

GLORIOUS CREATIVE DISRUPTION

David Salter. June 2019

BAILLIE GIFFORD

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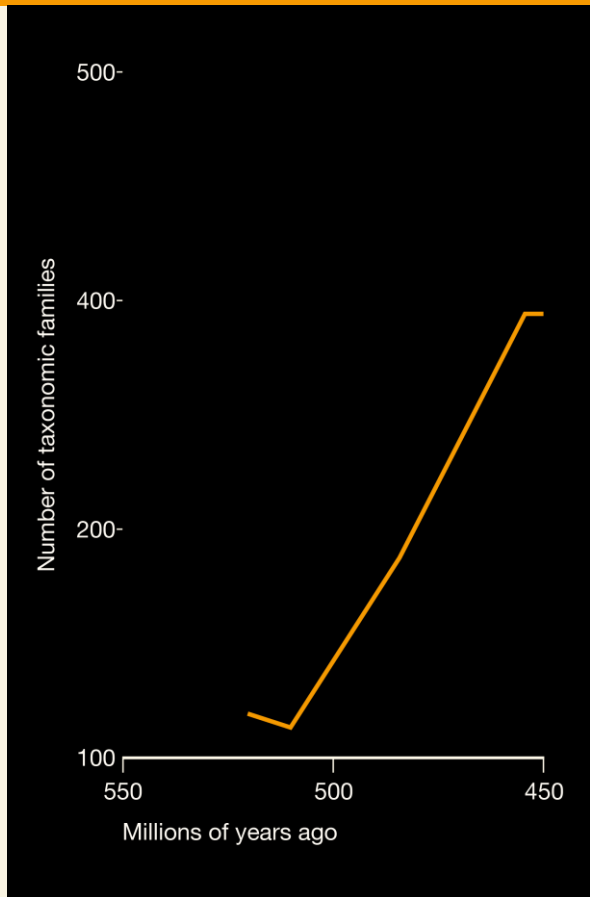
Any individual examples will represent only a small part of the overall portfolio and are inserted purely to help illustrate our investment style.

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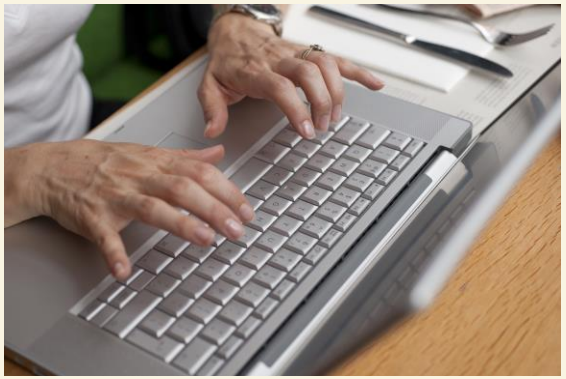
The Big Bang of Evolutionary Biology







History Repeating Itself – 450 Million Years Later



Visual

Location

Chemical



Aural

Temperature

Early Applications are Frivolous



© Teenybiscuit



But the Primary Factor of Production Has Changed



Land



Labour

© INTERFOTO/Alamy Stock Photo.



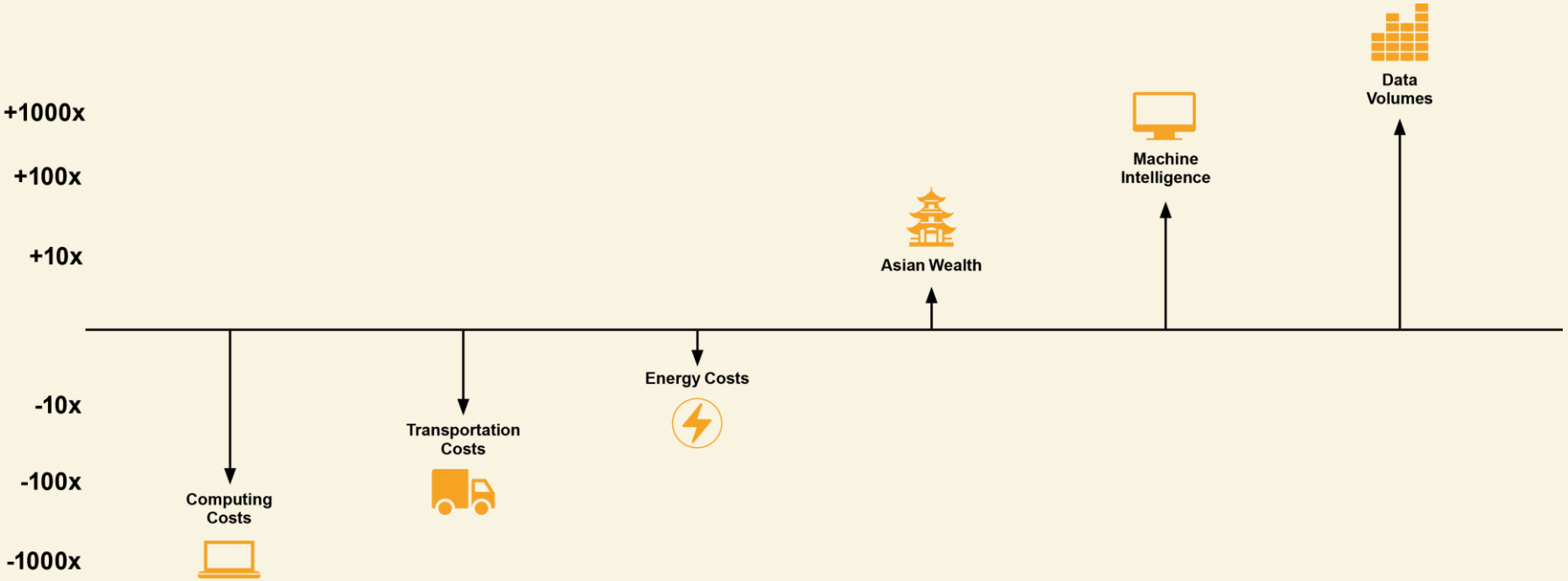
Capital



Data

We Are on The Cusp of Huge Change

Changes in the Next Decade



Examples of Change – Farming And Manufacturing





Examples of Change – Mobility



© Tesla



© STEPHANIE AGLIETTI/AFP/Getty Images

Examples of Change – Moving People

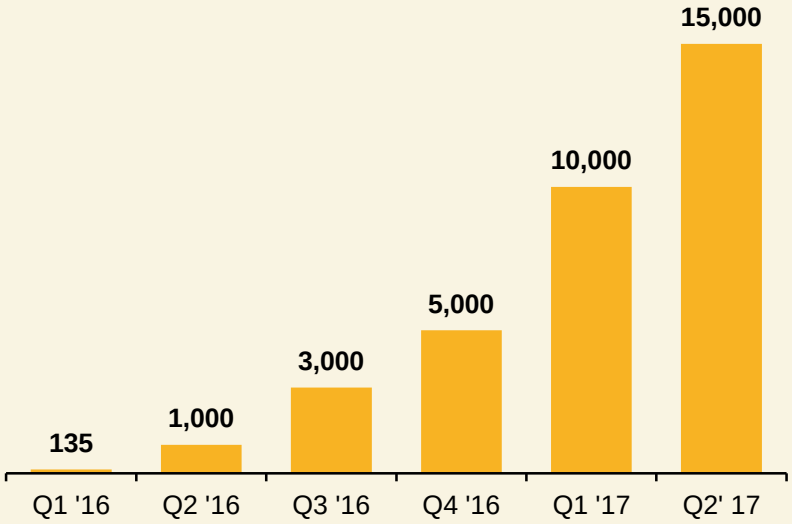






Examples of Change – Communication, Language and Education

Number of third-party skills available for Amazon's Alexa Assistant



Sources: Amazon, Press reports.



© Waverly Labs.

Examples of Change – Transacting



© Getty Images for Sportel



© LightRocket/Getty Images

Examples of Change – Diagnosing

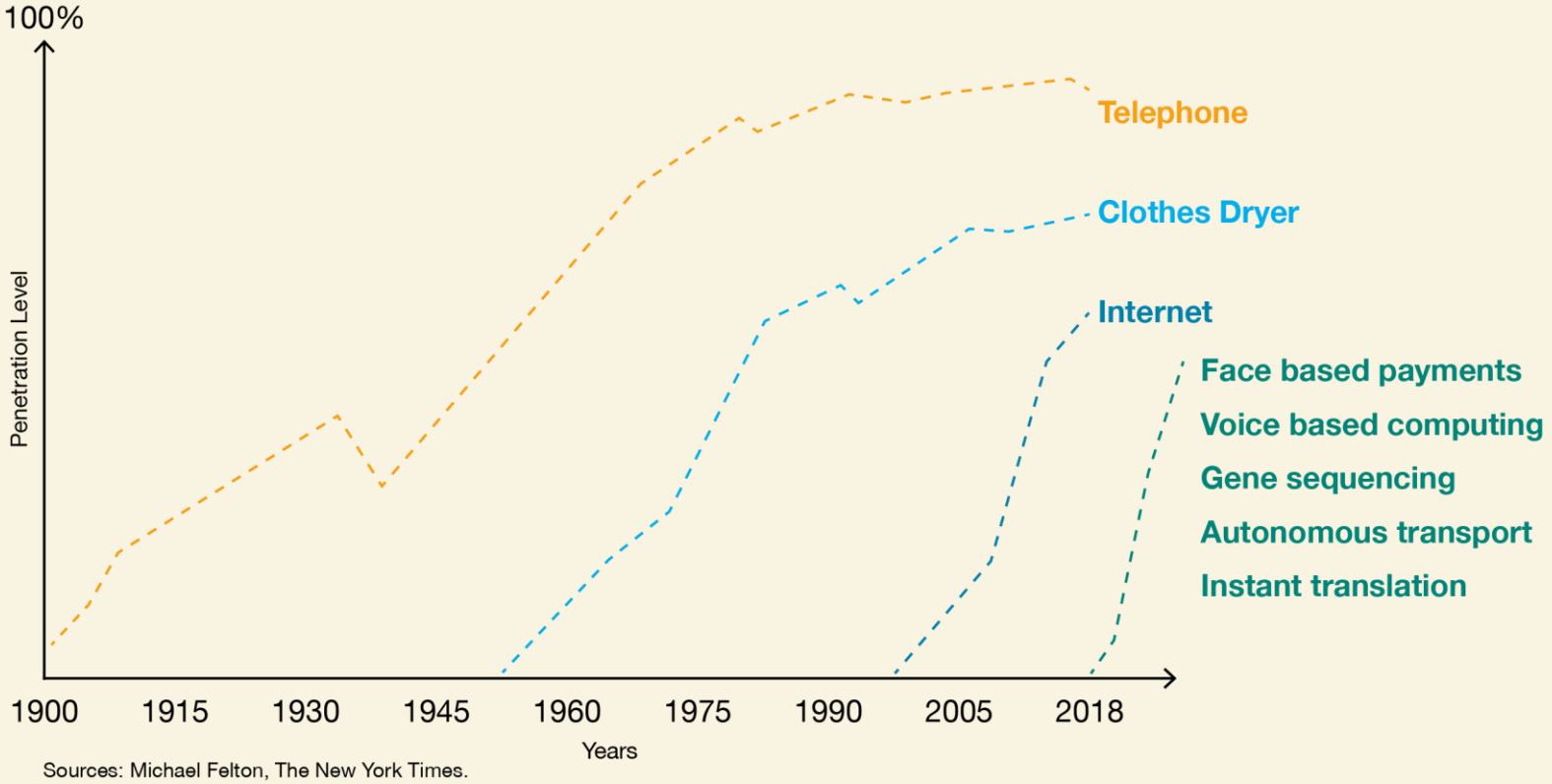






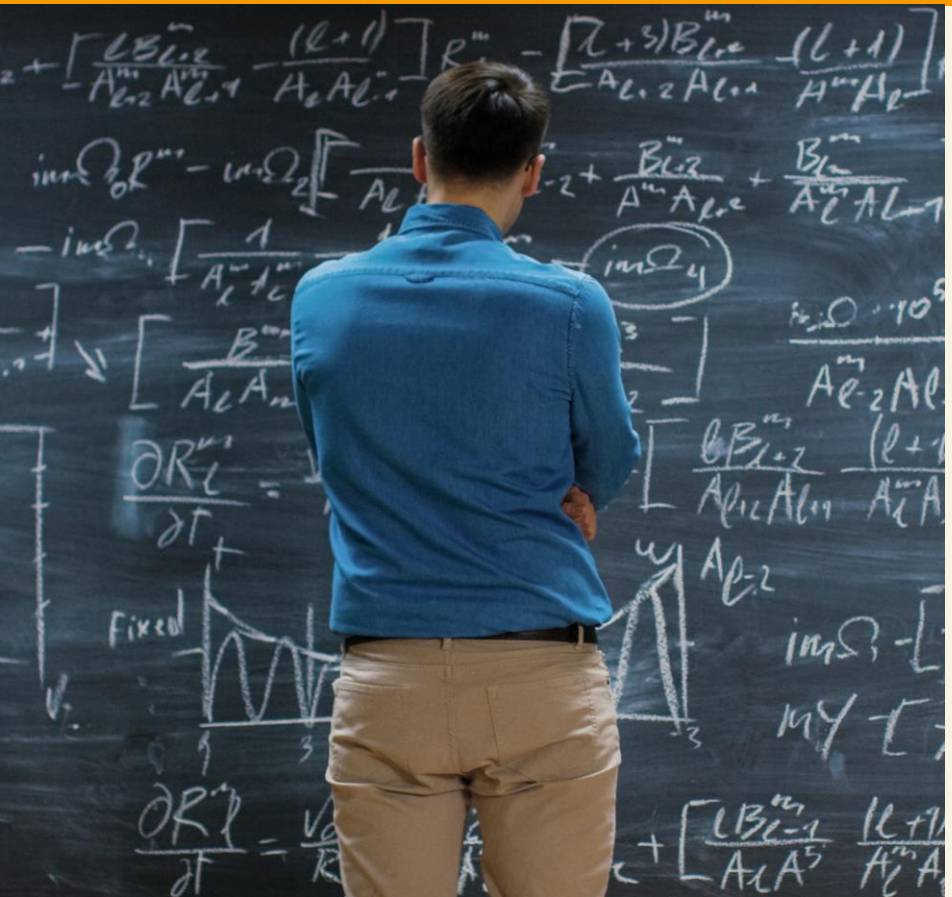
© Visual China Group/Getty Images

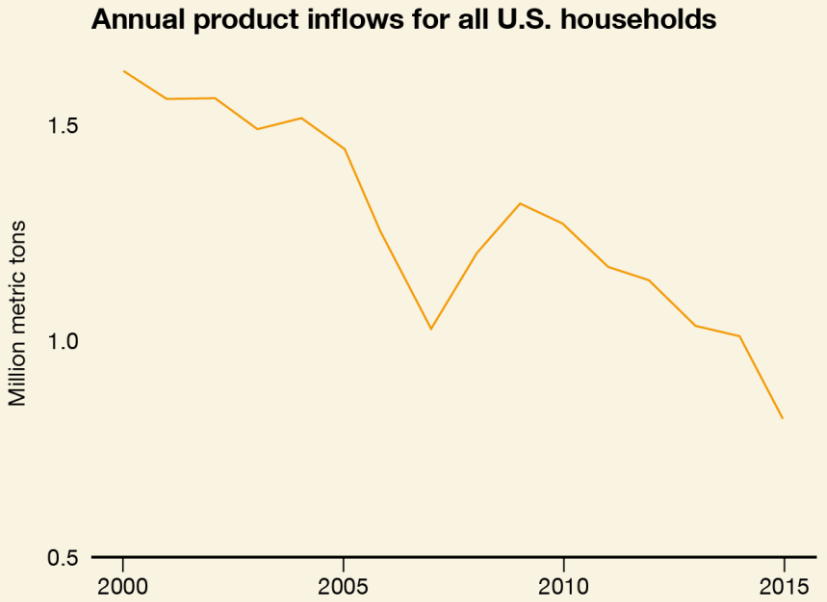
Adoption Paths Are Quickening



Sources: Michael Felton, The New York Times.

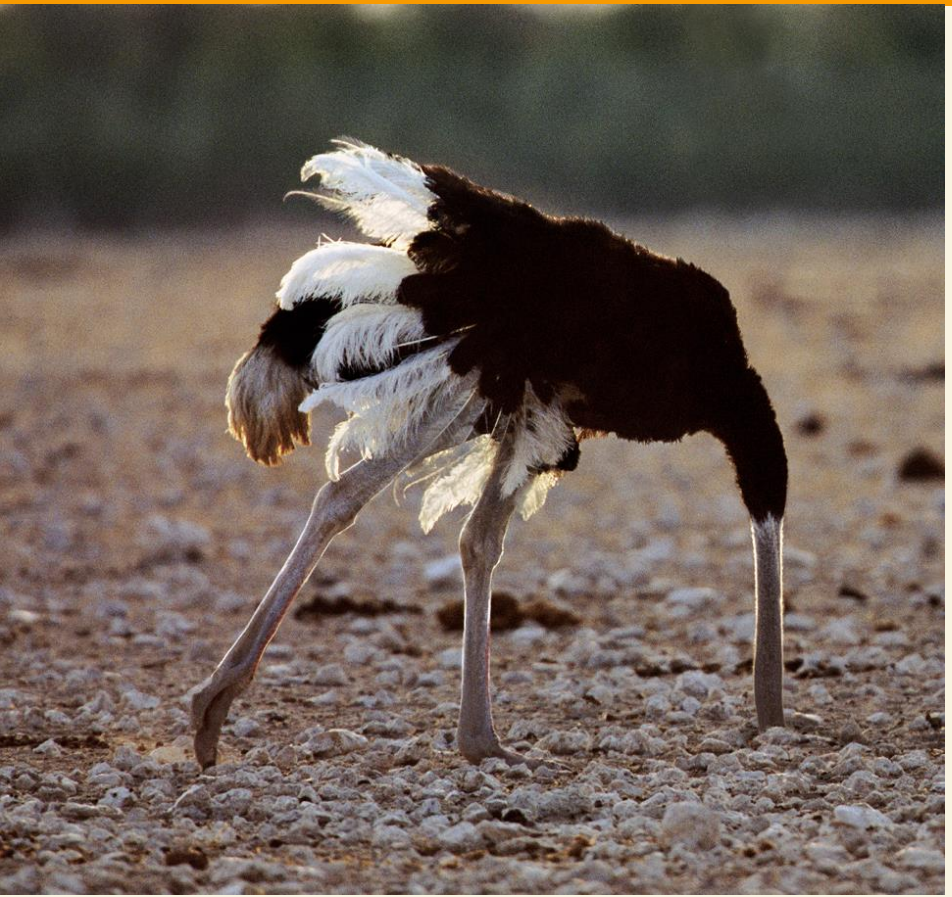
Conventional Economic Measures Are Ill Equipped to Cope – But Isn't This All Rather Deflationary?



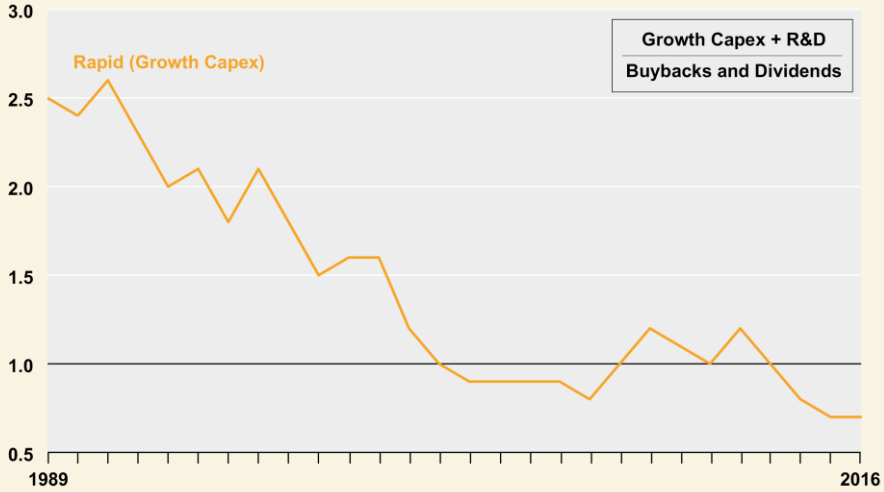


Source: C.W. Babbitt, S. Althaf, R. Chen. 2017. 'Creating a Sustainable Materials Management (SMM) Model for Consumer Technology'.

…And Most Companies Are Missing The Implications



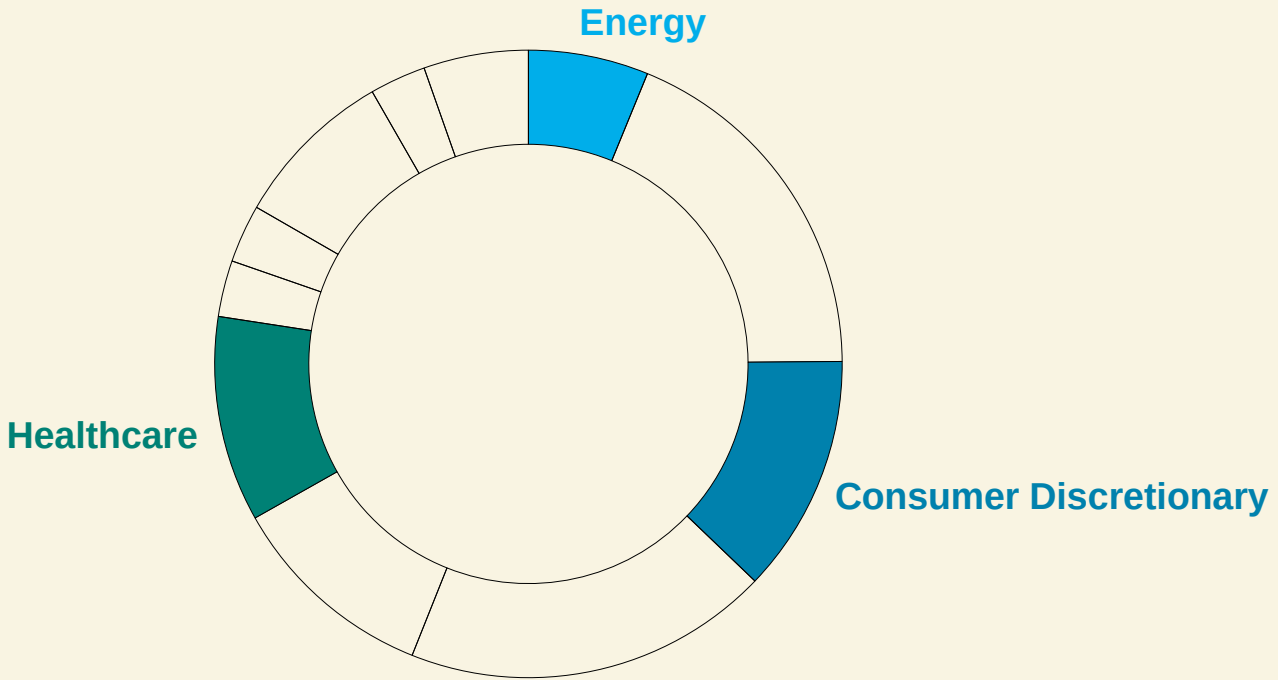
The Trend In The Market



The data has been produced by Baillie Gifford & Co, using Factset and the Worldscope database. Furthermore, a combination of FTSE and MSCI indices have been used in order to establish a global universe for the analysis. All of the underlying data is in USD.

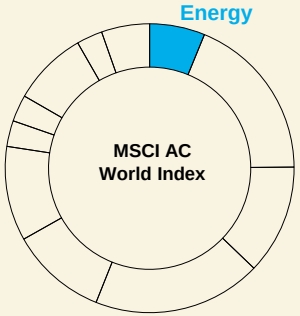
We Need to Avoid Index Incumbents That Are in Denial about Structural Trends

MSCI AC World Index

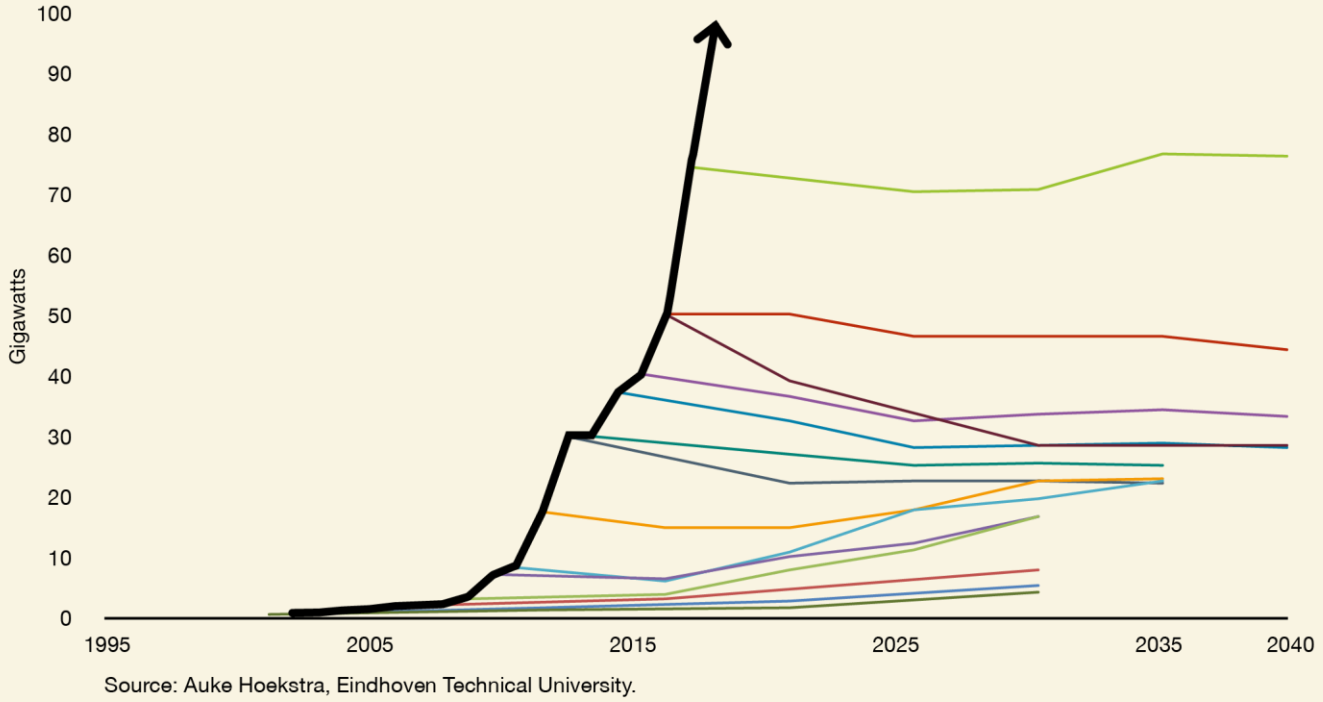


As of March 31, 2018.
Source: Baillie Gifford & Co and MSCI.

We Need to Avoid Index Incumbents That Are in Denial about Structural Trends

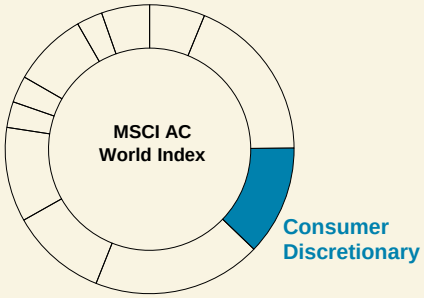


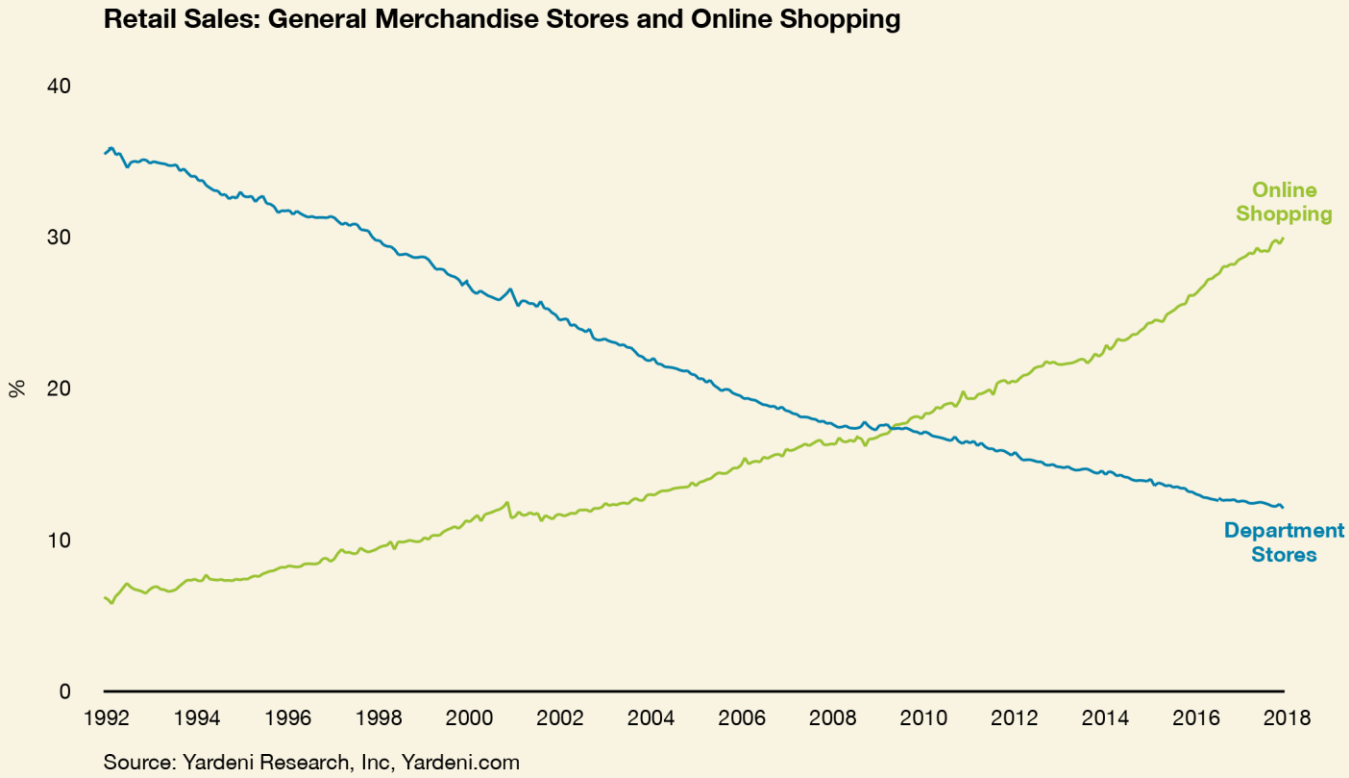
Annual Solar Photovoltaics (PV) additions: historic data vs International Energy Agency World Energy outlook predictions



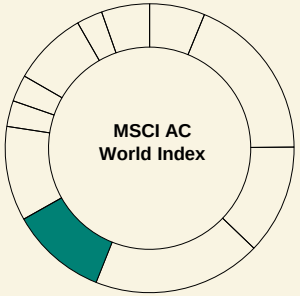
Source: Auke Hoekstra, Eindhoven Technical University.

We Need to Avoid Index Incumbents That Are in Denial about Structural Trends

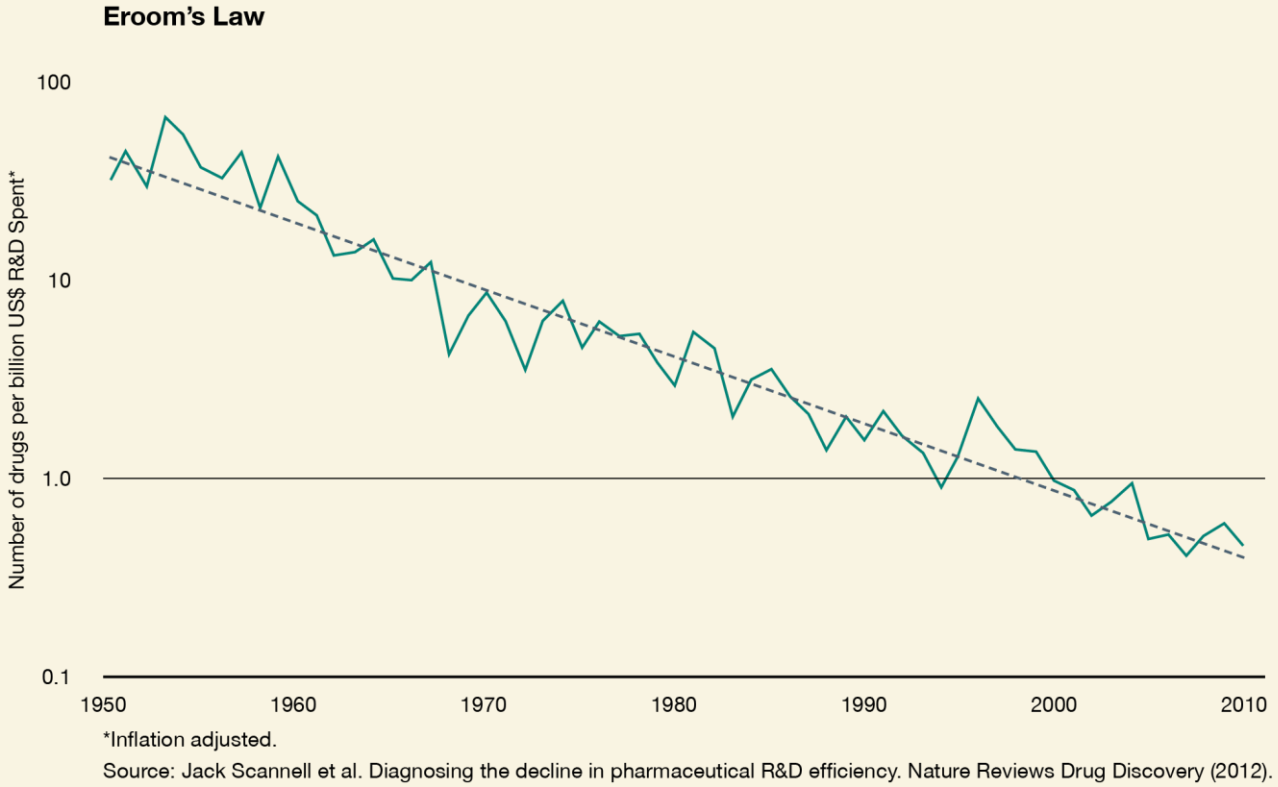




We Need to Avoid Index Incumbents That Are in Denial about Structural Trends



Healthcare




AMIDST THIS SEISMIC CHANGE, HOW CAN INVESTORS FIND THE WINNERS?

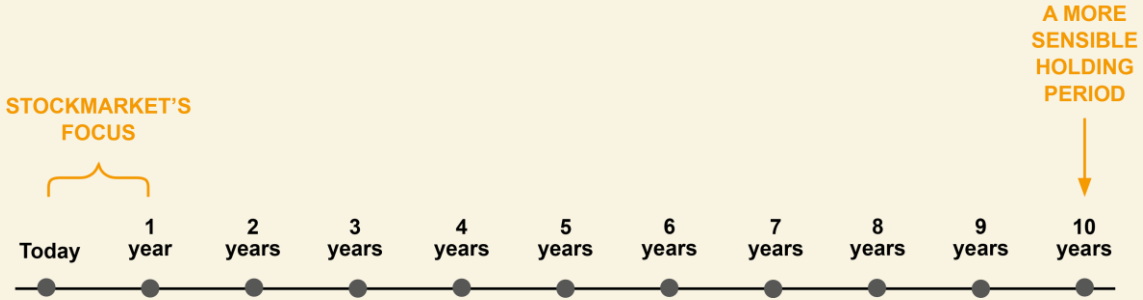
Understand That Investment is About Extremes

Wealth Generation from Listed Equities Since 1926 – Only a small number of companies matter



Source: Bessembinder, Hendrik, Do Stocks Outperform Treasury Bills? (November, 2017). Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2900447. The data includes all 25,967 CRSP common stocks from July 1926 to December 2016. In cases where stocks list or delist within a calendar period the return is computed for the portion of the period where data is available. These 25,967 stocks were issued by 25,332 firms owing to dual share classes; dollar wealth is therefore assessed at the company level. Beyond the best-performing 1092 firms, an additional 9,579 firms (37.8%) of stocks created positive wealth over their lifetimes. The wealth creation of these stocks was just offset by the wealth destruction of the remaining 14,661 (57.9% of total) firms, so that the top 1092 firms created the same wealth as the overall market. US dollars.

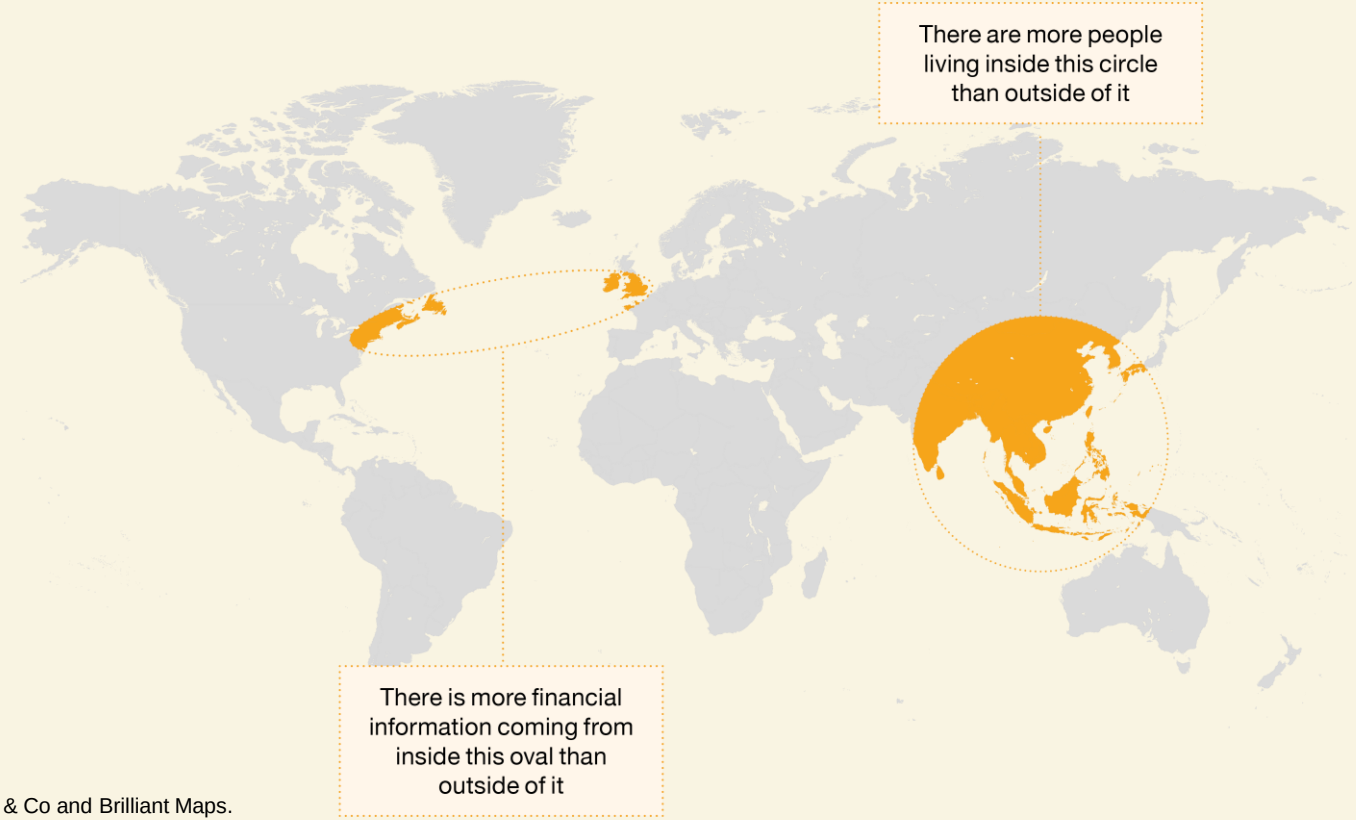
Recalibrate Time Horizons



As of March 31, 2019.
Average holding periods based on the previous three years turnover for a representative Long Term Global Growth portfolio.
Stockmarket's Focus based on Baillie Gifford's views.



Engage With Reality Rather Than The Finance Community



Source: Baillie Gifford & Co and Brilliant Maps.

Engage With Reality Rather Than The Finance Community

Some of Our Academic Partnerships

Artificial Intelligence
Partnership with **Leverhulme Institute** – research into the ethics and applications of AI.

Deep Transitions
Working with **Science Policy Research Unit** – Societal responses to structural change and research into sustainability

Book Festivals
Sponsorship of **literature** – Insights from leading historians, philosophers, scientists, artists, policy makers and engineers



Existential Change
Santa Fe Institute – Complexity Theory, Innovation and how economies adapt

The Structure of Returns
Partnership with **Arizona State University** – Skewed stock market returns and characteristics of outliers

Inquisitive Research
Recent example: social networks in **Africa** – how are they used and what are the perceptions?

Distributed Ledgers and Healthcare
Tsinghua University tie up – Understanding possibilities in healthcare

Understand That Threats Will Come From Left Field

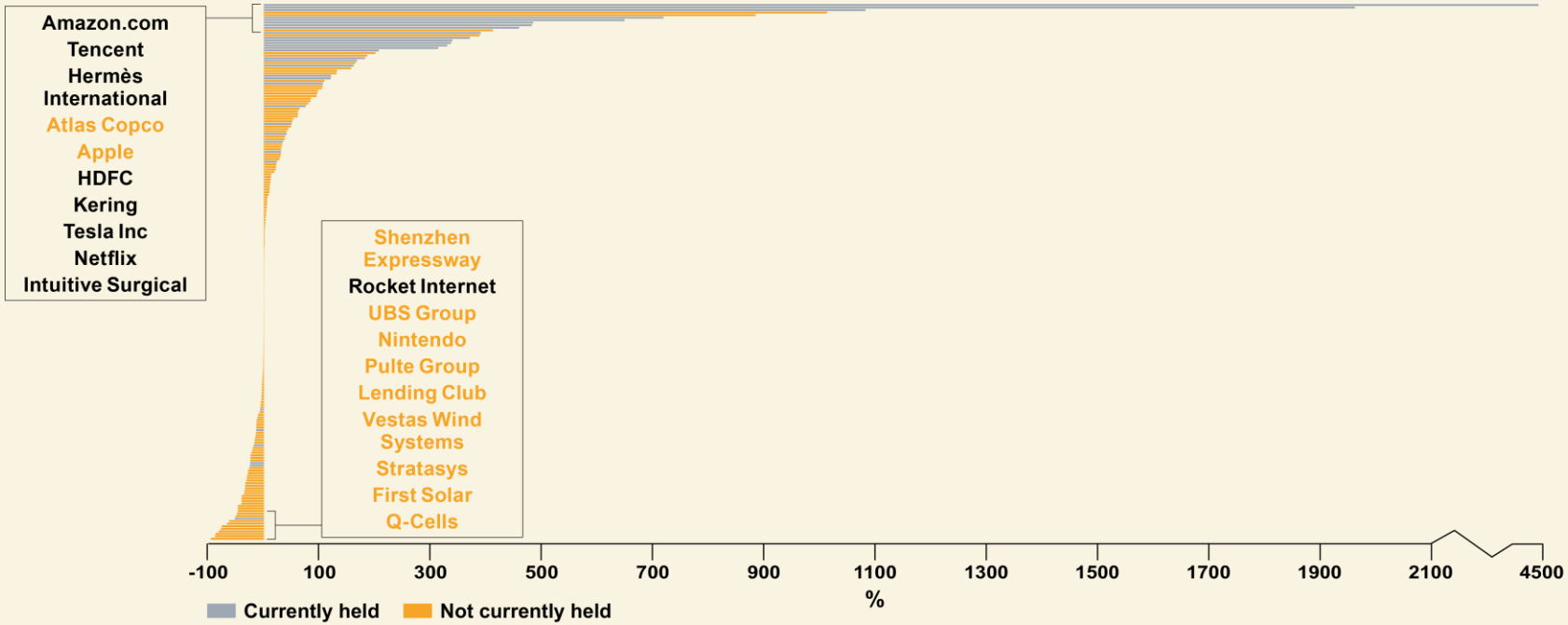
The private markets



Think Creatively And Positively About Upside

Stress test the upside

— Sins of omission are more serious than sins of commission



Source: StatPro. US dollars. February 29, 2004 to March 31, 2019. Absolute returns of Long Term Global Growth composite.

Learn From History

Extrapolating the present is dangerous

> In 50 years, every street in London will be buried under nine feet of manure
>
> The Times, 1894

1900



1913



Conclusions

An explosion of data globalisation is upon us

Business models will multiply and the pace of disruptors and opportunity will accelerate

Sleepy companies face a great extinction

— Most of the index looks doomed

Only disruptors and adaptors with a long term perspective will survive

For long term stockpickers, the payoffs for the winners will be huge

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