

# The CEO as an Investor: A Framework for the Capital Allocation Officer

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## Title

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## Abstract

A CEO may have never tackled a capital allocation job in previous jobs, while now, on his top position, he is responsible for the capital deployment of 50% of the firm market cap over a 3 to 5 year period. Quoting Warren Buffet, CEOs' experiences usually come from the industry and not from capital allocation. Furthermore, boards focus more on loyalty and prudence than on value creation, the laser-focus of private equities and value investors. The Capital Allocation Officer role has also had limited coverage in media and corporations. CEOs need to recognize that proper capital allocation is a strong value driver and that need to be involved in such process regardless of their preferences and knowledge, and even learn from or hire excellent capital allocators. CEOs need to design an investor-based capital allocation framework that guides their decisions and facilitates board's long term value creation.

## Key words

Capital Allocation Officer, CEO, Return on Capital Employed, Investor, Framework.

## Título

El CEO como inversor: un modelo para el director de asignación de capital.

## Resumen

Un consejero delegado puede no haberse aproximado a la función de asignación de capital en sus posiciones previas, mientras que ahora, en la posición de máxima responsabilidad de la compañía, es el agente decisor de invertir, en general, el 50 % del valor de los fondos propios de la compañía que dirige en un período de tres a cinco años. Citando a Warren Buffet, las experiencias de los consejeros delegados vienen generalmente de la industria y no de funciones relacionadas con la asignación de capital. Adicionalmente, los consejos de administración se enfocan más en su deber de lealtad y prudencia que en su función de creación de valor, el principal foco de inversores de capital privado y *value*. El rol de "director de asignación de capital" ha tenido una cobertura limitada en las corporaciones y en los medios de comunicación. Los consejeros delegados necesitan comprender que una asignación de capital óptima es una gran palanca de creación de valor y que, por tanto, es prioritaria su involucración en dicho proceso de asignación de capital, independientemente de sus preferencias o conocimiento previo, e incluso deben aprender o reclutar a profesionales de la asignación de capital. Los consejeros delegados necesitan diseñar un modelo de asignación de capital desde una perspectiva inversora, asegurando que sirve de guía para la toma de decisiones de inversión, así como fomentar la creación de valor desde el consejo de administración.

## Palabras clave

Director de asignación de capital, consejero delegado, retorno de capital empleado, inversor, *framework*.

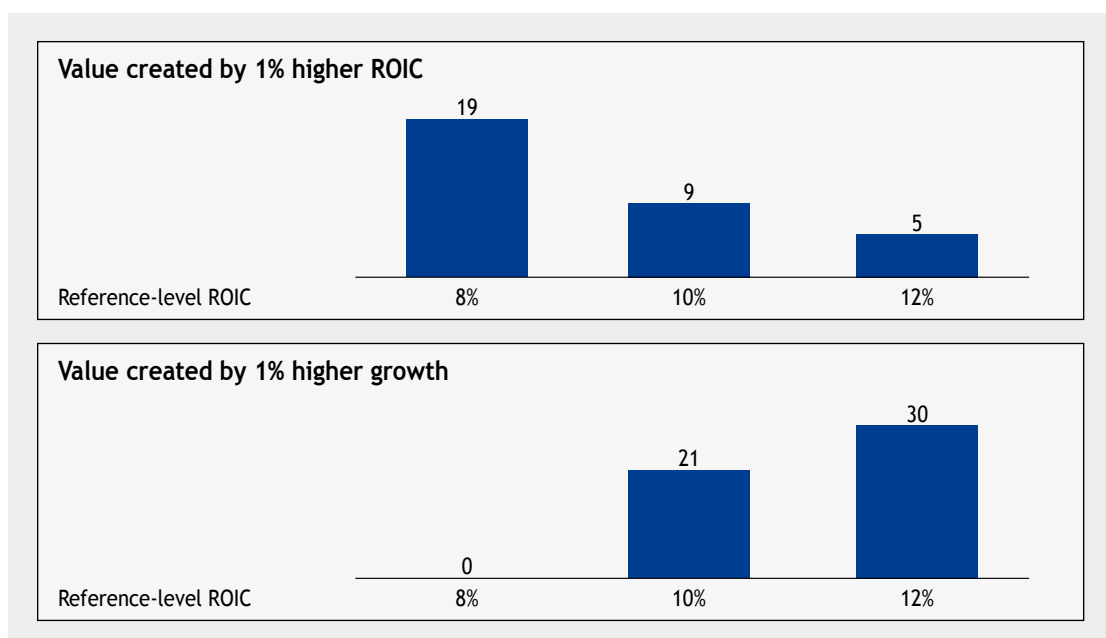
**Heads of many companies are not skilled in capital allocation, and that it is not surprising**

The legendary investor Warren Buffet said more than 25 years ago (Buffet, 1987) “that heads of many companies are not skilled in capital allocation, and that it is not surprising because most bosses rise to the top because they have excelled in an area such as marketing, production, engineering, administration or, sometimes, institutional politics”. Buffet followed by saying that those few CEOs that recognize their lack of capital allocation skills try to compensate by seeking advice accentuate the capital-allocation problem; that implies that the decision and analysis on capital allocation should mostly remain within the shareholder and CEO, ultimately being the Capital Allocation Officer.

It is notable that the “Capital Allocation Officer” search in Amazon only provides 24 references (none with such title), while the “Chief Financial Officer” search provides 25,359 references, especially when more than 50 years ago Nobel Prizes Modigliani and Miller established the return on firm investments as one of the five components that drive the valuation of the firm, being probably the best proxy for value creation (Miller & Modigliani, 1961). In hindsight, the sustainable success achieved by value investors supports the theoretical fundamentals even more. The implication of such value driver that Modigliani and Miller established in 1961 can be put in practical terms for top management and boards: a company deploys capital equal to half or more of its market capitalization over a three-to-five-year period and, as Warren Buffet says, the capital allocation skill of top management is usually limited.

This capital allocation skill is even more relevant in a low-growth world, where such growth lever is difficult to apply, and hence the Return on Invested Capital (ROIC) appears to be the prominent driver for value creation. For example, a ROIC increase of 1% for a firm with a Cost

Figure 1  
**Value creation through capital allocation (ROIC) in a low-growth world**



Source: Author's model<sup>1</sup>.

<sup>1</sup> Cost of capital (WACC): 8%; Terminal growth rate: 5%.

**A company  
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of Capital (CoC) of 8% and ROIC of 8% would increase the Firm Value in 19%, while an additional 1% in growth would generate no value. Once, ROIC is above the CoC, even small growth is highly valuable: for example, an additional 1% growth rate in a firm with a ROIC of 10% (maintaining the same 8% CoC) would increase the Firm Value by 21% vs. a 12% increase in value by a 1% higher ROIC, implying that once a company has a positive value spread (ROIC-WACC), a 1% growth increase is more valuable than a 1% ROIC increase (figure 1).

Over the last 17 years I have been working first as a consultant on corporate finance and strategy and the last 10 years as a private equity investor, and I have been intrigued by what Warren Buffet stated more than 25 years ago and its implications: Why are so few CEOs skilled at capital allocation?, does this statement still hold now?, what comprehensive approach to capital allocation that investors apply could be used in the corporate world?, which mindset, tools and processes should CEOs use to think as investor allocating capital? and, ultimately, how boards should evaluate CEOs on capital allocation? The first section analyzes CEOs' skills on capital allocation using their previous experiences as a proxy. The second section develops a comprehensive capital allocation framework from an investor point of view. The third section applies such framework analyzing from a value point of view the different capital allocation alternatives. Finally, the fourth section sets a capital allocation scorecard to facilitate both CEOs and Boards to think as investors and comply with one of the key fiduciary duties of both roles.

## **1. Why are so few CEOs skilled at capital allocation?**

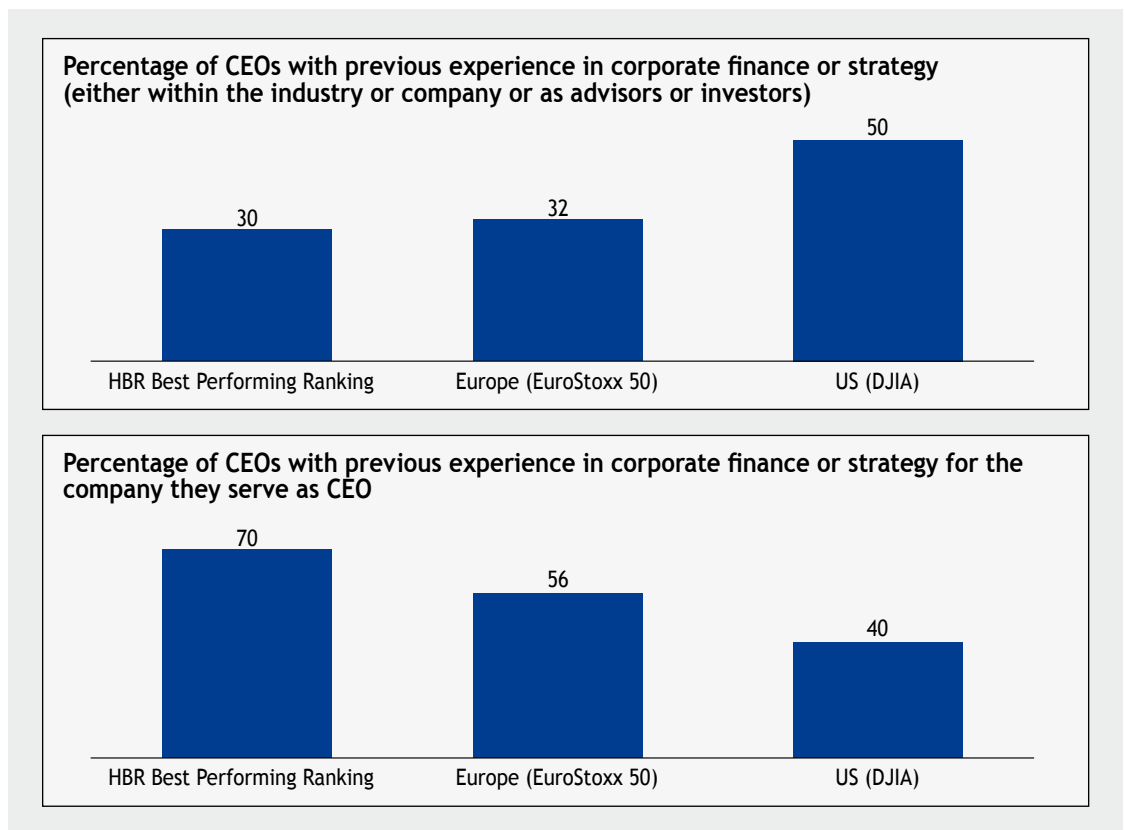
In his 2011 letter, Warren Buffet stated the first law of capital allocation by saying that "what is smart at one price is dumb at another" (Buffet, 2011); how many CEOs have been trained on valuation on the broader sense (strategy at industry and company level and corporate finance) to determine the price and value of investments? The empirical evidence of analyzing the former experiences of current CEOs across developed markets provides that such experience on capital allocation is limited, as Warren Buffet stated more than 25 years ago. That is, 50% of the CEOs of the companies in the DJIA Index have previous experience in corporate finance or strategy, either within their industry or company (33%), or as an advisors (just a few as an investors). That same figure decreases to 32% for those CEOs running the companies of the EuroStoxx 50 and to 30% for those CEOs that were included in the HBR Best Performing Ranking (Ignatius, 2014). However, there is a higher percentage of those CEOs with previous direct corporate finance and strategy experience, as an advisor or investor, in the HBR Best Performing Ranking (70%) than in the DJIA (40%) or EuroStoxx 50 Index (56%) (figure 2).

Michael Jensen, a Harvard Business School professor, established in a seminal paper in 1986 (Jensen, 1986) that poor capital allocation was also due to an incentive problem of management and that debt helped to reduce the so-called agency costs. That is, poor capital allocation at corporations is due to both, lack of skill, as stated by Warren Buffet (Buffet, 1987) and lack of will as stated by Professor Jensen (Jensen, 1986). In fact, the task of capital allocation within the CEO role has not been given enough importance; as an example, less than 5 out of 100 CEOs of the HBR best-performing ranking mention "return on capital" on their official biography, and in particular none of CEOs whose companies are in the DJIA or EuroStoxx 50 mention it.

Smart private equity investors and active value investors know that they cannot replace a CEO for the management of current business operations, but they also know that they are better at allocating the excess cash generated from operations or from external fund providers. That is

Only 32% of those CEOs running the companies of the EuroStoxx 50 have previous experience on capital allocation

Figure 2  
CEO capital allocation skills: US, Europe and HBR best performing ranking



Source: Author's analysis.

probably the main reason why top quartile private equity firms and value investor firms outperform public equity markets returns. These investors focus not only on their fiduciary duty of loyalty and prudence but also on long-term value creation, a not so usual focus for management and boards of public corporations. In fact, a McKinsey study (Bhagat, Hirt & Kehoe, 2013) reveals that only 16% of board members understand how their firms created value, and almost no CEO of companies in the DJIA or EuroStoxx 50 has a background in private equity or value investment. Furthermore, the lack of concentrated ownership that happens in private equity or tight family-owned companies means that corporate boards have less incentives to be more knowledgeable and aligned on value creation. Management and boards should devote skill and will to get smart on capital allocation as it generates long-term value: a McKinsey Research (Hall, Lovullo & Musters, 2012) shows over a 20-year period that those companies that shifted more than 56% of their capital across business units –the aggressive allocators– delivered 30% higher return to shareholders than those that allocated roughly the same amount of capital than the previous year. With such evidence, why is almost non-existent the transfer of capital allocation skills from the value investor and private equity industry to the corporate world? Those value creation opportunities that exist in these large corporations are difficult to be captured by the current status-quo and that is one of the reasons for the existence of the activist and value investment industry. For instance, the “constructive” activism asset class is emerging as one of the most attractive ones (Cyriac &

Thomsen, 2014); over the last 10 years this class has increased its assets under management from \$50bn to \$100bn, with 40 activist campaigns for companies above \$1.8bn in 2004 and 48 campaigns for companies above \$9.9bn in 2013.

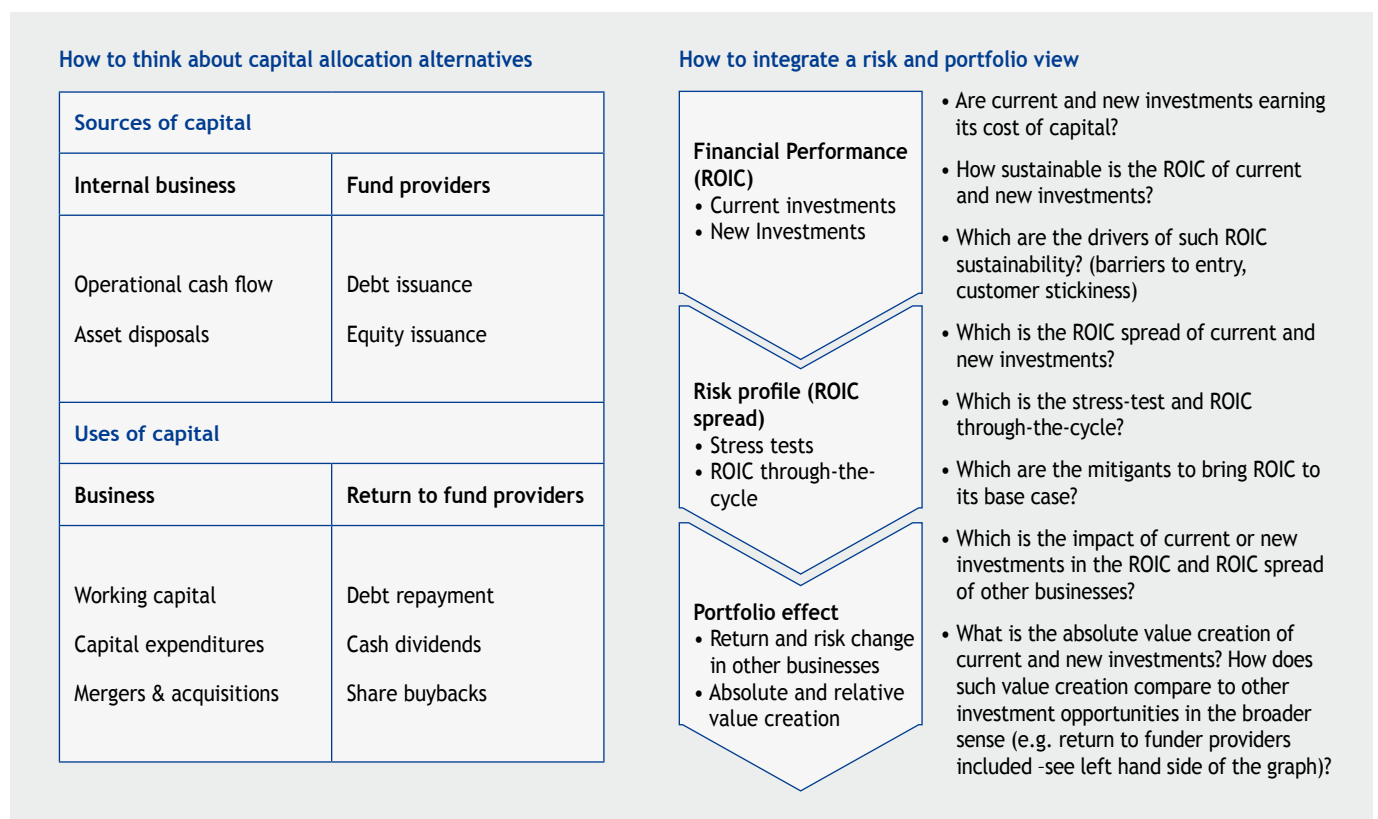
## 2. An investor-based capital allocation framework

In private equity, and value-based asset management in general, a capital allocation framework is built to provide clear answers around two questions (figure 3):

1. how attractive are current investments?, that is, do current investments generate a return over their cost of capital, equity and debt?; this question focuses around the so-called “Assets-in-Place”;
2. how attractive are potential new investments?, that is, are potential new investments expected to generate a return over their cost of capital?; this question focuses around the so-called “Growth Assets”, always with risk-adjusted returns and cost of capital.

The first question is mostly related to the management abilities of the CEO and his team, but the second question, where to put capital to work, is more related to an investor-based understanding of the capital alternatives and their opportunity cost of capital. Briefly, (i) the uses of capital can be to invest in the business (capital expenditures, working capital or

Figure 3  
A capital allocation framework: alternatives and process



Source: Author.

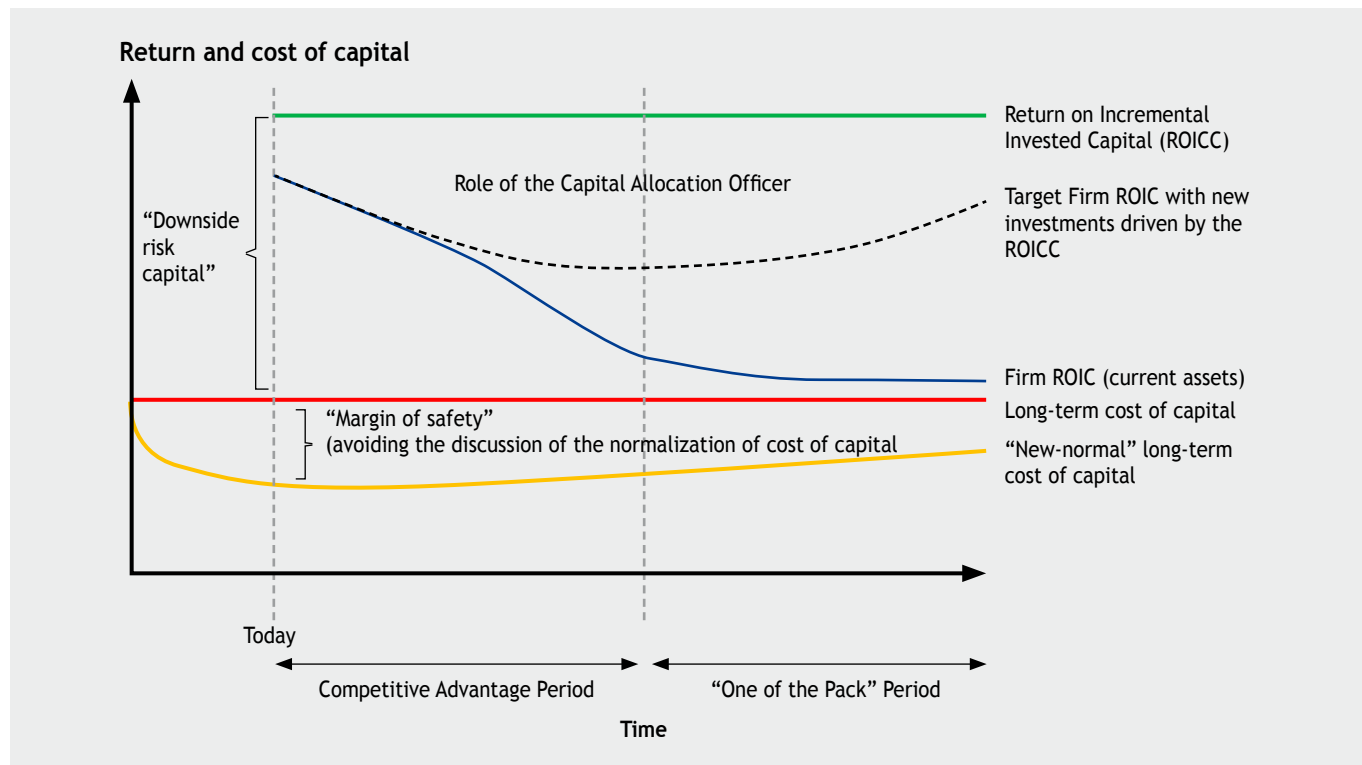
mergers and acquisitions) or return of such capital to fund providers (either shareholders, as cash dividends or share buybacks, or debt providers) and (ii) the sources of capital can be generated from the business, either operational cash flow or asset disposals, or from fund providers, debt or equity.

The excellent capital allocators do not analyze each source and use in isolation but holistically, comparing cost of capital of each source alternative with the return of capital of each use alternative, always risk-adjusted, and considering the synergies derived from the portfolio effect in risk and returns (Thorndike, 2012). It is clear that that task is very different than that of managing the day-to-day of a business.

The role of the Capital Allocation Officer is to ensure that new capital is deployed in such a way that the firm value spread (return on capital – cost of capital) is increasingly above the long-term cost of capital of the firm (figure 4). Industry rivalry makes the firm ROIC to converge towards the firm long-term cost of capital after a certain period of competitive advantage, and it is the Return on Incremental Invested Capital (ROICC) deployed the one that needs to be substantially above the firm long-term cost of capital, so that the target firm ROIC increases. Both returns and costs are expectations, and therefore have a probability distribution, that is why it is important that, the threshold ROICC considers a buffer for cases of lower operating profits or additional capital for the same profits (the so-called “downside risk capital”), and that management considers the long-term cost of capital vs. the so-called “new-normal” lower long-term cost of capital.

Figure 4

#### Value creation sustainability: the role of the Return on Incremental Invested Capital



Source: Author.

Less than 5 out of 100 CEOs of the HBR best-performing ranking mention “return on capital” on their official biography, and in particular none of CEOs whose companies are in the DJIA or EuroStoxx 50 mention it

### 3. The capital allocation framework in practice

A \$500 million revenue firm with a 25% margin, that depreciates its fixed assets in 20 years, that grows its profit at 5%, with an invested capital of \$1.100m (\$1.000m in fixed assets, \$100m in working capital that remains constant at 20% of its revenues), and a cost of capital of 8%, has a firm value of \$1.137,5m and 8% ROIC (figure 5). It is clear that the CEO needs to manage current operations but also needs to decide how to allocate the excess cash that the business generates from its operations (or from the funds generated from divestitures, or raised from external providers) to invest it into (1) current business operations, (2) business growth or distribute it (3) to shareholders.

Figure 5  
ROIC as the valuation driver: base case

| P&L and Cash Flow                                                                                                                                                | \$m     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Sales                                                                                                                                                            | 500     |
| Margin                                                                                                                                                           | 25%     |
| EBIT                                                                                                                                                             | 125     |
| Taxes @ 30%                                                                                                                                                      | 37,5    |
| EBIAT                                                                                                                                                            | 87,5    |
| Depreciation @ 5% fixed assets                                                                                                                                   | 50      |
| Free Cash Flow from Operations                                                                                                                                   | 137,5   |
| Increase in working capital @20% of sales and growing at 5%                                                                                                      | 5       |
| Capex @ 5% of fixed assets                                                                                                                                       | 50      |
| Free Cash Flow                                                                                                                                                   | 82,5    |
| Firm Value: $EBIAT_{t+1} (1-g/r) / WACC-G$ of which the growth rate of EBIAT (g) is 5%, the ROIC of new investments ® is 8% and the cost of capital (WACC) is 8% | 1.137,5 |

| Invested Capital and ROIC | \$m   |
|---------------------------|-------|
| Fixed Assets              | 1.000 |
| Working Capital           | 100   |
| Invested Capital          | 1.100 |
| ROIC                      | 8%    |

Source: Author.

Figure 6 shows the value impact of the different capital allocation alternatives in firm value:

- To current business operations: an allocation to business operations with a 20% negative deviation versus the base case in capex during 5 years would destroy 8% of firm value. The amount of capex invested over this 5 years would have been a significant 26% of the firm value, decreasing firm ROIC to 7.6%.
- To business growth:
  - Organic growth: were 50% of the free cash flow invested organically over 5 years at a minus 5% ROIC, 7% of firm value would have been destroyed, having invested 18% of the firm value.

**A McKinsey Research shows over a 20-year period that those companies that shifted more than 56% of their capital across business units –the aggressive allocators– delivered 30% higher return to shareholders**

- Growth through mergers and acquisitions. A target company with a size of 20% of the buyer's EBITDA acquired at a 30% premium versus buyer's fundamental value and a 6% post-acquisition ROIC would destroy 9% of firm value, having invested 26% of the firm value.
- To shareholders: were free cash flow not distributed to equity holders over 5 years and remain "invested" in the firm at 0%, that amount would represent 36% of firm value and would imply a value destruction of 8% of firm value.

Figure 6  
**Value impact of capital allocation alternatives**

|                                                         | Revised case/sensitivity                                                                            | New ROIC | % invested over firm value | Value destruction (%) |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------|----------------------------|-----------------------|
| <b>Capital Allocation - Current Business Operations</b> |                                                                                                     |          |                            |                       |
| Capex                                                   | 20% over 5 years                                                                                    | 7.6%     | 26%                        | -8%                   |
| Working capital                                         | 20% increase in working capital as a % of revenues                                                  | 7.8%     | 3%                         | -3%                   |
| <b>Capital Allocation - Business Growth</b>             |                                                                                                     |          |                            |                       |
| Organic growth                                          | 50% of FCF invested over 5 years at a -5% ROIC                                                      | 5.9%     | 18%                        | -7%                   |
| M&A                                                     | 30% premium of a co. With 20% of EBITDA of base case with a post-acquisition ROIC of 6% vs. 8% WACC | 7.5%     | 26%                        | -9%                   |
| <b>Capital Allocation - To Shareholders</b>             |                                                                                                     |          |                            |                       |
| Dividends (or buybacks at fundamental value)            | FCF not distributed as dividends over 5 years and invest at a 0% ROIC                               | 5.8%     | 36%                        | -8%                   |

Source: Author.

It is not very difficult to think of corporations that (i) retain cash at the firm and that is not invested over long-periods of time, that (ii) invest in capital expenditures with cost overruns (e.g. UMTS licences in the telecom industry), that (iii) decide to grow in products or geographies that generate a risk-adjusted ROIC below firm CoE and that (iv) ultimately overpay in acquisitions whose synergies do not materialize to sustain firm ROIC above firm CoE. That cumulative set of capital allocation decision-making errors may add to material value destruction (35% of firm value in 5 years as per figure 6).

#### 4. The CEO and board thinking as an investor

A recent study by Graham, Harvey and Puri (2014) from Duke University analyzes among 1,000 CEOs and CFOs around the world the degree to which executives delegate financial decisions and the circumstances that drive variation in the delegation. Such delegation varies across corporate policies and the personal characteristics of the CEO. They found that CEOs delegate more, the more informational input need from inside the firm. The research shows that more delegation happens in capital allocation and investment vs. capital structure and

Figure 7  
A CEO and board assessment on capital allocation

|                                                                       | 1. Green                                                                                                                                                                                                                                 | 2. Yellow                                                                                                                                                                          | 3. Red                                                                                                                           |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>1. Historical track-record on capital allocation</b>               |                                                                                                                                                                                                                                          |                                                                                                                                                                                    |                                                                                                                                  |
| <b>a. Investment in the business</b>                                  | The Firm has earned its cost of capital on the incremental invested capital of capex, M&A and working capital.                                                                                                                           | It is difficult to conclude that the Firm has invested with returns above its cost of capital. Firm does not discuss its long-term value creation approach or investment failures. | The Firm has destroyed value in most of its investments over the past 5 years.                                                   |
| <b>b. Investments back to claim holders</b>                           | The Firm has returned cash to its shareholders (either dividends or selective share repurchases) and debt providers when new investment opportunities do not allow to recover their cost of capital with a margin of safety included.    | The Firm consistently returns a pre-determined capital amount to its claimholders.                                                                                                 | The Firm capital back to claimholders is not linked to its investment opportunities.                                             |
| <b>c. Alignment to build value per share</b>                          | Capital is allocated based on the economic value of each investment, adjusting for risk and portfolio synergy value. Long-term value per share is explicitly discussed.                                                                  | Capital is allocated based on its economic value with no discussion of the differences in risk or synergy contribution.                                                            | Capital is allocated based on history and on the reference company ROIC. Limited information is provided to the board.           |
| <b>2. Management and governance of the capital allocation process</b> |                                                                                                                                                                                                                                          |                                                                                                                                                                                    |                                                                                                                                  |
| <b>a. Decision maker</b>                                              | CEO drives the capital allocation process across the Firm, understanding the alternatives in analytical ways.                                                                                                                            | CEO is the ultimate decision maker but delegates the task in a senior management member. CEO only gets involved analytically on M&A investments.                                   | A senior management member is responsible for the capital allocation, whose analysis are mostly delegated to each business unit. |
| <b>b. Process</b>                                                     | Board is provided with a capital allocation dossier for each major investment opportunity and is an annual monographic topic (including the “post-mortem” discussion on failed investments). Zero-based capital allocation is performed. | Firm thinks on capital allocation on an incremental basis, considering the previous year capital allocation as the starting point for the next year.                               | Capital allocation is considered within the inertia of the annual budgeting process.                                             |
| <b>c. Incentives</b>                                                  | Senior management is compensated by long-term value creation per share vs. a peer benchmark. BU management is compensated by ROIC and profitable growth.                                                                                 | Compensation is not only linked to long-term value creation per share, ROIC and profitable growth, but also to size and market index, with weights are not clearly discussed.      | Compensation is linked to size or a general market or industry index.                                                            |
| <b>3. Current performance on ROIC and capital allocation</b>          |                                                                                                                                                                                                                                          |                                                                                                                                                                                    |                                                                                                                                  |
| <b>a. Current ROIC</b>                                                | Firms generates a ROIC well above its risk-adjusted long-term cost of capital (+5%) and Firm ROIC is at least 2% above its long-term cost of capital.                                                                                    | Firm ROIC is below the risk-adjusted long-term cost of capital but ROIC is well above (2%).                                                                                        | ROIC and Firm ROIC is well below (2% at least) the risk-adjusted long-term cost of capital.                                      |
| <b>b. Granularity of ROIC drivers</b>                                 | CEO and Board understand ROIC and ROIC drivers and sustainability of returns is explicitly discussed.                                                                                                                                    | ROIC and ROIC trees are performed but not discussed by senior management.                                                                                                          | Capital allocation is driven by the returns generated on excess cash balances.                                                   |
| <b>c. Risk-return capital allocation</b>                              | Well-supported conservative base-case ROIC, incorporating “downside and stress capital” scenarios. ROIC “through-the-cycle” is compared to the long-term cost of capital (unless for financially constrained firms).                     | Quantitative analysis across scenarios is run without senior management involvement.                                                                                               | Aggressive base-case ROIC and ROIC are run by middle management, with qualitative risks outlined.                                |

Source: Author.

**A material difference of corporations versus private equity investors, capital is allocated based on “gut feel” and personal reputation, with corporate politics and corporate socialism affecting capital allocation in European and Asian firms**

payout, with M&A being the least delegated corporate decision as CEOs think they have a great informational advantage. Also, and not surprisingly, CEOs delegate capital allocation when they are overloaded, distracted by recent acquisitions and are less knowledgeable. Furthermore, and a material difference versus private equity investors, capital is allocated based on “gut feel” and personal reputation, with corporate politics and corporate socialism affecting capital allocation in European and Asian firms. It is clear that there are firm value creation opportunities for those CEOs that increasingly think as an investor.

To ensure that CEOs, and boards, think as investors it is useful to test current capital allocation versus a capital allocation scorecard covering three capital allocation performance vectors (figure 7):

- Historical track-record on capital allocation to monitor the degree of value creation on capital invested (current business, growth and M&A) and capital return to fund holders (equity and debt) and the criteria used for such allocation.
- Management and governance of the capital allocation process, that is, who gets involved and decides, the type of capital allocation framework used, and the alignment of the decision maker towards value creation on such allocation process.
- Current performance on ROIC and capital allocation, that is, whether the firm currently creates value, both at firm level and on its incremental investments. It is also needed a granular understanding of both the ROIC and ROICC drivers and a risk view on capital allocation, considering risk adjusted returns through-the-cycle and long-term cost of capital.

## 5. Conclusion

Since 1999 and until 2009, S&P 500 corporations spent more than \$3.9 trillion on capital expenditures and were either the acquirer and/or the target in \$13.6 trillion of M&A deals. Bottom quartile companies realized an average ROIC of 6.7% over such decade, while top quartile companies made an average ROIC of 16.7%. With over 50% of the firm market cap deployed over a 3 to 5 year period, capital allocation decisions have a large and long-term impact on the value of corporations and of the country, and society in general. However, top management focus (less than 5 out of 100 CEOs of the HBR Best Performing Ranking mention “return on capital” on their official biography) and skill is somewhat limited, at least, if compared with value investors.

A capital allocation framework used by value investors is discussed to help CEOs and Boards to establish a systematic structure of analyzing and deciding on firm capital allocation. The role of the Return on Incremental Invested Capital (ROICC) is covered to understand the ROIC sustainability at firm level. A structured method to capital allocation will not be enough if it is not complemented by an investor-based capital allocation mindset from top management and capital allocation oversight by the board of directors. A capital allocation scorecard ensures that such capital allocation culture is embedded within the organization and controlled by the board.

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