



# Alternatives and asset allocation

Spotlight on Wealth management

Michele Bovenzi



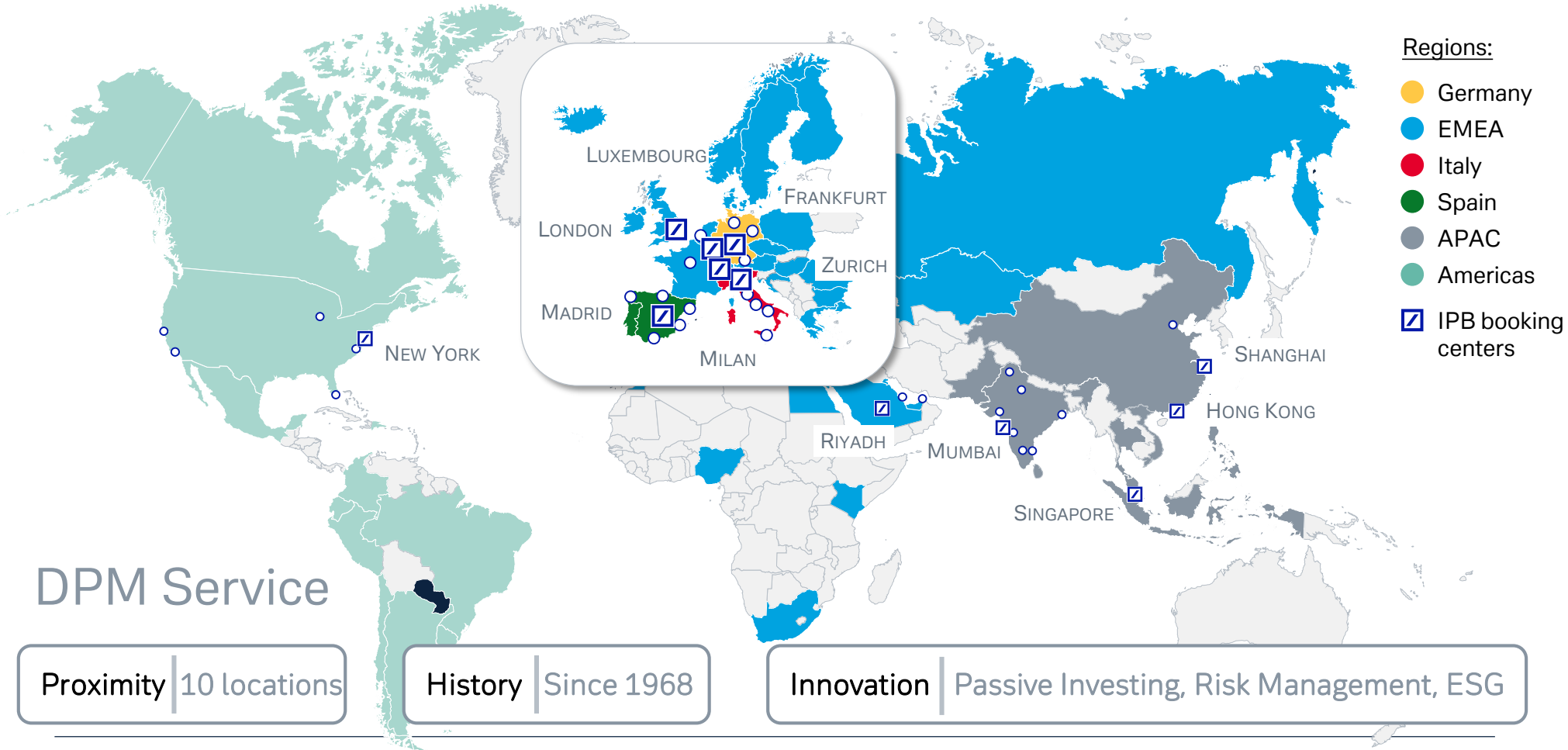
# Our portfolio management capabilities



Global Scale &  
Local Reach

FTE | 160

AuM (12/2020) | ~ €55bn



DPM Service

Proximity | 10 locations

History | Since 1968

Innovation | Passive Investing, Risk Management, ESG

# Alternatives and asset allocation



## How we define and why we need alternatives?

- They are alternative to more liquid and traditional (sic) instruments such as listed equities and fixed income
- They can be everything else than that, ranging from real estate, to hedge funds, to commodities, to structured products
- They can serve a broad range of functions within a diversified portfolio: stabilise risk, enhance yield, stabilise yield

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Russell 2000 Growth 29.1%	BC IT Gov/Credit 5.8%	Russell 2000 Value 18.1%	Russell 2000 Growth 43.3%	S&P/Citigroup 500 Growth 14.9%	S&P/Citigroup 500 Growth 5.5%	Russell 2000 Value 31.7%	S&P/Citigroup 500 Growth 27.4%	BC IT Gov/Credit 0.9%	S&P/Citigroup 500 Value 31.9%
Russell Midcap 25.5%	S&P/Citigroup 500 Growth 4.7%	MSCI EAFE 17.9%	Russell Midcap 34.8%	Russell Midcap 13.2%	BC IT Gov/Credit 1.1%	S&P/Citigroup 500 Value 17.4%	MSCI EAFE 25.6%	S&P/Citigroup 500 Growth -0.01%	S&P/Citigroup 500 Growth 31.1%
Russell 2000 Value 24.5%	S&P/Citigroup 500 Value -0.5%	Russell Midcap 17.9%	Russell 2000 Value 34.5%	S&P/Citigroup 500 Value 12.4%	MSCI EAFE 0.4%	Russell Midcap 13.8%	Russell 2000 Growth 22.2%	S&P/Citigroup 500 Value -9.0%	Russell Midcap 30.5%
S&P/Citigroup 500 Growth 15.1%	Russell Midcap -1.5%	S&P/Citigroup 500 Value 17.7%	S&P/Citigroup 500 Growth 32.8%	Russell 2000 Growth 5.6%	Russell 2000 Growth -1.4%	Russell 2000 Growth 11.3%	Russell Midcap 18.5%	Russell Midcap -9.1%	Russell 2000 Growth 28.5%
S&P/Citigroup 500 Value 15.1%	Russell 2000 Growth -2.9%	S&P/Citigroup 500 Growth 14.6%	S&P/Citigroup 500 Value 32.0%	Russell 2000 Value 4.2%	Russell Midcap -2.4%	S&P/Citigroup 500 Growth 6.9%	S&P/Citigroup 500 Value 15.4%	Russell 2000 Growth -9.3%	MSCI EAFE 22.7%
MSCI EAFE 8.2%	Russell 2000 Value -5.5%	Russell 2000 Growth 14.6%	MSCI EAFE 23.3%	BC IT Gov/Credit 3.1%	S&P/Citigroup 500 Value -3.1%	BC IT Gov/Credit 2.1%	Russell 2000 Value 7.8%	Russell 2000 Value -12.9%	Russell 2000 Value 22.4%
BC IT Gov/Credit 5.9%	MSCI EAFE -11.7%	BC IT Gov/Credit 4.8%	BC IT Gov/Credit -0.9%	MSCI EAFE 4.5%	Russell 2000 Value -7.5%	MSCI EAFE 1.5%	BC IT Gov/Credit 2.1%	MSCI EAFE -13.4%	BC IT Gov/Credit 6.8%

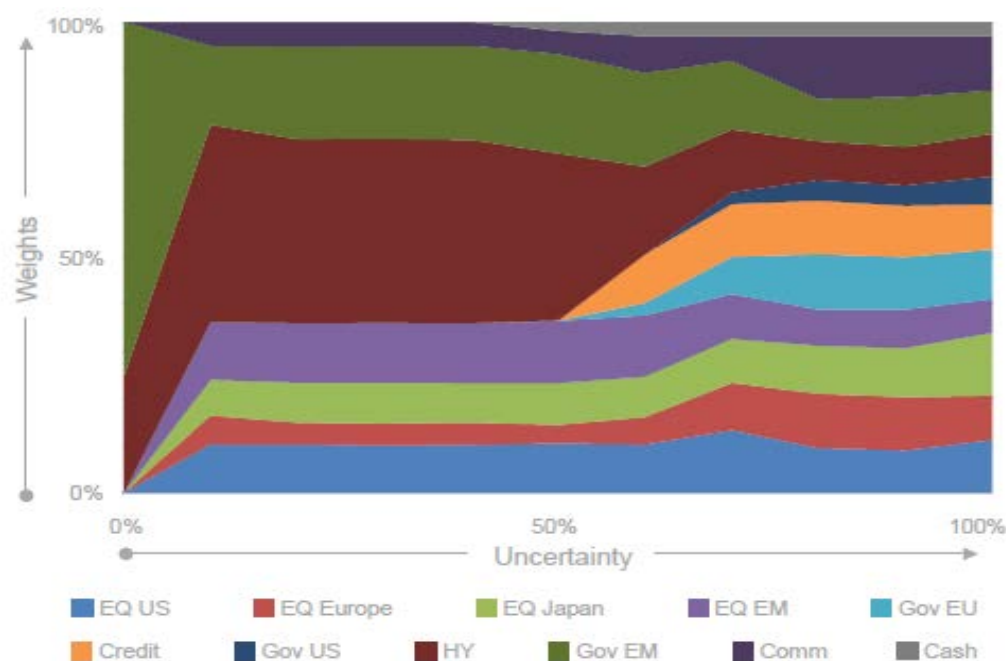
Source: Deutsche Bank IPB.

# Alternatives and asset allocation



## The importance of robustness and why alternatives play a role

- If parameters are exactly known Markowitz is king!
- But what if we are wrong about our assumptions on the input parameters?
- How to incorporate potential estimation errors / uncertainty regarding the input parameters in the construction of the allocation?
- How to evaluate the impact of robustness and the price you have to pay for it?



Source: Deutsche Bank IPB.

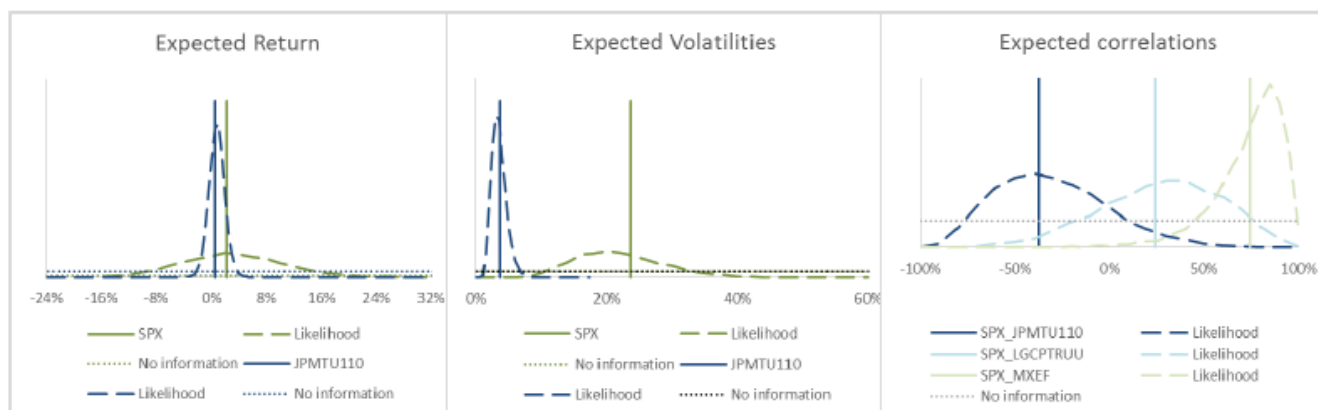
# Alternatives and asset allocation



## Our approach to robustness

### Our approach in a nutshell:

- Including parameter uncertainty as a new explicit input dimension
- Modelling the uncertainty by parameter likelihood distributions, instead of considering them as a single value
- Robust optimization is derived from optimizing the bad cases according to the uncertainty in terms of the likelihood distributions of the parameters
- Quantified decision making about the desired tradeoff between robustness and efficiency

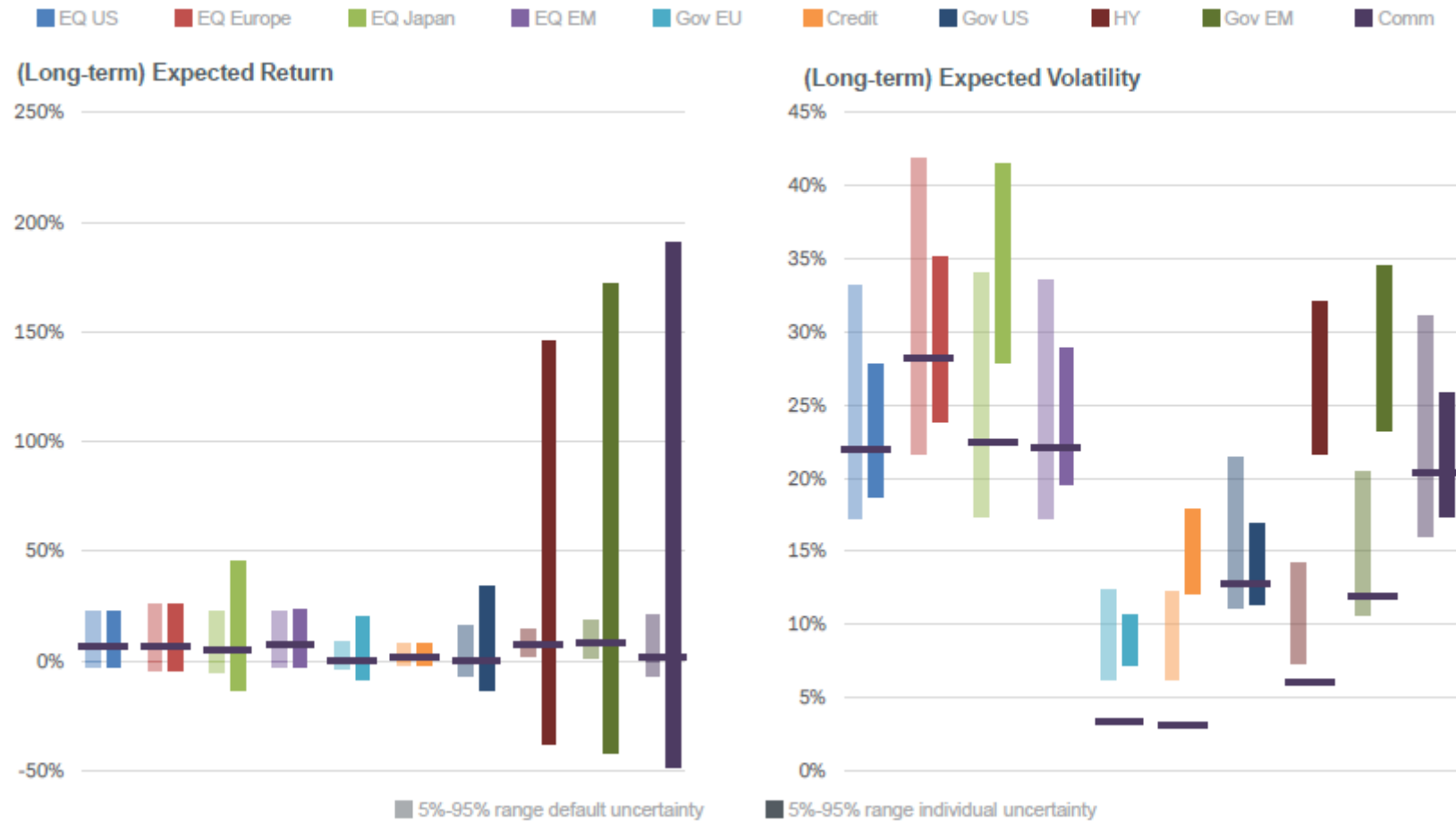


Source: Deutsche Bank

# Alternatives and asset allocation



## Variability of expected returns and volatility for most asset classes



Source: Deutsche Bank IPB.

# Alternatives and asset allocation



The role of alternatives in the client's overall portfolio



From scratch.. How do we build the client's portfolio?

The answer is:

- 1) Core
- 2) Satellite

## Core portfolio

### *DPM Mandate*

Discretionary portfolio based on the best strategic asset allocation for the client's risk budget



## Satellite / Advisory portfolio

Yield enhancement and decorrelation focus benefitting the overall portfolios through the following

**Fixed Income single lines**

**Structured products**

**Equity single lines**

**FX & Direct Access Trading**

**Private Equity**  
**Infrastructure Solutions**

Source: Deutsche Bank IPB.

# Satellite/ Advisory portfolio



## Alternative investments – Main solutions

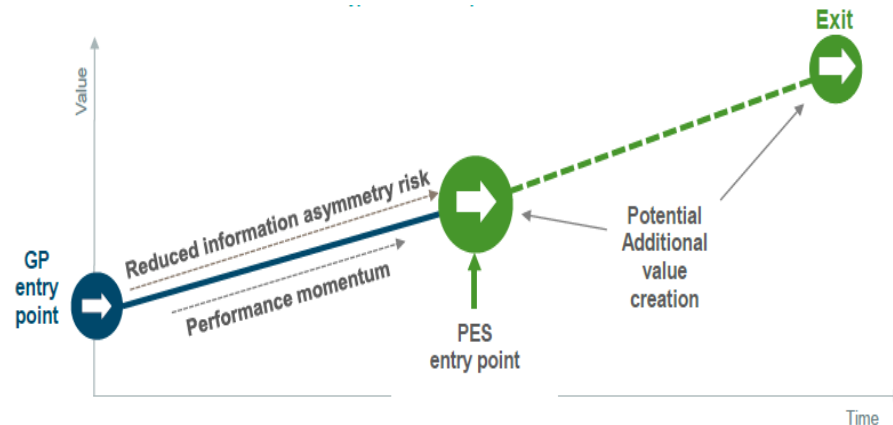
### Private Equity solutions – Risk profile



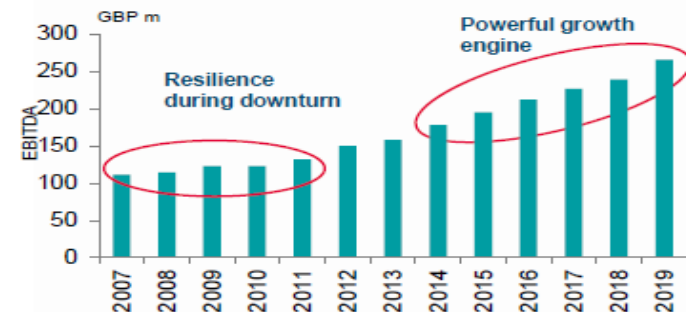
### Infrastructure solutions - Objectives

- **Megatrends**  
Target sectors that are favourably positioned to capitalise on long-term industry trends, including digitalisation, energy transition and transport decarbonisation
- **Yield and Mid-Cap Platforms**  
Target brownfield assets offering a platform for growth. Operational assets with solid infrastructure characteristics may support yield through regulated or contracted profiles
- **Sustainability**  
Sustainability is increasingly at the centre of the investment agenda, and Covid-19 is accelerating policymakers' sustainable infrastructure targets, to support decarbonisation and economic recovery

### Hypothetical example of a transaction



### Typical behaviour of companies within private Infrastructure funds

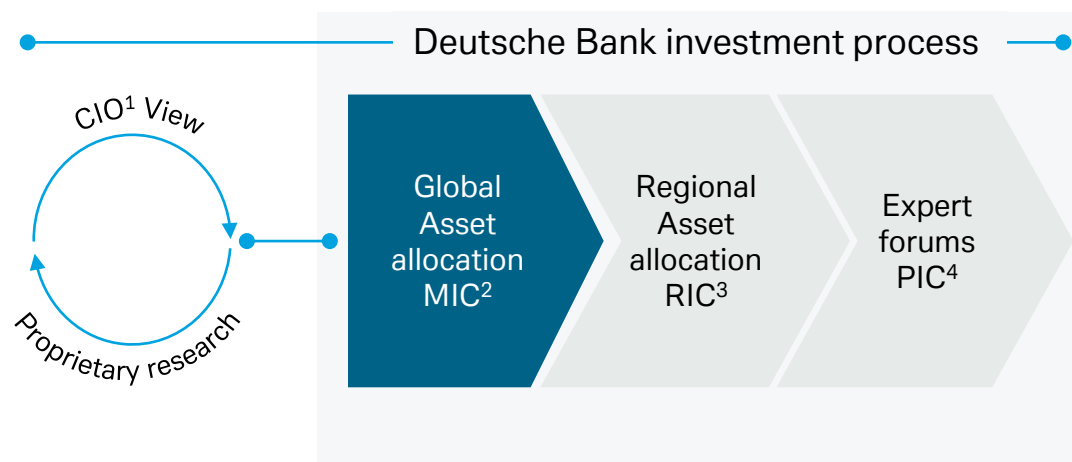


Source: DWS AG., Deutsche Bank IPB.



# Core portfolio

## Role of alternative investments within Discretionary portfolios



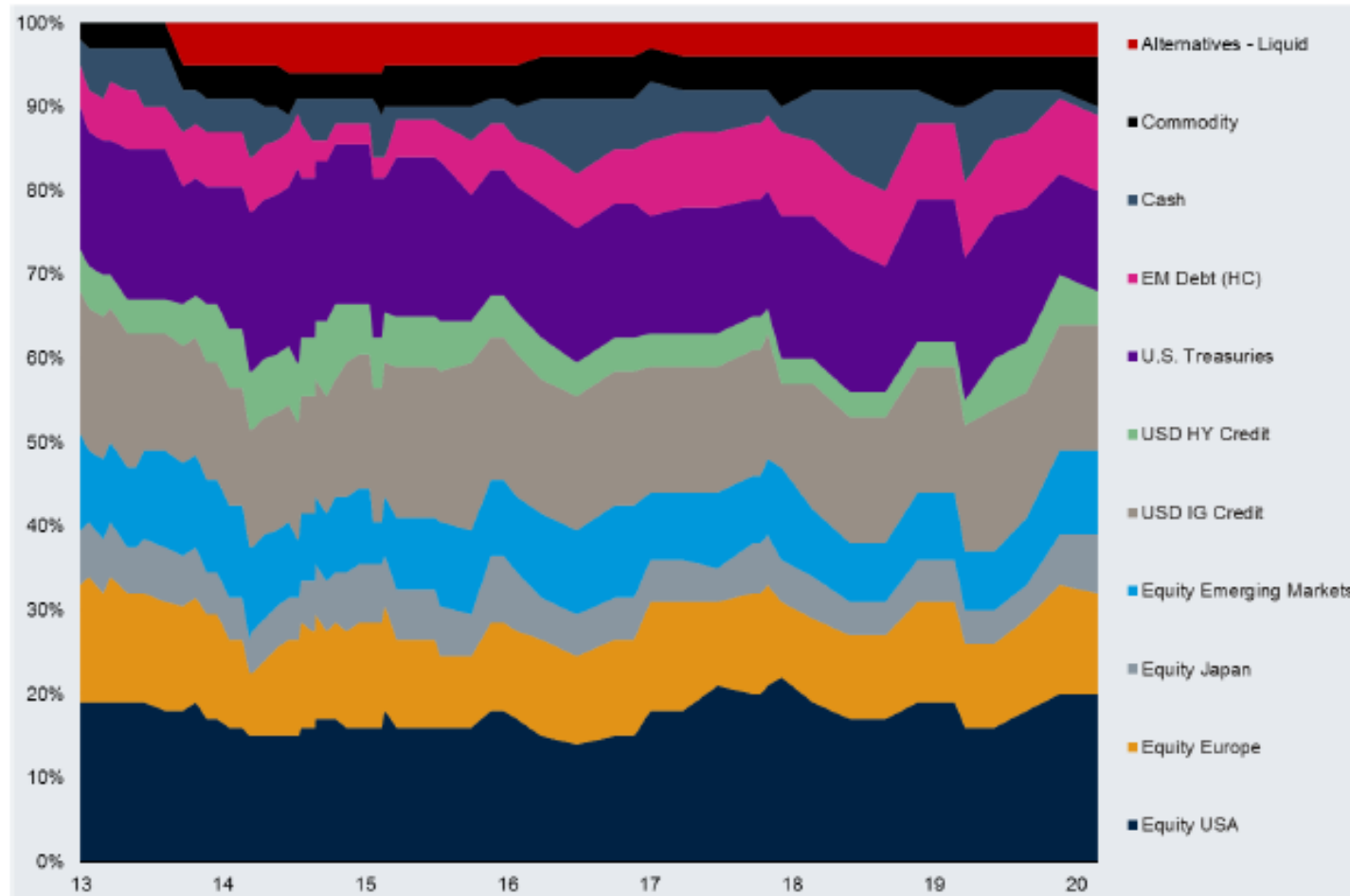
### MIC – Medium- term portfolio

	Anchor
Equity USA	19.0%
Equity Europe	12.0%
Equity Japan	5.0%
Equity Emerging Markets	8.0%
<b>Equity Total</b>	<b>44.0%</b>
Fixed Income - Credit - Investment Grade	15.0%
Fixed Income - Credit - High Yield	6.0%
Fixed Income - Sovereigns	17.0%
Fixed Income - Emerging Markets - Hard Currency	7.0%
Cash	3.0%
<b>Fixed Income Total</b>	<b>48.0%</b>
Commodity	4.0%
Alternatives - Liquid	4.0%
USD	83.0%
EUR	12.0%
JPY	5.0%
Duration (FI incl. cash, in years)	6.2

(1) CIO=Chief Investment Office; (2) MIC = Multi Asset Investment Committee; (3) RIC = Regional Investment Committee; (4) PIC = Portfolio Implementation reCommendations, ovvero Expert Forums  
Source: Deutsche Bank IPB.

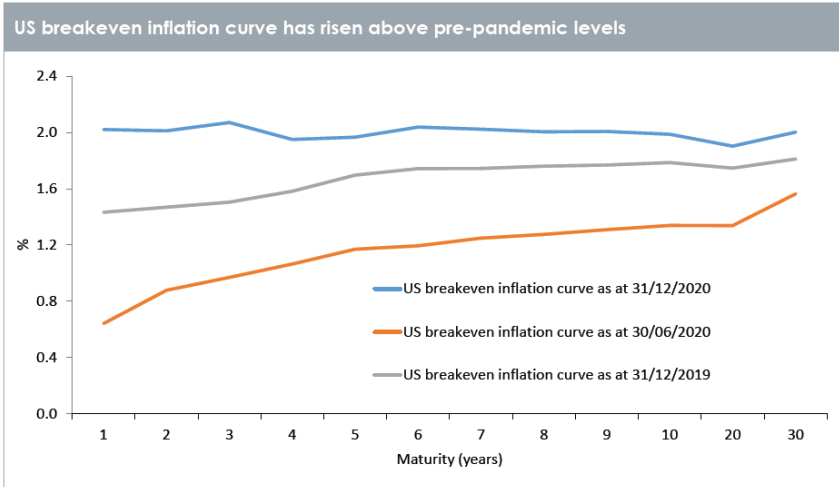
# Core portfolio

## Role of alternative investments within Discretionary portfolios

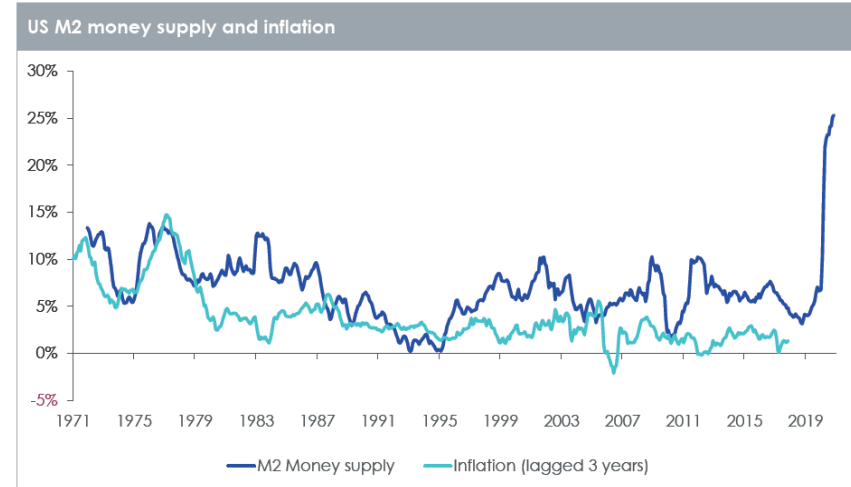


(1) CIO=Chief Investment Office; (2) MIC = Multi Asset Investment Committee; (3) RIC = Regional Investment Committee; (4) PIC = Portfolio Implementation reCommendations, ovvero Expert Forums  
Source: Deutsche Bank IPB.

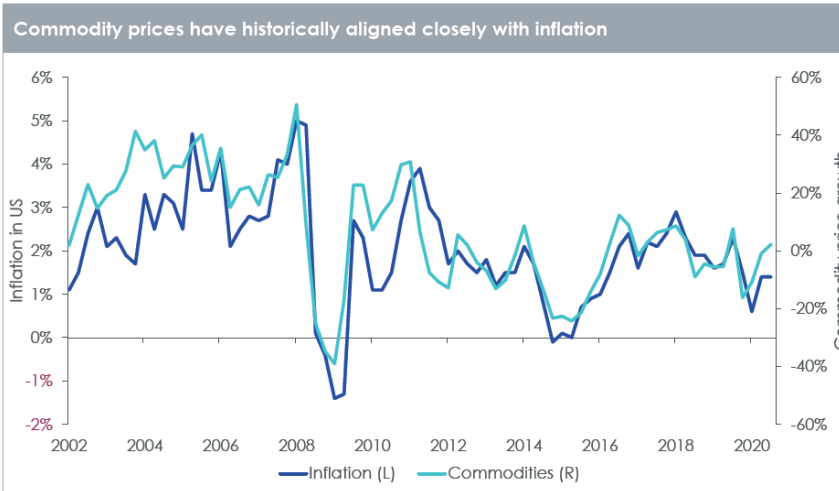
# Commodities - Potential hedge against inflation



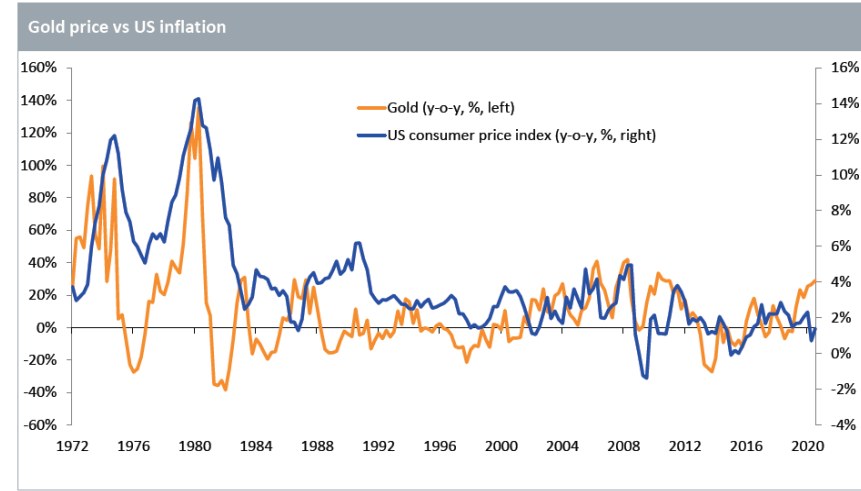
Source: WisdomTree, Bloomberg. Data as of 18/01/2021.



Source: WisdomTree, Bloomberg. Data as of 18/01/2021. Federal Reserve United States Money Supply (M2), US CPI inflation, Jan 1972 to Dec 2020.



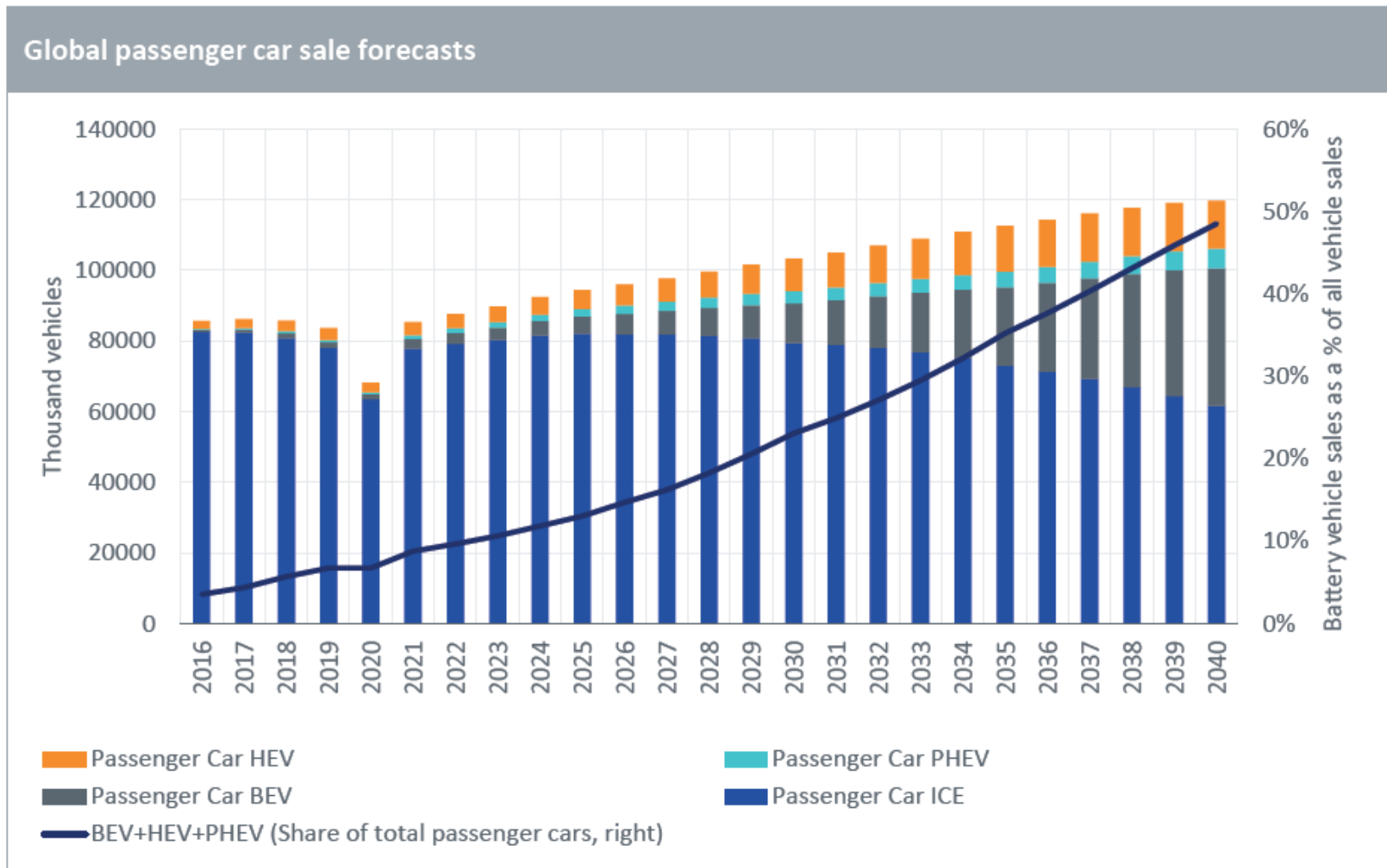
Source: WisdomTree, Bloomberg. Data as of 18/01/2021. Commodity price based on Optimized Roll Commodity Total Return (EBCIWTT Index), US CPI inflation, June 2002 to December 2020.



Source: WisdomTree, Bloomberg. Data as of 18/01/2021. Commodity price based on Optimized Roll Commodity Total Return (EBCIWTT Index), US CPI inflation, June 2002 to December 2020.

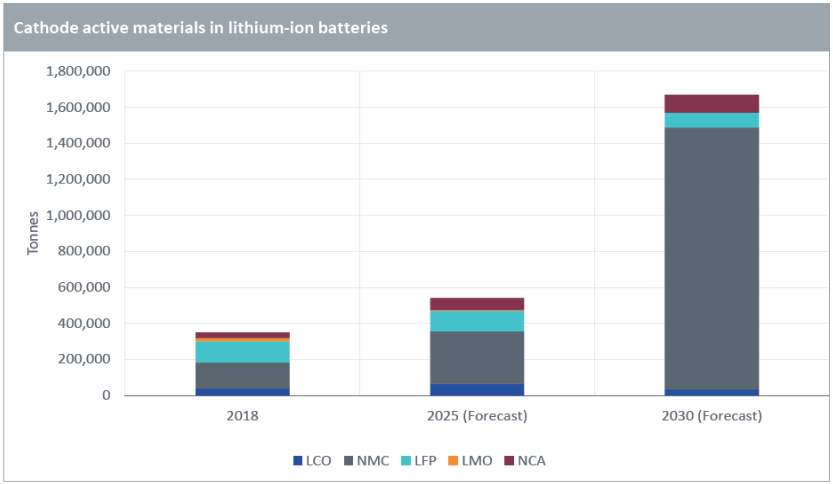
Source: DWS AG., Deutsche Bank IPB.

# Commodities – Industrial metal beneficiaries



Source: WisdomTree, Deutsche Bank, Wood Mackenzie, forecasts from 2020.

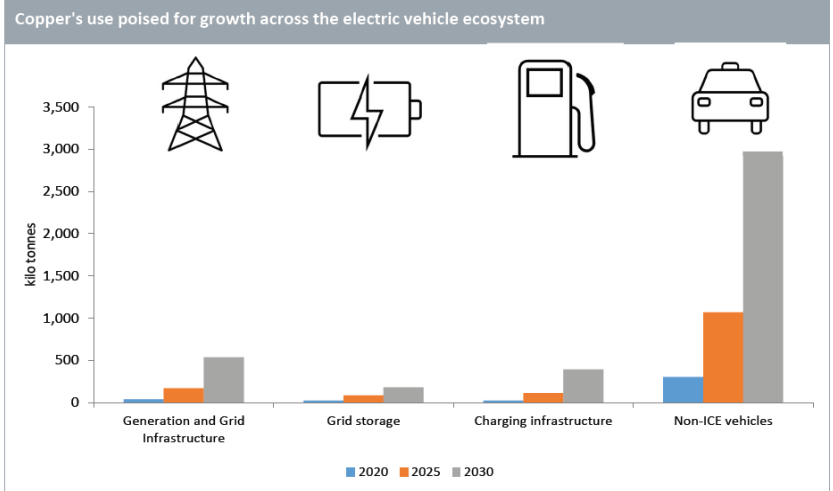
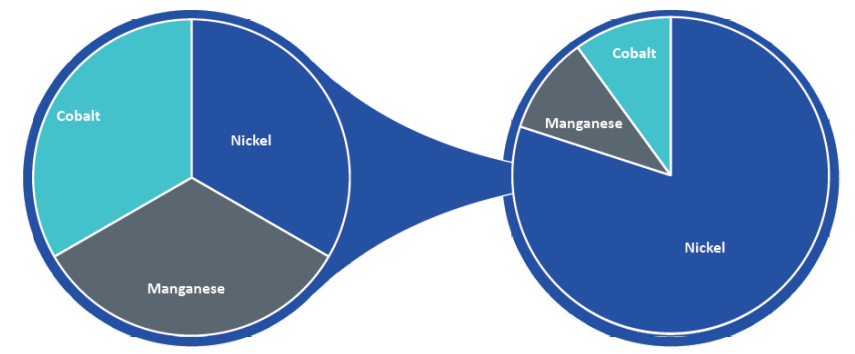
# Commodities – Industrial metal beneficiaries



Lithium Cobalt Oxide (LCO), Lithium Nickel Manganese Cobalt Oxide (NMC), Lithium Nickel Cobalt Aluminium Oxide (NCA), Lithium Manganese Oxide (LMO) and Lithium Iron Phosphate (LFP)

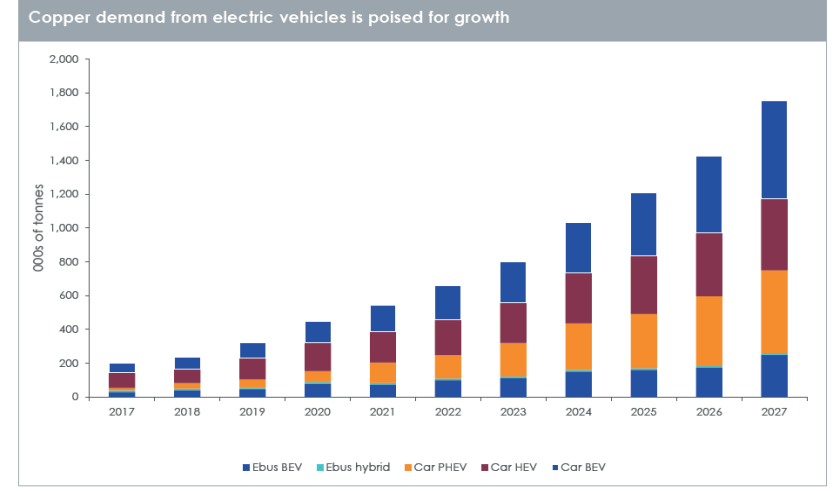
Source: Avicenne Energy 2019

Pre-2017 NMC cathodes were equal weight | Technological solutions allow for a 8:1:1 ratio



Source: Glencore 2017 Report, "Electric Vehicles - A disruptive force underpinning our commodities". ICE refers to 'Internal Combustion Engine'.

Source: WisdomTree, Deutsche Bank, Wood Mackenzie, forecasts from 2020.



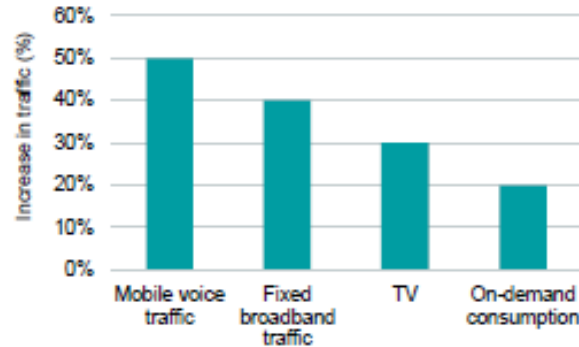
Source: International Copper Association, WisdomTree. Data available as of 30 September 2020. BEV stands for battery electric vehicle, HEV for hybrid electric vehicle, PHEV for plug-in hybrid electric vehicle, and EBUS stands for electric bus.

# Digital Infrastructure – what to expect



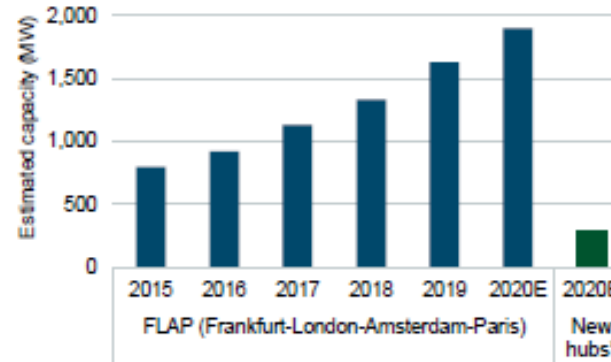
## AVERAGE TRAFFIC INCREASE SINCE COVID-19

(%, Estimate)



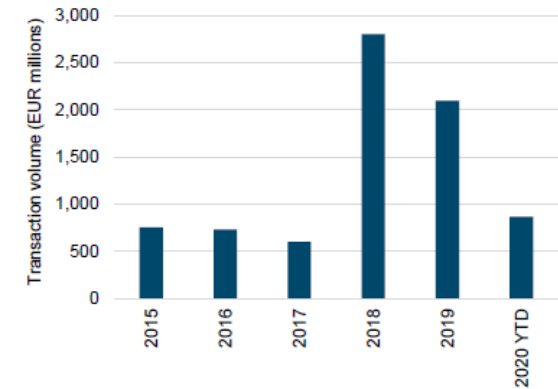
## ESTIMATED EUROPEAN COLOCATION CAPACITY

(MW, 2015-2020E, By Location)



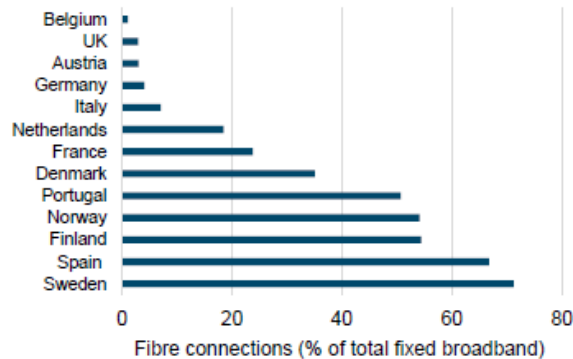
## PRIVATE TELECOM TOWER DEALS IN EUROPE

(2015-2020 YTD)



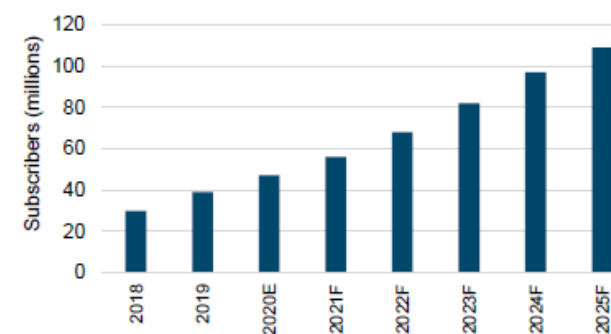
## FIBRE CONNECTIONS

(2019, % of Total Fixed Broadband)



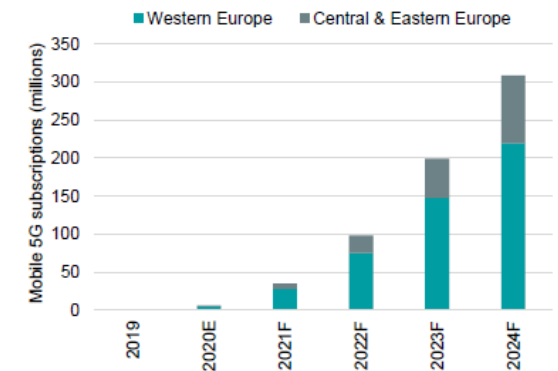
## FTTH/B SUBSCRIBERS FORECAST IN EU-28

(2018-2025F)



## PROJECTED MOBILE 5G SUBSCRIPTIONS IN EUROPE

(2019-2024F)



Source: DWS AG., Deutsche Bank IPB.

# Final remarks



## Alternatives and asset allocation

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01

It's a way to align interests and speak a common language between Companies, Investors, Regulators. And since we are ~50 years behind traditional (modern) portfolio management theories, there are many asymmetries and inefficiencies to grasp.

02

In a financial world where most of book value is intangible, adding ESG to F proves to be a valuable source of information, a good signal on earnings risk, a shield from controversy-linked or climate-related idiosyncratic shocks, and enhance risk-return.

03

It's a way to enhance positive impact of our clients' assets. It's a way to convey assets towards more profitable and less risky businesses.

04

Eventually, it's a way to anticipate investment flows coming from digital transformation, energy transition, demographic shifts, clients' preferences, and regulation!

05

Our fiduciary duty is to act in the best interest of our clients. Our fiduciary duty is to adapt to changing investment practices. Our fiduciary duty is to integrate all useful information to deliver competitive risk-adjusted returns.

Footnote: SFDR stands for Sustainable Finance Disclosure Regulation.

Source: European Union, Deutsche Bank Wealth Management. Status: December 2019.

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