Confidential draft

WHY GIANTS STUMBLE

From 2012 to 2014, Tesco's stock price fell 43% relative to the FTSE100. It was a dramatic fall from grace, and CEO Philip Clarke left soon after. The UK's largest food chain had long been a darling of investors and was widely regarded as a safe bet. Warren Buffet, the sage of Omaha, held a substantial investment in the company.

Tesco's fall, however, was not exceptional. Over the past decade, almost one in five of the top 100 firms in the USA and Europe had a major stumble: They underperformed the market by 25% or more over a one-to-two year period, and their CEO was either fired or departed under a cloud. AIG, Citigroup, Intel, Nokia, Orange, Rolls Royce, Target and Volkswagen are other prominent companies that lost their shine and substantially underperformed the market, leading a leadership change. All senior managers need to recognize how easy it is for a company and its CEO to stumble, to understand why stumbles happen, and to take precautions against them.

Why do large, successful public companies and their CEOs suddenly weaken?[1] To find out, we studied 45 large European and US stumbles. Many factors were at work, including luck. But our case studies point to some common and apparently simple mistakes, such as undertaking unnecessarily risky growth strategies, treating compliance issues lightly, or poor cost control. These simple mistakes often had complex origins, such as attempts to meet conflicting objectives, weak board governance, or even executives being misled by positive experiences with ambitious growth investments. To prevent mistakes, it helps to be constantly alert to the major risks that cause companies to fall from grace. We develop a checklist of "Emperor's Clothes" failings to help executives and boards avoid the worst stumbles.

Sidebar: the research

We found many previous studies with interesting insights into corporate failure of big companies, including several that look at a large broadly based sample of failures. For example, Sydney Finkelstein's 2003 book, "Why Smart Executives Fail"[2], looked at 51 unsuccessful companies, mostly US based and selected on a variety of criteria. He divided failures into four categories: entry into new businesses, innovation and change programmes, major acquisitions, and ineffective strategies. He then identified the major causes in the biases and personal qualities of the organizations' leaders, including assuming that their companies can dominate the environment, underestimating major obstacles and stubbornly relying on what worked for them in the past.

Matthew Olson, Derek van Bever, and Seth Verry at the Corporate Executive Board reviewed 400 American companies from the Fortune 100 plus 90 large European companies over a 50-year time span, , to identify periods when their revenue growth suddenly stalled. They *identified many causes of failure both strategic and operational. Of the four most common, three were strategic – losing a leading position to new competitors or shifts in customer preferences, failed innovation, and abandoning the core market prematurely – and the fourth was operational -- having too few executives and staff able to execute the strategy[3]. Martin Reeves, Simon Levin and Daichi Ueda examined the lifespan of over 30,000 US public companies over 50 years. They concluded that companies are dying younger, due largely to the increasing complexity of the business environment.[4]*

These and other past studies offer useful insights into corporate failure in general, but don't focus on understanding corporate stumbles[5]. Studies primarily examine the failure to grow sales or companies' disappearance from the stock-market, rather than the failure to create shareholder value. Many of them also primarily examine longer-term extinction or decline rather than a short-term collapse in performance. Other interesting studies focus on a sub-set of under-performing companies, for example technology companies[6], or they address the role of particular management problems, such as "ambidexterity"[7], in causing failure.

To help close the gap, we put together a broadly representative sample of companies that suffered short term reverses in shareholder returns. To do that, we first identified all the CEOs of the 100 largest companies by market capitalization in the USA and Europe between 2007 and 2016. We then classified as stumblers those CEOs who left, either fired or under a cloud, after their company's returns to shareholders had underperformed their local capital markets by 25% or more in their last one or two years in office. This gave us a sample of CEOs and companies delivering poor returns to shareholders, and where these poor returns were felt to be about more than just bad luck.

We found 55 such stumbler CEOs and their companies. [8] We researched 50 of them to find out what causes top companies to stumble and how stumbles might have been avoided[9]. We consolidated these 50 into 45 stumbles because in a handful of companies, successive CEOs fell victim in short succession to the same underlying problems. [10] Of the 45 stumbles we analysed, 27 were at European and 18 at US companies. The smaller number of stumbles at US companies is explained in significant part by their greater size. Larger companies in our sample stumbled less frequently than smaller ones.

Stumbles of large public companies do not go unnoticed, and most of them yielded a great deal of publicly available information in English and local languages. We researched this information to understand the reasons for stumbling, considering the causes of failure identified in previous studies but also looking out for others. We supplemented public information with interviews at a number of companies that stumbled. Just a few stumbles we were not able to categorise because of lack of accessible information. But even with good information, capturing the underlying reasons why major companies stumble is no easy matter. Stumbles are multifaceted, combining different forms of bad luck and bad judgment.

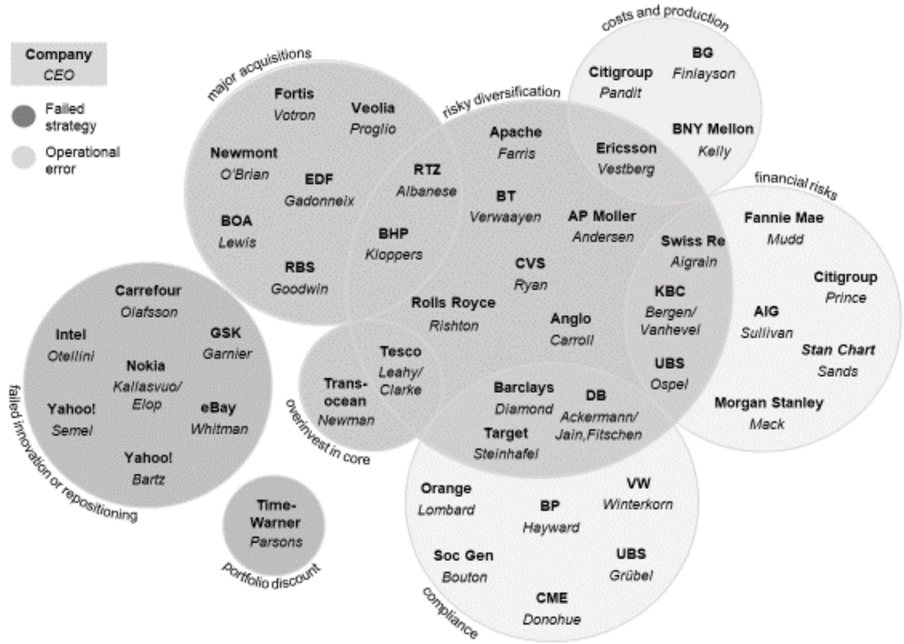
To better understand the causes of stumbles, we identified successful comparator companies for our stumblers, and analysed them for differences in people and processes that might explain differences in performance. The heterogeneous nature of large public companies, and the breadth of factors resulting in the stumbles, made it difficult in some cases to select *good comparators. So we added other approaches to understand reasons for poor performance. For example, we looked at the changes companies made after stumbling, to see what the board and management thought they needed to correct.*

Separately, we surveyed senior managers, mostly Chief Strategy Officers, from 35 major European and US companies. To understand what they have learned from past performance failures and successes, we asked what their companies do to identify major risks, choose which risks to take, and decide how to manage them. This gave us useful context and background.

I. WHAT CAUSES STUMBLES?

After some initial observation, we divided the 45 corporate stumbles into two broad causes: strategic challenges and operational problems. We then subdivided them into various buckets by type of shortcoming. Exhibit 1, Stumbler Landscape, presents a Venn diagram of our classification.

1. Stumbler Landscape



Two-thirds of the stumbles, or 30 of 45, came from a failed strategy. These are in the dark grey circles in the Exhibit. In all but one of these stumbles, the strategic challenge was growth. These companies faced low market growth, patent expiry or disruptive competition in their core business. Their management teams developed break-out strategies to boost revenue, but these failed to generate sufficient sales, proved unprofitable or both. The four different dark grey circles represent the specific reasons: failed innovation or repositioning, overinvesting in revenue growth in the core business, risky diversification, and outsized acquisition.

There is just one company in the sample, Time Warner, that stumbled over a strategic issue other than a growth challenge. To the disappointment of the market, CEO Richard Parsons failed to support the break-up of the company's then widely diversified portfolio – which had arisen from an earlier, failed growth strategy.

The twenty-one stumbles in the light grey circles, just under half of the sample, were triggered by more operational errors. These companies failed to meet compliance requirements, had cost or production problems, or poor financial risk controls. The total stumbles add up to more than 45 because seven companies suffered from both strategic and operational difficulties.

Relating this to the ambidexterity literature, one might say, broadly speaking, that most stumbles resulted from difficulties in adapting to change and "exploring" for new revenues. Yet an important minority came from difficulties in "exploiting" existing business positions.

The causes for stumbles mentioned above are not the only possible ones. Companies may trip up over organisational redesign, as P&G did in 2000 (before our sample period) when Durk Jager moved from a strongly country-based to a more global structure. But the problems identified here should represent the main management issues likely to plague large companies. They cover the main drivers of corporate value: boosting revenues, cutting costs, speeding execution, limiting financial risks, and ensuring compliance.

FAILED STRATEGIES TO GENERATE PROFITABLE REVENUE GROWTH

Let's take a close look at the companies that stumbled in achieving profitable revenue growth.

Failed innovation or repositioning under pressure

Seven stumbles involved strong competitive or market pressure to innovate or reposition, and CEOs failing to meet the challenge.[11] Five of these stumbles were in high-tech and internet businesses, one in pharmaceuticals and one in retailing.

For example, Nokia, under Olli Pekka Kallasvuo, urgently needed to innovate in response to Apple's iPhone in 2007. But it took them two and a half years to launch their iPhone killer, the N97. A good part of the delay stemmed from Nokia's use of the outdated Symbian operating system, for which they never found a satisfactory replacement. When the N97 did arrive, its design was poorly received. Nokia included an app store, but it never took off because the company wanted developers to cover the wide range of Nokia models, which required significant software adaptation. Kallasvuo left in 2010 after a four-year term.

Or, for example, Carrefour, under Lars Olafsson, needed to reposition its French hypermarkets to counteract a decline in this traditional core market. The company came up with a new hypermarket format called Planet, launched in 2010. It promised the feel of a department store, with specialist themes – Market, Organic, Frozen Food, Beauty, Fashion, Baby, House, Leisure-Multimedia – each with its own retail design. The stores included several shop-in-shops, such as Virgin Media, and special events such as cooking, all with much lower prices than at department stores. But the repositioned stores did not deliver enough additional sales to cover the high costs of redesign with new fixtures and fittings. Olofsson left in 2012, also after four years as CEO.

Both Kallasvuo and Olafsson failed to rise to the difficult innovation and repositioning challenge, and eventually lost their jobs.

Ambitious growth plans

In a far larger proportion of the strategic stumbles, 23 (or about half the total sample of stumbles), the company's core business did not offer strong growth prospects, but it was stable and not directly under threat. Rather than simply focus on being good stewards of solid businesses and creating value for shareholders by returning cash, the CEOs chose to take high risks to increase the pace of company growth. They developed ambitious plans that ended up destroying value.

<u>Overinvestment in the core business</u>

Just two stumbles involved overinvesting in the core business -- betting on substantially more growth in the market than proved available. Tesco went on investing in out-of-town superstores in the UK after the market began to shift to convenience shopping in-town and to shopping online. Transocean went on investing in oil rigs after oil prices fell. Both Tesco and Transocean created overcapacity in these two highly capital-intensive businesses.

<u>Risky diversification</u>

Many more stumbles involved new business investments. Sixteen stumbles, a third of our sample, involved a failed portfolio diversification strategy – either investing in smaller businesses within the existing portfolio, or entering new ones. While the individual investments may not have been large relative to the company size, the cumulative investments were substantial, or the returns were exceptionally poor.

Some of these stumbles involved companies investing in "question-mark" businesses. As first expressed in the Boston Consulting Group's portfolio strategy model, these are firms with strong growth opportunities but weak market positions. Such businesses must be transformed to become leaders before they can become profitable. That is not so easy, and many fail.[12]

For example, after privatization, most European telecom companies faced shrinking revenues and new competition in their base business. They compensated by diversifying internationally. The British incumbent, BT, created a new business in Global Services, offering large-scale networked IT services contracts to major business customers. BT Global Services competed against established players such as IBM and EDS.

To give BT Global Services the necessary capabilities, its parent made dozens of acquisitions. Market reaction to the build-up of BT Global Services was initially positive, but that changed toward the end of BT CEO Ben Verwaayen's tenure. Doubts arose that Global Services would achieve the margins necessary to make a return on the substantial and growing investment. In 2008, the business lost £2.1bn on revenues of £8.8bn, at which point Verwaayen resigned.

Some stumbles involved investments outside the company "heartland,"[13] in businesses with quite different success factors to the company's core business. Without the relevant experience at the corporate level, the CEO and top team found they could not appropriately assess or add value to these new businesses.

AP Moeller Maersk's core business is container shipping, in which it is a world leader. But under Nils Smedegard Andersen, they invested heavily in oil exploration in Brazil. The company did already have a stake in oil exploration, but this was a substantial expansion. Maersk had little experience of this business compared to the global oil majors. The company justified the large capital commitment to oil exploration as part of a move to take Maersk into "more stable businesses."[14] Unfortunately, they found less oil than expected and extraction costs higher. Oil exploration is far from being a stable business, and when oil prices turned down, much of the Brazilian investment had to be written off. Andersen left in 2016, and the company soon sold the oil business to Total.

<u>Outsized "bet the farm" acquisitions</u>

Some CEOs went for acquisitions that were large relative to the size of their company at the time and did not pay off. These acquisitions were involved in eight stumbles, almost a fifth of our sample.

On Sunday 14th September 2008, one day before the Lehman Brothers bankruptcy, Bank of America agreed to pay $50 billion for Merrill Lynch after a 48-hour due diligence process. This price represented nearly half of Bank of America's own valuation at the time. In the last quarter of 2008, before the deal closed at the end of the year, Merrill declared a record loss of $15 billion. B of A's share price collapsed, and CEO Ken Lewis left a year later.

Both RBS, and the Belgian banking and insurance company Fortis, were brought down by their successful consortium bid for the main part of ABN Amro. The bid was hostile, limiting the due diligence, and it overstretched both these acquirers.

Big risky acquisitions were not confined to banks. In the 2007 commodities boom, mining companies faced investor pressure to grow. Most responded to this pressure by moving into new minerals or geographies where they lacked expertise. Rio Tinto, for example, with a strong position in iron ore, invested in Alcan, an aluminium company, and a coal mine in Mozambique. These investments eventually required major write-downs and contributed to the departure of Tom Albanese, the CEO.

At the height of the financial crisis in 2008, EDF, the French electricity utility, spent €16 billion acquiring British Energy and a further US$4.5 billion acquiring half of Constellation Energy. This left them financially overstretched and triggered a rating agency downgrade by Standard and Poors. EDF requested unpopular price increases on French domestic electricity to boost their cash flow. Their stock price fell 35% relative to the Stoxx 600 index, and Pierre Gadonneix, their CEO, stepped down in 2009, two years earlier than expected.

OPERATIONAL ERRORS

A large minority of companies stumbled over major operational errors: failures in compliance, in controlling costs, in meeting production targets, or in limiting financial risks. In some cases, strategy choices may have made companies less able to meet their operational commitments. In others, operational errors seem to have been independent of strategy.

Failure in compliance

Serious compliance failure, broadly understood as the failure to meet operational constraints, played a major role in nine stumbles, a fifth of the total. This was a higher percentage than we had expected and included some surprising problems. As part of a strategy aimed at lowering costs and making the organisation more effective in a period of rapid technological change, the European telecom Orange undertook a massive workforce restructuring of their core French business. The 2008 restructuring demanded 20,000 “voluntary” resignations of former government employees who still could not be fired, and 10,000 major job changes involving retraining and relocation. The objectives of cost reduction and technological change conflicted with employee wellbeing and resulted in growing stress and dissatisfaction. A series of suicides in the workforce received strong media attention. The stock price fell, and public pressure eventually led to a curtailment of the painful restructuring. CEO Didier Lombard, whose strategy had effectively brought on this stumble, left soon after in 2010.

Other CEOs, such as Oswald Grübel at UBS and Daniel Bouton at Société Générale, suffered from risk blind-spots apparently independent of strategy decisions. Rogue traders brought on heavy losses at those institutions, and in both cases these were clearly related to poor monitoring and control. For example, Kweku Adoboli, a London trader on the exchange traded funds desk, lost £1.3 billion for UBS and triggered the bank’s stumble under Grübel. UBS had invested in processes to spot and catch rogue traders, through both personal supervision and computer systems. But Adoboli had been exceeding limits and falsifying reports for many months before he was caught. It turns out he had little effective supervision, as his supervisor was an ocean away in New York, and the UBS computer system designed to prevent rogue trading had been out of action for close to a year.[15]

Failure to control costs or meet production targets

Four stumbles involved operational difficulties in controlling costs or meeting targets for production volumes.

Vikram Pandit at Citi, Robert Kelly at BNY Mellon and Hans Vestberg at Ericsson failed to meet performance targets. Pandit fell short in reducing costs and pruning poorly performing businesses. His failure to make cuts and boost efficiency may have been influenced by a belief in the strategic value of a comprehensive global network. But he also had little background in managing a large retail bank. Citigroup’s board, with some delay, replaced Vikram Pandit with Mike Corbat, who unlike Pandit had no qualms about pruning unprofitable businesses, and had the career experience to move quickly. The stock price soon doubled.

Kelly successfully merged Bank of New York and Mellon, but failed to squeeze value from the post-merger integration. He appears to have been more interested in the big strategic picture than in effective blocking and tackling in daily operations. Vestberg found acquisition and growth opportunities for Ericsson but, perhaps surprisingly given his financial background, failed to manage costs to drive value from them. Ericsson's stumble combined a failed growth strategy with some operational errors.

In the fourth such stumble, BG Group under Chris Finlayson failed to achieve the growth in gas production from existing fields that investors expected based on its record. The board lost confidence in management's ability to drive the business forward, and fired the CEO, Chris Finlayson. The new CEO addressed many of its problems in production, but it was too late: the investors allowed Shell to acquire the group.

Failure to limit financial risk

Eight banks and insurers stumbled over a failure to limit financial risk independent of acquisition or compliance issues. Banks and insurers make up a large proportion of our sample because our period includes the 2008 financial crisis. Seven of the eight banks and insurers in this group[16] stumbled over poor risk controls when investing in mortgage-backed securities in the crisis. Yet their stumbles cannot entirely be attributed to the unfavorable environment. While Citibank and UBS suffered, other investment banks heavily involved in the mortgage backed securities market, such as Goldman Sachs and Deutsche Bank, were sufficiently savvy to see the crisis coming and protect themselves.[17]

Most of the stumbling banks and insurers had demonstrably poor risk controls or relied heavily on third parties to assess risks. AIG, for example, insured the collateralized debt obligations at the heart of the mortgage crisis. At the corporate level, AIG recognized the dangers in these products and had largely stopped insuring the worst CDOs. But the company was so decentralized that other operating companies in the group went on investing in CDOs long after this point.

Monitoring to successfully catch financial risks requires substantially more judgment than for compliance, cost or production targets. The riskiness of loans or financial investments is much harder to assess than how well these meet regulatory or volume requirements. Big financial institutions make many investments, too many for top management to control individually. To properly understand their exposure to risk, they need not just a strong leadership team but also strength in depth.

UBS lacked this depth in investment banking, which contributed to their stumble in the 2008 financial crisis under Marcel Ospel. Ospel had personal experience in investment banking and had recruited a strong team that had profitably boosted market share. But in the heady climate before the crash, his investment banking team wanted more. Hedge-fund partners were then making considerably more money even than investment bankers. So John Costas, head of the UBS investment bank persuaded UBS to let him set up an internal hedge fund, Dillon Read Capital Management. Costas then recruited many of the best UBS investment bankers into it, which left UBS in 2007 with a "B team" of investment bankers. But those bankers boosted revenues as if the A team had never left. In doing so they piled up risks for UBS, which was one of the worst hit by the financial crisis.

II. WHAT CAN BE DONE TO PREVENT STUMBLES

Business involves taking risks – no risk, no return – so we should not expect to eliminate stumbles. But how might we reduce their likelihood?

The types of stumbles described above are susceptible to different approaches. Operational errors can often be prevented by diligent monitoring and control. Failed strategies, in contrast, are prevented only by good planning and judgment. Most strategies require so much upfront investment, and take so long to pay off, that it's rare for leaders to change a failing strategy in time.

PREVENTING OPERATIONAL ERRORS

Some common themes emerge from the examples of operational errors above. Companies can prevent operational errors with clear, measurable performance objectives. By responding quickly to early indicators of problems, they can fix problems before much value is destroyed. So companies need a firm-wide culture of monitoring. Exception reporting should tell top management where problems are bubbling up, and whether systems to prevent errors are fully functional. Reliably measuring performance won't always be easy, so organizations also need qualified and experienced staff to exercise judgment.

Companies must also beware of tensions between conflicting objectives,. About two thirds of the operational errors were partly due to executives compromising one important objective to meet others. They made their companies vulnerable to operational error, for example, by relaxing financial risk controls to achieve a growth strategy, or taking safety concerns lightly to reduce costs.

AVOIDING FAILED STRATEGIES

Failed strategies require a different approach. These are more difficult to prevent, as you must assess its performance before making heavy investments. Once you have made a big acquisition, such as RBS' acquisition of ABN Amro, there is usually no way back. If you find skeletons in the closet or the market turns down, you are stuck.

Monitoring a new product development or a risky diversification, to take corrective action before it is too late, is exceedingly difficult. Managers in charge of Nokia's N97 development persuaded Kallasvuo and other executives that they were progressing much better than in fact they were.[18] Tesco top management remained committed to their food retailing start-up Fresh and Easy for seven years before pulling the plug. They saw the mediocre numbers but couldn't interpret them properly until they had spent £1.8 billion.

To reduce the risk of stumbling over a failed strategy, you must either adopt a low-risk approach from the start or, as is discussed in the literature on managerial ambidexterity, have strong capabilities at the top of the organization to assess and orchestrate a risky strategic change. Most stumbling CEOs in our sample were strong leaders that orchestrated substantial change, but the revenue growth they generated was not profitable and destroyed value for shareholders. To create value for shareholders, CEOs and their top teams need more than the general management and leadership abilities to orchestrate change. They should also have the particular education and career experience to assess which strategy to adopt and how to oversee its implementation. To have the best chance of assessing the situation correctly and also of avoiding decision-making biases, CEO and top team should be supported by good planning and backed up by a strong independent board, with the specialist experience to challenge assumptions.[19]

Lower-risk strategies

In the many cases where the core business was solid and simply growing slowly, companies could have avoided stumbling by adopting a more conservative strategy. Before investing, they could have realistically assessed the strategy on three criteria:[20]

- Business logic: Is the market attractive for investment, and does the business have a competitive advantage?
- Added-value logic: Is this business one that the executives can improve, or at least use to create synergies with other businesses?
- Capital markets logic: Are the prices for any major acquisitions or investments likely to be affordable?

Most of the failed strategies were clearly high risk along these dimensions. The danger of inertia -- continuing to allocate capital as in the past -- is an important theme in the literature on capital budgeting[21]. A few stumblers violated business logic by reinvesting heavily in a core business with little remaining growth momentum. Far more violated business logic or added-value logic by shifting their capital allocation into a risky portfolio diversification strategy. They invested in companies without strong market positions. They diversified outside their “heartland” into businesses where executives lacked know-how and had little opportunity for synergy. Or they violated capital markets logic with expensive “bet the farm” acquisitions whose value they lacked experience to understand.

Many of these stumblers had clear opportunities to pursue a lower risk strategy. Under margin pressure and with low growth in traditional reinsurance, Swiss Re diversified into complex financial reinsurance products, accelerating their investment in this area from 2005. It set up a Capital Management and Advisory unit in New York staffed with investment bankers. The unit took on high leverage to offer securitization of financial risks, while engaging in proprietary trading despite the company lack of experience in this risky business. Off-balance-sheet Special Purpose Vehicles made much of this activity opaque in financial reports. On the investment side, to boost returns, Swiss Re in 2007 shifted a substantial part of its asset base from treasuries to asset-backed securities.

By contrast, Munich Re stuck to its knitting as a traditional reinsurer and, on the investment side, maintained a conservative asset portfolio. They were facing the same pressures on margins and growth, but knew their expertise was in underwriting, not investment. Their response was to accept lower growth, tighten controls on underwriting and focus on better margins. As CEO Nikolaus von Bomhard put it "Value creation should take place on the liability side of the balance sheet — not the asset side."[22] When the financial crisis hit, Swiss Re stumbled and Munich Re did not.

Ensure the CEO and top team have the proper skills and background

If a low-risk strategy is deemed unattractive, then the top team must have the capabilities to assess and manage the higher risk. This is most graphically the case when the organization takes on a major innovation or repositioning. Most of the stumblers here lacked teams with an education and career background attuned to these gambits. Finding a CEO with the right specialist qualifications to lead innovation or repositioning, in addition to possessing general leadership abilities, is an underappreciated challenge.[23]

Industry experience is not enough. Olli-Pekka Kallasvuo had been with Nokia for 30 years when he became CEO, but he had been educated as a lawyer and had spent most of his career in finance. He might have been a good CEO for business-as-usual, but he was poorly equipped to direct the extraordinary product development and technology transformation that Nokia needed to compete with the iPhone. An engineer with experience in high-tech product development might have had a better chance. Nokia replaced Kallasvuo with such a leader, Stephen Elop, but it was too late.

2. Some CEOs/top teams appear unsuited for the challenge imposed on them

Company/CEO	Key strategic challenge	CEO/Top team background
Carrefour/ Olafsson	Reposition French hypermarkets	CEO a Swede with consumer brands background, Head of France a British retailer
Citigroup/ Pandit	Manage for value in large global money centre bank	CEO a former hedge fund manager, no experience running a large organization
Deutsche Bank/ Jain (and Fitschen)	German businesses and numerous compliance/legal issues	Jain with no German language or experience. Jain and Fitschen personally involved and on defensive in compliance/legal issues
GSK/ Garnier	R&D productivity	CEO PhD in Pharmacology but had not worked in R&D. Head of R&D hired from university hospital and not big pharma experienced
Intel/ Otellini	Innovate to grow revenue in face of long term decline of PC market	CEO first non-engineer to run company. Top team long-serving, ingrown
Nokia/ Kallasvuo	New product development to compete with iPhone and Android	CEO background in law, finance. Top team more marketing than engineering focused
Yahoo!/ Semel	New product development to match Google	CEO former Chairman of Warner Brothers, a deal maker with no tech background

Likewise, at Yahoo, CEO Terry Semel tried to develop software to compete with Google in search and search-based advertising. But as a former head of the Warner Brothers movie studio and a deal maker without a software background, he was poorly placed to ensure

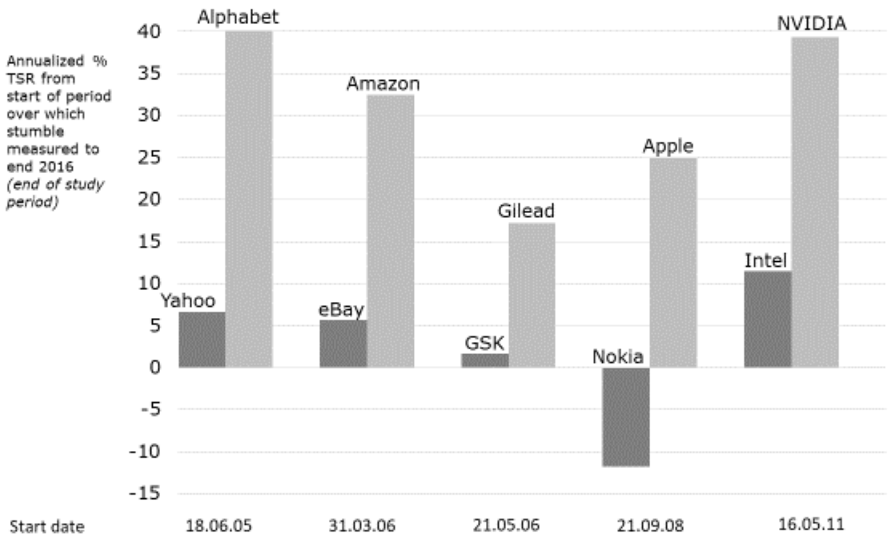
Yahoo moved rapidly and effectively. It took the company from 2001 to 2006 to respond to Google's innovation, by which time the battle was lost.

Without the proper skills and experience, you may work out the right direction to go, but you probably won't travel fast. Take pharmaceutical companies, which must constantly research and develop new drugs to fill the pipeline as their old drugs go off patent. Most big pharma companies have recently done a poor job of it and have relied on acquisition.

Most big-pharma CEOs have backgrounds in law, finance, sales or marketing, rather than research and development.[24] And even a scientific education may not be enough. Jean-Pierre Garnier, with a PhD in pharmacology, was relatively well-qualified to address GSK's R&D problems. But he had spent his career in marketing and business management, and he chose as his head of R&D Tachi Yamada, who came from hospitals rather than pharmaceuticals. There were no other R&D focused managers on GSK's top executive team. Garnier and Yamada disappointed investors with their slow progress in reorganizing R&D for greater productivity. After Garnier left in 2008, the company substantially increased both its number of R&D performance units and, within those units, the share of R&D allocated to strategic partnerships with external firms.

If the CEO lacks the background for the company's critical challenges, then his or her fellow executives might plug the gap. Swedish Lars Olafsson had been an executive at Nestlé, a multinational consumer goods manufacturer. Once at Carrefour, he took on an experienced hypermarket manager as his country head in France – but it was an Englishman from Tesco, with little experience of France. For the Head of Commercial, managing suppliers, Olafsson hired a Spaniard from P&G, another consumer goods manufacturer. Everyone on the team had a strong resumé, but none had quite the right background to meet the challenge. To replace Olafsson, the company chose Georges Plassat, a Frenchman with a long career in hypermarket and other forms of big-box retailing.

3. Failure to match innovation results in much less value creation longer term



Breakthrough innovation is rare. But if your competitors innovate and you fail to do so, shareholders will eventually pay a high penalty, as the exhibit above indicates. For innovation, the CEOs of comparators to stumblers[25] all had strong education and career backgrounds in personally leading new product development. Several were also company founders. Steve Jobs at Apple, Jeff Bezos at Amazon, and Eric Schmidt at Google need no further introduction. Jen Hsung Huang, the CEO at Nvidia, was closely involved in leading Nvidia's graphics, computer gaming and autonomous car chip developments. He has a master's degree in Electrical Engineering from Stanford, and like Steve Jobs is a serial innovator – he worked for LSI Logic and AMD before co-founding Nvidia.

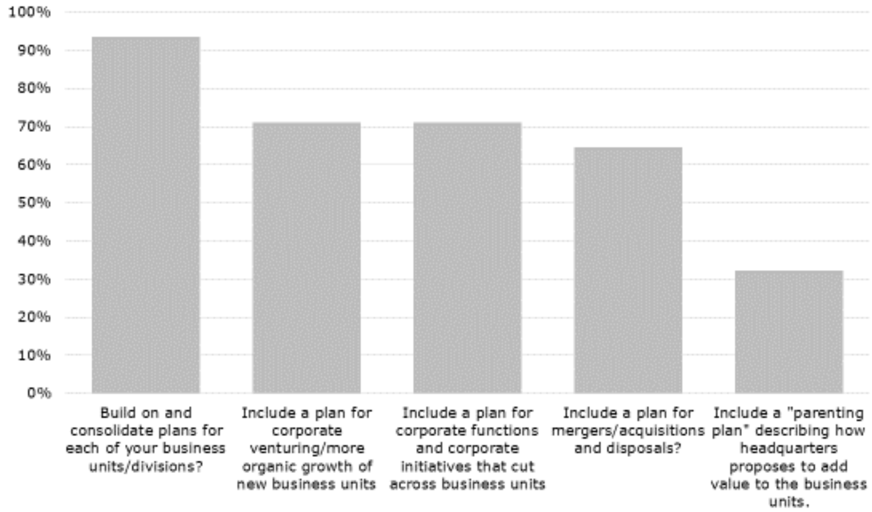
Gilead is a useful contrast with GSK, even though in 2004 it was far smaller and focused on innovation. John Martin, CEO of Gilead when Garnier led GSK, was not a founder but had spent his entire career in pharma R&D -- at Syntex and Bristol-Myers Squibb. When he came to Gilead, he already had a successful track record in researching and developing new drugs. Gilead's 11-person top executive team included eight natural science PhDs – including the CFO, who had joined as a research scientist – with three of them working in R&D roles. GSK's top team (and those of many other stumblers) lacked this background to support innovation. Since 2004, Gilead has grown rapidly and now roughly equals GSK's market capitalization.

Invest in strategic planning

Having a suitably qualified CEO and top team is necessary but not sufficient. The team also needs to be objective and unbiased, and provided with well-researched plans and proposals.

We have not been able to review the planning processes of all stumblers in our sample. But in 2017 we surveyed the heads of the strategy function at 35 large public companies. We found that almost all these large companies have now designed their planning processes to cover a broad spectrum of issues, in order to be quite robust. The exhibit below shows the coverage of a variety of strategy topics by the companies in our survey.

4. Corporate strategy plans mostly cover a broad spectrum of issues



To further ensure robustness, companies typically compare returns on planned new investments with returns on similar past investments; develop scenarios with different market, competitive and other assumptions; offer multiple strategies to compare with the status quo instead of a single main option; and involve a wide range of constituencies in developing the plan – customers, consultants and even investors that shorted the stock.

Strategic planning can always get better, but most large companies have already given it a lot of thought. Why then, with all this effort invested, do so many companies still stumble over ambitious growth strategies? A key problem is the range of biases that can affect senior teams.[26] The large number of stumbles over ambitious growth strategies suggests, from a shareholder-return perspective, that companies have a general decision-making bias to growth.

As agency theory explains, organizations and their managers benefit from growth even when shareholders suffer. Growth creates employment and promotions even if the return on investment is poor. Growth is also exciting and induces leaders to underestimate risks. Shareholders might be better served with cost reductions and limited investment, freeing cash to be distributed through share buybacks or higher dividends – yet that approach generally requires unpleasant layoffs. The strategists in our survey were more concerned about a "bias to growth" in the top team than about, for example, general overconfidence or a tendency to treat compliance and other constraints lightly.

Top teams may suffer from other biases as well, including specific misleading experiences. RBS was prompted to bid for ABN Amro by its earlier success with National Westminster Bank, another hostile acquisition with limited advance information. Johnny Cameron, head of RBS' investment bank, commented that the NatWest acquisition brought "lots of surprises, but almost all of them were pleasant. And I think that lulled us into a sense of complacency around that."[27] Executives can easily get excited about a strategy once they devise it, so they commit to an investment without giving it the sober analysis necessary to reduce the likelihood of stumbles.[28]

To better judge a business investment, leaders arguably need a deep understanding of the business without much emotional attachment to the investment – which is a rare combination. And even if you make people aware of their biases, those biases may not go away.[29]

Make sure the board is qualified to effectively challenge the strategy

If the CEOs and top teams fail to realize their shortcomings on assessing or implementing a strategy, they would benefit from knowledgeable persons who can forcefully challenge them. The obvious candidates are the members of the board of directors. As with top teams, however, we found numerous basic problems with board composition.

To challenge management's strategy is a difficult task.[30] The board should have not only sufficient independence from management to ask tough questions but also sufficient experience to ask the right questions[31]. It should also be small enough for good debate[32]. We found nearly half of all stumbler boards failing to meet these criteria. The exhibit below shows the 23 boards we considered poorly qualified to provide a strong independent challenge to the executive team.

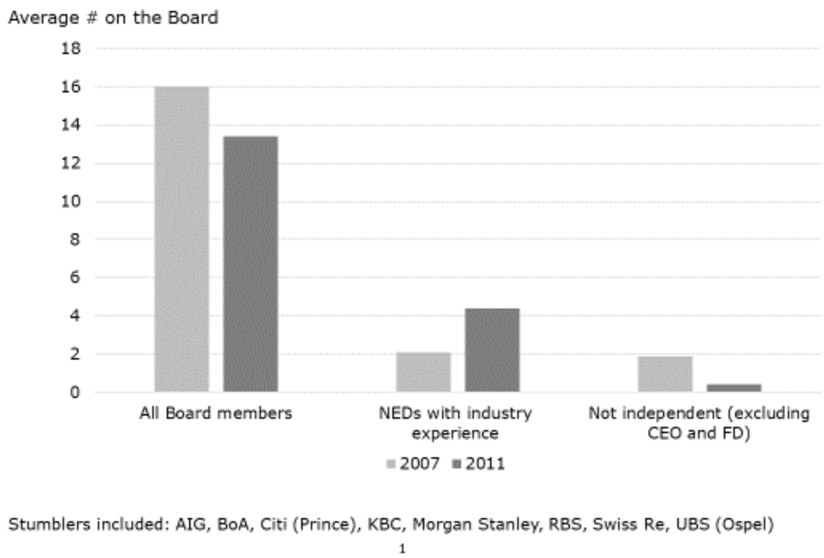
5. Many Boards too big, lacked industry experience, or not independent enough

	All Board members	NEDs with industry experience	Not independent: excl. CEO and FD		All Board members	NEDs with industry experience	Not independent: excl. CEO and FD
Anglo	11	1	0	Morgan Stanley	12	0	0
AP Moeller	12	1	0	Nokia	10	1	0 (1)
BHP	13	0	3	Rolls Royce	14	1	2
BP	16	0	3	RBS	16	3	4
BOA	18	1	1	RTZ	13	1	0
BT	14	1	3	Swiss Re	12	3	2 (1)
Carrefour	12	1	0	Target	12	0	0
CME	32	7 (20)	1 (19)	Tesco	17	0	6
Deutsche Bank	20	0	(1)	Time Warner	15	3	0 (5)
EDF	19	1 (3)	0 (7)	UBS (Ospel)	12	0.5	3
GSK	10	1	1	VW	20	0 (4)	0 (6)
KBC	26	0	2 (21)				

All Board members: measured before stumble at a time when action could have helped to avoid it. **NEDs with industry experience**: # of independent NEDs and, in brackets, # other non execs – excl. retired execs and employee representatives with industry experience **Not independent: excl CEO and FD:** Includes executive directors, excl. CEO and FD and, in brackets, # retired executives, retired executives of acquired companies, government reps and "special cases", e.g. Chairman in office over 12 years. Workforce reps are not included. CME traders have been treated as not independent

Support for these criteria comes from changes made at banks and insurers that stumbled in the financial crisis. They all worked to strengthen their boards to better challenge management. They all added industry experience, increased board independence, or reduced the number of directors. None made any contrary moves.

6. Bank/insurer stumblers changed Boards to better challenge management



III. THE EMPEROR'S CLOTHES TESTS FOR RISKY STRATEGIES

While companies devote a lot of time and effort to developing their strategy, there are many important supportive factors to consider, starting with the choice of the top decision-makers. Overlooking just one of these factors may have a dramatic effect on performance. Our research suggests that companies often stumble over simple, seemingly obvious, mistakes. So they would benefit from an "Emperor's Clothes Test" for people and processes that forces all decision-makers – including shareholders -- to think through whether their company is well-armed against the most common strategic errors.

The heads of strategy that we surveyed told us that it is the selection of the CEO and top executive team that makes by far the biggest difference to company performance. These leaders' judgment and experience are critical to avoiding strategy failure. Companies review their strategy annually. If the strategy challenge is changing, they should also likewise review the top team and the board to see if they possess the proper capabilities for the new situation. The Emperor's Clothes Test lists questions that the top team, board and even shareholders should be regularly asking.

7. The emperor's clothes test: people

- Well qualified CEO and top executive team
  - CEO with strong background and track record to address the current key strategic challenge
  - Other members of the top management team chosen to close any gaps in the CEO's qualifications
  - Strategy chosen to reduce risks related to CEO and top team qualifications (e.g. outsource where not advantaged, prefer businesses in the heartland for your capabilities)
- Appropriate Board composition
  - Sufficient industry experience among NEDs
  - Sufficient other experience relevant to key strategic challenge among NEDs
  - Sufficiently independent of executive management
  - Not too many directors for good debate

Executive qualifications can be hard to judge. But if this test allows scope for judgment, as in the general formulation of the questions in the exhibit above, it is anodyne. Anyone will be able to bend the criteria to pass. To give the test "bite", we suggest operationalizing it in a deliberately over-simplistic way. After all, the goal is not to veto proposed candidates, but to force CEOs and boards to justify potentially worrisome choices – and provoke a good debate. Companies need not comply with our rules, but if they don't comply, they should explain why not, and what they will do to reduce the risk of a stumble.

As an example, we apply the test – in the version with "bite" – to Nestlé, the global food industry giant. Nestlé has a long track record of strong returns for investors, but the going has been getting tougher. Consumers are turning away from traditional food brands and looking for healthier products. The internet does not favor traditional consumer brands that lack a direct connection to their consumers. And, as e-commerce gains share, Nestlé's customers, the big food chains, have been struggling with their own profitability and fighting to capture better margins, putting pressure on suppliers. In 2017 Nestlé experienced its sixth year of declining organic growth, and third year of declining profit attributable to shareholders.

Is the CEO suited for the job?

For the CEO, we suggest asking questions about industry background, line management experience, and education and career background relevant to addressing the strategic challenges. Education and career are likely to be particularly important when the tough challenge revolves around innovation or repositioning.

8. Is the CEO suited for the job?

- Substantial business experience in company's key industry and industry segments?
  - Experience with key customer groups, products, technologies, processes, countries?
- Substantial line management experience?
  - Business Head or Sales, Production, R&D, Marketing
  - Not Finance, Legal, HR etc
- Education and functional background to deal with the toughest strategic challenges the company needs to crack?
  - If the tough challenges, as they often do, relate to innovation and repositioning, usually R&D/Technical and/or Marketing background required
  - BU Head will usually qualify on Marketing but not R&D/Technical

How would Nestlé score? CEO Mark Schneider, appointed at the beginning of 2017, has no background in Nestlé's key industry, fast-moving consumer food brands. He was the CEO of the Fresenius Group, a diversified healthcare company with its main businesses in hospital supplies and operations. If the board had applied the Emperor's Clothes test before his appointment, his advocates would have had some explaining to do. They likely would have pointed to Nestlé's consumers becoming more health conscious, as one of the Fresenius Group's businesses was in clinical nutrition. As communicated on Schneider's appointment, he brought valuable experience in helping "accelerate Nestlé's journey to become the world's preeminent nutrition, health and wellness company".

Next, we would ask if the CEO has a background in a line function in the industry, not just finance, legal, HR or some other support function. Schneider passes this test well, having been a highly successful CEO for over a decade.

Finally, we would ask if the CEO has an educational and career background suited to the company's toughest strategic challenges. Nestlé faces the dual challenge of maintaining and growing profitability in traditional consumer foods brands while building up a strong nutrition, health and wellness offer. Schneider clearly has general management and financial skills but lacks expertise in consumer brands. While he has a healthcare background, he lacks a technical education or experience in nutrition science, or in a technical discipline relevant to actually designing and developing a healthcare offer. His success at Fresenius came largely from acquisitions – his advocates might counter that precisely this successful deal making experience would help in the strategic transformation.

<u>Do the top executive team and the strategy help patch any holes?</u>

Working from these answers on Schneider, the board could have asked about the top executive team supporting him. Do they provide strength where Schneider might be weak?

9. Do the top executive team and the strategy help patch any holes?

- Other members of the top management team chosen to patch any holes in the CEO's qualifications
  - Top team with "extra strength" where CEO has weaknesses?
- Strategy chosen to reduce risks related to CEO and top team qualifications
  - Outsource/acquire activities where CEO and top team not advantaged?
  - Prefer businesses in the heartland for your CEO and top team capabilities?

The Nestle top team is strong on branded goods, but apparently weaker in the technical skills for developing the healthcare and nutrition offer. Greg Behar, the executive board member for nutrition science, was trained as a mechanical engineer and worked for many years at Boehringer Ingelheim, a pharmaceutical company. He has no obvious background in nutrition.

Now we return to the strategy. Having a CEO with a healthcare background should help Nestle to increase its nutrition/healthcare presence. But since the top team lacks the technical know-how to lead in-house innovation in this area, the company's strategy should include some capability building in-house, or a plan for acquisitions rather than going alone.

<u>Is the Board suited for the job?</u>

Applying the Emperor's Clothes Test to the executive team reveals clear risks for the company, in both its traditional consumer food brands and its opportunities in nutrition, health and wellness. This is the sort of situation where tough questioning by the Nestle board should be helpful. Is the board up to this demanding role? We focus on the board at our time of writing in early 2018, rather than at the time of hiring Schneider in 2016.

10. Is the Board suited for the job?

- At least three NEDs with substantial industry experience in an executive role?
- No executive directors on the Board other than CEO and Finance Director (and former CEOs on Board only for a short transition period)?
- Not more than twelve people on the Board?

First, we ask if there are at least three non-executive directors with substantial line management experience in the company's core industry. If the core industry is consumer food brands, the situation is worrying. Only one of twelve Nestle non-executive directors had a consumer brands or food retailing background, Eva Cheng from Amway – and this company focuses on selling health, beauty and home care products via multi-level marketing, not conventional branding. Yet there were five non-executive directors with a financial services background. If you believe in industry expertise on the Board, the company has a good deal of explaining to do here.

Healthcare representation is equally thin. Amway might perhaps be said to cover healthcare products, though multi-level marketing is a very special niche. There is also Ruth Khasaya Oniang'o, who has an academic background in nutrition science. Again, some questions to be raised.

Next, we would check if the board is sufficiently independent. There are no current executive directors on the board other than the CEO, yet the Chairman's background, as the previous CEO, might raise some issues.

Finally, we ask if the board has more than twelve members. It does, but with only fourteen directors, the problem is not acute.

These simple, specific questions should be the basis at least for a good debate at Nestlé and at many other large companies. They point to specific areas of vulnerability, and some possible remedies. For Nestlé, the board or executive team could better support the CEO in renewing the customer offer and moving more strongly into nutrition/healthcare. The board could build up sufficient industry expertise in both consumer goods and healthcare among its non-executive members. And finally, should the key issues turn out not to be healthcare/nutrition related, the board could ask about the qualification of the CEO to address the key challenge.

<u>Do processes support good strategic decision-making?</u>

Companies also need to ensure that they are taking a balanced approach and not tacitly compromising some strategic objectives in order to achieve others. We have analyzed the most common causes of stumbles and offered simple questions to check a firm's corresponding vulnerability. We have listed them in the exhibit below, preceded by general questions to confirm some planning best practices.

Going for growth, while downplaying the risks of poor return on investment, causes the most stumbles. So, you should carefully review the strategic risks you are taking to grow and build up safeguards to avoid an undue bias to growth. We also found companies making operational errors as they struggled to reach conflicting strategic objectives. So, we list some questions to help you guard against making poor compromises there too.

11. The emperor's clothes test: strategy processes

- Well prepared and informed decisions?
  - Planning processes cover full range of issues: business, added-value and capital markets?
  - Include review of early indicators, scenarios, alternative strategies?
  - A wide range of constituencies provide inputs?
- Avoiding decision-making bias?
  - Taking unnecessary risks to outpace growth in the core business?
    - Investing heavily in core business despite low market growth
    - Investing heavily in question-marks (or dogs)
    - Diversifying into businesses (or asset classes) outside the heartland that company doesn't sufficiently understand
    - Making big "bet the farm" acquisitions
  - Compromising one strategic objective to meet another?
    - Taking compliance or risk control lightly to meet return targets
    - Pursuing strategic goals independent of shareholder value

CONCLUSION

The nature of business is that even large companies are always at risk of major setbacks. CEOs and top executives must make difficult decisions in the face of competitors. Boards must use the limited time they have to decide whether the right executive team is in place, to challenge that team, and to approve – or not – major strategies. Organizations must stretch to build new skills as markets evolve and they colonize new strategic territories. There is always incomplete information and an unpredictable environment. Compromises in appointing individuals and crafting organizational change are almost inevitable.

Nevertheless, there are circumstances where the risks are particularly high. Innovation, repositioning, and strategies to boost revenues faster than market growth, are difficult to pull off, even as the pressure to adopt such risky strategies can be very strong. These strategies face not only the direct risk of disappointing returns, but also the indirect risk of distracting executives from operational oversight.

The risk you face in climbing a mountain depends on your climbing experience and your team's, your overall preparation, your precautions against common risks such as rockfalls, and whether you can resist racing on to the summit if the weather turns against you. Similarly, the riskiness of a strategy depends on who is making the decisions and how they take them. The odds of success rise with the combination of a CEO with strong qualifications to meet the specific challenges involved, a senior team with complementary strengths, and a board independent and knowledgeable enough to catch mistakes. When these decision-makers have top-of-mind awareness of the most common causes of stumbles, they will be better able to challenge their own inevitable biases. The Emperor's Clothes tests are a diagnosis tool to identify the issues that most contribute to stumbling, allowing for greater debate, reflection and targeted actions.

These tests may seem simple, but they could have reduced the likelihood of the falls from grace described here. The goal is not to constrain strategy, but to give it the support it deserves.

Felix Barber, Jo Whitehead and Julia Bistrova

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[1] Both company size and industry make a difference to the propensity to stumble. In our sample, smaller companies were substantially more likely to stumble than large. There were more stumbles in financial services and information technology than, for example, consumer goods and industrials. Financial services accounted for 18 out of 45 stumbles analysed, or 40%. but only about 20% of the CEOs in our sample of large companies overall. The financial crisis triggered many stumbles in this industry -- ten, but eight others stumbled in other years or for other reasons. Financial services is about managing risk and, not surprisingly, it proves a risky industry, particularly over this period.

[2] Sydney Finkelstein, *Why Smart Executives Fail and What You Can Learn from Their Mistakes* (New York, NY: Portfolio, 2003)

[3] Matthew S. Olson, Derek van Bever, and Seth Verry, "When Growth Stalls," *Harvard Business Review*, 86/3 (March 2008): 50-61.

[4] Martin Reeves, Simon Levin and Daichi Ueda, "The Biology of Corporate Survival: Natural ecosystems hold surprising lessons for business", *Harvard Business Review*, 94/1 (January-February 2016): 46-55.

[5] Additionally, sampling is in some cases subjective.

[6] Kevin Kennedy and Mary Moore. *Going the Distance: Why Some Companies Dominate and Others Fail* (New Jersey: Financial Times Prentice Hall, 2003).

[7] "Ambidexterity": From its original meaning of being able to use left and right hands equally well, this term is now used in the academic management literature to refer to the managerial challenge of coping with several different and potentially conflicting objectives at once, most commonly to "explore" for new business opportunities and managing change while also effectively "exploiting" existing business positions in daily operations. See Charles A. O'Reilly III and Michael L. Tushman, *Organizational Ambidexterity in Action: How Managers Explore and Exploit*, California Management Review, 53/4 (Summer 2011): 5-22.

[8] Both company size and industry influence the propensity to stumble. Smaller companies are substantially more likely to stumble than large. Financial services accounted for 18 out of 45 stumbles analysed, or 40%. but only about 20% of the CEOs in our sample of large companies overall. The financial crisis triggered many stumbles in this industry -- ten, but eight others stumbled in other years or for other reasons. Financial services

is about managing risk and, not surprisingly, it proves a risky industry. However, many of the types of risk taken – big acquisitions, compliance problems, etc. – and the plausible measures to prevent them are not different to those in other industries.

[9] We left out five stumbles among continental European companies where language and other constraints made research difficult.

[10] In one case, two co-CEOs were involved in a stumble.

[11] With the possible exception of Intel, which has spent heavily on acquisitions to do so, these companies have not been able to bounce back.

[12] A few even invested in "dogs," businesses without strong market positions or growth potential. Deutsche Bank invested in Postbank, the former banking activities of the German government postal service, and it has been a millstone round their neck for some years.

[13] The "heartland" concept, as used here, was introduced in Michael Goold, Andrew Campbell and Marcus Alexander, *Corporate Level Strategy: Creating Value In the Multibusiness Company* (New York, NY: Wiley, 1994).

[14] Richard Milne and Mark Odell, "Maersk to switch away from shipping", *Financial Times,* November 18, 2012, https://www.ft.com/content/adba971c-2ff3-11e2-ae7d-00144feabdc0

[15] See "Investigation into the Events surrounding Trading Losses of USD 2.3 billion incurred by the Investment Banking Division of UBS AG in London", Swiss Financial Markets Supervisory Authority, 21 November 2012

[16] The exception is Standard Chartered, which stumbled later over careless credit growth in Asia

[17] Morgan Stanley allegedly saw the risks at the top but was ineffective in implementing a hedging strategy

[18] Quy Huy, Timo Vuori, and Lisa Duke, "Nokia: The Inside Story of the Rise and Fall of a Technology Giant," INSEAD case study, 2016.

[19] See, for example, Terry McNulty, and Andrew Pettigrew, "Strategists on the Board." *Organization Studies,* 20/1 (1999): 47–74; Tim O'Shannassy "Board and CEO practice in modem strategy-making: How is strategy developed, who is the boss and in what circumstances?" *Journal of Management & Organization*, 16/2 (May, 2010): 280-298.

[20] Andrew Campbell, Jo Whitehead, Marcus Alexander and Michael Goold, *Strategy for the Corporate Level: Where to Invest, What to Cut Back, How to Grow Organisations with Multiple Divisions,* (London: Wiley, 2014)

[21] See, for example, Stephen Hall, Dan Lovallo, and Reinier Musters, "How to put your money where your strategy is," *McKinsey Quarterly*, (March 2012)

[22] Jonathan Kandell, "Restoring Munich Re," *Institutional Investor*, May 13, 2008, https://www.institutionalinvestor.com/article/b150q7try3r545/restoring-munich-re.

[23] See, for example, Ram Charan, 2016. "The Secrets of Great CEO Selection," *Harvard Business Review*, 94/12 (December, 2016): 52-59; Robert Hooijberg, and Nancy Lane, "How Boards Botch CEO Succession." *MIT Sloan Management Review,* 57/4 (Summer,2016): 14–16

[24] Felix Barber and Julija Bistrova. *Many CEOs Aren't Breakthrough Innovators (and That's OK)*, HBR digital article, September 4, 2015.

[25] It is hard to find a good public company comparator for Carrefour, whose key challenge was in hypermarket retailing in France. The better performers in that market, Leclerc and Auchan, are not stock-market quoted. Leclerc is a cooperatively owned franchisor, and Auchan is family-owned. More generally, it is hard to find examples of a successful repositioning of an old and tired retailing formula in public ownership. However, one prominent success story, Burberry under Angela Ahrendts as CEO, closely fits the success formula of a CEO and team with a strong relevant background and track record to succeed. For details see previous endnote.

[26] See, for example, Sydney Finkelstein, Jo Whitehead, and Andrew Campbell, "Think Again: Why Good Leaders Make Bad Decisions." *Business Strategy Review* 20/2 (Summer, 2009): 62–66; Olivier Sibony, Dan Lovallo, and Thomas C. Powell, "Behavioral Strategy and the Strategic Decision Architecture of the Firm", *California Management Review*, 59/3, (Spring, 2017): 5–21.

[27] Neils Pratley, "What Was the RBS Board Thinking When It Backed ABN Amro Takeover? It Wasn't," *The Guardian*, December 12, 2011. https://www.theguardian.com/business/nils-pratley-on-finance/2011/dec/12/what-rbs-board-thinking-abn-amro

[28] See, for example: Freek Vermuelen and Niro Sivanathan, "Stop Doubling Down on Your Failing Strategy; How to Spot (and Escape) One before It's Too Late," *Harvard Business Review,* 95/6 (Nov-Dec, 2017): 110-117; Anand M. Goel and Anjan V. Thakor, "Overconfidence, CEO Selection, and Corporate Governance," *Journal of Finance* 63/6 (November, 2008): 2737–84.

[29] See, for example, Sibony et al. 2017
[30] Steven Boivie, Michael K. Bednar, Ruth V. Aguilera, and Joel L. Andrus, "Are Boards Designed to Fail? The Implausibility of Effective Board Monitoring," *Academy of Management Annals,* 10/1 (January, 2016): 319–407
[31] It is not enough that board members be independent e.g., see Sanjai Bhagat and Bernard S. Black, "The Non-Correlation Between Board Independence and Long-Term Firm Performance," *Journal of Corporation Law; Iowa City 27/2 (Winter, 2002)*: 231–73; Dan R. Dalton, Catherine M. Daily, Alan E. Ellstrand, and Jonathan L. Johnson, "Meta-Analytic Reviews of Board Composition, Leadership Structure, and Financial Performance," *Strategic Management Journal* 19/3 (March, 1998): 269–90. They also need to have relevant experience, and general management or functional experience is, on its own, not enough. See Donald C. Hambrick, Vilmos F. Misangyi, and Chuljin A. Park, "The Quad Model for Identifying a Corporate Director's Potential for Effective Monitoring: Toward a New Theory of Board Sufficiency," *Academy of Management Review,* 40/3 (July, 2015): 323–44; Bernadette A. Minton, Jérôme P. Taillard, and Rohan Williamson, "Financial Expertise of the Board, Risk Taking, and Performance: Evidence from Bank Holding Companies," *Journal of Financial and Quantitative Analysis* 49/2 (April, 2014): 351–80. Boards also need appropriate expertise; see for example: Rüdiger Fahlenbrach, Angie Low, and René M. Stulz, "Why Do Firms Appoint CEOs as Outside Directors?" *Journal of Financial Economics,* 97/1 (July, 2010): 12–32; Olubunmi Faleye, "CEO Directors, Executive Incentives, and Corporate Strategic Initiatives." *Journal of Financial Research,* 34/2 (Summer,2011): 241–77; Michael L. McDonald, James D. Westphal, and Melissa E. Graebner, "What Do They Know? The Effects of Outside Director Acquisition Experience on Firm Acquisition Performance," *Strategic Management Journal*, 29/11 (November, 2008): 1155–77 and Olubunmi Faleye, Rani Hoitash, and Udi Hoitash, "Industry Expertise on Corporate Boards," *Review of Quantitative Finance and Accounting*, 50/2 (February, 2018): 441–79.
[32] A range of studies have shown that larger boards are less effective e.g., Boivie et al. 2016