500 ETFs for example, there are several companies that are involved in this activities:

- **Textron**
- **Raytheon**
- **Lockheed Martin**

The UN Global Compact consists of 10 principles regarding:

- Human rights
- Labour rights
- Environment
- Corruption



Global indices consist of companies which do not comply to these principles:

Portfolio Name	Weight of red companies				Norms-based (Weight Excluded)
	Human rights	Labour rights	Environment	Corruption	
MSCI EMU			0.92%	0.26%	1.18%
MSCI Europe	0.38%		0.47%	0.41%	1.86%
MSCI Japan	1.33%	0.19%	0.34%	0.51%	1.81%
MSCI World	1.90%	0.41%	0.80%	1.16%	4.27%
ML Euro Corporate	0.81%	0.16%	1.58%	2.15%	5.10%

Investing in ETFs does not relieve the fiduciary duty

Investing in indices / ETFs

=

Active decision

ETFs > 8650

indices > 3.3 million

stocks in MSCI World AC IMI™ = 8766



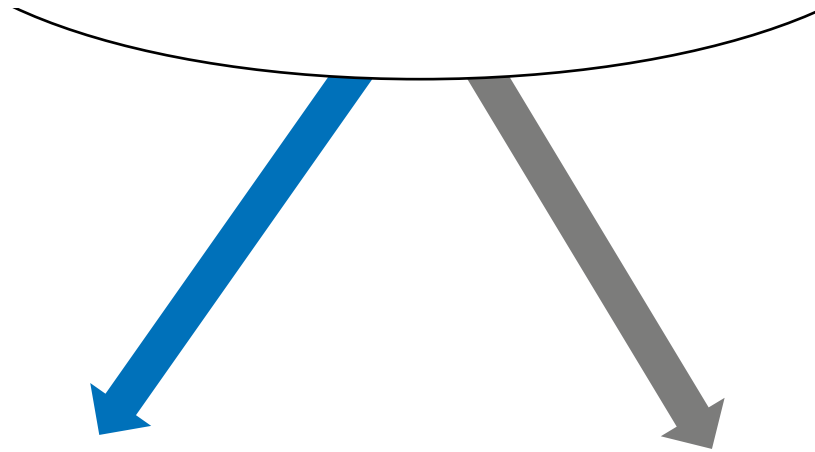
Where can ETFs grow further?





ETFs could become the preferred fund wrapper

PREFERRED
FUND WRAPPER



For **actively managed** non-transparent ETFs

For **hybrid structures** (funds with ETF share classes)

Important information

- ***This presentation is provided for information purposes only, it does not constitute an offer to buy or sell financial instruments, nor does it represent an investment recommendation or confirm any kind of transaction, except where expressly agreed. Although Candriam selects carefully the data and sources within this document, errors or omissions cannot be excluded a priori. Candriam cannot be held liable for any direct or indirect losses as a result of the use of this document. The intellectual property rights of Candriam must be respected at all times, contents of this document may not be reproduced without prior written approval.***
- ***Candriam consistently recommends investors to consult via our website www.candriam.com the key information document, prospectus, and all other relevant information prior to investing in one of our funds, including the net asset value (NAV) of the funds. This information is available either in English or in local languages for each country where the fund's marketing is approved.***



CLIENT RELATION
OFFICES

AMSTERDAM
DUBAI
FRANKFURT
GENEVA
ZURICH
MADRID
MILAN
NEW YORK

MANAGEMENT
CENTERS

LUXEMBOURG
BRUSSELS
PARIS
LONDON