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European Central Bank
Secretariat to the Supervisory Board
“Public consultation on the Guide on governance and risk culture”
60640 Frankfurt am Main
Germany

Submitted via email

RE: Starling Comments on the ECB Draft Guide on Governance and Risk Culture

INTRODUCTION

Starling Insights, Inc. (“Starling Insights”), a US-based public benefit corporation, curates and hosts a membership-based platform to serve as a resource for and by the community of leaders, experts, and practitioners working to bring new ideas and tools to the governance and supervision of cultural, behavioral, and other nonfinancial risks and performance outcomes in the banking sector. In this, we collaborate with a number of global organizations, among them, the Financial Markets Standards Board, the Institute of International Finance, the Chartered Banker Institute, and the Association of Chartered Certified Accountants. (The comments offered here are our own)

We are grateful for the opportunity to share our views on the ECB’s Draft Guide on Governance and Risk Culture (the “Guide”). Starling Insights has written extensively on the need for more robust approaches to culture risk governance, outlining relevant responsibilities implied for boards and management, and arguing for public-private partnership aimed at developing real-time tools that would allow us to anticipate risk governance failures so that these may be mitigated proactively.¹

Few would contest the importance of corporate governance as central to the maintenance of reliable and robust capital market systems.² Indeed, many prominent institutional investors are now placing greater emphasis on their own related stewardship roles. In this connection, we note the decision of Norges Bank Investment Management to act as lead plaintiff in a class action lawsuit

¹ Gary Cohn, Keith Noreika & Barbara Novick, An Interview for the 2022 Compendium, *Starling Insights*, May 15, 2022. <https://insights.starlingtrust.com/content/compendium/an-interview-with-gary-cohn-keith-noreika-and-barbara-novick>

² Starling Insights, “Governance: Putting the G in ESG,” *Deeper Dive*, May 16, 2021. <https://insights.starlingtrust.com/content/compendium/governance-putting-the-g-in-esg/>

brought against Silicon Valley Bank, its board, management, and principal advisors, in the wake of the bank's 2023 collapse.³ Failed risk governance is central to their complaint.

Starling Insights has also been a leading voice drawing attention to culture as a critical component of governance and supervision globally. This is the central theme behind the Starling [Compendium](#) on "Culture and Conduct Risk in the Banking Sector," our flagship annual publication. Now in its 8th year, the *Compendium* summarizes global trends in the governance and supervision of culture and conduct related risks across the financial sector. The report is highly regarded and widely read by policymakers, regulators/supervisors, investors, boards, executives, international standard setters, industry associations, legal scholars and practicing lawyers, academics, and the media, worldwide.

We are humbled to have been entrusted with the curation of deep thinking from the remarkable group of nearly [175 leaders](#) who have contributed to the series since its 2018 inception. Notably, the Preamble to our 2024 report was offered by ECB Supervisory Board Member Elizabeth McCaul, and featured commentary from Andrea Enria, former Head of Supervision. We hope to feature the views of other ECB leaders in our 2025 report.

Given these interests and activities, we welcome this update to the *2016 SSM Supervisory Statement on Governance and Risk Appetite* and we are pleased to see the ECB acknowledging the importance of culture in this Guide. We couldn't agree more with Frank Elderson's [opening comments](#), offered at this past September's stakeholder meeting: "In supervision we see that qualitative shortcomings in governance and risk culture are all too often the root cause of banks' vulnerabilities that can later resurface also in quantitative areas such as banks' liquidity positions. Various banking crises have shown that it is often in a bank's culture that the first whispers of trouble can be discerned."

We are supportive of the ECB's efforts to elevate culture and related supervisory expectations as a significant component of bank governance and supervision. With that said, there continues to be a lot of confusion and uncertainty around these topics. As we have [noted elsewhere](#), the supervisory community has yet to achieve consensus on the specific relationship between governance and culture, how they interact, and how this interaction is to be examined practically, at scale, and in advance of evidence that failures of one or both have contributed to adverse outcomes. For this reason, we believe there is room to improve this Guide in ways that will add clarity and help to deliver more effective outcomes for bank management teams as well as their supervisors.

³ Eliot Brown, "Sovereign-Wealth Giant Pursues Goldman Sachs, KPMG and Others Over SVB Collapse," *The Wall Street Journal*, Jan. 17, 2024. <https://www.wsj.com/finance/banking/wealth-giant-pursues-goldman-sachs-kpmg-and-others-over-silicon-valley-banks-collapse-64a16039>

The Guide provides a definition of risk culture which offers context to our comments to follow.

“... [R]isk culture relates to a bank’s governance and to behavioural and cultural patterns. Governance concerns the more formal aspects of risk culture, such as a bank’s organisational structure and the procedures, control frameworks and policies that are in place, while behavioural and cultural patterns can be found in decision-making, leadership and communication styles. There are different cultural drivers for these behavioural patterns, such as group dynamics and collective mindsets, identified at all levels of the bank, including management bodies, senior management, middle management and staff.”⁴

With this as background, our comments can be summarized in the following points:

- First, we note the ECB’s decision to focus on risk culture rather than culture more generally. While we agree there are certain elements of culture that are particularly relevant to risk, we would stress that these elements operate within the context of an overall ‘firm culture’. We also raise a concern about limiting the definition of ‘risk culture’ to the four dimensions described. Separating out and focusing on subsets of culture in this way may inadvertently obfuscate the broader culture context and, thus, make it more likely that critical culture problems will be missed by risk managers and supervisors alike.
- Second, we welcome the distinction the ECB makes between organizational structure, procedures, control frameworks, and policies – what we describe as *formal* organizational structures – and behavioral and cultural patterns that tie to leadership, decision-making, and communications – which we define as *informal* organizational structures. However, combining these two concepts under the definition of ‘risk culture’ muddles this distinction unhelpfully. It is important that the Guide (1) clearly define the relationship between formal organizational structures of supervisory relevance (e.g., governance) as well as the informal organizational structures (e.g., culture) that are of equal supervisory interest, (2) spell out how these structures are believed to interact in a manner that is mutually supportive, and with that understanding, (3) indicate how such mutual functioning is best to be examined.
- Third, this definition recognizes the importance of group dynamics and collective mindsets, which take place at all levels of the bank. And yet, outside of this mention, the Guide focuses little attention on how the supervision of such cultural factors is to be conducted. Nor does the Guide offer a view on how such cultural factors are to be assessed by risk managers throughout the bank. The focus instead is on behavior and cultural patterns at the management body level. And we note that where the Guide addresses operational matters and internal control functions, there is no reference to culture at all, as if culture were disconnected from the critical policies and processes of the bank.

⁴ European Central Bank, “Draft guide on governance and risk culture”, July 2024

- Finally, given the expansion of responsibility that the Guide implies, we feel it is important to stress that management bodies in the supervisory function will be challenged to meet these new expectations without significant investments in new tools, frameworks, and metrics. Past approaches – emphasizing ‘tone from the top,’ staff surveys, whistleblower mechanisms and the like – have failed to produce desired outcomes. And yet neither the industry nor its regulators have stipulated what new tools, frameworks, or metrics may be necessary if we are to move beyond a repeat of past culture risk governance and supervisory outcomes. In its current form, the ECB’s Guide does more to describe a desired end-state than it does to describe *how* such an end-state is to be achieved.

RISK CULTURE IS CULTURE

The term ‘risk culture’ has been used to create a distinction between a bank’s culture that is of supervisory interest as separate from the general cultural norms and behavioral proclivities of the bank. An overt assertion is made, suggesting that while “culture” is an idiosyncratic and ephemeral matter, rightly left for a firm’s leadership to decide, the way in which such gossamer threads are bound up with prudent governance – “risk culture” – is rightly a matter of supervisory interest.

This view is problematic on at least two counts. Firstly, it implies that “culture” is “soft stuff” that cannot be made to yield to meaningful quantitative analysis – it is, in the words of [Andrew Bailey](#), “everywhere and nowhere.” And, secondly, by attending to “risk culture” rather than simply “culture” we ignore the fact that many operational risks flow from culture more broadly, absent any obvious tie to governance, risk, and compliance infrastructure. Consider, for instance, the risks that flow from a so-called “[normalization of deviance](#)” or from a culture in which “[psychological safety](#)” is eroded.

We would argue that “risk culture” must be considered within the broader cultural context of a firm. Management bodies shouldn’t have one approach to culture and another for risk culture, nor should supervisors operate under the false belief that such a distinction is available. Rather, they should approach risk culture as an important component of an integrated firm culture.

This is particularly important to keep in mind as the Guide further defines ‘risk culture’ as having four specific risk culture dimensions (as enumerated in section 2.1.2.2) based on cultural indicators the FSB identified in its 2014 guidance on risk culture.⁵ For reference, these dimensions include:

- Tone from the top

⁵ Financial Stability Board, “Guidance on Supervisory Interaction with Financial Institutions on Risk Culture: A Framework for Assessing Risk Culture”, 7 April 2014

- Effective communication, challenge, and diversity
- Accountability for risks
- Incentives

While these four dimensions may warrant management and supervisory attention, defining risk culture in these terms – or even suggesting that these matters are of paramount importance to culture assessment – introduces a number of theoretical and methodological problems. Among them, defining certain dimensions of culture as “risk culture,” and directing management bodies to address those issues, creates the impression that management bodies need only focus on those elements in order to achieve compliance and invites a tick-box approach to such. Indeed, the FSB cautioned that the four dimensions they outlined should not be considered an exhaustive list, lest they be viewed as simply a checklist for management bodies.⁶

Putting forward a ‘short list’ of risk culture also makes it challenging from a supervisory perspective, as examiners may find it more difficult to call out problematic behaviors that fall outside the scope of these stated dimensions, despite recognizing that these may represent significant culture risk.

Another challenge with defining risk culture along these dimensions is that, absent a global consensus as to which dimensions are appropriate, there is a risk of fragmentation as different jurisdictions adopt varying definitions of what constitutes ‘risk culture’.

Before committing to a narrow definition of what qualifies as ‘risk culture’, we would strongly recommend the ECB engage in a cross-border collaboration involving multiple public and private stakeholders to design a common approach to culture supervision.

Better yet, rather than codifying such in this Guide, the ECB might encourage a global standard-setting body to help develop common guidelines for culture governance and supervision that can more easily adapt to this rapidly evolving landscape with globally consistent application.

Recommendation 1: We recommend that the ECB reconsider its focus on ‘risk culture’ to make it clear that it is but one component of overall firm ‘culture’.

Recommendation 2: At a minimum, we recommend the ECB clarify that supervisors will assess risk culture within the broader context of the bank’s overall culture and clarify that the four dimensions mentioned are merely examples and do not represent a complete list of cultural issues that will be considered during examinations.

⁶ Ibid.

DISTINGUISHING BETWEEN FORMAL AND INFORMAL STRUCTURES

Following on our recommendation that the ECB take a more expansive view of culture, we would draw attention to the four dimensions of risk culture and the ECB's decision to define 'risk culture' as a blend of *formal* structures of policies and processes with *informal* structures that include behavioral and cultural patterns.

This is important to address because *informal* structures are just as structurally significant as *formal* structures of policies, systems, and processes, but the effective assessment of these demands a very different analytical framework and domain-relevant tools. Furthermore, these formal and informal structures interact in often complex ways and can either reinforce one another or, as is seen far too often, they can operate at cross-purposes to produce perverse outcomes.

To illustrate this point, it is helpful to look back at the banking turmoil of 2023. Both SVB and Credit Suisse had implemented Three Lines of Defense (3LoD) frameworks, they had adopted codes of ethics, extensively documented risk policies, robust systems of control, and their boards espoused a 'Tone-from-the-Top' that clearly emphasized safety and soundness.

There were certainly deficiencies in these *formal* risk governance structures but, more significantly, multiple post-mortems found that the risk governance failures that beset these institutions stemmed from their *informal* governance structures, to include employee behavioral norms, understood yet unwritten practices, invisible networks of internal peer influence, and operational norms that determined how work actually got done. These *informal* factors are *material* contributors to risk and, in many cases, they represent the most critical challenges to risk governance.

In choosing to blend *formal* and *informal* structures under the description of 'risk culture', the ECB risks obscuring the complex interactions that occur between them, and inadvertently creates conditions whereby management may conclude that attending to the more readily assessable formal structures will be sufficient to manage the more difficult to assess informal structures.

To make better sense of these relationships, it is helpful to think of *formal* structures over which the management body has control over the design as 'inputs'. In this model, the 'outputs' are the performance and risk outcomes that derive from initial conditions – both desired and undesired. When those outputs fail to meet expectations, it is the tendency for management to respond by tweaking policy and process inputs. But if we ignore the *informal* structures of behavior and the cultural patterns that operate between inputs and outputs – that which we term cultural and operational 'throughputs' – then simply adjusting the inputs will likely fall far short of expectations.

The interactions between *formal* and *informal* structures are easier to understand when viewed through this lens. To take an example, the Guide defines 'tone from the top' as a key risk culture

dimension that includes the “structure and function of the management body” and “regular communications initiated by the management body”. Importantly, because these are management-initiated policy (board structure, code of conduct, etc.) and process (communications strategies) changes, they are properly understood as ‘inputs’. As inputs, we can’t expect them to consistently deliver good outcomes all on their own. Rather, an organization would need an equally strong commitment to *informal* ‘throughputs’ – like healthy trust networks and shared cultural norms – in order to achieve what some have termed a desirable [“echo from the bottom.”](#)

To carry this point further, as it appears in the Guide, the ECB’s Figure 2: Map of risk culture components, connecting governance, culture and behaviour, includes “risk culture components” that are categorized under the rubric of either “Governance” or “Culture.” Applying this input-throughput-output lens reveals that many of the components currently falling under “Culture” should more accurately be recognized as belonging in our category of “Governance” inputs.

For example, ‘Culture’ components that are associated with the ‘Accountability’ dimension include management-led tasks, such as the assignment of roles, while the ‘Incentives’ dimension describes the design of incentive schemes. Neither acknowledges the impact that embedded behaviors and norms will have on how these policies and processes are enlivened through day-to-day practice.

Once this is accounted for, one realizes that most of the ‘risk culture’ dimensions identified in the Guide amount to policy or process changes, offering very little to do with changing group dynamics, managing mindsets, strengthening cultural norms, or influencing behavioral proclivities.

As a consequence, what the ECB is effectively proposing are significant changes to the ‘inputs’, of culture risk governance with little focus on how to ensure that the ‘throughputs’ of behavior and culture patterns are fit for purpose. The risk is that banks will be encouraged to interpret this Guide as simply a tick-box exercise, rather than undertake meaningful culture assessment and change.

Should that be the case, banks may end up spending significant time and expense on distracting process changes with little to show for it, while well-intended supervisors will face criticism for both adding to regulatory burden while failing to stem perennial culture risk governance failures.

Recommendation 3: We encourage the ECB to revisit the proposed risk culture dimensions with an eye to properly categorizing formal structural governance components directly controlled by the management body (‘inputs’), and those driven by informal yet nevertheless structural behavioral and cultural patterns (‘throughputs’), so that bank management and their supervisors can develop a clearer understanding of the potential complementarities and conflicts between them before these are made manifest in culture risk governance failures (‘outputs’).

A NEW FRAMEWORK FOR INTEGRATING CULTURE

Thus far, we have recommended here that, in its Guide and as a matter of supervisory interest, the ECB adopt a definition of ‘culture’ that moves beyond an overly narrow focus on ‘risk culture.’ Further, we have urged that the ECB distinguish more precisely between ‘inputs’ of culture risk governance, (policies and processes) to emphasize the operational ‘throughputs’ (people, presumptions, and practices) which ultimately result in visible ‘outputs’ (performance and problems).

We also observed that the Guide focuses on formal governance structures, and on behavioral and cultural patterns within the management body, while offering comparatively little guidance on how banks should assess culture risk governance in day-to-day operations. While an effective board and management team is critical, it is equally important to ensure that operational throughputs are effectively aligned with risk governance inputs when proactively testing for anticipated outputs.

A predominant preoccupation with ‘Tone from the Top’ reflects a failure to recognize that the structure, composition, and culture of boards and management bodies will have little bearing on the actual safety and soundness of any organization if not aligned with the broader culture of the organization – to include the many likely subcultures that will shape daily practice among distinct business lines, business units, functional units, locations, and teams.

Making any kind of judgement about the safety and soundness of a bank on the basis of whether it appears that management has adhered to the black letter requirements set forth in the proposed Guide, would be ill-advised. By contrast, when we can assure that the *informal* cultural forces are known to be operating in a manner supportive of the *formal* governance infrastructure, we can have greater confidence that effective risk management decisions are being made, accurate information is being reported upward as needed, and that conduct issues will be caught and corrected.

For this reason, we find it notable that culture is not referenced in Section 4 of the Guide, *Internal Control Functions*, which instead focuses on policies and processes in describing expectations for the management of risk, controls, and audit.

While the Guide insists that behaviors like challenge and ‘speak-up’ take place *in general*, it fails to directly link cultural and behavioral patterns (‘throughputs,’ as we have termed them here) to the policies and processes (‘inputs’) implemented by management. Unless these cultural throughputs are *explicitly* recognized as forming a direct and necessary causal link between policy and process ‘inputs,’ on one hand, and the suboptimal performance or problematic ‘outputs’ that are witnessed on the other, management bodies will see little actual improvement in culture risk governance.

Section 4 of the proposed Guide features a discussion of the 3LoD model as being central to good governance. It thus serves as a good case study for how ‘inputs’ and ‘throughputs’ must be aligned in order to achieve good ‘outputs.’

As we have discussed elsewhere,⁷ 3LoD models are easily described yet extraordinarily difficult to implement effectively. Conceptually, the approach of assigning roles and responsibilities to the front office, risk management, and audit is well understood. But in the complex, dynamic, and high-pressure environments typical of banks, effective implementation of the 3LoD model relies upon continuous coordination among individuals across all three lines – coordination that regularly fails to be achieved when not adequately supported by internal networks of peer influence – “culture.”⁸

Too often, boards, executives, and supervisors are lulled into believing that, by specifying a comprehensive 3LoD model (policy) and insisting upon a sufficiently resourced and robust control environment (processes), these *inputs* can be relied upon to deliver good performance outcomes.

Without commensurate attention to culture risk governance throughputs, it is little wonder that banks continue to face problems implementing effective 3LoD systems, despite over a decade of effort and hundreds of billions of dollars invested, in the global aggregate.

We therefore recommend that the Guide expressly stipulate that culture must align with governance in an operationally relevant way. Specifically, in Section 4 of the Guide, we suggest that culture should be explicitly linked to the policies and processes described therein.

CULTURE RISK GOVERNANCE – THE STARLING MODEL

Starling uses a diagnostic framework for Culture Risk Governance which makes these links explicit.

Inputs

- *Policies* establish how the firm intends to operate, consistent with regulatory demands;
- *Processes* then look to establish the means by which policies are put into effect;

Throughputs

- *People* enliven policies and processes (or fail to), to include many who go unrecognized;
- *Presumptions* around how people behave (right or wrong) shape management activities;

⁷ Erich Hoefler, Mark Cooke & Thomas J. Curry, “Three Lines of Defense: Failed Promises & What Comes Next,” *Starling Insights*, Aug. 21, 2020. <https://insights.starlingtrust.com/content/thoughts/three-lines-of-defense-failed-promises-and-what-comes-next>

⁸ Aiysha Dey, Jonas Heese & James Weber, “Regtech at HSBC,” Case Study, *Harvard Business Review*, Oct. 9, 2019. <https://store.hbr.org/product/regtech-at-hsbc/120046>

- *Practices* on a day-to-day basis reveal the ensuing operational realities of the firm;

Outputs

- *Performance* outcomes attest to the efficacy of the foregoing; and
- *Problems* are made manifest when performance outcomes consistently go awry.

When bad outcomes are seen, supervisory and management attention regularly turns to policies and processes, with a view to where remedy may be found. Too often, this passes as a form of 'root cause analysis.'

But if we wish to develop an actionable understanding of what went wrong, and what must be done to achieve lasting change, then our focus must shift away from inputs to the operational throughputs of culture risk governance: people, presumptions, and practices.

People: Every process – at least in part – is run or effectively maintained by people who operate in a complex, socially networked environment poorly captured by standard company 'org charts' and 'accountability maps.' At any given time, employees who may play roles essential to, say, the functioning of the firm's 3LoD, do so without management being aware of their importance.

In work done for a G-SIFI, for instance, Operational Risk leaders identified to Starling some 1500 staff who comprised risk owners across North America. Upon inquiry, [we identified](#) another 500 people upon whom the named risk staff relied to do their jobs effectively.

This is not uncommon. Indeed, such blindness to the people who play a critical part in culture risk governance has just recently been pointed to in [press reports](#) about risk governance challenges at another G-SIFI. Without an appreciation of the social network dynamics at play, efforts to set new workplace policies and processes, and to ensure that these are enacted as intended, are unlikely to yield commensurate return-on-investment or to deliver the outcomes expected.

Presumptions: In addition to false presumptions about the people who are involved in bringing policies and processes to life, management often works with a host of other often inaccurate presumptions about how people work together at all. And when problems arise, it is [regularly discovered](#) that presumptions around operational expectations were untested, unfounded, or both.

In the wake of a mishap or misconduct scandal, it is standard practice that leadership undertake an 'internal investigation' into root causes – or, more typically, retain outside counsel or consultants to do so. Having conducted many such internal investigations, we find that it is consistently the case that leadership was either unaware of the presumptions with which they had been operating, or unaware just how inaccurate their presumptions in fact were.

Practices: Once we understand who relies upon whom to do the work that needs doing, and identify the operating presumptions at play across an organization, then we can start the more difficult task: developing a 'real-time' understanding of the common *practices* in which employees habitually engage – what they in fact do, rather than what we expect them to do, presume them to do, what they may intend to do, or even what they themselves report their practice norms to be.

This task begins with developing an understanding of culture, and the role of inter-peer trust, at work in an organization. While specialized consultancies may help to develop a reliable picture of the people and presumption issues identified immediately above, modern [AI-driven tools](#) have now enabled real-time, data-driven insights into practices, allowing for proactive course correction.

Recommendation #4: The ECB should look to tie culture risk governance more directly to standard control functions, in a manner that makes the link between operational 'inputs,' 'throughputs,' and 'outputs' more explicit.

WITHOUT PROPER CULTURE RISK GOVERNANCE TOOLS, ACCOUNTABILITY REGIMES ACHIEVE LITTLE

The ECB's proposed Guide emphasizes a worthy goal: that management bodies in their supervisory function should be able to demonstrate a deep understanding of the firms they oversee. To achieve this, the Guide significantly expands the roles and responsibilities of management bodies and sets the expectation that boards must *ensure* delivery of effective governance and risk management.

This is a much higher bar than that established by the 2016 Guide, which required only that the board offer "oversight and challenge to bank management". With respect to control functions (risk, compliance, and internal audit), the expectation was that management should ensure "the regular reporting by these functions to the board and the *involvement* of the board in the assessment of their effectiveness."⁹ (emphasis added).

Boards are already challenged to provide effective oversight over business strategy and financial condition, and most struggle to digest the volume of relevant data. This contributes to a lack of sufficient visibility into how work actually gets done in the enterprise on a day-to-day basis and *compounds* the central challenge of corporate governance.

Bereft of the kind of insights we call for here, and inundated with copious amounts of other data that they cannot hope to absorb, boards and even senior management teams are left significantly

⁹ European Central Bank, "SSM supervisory statement on governance and risk appetite", June 2016

blind to their true non-financial risk exposure, notwithstanding large investments in risk and compliance control systems and processes.

Boards and management don't need *more* information, they need *different* information. Achieving good culture risk governance means equipping executives and boards with a means by which to demonstrate that *informal* structural elements are intentionally implemented and that they are aligned with the more easily visible *formal* structures of governance and risk management.

Absent this, governance systems default to self-reporting mechanisms and superficial tick-box exercises. Perversely, such approaches may contribute to greater instances of poor conduct, as the goal of task completion overtakes meaningful risk identification and mitigation and, worse, comes to be viewed as effectively absolving leaders of responsibility for ultimate outcomes achieved.¹⁰

Greater emphasis on 'individual accountability regimes' will not change these circumstances. Instead, increased emphasis on individual accountability can be expected to incentivize *more* of an emphasis on policy and process to support tick-box exercises, *in lieu* of demonstrable efficacy in culture risk governance. And, moreover, it is likely to work *against* efforts to increase 'speak-up' and 'challenge behaviors' in favor of concealing information that might trigger liability exposure.

If we are to expect boards and executive bodies to be fully accountable for risk and governance outcomes, then the industry – and its supervisors – must establish standard metrics by which to assess these *informal* structures of culture risk governance, and devise tools that will allow them to *evidence* the success of risk identification and mitigation efforts *ex ante*. Without such, material non-financial risk concerns will be de-prioritized or concealed until crisis demands differently.¹¹

Machine learning has now made it possible to process vast troves of internal corporate data at scale, and in close to real-time. With the adoption of novel approaches to culture assessment made possible by "computational social science," it is now possible to detect signals within those data sets that tie to particular behaviors of interest to management and supervisors.¹²

This has made it possible to generate "predictive behavioral analytics" – continuously updated behavioral indicators that provide an accurate view of a firm's informal culture risk governance

¹⁰ Michelle Kirschner & Matthew Nunan, "The UK's Consumer Duty: A Rebirth, Not a Rebrand," Compendium, *Starling Insights*, June 7, 2023. <https://insights.starlingtrust.com/content/compendium/the-uk-s-consumer-duty-a-rebirth-not-a-rebrand>

¹¹ Stephen Scott, "Culture as Culprit, Culture as Cure," Opinion, *The Banker*, Sept. 15, 2023. <https://www.thebanker.com/Culture-as-culprit-culture-as-cure-1694762983>

¹² Keith Noreika & Bryan Hubbard, "Decoding "Too Big to Manage": What It May Take to Manage Large, Complex Institutions Successfully," Compendium, *Starling Insights*, June 7, 2023. <https://insights.starlingtrust.com/content/compendium/decoding-too-big-to-manage-what-it-may-take-to-manage-large-complex-institutions-successfully>

structures and operations, *in vivo*.¹³ Analyzing these signals, we can reveal where specific conduct propensities are most likely to appear – and to propagate in a contagion-like manner¹⁴ – and link those to any number of key performance indicators (KPIs), key risk indicators (KRIs), or other relevant management information.¹⁵ This may include behaviors that represent a predilection for questionable conduct or, equally, behaviors that reinforce good governance practices.

These predictive behavioral analytics enable a new generation of governance and supervisory tools that permit for precision targeting of audit activities and risk management interventions, allowing those responsible to scale risk oversight and to act in a more timely, effective, and efficient manner.

Recommendation #5: Alongside increased expectations placed on management bodies to oversee governance and culture, we recommend the ECB encourage banks to explore novel tools and frameworks commensurate to these new responsibilities.

Thank you for your consideration.

For questions or further commentary, please contact Erich Hoefler at ehoefler@starlingtrust.com

¹³ Starling Insights, “Starling on Managing Culture Risks with AI,” Observations, Mar. 7, 2023.

<https://insights.starlingtrust.com/content/observations/starling-on-managing-culture-risks-with-ai>

¹⁴ Michael Arena & Rob Cross, “Organizational Culture is Caught, not Taught,” Compendium, *Starling Insights*, May 15, 2022. <https://insights.starlingtrust.com/content/compendium/peer-perspectives-organizational-culture-is-caught-not-taught>

¹⁵ Financial Markets Standards Board, “Conduct & Culture MI: Boundaries of Current Practice,” Spotlight Review, July 2023. <https://fmsb.com/wp-content/uploads/2023/07/FMSB-Conduct-and-Culture-MI-Report-July-24-2023.pdf>