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# **Internal Controls and Corruption: The case of Petrobras**

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## **Summary**

Internal Controls are essential for the stability of organisations and a principle of good governance. They are often recognised as a tool for preventing and detecting fraud and corruption inside organisations; however, their effectiveness remains disputed. This study explores the relationship between internal controls and corruption through the case study of the Petrobras scandal. It applies the COSO framework to assess the company's internal controls and answer the question of how they contributed to the scandal's developing. Testing strengths and weaknesses of internal control systems in different contexts represents a valuable tool for identifying elements that may be more effective in curbing corruption.

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## **List of Abbreviations**

4EP - The four-eyes-principle

BNDES - The National Bank for Economic and Social Development

CGU - Ministry of Transparency and Office of the Comptroller General

CMN - Brazil's National Monetary Council

COSO - Committee of Sponsoring Organizations of the Treadway Commission

CPI - Parliamentary Commission of Inquiry

CVM - Securities and Exchange Commission of Brazil

GDP - Gross domestic product

IAME - Internal Auditor Middle East

IIA Netherlands - The Institute of Internal Auditors Netherlands

MPF - Federal Public Prosecutor's Office

OECD - The Organisation for Economic Co-operation and Development

PCPP - Petrobras Corruption Prevention Program

Petrobras - Petróleo Brasileiro S.A

SEC - U.S. Securities and Exchange Commission

SOE - State-owned enterprise

SOX - The Sarbanes-Oxley Act of 2002

STF- Brazil's Supreme Federal Court

TCU – Brazil's Federal Court of Accounts

TI - Transparency International

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## **PREFACE**

The purpose of this dissertation is to explore the relationship between internal controls and corruption, and the impact of internal controls on curbing the problem. This is meaningful in that a limited number of analytical debates focus on anti-corruption efforts only at the organisational level; most of them offer reflection from a macro-level perspective. This study analyses the corruption scheme at Petrobras to identify how internal controls did or did not contribute to the scandal's development. It should be of interest to all organisations, both private and public, especially to staff responsible for designing, implementing and assessing internal control systems. This paper should also be of interest to scholars in the field of corruption and anti-corruption.

The study differentiates between hard (formal) and soft (informal) controls. The main problems to be discussed involve the incongruence between the formal and informal systems at Petrobras, as well as the limitations of internal controls due to political influence, collusion and management override.

Gathering data was particularly challenging. First, internal controls refer to a wide range of organisational aspects and activities. Second, the information about Petrobras' internal controls available online started to become more detailed only after the scandal. Although some previous deficiencies can be deduced from that, it is not possible to identify exactly how the organisation applied internal controls before the corruption was revealed. Moreover, the official information online reflects the formal aspects of controls, not the informal. The study was originally designed to investigate informal lines of controls (and more specific information about the formal) through semi-structured interviews with Petrobras employees who dealt with the topic and with federal auditors of the Brazilian internal control body. In relation to the Petrobras employees, however, after I sent my questions, the company stepped back from its original decision to provide interviews. Instead, I received an official answer in writing, which mainly directed me to the company's online documents. Fortunately, I was able to carry out two interviews with federal auditors involved in some of the auditing of Petrobras, which provided valuable information. Facts reported in the media and government reports were also helpful sources. Therefore, the research relied mainly on secondary data with some supplementation from primary sources.

I wish to express my deep gratitude for the life-changing opportunity provided by the Chevening Scholarship, the UK government's global scholarship programme, funded by the Foreign and Commonwealth Office (FCO) and partner organisations, without which this study would not have been possible. I would also like to thank Dan Hough and Liz David-Barrett for their kind support, and the interviewees and other civil servants at the Ministry of Transparency and Office of the Comptroller General (CGU) in Brazil for their valuable assistance.

## **INTRODUCTION**

Anticorruption efforts have gained prominence over the past decades in international and national agendas. Unsurprisingly, corruption influences economic and political decision-making processes, undermining development and threatening democracy (Blake and Morris, 2009; OECD, 2014). Moreover, corruption leads to poor service delivery and lower investments in public health and education, misallocates resources, decreases tax revenue, discourages investments, breeds inequality and erodes trust (Uslaner, 2015). Hence, there is major consensus on the deleterious impact of corruption on economic growth, equitable wealth distribution, the legitimacy and efficiency of governing institutions and the business environment (Chêne, 2014; Rose-Ackerman and Palifka, 2016).

Many international organisations – such as Transparency International (TI), the World Bank, the United Nations and the Organisation for Economic Co-operation and Development (OECD) – as well as national organisations have been developing different strategies to address the problem. Yet corruption is still pervasive. According to the TI Corruption Perceptions Index 2016, the global average of the index reaches only 43 points in the scale (the scale goes from 0 as highly corrupt to 100 as very clean), indicating endemic corruption, and more than two-thirds of the countries assessed score below the midpoint. Since corruption is a complex phenomenon with social, political and economic dimensions, and is influenced by several interrelated variables, combatting the problem is not easy. Contextual circumstances matter, and there is no “one-size-fits-all” approach when proposing remedies (Hough, 2013).

Research on the causes of and solutions for corruption may be categorised into two groups of considerations: societal aspects (e.g., level of economic development, government structure and regime) and organisational aspects (e.g., salary scale, nature of business, state ownership, officials’ discretion) (Abaalkhail, 2016). One suggested organisational tool for tackling corruption is internal controls. First introduced as a term of finance and accounting, internal controls are now related to all areas of an organisation as a means of achieving its goals (Mafiana, 2013). Therefore, internal controls are important to provide effectiveness and efficiency of operations, reliability and transparency of reporting and compliance with laws and regulations (COSO, 2013).



Internal controls are essential for the stability of an organisation and, as mentioned above, are often mentioned as an important remedy against corruption. The rationale behind this is relatively simple: internal controls impose costs on corrupt practices. If the costs outweigh the benefits, rational individuals will refrain from the wrongdoing (Rose-Ackerman, 1978; della Porta and Vannucci, 2012). Moreover, the use of internal controls can not only just prevent corruption, but can also generate information on which punitive actions can be based once corruption has occurred. Nevertheless, there is little empirical evidence on the relationship between internal controls and corruption (Abaalkhail, 2016). Actually, some scholars challenge the effectiveness of internal controls by arguing that the amount and the incorrect type of controls can create an environment that reinforces corruption (Anechiarico and Jacobs, 1996). Others suggest that, because they are costly, some controlling efforts may not be worth making (Klitgaard, 1988).

In fact, the overall standards of control have frequently proved limited, considering some highly publicized and shocking scandals, such as Enron (2001), Siemens (2006), Walmart (2012), Rolls Royce (2012) and Petrobras (2014). Assuring the quality of internal control systems is a major challenge for organisational management. Comprehending the many aspects of internal controls and evaluating them and their weaknesses allows for partially understanding the nature of corruption that may be flourishing (Chtioui and Thiéry-Dubuisson, 2011).

With this in mind, the present study aims at exploring the impact of internal controls on preventing and detecting corruption. It does so by analysing the scandal of Petrobras, and answering the question of how internal controls did or did not contribute to the scandal's developing. The data was gathered through extensive documental analyses supplemented by interviews with key actors. The research employs the COSO Internal Control–Integrated Framework to investigate what went wrong with Petrobras' internal control structures, including which components were absent, which were in place and why they were ineffective.

Petrobras is a Brazilian gas and oil company. The case is notably relevant due to the great sums of bribes involved and the uniqueness and magnitude of the corruption scheme, which encompassed a huge network of politicians, political parties, senior state executives, other public employees, large contractors and intermediaries. Moreover, Petrobras has the particularity of being both private and public, since it is a listed entity with the Brazilian

government as the major investor. Its close connection with the government represents a risk of the company's being used to serve political interests rather than seeking efficiency and profitability. Finally, the Petrobras scandal denotes what is recognised to be endemic in several state-owned companies in developing countries, and reflects the need for better mechanisms of control and accountability.

Although there are several analytical debates on anti-corruption instruments, most of the research focuses on the relationship between corruption and governance on a macro-level. Only a limited portion of the research offers reflection on anti-corruption efforts at the organisational level (Monteduro, Hinna and Moi, 2016). Furthermore, the logical link between controls and audits systems and corruption are usually explored, but not empirically tested (Malagueño et al., 2010). Hence, the research presented here attempts to add to the knowledge of the impact of internal controls on corruption by empirically analysing the internal control context of a corruption scandal. Testing strengths and weaknesses of internal control systems in different contexts represents a valuable tool for identifying elements that may be more effective in preventing and detecting corruption. Since controls entail costs, this is particularly important for guiding investments in internal control systems.

The study will be structured as follows: Chapter 2 will cover the definition of internal controls, including a differentiation of soft and hard controls, and will briefly explain the use of the COSO framework to assess the quality of an internal control system. Chapter 3 aims at explaining the theoretical framework for analysing corruption along with its definition, highlighting how internal controls fit into different schools of thoughts. Also, the chapter will explore the relationship between corruption and controls as studied by different scholars. Chapter 4 will provide insights into corruption in public procurement, and discuss the main risks in the process and ways to prevent corruption. In Chapter 5, the context of the Petrobras scandal will be explained by covering how the scheme was revealed, the way by which corruption was operationalised and the consequences of the events. Then, Chapter 6 will provide the details of the research methods, and Chapter 7 will discuss and present the findings of the case under analysis. Finally, concluding remarks will be presented in chapter 8, including some thoughts on the improvement of Petrobras' internal controls and areas for future research.

## **CHAPTER 02 – INTERNAL CONTROLS**

Originally, the term internal controls arose in the field of accounting and auditing with respect to securing the validity and reliability of financial transactions and statements. Although there is no consensus on when internal controls were recognised as an instrument of governance in organisations, they gained the attention of both the private and public sectors in the twentieth century (Mafiana, 2013).

Post-World War II economic growth led to an expansion of internal control and auditing activities and, consequently, new definitions of the term (Heier, Dugan and Sayers, 2005). Several episodes of corporate malfunction and management failures have pushed the demands for better governance forward, including demands for the development of internal control systems. Now they comprise an essential piece of many mandatory and semi-mandatory corporate governance regulations and internal codes (Arwinge, 2012). For instance, section 404 of the Sarbanes-Oxley Act of 2002 (SOX) requires the annual publication by public companies of the scope and adequacy of their internal control system for financial reporting, as well as an assessment of the effectiveness of their internal control structures and procedures.

Furthermore, internal control has evolved to be an independent field of expertise and a way of dealing with uncertainty, and thus is closely related to risk management (Power, 2007). The traditional approach that directly describes internal controls as accounting functions has been supplemented by broadened approaches in such a way that a great amount of organisational activities now fit into the scope of internal controls (Arwinge, 2012). Hence, internal controls form the overall governance system of organisations, and their effective design and implementation are crucial for organisational success.

The term has several nuances and has been defined in several ways. Jamshidi-Navad and Arad (2010) define internal controls as an accounting procedure or system comprised of plans, methods and procedures used to support management in working towards the organisational missions and objectives. They are designed to pursue an efficient development of a policy, safeguard assets and prevent fraud and error. Jamshidi-Navad and Arad divide internal controls into two types: preventive controls (designed to deter errors or irregularities) and detective controls (designed to pinpoint an error or irregularity after its occurrence). According to Chtioui and Thiéry-Dubuisson (2011,

p.290), 'internal control can be defined by all the means of control available to managers to enable them to master their organization'.

In 1992, the Committee of Sponsoring Organizations of the Treadway Commission (COSO), a joint initiative comprised of 5 private-sector organisations<sup>1</sup>, issued the Internal Control–Integrated Framework. As reported by D'Aquila (2013, p.22), the framework was 'revolutionary', since it represented 'the first major formal attempt to define internal control and provide a standard for measurement'. Due to changes in business and operating environments – such as the increase in complexity, the use of technology, the globalization of markets, expectations for transparency and accountability and expectations regarding the prevention and detection of corruption – the COSO updated its original framework in 2013. The core definition of internal controls and their components remain unchanged, yet the new framework provides important improvements of concepts and application (COSO, 2013).

The COSO framework (2013, p.1) describes internal control as 'a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories: [e]ffectiveness and efficiency of operations, [r]eliability of report, [c]ompliance with applicable laws and regulation'. The broad definition is designed to capture the fundamental concepts and to provide ground for application across all type of organisations. It is also suitable for subsets of internal controls (e.g., controls relating to a particular activity or unit). By providing clarity on internal control concepts and components, the framework is designed to help management and other parties implement a system of internal controls and assess its effectiveness (COSO, 2013).

The five components of internal control established by COSO are control environment, risk assessment, control activities, information and communication, and monitoring activities. One of the main enhancements of the new framework is the introduction of 17 principles around these components (COSO, 2013). The control environment is related to the establishment of standards, processes and structures that guide employees' behaviour and decisions at various organisational levels. It represents the foundation for carrying out the other four components. The updated COSO framework sets five principles as

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<sup>1</sup>The American Accounting Association, the American Institute of Certified Public Accountants, the Financial Executives International, the Association of Accountants and Financial Professionals in Businesses and the Institute of Internal Auditors. For more, see <https://www.coso.org/>

essential for the control environment: commitment to integrity and ethical values; independence of and oversight by the board of directors; establishment of adequate processes and responsibilities; commitment to staff competence; and accountability for the achievement of objectives.

The risk assessment component concerns the process of identifying and assessing events that may occur and negatively influence the achievement of objectives. It is impossible to reduce risk to zero, so management must settle how much risk is acceptable and how risks should be handled. Since the establishment of measurable objectives is a precondition for risk assessment, the first principle related to this component is the clarity of objectives. The other three principles are: identification of risks and how they should be managed; consideration of fraud and corruption; and recognition of internal and external changes that may impact the system of internal control.

The third component of the COSO framework is the control activities, which are the actions fixed through an organization's policies and procedures that enable management to mitigate the risks related to the achievement of objectives. Control activities are carried out at all organisational levels and processes, and range from preventive to detective and manual to automated. They can support one or more of the entity's objectives and should be built with segregation of duties. Control activities are divided into three principles: development of controls that alleviate the risks assessed; development of general controls over technology; and deployment of control activities through adequate policies and procedures.

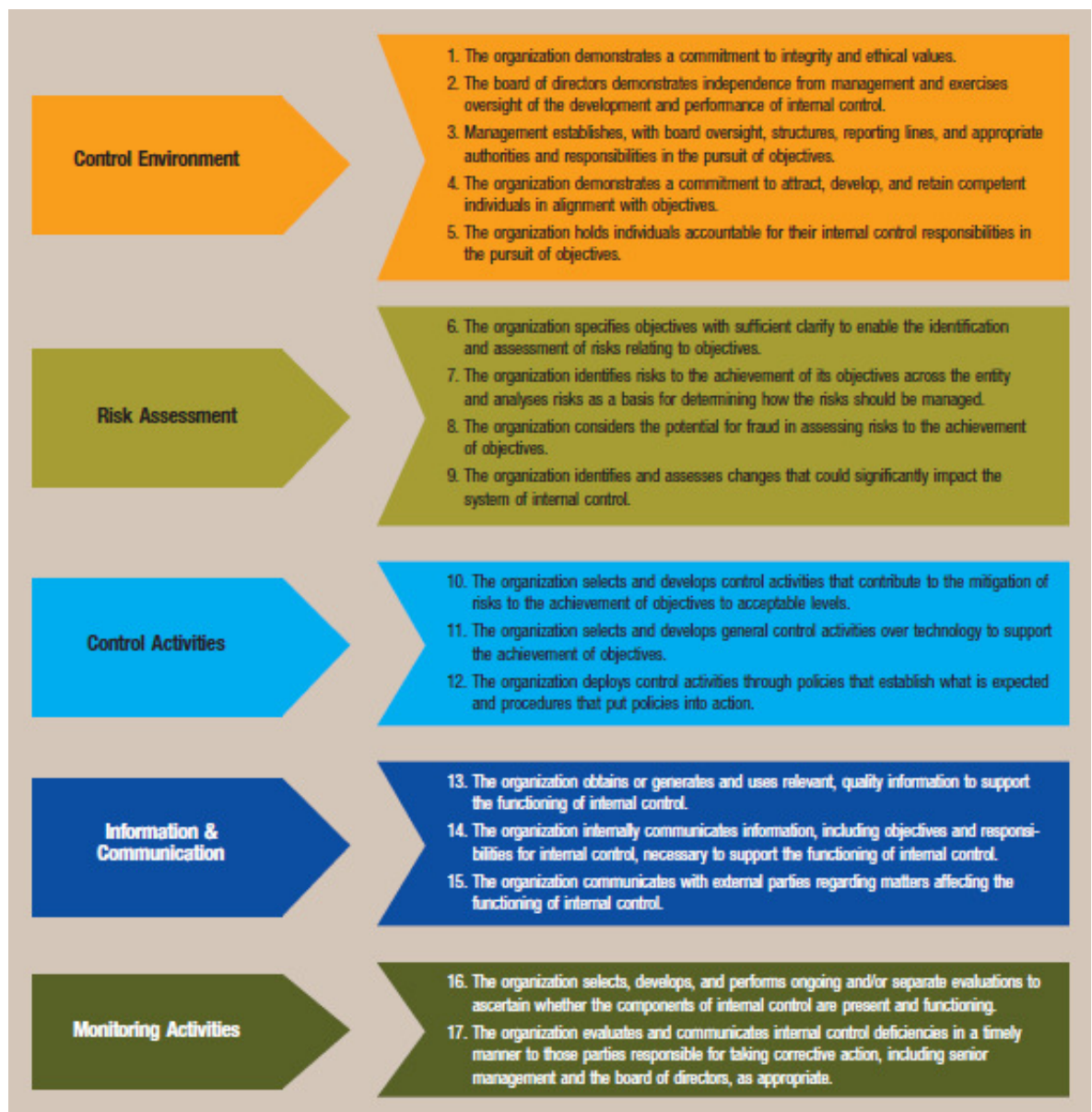
The information and communication component feeds the functioning of the other internal control components and enables an enlightened decision-making process. Information is needed for the execution of an entity's responsibilities towards its goals and communication is necessary for sharing relevant and quality information, both internally and externally. The three principles of information and communication are: the production and use of relevant information; internal communication; and external communication.

Finally, the last component of the COSO framework deals with the evaluation of the five components of internal controls. Monitoring activities must be in place to ascertain whether controls are present and operating properly. They generate key input for

assessing the effectiveness of internal control systems. This is particularly important considering internal controls are a dynamic and interactive process that changes over time. This component has two principles: ongoing and separate evaluations of internal controls and communication of their shortcomings.

The 5 components and 17 principles of internal controls are summarised in the figure below.

**Figure 1 – COSO Framework components and principles.**



Source: D'Aquila (2013), based on COSO Framework.

The COSO framework acknowledges limitations inherent in all internal control systems. That is why it can provide only 'reasonable assurance' regarding the achievement of objectives. These limitations include faulty judgment, human mistakes, collusion by two or more people and management override (COSO, 2013).

From the framework above it is possible to identify two groups of controls according to their tangibility: hard controls and soft controls. The first type refers to formal controls, explicit mechanisms for guiding behaviour via written rules, procedures and assignment of authority and responsibility. It includes segregation of duties, information and authorization systems, access controls, and so on (Chtioui and Thiéry-Dubuisson, 2011; IAME, 2014). On the other hand, soft controls are informal and intangible controls related to the behavioural and cultural aspects of an organisation. They control personnel behaviour through shared values and beliefs, integrity, ethical climate, motivation, loyalty and unwritten traditions learned from socialisation (IIA Netherlands, 2015; Falkenberg and Herremans, 1995). Soft controls are mainly brought up in the COSO framework through the control environment component.

Hard and soft controls coexist and constantly interact in organisational systems. To ensure the cohesion of an organisation, Guibert and Dupuy (1997) suggest that formal and informal controls must be understood in terms of complementarity; one cannot substitute for the other. Additionally, a combination of formal and informal controls is necessary, because no single method is fully effective in isolation. They must be in harmony to form a single set of balanced controls (Chtioui and Thiéry-Dubuisson, 2011). Therefore, a company's values and culture must agree with its written codes, for example.

Although the concept of internal control has been employed in corruption literature and in anti-corruption legislation, the notion of using internal control to tackle corruption was expanded on an international basis with the establishment of the United Nations Convention against Corruption in 2003 (Abaalkhail, 2016). With this instrument, the State Parties committed to take appropriate measures to promote transparency and accountability, such as implementing 'effective and efficient systems of risk management and internal control' (article 9/2/d). To deepen the discussion, the next chapter will provide an overview of the analytical framework on corruption and some relevant literature exploring the relationship between corruption and internal controls.

## **CHAPTER 3 – ANALYTICAL FRAMEWORK**

The first step in tackling a problem is to understand it. In the literature on corruption, there are different paradigms to explain and analyse the phenomenon. While some scholars understand corruption as a result of a rational cost-benefit analysis, others look at cultural and moral differences, social norms and interiorized values and beliefs (Vannuci, 2015). This chapter will bring up some considerations of corruption through the two major analytic approaches, known as institutional economics and the neo-institutional. Despite their distinctness, both rely on the rational choice theory for their conceptual framework (Hellman, 2015). Moreover, the chapter will discuss the relationship between internal controls and corruption in the current literature, theoretically and empirically.

### **Definition of corruption**

The concept of corruption engenders a great deal of debate. Defining corruption is not easy; different conceptualisations take into account different angles, but none can account for corruption's complexity (Rumyantseva, 2015). Moreover, corruption varies across countries and societies; thus, what can be considered corruption in one country may be accepted and natural in another (Dimant, 2013). Corruption can be rare, when it is isolated and perpetrated by a few individuals, or systemic, when it is no longer an exception and is integrated into the social, economic and political system (U4, n.d.). It can involve politicians and political decision-makers who use their power to maintain their status, power, and wealth (political or grand corruption) or it can occur on the implementation level of administration (bureaucratic or petty corruption) (Amundsen, 1999).

Definitions can be centred on both legal norms and social norms (Johnston, 1986). A formal-legal definition recognises corruption as a deviation from formal rules of office and as what the law considers corrupt. For example, a common cited definition is by Nye (1967, p.419), in which '[c]orruption is behaviour which deviates from the formal duties of a public role because of private-regarding (personal, close family, private clique) pecuniary or status gains'. Definitions based on formal regulations are considered more precise and stable (Johnston, 1986). However, they do not account for situations where the legal norms themselves are corrupt, and they can be culturally relativistic - particularly where



laws and standards have been imposed – because they do not consider the subjective perceptions of a country’s citizens (Kurer, 2005).

On the other hand, definitions based on social norms acknowledge that violations can occur regardless of what legislation says, and that there may exist a gap between what is considered corruption by law and what public opinion thinks is corrupt. Since social norms relate to whether actions are perceived as corruption, this concept can be vague and difficult to pin down (Johnston, 1986).

Klitgaard’s definition of corruption tries to take social norms into consideration by using the term ‘illicit’. For him (1988, p.xi), ‘corruption exists when an individual illicitly puts personal interest above those of the people and ideals he or she is pledged to serve’. He also acknowledges that corruption is not restricted to the public sector; it can occur in the private sector as well.

This paper will use the widely-accepted definition by Transparency International: ‘the abuse of entrusted power for private gain’. This approach has the advantage of being flexible, since duties in a given context are different and so too is the idea of what corruption is (Hough, 2017). Additionally, the ‘abuse’ can include legal and social norms. This definition encompasses different practices, such as bribery, extortion, misappropriation (embezzlement and misuse of funds), influence-peddling, nepotism, favouritism, fraud – all of which can occur inside organisations.

### **Analysing corruption**

Political scientists have borrowed the Rational Choice Theory from economists to explain corrupt behaviour. According to this theory, individuals are always rational and self-interested and they make cost-benefit analyses prior to a decision. Thus, actors pursue their objectives efficiently, and their choices are driven by a process of rationalisation to maximise advantages and pick the best outcome (Elster, 1989). Both institutional economics and neo-institutional approaches for analysing corruption fall under the rational-choice theory. Nonetheless, incentives and constraints that influence an individual’s rationality can be seen from different perspectives.

The first paradigm has its pillar in the principal-agent model of corruption. In this model, agents are authorised to make decisions on behalf of the principal and thus must pursue the principal's interest. However, agents have their own private motivation and hold specific information about their actions. This divergence of interest and asymmetry of information make it easy for agents to betray the entrusted responsibility, especially when a third party – the client or the potential corruptor – enters to distort the relationship between the agent and the principal (e.g., private companies offering bribes). So, in order to avoid being misrepresented, principals must set up mechanisms to control and monitor the agent. Principals' and agents' positions can be assumed by different actors. For example, state officials can serve as agents and politicians as principals, or politicians can serve as agents and voters as principals (Klitgaard, 1988; della Porta and Vannucci, 2012).

For the economic approach, corruption will be defined by the expected costs (risk of being caught and punished, severity of penalties) and rewards (monetary gains, power) (Vannucci, 2015). Considering 'individuals [are] rational beings attempting to further their own self-interest in a world of scarce resources' (Rose-Ackerman, 1978, p.5), they will engage in corruption if the benefits outweigh the costs. This assumption therefore implies that individuals will always pick the same course of action. Based on this, Klitgaard (1988, p.75) developed a formula for the causes of corruption ( $C=M+D-A$ ), whereby corruption equals the amount of monopoly added to discretion minus accountability. In other words, the more discretionary power agents hold, the more corruption will flourish, unless they are held deeply accountable.

Anti-corruption reforms based on the institutional economics paradigm are found to be the predominant approach (Hellman, 2015). They aim at altering the costs and rewards for rational individual choices by improving formal and institutional structures. Thus, measures include increasing the likelihood and the severity of punishment, limiting discretion, fostering transparency and accountability, and promoting more rigorous surveillance and control (Rose-Ackerman 1978, Marquette and Peiffer 2015). Therefore, the role of formal internal controls in preventing and detecting corruption fits into this theoretical framework, since they can alleviate informational asymmetry and increase an agent's cost for engaging in corruption.

Having emerged as a criticism of the economic approach, the neo-institutional paradigm also recognises an individual's rationality; however, the cost and benefits of a certain

action depend upon the dynamic of interaction between individuals and socialization processes. Within this belief, there are two versions of analyses: collective action and transaction costs (Hellman, 2015). Through different angles, the neo-institutional approach demonstrates how corruption can become embedded and normalised inside organisations, achieving a stable equilibrium.

Persson, Rothstein and Teorell (2013, p.450) argue that conceptualising corruption as a principal-agent dilemma is a 'theoretical mischaracterization of the problem of systemic corruption'. For them, systemic corruption is in fact a problem of collective action. That is, despite its being in the interest of individuals in a group to work together towards a common goal (i.e., not engaging in corruption), they do not do so (Marquette and Peiffer, 2015). Peoples' choices are influenced by the perception and shared expectations of how others will perform. If corruption is the expected behaviour, there are no incentives to confront it. Individuals cannot trust that others will act cleanly, so they assume that their individual action will make no or little difference in holding agents accountable. Although actors morally condemn corruption and understand its negative consequences, the costs of acting honestly are high– due to the inability to make changes, social exclusion and the feeling of being the only fool. Therefore, where corruption is widespread, individuals are less prone to abstain from corrupt practices, and it is not possible to expect that there will be principals willing to keep agents accountable. Reforms based on the economics framework – such as implementing stricter mechanisms of controls and punishment – are expected to fail because there will be no actors with incentives to operate and enforce them (Persson, Rothstein and Teorell, 2013).

The transaction costs strand considers the mechanisms that account for the dynamic and sustainability of corruption networks, such as internal regulations and their effects on individuals' preferences (Vannuci, 2015). Any illegal deal brings high transactions costs<sup>2</sup> due to internal (e.g., being cheated or denounced) and external (e.g., being caught and punished) threats. Corrupt practices must be carried out in secrecy and all information kept under rigid controls; agreements cannot be written or enforced by public organisations (i.e., the judiciary or the police). Activities of the deal occur in a separate time frame, which requires trust among participants (Lambsdorf, 2002). There is a high risk of being cheated, so strategies must be developed to avoid opportunism. The search

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<sup>2</sup> "Transaction costs are the costs incurred by social actors to establish, maintain and transfer property rights, i.e. to protect one's capability to exercise a choice over valuable resources" (ALLEN 1991 cited in Vannucci 2015, p.19).

for partners and their trustworthiness, the gathering of information, the negotiation of the terms, the exchange of payments, the confirmation of fulfilment, and the potential enforcement of the agreement are very risky and costly (della Porta and Vannucci, 2005). Besides transaction costs, corruption entails moral costs. Mainly as a result of values and culture, moral costs affect an individual's preferences for engaging in corruption. The higher the moral costs for a person, the stronger the preference for acting honestly. Individuals have different values, so choices will vary under similar institutional structures (della Porta and Vannucci, 2012).

Nevertheless, in highly corrupt environments, all of these costs are minimised or neutralised through mechanisms of social interaction, allowing for the coordination of and cooperation in a favourable corruption deal. Networking skills, informal norms and constraints, internalised codes and practices, reciprocity, social capital, valuable information, reputation of partners, and shared expectations are all available, forming a complex and informal institution that reduces uncertainty and renders corruption less morally censurable. As a result, corruption achieves a self-reinforcing equilibrium (della Porta and Vannucci, 2012). Through investigating the hidden regulatory structures of corruption, this approach stresses that institutional dynamic aspects of incentives and constraints are a path-dependent process (della Porta and Vannucci, 2005; della Porta and Vannucci, 2012). In other words, 'preceding steps in a particular direction induce further movement in the same direction' due to the costs of taking a different alternative (Pierson 2000, p.252); the heritage of a certain level of corruption will affect the present level.

Therefore, for both strands of neo-institutionalism, costs and benefits are determined by the extent of corruption and the dynamics of social interaction in a certain organisational context. Since the behaviour and the shared expectation of others' behaviour influence an individual's rational decision, trust plays an important role. As Rothstein (2011, p.231) puts it, '[a]ll the agents may well understand that they would stand to gain from erasing corruption, but because they cannot trust that most other agents will refrain from corrupt practices, they have no reason to refrain from paying or demanding bribes'. It is not probable that individuals will act against corruption, if they do not trust their peers, their leaders or their institutions. According to Uslaner (2005, p.86), '[y]ou can't get rid of corruption by structural change or even by replacing one elite with another. The strongest determinant of change in corruption is change in trust.' From the transaction costs

perspective, if people do not have faith that others will act honestly, the transaction costs for searching out partners, gathering information and establishing corruption networks, which require a different type of trust,<sup>3</sup> are reduced. As della Porta and Vannucci (2012) point out:

‘As long as this profound distrust continues, with corruption perceived as present at every level of government, the reform of formal laws and procedures runs the risk of simply causing a contingent adjustment to the decisions of the corrupted and corrupters, who continue to carve out spaces for their illegal activities after changes in regulations while at the same time adapting the regulatory mechanisms of corruption.’ (p.254)

Given that, an organisation could influence employees’ behaviour by changing its incentives for and constraints on corruption through internal controls that can make agents trust that most others will refrain from acting corruptly. For that, they must also address social relationships, recognition of ethical behaviour, and the structure of social values and cultural norms, which means more intangible factors. Therefore, this theory recognises the importance of soft control elements (such as the tone at the top), as hard controls (such as formal rules and procedures) can be circumvented and may not have impact on the behavioural and cultural aspects of an organisation. ‘Only when official rules are complemented by coherent informal institutions, bottom-up initiatives, do they tend to produce the expected outcomes and make anticorruption regulation more effective’ (Vannucci, 2015, p.3).

Neo-institutionalism is able to address some of the weaknesses of the economic institutional analysis, such as the existence of benevolent principals and the disregard of social and informal relations. However, although they explain how corruption persists in a certain equilibrium, none of the strands clarifies the starting point of corruption and how institutions got their levels in the first place (Hellman, 2015). Moreover, all of the above-mentioned paradigms, relying on the rational-choice theory, ignore the fact that individuals choose based on limited information and knowledge and may not make effective considerations (Simon, 1976). Moreover, they may make decisions just out of commitment to their own values and beliefs, even though these decisions might have consequences contradicting their own best interests (Sen, 1977).

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<sup>3</sup> Uslaner (2005, p.77) calls it ‘trust among the conspirators’.

## **Internal controls and corruption**

Internal controls are widely recognised as a principle of good governance and a tool for tackling corruption, being an organisational requirement under many laws and regulations. Notwithstanding this, the impact of different types of controls on corruption remains a matter of dispute.

Anechiarico and Jacobs (1996), in analysing contracting controls on public administration, concluded that they contribute to a system that makes it difficult to achieve the most basic procurement purposes but still enables abuse by corrupt officials and contractors. They do not advocate that controls should not be put in place, but they contend that the amount and the incorrect type of control ‘can create a panopticon-like environment that reinforces all the pathologies of bureaucracy’. (p.150)

In the principal-agent logic, principals must set up mechanisms of controls to ensure that agents pursue principals’ interest, not their own. To test how agents perceive principals’ choice to control and how this affects agents’ behaviour, Falk and Kosfeld (2004) conducted an experiment whereby a principal could decide either to control or to trust the agent. The results demonstrated that a controlling decision significantly diminishes the agent’s willingness to act in accordance to the principal's interest. This is because the decision to control is a signal of distrust that lowers most agents’ performance. The authors do not conclude that it is always better for principals to trust instead of control; they rather highlight that controls entail hidden costs that – coupled with its explicit costs – have to be weighted to evaluate the potential gains. Another experiment was designed by Schickora (2011), who used a standard corruption game to test in the lab the control called the four-eyes-principle (4EP)<sup>4</sup>, which is one famous policy recommendation to curb corruption. The results show that introducing the 4EP increases corrupt behaviour due to officials’ higher joint cognitive capacity and mutual reciprocity. Thus, this casts doubts on the 4EP as a general recommendation.

Regarding audits and oversights, in a field experiment in Indonesia Olken (2007) revealed that increasing the probability of being audited from 4 percent to 100 percent reduced missing funds from 27.7 percent to 19.2 percent. He argues that the main reason why audits did not have a larger impact on corruption in Indonesian villages is because they

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<sup>4</sup> The 4EP is ‘a requirement that business has to be effectively conducted by at least two individuals (four eyes)’ (Schockora, 2011, p.2).

essentially disclose acts of mismanagement rather than acts of malfeasance. There were very few (if any) cases in which auditors had sufficient evidence to prompt a corruption prosecution.

Neu, Everett and Rahaman (2014) argue that ethical actors are shaped and built through organisational practices, and thus internal control and monitoring activities affect moral responsiveness. Written records create visibility and the investigation of these records by auditors and the dissemination of the auditors' results 'have the potential to construct a disciplined and ethical subject whose behaviors make corrupt practices the exception rather than the norm' (p.50). These authors propose that inscriptions and inspection activities combine with and complement organisations' other ethical practices. However, this potential depends on ensuring that politicians, business actors and bureaucrats cannot block, reduce or deflect these traces. In this sense, the same authors (2013) analysed the tensions between the domain of politics and auditing activities through a major corruption case within the Canadian Sponsorship Program. The analysis shows how macro-level political interests trickle downward, entering into and interfering in audit judgments, restricting therefore the probability that auditors discover or communicate potentially corrupt activities. The case illustrates that corruption can exist side-by-side with intensive audit practices.

By assessing the internal control systems of two public organisations in Saudi Arabia (with different corruption levels), Abaalkhail (2016) concluded that the effectiveness of internal controls in tackling corruption relies on how they are introduced and enforced. Applying the COSO framework, he identified that the same mechanisms of anti-corruption controls are unlikely to be as effective in an organisation with a culture that appears to tolerate corruption compared to one whose culture implies ethical behaviour. Thus, the strength of each organisation's internal control system was partly responsible for its level of corruption and the effectiveness of hard controls was dependent on the quality of soft and monitoring controls.

In this regard, several studies suggest that controls with a strict compliance-based approach aimed at exercising supervision and punishment have the limitation of focusing only on the avoidance of sanctions, and thus do not address state employees' behaviour through values, aspirations and social obligations. Due to rationalising frameworks, pressures and incentives, corrupt practices can become progressively entrenched in the culture of an organisation over time (Hess, 2009). Thus, corruption-prevention methods

based on hard controls (e.g., rules, surveillance and sanctions) may be relatively limited in guiding behaviours, because they do not deal with the informal process that influences the internalisation of unethical actions (Weaver and Clark, 2015). A more value-based approach is needed for the internalisation of values and the promotion of ethical behaviour, and for shared accountability through the stimulation of positive behaviour (soft controls) (Paine, 1994; Treviño et al., 1999, Huberts and Hoekstra, 2016).

As seen from the theoretical and empirical discussions, when corruption is embedded in organisations' culture and permeates the whole government system, it is more difficult to deal with; traditional anti-corruption tools may have little impact on ensuring the integrity of government affairs. For a more specific understanding of corruption and considering the case study of this thesis, the next chapter will uncover some characteristics of corruption within public procurement.



## CHAPTER 4 – CORRUPTION IN PUBLIC PROCUREMENT

Public procurement is the process by which government organisations acquire goods and services. The procurement process is probably the greatest potential route for corruption due to the complexity and the high monetary value of its transactions<sup>5</sup>. Furthermore, it is hard for those who lack expertise and knowledge in contracting to hold the participants accountable. As a result, the procurement process is a key mechanism through which politicians and public officials benefit themselves, their political parties and their allies. Thus, political elites exercise their power over procurement funds either to obtain personal gains or to build relationships with “clients” and maintain their power (Dávid-Barrett and Fazekas, 2016). Political actors need resources to maintain electoral success and business actors need appropriate policies, public contracts, or both. ‘These mutually interdependent needs can be satisfied through the selling and buying of influence at the point of procurement’ (Neu, Everett and Rahaman, 2014, p.52). Those paying the bribes recover their money – and profit more - by exaggerating the costs (inflating contract prices, over-billing, getting contract changes) and reducing the quality of service or materials (OECD, 2016).

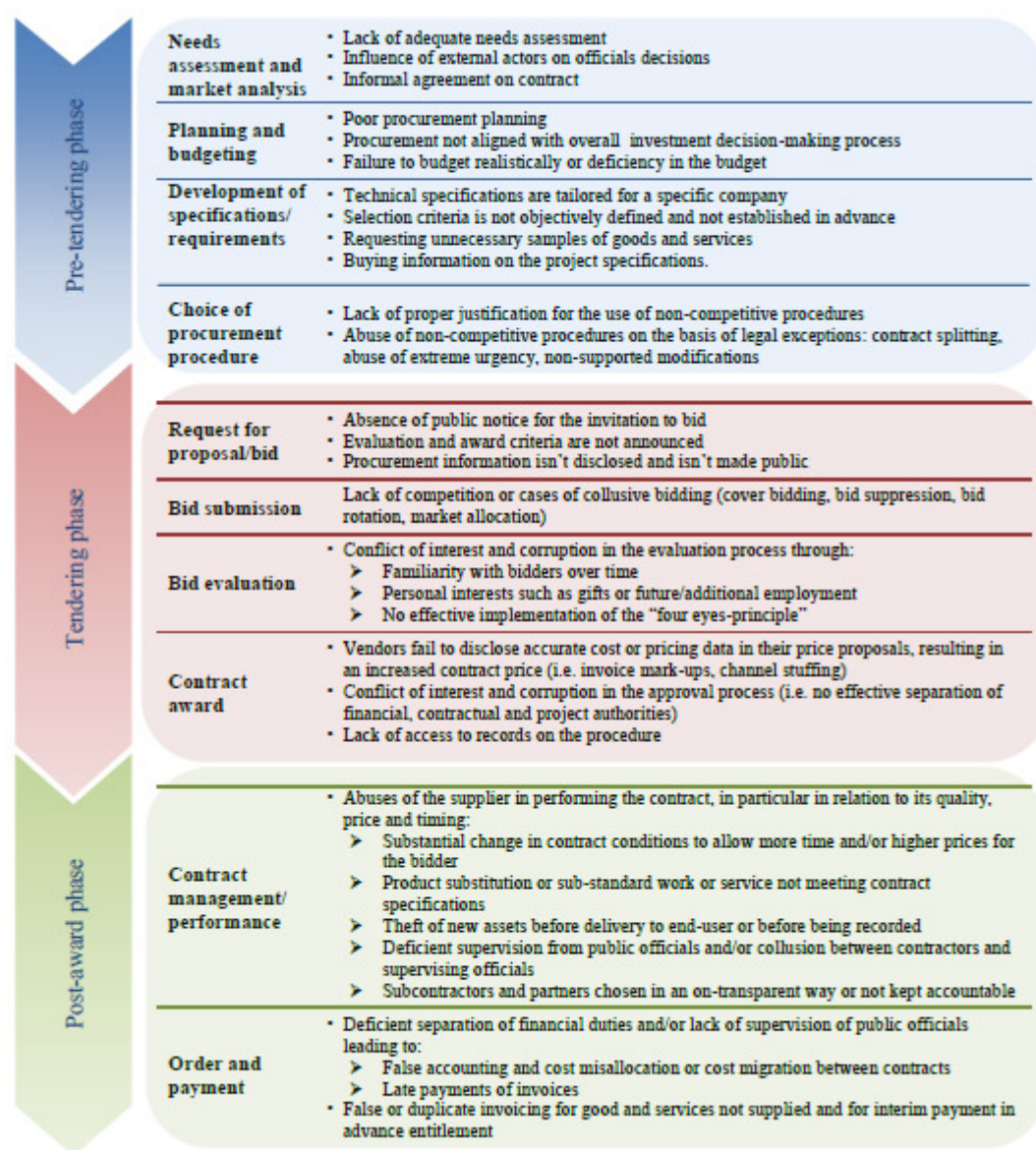
From global experience, specialists have identified that far too many public investments and acquisitions are ineffective, oversized, not needed at all, or too costly. Such misallocation of funds can be due to incompetence, but, more often, is due to influence and manipulation of unethical officials, frequently in collusion with dishonest consultants, suppliers and contractors. Corrupt behaviour can arise at many points along the procurement chain, from the needs assessment to the contract execution and payment (OECD, 2016). The literature points to some of the most common forms of manipulating the procurement procedure. In the pre-contract period, corruption involves making sure that the “preferred” bidder receives the contract. This can be done by guiding the procurement details to specific bidders, limiting the call for tendering bids or sending the invitations to companies with no expertise, manipulating pre-qualification and shortlisting processes, leaking confidential information, writing the contracts in a way that allows for increasing the contract price, collusion and bid-rigging among bidders. In the post-contract period, manipulations aim at generating additional profits. For example, “unpredictable” situations or incomplete specifications create possibilities for contract

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<sup>5</sup> In developing countries, estimates are that US\$820 billion a year is spent on public procurement, representing approximately 15-20% of the gross domestic product (GDP) and up to 50% or more of total government disbursement (World Bank, 2015).

modifications; contract rules and provisions can be avoided and not audited; and supplementary work not included in the contract can be awarded to the same bidder without tender. Corruption is more likely and more difficult to detect where market price is not easily determinable, such as in the construction of infrastructure assets. These uncertainties and asymmetries create space for changing the actual price and the quality of materials (Neu, Everett and Rahaman, 2014). The aforementioned examples are just some forms of manipulation. In fact, every stage of the procurement process has integrity risks, whose nature may differ for each step. The figure below summarises the integrity risks in the procurement process.

**Figure 2 – Procurement integrity risks.**



Source: Preventing Corruption in Public Procurement (OECD, 2016).

As seen, corruption may arise throughout the procurement process, which thus requires a holistic approach to alleviate risks and prevent this corruption. Measures focused only on one stage in the chain may raise risks in other steps. For a holistic strategy, the OECD (2016, p.10) highlights some ‘mutually supportive principles’ to foster good governance and accountability in the procurement process and prevent corruption. They are: integrity, transparency, stakeholder participation, accessibility, e-procurement, and oversight and control.

The first principle relates to the integrity of the actors dealing with procurement. Introducing specific codes of conduct for procurement officials, coupled with specialised training for identification of irregularities and ethics and integrity training, help mitigate the risks by raising awareness, developing commitment and fostering a culture of integrity. Integrity is not only a requirement for public employees, but also for private sector actors. Integrity standards applicable to the public sector should be expanded to private-sector stakeholders.

Moreover, all stages of the procurement cycle must have adequate transparency, ensuring access to information and open data and timely and active answers to requests for information. Transparency is a necessary condition for effective accountability, though not sufficient. Other conditions must be in place, such as the third principle of stakeholder participation (anti-corruption bodies, private sector organisations, end-users, civil society organisations, the media and the citizens).

The accessibility principle encourages facilitating access to procurement opportunities for competitors of all sizes in order to achieve the best value for the money and reinforce competition (e.g., through reducing bureaucracy). The e-procurement principle is the use of digital technology to increase transparency, reduce direct interaction with procurement officials and companies, increase competition, and facilitate detection of irregularities. E-procurement strengthens internal controls and provides audit traces.

Finally, more than just being essential to support accountability and promote integrity, the fifth principle of oversight and control also produces valuable evidence on the performance of the procurement cycle. Institutions should apply a control and risk framework to protect procurement integrity, which generates insights on how to update and refine the controlling system. Effective internal controls are designed to ensure

compliance with laws and procedures and detect any atypical activity, thus safeguarding the efficient fulfilment of the procurement process. Furthermore, as Dávid-Barrett and Fazekas point out (2016, p.9), ‘monitoring institutions are critical to ensuring the integrity of the procurement process, not least because procurement is so complex and because public officials, politicians and companies may become expert in gaming the system’.

Therefore, OCED’s principles highlight the importance of soft and hard controls to prevent corruption in public procurement. However, politicians, business actors, and public officials are participants within the procurement system, and they may have reasons to interfere in the anti-corruption controls, diminishing and diverting them – for instance, influencing what written records will be collected, the type of auditing that will be carried out and the ways written inspection traces will circulate. Additionally, sometimes oversight and audits departments are not provided sufficient resources, so they cannot effectively perform their roles (Neu, Everett and Rahaman, 2014). The next chapter will cover some of the ways whereby integrity was undermined in Petrobras’ procurement process while explaining the corruption scheme.

## CHAPTER 5 – THE CASE

This chapter will provide the relevant contextual information about the case study, mainly regarding Petrobras, the corruption scandal that engulfed the company and its consequences.

### **The sector**

The oil sector is particularly prone to corruption. Some characteristics of the sector contribute to this vulnerability, such as the volume of transactions (oil is frequently mentioned as “the biggest business”); the magnitude of rents it generates; the concentration of revenue flows; the oligopolistic nature of the industry; the technical and structural complexity of the sector, as well as the complexity of its legal, commercial and fiscal arrangements; the resultant natural monopolies in some areas of supporting infrastructure; and its strategic significance for governments (Mcpherson and MacSearraigh, 2007).

### **The company**

Petrobras (abbreviation of *Petróleo Brasileiro S.A*) is a Brazilian state-owned enterprise (SOE), or, more precisely, a publicly-traded company with more than half of its common shares owned by the government (see Appendix 1). Thus, Petrobras is a mixed-capital company with the Brazilian Federal Government as the controlling shareholder, and is part of the Public Federal Administration – linked to the Ministry of Mines and Energy<sup>6</sup>. The company operates in the oil, natural gas and energy industry and is responsible for oil and gas exploration, production, refining, and distribution; petrochemicals; electric energy generation; biofuel production and distribution; and transportation and trade (Petrobras, 2017a). In spite of the corruption scandal that engulfed the SOE and the huge debits that ensued, Petrobras is considered by revenue the biggest Latin America company and the 75th in the world (Fortune, 2017). Since Petrobras can generate revenue by itself, it is considered a self-sustainable SOE.

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<sup>6</sup> See Article 61, [Law 9.478/1997](#).

The company was set up in 1953 under the Federal Union monopoly over the Brazilian oil industry<sup>7</sup>. The monopoly lasted until 1997, when Petrobras started to operate under free competition<sup>8</sup>. Since its beginning the company has been the target of investigations and of Parliamentary Commissions of Inquiry (CPIs)<sup>9</sup>. In 1955, the first CPI related to Petrobras was established by the Chamber of Deputies in order to investigate the exploration of petroleum in Brazil and the situation of the company. There is no Brazilian company so far that has been more investigated by the Brazilian Congress, which has set up 12 CPIs (*Câmara dos Deputados*, 2015).

The Brazilian Federal Government holds the majority of Petrobras' shares with voting rights. It thus has the authority to elect the majority of the Board of Directors' members. In turn, the Board of Directors elects the Executive Board. The strong connection with the government represents a risk to the company of being used as a means to achieve political goals and interests rather than financial and operational efficiency and effectiveness. Since Petrobras is a listed entity, it has to comply with Brazilian market regulations and is subject to investor scrutiny. The company is also listed on the New York Stock Exchange, and hence must abide by the Securities and Exchange Commission (SEC) standards, such as implementing an internal control system in line with section 404 of the Sarbanes-Oxley Act and its regulatory bodies (Public Company Accounting Oversight Board) to mitigate the risk of corporate fraud (Petrobras, 2017d). As part of the public administration, Petrobras should be accountable to government control institutions, both external control (Federal Court of Accounts – TCU) and internal control (Ministry of Transparency and Office of the Comptroller General – CGU)<sup>10</sup>.

### **The Brazilian central body for internal control**

The CGU is the central body for internal control, which is entrusted, besides other duties, with the normative orientation and the technical supervision of the Internal Control System of the Executive Branch, and with auditing federal public resources under the responsibility of public and private bodies and entities. In addition to being the central body for internal control, it is the central body for disciplinary and ombudsman systems.

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<sup>7</sup> Petrobras was first established by the [Law 2004/1953](#).

<sup>8</sup> The enactment of [Law 9.478/1997](#) repealed the Law 2004/1953.

<sup>9</sup> A Parliamentary Commission of Inquiry (CPI) is an investigation conducted by the Legislative Branch, seeking to hear testimonies and take information directly about the fact under investigation.

<sup>10</sup> As determined by articles 70 and 71 of the [1988 Brazilian Federal Constitution](#).

Overall, it is in charge of adopting the necessary measures regarding the defence of public assets, internal control, public audit, corrective and disciplinary procedures, prevention of and fighting against corruption, ombudsman activities and fostering transparency in the Federal Public Administration<sup>11</sup>.

## **Understanding the corruption scheme**

In March of 2014, corruption in Petrobras started to be uncovered by the biggest corruption and money-laundering investigation ever conducted in Brazil, Operation Car Wash (in Portuguese, *Operação Lava Jato*)<sup>12</sup>. Although the investigation began in 2009 over money-laundering activities, it only went public after almost 5 years with the arrest of a known money launderer (Alberto Youssef)<sup>13</sup> and of Petrobras' former director of downstream operations (Paulo Roberto Costa). Today, the investigation has reached other criminal organisations and has indicted hundreds of people, including politicians and former politicians, Petrobras employees and former employees and executives from constructing and engineering firms (MPF, 2017).

Mr. Costa was the first to make a plea bargain deal with federal prosecutors, providing important assistance in ascertaining the facts in exchange for benefits. His testimony revealed the existence of a cartel composed of large contractors and the involvement of executives at Petrobras in facilitating the overpricing of the construction of refineries and petrochemical complexes. Many other plea-bargains have followed, revealing the vast extent of the bribes' exchange network, which had been in place for over ten years and which encompassed other departments of the company.

To sum up, large constructing firms organised in cartels paid bribes to Petrobras' senior state executives, other public agents, politicians and political parties. According to the Federal Public Prosecutor's Office (MPF), bribes varied from 1% to 5% of the total amount of huge contracts, which were overpriced. In secret meetings, the cartel set up the prices offered in the bids and the choice of who would win the contract. Public agents were co-

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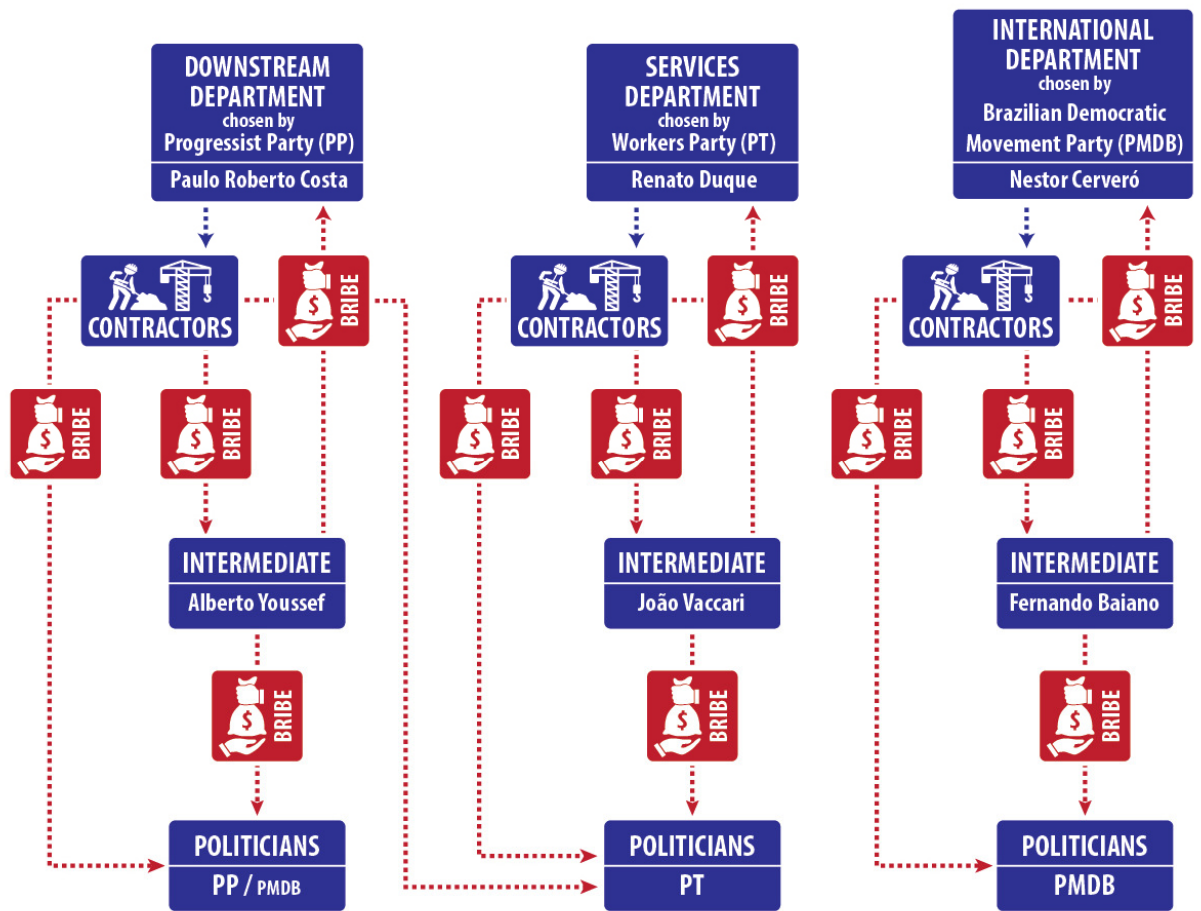
<sup>11</sup> For more, see Annex to the [Decree 8.910/2016](#).

<sup>12</sup> The name of the investigation stems from the use of a network of gas stations and car washes to move illicit resources belonging to one of the initially-investigated criminal organisations.

<sup>13</sup> Alberto Youssef had been detained at least seven times before Operation Car Wash. In 2003, Youssef was investigated, prosecuted and arrested as a result of his involvement as a black-market money dealer in the Banestado Case. At that time, he signed Brazil's first plea bargain agreement. Youssef was sentenced to seven years in prison, but he served only one year due to his collaboration, which was considered by the prosecutors to be very fruitful (Castro, 2016).

opted to facilitate the scheme. Moreover, politicians were involved by indicating directors who would accept being part of the corrupt network. Intermediates, known as *doleiros*, performed the link between the bribers and the bribees by being in charge of laundering the money and delivering the bribes “clean” (MPF, 2017). The involvement of the actors and the distribution of bribes were organised according to Petrobras’ departments (see figure below).

**Figure 3 – Simplified representation of Petrobras’ corruption scheme.**



Source: Developed by the author based on the Federal Prosecutors’ Office website (MPF, 2017).

The cartel comprised 16 main enterprises organised in a “club”, as well as six more companies that negotiated sporadically with the “club”, to defraud procurement processes and raise contract profits. The list of 22 companies includes some of the biggest construction and engineering firms in Brazil, such as OAS, Camargo Corrêa, UTC Engenharia, and Odebrecht (*Gazeta do Povo*, 2014). The cartel had its operating rules and regulations disguised under the rules of a football league, and the records of the allocation of contracts were written as if they were distribution of bingo prizes (MPF, 2017).



The role of the executives at Petrobras was to take necessary measures (either by themselves or by influencing their subordinates) to support the cartel's goals and operations. As stated in MPF's criminal charges<sup>14</sup>, these measures included, for instance, accelerating bidding procedures and approving large works without essential steps for the correct evaluation of the work (e.g., without the basic-design phase); approving bidding committees with inexperienced employees; sharing confidential or restricted information with the cartel's companies; including or excluding the cartel's companies in the tenders, and directing them in favour of the cartel's choice; not complying with internal norms and standards for control and evaluation of the work carried out by the contractors; avoiding certain matters to be evaluated by the Legal Department or the Executive Board; directly hiring contractors in an unjustified manner; and facilitating contract amendments to benefit the cartel companies, often unnecessary and at excessive prices.

### **Political and financial consequences**

The Petrobras scandal was unique in Brazil's history for the huge sums of bribes, the extension of the corrupt network and the high-ranking politicians involved. It shocked the entire country and reinforced citizens' distrust in the political system. In 2015 and 2016, several street protests occurred throughout the country with millions of Brazilians protesting against corruption and demanding the impeachment of President Dilma Rousseff<sup>15</sup>.

The Petrobras case also shook the Brazilian Congress leadership. The President of the Chamber of Deputies, Eduardo Cunha, was suspended from his mandate in May 2016 by the Supreme Federal Court (STF). Considered one of Brazil's most powerful politicians, he was arrested months later and recently sentenced to 15 years and 4 months in jail (Gallas, 2017). The President of the Senate was removed from his post as Speaker and has been facing accusations related to the scheme. Furthermore, former Ministers (e.g., one Chief Minister, two Finance Ministers) were convicted and, recently, the ex-President of Brazil, Luiz Inácio Lula da Silva, who stayed in power for 8 years, was sentenced to 9.5 years in jail.

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<sup>14</sup> To access the criminal charges, go to <http://lavajato.mpf.mp.br/atuacao-na-1a-instancia/denuncias-do-mpf>.

<sup>15</sup> Dilma Rousseff was the chairwoman of Petrobras when part of the scheme occurred. Although corruption was not the reason for her impeachment and she was not under investigation, Petrobras' scandal - alongside with the economic downturn - reinforced people's anger against the government (Watts, 2016).

In the financial sphere, Petrobras estimated the amount lost to bribery at approximately USD 2 billion (Kottasova, 2015), while Brazilian prosecutors stated it is likely to surpass USD 5 billion (Whitaker, 2015). The Federal Police calculated the damage caused by the irregularities in Petrobras to reach R\$ 42.8 billion<sup>16</sup> (Dionísio, 2015). During the heavy press coverage, Petrobras' stock price dropped 68% in value – it went from R\$13.32 in the beginning of 2014 to R\$4.25 at the end of 2015 (Yahoo Finance, 2015).

Moreover, Petrobras has cut its investment plan (for the period 2015-2019) by 25 percent, and has contracted its labour force by around 34% percent – with plans to further reduce it by thousands more (Girgenti, 2016). In 2015, the Brazilian economy shrank by almost 4 percent; the Petrobras crisis accounted for more than half of the GDP's reduction according to an estimative from 4E *Consultoria* (Lima, 2016). Corruption has generated economic and political uncertainty that is in large part responsible for Brazil's worst recession in two decades (Girgenti, 2016).

### **Structural changes**

In the aftermath of the scandal, Petrobras has adopted different measures to improve controls and prevent corruption. The company has launched the Petrobras Corruption Prevention Programme (PCPP), designed for the diverse company's stakeholders and to work alongside with the Petrobras System Code of Ethics and Petrobras Conduct Guide, in order to create a zero-tolerance policy on any kind of misconduct (Petrobras, 2015c). Changes in the organisational structure have proceeded, such as the modification of the company's by-laws to create new committees and the creation of a Governance and Compliance Department. Furthermore, Petrobras has increased strictness regarding suppliers in the procurement of goods and services, and has precautionarily blocked the cartel's companies from participating in bids and from contracting with Petrobras. The SOE has also designed a new complaint and whistle-blower channel, and has developed training in compliance and anti-corruption for the Members of the Board of Directors, Executive Board Officers, and employees (Petrobras, 2015b). Organisational changes have also encompassed CGU, which has designated a specific department for auditing state-owned companies with a specific sector for auditing Petrobras<sup>17</sup>.

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<sup>16</sup> This sum in Brazilian reais equals approximately 10.5 billion pounds in August 2017.

<sup>17</sup> The new structure was approved by the [Decree 8.910/2016](#). Before that, the auditing of each state-owned enterprise was a duty of the department responsible for the Ministry to which the SOE was subordinated ([Decree 4.785/2003](#)).

In relation to the legal framework, since 1998 the Brazilian Federal Constitution has required the National Congress to draft a specific law to address the peculiarities of Petrobras and other SOEs. However, only in June 2016 was this gap in the legislation filled with the enactment of Law 13.303, known as the Law of State-Owned Enterprises. The new legislation covers three major issues affecting the organisation and governance of this type of public entity: societal structure; risk management and internal control; and procurement. The second issue includes transparency, compliance, and integrity policies; rules of conduct; and oversight by the State and society (Vianna, 2017).

## CHAPTER 6 – METHODOLOGY

The analysis of the selected case aims at developing a better understanding of the relationship between internal controls and corruption. The purpose of this study is to answer how Petrobras' internal controls contributed to the development of the corruption scheme. According to Arwinge (2012), the use of a qualitative approach is recommended for understanding how organisations design, implement and monitor their internal control systems. Furthermore, applying a case study is appropriate for a comprehensive account of an event because it enables a qualitative analysis of the multiple dimensions of a problem, allowing for the identification of several processes that interact in the studied context and contributing to their better understanding (Peters, 1998). Considering this, exploring how the problem came to be was deemed more suitable to answer the research question rather than testing an existing theory.

The study applies the COSO's Internal Control – Integrated Framework for assessing Petrobras' internal control system prior to the revelation of the corruption scandal. The use of such frameworks is appropriate for three reasons. First, it is considered a leading methodology for designing and evaluating internal control systems and the only one systematised into principles and attributes, which facilitates the assessment (D'Aquila, 2013); second, it allows for use in all types of organisations and is suitable for subsets of internal controls (COSO, 2013); and third, it is the framework utilised by Petrobras (Petrobras, 2016b). Due to the nature of the corruption scheme here described and the broad nature of the internal control concept, this study will focus on evaluating the company's internal controls related to the integrity of the procurement process.

The data were generated through an extensive analysis of documents available online (from CGU<sup>18</sup>, Petrobras<sup>19</sup>, and Petrobras' CPI<sup>20</sup>) and information in the media, and supplemented by two semi-structured interviews via Skype with federal auditors from CGU involved in some of the auditing of Petrobras. The questions followed the structured of COSO components (see Appendix 2), and were designed to be applied to employees of

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<sup>18</sup> The audits report from CGU can be found at <https://auditoria.cgu.gov.br/>.

<sup>19</sup> The documents were mainly the Report of the Administration, Form 20F, Sustainability Report, and *Formulário de Referência*. They can be retrieved at <http://www.investidorpetrobras.com.br/en>.

<sup>20</sup> The final report of Petrobras' Parliamentary Commission of Inquiry drafted by the Chamber of Deputies. Available at <http://www2.camara.leg.br/atividade-legislativa/comissoes/comissoes-temporarias/parlamentar-de-inquerito/55a-legislatura/cpi-petrobras/documentos/outros-documentos/relatorio-final-da-cpi-petrobras>

Petrobras' Internal Audit Unit. At the beginning, the unit had agreed to participate in the research. However, after my sending the questions via e-mail, they suggested another department would be more suitable for answering them. Instead of interviews, the department preferred to answer the questions in writing. The reply arrived only six days prior to the deadline of this paper, and mainly pointed to documents online where the answers were supposedly available. The documents, however, referred to information about changes undertaken after the scandal, not about precisely how the organisation worked prior to that.

## **CHAPTER 7 – RESULTS AND ANALYSIS**

Chapter 02 briefly explained COSO internal control's components and principles. With those in mind, this chapter seeks to evaluate each COSO component of Petrobras' internal controls before the disclosure of the scandal in 2014. Given the analysis was limited to the information available online and to two interviews, a comprehensive evaluation of each principle was not possible, yet some crucial deficiencies were identified. After presenting the findings, this paper will provide some considerations in the light of the theories mentioned in chapters three and four.

### **Control environment**

The first COSO principle for a strong control environment is the organisation's commitment to integrity and ethical values. Management and the Board of Directors must lead by example and demonstrate the importance of integrity and ethics in their directives, actions and behaviour, thereby influencing employees and the different stakeholders. The extent to which these expectations of ethical values are communicated and applied by leadership at all levels within the organisation characterises the tone at the top. Although the company had formal controls expressing expectations regarding integrity (e.g., code of ethics, an ethics committee, establishment of mission and values such as ethics and transparency), it lacked the soft controls necessary to communicate and reinforce them. Considering that the corrupt scheme was mainly carried out on the level of senior management and the Executive Board, the ethical commitment was not incorporated into top management's personal conduct and decision-making, which fact informally conveyed the message to employees that corruption and other unethical behaviours were accepted.

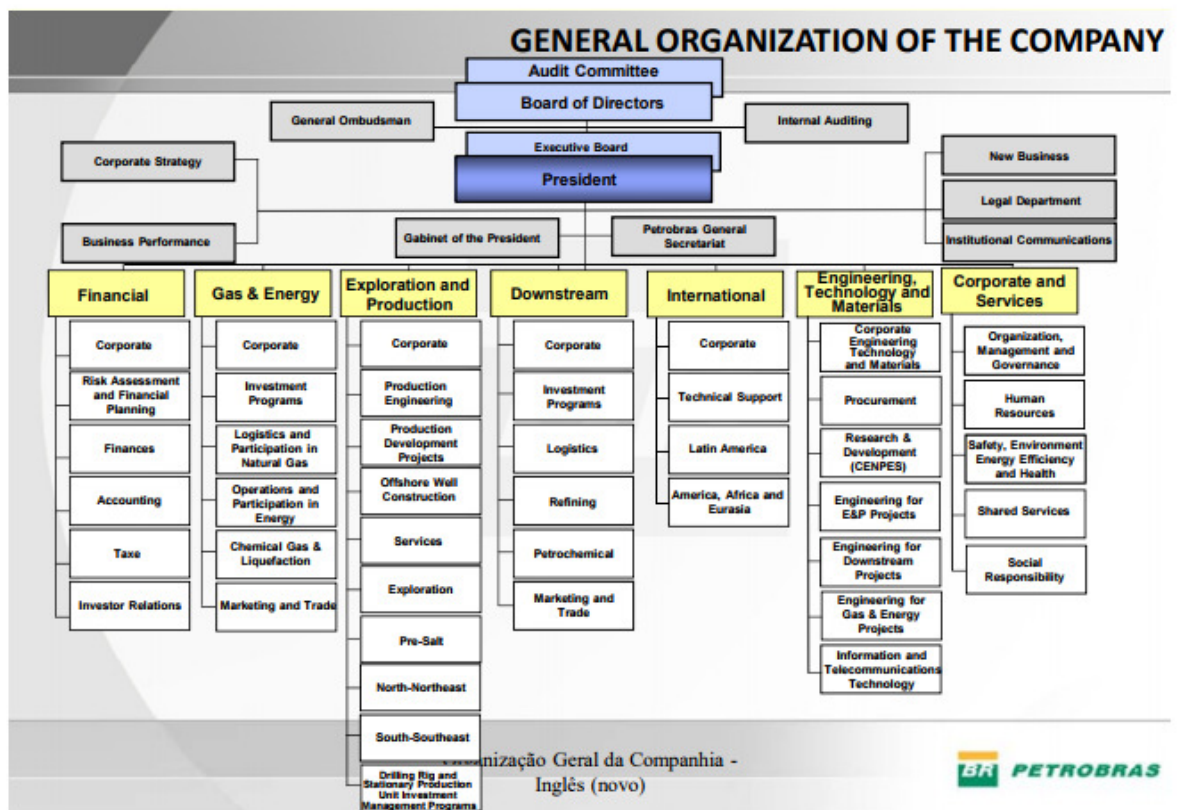
With respect to this, in the Form 20F 2015 (Petrobras, 2016a, p.180), the company reported:

'In some of our contracting processes, one or more senior managers, together with third parties [...], colluded to eliminate, infringe upon, override or circumvent these controls, which resulted in the commission of wrongful acts contrary to our interests and policies. Our management identified the following internal control deficiencies related to the failure to detect these acts that together constitute a material weakness in our control environment: (i) inadequate "tone at the top" regarding internal controls; (ii) failure to communicate the ethical values

prescribed in our Code of Conduct; and (iii) lack of an effective whistleblower program.’

Related to the governance structure of the company for the establishment of responsibilities, Petrobras had defined standards, processes and structures. The corporate governance structure was composed of the Board of Directors and its Committees, Executive Board, Fiscal Council, Internal Audit, Ombudsman, Business Committee and Integration Committee. The Committees of the Board of Directors, responsible for advising and supporting decision-making, were three: Audit, Environment, and Compensation and Succession. Petrobras' Corporate Governance Guidelines, as well as internal regulations of each structure, provided mechanisms for evaluating the performance of members of the Board of Directors, Committees and Executive Board. The company's by-laws set clear definitions of the form of convocation of the General Meeting of Shareholders, and of the form of election, removal and term of office of the Board of Directors' and Executive Board's members (Petrobras, 2013b).

**Figure 4 – General organisation of Petrobras in 2012.**



Source: Operating Report 2012 (Petrobras, 2013d).

Therefore, formally, the Board of Directors demonstrated independence from management and means to exercise oversight and control. According to a former member of the Petrobras' Audit Committee<sup>21</sup> (*Câmara dos Deputados*, 2015, my translation):

‘Petrobras has one of the most detailed and complete governance systems I have ever seen. Upon being elected, I received a document called the Corporate Governance Manual, with statutes, internal regulations, norms and procedures, which suggest a fantastic governance. Unfortunately, it's just fantastic on paper. Many provisions were not fulfilled. And some loopholes were used mischievously; so that the system stopped working on what was relevant.’ (p.464)

Although the organisation had the means to exercise oversight and hold individuals accountable for their responsibilities for internal controls, it did not used to happen in practice. The fact that the Board of Directors was composed in part by important actors of Brazilian politics and that the executive board and senior managers were involved in the scheme prevented the enforcement of such mechanisms of control. This is also relevant to the reinforcement of an organisational culture of corruption. Both interviewees said a key problem of the company was the lack of a culture of integrity. As stated by interviewee B (my translation):

‘The executive board was totally involved in the corruption scheme, and the board of directors to say the least was alienated, unable to make any minimal criticism; it was a potentially catastrophic scenario. When this has been stretching for many years, with the executive board, executive management and even middle management of Petrobras very involved, each within their microcosm of corruption, from small to large corruption, this develops a culture of corruption. Petrobras has always tried to alleviate the damage, “it's half a dozen of rotten apples”, it is not! Not half a dozen! This toxic scenario has stretched for many years within the company and in fact this has become a culture.’

Transparency requirements reinforce accountability (COSO, 2013). Regarding the Freedom of Information Act (Law 12.527/11)<sup>22</sup>, Petrobras as a SOE must comply with it. Besides general exceptions such as private data and information that threatens national security, the SOEs are exempt from releasing information related to industrial or commercial secrecy. Moreover, those SOEs which operate in a competitive basis ‘shall be

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<sup>21</sup> According to his testimony, he was dismissed from the Committee after only one year, which he attributed to the fact that he voted against the approval of the 2013 financial statements and he demanded more information about investments in two refineries.

<sup>22</sup> The law came into force in May of 2012 – with the enactment of the Decree 7.724/12 – and makes it possible for any person, physical or legal, to request information from any organisation of the government without the need to present a reason and establishes, as a general rule, that all data produced by public entities should be public.



subject to the relevant rules of the Securities and Exchange Commission of Brazil (CVM) so as to ensure its competitiveness, corporate governance and, where applicable, the interests of minority shareholders<sup>23</sup>. Using this provision, Petrobras denied me access to the reports produced by its internal audit. The company did not specify any one of CVM's rules related to the request, nor could I find one<sup>24</sup>. Due to the generality of the provision, it seems that the company can rely on it when not willing to disclose information.

In relation to the commitment to attract, develop and retain competent individuals, to hire its permanent personnel, the company has to promote public selections, which is usually a tough, objective and competitive process. Public employees at SOE are subject to the labour law for the private sector; however, in practice dismissal regarding poor performance is difficult to happen (Vianna, 2014). In the Reports of Administration, Petrobras is always proud of its human resource management, which values its employees and invests in training<sup>25</sup>. The SOE had the Petrobras Human Resources Training Program, which sponsors courses related to the industry, and the Committee of Compensation and Succession, responsible for planning incentive policies. (Petrobras, 2013d). However, none of the training seemed to address ethical issues; interviewee A pointed out that the human resources management of Petrobras did not develop policies of appreciation of and rewards for ethical values and attitudes.

With respect to the members of the Board of Directors and Executive Board, it is possible to identify by looking at Petrobras' reports that they offered relevant competence to the company; they were mostly engineers, administrators, economists. For instance, Mr. Costa, a key actor of the scheme, was an experienced engineer who served the company for more than 20 years before being appointed a director.

Specifically to the process of procurement, the Decree 2.745/98 – which approves the Regulation of the Simplified Bidding Procedure of Petrobras – provided the basis for the control environment. Petrobras' regulatory requirements did not follow the law for the Brazilian public sector (Law 8.666/93); the company had its own specific norm. The main

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<sup>23</sup> My translation of part of § 1º, Article 5º, Decree 7.724/12.

<sup>24</sup> I demanded the reports of audits of the procurement process of the contractors investigated by Operation Car Wash. The request was denied in all instances inside the company, including by the President (request number SIC Petrobras N° 01837/2017).

<sup>25</sup> For instance, in 2012, the company was elected, for the fifth consecutive year, one of the most desired companies to work for according to a survey conducted by the consulting firm Aon Hewitt. Petrobras was also recognised in top positions by the Young People's Dream Company survey. In 2012, it promoted an average of 96.3 hours of training per employee and 226 thousand activities in Brazil and abroad, including training programs of corporate governance best practices for executive officers (Petrobras, 2013d).

argument for the introduction of a less strict procedure was that, in order to be able to compete with other private companies in Brazil and abroad, the company could not comply with the excessive bureaucracy of the Law 8.666/93. The Decree does not establish monetary thresholds for applying different types of procurement modalities, which authorises the company to use the “invitation to bid” modality for any type of contract and value. In fact, the majority of procurement processed used this modality, which does not promote competition. Moreover, the Decree established new hypotheses of waiver and non-requirement to bid, redefined ways to publicize the bidding events, and authorised the integrated contracting model when economically recommendable – which allowed for the possibility of the contractor to develop the constructive solution and the final basic project<sup>26</sup>. Only in May 2013, a few months before the scandal came to light, did the company develop the Petrobras Contracting Handbook (*Manual da Petrobras para Contratação*) as a part of its internal control over procurement.

During the hearing of the Petrobras Parliamentary Commissions of Inquiry (CPI), the Congress discussed the issue of whether or not the more flexible procurement rules established by the Decree 2.745/98 contributed to the scheme. Although some of the deponents believed that, the majority of them pointed that more strict rules would have made no difference for curbing the scheme. Even the ones who pointed to the decree as one of the causes defended the idea that the flexibility in procurement is necessary for the company – which does not mean that the Decree cannot be improved. Passages from the testimonies such as ‘the original problem was not in the formal aspect [of the Decree], but how it was used’ and ‘the problem is not there, it is somewhere else’, led the CPI to conclude that the issue was the misuse of discretion and not the essence of Decree No. 2.745/98 in providing flexibility to Petrobras (*Câmara dos Deputados*, 2015, p.448-458, my translation).

Therefore, the organisational culture seemed to be the most prominent aspect of the control environment, which expressed itself in the lack of commitment to integrity and to ethical values at all levels. Through an analysis of the measures adopted by the company after the scandal, it is possible to identify some efforts in bridging the gaps in the Petrobras control environment, including an attempt to improve the organisational culture. Some of the efforts to strengthen controls are: the creation of a department of Governance, Risk

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<sup>26</sup> There is a lot of disagreement on the constitutionality of the Decree 2.745/98. In spite of that, the Decree was the norm in force. For discussions about the constitutionally and unconstitutionality of the Decree, see [Petrobras CPI report](#).

and Compliance<sup>27</sup>; changing and strengthening the criteria for the inclusion of members in the top management; the modification of the company's by-laws to create new committees and to allow the participation of external members on the Board of Directors; review of the rules and procedures for the management of investment projects and goods and services contracting; and strengthening the communication of ethical values through trainings and internal communication media. The company has launched the Petrobras Corruption Prevention Programme, which includes, among other measures, the creation of a Correction Committee; improvement of the performance of the Internal Inquiry Commissions; a review and adaptation of internal regulations; inclusion of the "Compliance" criterion as part of the evaluation of the performance and results of Petrobras' employees; anti-corruption trainings; and establishment of compliance officers (Petrobras, 2016b and 2016c).

### **Risk assessment**

Petrobras had specific policies and guidelines for risk management, which were handled by the Executive Board. The risk management strategy did not focus on individual risks (e.g., particular units or operations), but rather took a broader and more consolidated approach (Petrobras, 2013d). Through the analyses of Petrobras' annual reports, it is possible to see that the company considered mainly market and financial risks. There was no mention of fraud and corruption-related risks.

According to COSO (2013), a precondition to the risk assessment component is the establishment of clear objectives. Moreover, the risk assessment should consider not only risks within the overall organisation, but also in its subunits (such as human resources, purchasing) and in the relationships with key providers and partners, including transactional-level risks. The documents analysed did not allow for the identification of how, what and if procurement objectives were well established. And, as stated, the approach did not consider risks in particular units and operations, or risks related to corruption and fraud. The interviewees confirmed that the company did not have proper risk assessment regarding integrity in the procurement process. Therefore, this component had great deficiency and all of its principles were compromised.

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<sup>27</sup> Nowadays, it is the Governance and Compliance Department. For Petrobras' current organizational chart see <http://www.investidorpetrobras.com.br/en/corporate-governance/organization-chart>.

In June 2015, the company approved its Corporate Risk Management Policy, establishing guidelines for corporate risk management. The policy identifies 21 business risk categories (including non-compliance with the conduct guide and the code of ethics), specifies rules and procedures for each risk, and has specific managers responsible for its implementation. (Petrobras, 2016b).

### **Control activities**

Control activities are those actions put in place to help ensure that responses to risks, as well as management standards and directives, are carried out properly and effectively. Either preventive or detective, control activities are taken to avoid or to correct an undesirable or unexpected outcome (COSO, 2013). As indicated in the control environment component section of this paper, the procurement process of Petrobras follows the rules established by the Decree 2.745/98. Thus, control activities should be developed to make sure that the company complies with the Decree and other relevant internal directives, as well as meets procurement objectives. Due to the size and complexity of the company and the limited access to internal information, it was not possible to assess the whole procurement chain and identify how the enterprise applied control activities throughout the many steps of contracting. Despite that, some important deficiencies in this component can be pinpointed.

From 2011 to 2014, there was a volume of purchases around R\$ 369 billion, of which R\$ 167 billion (45%) were not preceded by a bidding procedure; they were contracted directly. Moreover, 99% of the remaining R\$ 202 billion<sup>28</sup> – the portion in which there was a bid – occurred through the modality “invitation to bid”. This modality displays less transparency and gives great freedom to the manager in the choice of inviting companies, which do not need to be registered in the Petrobras’ list of suppliers (TCU, 2016). The high amount of money and the greater flexibility in the procurement process entail high risks, and the lack of proper risk assessment (as seen above) prevented Petrobras from developing control activities focusing on reducing or sharing risks in the procurement processes, including the risks of corruption.

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<sup>28</sup> In August 2017, these amounts equal around GBP 90.5 billion, GBP 41.0 billion and GBP 49.5 billion, respectively.

Petrobras counts on an electronic system to support its e-procurement activities, called Petronect. The Petronect portal has several functions, such as supplier registration and purchasing and contracting. The procurement processes were carried out by different units in Petrobras and this technological solution was to facilitate and provide better control activities. However, its use was not mandatory. According to an audit carried out by CGU (2016b), the rate of utilisation of the portal during the 5-year period before the audit represented 70% of the acquisitions, but only 30% of the financial amount of transactions. This means that the system was mainly used for small and medium contracts. The report points to the lack of corporate orientation on the use of Petronect; the decision whether or not to use the system was left to each manager of the company's purchasing and contracting areas. There was no policy to establish the use of the system. Moreover, the audit identified six companies that were under investigation in Operation Car Wash with an active registration in the list of suppliers, as well as many vulnerabilities related to the security of information, mainly in the management of access, users and traceability of transactions. Just as an example, in the beginning of 2014 88% of the users for the assessment of suppliers' registration were outsourced employees and only 12% were public employees from Petrobras.

Transparency is also important to enable control and monitoring activities. In relation to transparency, some important gaps were found. Since 2004, the Federal Executive Branch has had a website, called Transparency Portal<sup>29</sup>, to provide information about revenue and expenses of the public administration on a daily basis. Because Petrobras is a self-sustainable SOE, its information is not displayed in the Portal. Instead, the Decree 5.482/2005 requires it to publish information about their expenditures, such as budgetary execution, tenders, contracts, and so on, on their own website. However, an audit performed by CGU identified in 2012 that the information on Petrobras' website was not sufficient and did not fully comply with the decree (CGU, 2015).

Moreover, control bodies only have access to the procurement budget made by Petrobras after the result of the bidding process. Additionally, as a self-sustainable SOE, Petrobras does not use the managerial systems from the federal government, such as the procurement and the financial execution systems. Their systems are privately owned, and auditors from CGU do not access them (*Câmara dos Deputados*, 2015). Interviewee A reported that sometimes the company obstructed the auditing processes. For instance, the

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<sup>29</sup> In Portuguese, *Portal da Transparência*. To access the portal <http://www.transparencia.gov.br/>

company used to deny access to the meeting minutes of the Board of Directors. Only after a lot of tension, did it allow access through the company's computer – without letting the auditors have a hard copy of the document<sup>30</sup>. This lack of transparency prevented detective control activities from being carried out effectively.

Specifically about activities to detect corruption, Interview A highlighted that, when planning an audit, the auditor should consider the possibility of fraud; however, he/she is not responsible for detecting fraud due to the lack of suitable methods and procedures, such as access to tax and fiscal information of the companies being audited. Accordingly, the Internal Audit Unit of Petrobras stated that their auditors do not have tools and resources for carrying out investigations; hence, despite the relevance of many of the nonconformities pointed out, there were no elements that allowed for linking their occurrence with the existence of corruption schemes<sup>31</sup>.

The segregation of duties is always pointed to as an important tool in the control activity component (COSO, 2013). Although it was not possible to identify exactly how the duties were segregated in the procurement process of Petrobras, some facts indicate that the top management was able to undermine or circumvent the segregation - for instance, by nominating members with little or no professional experience to the Tender Committee and avoiding certain matters to be evaluated by the Legal Department or the Board of Directors (*Câmara dos Deputados*, 2015). Furthermore, there were some cases whereby the opinion of the technical area was to discourage the business, but the executive board distorted the recommendation and even asked the technical area to redo the calculations using other parameters that were completely unreasonable. They would arrive at the result they wanted, and so they made the decision. A decision that was already born jeopardised in the Executive Board was very difficult for the technical area, even if the technical area was not involved', said interviewee B (my translation)<sup>32</sup>.

In some cases, due to recommendations of control bodies and complaints of irregularities, Petrobras did establish internal audit committees to investigate and detect the occurrence of such irregularities; however, in practice, the results for the correction of irregularities were almost non-existent. Other deficiencies in control activities were the absence of the

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<sup>30</sup> The company denied the meeting minutes even without legal authority (the § 2º, Article 1º, Law 9292/96 establishes that the Board of Directors should provide the meeting minutes in its annual accountability process).

<sup>31</sup> Communication via e-mail with Petrobras in response to the questions of the semi-structured interview.

<sup>32</sup> Sometimes even the technical area was involved in the corrupt scheme, which made it easier for corruption exchanges to be accomplished.

basic-design phase and planning of the engineering projects. Moreover, Petrobras did not demand the specification and quantification of services and the respective specific costs of the work (*Câmara dos Deputados*, 2015). These facts increased the opportunities for contract amendments and made it difficult to oversee the contracts due to the absence of specific parameters.

In order to strengthen its control activities after the scandal, Petrobras implemented a process of due diligence regarding its suppliers. To be registered in the list of suppliers, companies should provide detailed information about their mechanisms to curb corruption (Petrobras, 2015b). However, even after the scandal, Petrobras itself identified deficiencies in the control activities regarding the issuance of purchase orders and quotation in the system to suppliers that should have been blocked. Another step taken was the establishment of a sharing model of decision-making within the Administration (Petrobras, 2016b). Additionally, Petrobras has centralised good and service procurement activities at the new Human Resource, SMS, and Services Department; has strengthened the enforcement of disciplinary measures; and has precautionarily blocked the cartel's companies from participating in bids and contracting with Petrobras. The company established investigations by two hired Independent Internal Investigation Offices, as well as by its Internal Inquiry Committees (Petrobras, 2015b).

Although not deeply investigated, this component illustrates some aspects of how Petrobras' control activities were curtailed or circumvented.

### **Information and Communication**

The Information and Communication COSO component stresses that organisations must obtain and use information from both internal and external sources to support the performance of other components of internal control. Moreover, organisations must communicate relevant information to enable a shared understanding of its objectives and of the importance of control activities. Through some examples, it is possible to conclude that these aspects had some important deficiencies.

Although the company had an Ombudsman, a channel for communication of denunciations, complaints, suggestions and compliments, it did not work properly. Before Operation Car Wash, a member of the Board of Directors went to the Ombudsman's Office to make a complaint against Mr. Paulo Roberto Costa (the director involved in the

scheme). According to the member, he spoke to a girl and she said: "For God's sake, go away" (Sassine and de Carvalho, 2015). The Ombudsman also did not communicate with external parties; it received only internal complaints. Another case refers to a former manager who was subordinate to Mr. Costa. In her testimony to Petrobras' CPI, Venina Fonseca confirmed that she warned the Board of Directors in face-to-face meetings about corruption in the Downstream Department. Venina claimed she was transferred to Asia after alerting Petrobras' Board of Directors about the irregularities and was later removed from any position. She also stated that she received telephone threats (Calgaro, 2015). Moreover, there was a lack of follow-up by higher levels of corporate governance of the employees' disciplinary measures, which prevented the generation of information about misconduct.<sup>33</sup>

The information generated by audits was also not used in any meaningful way. The report of CPI describes several instances when control bodies, including from Petrobras, pinpointed irregularities, but there were little practical consequences. For instance, in 2009, the Federal Court of Accounts found signs of overpricing in 19 contracts related to the Getúlio Vargas Refinery; nonetheless, the conclusion regarding possible losses was impaired due to the difficulty in obtaining the necessary information from Petrobras (*Câmara dos Deputados*, 2015). That is, instead of using the information provided and seeking explanations and corrections, the company contradictorily did not present the relevant information to the auditors for a better result from the audit.

Therefore, the company deliberately ignored information that suggested something was amiss. This inaction does not communicate, either internally or externally, the importance of internal controls. Additionally, the lack of information management in combating corruption reinforced a culture of tolerance of misconducts.

For this reason, one of the main actions undertaken by Petrobras after the scandal was to reformulate the Ombudsman Policy and Guidelines and restructure the Ombudsman's Office. Moreover, since November 2015, the whistle-blower channel has been operated by an external company<sup>34</sup>, and informs the whistle-blower of the whole processing of treatment, giving the whistle-blower the possibility of monitoring the process (CGU, 2016a). See below for a comparison of the previous channel to the new one.

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<sup>33</sup> Communication with interviewee A

<sup>34</sup> The Channel is operated 24h with assistance in Portuguese, English and Spanish.



**Table 1 – Comparison between the previous whistle-blower channel and the new one.**

<b>Previous channel</b>	<b>New whistle-blower channel</b>
Receiving process: by Petrobras' Ombudsman only.	Receiving process: by independent external company specialized in receiving, collecting and listening to denouncements from Petrobras.
Channel limited to complaints regarding accounting, financial, internal controls and audits (Sarbanes-Oxley Act)	Channel open to any denouncement of Petrobras
Channel limited to the internal staff	Channel open to everyone
Anonymity restricted to denunciations under the Sarbanes-Oxley Act.	Anonymous whistleblowing guaranteed for any denunciation, except those involving behavioral issues (moral and sexual harassment, physical and psychological violence).

Source: based on CGU, 2016a.

## **Monitoring activities**

For an effective internal control system, organisations must carry out evaluations to ascertain whether each component is present and functioning. Because it is necessary to consider underlying details to conclude whether an activity is a control activity or a monitoring activity (COSO, 2013), a clear differentiation of both components was difficult to draw when it comes to audits and oversights. Thus, this assessment focused on the general analyses of internal control instances.

Petrobras underwent annually an internal control certification process in order to assess entity-level controls and evaluate the corporate governance environment, as well as assess business processes and internal controls and test them. The company also hired an independent audit firm<sup>35</sup> for the evaluation and approval of its financial statements (Petrobras, 2013d). Furthermore, Petrobras rendered accounts annually to be checked and analysed by CGU, which gave its opinion about the management acts, and then judged by TCU.

The Audit Committee was responsible for advising the Board of Directors and company management upon assessing the adequacy and effectiveness of internal controls.<sup>36</sup> According to a former member of the Board of Directors, the chairman of the Board

<sup>35</sup> Which is usually one of the “Big Four”. For instance, from 2012 to 2016, it was PricewaterhouseCoopers.

<sup>36</sup> This was done with the support of the Internal Audit and independent auditors, as well as the units involved in risk management and internal controls of the company (Petrobras, 2013e)

proposed a policy of rotation of members and used it to withdraw this member from the Committee because he had voted against some matters and was questioning some investments. ‘The Committee was then formed by [...] controller's employees. Therefore, the independence of the body disappears precisely at the moment when this independence was most important for Petrobras. The Committee was rigged.’ (*Câmara dos Deputados*, 2015, p.465, my translation).

Regarding Petrobras’ internal audit, interviewee B stated that the unit was very large with a big output of auditing work, and had many competent and experienced auditors. Nevertheless, apart from some exceptions, the work did not indicate great structuring problems. It was only from a certain point around 2012 that the issues identified began to become more important, and the results showed problems in relevant areas. However, the results of the audits lacked proper consequences.<sup>37</sup> Another weakness relates to the long tenure of the Chief Audit Executive, who stayed in the same position for around 30 years<sup>38</sup>.

The same problems resulting from the lack of transparency that were mentioned above are a factor in this component, too. In the case of CGU, the absence of access to corporate systems and to crucial information of the company curtailed the possibility of its monitoring in a preventive manner. As stated by a former Minister of CGU, ‘it is only after the problem occurs that the control bodies act, in the repressive phase’ (*Câmara dos Deputados*, 2015, p.438, my translation). He added that although state-owned companies have their internal audits, they do not respond to the central body of the internal control system (CGU); they only follow technical and normative guidelines, ‘which are very little’. Moreover, without the access to systems, the audits were dependent on a demand from CGU and a response from Petrobras, which meant that relevant information could be framed and omitted. Add to that the fact that Petrobras was not a priority among the audits carried out by CGU.<sup>39</sup>

As seen, despite Petrobras’ formally having structures for the development of monitoring activities, it is possible to identify some weakness in this component, as well as possible management overriding. Moreover, the internal control body of the federal public

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<sup>37</sup> The interviewee had no evidence to confirm if the lack of consequences was due to superior interference in the work of the internal audit.

<sup>38</sup> Both interviewees highlighted this weakness.

<sup>39</sup> Interviewee B related that this lack of prioritization of CGU’s leaders bothered him/her, but it was justified by the fact Petrobras already had a large internal audit unit and more developed internal controls compared to other organisations of public administration. Considering CGU did not have sufficient resources to intensively audit all federal bodies, a greater focus was put on the social area.

administration, also responsible for the prevention of and fight against corruption, lacked means to better carry out its duties.

Table 2 summarises the main changes for the improvement of internal controls, according to Petrobras.

**Table 2 – Improvements of internal controls after the scandal.**

<b>Before</b>	<b>After</b>
Government members nominated to the Board of Directors	Appointment of neither government members nor union leaders for the Board of Directors is allowed anymore (Law 13.303)
No threshold of independent members of the Council	Bylaw requires a 25% threshold of independent members of the Board of Directors.
Simple integrity verification	Strict integrity assessment of the nominees for the Board of Directors, members of Fiscal Council and the Executive Board
Members became leaders without a solid selection process	Succession plan for executives  Launching of Talent Bank of Executives  Transparent selection process for holding manager positions
No specific committee to analyse transactions with related parties prior to Board's decision	Minority Statutory Committee to evaluate relevant transactions between Petrobras and related parties within Board's scope
Executive Managers were not held accountable based on the statute	Launching of Statutory Committees to reinforce commitment and accountability of executive managers in the decision-making process
Bylaws concentrated powers on the Executive Board  Directors acted by delegation	Bylaw revision deconcentrated powers between the Executive Board and the Board of Directors and redefined individual responsibilities of directors
Directors could decide monocratically	Launching authorisation-shared process for some decisions
Internal reporting channel	Launching of anonymous independent Whistleblower Channel
Simple verification of suppliers' integrity	Integrity Due Diligence Process during registration and selection of suppliers and counterparties
No systematic training in ethics	Reinforcement of the Code of Ethics and permanent workforce training in ethics

Source: based on Petrobras' website (Petrobras, 2017b)

The use of the COSO framework shows that Petrobras did not have an effective internal control system, which suggests that the lack thereof contributed to the scandal's development. Although many elements were present, they were not functioning. Considering the company is a listed entity in Brazil and abroad (and so must comply with Brazilian and foreign internal control regulations), it is reasonable to conclude that Petrobras had mechanisms and capacity for quality internal controls. The company had written rules, procedures, and standards; organisational structure for accountability and control; technological infrastructure; competent employees and so on, but did not properly enforce controls. The main deficiency seemed to rest in the control environment component, mainly with respect to Petrobras' organisational culture and the absence of commitment to integrity and ethical values. Unethical organisational culture not only encourages but "legitimizes" corrupt behaviour (Ashforth et al., 2008). Consequently, this deficiency compromised the functioning of all other components.

The findings confirm that the control environment is indeed the foundation of an internal control system and indicates that COSO components have an intertwined relationship; problems in one component trickle down to others. The findings also contribute to demonstrating the limitations of internal controls; controls can be frustrated and circumvented by collusion and management override. Collusion makes the segregation of duties ineffective in supporting checks and balances, for instance. Boards of directors and top management are the ones responsible for design and implementation of internal controls, so their lack of commitment impairs the purpose of developing effective controls. Although both hard and soft controls presented a combination of deficiencies, the lack of adequate soft controls seemed to have more influence in contributing to corruption, because it also affected the functioning of hard controls. The findings of this study are in line with Abaalkhail's research (2016), which identified that effectiveness of hard controls was dependent on the quality of soft and monitoring controls, and the same mechanisms of anti-corruption controls are unlikely to be as effective in an organisation with a culture that appears to tolerate corruption.

Since the scandal, Petrobras has been taking important and positive steps to improve organisational controls for preventing corruption. However, many concerns can still be raised. Although some efforts aim at improving organisational culture and creating a zero tolerance to corruption (such as the creation of the Corruption Prevention Programme), they cannot be a box-ticking exercise. These efforts require more than establishing

standards and procedures and making sure that employees comply with them; they must aim at guiding staff behaviour through values and social aspirations. Ethical behaviour must be integrated into the daily attitude of management and into the lines of informal influence, rather than only serving as formal rules and procedures. Recently, the news increased this concern in that Aldemir Bendine, president of Petrobras from 2015 to 2016, was arrested in Operation Car Wash. ‘While receiving bribes, Bendine defended zero tolerance to corruption’, stated one headline (Braga, 2017). This shows how incongruent Petrobras’ formal and informal systems are. Strengthening criteria for the nomination of strategic positions can help to attract actors who act with integrity and set the right tone at the top, but in practice it may not interfere in the underlying motivation for nomination. The board of directors has just suspended Petrobras’s compliance chief due to a conflict of interest in contracting Deloitte on a no-bid contract while the firm was in the process of hiring his daughter (Cassin, 2017). Facts like this convey an unclear and inconsistent message as to whether corruption is indeed not tolerated. Integrity must be embedded into the decision-making process and the attitudes of leaders play a big part in building an enabling environment for ethical behaviour. The tacit norms propagated by the informal system produce an implicit knowledge as to how the organisation really works in practice (Falkenberg and Herremans, 1995).

Some hard controls can entail new risks of corruption, especially in a culture where corruption is tolerated. Petrobras implemented the 4EP through a model of sharing decision-making; however, as demonstrated in Chapter 3, the effectiveness of 4EP has been challenged. Moreover, the re-registration process for suppliers can open new opportunities for bribe-taking. Although a stricter due diligence is a good practice, interviewee B pointed that there is some discretion on the requirements for joining the registration and the level of requirement differs from one situation to the next. This can represent an opportunity to demand bribes in exchange for acceptance in the registration process. Hard controls must be supplemented with strong soft controls as the first can be impaired and circumvented. Hard controls based on surveillance and punishment may lead to a culture of distrust that undermines cooperative activities, and may lessen morality in favour of conformity to rules (Dubink, 2015). Although surveillance and punishment are important, hard controls and soft controls must be balanced and built towards raising moral awareness and strengthening accountability through internalised norms and peer pressure.

## **Link to theory**

The Petrobras scheme revealed that political elites alongside public employees on one side and company collusion on the other were manipulating the procurement process to obtain personal gains. This scenario makes it particularly challenging for internal controls to operate and be effective. The participants acted in the pre-contract phase to ensure the contract was awarded to the “elected” company, and in the post-contract phase to allow for increasing prices and quantity, thus boosting profitability. The case shows that all principles presented in Chapter 4 for preventing corruption in procurement were inadequate, stressing the need for developing the integrity of actors, improving transparency and stakeholder participation, promoting competition, making a better use of e-procurement tools and strengthening oversight and monitoring.

Petrobras operates in a sector with high corruption risks. Characteristics such as the volume of resources, the complexity of operations and the oligopolistic character of suppliers allow for easier and more profitable opportunities for the abuse of power for private gains. Add to that the fact that the federal government, as Petrobras’ controlling shareholder, had the right to choose the majority of the Board of Directors. These aspects made the company a target for both political and bureaucratic corruption, as the case confirms. The higher risks increase the need for an adequate corruption risk assessment, as well as for strengthening an organisational culture based on values and ethics, both absent in the company. As Ashforth et al. (2008, p.672-673) state, ‘decent people can end up engaging in questionable practices as a result of their immersion in, and socialization into, the social and cultural environment of a corrupt organization’.

The context of Petrobras fulfilled all the variables in Klitgaard’s corruption formula: high monopoly and discretion and low accountability. The company dealt with huge sums of money and the rules of procurement granted high discretion to public officials, who were then poorly accountable. However, although Petrobras had the means to enforce mechanisms of controls, this did not happen. Considering the positions principal and agents can assume (e.g., the politicians as principals and the board of directors as agents; the board of directors as principals and executive board and other employees as agents), there were no principals willing to hold agents accountable. Accordingly, there were no principals willing to apply internal controls to tackle corruption. The lack of transparency also undermined the oversight carried out by external actors, such as control bodies, the

media, and the citizens. The Board of Directors was supposed to be an autonomous body for definitions of organisational goals. Along with the executive board, it was to enforce internal controls and exercise oversight. These controls were supposed to be put in place to allow for the achievement of objectives. But, in the Petrobras case, the objective was not to guarantee integrity and efficient and ethical decisions; instead the underlying objective for most of the members was to serve political and personal goals. In a situation like this within a weak ethical organisational culture, formal controls towards curbing corruption may be doomed to fail; they can be either hampered or circumvented.

Investigations showed that corruption in Petrobras is a problem that has been perpetuated since its creation, and it consequently got worse with the increase of the company's operations, which may indicate the path-dependent process of corruption. Thus, how controls were set up right in the beginning and how the organisational culture was built could better explain why the scheme was able to evolve and perpetuate itself the way it did. Operation Car Wash revealed that corruption was so ingrained inside the company that it had become an informal institution, with disguised rules and procedures, and a way of doing business with Petrobras. It exposed how deep and systemic the problem was with the participation of employees at many levels within the company. Add to that the collusion among Petrobras' suppliers. Thus, it looks like corruption was the expected behaviour, leaving Petrobras staff with a collective action problem. This huge network of corrupt actors rendered corruption less morally censurable and reduced all its transaction costs.

The question remains of whether the changes that followed the scandal will be enough to disrupt corruption equilibrium and dismantle its informal institution. As Amundsen (1999) contends, an administrative approach can usually address bureaucratic corruption, but it is not sufficient by itself to deal with systemic political corruption. It remains to be seen as well as if the structural improvements will be able to increase trust among Petrobras' employees and build an ethically strong organisational culture.

## **CONCLUSION**

Broadly, internal control is nothing more than influencing and guiding behaviour so that an organisation achieves its objectives. Thus, it is as much a function of standards and procedures as it is of internalised values and beliefs. That is why it is necessary that hard and soft controls systems work in the same direction, resulting in an overall system that is balanced and in harmony. It is not effective to have a written code of ethics and a committee of ethics, if ethical values are not perceived within the organisation, for instance.

By analysing the Petrobras case, this study shows that the lack of an effective internal control system facilitated the development of the corruption scheme. The main deficiency seemed to rest in the control environment component with respect to organisational culture and the absence of commitment to integrity and ethical values. Following from this situation, there was room for a series of other deficiencies in the other components of internal controls, such as problems in assessing risks of employees circumventing controls and not complying with ethical standards, in developing adequate control and monitoring activities and in using relevant information and communication. Many factors, such as the political criterion in the process of indicating actors to key positions, the flexibility of bidding and contracting rules, and the lack of necessary support for state control bodies to act, seem to have affected the development of better control mechanisms. Although there were loopholes in internal control practices and they may have contributed to corruption exchanges, top management intentionally undermined the internal control system to allow for corruption perpetuation. This indicates that the same institutional anti-corruption mechanisms are not likely to be effective within an organisational culture that appears to tolerate corruption.

In the aftermath of the scandal, Brazilian legislation and Petrobras internal arrangements have closed many of the loopholes. However, considering a scenario of systemic political corruption as exists in Brazil, informal corrupt networks are able to adapt to formal laws and procedures and recycle themselves over time. It is not possible to conclude to what extent the measures are going to affect the company's level of corruption going forward. Implementing rigid hard control mechanisms should be considered, but they should be designed in terms of their explicit and hidden costs, especially when dynamism is needed



to perform in a competitive environment. Such mechanisms may cause distrust and negatively affect efficiency without curtailing the problem.

Therefore, this study suggests that, more than reducing opportunities for corruption through hard controls, anti-corruption reforms should focus on strengthening institutional culture by building an ethical environment through encouragement of exemplary behaviour. Setting the right tone at the top is fundamental, because persons in key posts have a powerful informal influence over others. Thus, organisational restructuring should devote greater attention to informal controls that affect personnel's behaviour and motivation. As Weaver and Clark (2015, p.136) argue, 'to understand the nature of corruption and the prospects for its remediation, it is important to consider how individuals think and act vis-à-vis corruption in the context of their work organizations'. Implementing audits of soft controls, for instance, can be a valuable tool for assessing underlying assumptions and behavioural aspects of an organisation.

Nonetheless, this study comes with some limitations. First, it deals with only one case, which prevents the generalization of the findings. Second, assessing internal controls is a subjective judgment; the same framework of assessment applied by a different person could result in differences in the evaluation. Third, the analysis relied mainly on online information, which mostly revealed the formal system of controls, not the informal. Moreover, communication online about internal controls started to be more detailed only after the scandal. Although it was possible to carry out two interviews, neither of the interviewees were from within the company. Finally, the study considered only internal factors. The control environment, including organisational culture, is also influenced by external elements, such as politics and characteristics of the market.

Even though some lessons can be drawn from the case and the literature on corruption, more research is required to evaluate the interplay between hard and soft controls, especially how the first can contribute to strengthen the latter - that is, how informal controls can be developed on the basis of formal controls. This is particularly important to uncover how top managers themselves can be stimulated toward more ethical behaviour, if they have no previous commitment to high ethical standards. For the prevention of and fight against corruption, beyond oversight and punishment, organisations should strive for control and compliance through internalised values and personal morality, self-conscious professionalism, peer pressure and shared accountability. Furthermore, we

need a more holistic awareness of the interaction among societal, organisational and individual factors to help us better understand and tackle corruption.

## APPENDICES

### Appendix 1 – Petrobras' shareholding position – December 31, 2016.

Chart 1: Voting Capital - Common Shares

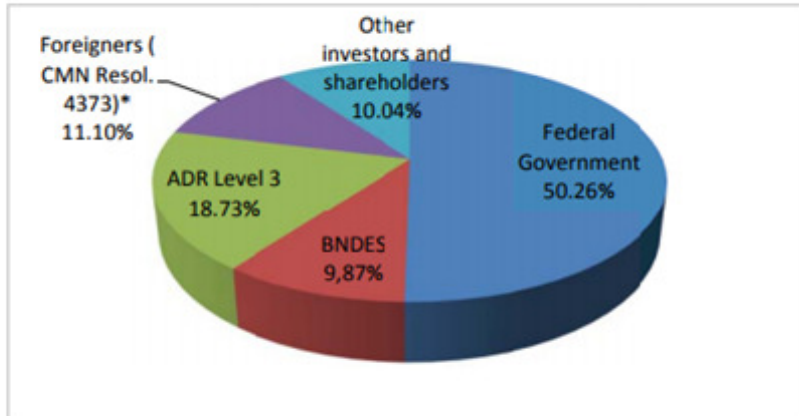


Chart 2: Non-Voting Capital - Preferred Shares

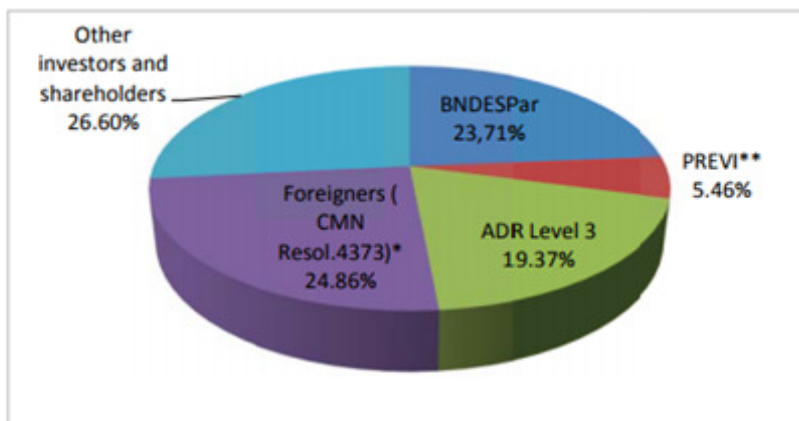
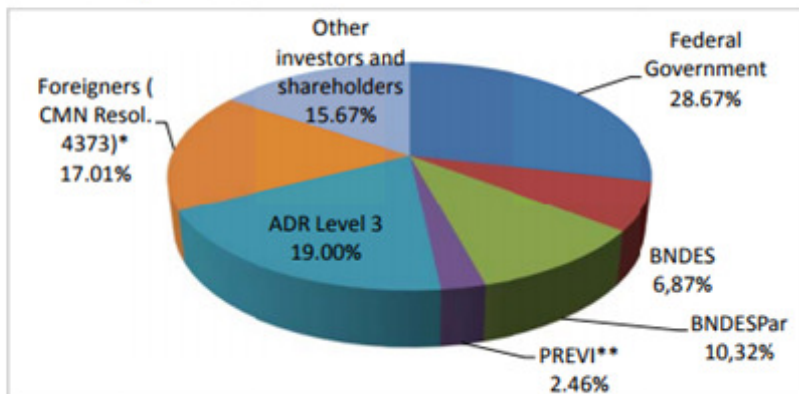


Chart 3: Capital Stock



\* CMN Resolution No. 4373: governs investments by non-resident foreign investors in the Brazilian financial and capital markets, and includes other provisions. \*\* PREVI: Pension Fund of Banco do Brasil Employees.

Source: Report of the Administration 2016 (Petrobras, 2017d)

## **Appendix 2 – Semi-structured interview**

The study aims to identify how Petrobras' internal controls did or did not contribute to the scandal's development. All information collected will be solely used for research purposes and identification kept strictly confidential. Being precise and accurate will enrich the literature on corruption prevention mechanisms. You have the right to withdraw from the interview at any time without any justification.

The questions will follow the logic of the five components of internal controls described by the COSO framework. To answer them, please consider all internal controls that may have affected the integrity of the procurement process.

1. Can you please brief me on your job assignments related to Petrobras?
2. Based on your job experience, besides the lack of the “tone at the top”, what were the main deficiencies of the control environment that may have contributed to the scandal?
3. Did the company have an assessment of corruption risks? Did it address the risks in the procurement process? If so, how?
4. How do you evaluate Petrobras' control activities in the procurement process? How was technology used?
5. With regard to procurement control's objectives, responsibilities, and challenges, what information did Petrobras communicate to all related parties (internal and external), and how? Do you think the information was sufficient? What were the problems related to whistle-blower policies and channel?
6. How was the monitoring of the procurement process? Was Petrobras' internal audit able to identify any signs that procurement objectives were being diverted for personal gains? Was internal control effectiveness assessed and deficiencies identified?
7. How did the absence of the tone at the top influence the functioning of other controls? For example, which control do you consider was in place, but didn't work due to the involvement of top management in the scheme?
8. Do you have any other comments or anything to add about Petrobras' internal controls in relation to the scandal?

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