Fernández Muñiz, Beatriz; Montes Peón, José Manuel y Vázquez Ordás, Camilo J.

"Assessing and measuring banking culture", en García-Olalla, M. and Clifton, J. (Eds.), *Contemporary issues in banking: Regulation, governance and performance*, 2018, pp 363-388.
ISBN: 978-3-319-90294-4.

Ed. Palgrave Macmillan.

https://link.springer.com/book/10.1007/978-3-319-90294-4?page=2#toc

**Abstract**

A crucial lesson to be learned from the latest financial crisis is the importance of the strength of the banking system. A strong banking system needs appropriate prudential regulation that requires institutions to have a level of capital that is high enough to absorb the losses they may suffer due to the risks they take. However, this is no longer enough. The crisis has shown that it is necessary to analyse the soundness of an entity including aspects related to banking culture as a fundamental driver of excessive risk-taking, misconduct and compliance risks. The pre-crisis banking culture was characterized by very poor standards of conduct, which not only led to putting the solvency of financial institutions at risk, but also to manipulating the market and improperly marketing banking products and services, resulting in economic harm to clients and serious risk to the stability of the financial system as a whole.

Having learned from this lesson, post-crisis banking regulation and supervision now promotes new practices and methods of forward-looking prudential supervision to identify at an early stage the risks that may arise from corporate behaviour and culture and take appropriate measures to prevent these risks from materializing. This paper reviews the evolution and current state of the issue, paying special attention to the possible methods that may be applied to the assessment and measurement of banking culture.

# Assessing and Measuring Banking Culture

Beatriz Fernández Muñiz - José Manuel Montes Peón - Camilo José Vázquez Ordás - UNIVERSITY OF OVIEDO

## 1. Introduction

Banks are major players in the process of creating money and in mobilizing resources from savers to investors. Their participation in these processes creates value depending on their efficiency and ability to manage risk (Stulz, 2015). It is a business with high volumes and low margins, in which pressure from competitors and shareholders to obtain short-term results and continuously increase profitability and revenue leads to taking excessive risks with a limited capital base.

Factors such as the moral risk associated with size ('too big to fail'), public guarantee of deposits (Brewer and Jagtiani, 2013; O'Hara and Shaw, 1990) and monetary policy (Jiménez *et al.*, 2012) feed the accelerated expansion of bank credit, thereby increasing the risk of bankruptcy. None of this is unknown, or new. The novel argument in the debate is that the deep roots of the financial crisis are to be found in the poor control of risk, which would be related not so much to the procedures or models used in its management, but to a more abstract and intangible dimension of organizational behaviour, namely the risk culture of financial institutions.

Prior knowledge about behaviours associated with risk-taking and the impact of such on organizational results is mainly based on the effect of incentives and past performance (Bromiley and Rau, 2014). The organizational context (risk culture and risk management practices) can also have a high predictive value as regards the risk assumed by the organization. However, prior research tells managers very little about what they have to do to manage the practices and the context within which individuals take decisions affecting their organization's risk (Bromiley and Rau, 2014). It should also be borne in mind that, compared to non-financial activities, the decisions taken by employees of financial institutions can have a very significant influence over their organization's risk (Stulz, 2015).

Following this introduction, Section 2 describes the historical context and the beginnings of the debate on the role of banking culture in the financial crisis. Section 3 is devoted to clarifying the concept of banking culture in the field of studies on organizational culture. It focuses primarily on what is called 'risk culture'. Section 4 presents three possible methods for assessing and measuring banking culture: the framework proposed by the Financial Stability Board (FSB, 2014) for assessing risk culture; the De Nederlandsche Bank's experience in supervising the culture and behaviour of financial institutions (DNB, 2015); and, finally, the construction of instruments to measure the organizational climate related to risk management. The paper ends with the conclusions drawn and the list of bibliographical references consulted.

## 2. Context: the debate on banking culture

Between 2008 and 2009, several documents and reports were published on the corporate governance of the banks in which we can find the first allusions to banking culture, especially what is known as 'risk culture', either recognizing the need for all employees to be aware of the impact of their behaviour and actions on the organization[1], or requiring greater focus on risk, with the recommendation being to cultivate a "robust and omnipresent" risk culture, fully integrated within the organization, that makes everyone, in all areas and activities, responsible for risk, not just the control functions[2]. However, these first reports do not include a negative appreciation of the risk culture of financial institutions.

In the report entitled *Reform in the Financial Services Industry: Strengthening Practices for a Stable System*[3], published by the Institute of International Finance-IIF (IIF, 2009), we do find, however, negative assessments of risk culture in the sector (weak, dysfunctional) or of banking culture (sales-driven), as well as references to the need for a change in culture in the industry. It is stated that "it became apparent that risk culture played an extremely important role in determining whether firms were more or less successful in managing their risks during the crisis" (IIF, 2009, p. 31).

Seen in retrospect, this exercise in self-criticism did not help much. The scandal of the manipulation of the LIBOR[4] in 2012 supposed a real shock to the industry. Given the magnitude of the scandal, the British Prime Minister convened a parliamentary committee of inquiry on the professional standards and culture of British banking. The parliamentary commission published its report entitled *Changing Banking for Good* in June 2013. The report describes a culture characterized by very poor standards of behaviour.

Barclays in turn commissioned Anthony Salz to draw up an independent report to assess the entity's culture. The commissioning of this report formed part of a profound process of change and cultural reform initiated in 2012, as a result of the Libor scandal. The report (Salz, 2013) constitutes both an in-depth and critical review of the entity's culture in its desperate attempt to survive in the financial crisis without state aid.

In Great Britain, malpractice in the retail marketing of payment protection insurance (PPI) also reached proportions of scandal as of 2009, when financial institutions had to deal with a barrage of complaints by customer to the Financial Services Authority (FSA). This product offers a high profit margin, the reason for which banks put pressure on their commercial networks and encouraged its sale linked to the granting of credit[5]. In 2011, a court ruling

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[1] This is reflected in the Walker report: *A Review of Corporate Governance in UK Banks and other Financial Industry Entities* (November 2009, p. 92). In this 184-page report, the term 'risk culture' appears on one single occasion.

[2] *Final Report of the IIF Committee on Market Best Practices* (July 2008, Principle I.i., p. 31), of the Institute of International Finance. The term 'risk culture' appears 15 times in a report of 182 pages in length.

[3] In this 201-page report, the term 'risk culture' appears 126 times, and the term 'culture', 209 times.

[4] This scandal led to the investigation of Barclays, UBS, Citigroup, JP Morgan Chase, Royal Bank of Scotland, Société Générale and Deutsche Bank for manipulating the LIBOR, a practice that traders regularly carried out before the start of the crisis. In 2013, another new scandal came to light in the UK. Traders continued to manipulate exchange rates, this time the FOREX, and the names of the banks involved were repeated: Citibank, JP Morgan Chase, UBS, Royal Bank of Scotland, HSBC, Bank of America and Barclays.

[5] An employee of RBS reports that his quarterly commissions depended on how many PPI insurance policies he sold. He was under intense pressure to meet his targets under threat of dismissal (The Guardian, "PPI Exposé: How the

dismissed the appeal filed by the British Bankers Association against the new procedure adopted by the FSA in 2010 to address the high volume of complaints which, among other measures, provided that insured persons who had not raised any claim should also be compensated for any damages caused.

The Salz report includes a very revealing fact: between 2002 and 2007, the FSA imposed fines on the financial sector amounting to 78 million pounds, while in the period 2008-2014, the total amount of the fines amounted to 627 million pounds, of which 312 million corresponded to 2012. British banks would have had to provision 53,200 million pounds between 2000 and 2015 to meet their responsibilities, 37,800 million of which is estimated to correspond to PPI mis-selling[6].

On the other side of the Atlantic, it is estimated that the fines and sanctions imposed on financial entities in the United States between 2008 and 2014 would amount to well over 100 billion dollars (Dudley, 2014)[7]. In 2013, the US Department of Justice reached an out-of-court settlement with JP Morgan Chase & Co[8], in which the entity committed to pay 13,000 million dollars to settle the lawsuits filed for fraud and malpractice in the design, development, marketing and insurance of assets linked to subprime mortgages, without this supposing the exemption of its managers and employees from possible criminal liability. Similar agreements were established with other entities (Bank of America, Citigroup, UBS).

According to data from the *Conduct Costs Project Report* (CCP Research Foundation, 2017)[9], drawn up by the Conduct, Culture and People Research Foundation on a sample of 20 large global banks, between 2012 and 2016 these entities would have incurred conduct costs totalling an amount of 264,030 million pounds. Twelve out of the 20 entities exceeded the threshold of GBP 10 bn, while the provisions of this group of entities at the end of 2016 remained above GBP 60 bn. Conduct costs mean all costs borne by a bank as a consequence of misconduct or, more widely, of the crystallisation of "conduct risk" (Benedict, 2015; Stears and McCormick, 2015). Conduct risk refers to risks "attached to the way in which a firm and its staff conduct themselves. As such, it includes how customers and investors are treated, mis-selling of financial products, violation of rules and manipulation of markets" (ESRB, 2015). From a micro-prudential supervision perspective, conduct risk is a subset of operational risk. However, from a conduct supervision perspective, misconduct risk concept is broader as it includes not only the risks to which banks may be exposed as a result of their poor business conduct, but also the risks to which such conduct exposes their customers and the whole society, for its potential systemic impact (ESRB, 2015).

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banks drove staff to mis-sell the insurance", November 8, 2012). The report by Spicer *et al*. (2014), *A Report on the Culture of British Retail Banking*, provides numerous examples of malpractices and testimonials from employees about the pressures they received, as in the case of 'Cash or Cabbages day'.

[6] Source: New City Agenda, http://newcityagenda.co.uk/the-top-10-retail-banking-scandals-50-billion-reasons-why-shareholders-must-play-a-greater-role-in-changing-bank-culture/

[7] S. Chaudhuri, "Banks' legal tab still running higher", *Wall Street Journal*, 23/07/2014.

[8] JPMorgan Chase & Co undertook a process of change and reform equivalent to that of Barclays, in which cultural aspects have major relevance. See *How we do business - The report* (JPMorgan Chase & Co, 2014).

[9] This CCP Research Foundation project seeks to quantify the direct costs of misconduct in the banking sector. These costs include fines or comparable financial penalties imposed on the bank by regulators, compensation to customers, and any payments made by a bank for misconduct and litigation arising from court, tribunals, or settlement proceedings; additionally, the bank's provisions are also included. For a more detailed classification of conduct costs see: http://conductcosts.ccpresearchfoundation.com/conduct-costs-definition

The crisis of culture and standards of conduct in banking also led to important regulatory changes. In 2013, the British Financial Services Authority (FSA) was replaced by the Prudential Regulatory Authority (PRA) and the Financial Conduct Authority (FCA). The former depends directly on the Bank of England and safeguards the stability of the British financial system, ensuring the solvency and liquidity of its financial institutions. The latter regulates the sale of financial products, investment management and the offer of financial services. The regulatory structure adopted by the United Kingdom is similar to that of the United States, where the Consumer Financial Protection Bureau (CFPB), set up in 2011, is intended to protect consumers from unfair, deceptive or abusive practices and to take legal action against those entities that break the law.

This reorganization of the institutions regulating the provision of financial services is due to a new approach that, among other changes, entails greater protection for investors and banking customers and a greater accountability for managers and financial institutions. In this respect, the British regulator has gone particularly far with the approval of the *Senior Managers Regime*, which considers severe prison sentences for senior managers who cause the collapse of their entities by reckless management.

The forward-looking supervision of banking culture aimed at anticipating and preventing any possible excessive risk-taking is another important novelty. Its motivation is twofold. First, the high amount of fines and compensation in the industry has a very significant impact on the income statements of the affected entities, supposing a risk to stability when it affects systemic entities. It also generates uncertainty about the quality of the controls or their business model, solvency and profitability (McNulty and Akhigbe, 2015). Second, bank failures and scandals associated with malpractice have systemic effects insofar as they create a crisis of confidence in the sector and limit the creation of bank money available for the granting of credits. At this point, misconduct risk becomes a matter of concern from the macro-prudential supervision approach, which aims to ensure the stability of the financial system as a whole (Parajon Skinner, 2016).

It is the supervisor’s understanding that, if poor banking culture may be at the root of future problems, it must preventively intervene on this culture to avoid any such problem (DNB, 2015; IMF, 2014; Nuijts and de Haan, 2013). Preventive intervention on culture is based on the principle of self-regulation of risk culture: supervisors understand that they should not regulate or prescribe organizational culture, although they do deem it necessary to supervise it and consider that they have the competence to do so given the risks involved vis-à-vis stability (DNB, 2015). Each entity must act proactively by monitoring, assessing and correcting its deficiencies. If significant risks are appreciated, the supervisor may require more capital as a buffer, or, otherwise, reduce capital requirements when an appropriate culture is perceived (Parajon Skinner, 2016). Accordingly, some entities have begun to create their own instruments to measure and study their culture. In the UK, following the recommendation made by the parliamentary committee in its report *Changing Banking for Good*, the main financial entities created the Banking Standards Board in order to jointly raise standards of conduct and competition in the banking sector. The Group of Thirty report (2015) also provides an extensive study of the shortcomings of pre-crisis banking culture and identifies and proposes a series of good practices to promote and maintain a strong banking culture.

In July 2015, the Basel Committee on Banking Supervision (BCBS) published the latest version of its guidelines for the corporate governance of banks (BCBS, 2015). The introduction to the document states that national supervisors should strengthen their capacities to assess the risk culture of banks and participate more often at the meetings of bank boards and on their risk and audit committees. The first principle of corporate governance of these guidelines states that:

> **Principle 1: Board's overall responsibilities.** *The board has overall responsibility for the bank, including approving and overseeing management's implementation of the bank's strategic objectives, governance framework and corporate culture*.

## 3. Organizational culture and banking culture

Various academic disciplines (psychology, anthropology, sociology, organizational behaviour, economics and strategic management) converge in the research on organizational culture, the aim being to define this concept, determine its antecedents and analyse its consequences. Its study began in the 1980s, the paper by Pettigrew (1979) being a seminal reference. Schein (1984, p. 3) defines the culture of a group as "a pattern of shared basic assumptions learned by a group as it solved its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems". Schein (1989) also coined the terminology characterizing the different levels of organizational culture (artifacts, espoused values and basic assumptions and values), as well as highlighting the importance that has traditionally been given to leadership in the shaping and evolution of culture (O'Reilly *et al*., 2014).

Organizational culture is an entity that has been built throughout the history of an organization, endowing it with a sense of permanence or collective identity, influencing the behaviour of its members and fulfilling an integrating role. It brings together a set of beliefs, values, rules, precedents, expectations and anecdotes shared by the members of a group that define the way of doing things in said group and serve as a guide to judge the behaviour of its members, resolve disputes and maintain internal cohesion. It is the 'glue' that keeps group members together and stimulates their commitment to the group. Guiso, Sapienza and Zingales (2015a and 2015b) show that corporate culture is determined by the top management of the company and that it can foster cooperation.

Culture has been analysed in economic terms as part of an efficient system of implicit contracting within the company (Camerer and Vepsalainen, 1988) or as a signal to attract a certain type of staff, reducing information asymmetries in the field of labour relations (Kreps, 1990). Hermalin (2001) models the decision on the strength of corporate culture as a choice between high fixed costs and low marginal costs (a strong culture) or low fixed costs and high marginal costs (a weak culture). In this model, competition affects the benefit of developing a strong culture. Culture also affects transaction costs and conditions the efficiency of transaction governance structures (Handely and Angst, 2015).

The strategic literature has also highlighted the value of organizational culture and its contribution to competitive advantage (Barney, 1986; Fiol, 1991; Hall, 1992). More recently,

O'Reilly *et al*. (2014) note that organizational culture is related to the attitudes of employees and also to organizational results. Culture can contribute to excellent organizational performance (Kotter and Heskett, 1992; Gibbons and Henderson, 2013), but it can also be dysfunctional (Collier, 2016). It is not a very ductile or malleable material; it neither changes nor mixes well, as shown by the poor results in mergers between companies with major cultural differences (Chatterje, Lubatkin, Schweiger and Weber, 1992). One of the first papers on organizational culture already highlighted the same problem, the difficulty of cultural change (Jacques, 1951). Moreover, it may be said that the fact it does not change is functional in itself: culture is useful only if it is persistent (Collier, 2016). Organizational culture provides identity, stability, cohesion and commitment. It could hardly provide these intangibles if it were a changing reality. Culture is formed and changes organically, slowly, influenced by the environment and history of the organization, by the strong personality of some of its most decisive leaders or by events that have supposed important changes (mergers, acquisitions), which have necessarily led to a rethinking of how (and why) things are done.

The study by Fahlenbrach, Prilmeier and Stulz (2012) provides evidence of this persistence. These authors note that the banks with the poorest performance as regards their results during the 1998 crisis are also those that performed the worst during the recent financial crisis. This behaviour demonstrates the existence of specific cultural characteristics in each bank that persist over time and help explain their level of risk (Stulz, 2015).

Studies on organizational culture in the banking sector have begun to be published in recent years. A good number of these analyse the extent to which bank managers and employees behave unethically or illegally and the possible motivations for such behaviour. Undoubtedly, the seminal work in this line of research is the quasi-experimental laboratory study conducted in 2012 by Cohn, Fehr and Maréchal (2014). These authors note that, in principle, bank employees do not behave in a more dishonest way than other people. However, if they are asked about their professional activity before the experiment commences, the lack of honesty increases. The authors attribute this effect to the prevailing culture in the financial industry, which leads employees to behave dishonestly. An alternative explanation would be that put forward by Tirole (1996). This author argues that there are few incentives to behave honestly when one belongs to a group with a poor collective reputation. Therefore, when banking employees are asked about their professional activity, their propensity to behave dishonestly increases, not because they are conditioned by the organizational culture in their industry, but because they are less motivated to behave honestly once the job they do is known.

Van Hoorn (2015) analyses organizational culture in the financial industry by comparing how personal traits and values influence the success of professional careers in banking compared to other industries. This author does not report significant differences, a finding that does not fit well with the idea of professionals seeking their personal profit at the expense of customers. Van Hoorn concludes that banking culture does not promote unethical behaviour to a greater extent than other industry sectors. Other papers along these same lines include Boddy (2011), who identifies managerial behaviours that qualify as authentic corporate psychopathies, Santoro and Strauss (2012) and Werner (2014).

Song and Thakor (2017) draw up a formal model of banking culture. In their modelling, which involves designing an optimal incentive contract to promote the desired allocation of managerial effort to security or growth objectives, the bank and the manager may have different expectations about the priority of growth or risk control. By introducing culture, these expectations are adjusted for and the excessive focus that market competition places on growth is also reduced. The effect spreads to other banks that may not have this emphasis on risk culture. The larger the capital base of the entity and the smaller the public safety net, the stronger the spillover effect of the culture will be.

Lo (2015) proposes a framework for analysing culture in the context of financial practices and institutions. According to Lo (2015), "the Gekko effect highlights the fact that some corporate cultures may transmit negative values to their members in ways that make financial malfeasance significantly more probable". This author concludes that the culture can be changed to improve risk management through behavioural risk management.

Bushman *et al*. (2016) report that the materialism of bank CEOs (valued through external signs of wealth and consumption) has grown significantly between 1994 and 2004, a fact that they attribute to the deregulation of the sector, which had a considerable influence on the corporate culture of banks and their risk management.

We conclude this review of the empirical evidence on banking culture and its role in the crisis by referring to the study published by the International Monetary Fund in Chapter 3 of its report on global financial stability in October 2014 (IMF, 2014). The study analyses the relationship between risk-taking in banks, their ownership and governance structure and the remuneration policies of their CEOs. Carried out on more than 800 banks in 72 countries, it posits the hypothesis that, in addition to these factors, organizational culture also plays a role in explaining risk-taking. The previous evidence highlighted in the aforementioned IMF report suggests that a strong risk culture is associated with less risk-taking (Keys *et al.*, 2009; Aebi *et al.*, 2012; Fahlenbrach, Prilmeier and Stulz, 2012; Ellul and Yerramilli, 2013).

The IMF study (2014) defines corporate culture as a set of unwritten rules or norms that are widely accepted in the organization and determine which conducts or behaviours are acceptable and which are not. Citing Sorensen (2002) and Stulz (2014), it argues that, when there are no explicit rules or incentives that lead to correct decision-making, corporate culture acts as a guide to the decision-making process, complementing the bank's capacity and ability to manage risk. The study concludes that corporate culture has a considerable influence on risk-taking[10]. For example, the CEO's professional background (considered an imperfect and indirect proxy of the entity's risk culture) is clearly associated with risk-taking in the bank. When the CEO comes from the field of commercial or retail banking or has previous experience in the area of risks, the bank tends to take fewer risks. The opposite occurs when previous professional experience is linked, for example, to investment banking. This result

[10] One of the main limitations of this type of study is that both the explanatory variables (indicators of corporate governance and compensation schemes for the CEO, for example), and the dependent variables that measure the risk taken by banks, are in turn affected by the business model and culture of each entity. Additional empirical tests carried out in this same study by the IMF suggest that institutional factors (regulatory, investor protection) would explain about half of the variance unexplained by its model, while the other half would be attributable to specific characteristics of each organization, such as its business model or corporate culture.

suggests that the pattern marked from above (the 'tone from the top') is important when determining risk-taking in the organization.

## 4. Assessing and measuring banking culture

### *4.1. Risk culture in banking: FSB indicators (2014)*

Taking the definition of safety culture found in Wiegmann *et al*. (2002) as a reference, we can define the risk culture of an organization as the enduring value that reflects the priority given to controlling risk by any of its members, in every group and at every level of the organization. It refers to the degree to which individuals and groups are personally committed to risk management and take personal responsibility for the risks they take, in addition to acting to preserve, raise and communicate their concerns about risk. It furthermore refers to the efforts they make to actively learn, adapt and modify their behaviour, based on lessons learned from mistakes, behaviour that is rewarded in accordance with these values.

The report by the Institute of International Finance (IIF, 2009, p. 36) defines risk culture as "the norms and traditions of behavior of individuals and of groups within an organization that determine the way in which they identify, understand, discuss, and act on the risks the organization confronts and the risks it takes". Risk culture influences decision-making at all levels of the organization, and this decision-making reveals the values that prevail and take priority in it with regard to risk. According to this IIF report (2009), a robust risk culture would be one that allows an organization to successfully implement its strategy within the appetite for the risk it has established[11]. This appetite for risk will be as effective as the formal and informal network in which it spreads and which shapes the decision-making of employees. It is not enough to implement procedures and control processes; it is necessary for employees to be aware of the risks they are taking, for them to weigh them, to adopt the correct decisions and to raise all the appropriate objections, all these being the key attributes of a robust or strong risk culture.

We tend to think that a weak risk culture is one that has shortcomings in risk governance, in the risk management skills of its employees or in the instruments or methodologies used to manage risks. The weakness of the culture, the evidence that the roots of the problem are deeper, however, can be seen in certain dysfunctional organizational behaviours (at least in relation to risk): feeling immune to risk, tolerating employee behaviour aimed at deceiving or beating the system (the regulator, internal controls, algorithms), concealing problems, denying the facts or reality, killing the messenger who brings bad news (and also spoilers), passivity and indifference to certain types of behaviour, signs and alerts, staying in the comfort zone or feeling that one works more for oneself than for the organization are some examples of this type of behaviour (IIF, 2009).

Power, Ashby and Palermo (2013) conducted a field study of 15 financial institutions (banks and insurance companies). They noted that, in the post-crisis period, there has been a tendency to centralize control over risk and to formalize control processes by implementing

[11] Risk appetite can be defined as the amount and type of risk that a company can manage and want to assume to achieve its objectives. It is a different concept to risk capacity, which refers to the maximum amount of risk that it can assume based on its situation of capital, liquidity, debt capacity and legal limits (IIF, 2009).

structures based on the three lines of defence and creating new units of internal risk supervision. They see risk culture as the outcome of a series of trade-offs and tensions across a number of dimensions:

- Trade-off 1: Balancing the commercial and regulatory authority of the risk function.
- Trade-off 2: Balancing the use of formal organizational arrangements with interactive approaches to risk management.
- Trade-off 3: Balancing risk support for disciplined business decisions against the risks of imposing excessive controls.
- Trade-off 4: Balancing the use of advisors with 'going it alone'.
- Trade-off 5. Balancing regulator and regulated culture.
- Trade-off 6. Balancing ethics and incentives as levers over behavioural change.

Sheedy, Griffin and Barbour (2014 and 2015) studied risk culture in six banks in Australia and Canada. These authors state that a strong risk culture (e.g. one that does not tolerate non-compliance with rules and procedures) is generally associated with desirable risk behaviours (speaking up), while avoiding undesirable behaviours (e.g. manipulating controls).

The aforementioned study by the IMF (2014) acknowledges the difficulty of measuring risk culture, but suggests using the indicators proposed by the Financial Stability Board (FSB) in the document entitled *Guidance on Supervisory Interaction with Financial Institutions on Risk Culture* - hereinafter FSB (2014)[12] as possible measures of a sound risk culture. Published in April 2014, this FSB document contains a series of guidelines to help supervisors in their assessment of the risk culture of financial institutions, so that they could approach said assessment from a more analytical and formal perspective.

The FSB (2014) document describes risk culture as the "norms, attitudes and behaviours related to risk awareness, risk taking and risk management". An effective risk culture promotes sound risk-taking and addressing of emerging risks or risk-taking activities that are the institution's risk appetite. It must also ensure that employees conduct business in a legal and ethical manner. The institution must create an environment that promotes integrity, including focusing on fair outcomes for customers.

The document identifies four areas or facets of corporate culture that should be analysed to assess the strength and effectiveness of risk management in a financial institution. As there are interdependencies and complementarities between them, they should accordingly be analysed jointly. The guide also establishes a series of specific performance indicators for each area. These four areas are:

- Tone from the top.
- Accountability.
- Effective communication and challenge.
- Incentives.

[12] The edition of the FSB Guide (2014) met the recommendation made to supervisors in the FSB Progress Report to the G20 and to central bank governors, of November 2012, in the sense of being more active in the assessment of the risk culture and in the exploration of ways to assess misconduct risk, especially in Global-Systemically Important Financial institutions (G-SIFIs). In this document, entitled *Increasing the Intensity and Effectiveness of SIFI Supervision*, the term 'culture' is mentioned 32 times in 32 pages.

#### 4.1.1. Tone from the top

Reckless risk-taking by some employees or their illegal behaviours should not be seen as isolated actions, but as evidence of a failure in the governance and management of institutions to provide a suitable orientation to their risk culture. The FSB paper highlights the importance of the board and senior management in setting the tone at the top. The corporate governance guidelines for BCBS banks (BCBS, 2015) also attribute responsibility to the board of directors for the corporate culture of financial institutions.

A sound risk culture begins at the top, and the cultural weaknesses usually start in the boardroom ("a fish rots from the head down"). The board and senior management must lead by example, systematically supervising the prevailing risk culture and proactively addressing any identified areas of weakness or concern. They should show that their behaviour and management of risk are in accordance with the espoused core values of the organization and with its appetite for risk.

Setting the tone from the top also implies encouraging and supporting openness to challenge; assessing whether the espoused values are communicated and proactively promoted at all levels, as well as assessing whether the institution's risk appetite framework is clearly understood and effectively embedded in the decision-making and operations of the business, ensuring common understanding and awareness of risk.

Finally, the board and senior management play an important role in the assessment and communication of lessons learned from past experiences that are seen as an opportunity to enhance the institution's risk culture.

#### 4.1.2. Accountability

Accountability means that a policy of risk ownership has been established in which employees are held accountable for their actions and are aware of the consequences of not adhering to the desired behaviours toward risk. Appropriate escalation and whistleblowing procedures are in place and are expected to be used by employees to support effective compliance with the risk management framework. Employees also have mechanisms to raise and report concerns when they feel uncomfortable about products or practices, even when they are not making a specific allegation of wrongdoing.

The absence of accountability means, for example: that direct responsibilities regarding risks are not clear or that behaviours contrary to the organization's principles and values are tolerated if they yield a short-term profit; excusing such behaviour, even rewarding those responsible, instead of showing them the inconvenience of such behaviour; not reacting when variations in risks or new emerging risks are reported; not reacting either to breaches of internal or external norms, or to frequent breakdowns in control procedures or risk limits.

#### 4.1.3. Effective communication and challenge

The indicators contained to be found the FSB Guide (2014) in this area aim to assess to what extent the decision-making processes in the organization promote a range of views,

allow for testing of current practices and stimulate a positive, critical attitude among employees and an environment of open and constructive engagement.

An effective culture creates an environment in which people speak clearly and are comfortable about expressing their views without fear of retaliation. An environment of open communication and effective challenge means that different interests, criteria and points of view are considered in the decision-making process; i.e. differences are put on the table and debated. The opposite is an organization in which there is no communication, one which promotes passivity by suffocating and subduing alternative visions and which does not foster effective change, staying in the comfort zone (IIF, 2009).

In this section, the guidance also includes the stature and independency of control functions as an indicator:

- Do they have the same stature as the business lines and are proactively involved in all relevant risk decisions and activities?
- Do they have an appropriate direct access to the board and senior management?
- Do they have sufficient stature not only to act as advisors, but to effectively exert control tasks with respect to the institution´s risk culture?

#### 4.1.4. Incentives

The recent financial crisis shows how the incentives linked to short-term profit, without any adjustment to risk, combined with a highly flexible, fluid and non-transparent labour market, motivated excessive and reckless risk-taking (Bahgat and Bolton, 2014; Bolton, Meheran and Shapiro, 2015; Brunnermeier, 2009; DeYoung, Peng, and Yan, 2013; Ellul and Yerramilli, 2013). They also led to ignoring the interests of clients, to the inappropriate marketing of products or services and to the breach of legal norms, internal procedures and ethical codes.

Human resources policies and practices express the incentive structure that motivates individual behaviour much better than any statement of principles or values. Accordingly, in this last section, the FSB Guide (2014) includes a set of indicators that aim to assess whether the compensation structure and performance metrics consistently support the institution’s desired core values, drive the desired risk-taking behaviours, risk appetite and risk culture of the financial institution, and encourage employees to act in the interest of the greater good of the company, including treatment of customers, cooperation with internal control functions and supervisors, respect of risk limits, and alignment between performance and risk.

It also stresses that an assessment should be made as to whether the succession plans in key management positions consider experience in risk management as a criterion for promotion, and whether the individuals who have responsibilities related to the positions of chief risk officer, chief compliance officer, and chief audit executive can be considered as potential candidates for executive positions, including that of chief executive officer.

Finally, the supervisor should assess whether the plans related to talent development (development plans, job rotation and training programmes) contribute to improving the understanding of key risks, the essential elements of risk management, and the institution’s

culture, introducing risk awareness to the decision-making process of the business line and effective challenge and open communication.

*4.2. The DBN (De Nederlandsche Bank) approach to culture supervision*

The DNB has been a pioneer in this field, developing a new approach to the prudential supervision of banking behaviour and culture since 2010 based on insights from behavioural economics. To this end, it has created a specialized centre (Expert Center for Governance, Behavior and Culture) made up of experts in organizational psychology, organizational change and corporate governance, which develops new intervention methods. The DNB does not predefine what characterizes a good or bad culture, but understands that each corporate culture has its own balance of virtues and risks. Its role as supervisor is to identify these risks and prevent them from materializing by urging the financial institution to mitigate them. Its work has focused primarily on two areas:

1. The conduct of the governing bodies of financial entities and their observable culture.

An entity may have an adequate corporate governance structure yet, nevertheless, the prevailing conduct and culture in the management and governing bodies may be completely dysfunctional. In this area, the DNB experts observe and study the meetings of the management and supervisory boards on-site to assess their effectiveness and identify situations and patterns of behaviour that could create potential risks, like docility of board members or overconfident and dominant CEOs whose proposals and actions are not sufficiently challenged, ineffective boards or a management board taking ill-prepared decisions as a result of 'groupthink' or the strain for consensus. They use different methodologies such as desk research, surveys among staff from all organizational levels and interviews with members of the executive board, supervisory board, and other tiers of management.

Some points for improvement identified in the workings of the management and supervisory boards have to do with: the improvement of group dynamics (the underlying relationships between and among senior managers and board members); more accurate and balanced decision-making (e.g. following step by step decision processes); organizing a constructive conflict and challenging process in a structural way (such as the appointment of a 'devil's advocate', taking things to working groups); more formal decision-making, more consistent with strategic or other objectives espoused; collective self-reflection, which permits organizational learning; and a flexible leadership style for chairmen.

Their experience also shows the importance of involving key officers of risk and compliance functions not only to a greater extent, but also earlier in the opinion-forming and decision-making process to ensure the sound, independent and objective judgment of the board. It also highlights the important role played by the independent members of boards in defending the general interests of the organization's group of stakeholders and in breaking down the dynamics of confrontation between members of the board representing certain particular interests.

2. The capacity to successfully undertake organizational and cultural changes.

In this area, the DNB has worked together with the Netherlands Authority for the Financial Markets (AFM). Changes in culture and behaviour require a great deal of both attention and time; it is not easy to speed them up. The ability to change an institution is defined as "the extent to which groups of people within that organisation are willing and able to effectively implement ambitions and objectives and ensure they succeed (DNB and AFM, 2014). This includes the ability to change course if the chosen approach seems to be unsuccessful, or when faced with a major change in circumstances. Their research shows that the institutions they examined have a genuine will to change. Staffs at all levels are very willing to change. There is also a widely shared sense of the urgent need to make changes.

Their research has made it possible to identify the following key aspects in the processes of change (DNB and AFM, 2014; DNB, 2015):

a. Priorities set in the numerous challenges currently facing financial institutions are not sufficiently clear;
b. Financial institutions have difficulties with the long-term approach required to bring about and anchor change;
c. Financial institutions have problems with self-reflection during change processes and therefore do not learn enough from experience; and
d. Leadership plays a crucial role when it comes to success factors and impediments.

*4.3. The risk climate*

The construction of scales for measuring risk climate is a more recent line of research which can make an important contribution to the development of instruments for measuring organizational behaviour and the analysis of its influence on risk management and controlling misconduct risk.

This line of research takes studies on the safety climate as a reference. The inclusion of the safety climate as an explanatory variable has been a particularly useful research strategy in the empirical analysis of the occupational safety culture of organizations (Johnson, 2007; Zohar, 2010). The safety climate summarizes the collective attitude of an organization towards safety, the level of priority that is given to it. Zohar coined this term in 1980 to highlight the importance of social and organizational processes in the generation of accidents. The theoretical construction of the safety climate subsequently evolved, research focussing on developing instruments or scales to measure it based on employees' perceptions of safety policies and risk prevention practices. Psychometric techniques are usually applied based on structural equation models that conceptualize it as a higher-order factor composed of more specific first-order factors or dimensions related to observable policies and practices. Although there is consensus regarding the definition and methodology used for its measurement, there are different proposals as to the dimensions that make it up (Johnson, 2007).

The differences between the concepts of culture and climate are mainly methodological (Denison, 1996), as there is a marked convergence and integration between both fields in theoretical and conceptual aspects (Schneider *et al.*, 2013). The study of culture employs a

qualitative research methodology (case method, ethnographic studies) aimed at appreciating the singularities of the environment or social context of the organization, fundamentally the values, beliefs and assumptions deeply rooted in it. In these studies, it is important to investigate how culture is formed, evolves and is expressed (through narratives, rituals, symbols, language), as well as its strength, in terms of resistance to change or influence over behaviour.

Organizational climate studies use a quantitative methodology to measure the shared perceptions of employees about the procedures, practices and type of behaviour that are supported and rewarded by the organization and their influence on the behaviour of individuals and groups (Reichers and Schneider, 1990; Schneider, 1990). In these studies, the researcher establishes categories and analytical dimensions that allow measuring these perceptions of organizational behaviour, which are summarized in a specific environment or climate. It is assumed that individual behaviour depends not only on personal characteristics, but also on the organizational climate with respect to a certain aspect or focus of interest. When this focus is placed on risk and its management, the resulting shared perceptions make up the risk climate.

Sheedy, Griffin and Barbour (2017) have been pioneers in the study of risk climate in financial institutions. They define it as "the shared perceptions among employees of the relative priority given to risk management, including perceptions of the risk-related practices and behaviours that are expected, valued and supported". These authors found evidence for four unique factors of risk climate that were invariant across three organizations, two countries, and two levels of analysis (individual and business unit):

- Avoidance: This factor captures a tendency within the organization to ignore or avoid employees' questions about risk-taking and acceptable risk. It also captures the tendency within the organization to ignore, excuse, or hide breaches of risk policy or procedures.
- Valued: This measures the degree to which risk management and risk managers were valued and respected throughout the organization.
- Proactive: This measures practices to actively address risk management.
- Manager: This factor measures managers' encouragement and role modelling of appropriate risk management.

## 5. Conclusion

The concern for the cultural aspects associated with the banking business is very recent, although it seems to be widespread and well justified. Many international organizations (e.g. IIF, IMF, FSB) recommend that such entities should be permanently vigilant about their risk culture and also that supervisors should conduct a more complete assessment of risks, not only financial, but also non-financial, including an assessment of behaviour and culture.

Banking regulators and supervisors have thus placed the focus on the cultural context of the organization as a determining factor in excessive risk-taking and misconduct risk in the industry. There is a clear awareness that systems and controls do not replace the human factor or risk management culture. Organizational performance is also determined by human

behaviour. Ineffective culture and organizational behaviour are often conducive to bad organizational performance, such us excessive risk-taking or misconduct risks.

Unlike traditional supervision, which focusses on solvency and liquidity indicators, culture is more difficult to monitor. Its more tangible or visible aspects, such as corporate governance structures and remuneration schemes, are more easily verifiable by supervisors and have also changed more rapidly, adapting to generally accepted international norms and standards. However, culture also includes other aspects that are less tangible, deeper and more difficult to observe, which are equally determinants of organizational behaviour.

Three approaches to assessing and measuring banking culture are reviewed in this paper. First, the guidance issued by the FSB to assist supervisors in their assessment of risk culture. The FSB (2014) guidance identifies some foundational elements that contribute to the promotion of a sound risk culture with a financial institution and sets out indicators to evaluate its strength. The guide attributes maximum responsibility to the board and senior management in setting the right tone, values and expectations for the entire bank. A sound culture makes individuals more accountable for their conduct and responsible for the risks taken in their activities. It promotes an environment of transparency, dissent, open dialogue and effective challenge. It also establishes the right incentives to motivate compliance, client satisfaction and conducts aligned with risk appetite frameworks. The FSB guidance asks supervisors to pay attention to all these areas.

The second noteworthy example of this new form of preventive supervision is the methodology of qualitative assessment of behaviour, culture and cultural change developed by the central bank of the Netherlands (DNB) as a complement to its role of prudential supervision. This entity has played an important and leading role in emphasizing the role of conduct and culture in banks. Focusing attention on behaviour and culture enables early detection of non-effective behavioural patterns (regarding leadership, the quality of decision-making, communication, group dynamics and mind-set at the senior management level), which may generate problems and failures in the future. A critical aspect that its research has highlighted is the quality of challenge between members of boards during decision-making. This approach could be extended beyond the Netherlands. The European Central Bank is now planning a new aspect of supervision, focused on organisational behaviour, learning from DNB's approach.

The third path of moving forward has to do with measuring the risk climate in financial institutions, an essentially empirical concept that aims to measure employees' perceptions about the priority that the organization gives to foresight in risk management. In a more general sense, this concept could be extended to include aspects related to the orientation to satisfy the customer's interests, misconduct risk (ESRB, 2015; Nguyen, Hagendorff and Eshraghi, 2016; Parajon Skinner, 2016) and the culture of compliance (Langevoort, 2017).

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