Corporate Scandals of the 21st Century: limitations of mainstream corporate governance literature and the need for a new behavioral approach

Alexandre Di Miceli da Silveira*
School of Economics, Management and Accounting, University of São Paulo

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* Associate Professor of Corporate Governance at the School of Economics, Management and Accounting of the University of São Paulo (FEA/USP). Tel: (+55) 11 99342-5459. E-mail: alexfca@usp.br.

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Abstract
I provide a critique of mainstream corporate governance literature based on agency theory as a conceptual solution in order to endure de facto well governed companies worldwide. This critique is based on an analysis of common causes associated with 23 high profile corporate scandals from the 21st century. It is also based on the limitations associated with the *homo economicus* premise behind agency theory, which ignores psychological issues associated with the human factor inside organizations. As a result, I argue that a new behavioral approach to corporate governance shall emerge in order to reduce the emergence of corporate scandals in the future. This new view should be based on three main components: 1) the systematic focus on the mitigation of cognitive biases in managerial decisions; 2) the continuous fostering of employee and executive awareness towards the promotion of unselfish long-term oriented cooperative behaviors; and, 3) the reduction of the likelihood of frauds and other dishonest acts through new corporate strategies developed after a deeper understanding of their psychological motivations. By combining the traditional approach to corporate governance based on incentive and controls with a new behavioral approach focusing on the human factor, corporate stakeholders may expect to end up with truly well-governed companies.

**Key-Words:** corporate scandals, corporate governance, behavioral corporate governance, *homo economicus* concept, agency theory critique, case study.

**JEL Classification Codes:** G30, G34, G02, M19.
1. Introduction

“We continue to be committed to industry best practices with respect to corporate governance. Our Board of Directors consists of ten members. With the exception of our CEO, all of our directors are independent. The audit, nominating and corporate governance, finance and risk, and compensation and benefits committees are exclusively composed of independent directors. The Audit Committee includes a financial expert as defined in the SEC’s rules. The board holds regularly scheduled executive sessions in which non-management directors meet independently of management. The board and all its committees each conduct a self-evaluation at least annually. Last year, overall director attendance at board and committee meetings was 96%. We have an orientation program for new directors. Our corporate governance guidelines also contemplate continuing director education arranged by the company. Our Code of Ethics is published in our website. We have designed our internal control environment to put appropriate risk mitigants in place. We have a global head of risk management and a global risk management division which is independent. The company’s management assessed the effectiveness of our internal controls. Based on our assessment, we believe that the company’s internal controls are effective over financial reporting. These controls have also been considered effective by the independent auditors. We also sponsor several share-based employee incentive plans.”

The text above was extracted from the annual report of a company that probably would be very well assessed by market agents regarding its corporate governance practices. It is actually, though, an extract of Lehman Brothers Annual Report 2007, the U.S. investment bank that collapsed just a few months after the release of this document.

Like so many other similar cases, Lehman’s case illustrates how companies that apparently were role models in their top management practices collapsed due to different reasons such as wrong business decisions, risk management problems or frauds.

The number of corporate scandals¹ associated with corporate governance problems in the first decade of this century is extensive. Wikipedia website, for instance, provides a list of more than 75 corporate scandals throughout this period.² Their economic relevance is enormous. Table 1 below lists 23 selected high profile corporate scandals that, together, have destroyed an estimated US$750 billion of their shareholders’ equity.

[Table 1 here]

The economic impact of the scandals portrayed in Table 1 on other stakeholders – such as employees, communities, clients, suppliers, etc. – and on society as a whole was indeed much

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¹ A corporate scandal is assumed as a set of questionable, unethical, and/or illegal actions that a person or persons within a corporation engage in. Source: BusinessDictionary.com
larger. These scandals have come from companies worldwide, including large emerging countries such as Brazil and India and developed economies such as the U.S., Germany and Japan. Although there has been a first wave of corporate scandals in the 2001-2003 period epitomized by Enron and Parmalat in the U.S. and Europe, respectively, the lessons from these cases do not seem to be fully understood, since the list has continued to grow, especially after the emergence of the global financial crisis in 2007-2008.

Since the number of corporate scandals associated with corporate governance problems continues to be relevant worldwide, I focus on the following question in this paper: Why do we still see so much value destruction in the business world due to corporate governance failures after years of debate and, in theory, learning about this subject? I initially argue that governance scandals are the direct outcome of a common set of fourteen interrelated factors detailed ahead such as: excessive concentration of power, ineffective board of directors, passivity of investors, failure of gatekeepers, poor regulation, lack of the right ethical tone at the top, etc.

My central point in this paper, nevertheless, is to argue that the root of the problem lies in the way the corporate governance concept has been internalized by most of the companies, investors and academics worldwide. Based on the work of orthodox economists (Jensen and Meckling, 1976; Fama and Jensen, 1983), corporate governance has been widely grounded on the agency theory perspective, which is basically concerned with creating ways to motivate one party (the “agent”), to act on behalf of another (the “principal”). As a result, the good governance of a business, a very complex subject, has been reduced to a mere set of incentive and control mechanisms in order to induce agents (managers) to make decisions in the best interests of their principals (shareholders).

The limitation of the debate to the theoretical framework of agency theory has at least two fundamental problems. First, the dissemination of corporate governance as a mere set of rewards and punishment mechanisms to be implemented in order to induce behaviors has left business leaders free to treat this complex and intrinsically human subject as a mere checklist of recommended practices to be fulfilled in order to be well perceived by the outside stakeholders. The Lehman Brothers’ case is just one among several similar scandals in which there was a discrepancy between the essence of good governance – companies where decisions are made in their best long-term interest and in which people comply with the rules – and the way the governance practices were shown externally.

Second, agency theory – formulated almost forty years ago – is based on the homo economicus premise, a concept that has been proved to be a very limited portrait of the
human nature by numerous recent researches (presented ahead) in different fields such as sociology, psychology, neuroscience, behavioral economics, etc.

Specifically, these studies have consistently shown that people are not rational, exclusively selfish, nor interested in breaking rules depending on its relative economic benefits as predicted by the *homo economicus* concept. Since this accumulated knowledge in other fields cannot be ignored, a rethink of the corporate governance concept is needed in light of these works.

As a result, I argue that a new behavioral approach to corporate governance focusing on the psychological aspects of human beings inside organizations shall emerge. This new approach should be based in at least three main components ignored by agency theory: 1) the systematic focus on the mitigation of cognitive biases in managerial decisions; 2) the continuous fostering of employee and executives awareness towards the promotion of unselfish cooperative behaviors; and, 3) the reduction of the likelihood of frauds and other dishonest acts through new corporate strategies developed after a deeper understanding of their psychological motivations.

This new approach does not dismiss, though, the importance of incentive and control mechanisms recommended by the agency theory. Such mechanisms remain relevant, but should not be seen as sufficient for well-governed companies. The expansion of the corporate governance literature beyond agency theory towards a behavioral approach should be seen as something crucial to ultimately reduce the emergence of new corporate scandals in the coming years.

This paper relates with different fields of knowledge that provide complementary theoretical frameworks to agency theory, such as the literatures of trust in organizations (Noreen, 1988; Mayer et al. 1995; Schoorman et al., 1996; Bower et al., 1997; De Dreu et al., 1998; Zaheer et al., 1998; Becerra and Gupta, 1999 and 2003; Sundaramurthy and Lewis, 2003; Cadwell and Karri, 2005), stewardship theory (Donaldson and Davis, 1991; Davis et al., 1997; Arthurs and Busenitz, 2003; Hernandez, 2012), and intrinsic motivation (Deci and Ryan, 1985; Frey and Jegen, 2001; Fehr and Falk, 2002; Kolev et al. 2012). Trust literature criticizes agency theory’s pessimistic assumptions about the human behavior pointing out that this approach precludes trust and cooperation, crucial elements for successful organizations. It argues that corporate agents may show an attitude of trust and cooperation depending on contextual and personal factors, therefore not always behaving selfishly. Overall, this literature considers trust as an efficient mechanism to maximize the principal’s utility. Stewardship theory views executives as “stewards” of the organization who are motivated to act responsibly based on
an assumption of trust. It considers that managers obtain greater utility when developing a collaborative approach rather than when behaving selfishly, especially when they identify with organizational values and goals. The literature on motivation points out that non-pecuniary motives shape human behavior, including intrinsic pleasure arising from work, the desire to obtain social approval and the sense of reciprocation. It also contends that extrinsic rewards such as those emphasized by agency theory may indeed undermine the role of intrinsic rewards on motivation and increase agent’s opportunistic behavior.

This paper also fits in an emerging line of research that criticizes agency theory’s simplistic and inflexible assumptions about human behavior and the narrowness of its predictive validity (Tirole, 2002; Charreaux, 2005; Van Ees et al., 2009; Cuevas-Rodríguez et al., 2012; Martin et al., 2012; Wiseman et al., 2012). Overall, these works call for new approaches toward corporate governance by widening the agency concept through a behavioral perspective. I believe that this paper contributes to these literatures by prescribing three specific areas of concentration for the emergent behavioral approach to corporate governance based on an analysis of corporate scandals from earlier 21st century as well as on the fragilities of the *homo economicus* premise evidenced by recent numerous works.

The paper is organized as follows. In section 2, I list the common factors explicitly associated with governance scandals from the first decade of the 21st century. In section 3, I develop my argument that the root of the problem lies in the *homo economicus* premise behind the mainstream approach to corporate governance. I do so by presenting evidence from recent researches in different fields that people: i) do not make rational decisions; ii) tend to behave cooperatively instead of acting in a purely selfish way depending on the social context; and, iii) behave dishonestly motivated primarily by psychological factors instead of applicable penalties and the probability of being caught. As a result of this critique, I argue in Section 4 that the conceptual solution for the limitations of agency theory is the emergence of a behavioral approach to corporate governance focusing on psychological factors associated with people inside corporations. Section 5 then provides some concluding remarks.

2. **Explicit reasons for corporate scandals from the first decade of the 21st century:**

   **Interrelated common factors**

   The 23 selected corporate scandals presented in Table 1 have quite heterogeneous natures. Some involved fraud, while others were the outcome of risk management failures or of bad – but not necessarily illegal – top level decisions. Analyzed on an aggregate basis, they raise important red flags and provide valuable lessons.
After examining eight cases from the first wave of corporate scandals, Hamilton and Micklethwait (2006) conclude that they were caused by six main causes: 1) poor strategic decisions; 2) over-expansion and ill-judged acquisitions; 3) dominant CEOs; 4) greed, hubris and a desire for power; 5) failure of internal controls; and, 6) ineffective boards.

Coffee Jr. (2005, 2006) lists the “gatekeeper failure” – the reliance on reputational intermediaries such as auditors, stock analysts, credit rating agencies, and other professionals who pledge their reputational capital to vouch for information that investors cannot easily verify – as another reason for the emergence of corporate scandals. He also argues that inadequate compensation systems allowed earnings management in several companies, being a relevant factor for the scandals in companies with dispersed ownership structures such as those prevalent in the Anglo-Saxon countries.

More recently, the OECD concluded that corporate governance failures at financial institutions that collapsed in the 2007-2009 period have occurred due to four main causes: 1) inadequate incentive systems; 2) deficient risk management practices; 3) poor board practices; and, 4) the tendency for shareholders – especially institutional investors – to act reactively rather than proactively.

Building upon these works, I propose an expanded framework with fourteen interrelated common causes associated with the corporate scandals presented in Table 1.

[Chart 1 here]

According to the conceptual model presented in Chart 1, common causes associated with corporate governance scandals can be divided into three groups: fundamental causes, those lying at the root of the problems; immediate causes, those leading directly to the emergence of the scandals; and, mediating causes, intervening factors by which fundamental causes generate immediate ones.

1. Fundamental causes: those lying at the root of the problems by involving the company’s leadership structure and its external monitoring. Five stand out: excessive concentration of power; ineffective board of directors; passivity of investors; failure of gatekeepers; and, poor regulation.

2. Immediate causes: those leading directly to the emergence of the scandals as a consequence of fundamental or mediating causes. Five can be pointed out: overexpansion of the business; biased strategic decisions; inflated financial statement; weak internal controls; and, inadequate compensation systems.
3. Mediating causes: intervening factors by which fundamental causes generate immediate causes. Four main mediating causes can be listed: the illusion of success of the business, an internal atmosphere of greed and arrogance, the lack of the right ethical tone at the top and, corporate governance seen as a marketing tool.

Table 2 details the rationale for these fourteen common causes lying behind recent corporate failures.

[Table 2 here]

In Table 3, I provide a qualitative analysis of each corporate scandal presented in Table 1 vis-à-vis common factors associated with them, aiming to understand the specific relevance of each factor for the selected cases.

[Table 3 here]

In spite of the limitations of this preliminary aggregate analysis, such as its admittedly subjectivity, Table 3 suggests interesting qualitative interpretations. First, five main factors seem to stand out among the possible reasons for corporate misdeeds in the first decade of the 21st century: excessive concentration of power, ineffective boards, lack of the right ethical tone at the top; biased strategic decisions, and weak internal controls.

Second, since there was an initial wave of scandals in the 2001-2003 period and a second one during the emergence of the global financial crisis in 2007-2008, I divide the scandals in two groups: those taking place in the first half of the decade (2001-2005) and those taking place in the second half (2006-2010). The comparison of the common causes associated with scandals from each group indicates that two factors appear to have increased in relevance for the emergence of scandals from the second half of the decade: 1) poor regulation; and, 2) corporate governance seen as a marketing tool.
3. **The root of the problem: the mainstream approach to corporate governance based on the *homo economicus* concept**

   “Il faut tout attendre et tout craindre du temps et des hommes”  
   Luc de Clapiers, Marquis De Vauvenargues  
   Réflexions et maximes, 102 (1746)

Although governance scandals are the explicit outcome of a set of interrelated factors, the root of the problem of business value destruction related with corporate governance failures may lie in how the theme has been internalized by companies, investors and academics worldwide.

Based on the work of mainstream economists (Jensen and Meckling, 1976; Fama and Jensen, 1983; Shleifer and Vishny, 1997; La Porta et al., 1998), corporate governance literature has been widely grounded on agency theory, which is basically concerned in creating the most efficient contract to align the interests of one party (the “agent”) with those of another (the “principal”) in situations where the principal concedes authority to the agent to act on her name.\(^3\)

As a result, the good governance of a business, a very complex subject, has been reduced to the implementation of an appropriate set of incentive tools (e.g. stock-based compensation, periodic performance evaluations, etc.) and controls (e.g. independent boards, risk management divisions, compliance programs, internal controls, internal and external audits, etc.) in order to align interests and reduce agency costs.

This approach – deriving from the limited view of the “carrot and stick” that forms the basis of mainstream economics – has left business leaders free to treat this intrinsically human theme as a set of checklists to be fulfilled in a technical way, sometimes totally disconnected from the company’s daily management.

Agency theory is based on the usual premise of neoclassical economic models that agents act like *homo economicus*. This concept, originally coined by critics of John Stuart Mill’s work (1836) on political economy (Persky; 1995)\(^4\), assumes that human beings always:

1. Make perfectly rational decisions;\(^5\)
2. Think exclusively in maximizing their own personal economic gains\(^6\); and,  

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\(^3\) The principal-agent relationship also involves an information asymmetry in favor of the agent, such that the principal cannot directly ensure that the agent always act in her best interest.

\(^4\) According to Persky (1995, p. 222), John Stuart Mill never actually used this designation in his own writings. The term emerged in reaction to Mill’s work and initially carried a pejorative connotation reflecting the widespread hostility of the historical school towards his postulation of blatant selfishness.

\(^5\) Rationality is defined in the sense that the personal “utility function” is optimized by individuals who seek to attain maximum predetermined goals with minimum possible cost.
3. Are interested in breaking the rules if the applicable penalty multiplied by the probability of being caught is lower than the expected benefit of a dishonest act\(^7\).

The reduction of people within corporations acting as agents to the concept of *homo economicus* – an archetype initially applied to economic models created to explain the trading of goods and services in anonymous markets and later indiscriminately extended to other fields – ends up in a very limited and often inaccurate assumption about human behavior. Hundreds of recent studies in sociology, psychology, neuroscience, behavioral economics, etc. have provided mounting evidence that human behavior is far more complex, depending on psychological, social and biological interactions.\(^8\) Even Jensen (1994a, 1994b), one of the first authors to bridge agency theory with corporate governance, has later acknowledged the inappropriateness of the economic model of human behavior,\(^9\) although he has not corrected the premises underlying his 1976 seminal work in light of such review.\(^10\)

These three premises behind mainstream corporate governance based upon the *homo economics* concept bring with them three respective fundamental problems detailed in the following subsections.

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\(^6\) Economists tend to argue that they employ the concept of utility instead of economic benefits and that this concept can even include altruistic behavior if defined appropriately. In practice, though, theoretical models usually end up reducing the concept of “utility” into the maximization of economic gains for the decision maker, invalidating this potential defense of the *homo economicus* approach.

\(^7\) This prediction is largely based on the classical work of Nobel Prize winner Gary Becker (1968).

\(^8\) This critique is admittedly not new even in the economics field. Thaler (2000) is one of the earlier critics of the exclusive premise of *homo economicus* embedded in economic models. At the time of his paper, he already emphasized that it was time for *homo economicus* to evolve into *homo sapiens*.

\(^9\) Jensen and Meckling (1994a) compare five models of human behavior, including the economic (or money maximizing) one. They argue (p. 15) that “The economic model is, of course, not very interesting as a model behavior. People do not behave this way. In most cases use of this model reflects economists’ desire for simplicity in modeling; the exclusive pursuit of wealth or money income is easier to model than the complexity of actual preferences of individuals”. They conclude that a so-called Resourceful, Evaluative, Maximizing Model (REMM) – a model that (p. 33) “takes the assumptions from the economic model that people are resourceful, self-interested, maximizer, but rejects the notion that they are interested in only money income or wealth” – is the best one to predict human behavior. Following a critic by Brennan (1994) on the premises of rational behavior and exclusive focus on incentives behind his models, Jensen (1994b) relaxes his premises on strict rationality by proposing a so-called Pain Avoidance Model (PAM) that complements REMM by capturing the non-rational component of human behavior. Although he recognizes that these self-control problems should lead to an expansion of agency theory – since they are a second source of agency costs in addition to those generated by conflicts of interests – he does not subsequently revises his 1976 seminal work based on this finding. In his Jensen’s own words (1994b, p. 12): “Constrained at the time by our economists’ view of rationality, Meckling and I discussed only one source of agency costs, which emanates from the conflicts of interest between people. There is clearly a second major source of agency costs, the costs incurred as a result of the self-control problems – that is the actions that people take that harm themselves as well as those around them – what Thaler and Shefrin (1981) years ago characterized as agency problems with one’s self”.

\(^10\) According to Jensen and Meckling (1976, p. 307), “We retain the notion of maximizing behavior on the part of all individuals in the analysis to follow”.
3.1. First problem of mainstream corporate governance based on the *homo economicus* concept: people do not make rational decisions

Firstly, we are subject to multiple cognitive biases, that is, deviations in judgment patterns taking place in particular situations leading us to distorted interpretations of reality, illogical interpretation, and, consequently, to irrational decisions. This well established body of research has been initiated by Kahneman and Tversky (1974, 1979), growing exponentially afterwards (Angner and Loewenstein, 2007; Thaler, 2000; Kahneman, 2011). Nowadays, more than 100 cognitive biases have been identified from researches in cognitive science, social psychology, and behavioral economics. Table 4 below exemplifies some of the main individual and collective cognitive biases, including their potential impacts for the corporate governance debate.

[Table 4 here]

Among the cognitive biases presented in Table 4, take the example of the interrelated biases of optimism and overconfidence. People who are overconfident tend to underestimate risks due to an “illusion of control” over the outcomes of their initiatives, while optimists tend to overestimate the future outlook of their outcomes in what is called the “better than average” effect. As a result, even technically qualified executives with interests aligned with those of their shareholders can make disastrous business decisions due to the pronounced presence of these biases.

There is already some evidence of this in the literature. Malmendier and Tate (2004) observe that companies with overconfident CEOs tend to undertake mergers that destroy value. Ben-David et al. (2007) find that companies with overconfident CFOs apply lower discount rates to value cash flows, use more debt, and are less likely to pay dividends. Barros and Silveira (2008) observe that companies run by more optimistic individuals tend to choose more levered financing structures, ending up more indebted. Schrand and Zechman (2011) find that overconfident executives are more likely to initially overstate earnings which start them on the path to growing intentional misstatements or frauds.

These studies illustrate how just one of the several cognitive biases that possibly affect top level managers – overconfidence – may impact relevant corporate decision making. Therefore, the presence of counterbalances such as independent third-party reviews and the

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implementation of alternative decision making techniques could be useful by mitigating the impact of cognitive biases such as overconfidence and optimism on company decisions. Cognitive biases, however, are not part of the traditional view of corporate governance exclusively concerned with the establishment incentive and control mechanisms.

3.2. Second problem of mainstream corporate governance based on the *homo economicus* concept: people tend to behave cooperatively instead of acting in a purely selfish way

Second, unlike the relentless search for the best personal economic outcome predicted by the *homo economicus* premise, an increasingly growing body of literature (Henrich et al. 2001; McCabe et al. 2001; Rilling et al., 2002; Gintis et al., 2003; Decety et al. 2004; Kosfeld et al. 2005; Singer and Frith, 2005; Katja et al. 2007; List and Cherry, 2008; Akitsuki and Decety, 2009; Krupka and Weber, 2009) summarized in Stout (2011) is showing that people may have a tendency to act in a cooperative and unselfish way, acting in the best interest of the groups to which they belong. In short, these papers, most of them based on experiments, provide systematic evidence of altruistic behaviors fleeing from the orthodox economic view.

Take for instance three experiments that defy the view that people tend to behave like rational economic maximizing individuals: the “trust game”, the “ultimatum game”, and the “dictator game”.

In the “trust game” (Berg et al., 1995; Croson and Buchan, 1999; Anderhub et al. 2002; McCabe et al. 2001; McCabe et al. 2003; Delgado et al., 2005; Cesarini et al. 2008), two players (unknown to each other) are placed in two separate rooms. Player A (the trustor) receives a sum of money (e.g. $20) and decides how much of it she will send to player B (the trustee). Player A may decide to send nothing to B, leaving the experiment by keeping all the cash. If A decides to send something to B, this amount is then tripled. After receiving the tripled sum sent by A, individual B then has the opportunity to return some money to A or simply to keep it. *Homo economicus* would give nothing on both occasions, acting either as player A or B. However, different researches (Berg et al., 1995; McCabe et al. 1996, 2001, Brülhart and Usunier, 2012) observe that cooperation flourishes in this game, with the average player A cooperating with B by donating a significant share (about half) of her monetary endowment, while the majority of individuals B tend to reward A’s generosity by giving back a little more of the money initially sent by A.

In the “ultimatum game” (Güth et al. 1982; Dawes and Thaler 1985; Thaler, 1988; Camerer and Thaler, 1995; Nowak et al. 2000; Sanfey et al. 2003; Oosterbeek et al. 2004; Koenigs,
two players (also unknown to each other) interact the division of a monetary endowment. Player A proposes how to divide the sum between the two players, whereas player B can either accept or reject this proposal. If B rejects, neither player receives anything. If B accepts, then the money is split according to A's proposal. The game is played only once so that reciprocation is not an issue. If individual A is *homo economicus*, then she should always propose the minimum amount for B and the maximum for herself (e.g. $1 for B and $49 for herself). If B, in her turn, is *homo economicus*, then she would always accept any amount proposed by A (since rationally anything is better than nothing). However, different researches (Güth et al. 1982; Kahneman et al., 1986; Hoffman et al., 1996a; Oosterbeek et al. 2004) observe that, on average, people tend to offer “fair” splits (with a modal offer around 50:50), whereas offers of less than 20% are usually rejected.

The “dictator game” (Camerer and Thaler, 1995; Bolton et al. 1988; Diekmann, 2004; Henrich et al. 2004; Bardsley, 2008) is a variant of the ultimatum game. In it, player A, “the dictator” or proposer, determines a split of some monetary endowment. Player B then simply receives the remainder of the endowment left by the proposer. Player B’s role is entirely passive, with no strategic input into the outcome of the game. If individuals are only concerned with their own economic well being, dictators would allocate the entire money to themselves, giving nothing to player B. Experimental results (Kahneman et al., 1986; Forsythe et al., 1994; Hoffman et al., 1996b;) indicate that individuals often allocate money to the responders, voluntarily reducing the amount of money they receive.

The overall result of experiments such as those presented is that people frequently do not act like rational maximizers as predicted by the *homo economicus* model. On the contrary, people usually tend to show a cooperative behavior based on reciprocity and altruism. More importantly, since human behavior is flexible rather than rigid as presumed by the *homo economics* model, this tendency can be reinforced through situational factors that create the right social context in order to increase cooperation rates. Stout (2011)\(^\text{12}\) argues that unselfish prosocial (or cooperative) behavior, including voluntary compliance with legal and ethical rules, is triggered by the social context, which in turn depends on three main social variables\(^\text{13}\):

\(^\text{12}\) Stout (2011, p. 98) calls this “a three-factor approach to social context”.

\(^\text{13}\) Fostering the “activation” of people’s conscience as an important corporate governance practice has one limitation, however. About 1% to 4% of the general population is comprised of people with psychopathy disorder, unable to feel guilt or empathy for others. There are suspicions that this percentage is higher in corporate environments, especially at top hierarchical levels. As a result, cultivating conscience will not work with people subject to this disorder, an especially relevant observation for organizations headed by these psychopath individuals.
1. The instructions received by leaders, deriving from our tendency to obey authorities (Sally, 1995; Balliet, 2010);

2. The reciprocity, or beliefs about the prosocial behavior of others when facing similar circumstances, as a result of our propensity to conform and imitate the behavior of our peers (Gintis, 2000; Henrich et al. 2001; Gintis et al. 2003; López-Pérez, 2009); and,

3. The magnitude of the perceived benefits of one’s actions on others, deriving from our tendency to feel empathy (Eisenberg and Miller, 1987; Eisenberg and Fabes, 1990; Batson and Powell, 2003; Decety and Jackson, 2004; Batson, 2009).

Since rational choice models ignore the influence of these three key elements on human behavior, the traditional view of corporate governance based on incentives and controls do not contemplate the need to continuously activate and cultivate people’s consciousness in corporations in order to induce cooperative and long-term oriented behaviors.

3.3. Third problem of mainstream corporate governance based on the *homo economicus* concept: dishonest behaviors are motivated by psychological factors instead of applicable penalties and the probability of being caught

Third, another recent body of research (Bateson et al., 2006; Mazar et al., 2006, 2008; Baumeister, 2007; Gino et al., 2008; Mead et al. 2009, Gino et al. 2009, 2010, 2011; Gino and Pierce, 2010; Wiltermuth, 2010; Barnes et al., 2011; Chance et al., 2011; Gino and Ariely, 2011; Barkan et al. 2012; Shu et al., 2012) summarized in Ariely (2012) is increasingly showing that the propensity of people to act dishonestly – at the root of relevant scandals – is more dependent on psychological factors than on both the risk of being caught by breaking the rules and its applicable penalty. Overall, there is evidence that at least ten psychological factors seem to be relevant for people’s decision to incur into dishonest behavior:

1) The ability to rationalize its own dishonest acts (Mazar et al., 2006, 2008; Barkan et al. 2012): people seem to find ways to rationalize their illegal behavior while maintaining at the same time a positive self-image of themselves;

2) Distance from monetary references (Mazar et al., 2008): the propensity to dishonest acts increases with the distance of people’s decisions to a monetary explicit payoff;

3) Being mentally depleted (Baumeister, 2007; Mead et al. 2009, Barnes et al., 2011; Gino et al. 2011): mental exhaustion – due to stress, lack of sleep, etc. – increases people’s propensity to dishonesty;

4) Previous illegal or immoral acts (Gino et al. 2010): the propensity of people to dishonesty increases when they have already performed some previously illegal act,
especially if that comes with a built-in reminder (e.g. wearing counterfeits, using false titles on business card, etc.);

5) Creativity (Gino and Ariely, 2011): a creative personality facilitate individuals’ ability to justify their behavior, which, in turn, tends to increase unethical behavior;

6) Feelings of revenge (Ariely, 2012): dishonest acts are more easily justified when viewed as compensations by people who feel initially harmed by an individual or organization;

7) Being subject to sharp competition (Schwieren and Weichselbaumer, 2010): cheating activity, especially from poor performers, tend to increase under stronger competitive pressure;

8) Witnessing peers behaving dishonestly (Gino et al. 2009): exposure to unethical behavior of a in-group peer tend to increase the propensity to dishonesty;

9) Perception that our peers benefit from our actions (Gino and Pierce, 2010; Wiltermuth, 2010): the propensity to dishonesty increases when people think that such actions may benefit others for whom they have empathy;

10) Living in a culture that fosters dishonesty (Gino et al. 2009): being exposed to an unethical climate or culture tends to increase the frequency of unethical acts.

Similarly to the two previous sections, none of these psychological factors are addressed in mainstream corporate governance thinking, which departs from the premise that increased monitoring and tougher penalties are the sole elements to avoid unlawful behaviors.

4. The proposed solution for reducing the frequency of scandals: the need for a behavioral approach to corporate governance focusing on psychological factors

Since the assumptions behind the mainstream corporate governance theory do not hold, the mere implementation of incentive and control mechanisms, although relevant, will not be sufficient to ensure well governed companies. In fact, this may largely explain the collapse of companies that apparently adopted good governance practices.

The missing link in order to ensure well-governed companies over time is to focus on the human factor, that is, on the creation of corporate environments in which intrinsically motivated people want by themselves to make decisions in the best long-term interest of the company as well as follows the rules.

Table 5 below summarizes this argument by presenting a comparison between the traditional view of corporate governance and the new proposed approach based on behavioral aspects.
To do this, business leaders must unceasingly devote their time to create social contexts in their organizations that: 1) improve the managerial decision-making process by creating a system with effective checks and balances that reduce cognitive biases; 2) continuously fosters employee and executive conscience by promoting unselfish long-term oriented cooperative behaviors; and, 3) reduce the propensity to dishonest acts by creating new strategies such as enhanced internal controls based on a deeper understanding of their psychological motivations.

Probably, the hardest part of this process towards *de facto* good corporate governance will be to change the mindset of business leaders themselves. On the one hand, cases such as the Lehman Brothers debacle have shown that top executives have been indoctrinated to think exclusively in their own short-term economic outcomes without concerns about their impact on other stakeholders. On the other hand, reducing cognitive biases in organizations depends on an effective system of checks and balances, which implies a certain decentralization of power, something not necessarily welcomed by leaders who are comfortable in maintaining their *status quo* and the *modus operandi* of their decisions.

5. **Concluding remarks**

The emergence of numerous high-profile corporate scandals in the early years of the 21st century with huge impacts on societies worldwide evidence that the corporate governance debate must evolve in order to ensure *de facto* well-governed companies, that is, those in which decisions are made in their best long-term interest and in which people comply with the rules.

In this paper, I argue that the dissemination of corporate governance as a mere set of internal and control mechanisms in order to induce behaviors has led some companies to internalize this complex and intrinsically human subject as a mere check-list of recommended practices to be fulfilled in order to be well perceived by the outside stakeholders. As a result, I provide a critique of the traditional corporate governance literature based on the agency theory, since the acceptance of this approach by companies, academics and regulators worldwide as the sole relevant issue for the corporate governance debate has clearly failed to ensure well governed companies.

I argue that a new behavioral approach to corporate governance focusing on the psychological aspects of human beings inside organizations should emerge in order to benefit
from the accumulated knowledge on human behavior from other fields as well as to reduce the emergence of new scandals in the future. This new approach\textsuperscript{14} should be based in at least three main components: 1) the systematic focus on the mitigation of cognitive biases in managerial decisions; 2) the continuous fostering of employee and executives awareness towards the promotion of unselfish cooperative behaviors; and, 3) the reduction of the likelihood of frauds and other dishonest acts through new corporate strategies developed after a deeper understanding of their psychological motivations.

This new behavioral approach does not dismiss the need for the implementation of incentive and control mechanisms in organizations as prescribed by agency theory\textsuperscript{15}; it only argues that these mechanisms should not be seen as sufficient ones in order to ensure de facto well-governed companies. By combining the traditional approach to corporate governance based on incentive and controls with a new behavioral approach focusing on the human factor, stakeholders may expect to end up with truly well-governed companies.

The acceptance of this expanded approach will indeed require a broader definition of the meaning of the so-called good corporate governance, including the conception of new recommended governance practices by codes of best practices.

It is time to move beyond the limited assumption of the *homo economicus* for corporate governance. Psychological issues associated with the human factor within corporations should become the new focus of corporate governance analysis.

\textsuperscript{14} The term “behavioral corporate governance” has already been used by Charreaux (2005) and Van Ees et al. (2009). Their point of view for this term, however, is different than the one adopted in this paper.

\textsuperscript{15} In this sense, I agree with Jensen’s view (1994b, p. 14) that “even if we could instill more altruism in everyone, agency problems would not be solved... Altruism, the concern for the well-being of others, does not turn people into perfect agents who do the bidding of others”.
References


Table 1. List with major corporate scandals associated with governance problems of the first decade of the 21st Century.\footnote{Technically, the first decade of the 21st century ended on December 31, 2009. I included two scandals taking place in 2010 (BP and Olympus) due to their relevance and usefulness for the analysis proposed in this article.}

<table>
<thead>
<tr>
<th>#</th>
<th>Company</th>
<th>Country</th>
<th>Year</th>
<th>Estimated losses for shareholders\footnote{Estimated by the decrease of the company’s market capitalization right after the emergence of the scandals. All figures in US dollars.}</th>
<th>Did it involve fraud?</th>
<th>What happened?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enron</td>
<td>USA</td>
<td>2001</td>
<td>$60 billion</td>
<td>YES</td>
<td>Accounting fraud, inflation of assets debt hidden in special purpose entities kept off the balance sheet.</td>
</tr>
<tr>
<td>2</td>
<td>Xerox</td>
<td>USA</td>
<td>2001</td>
<td>$2 billion</td>
<td>YES</td>
<td>The company improperly booked nearly $3 billion in revenues between 1997 and 2000, leading to an overstatement of earnings of nearly $1.4 billion.</td>
</tr>
<tr>
<td>3</td>
<td>Adelphia</td>
<td>USA</td>
<td>2002</td>
<td>$2.5 billion</td>
<td>YES</td>
<td>The Rigas founding family borrowed $2.3 billion from the company that was not reported on its balance sheets. The firm overstated results by inflating capital expenses and hiding debt.</td>
</tr>
<tr>
<td>4</td>
<td>Tyco</td>
<td>USA</td>
<td>2002</td>
<td>$1 billion</td>
<td>YES</td>
<td>The Chairman and CEO Dennis Kozlowski and former CFO Mark H. Swartz were accused of diverting about $600 million from the company.</td>
</tr>
<tr>
<td>5</td>
<td>Worldcom</td>
<td>USA</td>
<td>2002</td>
<td>$186 billion</td>
<td>YES</td>
<td>The company overstated cash flow by booking $11 billion in operating expenses as capital expenses. It also gave about $400 million to its Chairman and CEO Bernard Ebbers in off-the-books loans.</td>
</tr>
<tr>
<td>6</td>
<td>Vivendi</td>
<td>France</td>
<td>2002</td>
<td>$13 billion</td>
<td>Uncertain</td>
<td>The company was accused of misleading information about its Ebitda growth and liquidity in its public filings and releases in order to meet targets in 2001. It accumulated huge debts as a result of an aggressive acquisition strategy prompted by its powerful CEO Jean Marie Messier.</td>
</tr>
<tr>
<td>7</td>
<td>Royal Ahold</td>
<td>Netherlands</td>
<td>2003</td>
<td>$2 billion</td>
<td>YES</td>
<td>The company has overstated its profits by more than $1 billion as well as kept billions in debt off its balance sheet. It also pursued a failed aggressive strategy of acquisitions resulting in significant losses for its shareholders.</td>
</tr>
<tr>
<td>8</td>
<td>Parmalat</td>
<td>Italy</td>
<td>2003</td>
<td>$3 billion</td>
<td>YES</td>
<td>The company collapsed in 2003 with $14 billion in off-balance sheet debts hidden in special purpose entities, in what remains Europe's biggest bankruptcy.</td>
</tr>
<tr>
<td>#</td>
<td>Company</td>
<td>Country</td>
<td>Year</td>
<td>Estimated losses for shareholders(^{17})</td>
<td>Did it involve fraud?</td>
<td>What happened?</td>
</tr>
<tr>
<td>----</td>
<td>------------------</td>
<td>---------------</td>
<td>------</td>
<td>---------------------------------------------</td>
<td>----------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>9</td>
<td>Royal Dutch Shell</td>
<td>Netherlands / UK</td>
<td>2004</td>
<td>$1 billion</td>
<td>YES</td>
<td>The company has overstated its proved oil reserves by 23 percent, resulting in profits being exaggerated by $276 million, as well as profits embellishment by an additional $156 million.</td>
</tr>
<tr>
<td>10</td>
<td>Livedoor</td>
<td>Japan</td>
<td>2005</td>
<td>$7 billion</td>
<td>YES</td>
<td>The company was accused of doctoring financial figures of a subsidiary in an effort to improperly boost stock prices.</td>
</tr>
<tr>
<td>11</td>
<td>Refco</td>
<td>USA</td>
<td>2005</td>
<td>$4 billion</td>
<td>YES</td>
<td>The Chairman and CEO Phillip R. Bennett had hidden $430 million in bad debts from the company's auditors and investors.</td>
</tr>
<tr>
<td>12</td>
<td>Siemens</td>
<td>Germany</td>
<td>2007</td>
<td>$3 billion</td>
<td>YES</td>
<td>The company was fined $1.6 billion by American and European authorities after being accused of using a US$ 500 million slush fund to pay around $1.4 billion in bribes in order to obtain contracts in emerging countries from 2001 until 2007.</td>
</tr>
<tr>
<td>13</td>
<td>Société Générale</td>
<td>France</td>
<td>2008</td>
<td>$20 billion</td>
<td>YES</td>
<td>In January 2008, the French bank reported losses of about $7 billion from fraudulent derivative operations. According to the bank, all of the operations were performed singlehandedly by one operator, Jérome Kérviel, who allegedly violated the institution's control system.</td>
</tr>
<tr>
<td>14</td>
<td>Lehman Brothers</td>
<td>USA</td>
<td>2008</td>
<td>$60 billion</td>
<td>Uncertain</td>
<td>The company filed for Chapter 11 bankruptcy protection after huge losses due to complex financial operations which led it to insolvency. There are suspicions of fraud with Repo 105 transactions.</td>
</tr>
<tr>
<td>15</td>
<td>Bear Sterns</td>
<td>USA</td>
<td>2008</td>
<td>$20 billion</td>
<td>Uncertain</td>
<td>The company was sold off at a symbolic price in 2008, due to complex financial operations which led it to insolvency.</td>
</tr>
<tr>
<td>16</td>
<td>AIG</td>
<td>USA</td>
<td>2008</td>
<td>$239 billion</td>
<td>Uncertain</td>
<td>The world's former #1 insurance company got itself involved in treacherous financial transactions that resulted in colossal losses, needing more than $150 billion in bailout money from the American government in order to escape bankruptcy. The company had already been fined US$ 2 billion in 2005 due to financial record manipulation and balance sheet fraud.</td>
</tr>
<tr>
<td>17</td>
<td>Sadia</td>
<td>Brazil</td>
<td>2008</td>
<td>$2 billion</td>
<td>NO</td>
<td>The food processing company reported billion dollar losses from speculation through over-the-counter exchange rate derivative operations.</td>
</tr>
<tr>
<td>#</td>
<td>Company</td>
<td>Country</td>
<td>Year</td>
<td>Estimated losses for shareholders</td>
<td>Did it involve fraud?</td>
<td>What happened?</td>
</tr>
<tr>
<td>----</td>
<td>-------------</td>
<td>---------</td>
<td>------</td>
<td>-----------------------------------</td>
<td>-----------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>18</td>
<td>Aracruz</td>
<td>Brazil</td>
<td>2008</td>
<td>$3 billion</td>
<td>NO</td>
<td>The pulp and paper company reported billion dollar losses from speculation through over-the-counter exchange rate derivative operations.</td>
</tr>
<tr>
<td>19</td>
<td>Madoff</td>
<td>USA</td>
<td>2008</td>
<td>$65 billion</td>
<td>YES</td>
<td>Founder and CEO Bernard Madoff confessed that a Ponzi scheme had been running for decades at his asset management company, resulting in losses for his approximately 4,800 investors.</td>
</tr>
<tr>
<td>20</td>
<td>Satyam</td>
<td>India</td>
<td>2009</td>
<td>$3 billion</td>
<td>YES</td>
<td>Ramalingam Raju, Chairman and founder of Satyam (India’s fourth largest IT company), sent a letter to both the board of directors and to the country’s regulator in which he confessed that the company had inflated its revenues by 76% and its profits by 97% in the previous year.</td>
</tr>
<tr>
<td>21</td>
<td>Panameriano</td>
<td>Brazil</td>
<td>2009</td>
<td>$2.5 billion</td>
<td>YES</td>
<td>The bank, which had successfully made its IPO just two years earlier, announced a hole of about $ 2.0 billion on its balance sheet, about 2.5 its equity and half of their total assets.</td>
</tr>
<tr>
<td>22</td>
<td>BP</td>
<td>UK</td>
<td>2010</td>
<td>$45 billion</td>
<td>NO</td>
<td>An explosion at Deepwater Horizon, a drilling rig in the Gulf of Mexico connected to a well owned by the oil company BP, led to the largest accidental oil spill in history and to the death of 11 workers. The firm has put aside $20 billion for compensation for damages incurred by victims of the spill. Together with previous safety incidents at the company, BP was accused of negligence regarding its operational risk management practices.</td>
</tr>
<tr>
<td>23</td>
<td>Olympus</td>
<td>Japan</td>
<td>2010</td>
<td>$7 billion</td>
<td>YES</td>
<td>The company concealed losses by paying $687 million to advisers on acquisitions. The company is also accused of siphon another $1.5 billion through offshore funds.</td>
</tr>
</tbody>
</table>

Total Estimated losses $751 billion

**Common Causes associated with Corporate Governance Scandals**

**External Factors**
- Passivity of Investors
- Failure of Gatekeepers
- Poor Regulation

**Internal Factors**
- Excessive Concentration of Power
- Ineffective Board of Directors
- Illusion of Success of the Business
- Lack of Ethical Tone at the Top
- Corporate Governance seen as a Marketing Tool
- Internal Atmosphere of Greed and Arrogance
- Overexpansion of the Business
- Biased Strategic Decisions
- Inflated Financial Statements
- Weak Internal Controls
- Inadequate Compensation Systems

**Corporate Governance Scandals**
### Table 2. Rationale for the common causes associated with corporate governance scandals.

<table>
<thead>
<tr>
<th>Type of Cause associated with Corporate Scandals</th>
<th>Common Cause</th>
<th>This cause is manifested when…</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fundamental Cause</strong></td>
<td>Excessive concentration of power</td>
<td>Corporate decisions tend to come from the single views of specific individuals without the appropriate counterbalances.</td>
</tr>
<tr>
<td></td>
<td>Ineffective Board of Directors</td>
<td>Boards do not satisfactorily perform their role of monitoring managers and providing the right strategic direction.</td>
</tr>
<tr>
<td></td>
<td>Passivity of investors</td>
<td>Investors do not correctly exercise their role as active shareholders, and end up wrongly rewarding firms with unsustainable practices by inflating their stock prices.</td>
</tr>
<tr>
<td></td>
<td>Failure of gatekeepers</td>
<td>Reputational intermediaries such as auditors, stock analysts, credit rating agencies, attorneys, investment banks, and consultants who pledge their reputational capital to vouch for information that investors cannot verify fail in their duties.</td>
</tr>
<tr>
<td></td>
<td>Poor Regulation</td>
<td>Poor or nonexistent regulation allows the occurrence of governance problems.</td>
</tr>
<tr>
<td><strong>Mediating Cause</strong></td>
<td>Illusion of success of the business</td>
<td>People inside and outside the organization come to believe that the company is an absolute success, ignoring contrary evidence and generating a feeling of invincibility.</td>
</tr>
<tr>
<td></td>
<td>Internal atmosphere of greed and arrogance</td>
<td>An internal atmosphere of euphoria and hubris creates an inner sense of superiority to people outside the company.</td>
</tr>
<tr>
<td></td>
<td>Lack of ethical tone at the top</td>
<td>Leaders clearly fail to promote high ethical standards within their organizations, not treating the issue as something essential and priority.</td>
</tr>
<tr>
<td></td>
<td>Corporate governance seen as a marketing tool</td>
<td>The company clearly seeks to meet the check-list of recommended governance practices without actually embracing the theme at its core prior to the emergence of the scandals.</td>
</tr>
</tbody>
</table>

Three corporate statements below provide examples of this:

*Enron Values: 1) Communication: we have an obligation to communicate. 2) Respect: we treat others as we would like to be treated ourselves. 3) Integrity: We work with customers and prospects openly, honestly and sincerely. 4) Excellence: We are satisfied with nothing less than the very best in everything we do.” – Enron Annual Report 2000.*

*“We are committed to being an active and responsible member of every community where we do business worldwide and we’ve set the goal of becoming best-in-class in corporate governance, business practices, sustainability and corporate citizenship... We believe that an unwavering commitment to corporate responsibility is vital for our long-term success. That’s why we go to great lengths to balance business, ethical, environmental and social concerns... We are committed to financial transparency, compliance with the financial*
<table>
<thead>
<tr>
<th>Type of Cause associated with Corporate Scandals</th>
<th>Common Cause</th>
<th>This cause is manifested when…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Cause</td>
<td></td>
<td>reporting requirements of German stock corporation law and U.S. capital market regulations, and open communication with our shareholders. Binding rules and guidelines ensure that our dealings with business partners are ethical and adhere to all relevant legal requirements” – Siemens Annual Report 2005.</td>
</tr>
<tr>
<td>Overexpansion of the business</td>
<td>Excessive growth of the company in the years immediately preceding the governance problems, especially via acquisitions, contribute to the scandal.</td>
<td></td>
</tr>
<tr>
<td>Biased strategic decisions</td>
<td>Unintentionally bad top level strategic decisions are made due to cognitive biases such as overconfidence, groupthink, information cascades, etc.</td>
<td></td>
</tr>
<tr>
<td>Inflated Financial Statements</td>
<td>The company intentionally publishes doctored financial statements, often inflating its profits or hiding its debts.</td>
<td></td>
</tr>
<tr>
<td>Weak internal controls</td>
<td>The main components of a sound internal control system are missing, such as an adequate control environment, effective risk management and control activities.</td>
<td></td>
</tr>
<tr>
<td>Inadequate compensation system</td>
<td>A compensation system too aggressive and too connected to short-term goals substantially contributes to governance problems.</td>
<td></td>
</tr>
</tbody>
</table>

“Safety, people and performance, and these remain our priorities. Our number one priority was to do everything possible to achieve safe, compliant and reliable operations. Good policies and processes are essential but, ultimately, safety is about how people think and act. That’s critical at the front line but it is also true for the entire group. Safety must inform every decision and every action. The BP operating management system turns the principle of safe and reliable operations into reality by governing how every BP project, site, operation and facility is managed. Our work on safety has been acknowledged inside and outside the group” – BP Report 2008.
## Table 3. Main reasons behind selected corporate scandals from the first decade of the 21st Century.

<table>
<thead>
<tr>
<th>#</th>
<th>Company</th>
<th>Year</th>
<th>Fundamental Causes</th>
<th>Mediating Causes</th>
<th>Immediate Causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enron</td>
<td>2001</td>
<td>XX</td>
<td>XXX</td>
<td>XXX</td>
</tr>
<tr>
<td>2</td>
<td>Xerox</td>
<td>2001</td>
<td>X</td>
<td>XX</td>
<td>X</td>
</tr>
<tr>
<td>3</td>
<td>Adelphia</td>
<td>2002</td>
<td>XXX</td>
<td>XX</td>
<td>X</td>
</tr>
<tr>
<td>4</td>
<td>Tyco</td>
<td>2002</td>
<td>XXX</td>
<td>X</td>
<td>XXX</td>
</tr>
<tr>
<td>5</td>
<td>Worldcom</td>
<td>2002</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
</tr>
<tr>
<td>6</td>
<td>Vivendi</td>
<td>2002</td>
<td>XXX</td>
<td>X</td>
<td>XXX</td>
</tr>
<tr>
<td>7</td>
<td>Royal Ahold</td>
<td>2003</td>
<td>XX</td>
<td>XX</td>
<td>XX</td>
</tr>
<tr>
<td>8</td>
<td>Parmalat</td>
<td>2003</td>
<td>XXX</td>
<td>XX</td>
<td>XX</td>
</tr>
<tr>
<td>9</td>
<td>Shell</td>
<td>2005</td>
<td>X</td>
<td>X</td>
<td>XXX</td>
</tr>
<tr>
<td>10</td>
<td>Livedoor</td>
<td>2005</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
</tr>
<tr>
<td>11</td>
<td>Refco</td>
<td>2005</td>
<td>XXX</td>
<td>X</td>
<td>XXX</td>
</tr>
<tr>
<td>12</td>
<td>Siemens</td>
<td>2007</td>
<td>XXX</td>
<td>X</td>
<td>XXX</td>
</tr>
<tr>
<td>13</td>
<td>Société Générale</td>
<td>2008</td>
<td>XX</td>
<td>X</td>
<td>XXX</td>
</tr>
<tr>
<td>14</td>
<td>Lehman</td>
<td>2008</td>
<td>XXX</td>
<td>XX</td>
<td>XXX</td>
</tr>
</tbody>
</table>

18 The qualitative scale aims to analyze the different relevance of each common cause associated with corporate scandals. “X” indicates that the factor was relevant for the emergence of the scandal. “XX” indicates that the factor was highly relevant and “XXX” indicates that it was critical for the eruption of the scandal. Void cells indicate that the respective factor was not relevant to the case at hand.
Common causes associated with corporate governance scandals from the first decade of the 21st Century on a 0-3 scale

<table>
<thead>
<tr>
<th>#</th>
<th>Company</th>
<th>Year</th>
<th>Fundamental Causes</th>
<th>Mediating Causes</th>
<th>Immediate Causes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Excessive Concentration of Power</td>
<td>Ineffective Board of Directors</td>
<td>Passivity of Investors</td>
</tr>
<tr>
<td>15</td>
<td>Brothers</td>
<td>2008</td>
<td>XXX</td>
<td>XXX</td>
<td>XX</td>
</tr>
<tr>
<td>16</td>
<td>Bear Sterns</td>
<td>2008</td>
<td>XXX</td>
<td>XXX</td>
<td>XX</td>
</tr>
<tr>
<td>17</td>
<td>Sadia</td>
<td>2008</td>
<td>X</td>
<td>XXX</td>
<td>XX</td>
</tr>
<tr>
<td>18</td>
<td>Aracruz</td>
<td>2008</td>
<td>X</td>
<td>XXX</td>
<td>XX</td>
</tr>
<tr>
<td>19</td>
<td>Madoff</td>
<td>2008</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
</tr>
<tr>
<td>20</td>
<td>Satyam</td>
<td>2009</td>
<td>XXX</td>
<td>XXX</td>
<td>XX</td>
</tr>
<tr>
<td>21</td>
<td>Panamericano</td>
<td>2009</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
</tr>
<tr>
<td>22</td>
<td>BP</td>
<td>2010</td>
<td>X</td>
<td>XXX</td>
<td>XX</td>
</tr>
<tr>
<td>23</td>
<td>Olympus</td>
<td>2010</td>
<td>XXX</td>
<td>XXX</td>
<td>XX</td>
</tr>
<tr>
<td></td>
<td>Average (0-3 rating 2001-2005 (n=11))</td>
<td></td>
<td>2.5</td>
<td>2.5</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>Average (0-3 rating 2006-2010 (n=12))</td>
<td></td>
<td>2.3</td>
<td>2.9</td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td>Average (0-3 rating 2001-2011 (n=23))</td>
<td></td>
<td>2.4</td>
<td>2.7</td>
<td>2.1</td>
</tr>
</tbody>
</table>
Table 4. Individual and collective cognitive biases and their potential problems for the governance of businesses.\(^{19}\)

<table>
<thead>
<tr>
<th>#</th>
<th>Type of Bias (Individual or Collective)</th>
<th>Bias</th>
<th>Description</th>
<th>Potential problems for the governance of businesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Individual</td>
<td>Optimism and overconfidence</td>
<td>Tendency for people to underestimate risks and / or to overestimate the perspectives of future results.</td>
<td>▪ Overinvestment; ▪ Too expensive M&amp;A deals; ▪ Excess financial debt; ▪ Disregard of relevant risks.</td>
</tr>
<tr>
<td>2</td>
<td>Individual</td>
<td>Irrational obedience to authority</td>
<td>Tendency to obey orders from authorities viewed as leaders without questioning in certain circumstances.</td>
<td>▪ Frauds; ▪ Blind obedience to entrepreneurs or powerful executives.</td>
</tr>
<tr>
<td>3</td>
<td>Individual</td>
<td>Irrational escalation of commitment</td>
<td>Propensity to increase the investment in a decision – based on cumulative prior investment – despite new evidence suggesting that the cost of continuing the decision outweighs its expected benefit.</td>
<td>Attachment to initiatives and projects that did not work and should be rationally treated as sunk funds.</td>
</tr>
<tr>
<td>4</td>
<td>Individual</td>
<td>Normalcy bias</td>
<td>Tendency to underestimate the possibility of the occurrence of disasters that never occurred, as well as inability to cope with disasters once they occurs.</td>
<td>Reduced investment in risk management initiatives dealing with risks that have high impact but low probability of occurrence.</td>
</tr>
<tr>
<td>5</td>
<td>Individual</td>
<td>Planning Fallacy</td>
<td>Propensity of people to underestimate how long they will take to complete a task, even if they have previous experience in similar tasks.</td>
<td>▪ Project delays; ▪ Unrealistic promises to stakeholders.</td>
</tr>
<tr>
<td>6</td>
<td>Individual</td>
<td>Gambler's Fallacy</td>
<td>Tendency to think that the probability of future events is altered by past events, even when the events are independent and the probability remains the same.</td>
<td>Belief that the results of past projects below expectations will be “naturally” offset by results of future projects, even when they are independent activities.</td>
</tr>
<tr>
<td>7</td>
<td>Individual</td>
<td>Curse of knowledge</td>
<td>Difficulty of people with a lot of knowledge about a topic to think about problems from the perspective of lesser-informed agents.</td>
<td>▪ Release of products difficult to understand by consumers; ▪ Dissonance between the strategic vision of top management and that of the rest of</td>
</tr>
</tbody>
</table>

\(^{19}\) The description of the cognitive biases have been extracted from the “list of cognitive biases” available at [http://en.wikipedia.org/wiki/List_of_cognitive_biases](http://en.wikipedia.org/wiki/List_of_cognitive_biases)
<table>
<thead>
<tr>
<th>#</th>
<th>Type of Bias (Individual or Collective)</th>
<th>Bias</th>
<th>Description</th>
<th>Potential problems for the governance of businesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Individual</td>
<td>Déformation professionelle</td>
<td>Tendency to look things from one’s own professional point of view, rather than from a broader perspective: the professional training leads to a distorted way of seeing the world.</td>
<td>Distortion of business activities and focus due to the professional training of their top leader.</td>
</tr>
<tr>
<td>9</td>
<td>Individual</td>
<td>Endowment effect</td>
<td>Tendency to overvalue assets and personal projects: people tend to ask a lot more to sell their assets than they would be willing to pay for if the assets belonged to a third party.</td>
<td>▪ Refusal to sell assets at fair value;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>▪ Overvaluation of their own initiatives.</td>
</tr>
<tr>
<td>10</td>
<td>Individual</td>
<td>Confirmation bias, selective</td>
<td>Tendency of people to favor information that confirms their beliefs or hypotheses: the effect is greater in subjects with greater emotional and more rooted prejudices.</td>
<td>Difficulty in accepting new visions and paradigms in order to change problematic courses of action: maintenance of status quo.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>perception</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Individual</td>
<td>Status quo bias</td>
<td>Propensity to maintain the current state of affairs in situations where changes to the current course are expected to provide higher benefit than the maintenance of current situation.</td>
<td>Postponement of important decisions with loss of opportunities and competitiveness, resulting in increased losses.</td>
</tr>
<tr>
<td>12</td>
<td>Individual</td>
<td>Interloper effect, the consultants</td>
<td>Tendency to value third party consultation as objective, confirming, and without conflicts of interest, as well as to provide less support to internally proposed solutions.</td>
<td>No taking advantage of internal ideas, with less motivation of employees and loss of talent.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>paradox</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Individual</td>
<td>Framing effect</td>
<td>Propensity of people to reach different conclusions from the same information, depending on whether it is presented as a loss or as a gain.</td>
<td>Wrong decisions due to manipulation in the way the information is presented.</td>
</tr>
<tr>
<td>14</td>
<td>Individual</td>
<td>Outcome bias</td>
<td>Tendency judge a decision by its outcome rather than based on the quality of the decision at the time it was made, given what was known at that time</td>
<td>Wrong assessment of people for decisions that resulted in poor results, even if taken in the correct way at the time. The reverse is also true.</td>
</tr>
<tr>
<td>15</td>
<td>Individual</td>
<td>The availability heuristic</td>
<td>Tendency to believe that events in vivid memory have a higher probability of occurring than they</td>
<td>Exclusive consideration of the leader’s personal experiences in decision making.</td>
</tr>
<tr>
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</tr>
<tr>
<td>16</td>
<td>Individual</td>
<td>Self-serving bias, illusory superiority</td>
<td>Tendency of individuals to attribute their success to internal or personal factors but attributing their failures to external or situational factors.</td>
<td>Assigning blame to others, with negative impacts on meritocracy and employee motivation.</td>
</tr>
<tr>
<td>17</td>
<td>Individual</td>
<td>Egocentricity bias</td>
<td>Tendency for people to claim more responsibility for themselves for the results of a joint action than an outside observer would credit them.</td>
<td>Excessive centralization of power, reduced motivation of employees.</td>
</tr>
<tr>
<td>18</td>
<td>Individual</td>
<td>Hindsight bias</td>
<td>Propensity to see past events as more predictable than they actually were before they took place (“I knew-it-all-along” effect).</td>
<td>Memory distortion in the analysis of past decisions (such as non-recognition of exogenous events) could make it very difficult to distinguish bad decisions from bad outcomes, ending up, for instance, in unfairly attribution of blame.</td>
</tr>
<tr>
<td>19</td>
<td>Individual</td>
<td>Anchorage</td>
<td>Tendency of people to rely too heavily, or “anchor” on one trait or piece of information when making decisions, even if it has no direct relationship with the subject under review.</td>
<td>Wrong decisions due to the availability of initial information that distorted the analysis.</td>
</tr>
<tr>
<td>20</td>
<td>Collective</td>
<td>Herd behavior, conformity, and information cascades</td>
<td>Tendency of group members - especially those with less information for decision – to observe the actions and initial opinions of others and then make the same choice that the others have made, independently of their own private opinion.</td>
<td>Loss of the group collective wisdom, with decisions being made according to the specific interests of individuals more knowledgeable about the subject under analysis.</td>
</tr>
<tr>
<td>21</td>
<td>Collective</td>
<td>Groupthink</td>
<td>Trend excessively homogeneous groups to minimize conflict and reach consensus at any cost, ignoring external ideas that may contradict the dominant view.</td>
<td>Possibility of more extreme decisions by the group, with rejection of good outside opinions.</td>
</tr>
<tr>
<td>22</td>
<td>Collective</td>
<td>False consensus</td>
<td>Individual’s tendency to think that their opinions, beliefs, habits, values, etc. are “normal”, overestimating the likelihood of other people agreeing with his or her point of view.</td>
<td>Tendency of isolating people with systematically different points of view.</td>
</tr>
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</tr>
<tr>
<td>23</td>
<td>Collective</td>
<td>In-group favoritism</td>
<td>Tendency for people to support views and opinions of members from their own group in comparison with opinions people outside the group.</td>
<td>Disregard of valuable external views.</td>
</tr>
<tr>
<td>24</td>
<td>Collective</td>
<td>Out-group homogeneity</td>
<td>Misperception of individuals that members outside the group are more similar to each other than they really are and that his or her group is more diverse than it actually is.</td>
<td>Difficulty in understanding the heterogeneity of people outside the organization and the external environment, leading to a tendency to stereotype.</td>
</tr>
<tr>
<td>25</td>
<td>Collective</td>
<td>Group-serving bias</td>
<td>Tendency of group members to make dispositional attributions for their group’s successes and situational attributions for group failures.</td>
<td>Erroneous assignment of blame to others, maintenance of the status quo.</td>
</tr>
</tbody>
</table>
Table 5. Mainstream approach to corporate governance vs. the new behavioral approach based on psychological aspects.

<table>
<thead>
<tr>
<th>Mainstream view: Corporate governance as a mere set of incentive and control mechanisms in order to make agents (managers) act in the best interest of their principals (shareholders)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conceptual root:</strong> The reduction of the human being to <em>homo economicus</em></td>
</tr>
<tr>
<td><strong>Premise</strong></td>
</tr>
<tr>
<td>1. People always make perfectly rational decisions.</td>
</tr>
<tr>
<td>2. People think exclusively in maximizing their own personal gain.</td>
</tr>
<tr>
<td>3. People are always interested in breaking the rules if the applicable penalty multiplied by the probability of being caught is lower than the expected benefit of the dishonest act.</td>
</tr>
</tbody>
</table>

**Conclusion coming from the difference between the premises behind the mainstream approach to corporate governance and real human behavior evidenced by recent researches:**

“A new behavioral approach to corporate governance should be developed with a focus on:

1) the systematic search for mitigating cognitive biases in managerial decisions;

2) the continuous fostering of people’s awareness towards the promotion of cooperative and long-term oriented behaviors; and,

3) the reduction of the likelihood of frauds and other unlawful acts through new corporate strategies developed after a deeper understanding of their psychological motivations.”