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Confidence  
must be earned

**Amundi**  
ASSET MANAGEMENT

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April 2020

# Tsinguha Seminar

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# Executive Summary

- **ESG investment is booming around the planet.**
- **But ESG is still confusing in terms of data and objectives.**
- **So clarity is needed and proper data will help.**
- **While recognizing that the links between society forces are key.**
- **In the meantime, already a growing use of existing ESG data with:**
  - **Low Carbon Indexes**
  - **Green Bonds**
- **Amundi:**
  - **Is the leading European Asset manager;**
  - **Has integrated ESG in its core strategy since its creation;**
  - **Has developed some innovative partnerships with clients, corporates, to develop some solutions helping clients align their portfolios with a low carbon economy.**

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01

## Massive Increase but Still Confusing

# A Global \$30trn Market

**\$30.7tn**

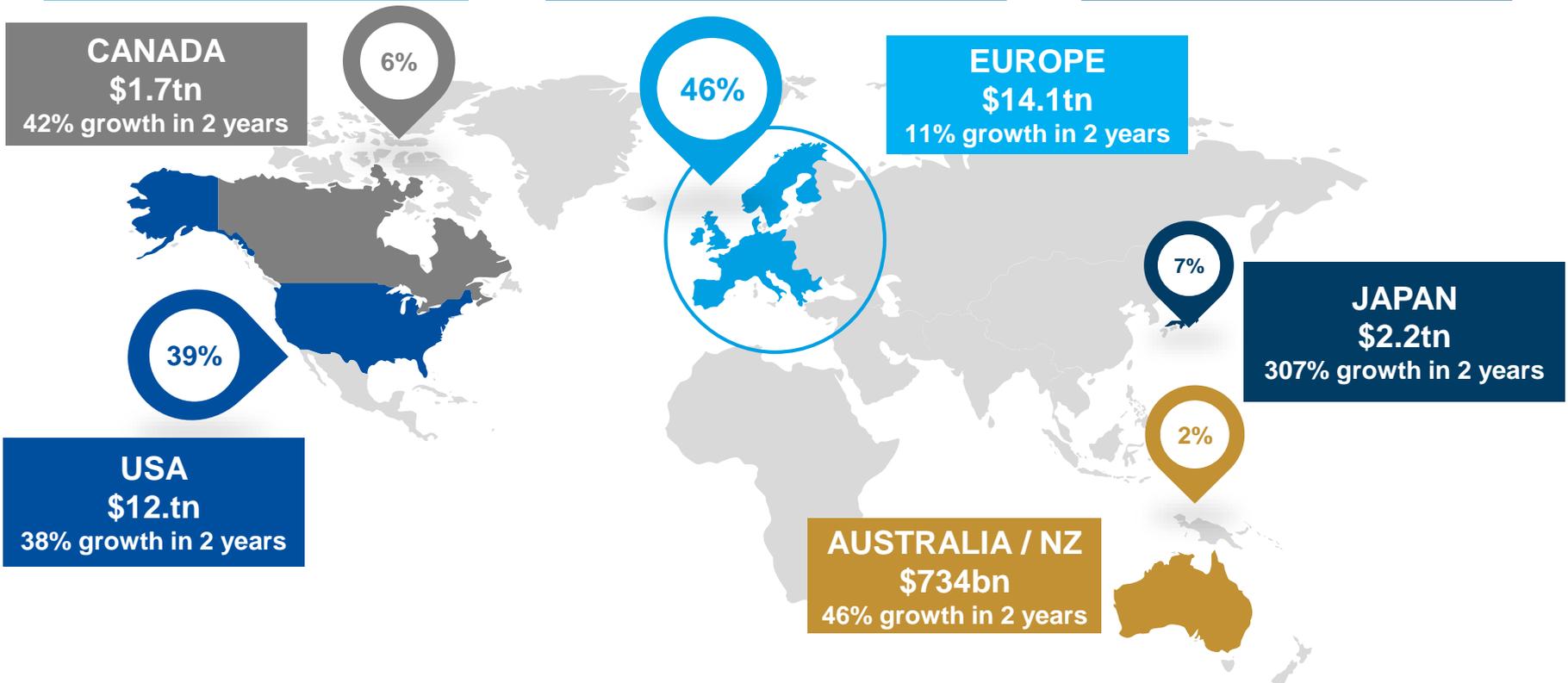
Global Responsible  
Investment

**~ 40%\***

of Global Assets under  
management

**+34%**

Growth in 2 years

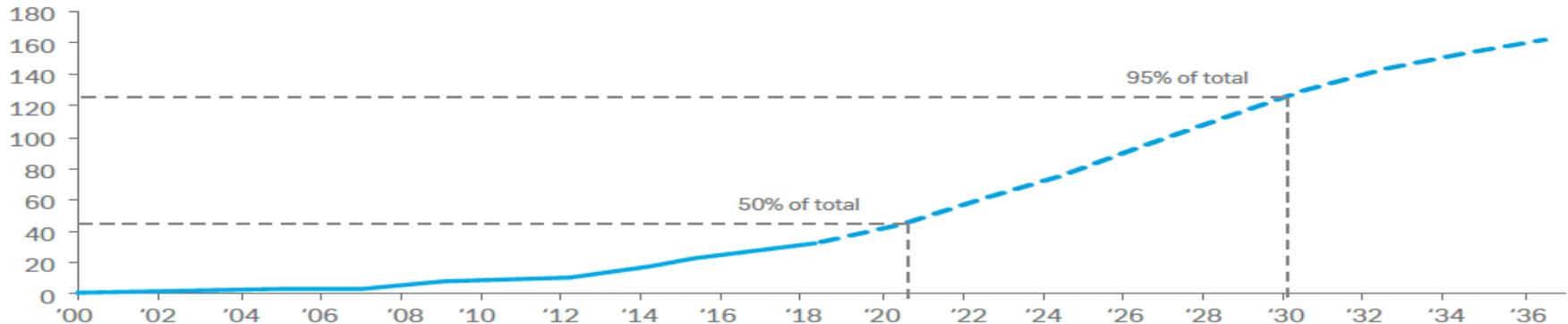


Source: Global Sustainable Investment Review 2018. AuM as of December 2017,  
Global Sustainable Investment Alliance (GSIA)

\* Calculated using the Global AUM \$79,2tn. BCG. Global Asset Management 2018 The Digital Metamorphosis.

# And Expected to Continue to Grow

Global AUM falling under an ESG mandate (USD tn)

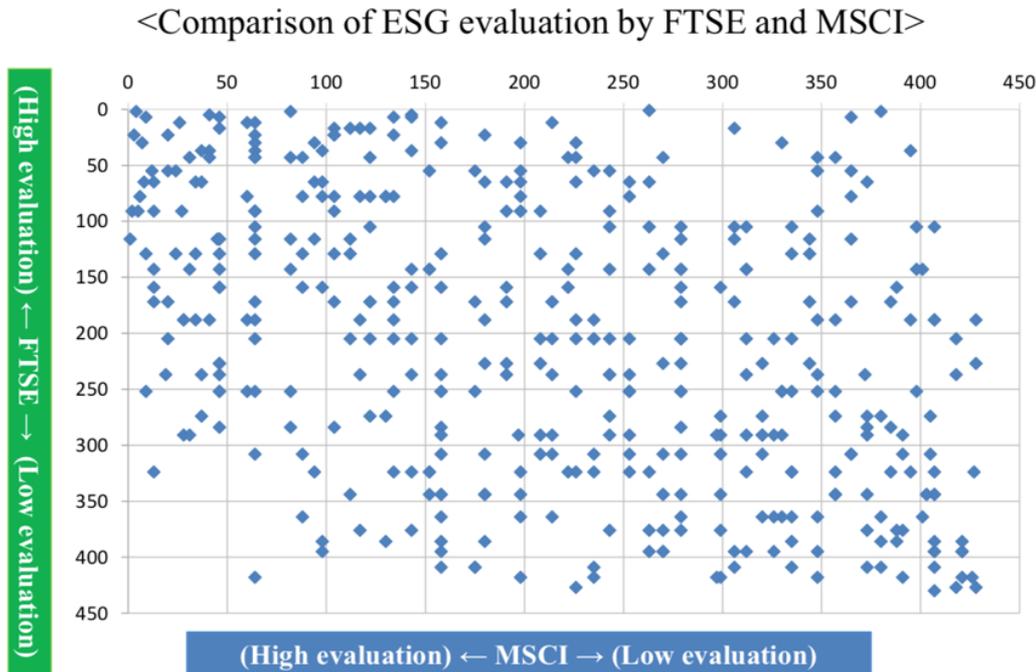


Source: Deutsche Bank, Global Sustainable Investment Alliance

## ESG market could keep on growing :

- From \$30tn (about on third of total AUM now)...
- ...towards \$45tn (50% of total AUM) in 2021
- ...and even \$125tn (95% of total AUM) in 2030

# Lack of Consensus on ESG Data



**GPIF has compared ESG scores provided by FTSE and MSCI on the Top 450 Japanese companies**



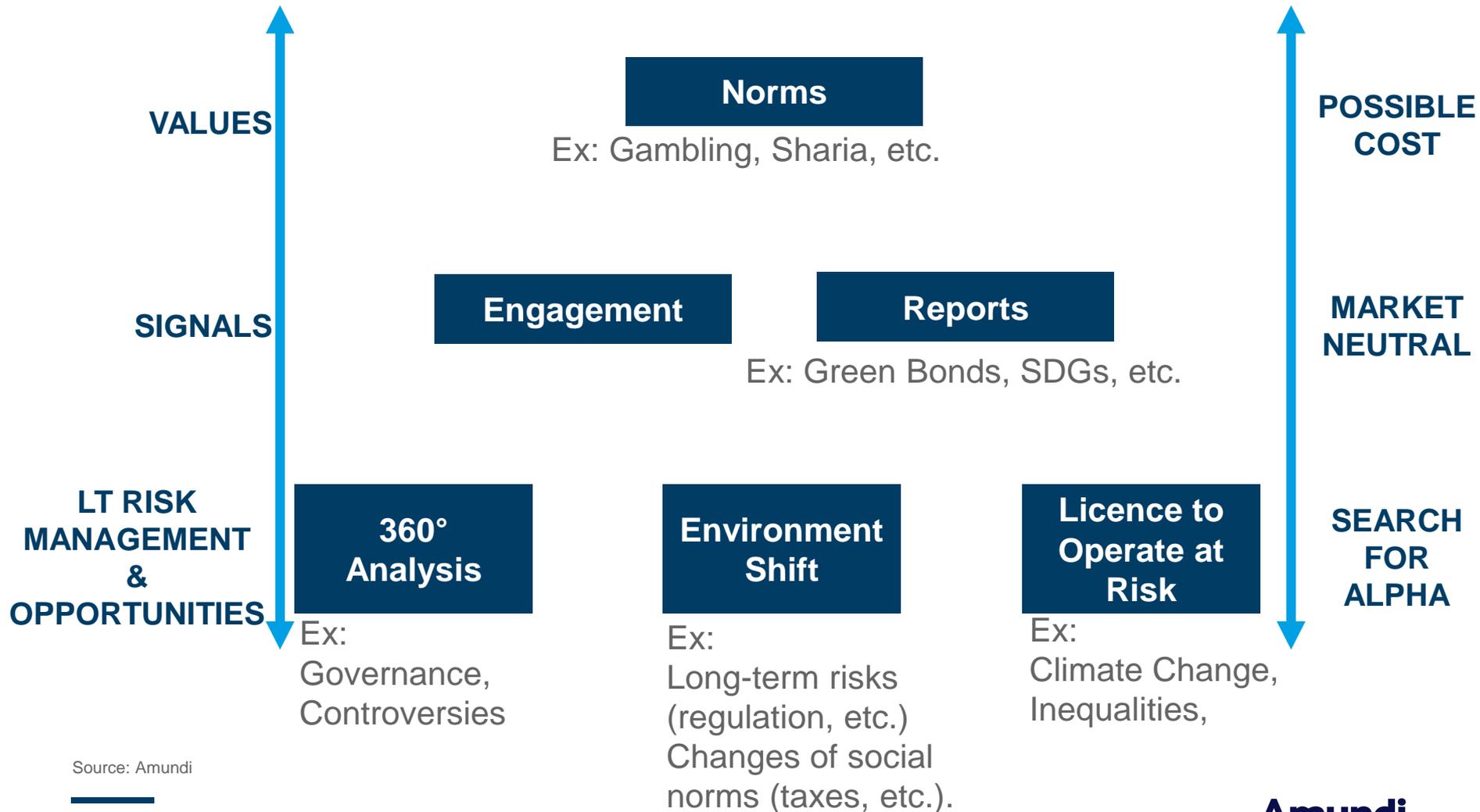
**Absolute lack of correlation**

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# 02

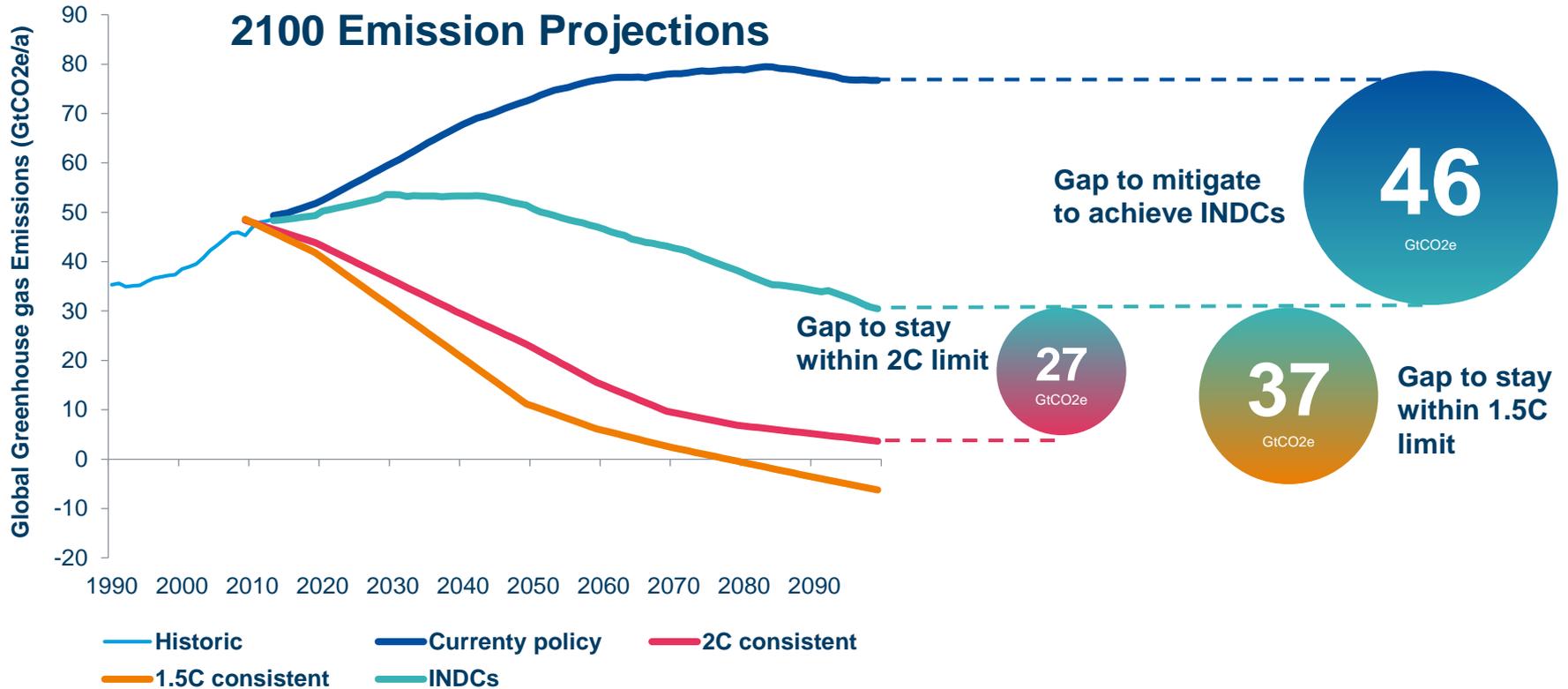
Data is key but for which Objective?

# ESG Mapping: Multiple Possible Objectives



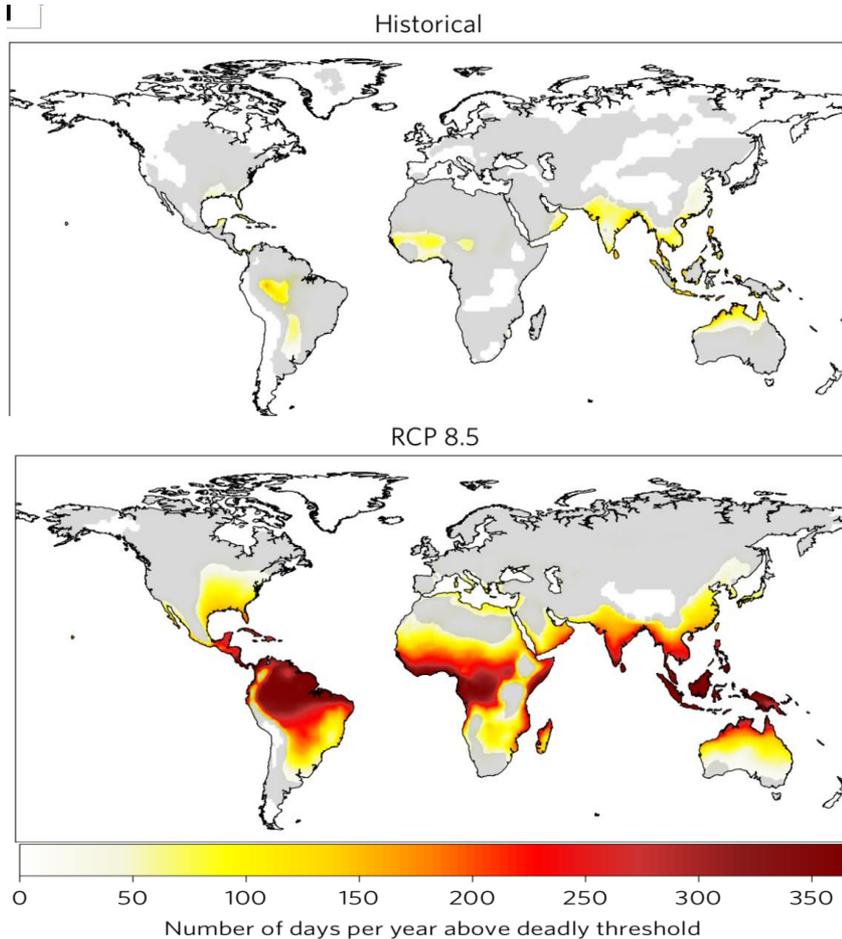
Source: Amundi

# Climate Change: Unprecedented Challenge



Source: Climate Action Tracker Database, Global emissions time series, updated November 2017. Time series data for INDCs, 2C consistent, 1.5C consistent time series are computed as medians of highest and lowest potential global emission level results.

# Impacts of Temperatures on Where to Live



- Human beings must regulate their internal heat, and so they are exposed to the mix of :
  - External temperatures and
  - Humidity
- In 2000\*, this was already a severe risk:
  - 13.2% of the planet's land area where 30.6% of the population resides...
  - was exposed to 20 or more days when temperatures and humidity surpassed the threshold beyond which such conditions become deadly.
- By the end of the century, in a BAU scenario, entire regions of the world would be inhabitable.

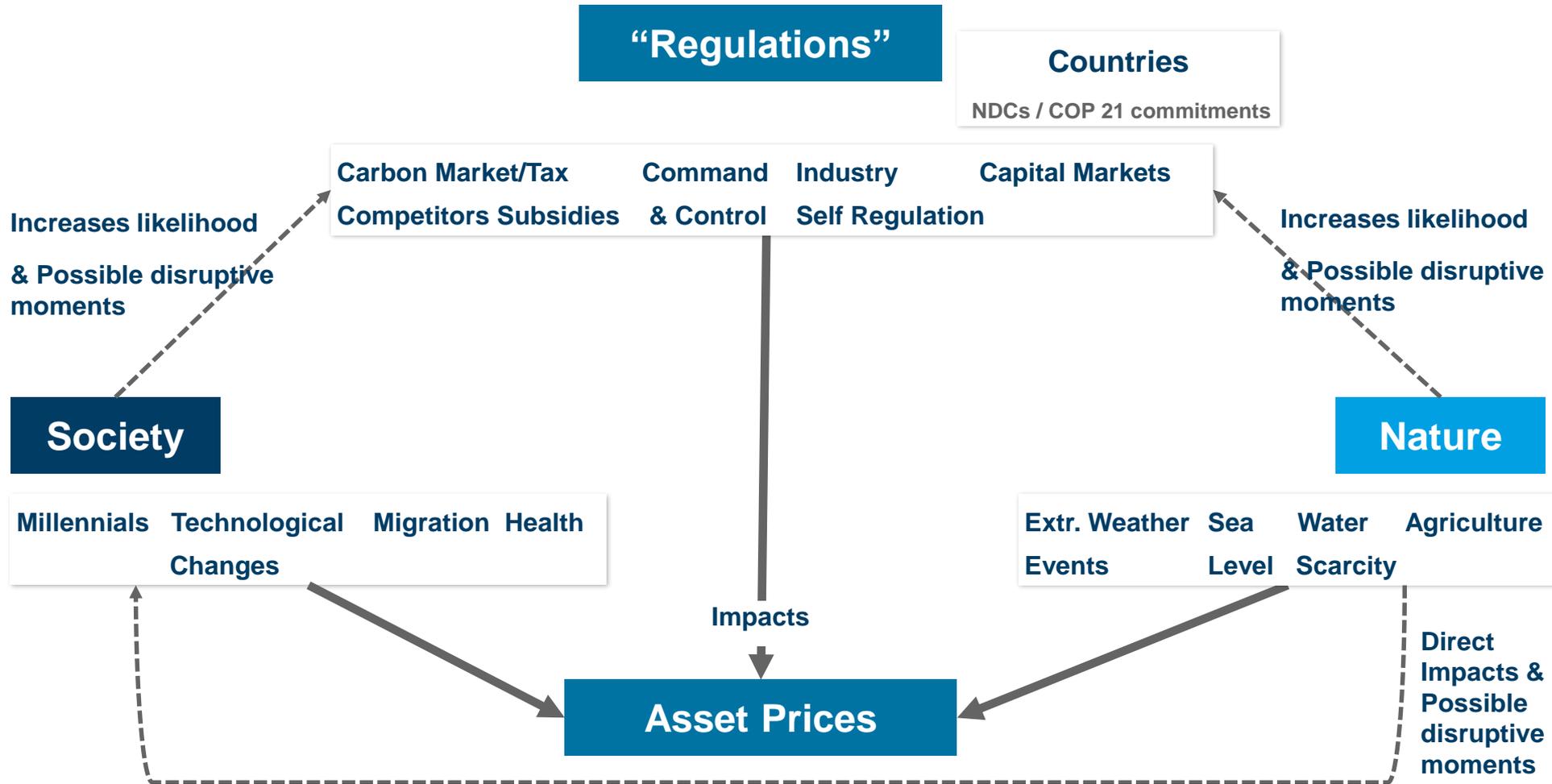
\* Source: Global Risk of Deadly Heat (Science 2017)

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# 03

## Links Between Forces

# Multiple Forces Related to Climate Change Impacting Asset Prices



# Sharp rise in EU carbon prices: expectation for supply squeeze

EU CARBON PRICES, June 2013-December 2018 (€/t)

Price Expected to Keep on Rising



— Price : X5 in one year

— Could be even bigger:

- Request from EU to align the mechanism with NDC
- EUR45-55/ target

EUA stands for European Union Allowance. Source: Carbon Tracker, « Carbon Clampdown: Closing the Gap to a Paris-compliant EU ETS », April 25, 2018, Carbon Tracker Website as of May 2, 2018.

# Regulation in the automobile industry

Efforts to reduce CO<sub>2</sub> emissions from cars will impact oil demand globally

## GLOBAL IMPACT

- In 2015, 18% of global CO<sub>2</sub> emissions were attributed to road transportation<sup>1</sup>
- Efforts to reduce emission from road transport has emerged across the world
- By 2040, oil demand will decrease by 8m barrels/day according to estimates by Bloomberg<sup>2</sup>

## COUNTRY SPECIFIC REGULATION OF THE AUTOMOBILE INDUSTRY

	2025	2030	2040	Not confirmed
Ban on new vehicle sales				
Ban on all vehicles				

**Ban applies to:**

- Petrol & Diesel
- Diesel only

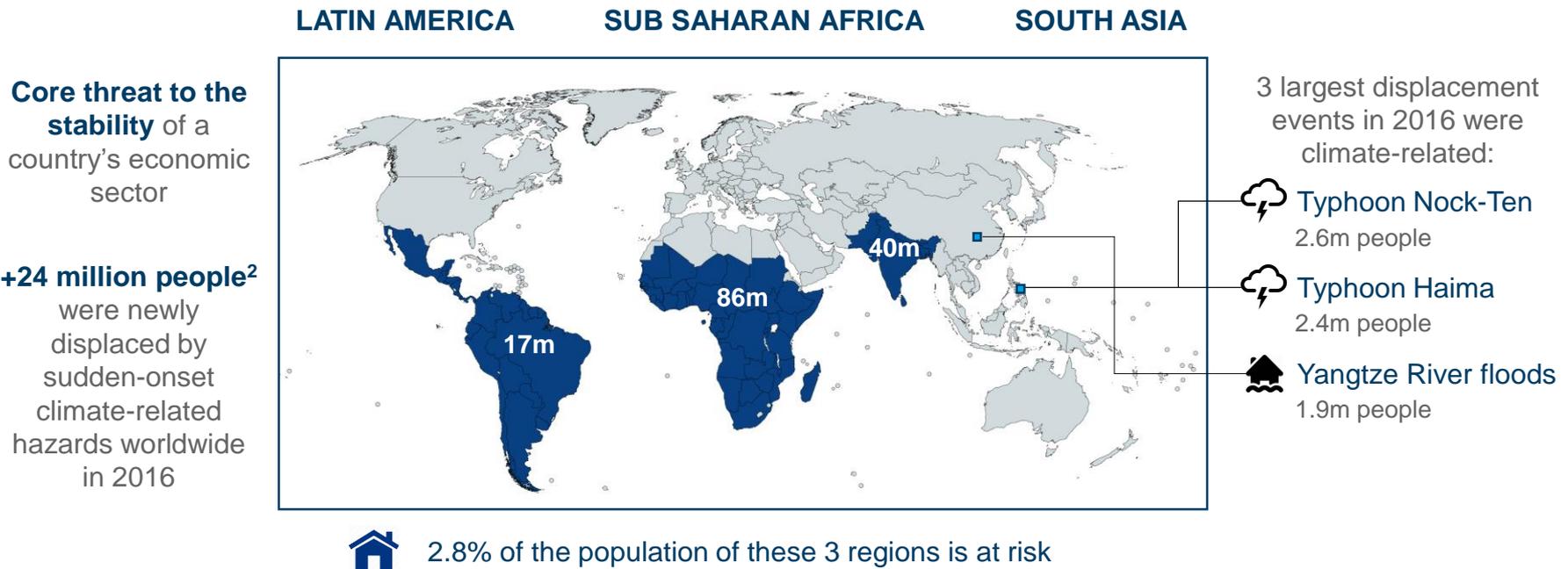
Note: (1) Source: CO<sub>2</sub> emissions from fuel combustion p.39, International Energy Agency, 2017  
 (2) Source : Electric Vehicle Outlook 2017, Bloomberg New Energy Finance

# Migration risks of climate change

— Changes in the global environment cause an increasing number of human displacements

“By 2050, climate change could force more than **143 million people in just 3 regions to move within their countries**”

– World Bank Group<sup>1</sup>



Sources: (1) Groundswell, Preparing for internal climate migration, World Bank Group, 2018  
(2) Internal displacement monitoring centre database 2017

# Physical risks of climate change

— Natural catastrophes have increased significantly worldwide since 1980

## FREQUENCY

- Frequency of natural catastrophe loss events has increased worldwide (see table 1 below)
- This increase is mainly due to weather related disasters

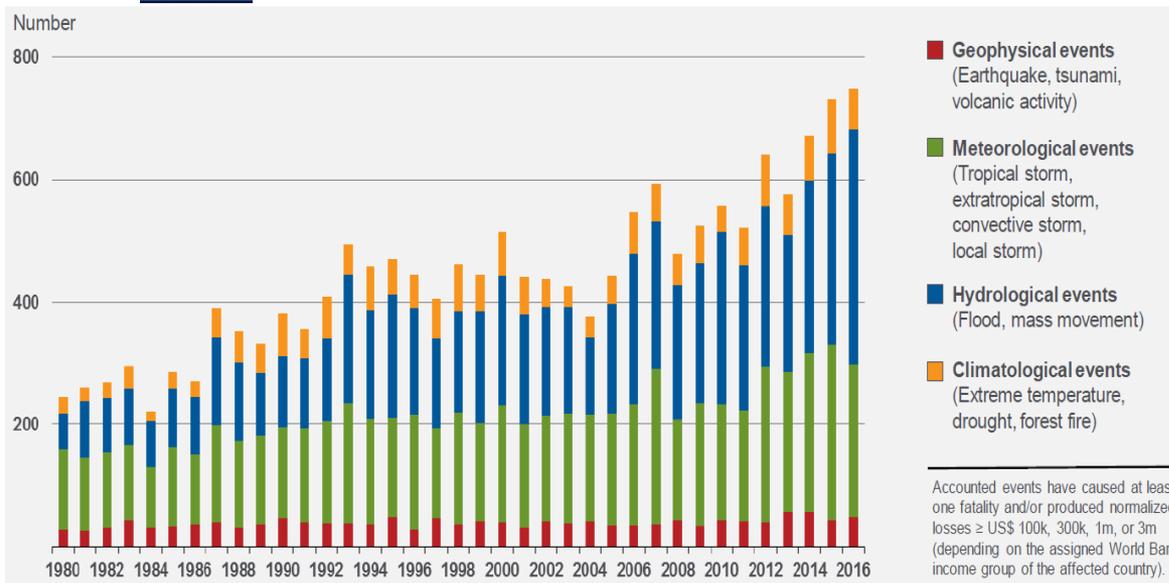
## LOSS

- Substantial increase of normalized and inflation adjusted losses
- Socioeconomic factors are the most relevant drivers of this increase

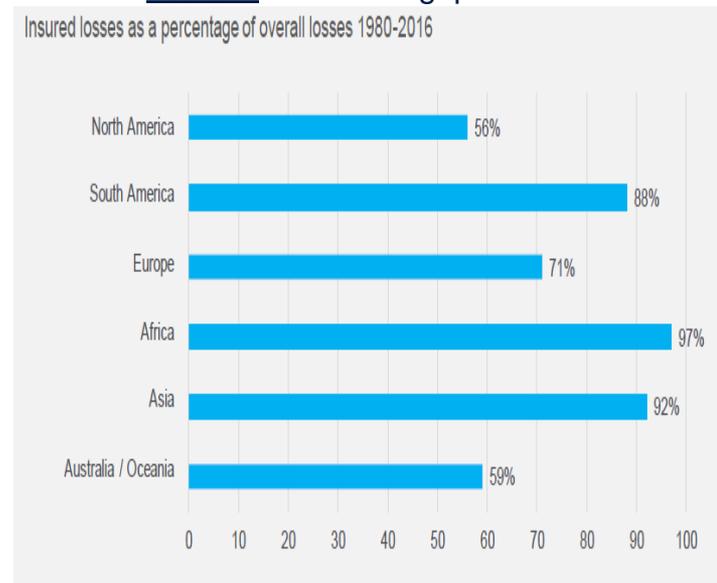
## HIGH EXPOSURE

- Natural Catastrophe insurance gap remains very large in all regions of the world (see table 2 below)

**Table 1: NatCat events worldwide 1980-2016: Number of events**



**Table 2: Insurance gap**



Source: 2016 Münchener Rückversicherungs-Gesellschaft, Geo Risks Research, NatCatSERVICE – As at January 2016

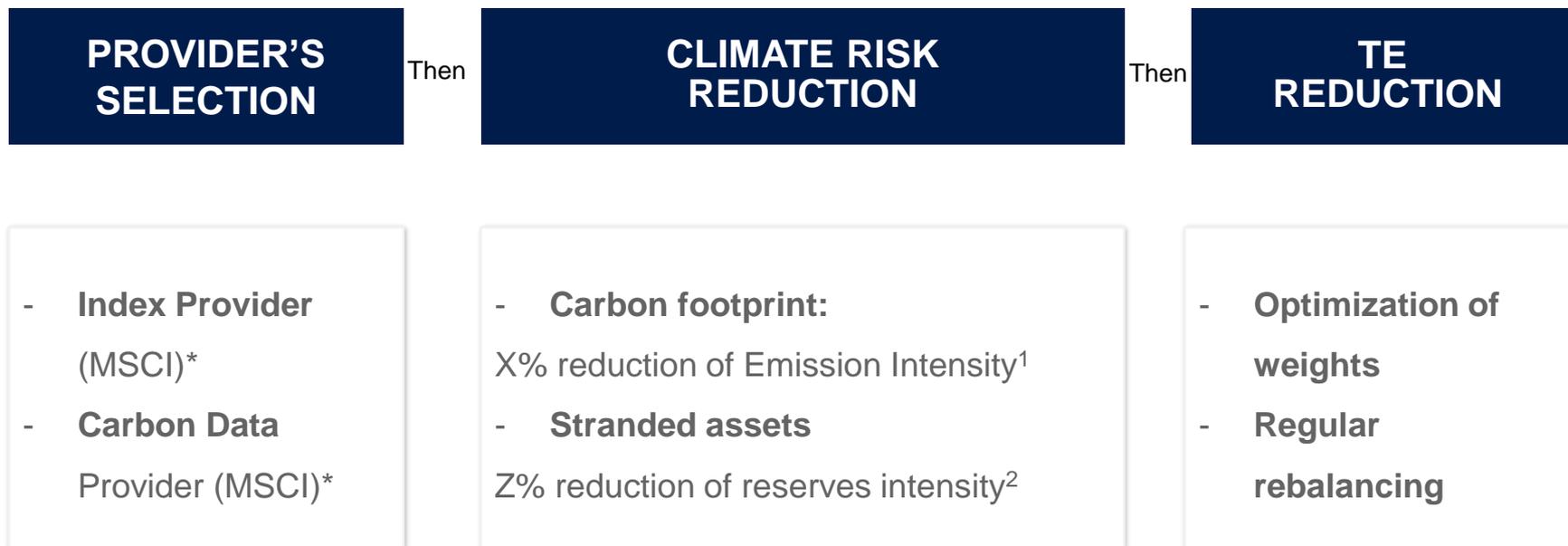
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# 04

## Use of Data

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# Methodology 1.0: low carbon indices

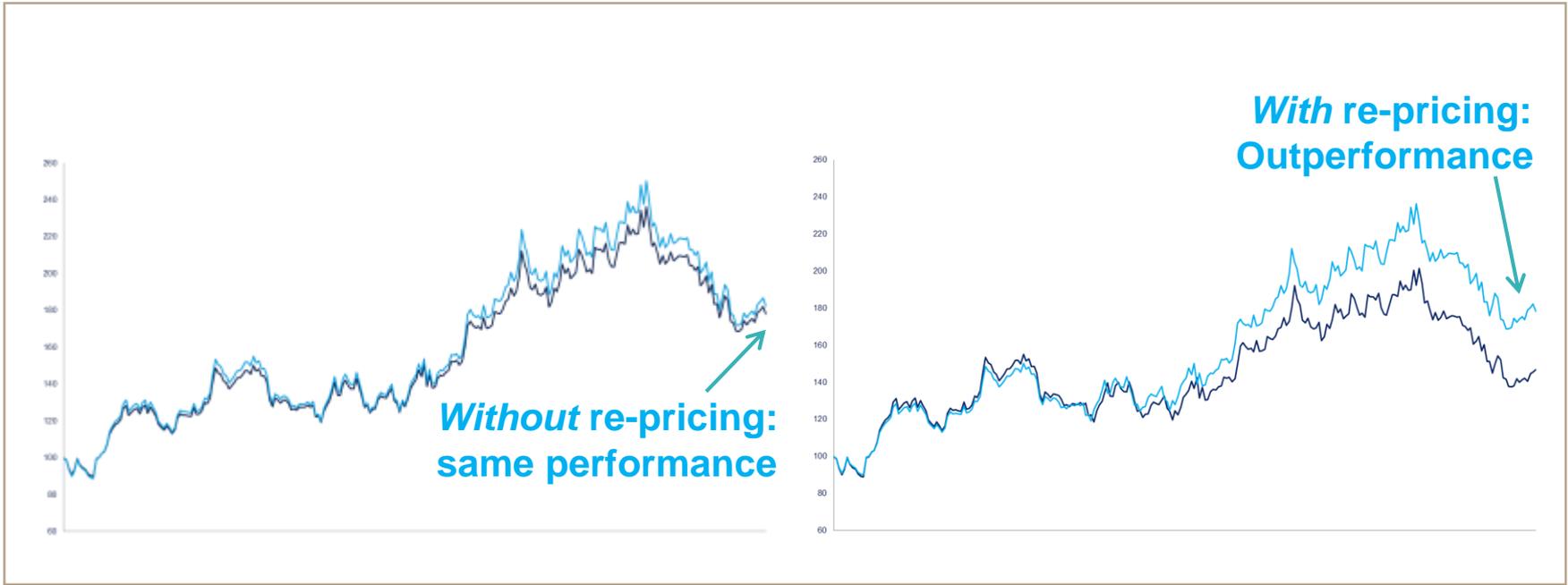


(1) Carbon emissions divided by sales

(2) Potential cumulative emissions from reserves divided by market cap

\* As an example

# Free option on climate change risk pricing



— Benchmark

— Low Carbon Low TE

— Benchmark

— Low Carbon Low TE

## « Free Option » :

- Either no *climate change impact*: same performance
- Or a *climate change impact*: outperformance

Source: Amundi Investment Solutions / Random simulations with annual volatility at 20%, annual expected return 7% and a 0,5% TE. **Past market trends are not a reliable indicator of future ones. Past performance does not prejudice future results, nor is it a guarantee of future returns**

# Low carbon leaders Europe

Key Metrics	MSCI	MSCI Europe Low Carbon Leaders
Total Return* (%)	7.50	8.05
Total Risk* (%)	11.61	11.73
Sharpe Ratio	0.65	0.69
Active Return* (%)	NA	0.55
Tracking Error* (%)	0	0.76
Information Ratio	NA	0.72
Turnover** (%)	2.40	11.86
Securities excluded	NA	96
Market cap excluded (%)	NA	23.4
Carbon <i>Emission</i> intensity reduction (tCO2/mm USD) (%)	NA	50
Carbon <i>Reserves</i> intensity reduction (tCO2/mm USD) (%)	NA	68

## — Excludes:

- Largest 20% emitters with a maximum 30% by weigh from any sector
- Largest owners' reserves up to 50%

## — Major reduction of:

- Carbon *Emissions* Intensity (-50%)
- Carbon *Reserves* Intensity (-68%)

## — Low tracking error: 0.76 %

Past market trends are not a reliable indicator of future ones. Past performance does not prejudice future results, nor is it a guarantee of future returns. Source: MSCI, Net total return annualized in EUR for the 11/30/2010 to 03/31/2018 period. The cumulative index performance is from MSCI

<sup>1</sup> Over 5 years. <sup>2</sup> Last 12 months. <sup>3</sup> As of end february 2018 .

# Performances

## CUMULATIVE INDEX PERFORMANCE - GROSS RETURNS (USD) (NOV 2010 – JUN 2019)



### Annualized outperformance (2010-2019):

- World: +31 bp <sup>(1)</sup>
- North America: +36 bp
- Europe: +32 bp

### Even if supposed to be forward-looking

### In bps



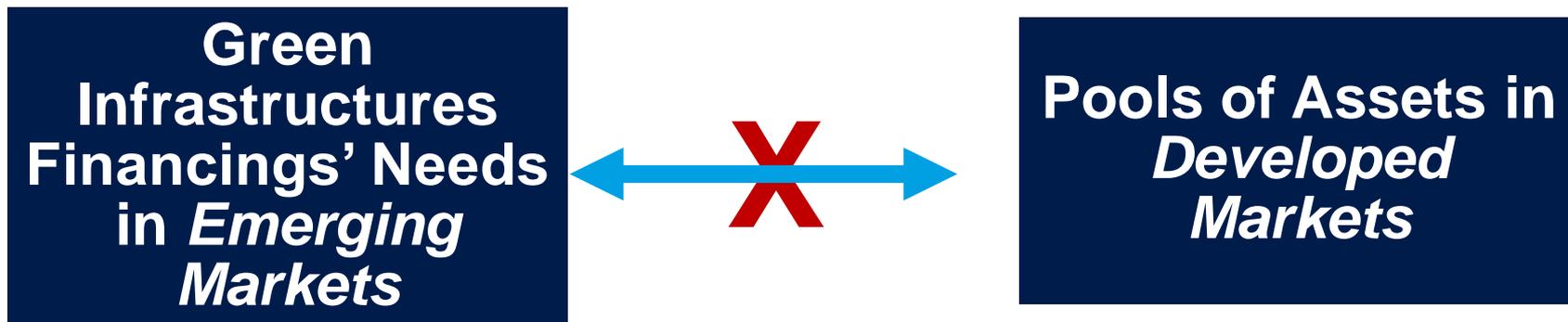
### Performance of concrete investments :

- Nov 2014 – Jun 2019
- Annualized outperformance: +24 <sup>(2)</sup> bp
- Information ratio<sup>(3)</sup> : 0.56

Past market trends are not a reliable indicator of future ones. Past performance does not prejudice future results, nor is it a guarantee of future returns. Source: MSCI (1) Net monthly returns annualized in USD for the 11/30/2010 to 06/28/2019 period. Data prior to the launch date (Sep 16, 2014) is back-tested data (2) Net weekly returns annualized in USD for the 11/07/2014 to 06/28/2019 period. Outperformance in basis points. The cumulative index performance is from MSCI (3) A ratio of portfolio returns above the returns of a benchmark (usually an index) to the volatility of those returns

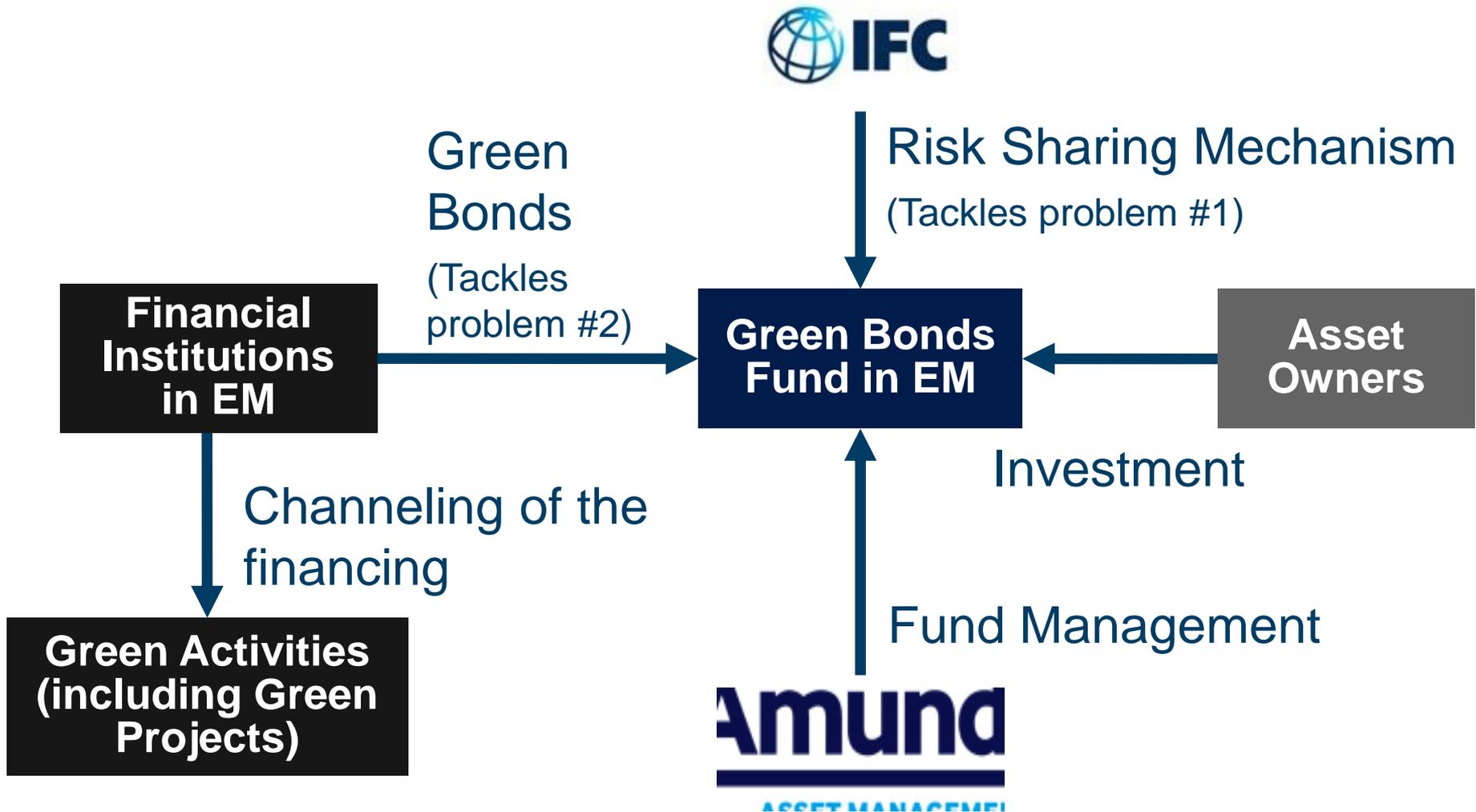
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## Green Infrastructures' Financing Gap



- Costly for both parties
- 2 main obstacles:
  - Emerging Markets being considered as too risky by many investors
  - Lack of knowledge on infrastructures financing (even locally)

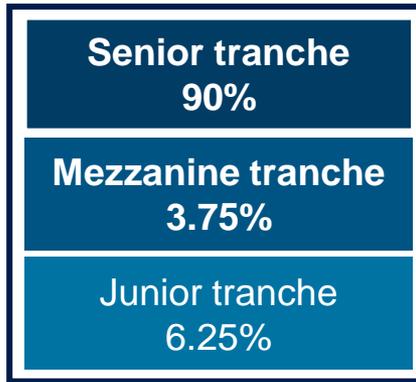
# Green Infrastructures Financing Gap: Elegant Solution



# EM Green Bonds strategy

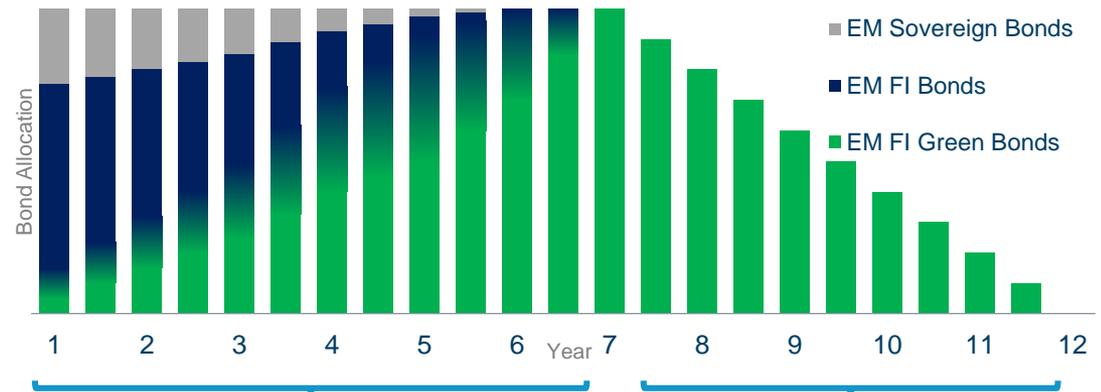
Financing the energy transition in Emerging Markets

## Structure



ptf

## Portfolio



### Pooled vehicle

- Luxembourg Specialized Investment Fund (SIF)
- European AIF
- Shares to be listed
- 12yr legal maturity

### Fin. features:

- EMD Hard Currency
- Portfolio target gross yield > [5.0%]
- Indicative rating: [BB+/BB]

### Investment period

- From 100% EM bonds (with systematic ESG screening)
- To target 100% FI green bond<sup>(1)</sup>
- Capture yield premiums
- Finance the energy transition

### Run-off period

- FI green bond portfolio matures
- Other bonds—if any—to be divested<sup>(2)</sup>
- Distributions of proceeds to investors

For professional investors only. (1) There is no assurance that the portfolio will reach the green bonds investment targets as indicated in the chart above. (2) Within a period of 6 months subject to normal market conditions.

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# 2018 Impact Highlights



\$1.42 billion at closing to deploy more than \$2 billion over seven years



77% of capital leveraged from private sector sources



14 green bonds in portfolio



16.5% of the portfolio allocated to green bonds



233 tCO<sub>2</sub>e avoided emissions per €1mn invested per year

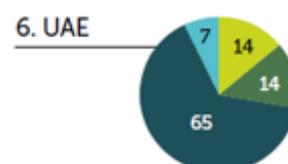
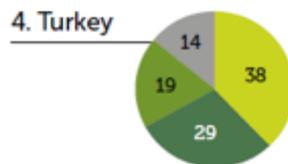
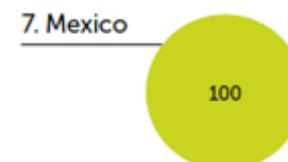
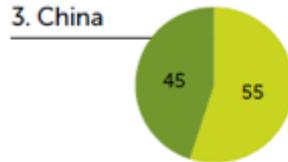
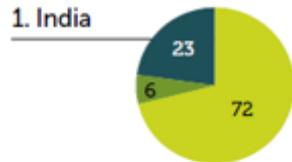
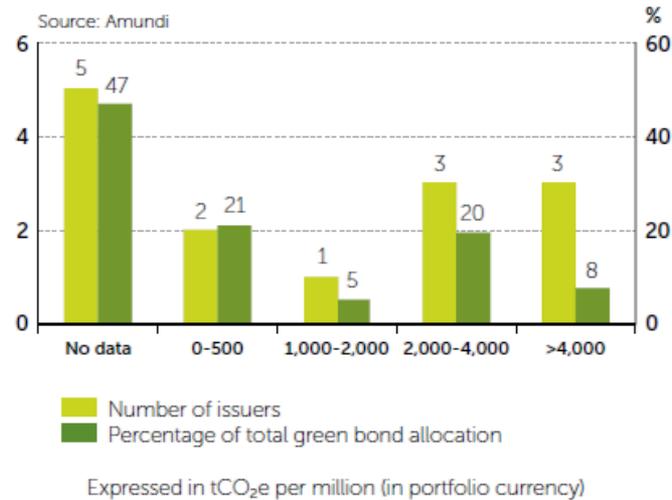


7 emerging countries with green projects financed

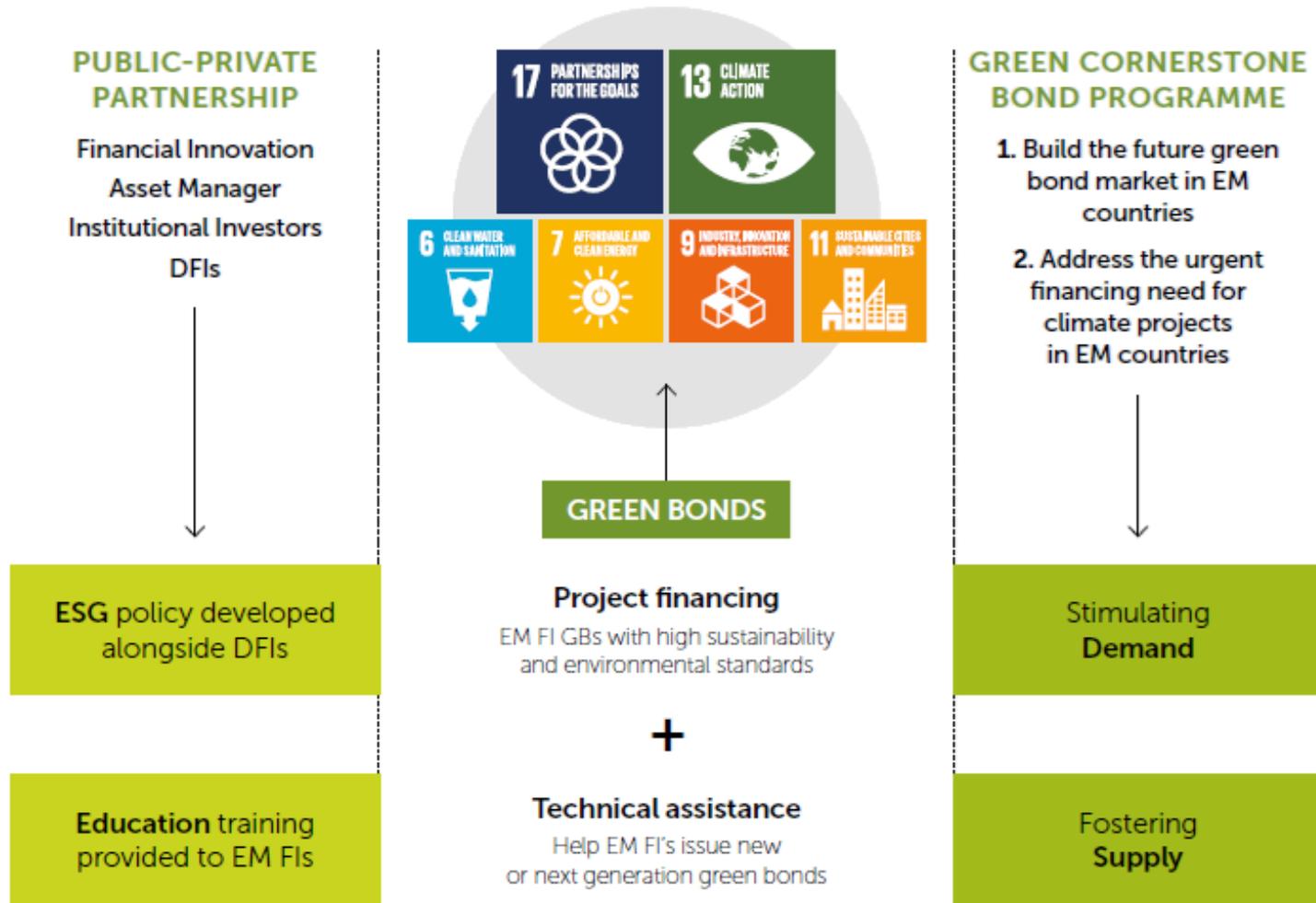
# Breakdown of Use of Proceeds by Country/Sector (in %)

233 tCO<sub>2</sub>e in avoided emissions for 2018

## Breakdown of Avoided Emissions per Bond



# Alignment with Sustainable Development Goals



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# High Recognition

From partnership inception to fund launch

## Partnership launch

### FINANCIAL TIMES

IFC invests \$325m in green bond fund for emerging markets

Arm of World Bank to support environmentally friendly projects in developing markets



World Bank's IFC, Amundi to create \$2 billion green bond fund

## Fund closing

### FINANCIAL TIMES

Green investing generates returns, not just a warm glow

Sustainability is now seen as a way of looking at often ignored externalities

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ASSET MANAGEMENT

Amundi and World Bank close largest green bond fund at \$1.4bn



## G20 Report

Presented by **X. Musca**, former Head of the French Treasury and President Sarkozy Chief of Staff.

**Making the case of the IFC deal being a case study of a new business model for developing banks**

**Already won 6 Awards**