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Disruption

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Topic 5.2

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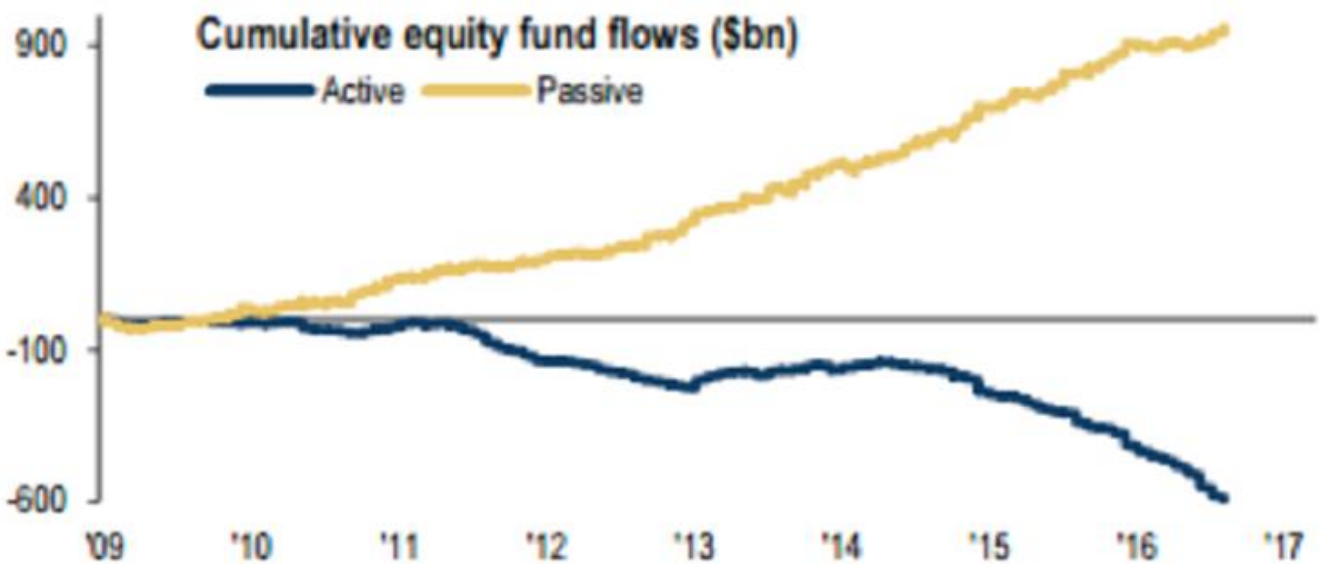
Understand. Act.

Acknowledging Disruption in Asset Management

- Indexing
- Fee compression
- Rising regulatory costs
- Declining external resources

Chart 2: Passion for passive...$961bn inflows to passive funds since '09



Source: BofAML Global Investment Strategy, EPFR Global.

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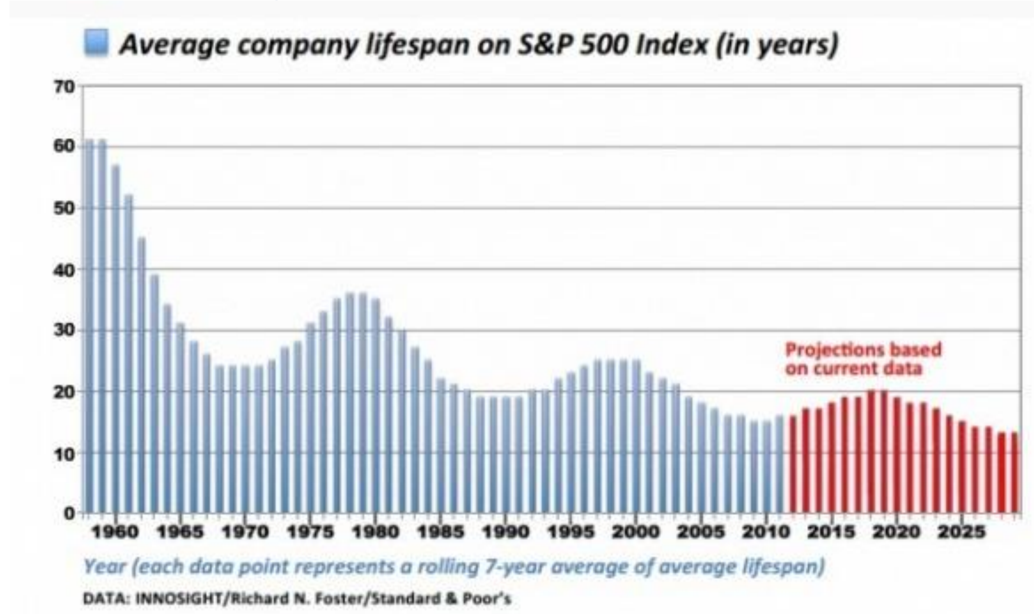
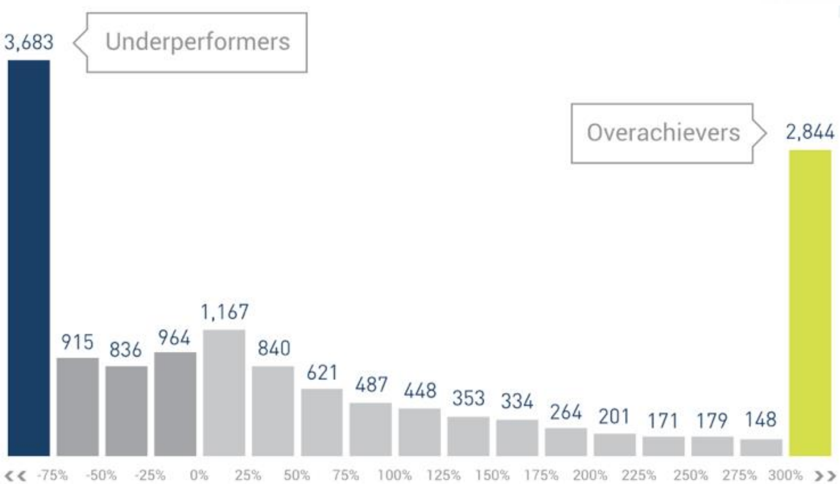
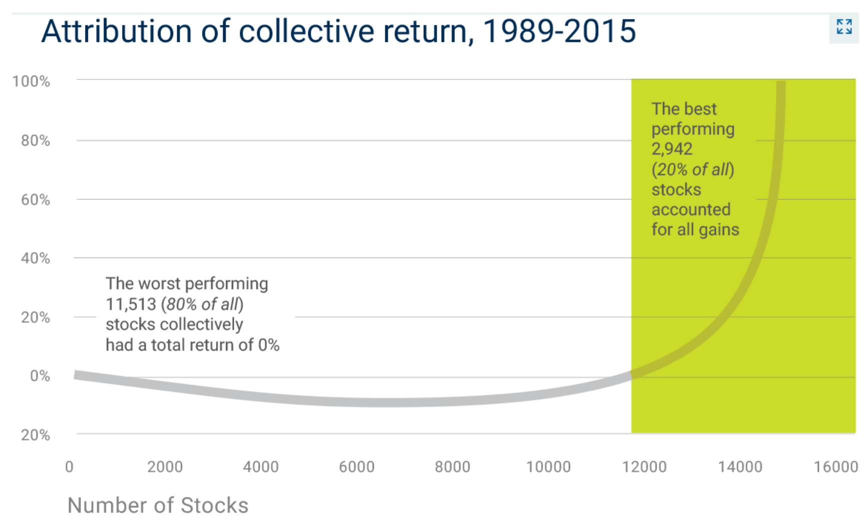
Disruption as an Argument Against Indexing

- Average company lifespan on S&P 500 was, on average, 60 years in 1960.
- By 1990 that was down to 20 years.
- Current trend is toward 12 years!
- As most companies are disrupted at an accelerating pace, all the long-term returns come from just 20% of the stocks





Total lifetime returns individual U.S. stocks, 1989-2015



Source: http://www.longboardfunds.com/articles/defense-wins-championships

Disruptive trends impacting business models; past, present and future

- The business model of yellow pages companies such as Yell were virtually destroyed over the past five years by Google's search engine.
- Mobile telecom operators in Europe lost a chunk of their original voice and SMS business to content and equipment companies such as Apple and app developers such as WhatsApp (667,000,000 WhatsApp messages sent per day in 2015 in Germany alone)
- 3D printing questions the business model of manufacturers and distributors of basic goods including spare parts and fashion.
- New apps such as Uber and Airbnb create a risk to business models of transport and hotel chains.
- Can the traditional car manufacturers successfully transform their business models into the new world of electric vehicles?
- Which business models are impacted by the rising penetration of IoT (Internet of things): Doctors, utilities, navigation suppliers …?
- What does the IBM's iRobot technology mean for professional publishers in the next 5-10 years?
- Will the Google/SpaceX trial to roll out internet coverage to rural and emerging market regions via satellites and balloons create a threat to traditional Telecom and satellite operators?

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Avoiding Disruption Value Traps

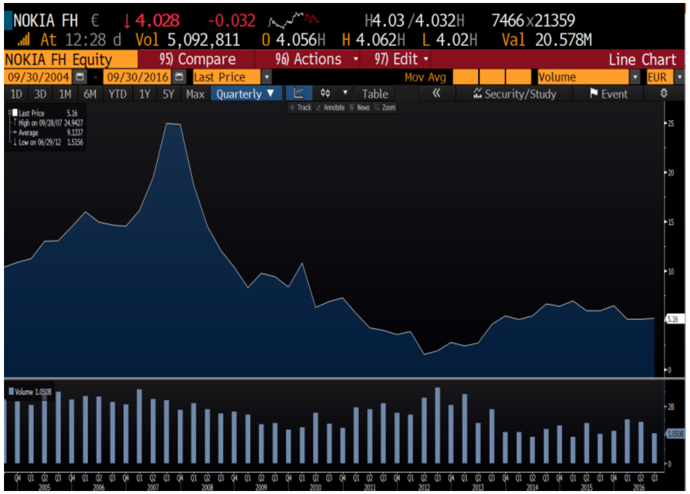
- At its peak in 2007, Nokia controlled 41% of the global handset market.
- Nokia would probably have been viewed as having below-average disruption risk prior to the iPhone. Its rating would have then collapsed in steps, as AllianzGI developed an understanding of what the iPhone could do to the industry - arguably that rating would have collapsed well ahead of collapse of Nokia's valuation (one only need look at the confidence expressed in our Research and portfolio positioning in Apple, right after the iPhone was unveiled!)
- The stock went from €25 in 2007 to €1.50 by 2012. NFJ's value investment process deemed Nokia attractive, but didn't have anything in place to flag that the entire mobile telephone market had been disrupted, and it became a classic value trap.

Tech Investing – The Big Picture

Rapid Change and Huge Stakes

12/31/1999: Apple Computer is marginal PC player with ~1% market share and a market capitalization of $17 B. Nokia dominates the mobile phone business, with a $232 B market cap.

12/31/2010: Apple Computer pioneers the smartphone market, earns most of the profits in the industry and has a market cap of $295 B. Nokia has a market cap of $38 B



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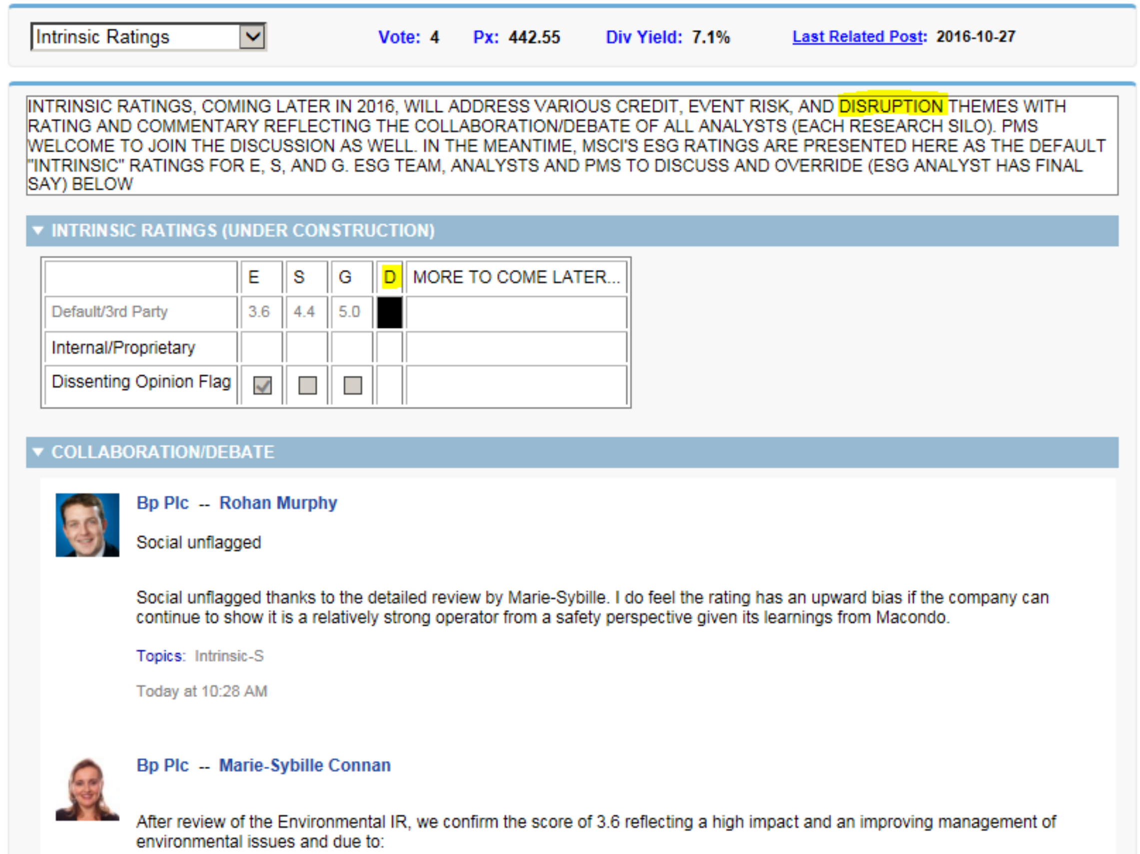
Disruption Risk Ratings; part of the Intrinsic Ratings project

- Disruption Risk Ratings (and associated discussion within Chatter) are intended to provide every IP at AllianzGI with a clear and current view of the potential for business model disruption (and potential value traps) over a 3-5-year horizon.
- The discussion about any particular industry would be expected to evolve over time, because our insight and confidence level about change will be evolving over time as well.
- Disruption Risk Ratings are part of our broader Intrinsic Ratings project where we're centralizing our various non-financial/valuation thoughts on companies together in one easy-to-find place in Chatter.
- Identification and analysis of disruptive risks will likely be useful in creating new ideas for Grassroots Research.
- Further benefits of the process are the (early) identification of specific company investment ideas, and potentially the creation of new investment themes for funds.



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Understand. Act.

UNDERSTAND

1) **Disruption in Asset Management** (Indexing, fee compression, rising regulatory costs, declining external resources).

2) **Disruption as an Argument Against Indexing** (powerful impact on long-term returns).

3) **Avoiding Disruption Value Traps** by addressing disruption risk.

ACT

1) **Executing on Active 2.0** is our own direct response to disruption within our own industry**.**

2) **Acknowledge that indexing will likely not deliver outperformance over the coming decades** (average S&P 500 company trending toward 12 years, all long-term returns from just 20% of stocks).

3) Integrate disruption risk analysis into portfolio managers' active strategies via **Disruption Risk Ratings**.

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