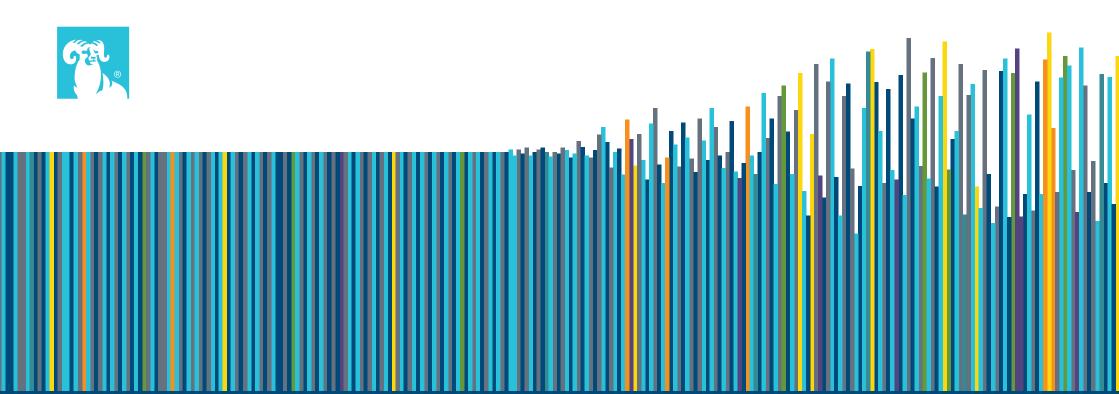


An active stance on disruption Putting pensions on the right side of change



2	I sakura ali i aktari	_
3	Introduction	1

- 4 Navigating disruption: Accelerating trends cause greatest concern
- 7 A regional lens on disruption
- **9** Conviction is key in the disruption era
- 10 Capturing growth in the disruption era needs courage and imagination
- 12 Staying nimble in an environment of disruptive deflation
- **16** Be on the right side of change

Introduction—An era of disruptive deflation

More than 80 years ago, Thomas Rowe Price Jr. wrote a booklet entitled *Change—The Investor's Only Certainty*, summing up the eternal predicament facing the investment industry.

For today's pension funds, the change they must navigate is perhaps more complex than ever before.

The market is being defined by new normalities. After the financial crisis, capital markets have been reshaped by tighter regulatory control, unprecedented intervention by monetary authorities, and a long period of low–or even negative—interest rates. Geopolitical tensions and international trade disputes have also intensified.

Meanwhile, companies have had unprecedented access to low-cost finance, technology has opened up new fossil fuel reserves, and digitally savvy firms are harnessing automation and online platforms to disrupt industries and unlock capacity.

Rather than accelerating growth and inflation, this has created an era of "disruptive deflation."

Amazon is something of a poster child for this deflationary effect, with its hyperefficient model contributing to low prices and downward pressure on wages, while the ability to capture market share from incumbent companies delivers revenue growth in a low-growth world.

This era of low growth and accelerating disruption has impacted the outcome for pension funds while simultaneously concentrating gains for successful companies. Further, as they navigate the effects of digital disruption, pension funds must contend with other transformative forces—commonly referred to as megatrends—such as climate change, demographic shifts, and resource scarcity, all of which are creating fresh challenges and opportunities.

Pension funds are aware that they must act to mitigate these risks: 66% of our survey respondents expect to rebalance their exposure to different industry sectors significantly over the next three years as a result of disruption and secular change. Yet this is only part of the story.

Against this challenging backdrop, pension funds will need to take steps to:

- Plan for an era of lower gross domestic product growth
- Search for the right side of change
- Be nimble investors

Our latest research, surveying more than 200 European pension funds with nearly €880 billion/£800 billion of assets under management, identifies the disruptive forces that pension executives are most concerned about and highlights how they can best respond to the challenges and opportunities being created.

About the research

We partnered with Longitude, of the Financial Times Group, to survey 223 pension funds across eight European countries in 2Q19. In addition, we conducted a series of in-depth interviews with senior executives at pension funds across Europe.

Total respondents

Regions

100%

223 European Pension Funds

UK and Ireland 43%

Nordics 15%

Continental Europe 43%

Note: Where percentages do not total 100%, this is due to rounding.

AUM

100%

55% are €550m to €1.1bn/£500m to £1bn

21% are €1.1bn to €3.3bn/£1bn to £3bn

13% are €3.3bn to €11bn/£3bn to £10bn

11% are €11bn/£10bn+

Navigating disruption: Accelerating trends cause greatest concern

Disruption is not a new phenomenon, but the scale and pace of change facing today's businesses is presenting fresh challenges for investors.

A recent study found that the average age of an S&P 500 company is now under 20 years, compared with 60 years in the 1950s. The speed at which digital technologies are evolving is a major driving force in accelerating the company life cycle.

From Facebook's shake-up of traditional media and advertising to the transformation of the retail industry and beyond by e-commerce platforms such as Alibaba and Amazon, the pace with which new business models have risen from obscurity to dominance means investors cannot afford to shy away from actively participating in these opportunities.

"Digitisation is an important theme to dig into from a portfolio perspective, partly because there are significant risks emerging for some large companies with established business models," says David Engel, Chief Investment Officer at Swiss pension fund Aargauische Pensionskasse (APK).

Digital disruption is not the only longer-term trend that is now having an accelerated impact, however.

There are a number of environmental, social, and governance (ESG)-related risks, including strains on natural resources, which are having more immediate effects on businesses. The growing importance of these factors, coupled with greater scrutiny from regulators, means that ESG risks are now a mainstream concern for pension funds. This is highlighted by our research findings: All of our survey respondents have implemented ESG considerations in at least part of their portfolios.

At RPMI Railpen, Senior Investment Manager for Sustainable Ownership Jocelyn Brown says Sustainable Ownership (SO) assessments are

Figure 1

Digital shake-up: Pension funds recognise the powerful implications of digital disruption.

Which of the following 'megatrends' do you expect to have the greatest impact on your investment strategy over the next 12 months?

Digital disruption of incumbent companies

Rise of new business models such as "sharing economy" and Platform as a Service (cloud computing)

Environmental challenges/strain on natural resources

Major economies introducing protectionist trade policies

Shift of economic power to emerging economies

Ageing population

Climate change

Urbanisation

50%

¹ Technology killing off corporate America: Average life span of companies under 20 years, CNBC, August 2017 The specific securities identified and described are for informational purposes only and do not represent recommendations.

carried out on all potential investments for its fundamental equities portfolio. "By assessing potential investments for relevant ESG factors, we believe that we can enhance our investment risk and returns. This process is integrated with our active ownership activities, ensuring any concerns identified in the SO assessment will be reflected in our voting and engagement approach."

As well as the longer-term challenges that have been accelerated, pensions are paying keen attention to the escalating trade tensions between the U.S. and China, which is an emerging risk with immediate impact. As U.S. President

Donald Trump's administration focuses on obtaining significant trade concessions heading into the 2020 election year, these tensions will continue to unsettle and confuse global markets.

For our survey respondents, digital disruption, environmental challenges in the shape of natural resource pressure, and the retrenchment of global trade are the disruptive forces expected to have the greatest impact on their investment strategies over the next 12 months—and yet they are also the trends they feel least confident in responding to. (see Figure 1.)

This is perhaps unsurprising, given that the effects of digital disruption and natural resource pressures are accelerating, while trade tensions are a significant, immediate concern. Mega-trends such as climate change, ageing populations, and urbanisation, while critically important, may have less of an impact on investment performance in the short term.

Figure 1 cont.

Digital shake-up: Pension funds recognise the powerful implications of digital disruption.

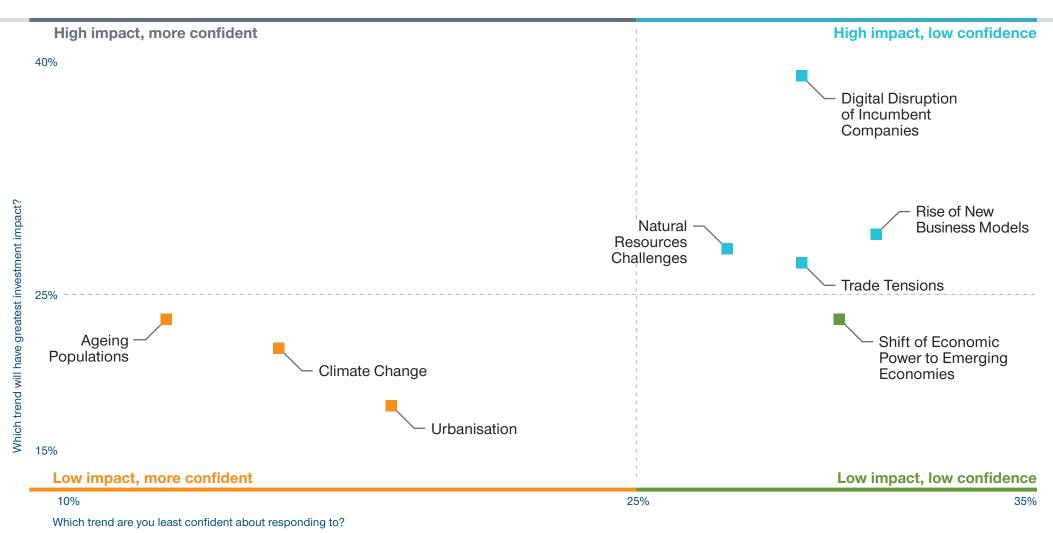
For which trends do you feel least confident in your institution's ability to implement the right investment response?

32%	Rise of new business models	
31%	Shift of economic power to emerging economies	
30%	Digital disruption	
30%	Protectionist trade policies	
28%	Environmental challenges/strain on natural resources	
19%	Urbanisation	
16%	Climate change	
13%	Ageing population	

50%

Figure 2

Trends perceived to have the greatest impact on investment strategy vs. confidence in ability to implement the optimum response.



A regional lens on disruption

Our survey also highlights several distinctions between the Nordic pensions we surveyed and others across Europe. (see Figure 3.)

For many respondents in the Nordic region, environmental challenges, the growing strength of emerging economies, and ageing populations are of paramount concern. Meanwhile, among respondents in Continental Europe and the UK and Ireland, there is significant emphasis on digital disruption and the rise of new business models.

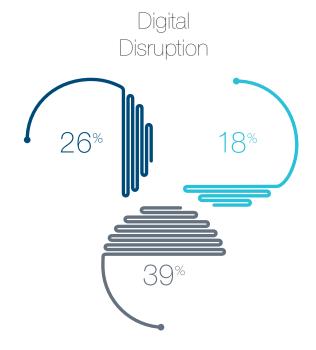
Figure 3

Pension funds in different markets have differing concerns.

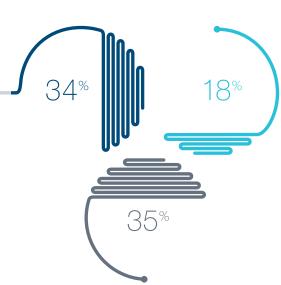
For which trends do you feel **least confident** in your institution's ability to implement the right investment response?

(Percentage in each region.)

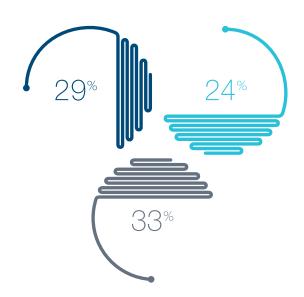
- UK and Ireland
- Nordics
- Continental Europe



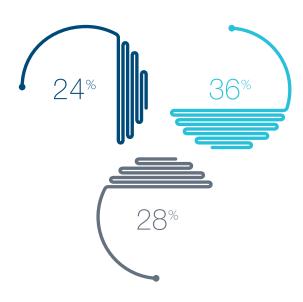
Rise of New Business Models



Protectionist
Trade Policies



Environmental Challenges/ Strain of Natural Resources



"Digital disruption and rise of new business models weigh more heavily on the minds of investors in UK and Continental Europe."

Figure 3 cont.

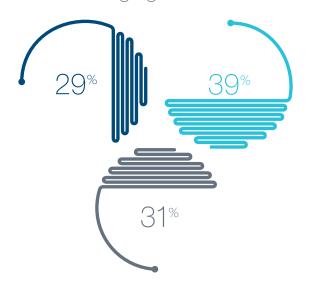
Pension funds in different markets have differing concerns.

For which trends do you feel **least confident** in your institution's ability to implement the right investment response?

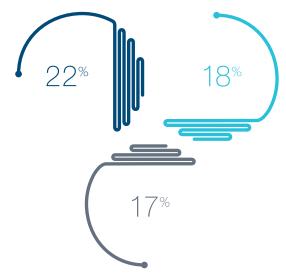
(Percentage in each region.)

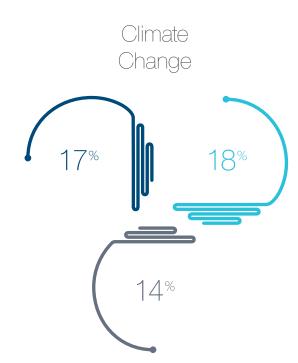
- UK and Ireland
- Nordics
- Continental Europe

Shift of Economic Power to Emerging Economies

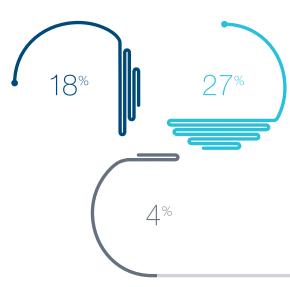








Ageing Populations



Conviction is key in the disruption era

The rise of passive allocations in Europe over the last decade has been well documented. In the UK, for instance, the Investment Association estimates that, in 2017, almost three-fourths (74%) of UK-managed assets were actively managed, down from 83% a decade earlier.²

This reflects the global trend, where net flows became weighted toward passive during the equity bull cycle. For many pension funds, heightened cost pressures in the wake of the global financial crisis have been a driver of this increased allocation to lower-cost, index-based strategies.

Some pensions are taking the view that passive strategies are best targeted at what might be

considered more efficient segments of the market, with active strategies deployed in less efficient markets.

At APK, for instance, David Engel says they are overhauling their Swiss equity strategy to implement a passive approach for the SPI 20 segment of the market, which they consider most efficient, while active is deployed for the small- and mid-cap portfolio. And at KZVK Dortmund, Head of Asset Management Axel Rahn has a similar thesis for fixed income, turning to external managers to deploy active strategies predominantly for higherrisk categories such as European or U.S. corporate high yield and emerging markets.

While the swing toward passive allocation appears set to continue at the aggregate level, it is also crucial to recognise that, in an era of accelerated disruption and heightened complexity, there is a risk that over-reliance on these strategies will lead to an over-simplification. If applied without careful consideration, this could lead to emerging opportunities and threats being overlooked—all at the expense of performance.

Tellingly, for those survey respondents who are rebalancing their portfolios more strongly in favour of actively managed strategies over the next three years, the most common motivation is to enable them to implement an effective investment response to disruptive trends. (see Figure 4.)

Figure 4

An active stance on secular change.

Why do you intend to increase your allocation to actively managed equity and/or fixed income funds over the next three years?

37% Respond to major disruptive/secular trends
35% Seek new opportunities for alpha
28% Concern about potential market downturn
27% Pressure to meet target returns
27% Investment we want to access cannot be replicated in a passive way
23% Respond to increased volatility
22% Respond to rising interest rates

10070

² Asset Management in the UK 2017-2018, The Investment Association, September 2018

Capturing growth in the disruption era needs courage and imagination

An era of low growth and accelerating disruption concentrates gains for successful companies and creates increased stock dispersion—potentially leading to wildly differing returns for investors that back successful disruptors early on versus those waiting for an index to buy into those stocks.

Analysis of some of the most successful disruptive growth stocks of the last few years, as compared with relevant sector benchmarks, highlights the route to performance in a deflationary, lower-growth world. (see Figure 5.)

At the same time, this environment of secular change is creating substantial stock dispersion. (see Figure 6.)

The ability to identify disruptive winners will have a major impact on portfolio performance over the coming years. But how can investors get this right?

"You need a degree of imagination about change. Namely, what a company could become in the next three to five years: Do they have the potential to open up a new industry category, a new product category?" says Laurence Taylor, portfolio specialist, Global Equity, T. Rowe Price. "Then you need to test and model the monetisation mechanism: Which companies are capable of turning user growth into earnings and cash flow? Many companies in the early stage of disrupting an industry will have fundamentals that can't

be assessed by looking backward or analysing simple valuation metrics. The key is to look forward, understand the quality and durability of the business and product, and take prudent risk by investing in the right companies whose earnings may be negative in the early investment and growth phase."

Figure 5

Companies with disruptive technology create opportunity in a lower-growth world.

How the revenue growth of industry disruptors compares with sector index returns, 2011-2018. As of 31 December 2018

Industry Disruptors

Corresponding Index



Source: Factset. The specific securities identified and described do not necessarily represent securities purchased or sold by T. Rowe Price. This information is not intended to be a recommendation to take any particular investment action and is subject to change. No assumptions should be made that the securities identified and discussed above were or will be profitable.

It is also critical to understand whether the management team has the vision to identify emerging opportunities in a disrupted world and the pragmatism and execution to overcome challenges. Meeting companies and their management is essential in this respect.

Facebook, for example, successfully transitioned from desktop users to smartphone users and is now turning the trend of platform integration to its advantage, which should accelerate its disruption of traditional media-advertising revenue. Another example is Amazon, whose leadership withstood pressure from investors to pay out dividends and buy

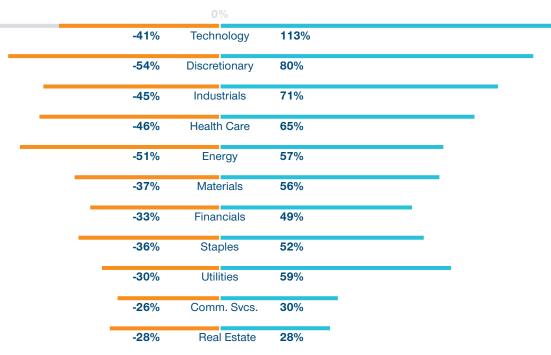
back stock, instead reinvesting heavily in opening up new revenue streams by establishing Amazon Web Services, creating enormous returns for its shareholders in the process. (Please note: These companies have been mentioned for illustrative purposes only, and this should not be considered a recommendation to buy or sell.)

Secular change implies stock dispersion.

Figure 6

Average Top/Bottom Stock Return of S&P 500 Sectors. Calendar Years 2014–2018.

■ Average Bottom Performer ■ Average Top Performer



Source: Factset

The specific securities identified and described are for informational purposes only and do not represent recommendations.

Staying nimble in an environment of disruptive deflation

In an environment of disruptive deflation, one outcome has been the outperformance of growth stocks over value peers. While it may be tempting to see this as a reflection of excessive enthusiasm. implying the need to rotate to value, the superior fundamentals of growth have underpinned this very unusual cycle (see Figure 7.)

But just as early identification of the winners of disruption is key, the timing of an exit is also crucial. For investors seeking idiosyncratic alpha, it may be a bad sign when the majority of the market feels comfortable holding a growth stock.

"In almost all cases, there will come a time to sell disruptive stocks, because the risk characteristics change as the market begins to see and recognise the insight. As market cap levels rise, we naturally retest the investment case, because the law of large numbers makes it harder for companies to maintain their growth trajectory," says Taylor.

In some respects, this era is incredible because the platform companies have become natural monopolies and managed to maintain their growth, despite their size and representation in the index.

"We do worry about indices getting too narrow, however, and the consequences of these natural monopolies concentrating wealth for the few at the expense of the many," says Taylor. "That has partly led to the uprising of populism, which will be a key theme to actively manage over the next stage of the cycle. The mass market latches onto what feels safe and comfortable as it goes up." Pension funds must, therefore, ensure a level of nimbleness within their strategies, to avoid bubbles and to take advantage of market imbalances driven by the headwinds of this unusual era.

Figure 7

Growth investing within the "virtuous" cycle of innovation and disruption.

Cumulative Change, 1 June 2007 to 30 June 2019.

Russell 1000 Value Russell 1000 Growth

Sales per share

27%

63%

Earnings per share

24%

134%

Free cash flow

60%

162%

Source: Factset

Regional winners and losers

Regional factors are also at play. Public policy, monetary conditions, and industry dynamics have worked to concentrate many of the winners of the tech revolution in the U.S. and China at the expense of slow movers in Europe.

Figure 8

Market cap of the top five technology stocks by region (Billions USD).

"In almost all cases, there will come a time to sell disruptive stocks, because the risk characteristics change as the market begins to see and recognise the insight."

4,040	U.S.
1,164	China
616	Asia excluding Japan and China
413	Europe
396	Japan

As of 30 June 2019

Shows the market capitalization of the largest companies within the information technology and communications services sectors and the internet and direct marketing retail industry portion of the consumer discretionary sector within each region as represented by the MSCI USA Index, MSCI China Index, MSCI All Country World Index ex-Japan (with Chinese companies excluded), MSCI Europe Index, and MSCI Japan Index. Source: MSCI. The following companies are represented within each region, in order of market capitalization: U.S.—Microsoft, Amazon, Apple, Alphabet, Facebook; China—Alibaba, Tencent, China Mobile, Baidu, JD.com; Asia ex-JP and CN—Samsung Electronics, Taiwan Semiconductor, Tata Consultancy, Infosys, SK Hynix; Europe—SAP, ASML, Deutsche Telekom, Vodafone, Telefonica; Japan—SoftBank, Nippon, NTT DoCoMo, Keyence, KDDI.

4,500

T. Rowe Price calculations using data from FactSet Research Systems Inc. All rights reserved.

Figure 9, below, illustrates just how far Europe has lagged. In part, it is a reflection of the lack of development of national or regional champions in new technology sectors. Contrast this with China, where the decision to exclude foreign Web platforms has aided the growth of local disruptors.

It is also reflective of how many innovations favour first movers, building competitive advantages that create monopolies and attain a global reach.

Europe, contending with fractured policymaking, open regulation of the internet, an absence of private equity funding, and a lack of domestic innovation, is consequently short on domestic technology champions.

The majority of pension funds within our survey are conscious of the need to take action to mitigate these risks. Two-thirds (66%) of respondents expect to significantly rebalance their exposure to different industry sectors over the next three years as a result of disruption and secular change.

Pension funds will need to ensure that the managers they work with account for the overall sectoral biases they may have within their portfolios. "Most of our allocation is based around geographical definitions, whether it's global, European, U.S., or Japan," says Anders Schelde, Chief Investment Officer of MP Pension in Denmark. "We stay alert to disruptive trends in the market, but

we'll also look to external managers to think about how they mitigate this within particular strategies."

They must also consider the impact of factor strategies in introducing sectoral bias, given this will be driven by backward-looking metrics.

"Suppose you have a European exchange-traded fund with a value tilt. This might introduce high exposure to a particular sector, without investors necessarily realising it, as it will continue to act on a rules-based interpretation of value using whichever metrics it has been engineered to rely on," says Yoram Lustig, head of Multi-Asset Solutions EMEA at T. Rowe Price. "This might be a risky bet to make for many reasons, but, as it is backward-looking,

Figure 9

China and the U.S. are the biggest winners of disruptive tech. Exposure of key markets to disruptive technology stocks,

Exposure of key markets to disruptive technology stocks, % of respective index

40.3%	China
33.4%	U.S.
24.5%	MSCI ACWI
7.0%	Europe

As of 31 March 2019

Source: MSCI

Shows the market capitalization of the largest companies within the information technology and communications services sectors and the internet and direct marketing retail industry portion of the consumer discretionary sector within each region as represented by the MSCI USA Index, MSCI China Index, MSCI All Country World Index ex-Japan (with Chinese companies excluded), MSCI Europe Index, and MSCI Japan Index. Source: MSCI (see Additional Disclosures). The following companies are represented within each region, in order of market capitalization: U.S.—Microsoft, Amazon, Apple, Alphabet, Facebook; China—Alibaba, Tencent, China Mobile, Baidu, JD.com; Asia ex-JP & CN—Samsung Electronics, Taiwan Semiconductor, Tata Consultancy, Infosys, SK Hynix; Europe—SAP, ASML, Deutsche Telekom, Vodafone, Telefonica; Japan—SoftBank, Nippon, NTT DoCoMo, Keyence, KDDI.

50%

it also means the impact of disruptive trends can't be factored in."

Environmental disruption will also have a major bearing on altering the performance of sectors relative to one another. The World Bank Group's International Finance Corporation estimates that the 2016 Paris Agreement will create USD \$23 trillion in opportunities for climate-smart investments in emerging markets leading up to up to 2030. Whichever sectors create the solutions to capture this investment could see disproportionate growth relative to other sectors over that period.

"If you look out over the next 10 to 20 years, climate risk is very real. There is going to be disruption

coming from regulation, from the actual climate change itself, from the reaction of society," says T. Rowe Price's Laurence Taylor. "If you're buying an oil company that pays a dividend, you're basically betting on no-one ever recognising global warming, no one regulating against diesel engines, the emerging world being the same as it was in the past. None of those things is true. So, why would you do it when you could invest in those growth companies innovating to create new solutions?"

In order to be on the right side of change, pension funds must cut through enormous complexity to identify the winners of disruption within specific industries while also understanding the shifts in performance across sectors that will be determined by the change and innovation reshaping the economy.

Pension executives will need new levels of forward-looking insight to enable them to identify the best opportunities early and to avoid value traps—and they will need the courage to take an active stance on disruption.

"We stay alert to disruptive trends in the market, but we'll also look to external managers to think about how they mitigate this within particular strategies."

Be on the right side of change

Pension funds are grappling with an extraordinary investment environment, partly because of the unprecedented disruption underway. If they are to get on the right side of change and maximise investment performance over the coming years, pension funds will need to:

- Get comfortable being uncomfortable. In an era of disruptive deflation, growth relies on getting ahead of the crowd in identifying those companies poised to disrupt industries—and having the courage to back them even before earnings growth has accelerated.
- Be nimble. The speed at which disruptive change is moving today is accelerating the creation of market bubbles and increasing stock dispersion. Over time, it is also rebalancing the relative performance of industry sectors in the economy. Pension funds must prize forward-looking insight over backward-looking information to help them participate in growth, time their exits correctly, and manage the transitions within their portfolios.

Challenge managers on their disruption strategy. Where pensions opt to engage external managers, they should be wary of those seeking to over-simplify. The current environment is enormously complex, and this complexity must be met head on with in-depth and diverse insight. Managers must be challenged on their strategies for navigating the risks and opportunities arising from disruptive forces such as digital and environmental change—these will increasingly impact performance.

IMPORTANT INFORMATION

This material is being furnished for general informational purposes only. The material does not constitute or undertake to give advice of any nature, including fiduciary investment advice, and prospective investors are recommended to seek independent legal, financial and tax advice before making any investment decision. T. Rowe Price group of companies including T. Rowe Price Associates, Inc. and/or its affiliates receive revenue from T. Rowe Price investment products and services. Past performance is not a reliable indicator of future performance. The value of an investment and any income from it can go down as well as up. Investors may get back less than the amount invested.

The material does not constitute a distribution, an offer, an invitation, a personal or general recommendation or solicitation to sell or buy any securities in any jurisdiction or to conduct any particular investment activity. The material has not been reviewed by any regulatory authority in any jurisdiction.

Information and opinions presented have been obtained or derived from sources believed to be reliable and current; however, we cannot guarantee the sources' accuracy or completeness. There is no guarantee that any forecasts made will come to pass. The views contained herein are as of the date noted on the material and are subject to change without notice; these views may differ from those of other T. Rowe Price group companies and/or associates. Under no circumstances should the material, in whole or in part, be copied or redistributed without consent from T. Rowe Price.

The material is not intended for use by persons in jurisdictions which prohibit or restrict the distribution of the material and in certain countries the material is provided upon specific request. It is not intended for distribution to retail investors in any jurisdiction.

UK – Issued by T. Rowe Price International Ltd, 60 Queen Victoria Street, London EC4N 4TZ which is authorised and regulated by the UK Financial Conduct Authority. For Professional Clients only.

Switzerland – Issued in Switzerland by T. Rowe Price (Switzerland) GmbH, Talstrasse 65, 6th Floor, 8001 Zurich, Switzerland. For Qualified Investors only.

EEA ex-UK – Unless indicated otherwise this material is issued and approved by T. Rowe Price (Luxembourg) Management S.à r.l. 35 Boulevard du Prince Henri L-1724 Luxembourg which is authorised and regulated by the Luxembourg Commission de Surveillance du Secteur Financier. For Professional Clients only.

© 2019 T. Rowe Price. All rights reserved. T. ROWE PRICE, INVEST WITH CONFIDENCE, and the bighorn sheep design are, collectively and/or apart, trademarks of T. Rowe Price Group, Inc.

T. Rowe Price calculations using data from FactSet Research Systems Inc. All rights reserved.

Financial data and analytics provider FactSet. Copyright 2019 FactSet. All Rights Reserved.

MSCI and its affiliates and third party sources and providers (collectively, "MSCI") makes no express or implied warranties or representations and shall have no liability whatsoever with respect to any MSCI data contained herein. The MSCI data may not be further redistributed or used as a basis for other indices or any securities or financial products. This report is not approved, reviewed, or produced by MSCI. Historical MSCI data and analysis should not be taken as an indication or guarantee of any future performance analysis, forecast or prediction. None of the MSCI data is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such.

Copyright © 2019, S&P Global Market Intelligence (and its affiliates, as applicable). Reproduction of any information, data or material, including ratings ("Content") in any form is prohibited except with the prior written permission of the relevant party. Such party, its affiliates and suppliers ("Content Providers") do not guarantee the accuracy, adequacy, completeness, timeliness or availability of any Content and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such Content. In no event shall Content Providers be liable for any damages, costs, expenses, legal fees, or losses (including lost income or lost profit and opportunity costs) in connection with any use of the Content. A reference to a particular investment or security, a rating or any observation concerning an investment that is part of the Content is not a recommendation to buy, sell or hold such investment or security, does not address the suitability of an investment or security and should not be relied on as investment advice. Credit ratings are statements of opinions and are not statements of fact.

London Stock Exchange Group plc and its group undertakings (collectively, the "LSE Group"). © LSE Group 2019. FTSE Russell is a trading name of certain of the LSE Group companies. Russell® is a trade mark of the relevant LSE Group companies and is/are used by any other LSE Group company under license. All rights in the FTSE Russell indexes or data vest in the relevant LSE Group company which owns the index or the data. Neither LSE Group nor its licensors accept any liability for any errors or omissions in the indexes or data and no party may rely on any indexes or data contained in this communication. No further distribution of data from the LSE Group is permitted without the relevant LSE Group company's express written consent. The LSE Group does not promote, sponsor or endorse the content of this communication. The LSE Group is not responsible for the formatting or configuration of this material or for any inaccuracy in T. Rowe Price Associates' presentation thereof.

CCON0021219 201910-976581



(Longitude

