

Up-to-Date Hedge Accounting for TPRM Based on Cost/Benefit Assessment When Aligning with FED Interagency Letter SR 23-4 to Be Shared for FinTech Supporting Sound Practices within CRE 22 Effective as of: 01 Jan 2023

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Abstract

Hedge accounting reporting is no longer optional since January 1, 2023, with the entry into force of the Revised Basel Framework. This paper contributes to the practice of TPRM on corporate accounting interaction FinTech highlighted by the FED Interagency Letter SR 23-4, to cross the critical milestone of Template CR3 prescribed since 2019. This is the standardized approach articulating the OPE25 - Calculation of RWA for operational risk with CRE22 - Calculation of RWA for credit risk for recognition of credit risk mitigation based on monitoring and control of earnings resulting in deposit accounts of Template CR3: Mandatory Credit Risk Mitigation Techniques for all banks and financial services. The CR3 template covers all CRM techniques recognized in the applicable accounting framework. It is part of corporate accounting (management accounting or cost accounting). “The mapping process used must be clearly documented. Written business line definitions must be clear and detailed enough to allow THIRD PARTIES to REPLICATE the business line mapping. The **Basel Committee on Banking Supervision (2019)** requires that documentation must, among other things, clearly motivate any exceptions or overrides and be kept on record”. The technical issue is therefore the accounting document of costs and benefits to be attached to the Deposit Accounts Agreement for TPRM.

Keywords

Hedge Accounting for TPRM, Operational Risk Impact on Credit Risk, FinTech Supporting Sound Practices, CRE 22 Disclosure Requirements, Loss Mitigation Accounts

1. Introduction

Banks and financial services use several techniques to mitigate the credit risks that they are exposed to. To this end, banks may agree to repay the net loans owed to them in relation to the deposits of the same counterparty. TPRM accounting FinTech has such an objective.

Third-Party Risk Management (TPRM) Accounting FinTech making absolute VaR operational on the basis of cross-cutting interactions of systematic real-time management, including monitoring, control, and daily reporting of operational risk losses on the firm's dashboard, is the means by which a bank or financial service aims not only to fully mitigate the credit risk to which it is exposed, but also to improve its resources in unencumbered cash and cash equivalents generated by bank's loss mitigation and TPRM ensuring financial stability and avoiding bankruptcies. Unencumbered Cash and Cash Equivalents means, as of any date of determination, the sum of all Cash and Cash Equivalents of Borrower which are not subject to any pledge, security interest, mortgage, hypothecation, restriction, or other encumbrance (other than in favor of Agent and other than normal and customary rights of setoff upon deposits of cash in favor of banks or other depository institutions).

The TPRM accounting FinTech thus provides within CRE22 - Calculation of RWA for credit risk (the standardized approach for the recognition of credit risk mitigation, such as collateral and guarantees), the means of compliance with Rule 18f-4 of the SEC of October 2020 effective in the USA since February 19, 2021. This rule requires firms to calculate the daily VaR for each fund at a 99% confidence level. Rule 18f-4 applies to mutual funds (other than money market funds), exchange-traded funds (ETFs), closed-end funds, and business development companies.

FinTech accounting TPRM is also how the FASB and the IASB should get out of the methodological impasse in which they find themselves with a Dynamic Risk Management project due to not having known in which operational framework to place the project.

Indeed, although they were designed for a similar objective, the financial instruments standards ASC 815 published on August 28, 2017, and IFRS 9 effective for annual periods beginning on or after 1 January 2018, are still without a Dynamic Risk Management (DRM) framework of the supporting Corporate Accounting model in conjunction with the Basel Framework, i.e., the full set of standards of the Basel Committee on Banking Supervision (BCBS) which is the primary global standard setter for the prudential regulation of banks. The membership of the BCBS has agreed to fully implement these standards and apply them to the internationally active banks in their jurisdictions. Discussions around the dynamic risk management project initiated by the International Accounting Standards Board (IASB) with the Financial Accounting Standards Board (FASB) in 2013-2014 according to which the development of the model reflects the information collected during meetings with banks which use dy-

dynamic risk management to reassess the risk due to changes in interest rates' ([International Financial Reporting Standards, 2023a](#)) has led the two organizations to a deadlock for 10 years and if nothing intervenes, in particular an alarm signal, they have the intention to persist in this dead-end path until 2025 (See the work plan published on IFRS ([International Financial Reporting Standards, 2023a](#))).

The new standardized approach for operational risk capital ("new SAOR") for measuring minimum operational risk capital requirements is a non-model-based method.

This means that it is not like the model-based approach, the mathematical system that uses a predictive model (statistics and probabilities) to extrapolate what would happen if one were to do x? The accounting-based Dynamic Risk Management Model for the standard approach providing loss mitigation accounts and the SOX Ratio linked to financial instruments for the Basel revised operational risk framework runs on FinTech platform recommended by the Financial Stability Council on June 27, 2017. This system meets the conditions of transversal interaction of financial performance mobilizing the total paid workforce for a business dynamic consistent, on the one hand for the United States, with the SEC directive of 2018 (Non-GAAP Financial Measures) and the SEC directive of 2020 (SEC Rule 18f-4, Accounting and Disclosure Information) and, on the other hand, taking into account the FASB & IASB Norwalk agreement of 2002, with article 9a of the EU directive (2017) amending the Directive 2007/36/EC as regards the encouragement of long term shareholder engagement as well as similar rules of other member jurisdictions of the International Organization of Securities Commissions (IOSCO). For relationships with third parties, transparency and traceability of data, the investor has the required FinTech dashboards for automatic "planned-executed" cost accounting processes in real time, taking into account both the threshold of risk appetite of the banking sector and Counterparties Credit Risk (CCR) This includes non-profit organizations whose internal financial performance is aligned with the insurer's Pillar 2 governance requirements for Own Risk and Solvency Assessment (ORSA): "The recognition of the coverage of operational risk losses by insurance cannot exceed 20% before considering the economic capital (EC) accounts" ([Basel Committee on Banking Supervision, 2011a](#)).

This paper is based on authoritative peer-reviewed publications in this area of accounting expertise to provide the missing complement of Corporate Accounting FinTech to the research and innovation centers of the Bank for International Settlement (BIS) and central banks. As noted by the BIS, their research hubs focused on Suptech and Regtech, next-generation financial market infrastructures (MFIs), central bank digital currencies (CBDCs), open finance, cybersecurity, and green finance.

The challenge is to overcome the handicaps of the DRM project by removing five errors:

1) The error of confusing the physical meaning of the term “dynamic” with the meaning of the social psychology of organizations in which corporate risk management and the directive finalizing the Basel III reforms fit.

2) The error of not including hedge accounting in the appropriate accounting framework: there are only two accounting frameworks in which the different accounting denominations or variations fit: management accounting and financial accounting.

3) The error of having been tempted to abandon the heart of its profession, the accounting approach in favour of the mathematical approach (statistics and probabilities) leading to speculation scenarios which under Basel II led to the financial crisis of 2008.

4) The error of having taken what is happening in the banks at the intermediate stage of OPE30 - Advanced Measurement Approaches as a model on which to model the DRM project. This error which is the consequence of the first two is evident on the project’s IASB website: “The model’s development reflects information gathered at meeting with banks that use dynamic risk management for repricing risk due to changes in interest rate” ([International Financial Reporting Standards, 2023a](#)).

DRM is the process that involves understanding and managing how and when a change in interest rates can impact net interest income (NII). As NII is the net of interest revenue and interest expense, a change that has an equal impact on both inflows and outflows would not impact NH ([International Financial Reporting Standards, 2023b](#)). This is the mathematical approach to financial risk. Monte Carlo simulations, for example, are algorithms used to estimate the probability of occurrence of a scenario in which random parameters intervene. It is a statistical technique allowing us to understand the influence of uncertainty in prediction models, particularly in finance.

5) The most serious error is that the mathematical model of DRM (statistics and probabilities) leading to speculative scenarios is based on the VaR-based risk model focused on unexpected losses (UL) while the IASB, under of its 2002 Norwalk agreement with the FASB, committed to modifying the standards governing financial instruments to work with the VaR-based risk model focused on expected losses (EL) which is the accounting model. Hence the following affirmation from BCBS: “The Committee strongly supports the initiative of the IASB to move to an EL approach. The goal is to improve the usefulness and relevance of financial reporting for stakeholders, including prudential regulators. It has issued publicly and made available to the IASB a set of high-level guiding principles that should govern the reforms to the replacement of IAS 39. The Committee supports an EL approach that captures actual losses more transparently and is also less procyclical than the current ‘incurred loss’ approach” ([Basel Committee on Banking Supervision, 2011a](#)).

This absolute VaR accounting approach was not followed at the start of the DRM project in 2013-2014. Nothing has been done to move away from relative VaR, neither with the BCBS publications of June and December 2017, nor with

the EU Directive (2017), nor with SEC (U.S. Securities and Exchange Commission, 2020) Rule 18f-4 Accounting and Disclosure Information which recalled the interest in working with absolute VaR.

The most basic subject of risk management dynamics is “interaction” between individuals and/or between management departments. We then speak about dynamics of interactions. It is to such an interaction process that BCBS invites banks and CCRs for OPE25: “The proper identification, collection and treatment of internal loss data are essential prerequisites to capital calculation under the standardized approach” (Basel Committee on Banking Supervision, 2023).

The web portal <http://www.hcm-accounting.com/> certified by numerous peer-reviewed publications, including the book edited by Harvard University with 54 universities worldwide which was published in the United Kingdom (Barnett & Sergi, 2021) and the article published in The Journal of Corporate Accounting & Finance (Koeplin & Lélé, 2023) for the FinTech knowledge and resources essential to the DRM accounting model and is designed to meet the compliance requirements of Data, Systems and Processes, i.e., the main components of the New Standardized Approach, in particular the Business Indicator (BI) - BCBS (Basel Committee on Banking Supervision, 2023) Standardized approach: individual exposures, Version effective as of 01 Jan 2023: 1) Banks will have to ensure that their internal Loss Component (LC) processes are sufficiently robust and cover the required ten or almost five-year history. 2) Banks will need to invest in training and incentive schemes for individuals involved in LC, in data quality processes (automated or semi-automated reconciliations, signoffs etc.) and in documentation to ensure that LC is of a sufficiently high quality. 3) Risk management teams will need to work together with finance to define exactly how the components of the business indicator are derived from the profit and loss accounts. It should be noted that it has been known for a long time with the hidden costs that the most relevant Loss Components (LC) to be made operational on the Corporate Accounting FinTech platform for the effective mitigation of operational risk losses in real time, are the socio-economic indicators within reach of the total paid workforce to act.

The main articulations of this article are as follows:

- Methodology
- Background
- How does the accounting process work compare to OPE30?
- Before/After OPE25’s TPRM Accounting case report from 3 banking pools and sector clients
- Forward-looking loss mitigation accounts to be provided for OPE25 in connection with Third-Party Relationships Risk.
- FinTech features for cross-cutting operational interaction for OPE25 articulating all workstations
- Discussion
- Conclusion

- References

2. Methodology

A derivative is a financial instrument that takes the form of a contract concluded between two parties. This contract defines a future financial exchange which depends on the price of an asset, called underlying. Therefore, we speak of a derivative product: the financial flows that will take place depend on—or derive from—another asset, generally a share, a stock index, an interest rate or even a raw material. The objective of hedging is to create a situation in which the combination of the hedged item and the derivative instrument guarantees a predictable outcome during the hedge period. This outcome takes the form of either maintaining fair value (fair value hedge), achieving predictable cash flows (cash flow hedge) or mitigating fluctuations in the value of an investment net in a foreign activity (net investment hedge). With the OPE25 standard, these risks are no longer just analyzed to identify their probability and potential impact.

The objective of enterprise risk management (ERM) impacting derivatives and hedging is now to identify, collect and process operational risk losses. This cannot be done without FinTech cross-cutting capacity automating the use of organizational knowledge of the internal and external environment. It is the field of social psychology of organizations from which management accounting borrows its management interaction and risk mitigation techniques. This particularly specialized area of expertise, whose experts are rare worldwide, frames the organizational dynamics of large and small groups (a bank or a company or an international group) whose relations formalized by the organization chart are informal and no longer face-to-face. This area of expertise also covers the dynamics of groups or more precisely small groups such as a work team or a small or medium sized enterprises (SME) whose relationships are still face-to-face (maximum 10 employees).

Corporate accounting FinTech is the IT support necessary for increased information regarding the company's risk management policies and strategies and the assessment of the fair value of financial instruments for more transparent derivative products. This provides a better sense of the company's underlying risk exposure and improves the informativeness of corporate earnings as an indicator of management ability. Economic Accounts and the SOX ratio provide information on risk exposures and hedging policies. This periodic reporting allows the market to better evaluate the company's hedging decisions and encourage the optimal use of derivative products. In the absence of corporate accounting coverage, coverage decisions deviate from the requirement of optimal economic coverage. Hedging is therefore an advanced risk management strategy since it consists of buying or selling an investment to potentially help reduce the risk of loss of an existing position.

As part of ERM, the financial market can offer fair external financing conditions that reflect the quality of investment opportunities. Investment distortions,

due to undervaluations and overvaluations of companies, are eliminated, thus creating value for the company.

This practical guide to cross the OPE25 milestone aims to allow banks, investors, and CCR companies to keep aware of key changes in risk management and the impact on financial reporting standards, including how these changes affect the day-to-day work and periodic reporting of internal financial performance to stakeholders. The peer-reviewed and popularized global case reports for EC and SOX ratio accounts to be disclosed to cross this case arise from empirical studies and demonstrative research. Here is where the methodology as techniques or procedures used to identify and analyze the information concerning the object of the research as well as the expectations and assumptions are already formulated by the laws and regulations in force. The case study research activity in this context consists of carrying out a sampling to target the business income statements to be analyzed and to establish an action plan for data collection. This study is situated in a particularly specialized field of simulation: the simulation in management accounting of the added value of human capital in EC resulting from SOX compliance with the operational risk standards of the final framework of Basel III. Like all simulations, it mimics the operation of real business financial performance processes or systems using the Human Capital Management Accounting (HCMA) model.

Simulations are typically computer-based, using a software-generated model to provide decision support for managers and engineers as well as for certification purposes adjusting cross-functional interaction skills. This simulation would have been impossible without FinTech SOX which, under a patent filed in France in 2003 and extended to the USA in 2005, deploys the architecture of the Service-oriented Business Interaction Dynamics to meet:

- The basics of the standardized approach methodology as described in paragraph 25.1 of the OPE25 (Basel Committee on Banking Supervision, 2023). The management accounting process providing the “Forward looking provisioning” required by BCBS “Basel III: A global regulatory framework for more elastic banks and banking systems”, (Basel Committee on Banking Supervision, 2010) and Revised (Basel Committee on Banking Supervision, 2011b).
- The expectations of central banks in charge of rating companies with approved firms and supervisors in charge of banking supervision and stock exchanges (Basel Committee on Banking Supervision, 2019).
- The laws of countries such as the EU Directive (2017), requiring separate reporting of the financial performance of fixed salaries and variable salaries.
- SEC (U.S. Securities and Exchange Commission, 2022). Non-GAAP Financial Measures.

3. Background

The 2008 crisis revived the discussion on the impact of accounting standards

used by companies to assess their performance and assets. The Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) or IFRS Foundation, are among the most important accounting standard setters worldwide.

3.1. Accounting Approach as a Methodological Objective for Finalizing the Basel III Reforms

In paragraphs 23 to 25 “Forward looking provisioning” of Basel III: A global regulatory framework for more resilient banks and banking systems’, published in December (Basel Committee on Banking Supervision, 2011a) underlines the impact that the FASB and IASB have had on the methodological issue in the long term of the implementation of the Basel III agreement:

- Paragraph 23: The Committee is promoting stronger provisioning practices through three related initiatives. It advocates for a change in the accounting standards towards an expected loss (EL) approach. The Committee strongly supports the initiative of the IASB to move to an EL approach. The goal is to improve the usefulness and relevance of financial reporting for stakeholders, including prudential regulators. It has issued publicly and made available to the IASB a set of high-level guiding principles that should govern the reforms to the replacement of IAS 39. The Committee supports an EL approach that captures actual losses more transparently and is also less procyclical than the current “incurred loss” approach.
- Paragraph 24: It updates its supervisory guidance to be consistent with the move to such an EL approach. Such guidance will assist supervisors in promoting strong provisioning practices under the desired EL approach.
- Paragraph 25: It addresses incentives for stronger provisioning in the regulatory capital framework.

The methods of evaluation, accounting and hedging of financial assets of the FASB and IASB are therein impacted by the requirements of BCBS, by which BCBS had the specific objective of corporate birth 2011 “Principles for the Sound Management of Operational Risk”. The challenge in connection with internal controls and the Sox audit is to articulate the fundamental principles of operational risk management, in particular:

- Governance (Board of Directors and Senior Management) and
- Risk management environment. This includes identification and assessment, monitoring and reporting, control and mitigation, business resiliency and continuity, and the role of disclosure: Public disclosures should allow stakeholders to assess its approach to operational risk management.

3.2. From Capital Ratio (Phase 1) to Risk-Weighted Assets, RWA, (Nal Phase of Basel III)

The Basel III framework constitutes a key element of the Basel Committee’s response to the global financial crisis. It fills a certain number of gaps in the pre-crisis regulatory framework and lays the foundations for a resilient banking

system, which will help avoid the accumulation of systemic fragilities. This system will allow the banking system to support the real economy throughout the economic cycle. Risk-Weighted Assets (RWA) correspond to the minimum amount of capital required within a bank or other financial institutions depending on their level considering their relationships with third parties such as accounts receivable for loss mitigation economic benefit.

The first phase of Basel III was largely centered on the numerator of the ratio capital. This phase during which ASC 815 was updated and during which RWAs were only an estimate of risk determining the minimum level of regulatory capital that a bank must maintain to cope with UL came to an end on December 31, 2022. Corporate Accounting, Management Accounting or Cost Accounting on FinTech SAF (the abbreviation of Sustainability Accounting FinTech) providing, based on the risk appetite threshold, crosscutting interaction functionalities at all workstations is the appropriate standardized approach to rationalize the processing of operational risk than for hedge accounting.

3.3. Beyond Optional Hedge Accounting

Until now optional for IASB and FASB, hedge accounting is no longer discretionary with the OPE25 standard since now it constitutes the mandatory step to access funding, including fundraising insurance and generally the working capital requirement and investment financing. The bank-client interaction process supported by accounting is TPRM. TPRM accounting is a CRM or customer relationship management technique to the extent that it constitutes a strategy for managing the relationships and interactions of a bank with its customers or potential customers considering, on the one hand, the Bank Risk Profile and Accounts reporting of Loss Mitigation for HQLA, on the other hand data from internal financial performance accounts of Clients.

Hence the importance of the FED Interagency letter SR 23-4 of sound practices of June 7, 2023, to empower the internal team with FinTech Credit risk mitigation (CRM) for deposit account agreements reducing exposure to credit risk in interaction with the bank's overall credit risk profile, generating HQLA, securities and guarantees.

The FED emphasizes the relationships of banks with new FinTech companies that "Such relationships may involve the FinTech company providing products or services with varying degrees of interaction with the banking organization's customers". It is important for a banking organization to understand how the arrangement with a particular third party is structured so that the banking organization may assess the types and levels of risks posed and determine how to manage the third-party relationship accordingly."

TPRM accounting makes the CRE 22-Calculation of RWA for credit risk-Standardized approach requiring the following: "In order for banks to obtain capital relief for any use of CRM techniques, all documentation used in collateralized transactions, on-balance sheet netting agreements, guarantees and

credit derivatives must be binding on all parties and legally enforceable in all relevant jurisdictions” (Basel Committee on Banking Supervision, 2023).

TPRM accounting significantly impacts derivatives within ASC 815 and IFRS 9. It also impacts hedge accounting since, “All derivatives within the scope of ASC 815 or IFRS9 are measured at fair value. This means that at each balance sheet date, including not-for-profit organizations, the asset or liability is re-measured to its fair value and any movement in that fair value is taken directly to the income statement” (FASB Accounting Standards Update/IFRS 9 Financial Instruments).

Deposit accounts resulting from clients’ operational risk loss mitigation meet the FASB and IASB Qualifying Criteria for Hedge Accounting:

- At the inception of the hedging relationship there is formal designation and documentation of the hedging relationship and the entity’s risk management objective and strategy for undertaking the hedge.
- The hedging relationship meets all the following Hedge Effectiveness requirements:
 - 1) There is an economic relationship between the hedged item and the hedging instrument.
 - 2) The effect of credit risk does not dominate the value changes that result from that economic relationship
 - 3) The Hedge Ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the entity hedges and the quantity of the hedging instrument that the entity uses.

BCBS recommends to this effect that “Banks must have collateral risk management policies in place to control, monitor and report” (...) “While the use of CRM techniques reduces or transfers credit risk, it may simultaneously increase other risks (i.e. residual risks). Residual risks include legal, operational, liquidity and market risks. Therefore, banks must employ robust procedures and processes to control these risks, including strategy; consideration of the underlying credit; valuation; policies and procedures; systems; control of roll-off risks; and management of concentration risk arising from the bank’s use of CRM techniques and its interaction with the bank’s overall credit risk profile. Where these risks are not adequately controlled, supervisors may impose additional capital charges or take other supervisory actions as outlined in the supervisory review process standard ([SRP])” (BCBS, CRE - Calculation of RWA for credit risk/CRE22 - Standardized approach: credit risk mitigation, https://www.bis.org/basel_framework/chapter/CRE/22.htm).

For Collateralized Transaction Agreement covering credit risk or potential credit risk, the issue is thus absolute VaR, the importance of which had already been highlighted by the SEC Rule 18f-4 for Absolute VaR adopted on October 28, 2020, which radically modified the regulation of the use of derivative instruments and certain related transactions by mutual funds (other than money market funds), exchange-traded securities funds (“ETFs”), closed-end funds, and business development companies. Since January 1, 2023, Corporate Accounting

articulating the UL and EL processes of absolute VaR is the means to empower and equip bank and CCR's internal team with new FinTech for deposit accounts reducing credit risk exposure in interaction with the overall credit risk profile of the bank, generating HQLA, securities and guarantees without indebtedness or increase in charges or expenses, given that the relative VaR which was used until now via OPE30-Advanced approaches to measuring macroeconomic forecasts calibrating losses, internal ratings (NI approaches) and LGD (Loss Given Default) estimates, is no longer in effect as of December 31, 2022.

4. How Does the Accounting Process Work Compare to OPE30?

As is known, Monte Carlo simulations favored UL-based simulation of market risk, without solving the problem of operational risk. The estimation of VaR via Monte Carlo simulations is based on the joint distribution of risk factors which is specified and used to generate many risks factor variation scenarios. These scenarios are then used to compute the hypothetical results of the portfolio. Lastly, VaR is determined in the same way as in the historical simulation approach but based on the simulated sample. A measure of financial risk is a measure of the uncertainty of portfolio loss. Several risk measures are defined for the loss of portfolio: EL; Value at Risk (VaR) or EC, where EC is defined as the 99.98% (VaR-EL) for banks and 95.5% for insurance.

The accounting approach incorporates the same risk measures, but with five major differences:

1) Insurance, industry, and services companies, as well as local authorities, must align their risk threshold with that of the insurer (95.5%).

2) The rates of 99.98% for banks and 95.5% for insurers and counterparties indicates the amount of risk cover capital under the solvency capital requirement (SCR) if and only if the entity is in the impossibility of setting up the Problem-Solving Processes (PSP) which via Action Research should mitigate the losses of operational risk and provide the non-GAAP accounts of ERM. It is the interdisciplinary or cross-cutting principle of management accounting known as "Risks and Opportunities, Performance and Outlook" at the base of the Integrated Reporting (IR) trend that the Basel Committee had thus stated: The measure of the risks must be translated by decreasing requirements in economic capital according to the quality of the measurement and the management system. The calculation is based on the accounting approach focused on expected losses (Basel Committee on Banking Supervision, 2011a).

3) The operational risk measure accounting approach is Absolute VaR (i.e., EL + UL). The amount of potentially recoverable losses (PRL) is obtained when the risk appetite threshold is subtracted, that is, 0.02% for banks and 0.5% for insurers and their risk counterparties (Industries, Services, and local authorities).

4) The net amount of EC source of free cash flow is obtained when the cost to be paid in variable wages is considered to generate this additional performance apart from that expected from fixed wages (turnover and net profit).

5) Under penalty of an increase in the cost of their insurance and the risk of not being insured at all to access financing given the threshold limit of 20% of the insurer, SMEs, large industries, and services, including local governments and utilities, must align their risk appetite threshold with that of the insurer: the insurer considers the operational risk data associated with a CCR in the actuarial statements of SCR. At this level of the financial risk measures process, “EL” = accepted loss or risk appetite threshold. The FinTech SOX process of the internal financial performance in expected free cash flow of the variable remuneration to provide the data for the calculation of the SOX ratio is programmed as follows:

- Absolute VaR = EL + UL.
- PRLs = Absolute VaR – risk appetite threshold.
- Amount paying employees in variable salary = 33% of the PRLs.
- Gross amount feeding the bank account in free cash flow from net economic capital = 67% of the PRLs.

The three-year annual plan programming, considering the adaptation and gradual improvement of the internal financial performance by the ERMA’s results-driven learning model, based on the PSPs on the application of cross-cutting interaction of workstations (also called action—research or integrated training in workstation operations) is this:

- 30% of the PRLs the first year
- 60% of the PRLs the second year
- 100% of the PRLs the third year.

5. Before/After OPE25’s TPRM Accounting Case Report from 3 Banking Pools and Sector Clients

We process below in **Table 1(a)** and **Table 1(b)**, on FinTech V1, data from Bank and Client risk profile account data for cost/benefit assessment Deposit Account Agreement and bank HQLA when aligning with FED Interagency Letter SR 23-4 to be shared worldwide for Sound accounting practices in conjunction with the Guidelines on Credit Risk Mitigation of other jurisdictions of the Basel Committee on Banking Supervision (BCBS), such as EBA (May 6, 2020), Bank of England (July 23, 2019), CB-UMOA (Nov. 28, 2023), NAFMII (Dec.31, 2010), etc.

5.1. Before and after OPE25: Bank Risk Profile and Loss Mitigation HQLA Accounts

This is the overview of data from the annual and semi-annual frequency accounts for compliance with DIS - Disclosure requirements (Disclosure requirements for credit risk/BCBS DIS40 - Credit risk, effective as of 1 January 2023) for the main characteristics and accounting elements of risk management of credit, particularly the economic model, the credit risk profile and the reporting on risk management which are automated by the corporate accounting FinTech. The following tables show how the economic model translates into the components of the bank’s credit risk profile.

Table 1. (a) Banking case1 -History of income statements for the last five years (Boursorama Sources: <https://www.boursorama.com/cours/societe/chiffres-cles/1rPACA/>). (b) Banking case 1. Hedge accounting Gaps before OPE25 aggravating the risk of bankruptcy: Risk covered and losses remaining to be covered in charges and debts after transfer of the amount to the insurer.

(a) Historical data disclosed over the last 5 years					
Data published in thousand USD	N – 1	N – 2	N – 3	N – 4	N – 5
Net banking income	23,801,000	22,657,000	20,500,000	20,152,000	28,149,900
Net profit	6,316,000	6,849,000	6,849,000	6,316,000	67,296,000
Net income (group share)	5,437,000	5,844,000	2,692,000	4,844,000	44,000,000
Workforce at the end of the year	72,758	75,711	73,817	73,346	75,811
Average workforce	71,652	75,975	72,520	72,524	72,510

(b) Pool 1 bank's gaps in hedge accounting before OPE25 aggravating the risk of bankruptcy (Risk covered and losses remaining to be covered in charges and debts after transfer of the amount to the insurer)		
1	Forecast of losses based on the pre-OPE25 risk management practices calculation model or on a relative VaR or AMA, limited to unexpected losses (UL) = 15% of the average turnover of the last three years ("N" + "N + 1" + "N + 2"/3 × 15%)	\$3,347,900
2	Maximum amount that can be covered by insurance: "The recognition of the coverage of operational risk losses by insurance cannot exceed 20% before considering the economic capital accounts" (BCBS, October 2010): = 20% of the line above	\$669,580
3	Losses remaining to be covered by equity after insurance if OPE25 is not implemented	2,678,320

(*) This approach is no longer in effect as of December 31, 2022, with the implementation from January 1, 2023, of the Revised operational risk framework of Basel III announced on March 27, 2020.

5.1.1. Pool 1 Bank Accounts before and after OPE25: A Bank with 72,758 Employees

(c) Pool 1 bank Risk Profile and HQLA Loss Mitigation Accounts after OPE25

1) Loss mitigation internal financial performance data modifying its credit risk profile:

- Estimated Absolute VaR (EL + UL) = \$1,543,974,423
- Potentially Recoverable Losses (PRL) = Absolute VaR - Risk Appetite Threshold calibrated at 0.02% for a 99.98% PRL = \$1,543,665,628
- Current contribution per employee to the average net income () for an average net income (group share) of \$4,074,400,000 = \$67,668
- Economic Capital expected on plan of 3 years for 67% of the PRLs = \$1,034,255,971 Incentivized Pay Leverage Effect (IPLE):
- Gross economic capital per employee at the new risk appetite threshold over a 3-year plan supplementing the financial statements. This financial performance per employee is progressive as follows over 3 years, considering the period of adaptation, by learning by doing and deepening:
 - In year N it will provide a result equal to 30% of PRLs = \$7691
 - In year N + 1 it will provide a result equal to 60% of PRLs = \$15,383
 - In year N + 2 it will provide a result equal to 100% of the PRLs = \$25,638

Cost of HR competitive advantage in economic capital expected from the Organizational Dynamics of Human Capital:

- Cost to pay (Total variable salary on a 3-year plan programmed on 33% of PRL) for internal financial performance mitigating operational risk losses = \$509,409,657

Fixed Salaries Financial Performance:

- These economic capital accounts supplement the financial statements which will relate to the future financial performance of fixed salaries as part of the governance report. Given the dysfunctions, habits and skills constituting the corporate culture and group phenomena, the financial performance of fixed salaries will be established around the average of the last five years = \$20,509,000,000.

Instead of stagnating as in the history of the last five years, this average will change every 3 years on the spillover effect of Incentivized Pay, modifying the collective standards of tolerance of dysfunctions given the Risk Appetite Threshold.

SOX ratio of the capital structure (Economic Capital/Variable Salary or Incentivized Pay) securing investments and the predictability of variable salaries over a 3-year plan = 2.03.

“The SOX ratio is the financial instrument for internal audit, solvency monitoring by the investor and banking supervision for OPE—Calculation of RWA for operational risk” (Koeplin & Lélé, 2023).

2) Bank Pool 1 After OPE25 - Accounts improving hedge accounting:

Below in **Table 2** and **Table 3(a)** and **Table 3(b)**, is the summary table of cost/benefit accounts for mitigating operational risk losses showing how TPRM business model is translated into the components of the bank’s credit risk profile guaranteeing customer deposit accounts by no longer depending on debts as in the past for hedging, and Pool 2 bank accounts Before and After OPE25.

- From now on, the gains, losses, income and expenses of the covered elements and the hedging instruments which are the subject of compensation are recognized in net income during the same period or several periods on a 3-year plan.

5.1.2. Pool 2 Bank Accounts before and after OPE25: A Bank with 293,723 Employees

(d) Pool 2 bank Risk Profile and HQLA Loss Mitigation Accounts after OPE25

1) Loss mitigation internal financial performance data modifying its credit risk profile:

- Estimated Absolute VaR (EL + UL) = \$5,989,893,139
- PRL = Absolute VaR - Risk Appetite Threshold calibrated at 4.5% for a 95.5% PRL = \$5,988,695,160
- Current contribution per employee to the average net income (Group share = \$123,717)

Table 2. Banking case 1 - Summary compliance table to be provided separately from the income statement: - Accounts generated by FinTech SAF V1 of Senior Management (CEO) on <http://www.hcm-accounting.com/> prerequisite to comply with the “General criteria on loss data identification, collection and treatment”, BCBS, Dec 2017).

Regulations already in place for this:			
<ul style="list-style-type: none"> • “The remuneration policy shall contribute to the company’s business strategy and long-term interests and sustainability and shall explain how it does so” (European Directive Article 9a, of the May 17, 2017). • “Companies are permitted to present non-GAAP performance measures on a per-share basis, such as adjusted EPS (Adjusted earnings per share), but they are prohibited from presenting non-GAAP measures of liquidity or cash flow, such as free cash flow, on a “per-share basis” (SEC non-GAAP Financial Measures of April 4, 2018)”. 			
1	Current average workforce	(a)	60,211
2	Current average net income (group share) (b)	(b)	\$4,074,400,000
3	Current contribution per employee to average net income (Group share)	(b)/(a)	\$67,668
4	Estimated Absolute VaR (EL + UL) = Gross loss = loss before recoveries (BCBS, Dec. 2017)		\$1,543,974,423
5	Potentially Recoverable Losses (PRL) or recovery = Absolute VaR - Risk Appetite Threshold (Net loss) calibrated at 0.02% for 99.98% PRL		\$1,543,665,628
3-year plan to recover historical absolute VaR losses (UL + EL) of the last five years based on the risk appetite threshold			
	N: 30%	N + 1: 60%	N + 2: 100%
6	Free Gross Cash Flow per employee at the new risk appetite threshold on a 3-year plan	\$7691	\$15,383
7	Economic Capital or Net Cash Surplus of its loss control system on a 3-year plan for 67% of PRL		\$1,034,255,971
8	Variable salaries or Incentivized Pay (Earnings bonus for employees mobilized by the cross-cutting dynamics of the organization on a 3-year plan for 33% of PRLs)		\$509,409,657
9	SOX ratio of the capital structure (Economic Capital/Variable Salary or Incentivized Pay) securing investments and the predictability of variable salaries over a 3-year plan		2.03
10	Fixed salary future financial performance measurement data for salary negotiations in year N or 1st year of the plan [Average of the last five years in millions in accordance with the logical historical basis of the new standardized approach to operational risk (BCBC, Dec. 2017)].		\$20,509,000,000

Table 3. (a) Banking case 2-History of income statements for the last five years/The Wall Street Journal: <https://www.wsj.com/market-data/quotes/JPM/financials/annual/income-statement> + <https://www.boursorama.com/cours/societe/chiffres-cles/JPM/>. (b) Hedge accounting Gaps before OPE25 aggravating the risk of bankruptcy: Risk covered and losses remaining to be covered in charges and debts after transfer of the amount to the insurer.

(a) Historical data disclosed over the last 5 years.					
Data published in thousand USD	N – 1	N – 2	N – 3	N – 4	N – 5
Net banking income	37,487,000	48,103,000	28,993,000	36,229,000	32,260,000
Net profit (Net income or Net Income Available to Common)	35,892,000	46,503,000	27,410,000	34,642,000	30,709,000
Net income (group share or Consolidated Net Income)	35,294,000	42,682,000	23,722,000	32,531,000	30,709,000
Workforce at the end of the year	293,723	271,025	255,351	256,981	256,105

Continued

**(b) Pool 2 bank's gaps in hedge accounting before OPE25 aggravating the risk of bankruptcy
(Risk covered and losses remaining to be covered in charges and debts after transfer of the amount to the insurer)**

Forecast of losses based on the pre-OPE25 risk management practices calculation model or on a relative	
1 VaR or AMA, limited to unexpected losses (UL) * = 15% of the average turnover of the last three years ("N" + "N + 1" + "N + 2"/3 × 15%)]	5,727,167
Maximum amount that can be covered by insurance: "The recognition of the coverage of operational risk	
2 losses by insurance cannot exceed 20% before considering the economic capital accounts" (BCBS, October 2010): = 20% of the line above	1,145,433
3 Losses remaining to be covered by equity after insurance if OPE25 is not implemented	4,580,714

(*) This approach is no longer in effect as of December 31, 2022, with the implementation from January 1, 2023, of the Revised operational risk framework of Basel III announced on March 27, 2020.

- EC expected on plan of 3 years for 67% of the PRLs = \$4,012,425,757

Incentivized Pay Leverage Effect (IPLE)

- Gross economic capital per employee at the new risk appetite threshold over a 3-year plan supplementing the financial statements. This financial performance per employee is progressive as follows over 3 years, considering the period of adaptation, by learning by doing and deepening:

- In year N it will provide a result equal to 30% of PRLs = \$6738
- In year N + 1 it will provide a result equal to 60% of PRLs = \$13,476
- In year N + 2 it will provide a result equal to 100% of the PRLs = \$22,460

Cost of HR competitive advantage in economic capital expected from the Organizational Dynamics of Human Capital: Cost to pay (Total variable salary on a 3-year plan programmed on 33% of PRL) for internal financial performance mitigating operational risk losses = \$1,976,269,403

Fixed Salaries Financial Performance

These EC accounts supplement the financial statements which will relate to the future financial performance of fixed salaries as part of the governance report. Given the dysfunctions, habits and skills constituting the corporate culture and group phenomena, the financial performance of fixed salaries will be established around the average of the last five years = \$36,614,400,000.

Instead of stagnating as in the history of the last five years, this average will change every 3 years on the spillover effect of Incentivized Pay, modifying the collective standards of tolerance of dysfunctions given the Risk Appetite Threshold.

SOX ratio of the capital structure (Economic Capital/Variable Salary or Incentivized Pay) securing investments and the predictability of variable salaries over a 3-year plan = 2.03

See: "The SOX ratio is the financial instrument for internal audit, solvency monitoring by the investor and banking supervision for OPE—Calculation of RWA for operational risk" (Koeplin & Lélé, 2023).

2) Bank Pool 2 After OPE25 - Accounts improving hedge accounting:

Below in **Table 4** is the summary table of cost/benefit accounts for mitigating operational risk losses showing how TPRM business model is translated into the components of the bank's credit risk profile guaranteeing customer deposit accounts by no longer depending on debts as in the past for hedging. Also below in **Table 5(a)** and **Table 5(b)** is the Pooling of 3 bank accounts before and after OPE25. **Table 6** below shows the Pooling of 3 banks risk covered and losses remaining to be covered:

- From now on, the gains, losses, income and expenses of the covered elements and the hedging instruments which are the subject of compensation are recognized in net income during the same period or several periods on a 3-year plan.

Table 4. Banking sector - Summary compliance table to be provided separately from the income statement: - Accounts generated by FinTech SAF V1 of Senior Management (CEO) on <http://www.hcm-accounting.com/> prerequisite to comply with the "General criteria on loss data identification, collection and treatment", **Basel Committee on Banking Supervision, 2019**).

Regulations already in place for this:			
•	<i>"The remuneration policy shall contribute to the company's business strategy and long-term interests and sustainability and shall explain how it does so" (European Directive Article 9a, of the May 17, 2017).</i>		
•	<i>"Companies are permitted to present non-GAAP performance measures on a per-share basis, such as adjusted EPS (Adjusted earnings per share), but they are prohibited from presenting non-GAAP measures of liquidity or cash flow, such as free cash flow, on a "per-share basis" (SEC non-GAAP Financial Measures of April 4, 2018)".</i>		
1	Current average workforce	(a)	266,637
2	Current average net income (group share) (b)	(b)	\$32,987,600,000
3	Current contribution per employee to average net income (Group share)	(b)/(a)	\$123,717
4	Estimated Absolute VaR (EL + UL) = Gross loss = loss before recoveries (BCBS, Dec. 2017)		\$5,989,893,139
5	Potentially Recoverable Losses (PRL) or recovery = Absolute VaR - Risk Appetite Threshold (Net loss) calibrated at 0.02% for 99.98% PRL		\$5,988,695,160
3-year plan to recover historical absolute VaR losses (UL + EL) of the last five years based on the risk appetite threshold			
		N: 30%	N + 1: 60%
			N + 2: 100%
6	Free Gross Cash Flow per employee at the new risk appetite threshold on a 3-year plan	\$6738	\$13,476
7	Economic Capital or Net Cash Surplus of its loss control system on a 3-year plan for 67% of PRL		\$4,012,425,757
8	Variable salaries or Incentivized Pay (Earnings bonus for employees mobilized by the cross-cutting dynamics of the organization on a 3-year plan for 33% of PRLs)		\$1,976,269,403
9	SOX ratio of the capital structure (Economic Capital/Variable Salary or Incentivized Pay) securing investments and the predictability of variable salaries over a 3-year plan		2.03
10	Fixed salary future financial performance measurement data for salary negotiations in year N or 1st year of the plan [Average of the last five years in millions in accordance with the logical historical basis of the new standardized approach to operational risk (Basel Committee on Banking Supervision, 2019)].		\$36,614,400,000

Table 5. (a) Banking case 3 -History of income statements for the last five years (The Wall Street Journal: <https://www.wsj.com/market-data/quotes/BAC/financials/annual/income-statement> + <https://www.boursorama.com/cours/societe/chiffres-cles/BAC/>). (b) Hedge accounting Gaps before OPE25 aggravating the risk of bankruptcy: Risk covered and losses remaining to be covered in charges and debts after transfer of the amount to the insurer.

(a) Historical data disclosed over the last 5 years					
Data published in thousand USD	N – 1	N – 2	N – 3	N – 4	N – 5
Net banking income	27,528,000	31,978,000	17,894,000	27,430,000	28,147,000
Net profit (Net income or Net Income Available to Common)	26,015,000	30,557,000	16,473,000	25,998,000	26,696,000
Net income (group share or Consolidated Net Income)	26,015,000	30,557,000	16,473,000	25,998,000	26,696,000
Workforce at the end of the year	217,000	208,000	213,000	208,000	204,000
(b) Pool 3 bank's gaps in hedge accounting before OPE25 aggravating the risk of bankruptcy (Risk covered and losses remaining to be covered in charges and debts after transfer of the amount to the insurer)					
1	Forecast of losses based on the pre-OPE25 risk management practices calculation model or on a relative VaR or AMA, limited to unexpected losses (UL) = 15% of the average turnover of the last three years ("N" + "N + 1" + "N + 2"/3 × 15%)				7,481,213
2	Maximum amount that can be covered by insurance: "The recognition of the coverage of operational risk losses by insurance cannot exceed 20% before considering the economic capital accounts" (BCBS, October 2010): =20% of the line above				1,496,243
3	Losses remaining to be covered by equity after insurance if OPE25 is not implemented				5,984,970

(*) This approach is no longer in effect as of December 31, 2022, with the implementation from January 1, 2023, of the Revised operational risk framework of Basel III announced on March 27, 2020.

Table 6. Banking case 3- Summary compliance table to be provided separately from the income statement: - Accounts generated by FinTech SAF V1 of Senior Management (CEO) on <http://www.hcm-accounting.com/> prerequisite to comply with the "General criteria on loss data identification, collection and treatment", *Basel Committee on Banking Supervision, 2019*).

Regulations already in place for this:			
<ul style="list-style-type: none"> "The remuneration policy shall contribute to the company's business strategy and long-term interests and sustainability and shall explain how it does so" (<i>European Directive Article 9a, of the May 17, 2017</i>). "Companies are permitted to present non-GAAP performance measures on a per-share basis, such as adjusted EPS (Adjusted earnings per share), but they are prohibited from presenting non-GAAP measures of liquidity or cash flow, such as free cash flow, on a "per-share basis" (<i>SEC non-GAAP Financial Measures of April 4, 2018</i>)". 			
1	Current average workforce	(a)	209,999
2	Current average net income (group share) (b)	(b)	\$25,147,800,000
3	Current contribution per employee to average net income (Group share)	(b)/(a)	\$119,752
4	Estimated Absolute VaR (EL + UL) = Gross loss = loss before recoveries (BCBS, Dec. 2017)		\$4,425,281,000
5	Potentially Recoverable Losses (PRL) or recovery = Absolute VaR - Risk Appetite Threshold (Net loss) calibrated at 0.02% for 99.98% PRL		
	3-year plan to recover historical absolute VaR losses (UL + EL) of the last five years based on the risk appetite threshold	N: 30% N + 1: 60% N + 2: 100%	

Continued

6	\$6321	\$12,641	\$21,069	\$21,069
7	Economic Capital or Net Cash Surplus of its loss control system on a 3-year plan for 67% of PRL			\$2,964,345,282
8	Variable salaries or Incentivized Pay (Earnings bonus for employees mobilized by the cross-cutting dynamics of the organization on a 3-year plan for 33% of PRLs)			\$1,460,050,661
9	SOX ratio of the capital structure (Economic Capital/Variable Salary or Incentivized Pay) securing investments and the predictability of variable salaries over a 3-year plan			2.03
10	Fixed salary future financial performance measurement data for salary negotiations in year N or 1st year of the plan [Average of the last five years in millions in accordance with the logical historical basis of the new standardized approach to operational risk (Basel Committee on Banking Supervision, 2019)].			\$26,595,400,000

5.1.3. Pool 3 Bank Accounts before and after OPE25: A Bank with 217,000 Employees

(c) Pool 3 bank Risk Profile and HQLA Loss Mitigation Accounts after OPE25

1) Loss mitigation internal financial performance data modifying its credit risk profile:

- Estimated Absolute VaR (EL + UL) = \$4,425,281,000
- PRL = Absolute VaR - Risk Appetite Threshold calibrated at 4.5% for a 95.5% PRL = \$4,424,395,944
- Current contribution per employee to the average net income (Group share) = \$119,752
- EC expected on plan of 3 years for 67% of the PRLs = \$2,964,345,282 Incentivized Pay Leverage Effect (IPLE)

Gross economic capital per employee at the new risk appetite threshold over a 3-year plan supplementing the financial statements. This financial performance per employee is progressive as follows over 3 years, considering the period of adaptation, by learning by doing and deepening:

- In year N it will provide a result equal to 30% of PRLs = \$6321
- In year N + 1 it will provide a result equal to 60% of PRLs = \$12,641
- In year N + 2 it will provide a result equal to 100% of the PRLs = \$21,069

Cost of HR competitive advantage in economic capital expected from the Organizational Dynamics of Human Capital: Cost to pay (Total variable salary on a 3-year plan programmed on 33% of PRL) for internal financial performance mitigating operational risk losses = \$1,460,050,661

Fixed Salaries Financial Performance

These EC accounts supplement the financial statements which will relate to the future financial performance of fixed salaries as part of the governance report. Given the dysfunctions, habits and skills constituting the corporate culture and group phenomena, the financial performance of fixed salaries will be established around the average of the last five years = \$26,595,400,000.

- Instead of stagnating as in the history of the last five years, this average will

change every 3 years on the spillover effect of Incentivized Pay, modifying the collective standards of tolerance of dysfunctions given the Risk Appetite Threshold.

SOX ratio of the capital structure (Economic Capital/Variable Salary or Incentivized Pay) securing investments and the predictability of variable salaries over a 3-year plan = 2.03.

The SOX ratio is the financial instrument for internal audit, solvency monitoring by the investor and banking supervision for OPE—Calculation of RWA for operational risk (Koeplin & Lélé, 2023).

2) Bank Pool 3 After OPE25 - Accounts improving hedge accounting:

Below in **Table 7** is the summary table of cost/benefit accounts for mitigating operational risk losses showing how TPRM business model is translated into the components of the bank's credit risk profile guaranteeing customer deposit accounts by no longer depending on debts as in the past for hedging.

- From now on, the gains, losses, income and expenses of the covered elements and the hedging instruments which are the subject of compensation are recognized in net income during the same period or several periods on a 3-year plan.

Table 7. (a) The insurer client of the pool bank 1—History of income statements for the last five years (Boursorama Sources: <https://www.boursorama.com/cours/societe/chiffres-cles/1rPACA/>). (b) The insurer client of the pool bank1 - Hedge accounting Gaps Before OPE25 aggravating the risk of bankruptcy: Risk covered and losses remaining to be covered in charges and debts after transfer of the amount to the reinsurer. Risk covered for the last 5 years and losses remaining to be covered (for insurance company).

(a) Historical data disclosed over the last 5 years					
Data published in thousands of \$	N – 1	N – 2	N – 3	N – 4	N – 5
Gross written premiums (Sales/Revenue)	97,034,000	94,148,000	99,852,000	96,309,000	95,309,000
Net profit	7,508,000	3,331,000	4,182,000	–373,000	3,182,000
Net Income (Group share)	7,294,000	3,164,000	3,857,000	2,140,000	2,040,000
Work force at the end of year	110,477	114,625	99,843	104,065	95,728
(b) Risk covered for the last 5 years and losses remaining to be covered in charges and debts after amount transferred to the reinsurer					
1	Forecast of losses based on the pre-OPE25 risk management practices calculation model or on a relative VaR or AMA, limited to unexpected losses (UL) = 15% of the average turnover of the last three years (“N” + “N + 1” + “N + 2”/3 × 15%)				14,551,700
2	Maximum amount that can be covered by insurance: “The recognition of the coverage of operational risk losses by insurance cannot exceed 20% before considering the economic capital accounts” (BCBS, October 2010): =20% of the line above				2,910,340
3	Losses remaining to be covered by equity after insurance if OPE25 is not implemented				11,641,360

(*) This approach is no longer in effect as of December 31, 2022, with the implementation from January 1, 2023, of the Revised operational risk framework of Basel III announced on March 27, 2020.

5.2. Data from Internal Financial Performance Accounts of the Risk Profile of Clients of 3 Banking Pools

This is the overview of data from the annual and semi-annual frequency accounts for compliance with DIS - Disclosure requirements (Disclosure requirements for credit risk/ BCBS DIS40 - Credit risk) for the main characteristics and accounting elements of risk management including the business model, credit risk profile and risk management reporting which are automated by corporate accounting FinTech.

The following tables show how the economic model is translated into the components of the credit risk profile of the bank's clients or Counterparties Credit Risk (CCRs): 1 insurer, an industry, a service company, and a local authority.

We present below **Table 7(a)** and **Table 7(b)** as an example to see the accounts of the bank's clients from pool 1 for an insurance company.

5.2.1. Before and after OPE25 Accounts of an Insurance Company with 95,955 Employees

As for the bank, these are the following accounts:

- Historical data disclosed over the last 5 years.
- Risk covered for the last 5 years and losses remaining to be covered in charges and debts after amount transferred to the insurer.
- Measurement of the impact of the transition to OPE25 in costs and benefits.
- Summary table of internal financial performance accounts, including Economic Capital and SOX ratio, provided separately from the income statement.

(c) Measurement of the impact of the transition to OPE25 in costs and benefits (An insurance company with 95,955 employees):

- Estimated Absolute VaR (EL + UL) = \$2,252,957,461
- PRL = Absolute VaR – Risk Appetite Threshold calibrated at 4.5% for a 95.5% PRL = \$2,151,574,375
- Current contribution per employee to the average net income (Group share) for an average net income of \$3,699,000,000 = \$35,246
- EC expected on plan of 3 years for 67% of the PRLs = \$1,441,554,831

Incentivized Pay Leverage Effect (IPLE)

- Gross economic capital per employee at the new risk appetite threshold over a 3-year plan supplementing the financial statements. This financial performance per employee is progressive as follows over 3 years, considering the period of adaptation, by learning by doing and deepening:

○ In year N it will provide a result equal to 30% of PRLs = \$6150

○ In year N + 1 it will provide a result equal to 60% of PRLs = \$12,301

○ In year N + 2 it will provide a result equal to 100% of the PRLs = \$20,501

Cost of HR competitive advantage in economic capital expected from the Organizational Dynamics of Human Capital: Cost to pay (Total variable salary on a 3-year plan programmed on 33% of PRL) for internal financial performance mitigating operational risk losses = \$710,019,544

Fixed Salaries Financial Performance

These EC accounts supplement the financial statements which will relate to the future financial performance of fixed salaries as part of the governance report. Given the dysfunctions, habits and skills constituting the corporate culture and group phenomena, the financial performance of fixed salaries will be established around the average of the last five years = \$96,530,400,000

Instead of stagnating as in the history of the last five years, this average will change every 3 years on the spillover effect of Incentivized Pay, modifying the collective standards of tolerance of dysfunctions given the Risk Appetite Threshold.

SOX ratio of the capital structure (Economic Capital/Variable Salary or Incentivized Pay) securing investments and the predictability of variable salaries over a 3-year plan = 2.03.

See: “The SOX ratio is the financial instrument for internal audit, solvency monitoring by the investor and banking supervision for OPE—Calculation of RWA for operational risk” (Koeplin & Lélé, 2023).

(d) The Summary table for internal financial performance accounts, including Economic Capital and SOX ratio, provided separately from the income statement (An insurance company with 95,955 employees).

Below in **Table 8** (for the insurance industry) is the operational risk loss mitigation cost/benefit account summary table showing how the client’s TPRM business model is translated into the components of the deposit account for Collateralized Transaction Agreement covering credit risk or potential credit risk. From now on, the gains, losses, income and expenses of covered elements and hedging instruments which are subject to compensation are recognized in net income during the same period or several periods on a 3-year plan.

5.2.2. Before and after OPE25 Accounts of an Industrial Company with 157,909 Employees

As for the bank, these are the following accounts:

- Historical data disclosed over the last 5 years.
- Risk covered for the last 5 years and losses remaining to be covered in charges and debts after amount transferred to the insurer.
- Measurement of the impact of the transition to OPE25 in costs and benefits.
- Summary table of internal financial performance accounts, including Economic Capital and SOX ratio, provided separately from the income statement.

Below is the Summary **Table 9(a)** and **Table 9(b)** for internal financial performance accounts, including Economic Capital and SOX ratio, provided separately from the income statement for the Industrial Sector. Additionally, in **Table 10(b)** below the risk covered for the last 5 years and losses remaining to be covered for the Industrial Sector.

(c) Measurement of the impact of the transition to OPE25 in costs and benefits (An industrial company with 157,909 employees):

Table 8. The insurer client of the pool bank 1 – Summary compliance table to be provided separately from the income statement: - Accounts generated by FinTech SAF V1 of Senior Management (CEO) on <http://www.hcm-accounting.com/> prerequisite to comply with the “General criteria on loss data identification, collection and treatment”, BCBS, Dec 2017).

Regulations already in place for this:			
<ul style="list-style-type: none"> • “The remuneration policy shall contribute to the company’s business strategy and long-term interests and sustainability and shall explain how it does so” (European Directive Article 9a, of the May 17, 2017). • “Companies are permitted to present non-GAAP performance measures on a per-share basis, such as adjusted EPS (Adjusted earnings per share), but they are prohibited from presenting non-GAAP measures of liquidity or cash flow, such as free cash flow, on a “per-share basis” (SEC non-GAAP Financial Measures of April 4, 2018)”. 			
1	Current average workforce	(a)	104,948
2	Current average net income (group share) (b)	(b)	\$3,699,000,000
3	Current contribution per employee to average net income (Group share)	(b)/(a)	\$35,246
4	Estimated Absolute VaR (EL + UL) = Gross loss = loss before recoveries (BCBS, Dec. 2017)		\$2,252,957,461
5	Potentially Recoverable Losses (PRL) or recovery = Absolute VaR – Risk Appetite Threshold (Net loss) calibrated at 0.02% for 99.98% PRL		\$2,151,574,375
3-year plan to recover historical absolute VaR losses (UL + EL) of the last five years based on the risk appetite threshold			
		N: 30%	N + 1: 60%
			N + 2: 100%
6		\$6150	\$12,301
7	Economic Capital or Net Cash Surplus of its loss control system on a 3-year plan for 67% of PRL		\$1,441,554,831
8	Variable salaries or Incentivized Pay (Earnings bonus for employees mobilized by the cross-cutting dynamics of the organization on a 3-year plan for 33% of PRLs)		\$710,019,544
9	SOX ratio of the capital structure (Economic Capital/Variable Salary or Incentivized Pay) securing investments and the predictability of variable salaries over a 3-year plan		2.03
10	Fixed salary future financial performance measurement data for salary negotiations in year N or 1st year of the plan [Average of the last five years in millions in accordance with the logical historical basis of the new standardized approach to operational risk (Basel Committee on Banking Supervision, 2019)].		\$96,530,400,000

Table 9. (a): Industries sector–History of income statements for the last five years (Boursorama Sources: <https://www.boursorama.com/cours/societe/chiffres-cles/1rPACA/>). (b) The industrial company client of the pool bank 1 - Hedge accounting Gaps Before OPE25 aggravating the risk of bankruptcy: Risk covered and losses remaining to be covered in charges and debts after transfer of the amount to the reinsurer.

(a) Historical data disclosed over the last 5 years					
Data published in thousands of \$	N – 1	N – 2	N – 3	N – 4	N – 5
Turnover	67,618,333	43,379,479	63,056,989	66,474,615	65,474,615
Net profit	13,745,143	–470,684	–2,135,088	4,659,946	4,559,946
Net Income (Group share)	13,207,347	–596,906	–2,191,345	4,501,700	4,401,700
Work force at the end of year	157,909	167,743	191,248	209,000	197,000

Continued

(b) The industrial company client of the pool bank 1-Gaps in hedge accounting before OPE25 aggravating the risk of bankruptcy (Risk covered and losses remaining to be covered in charges and debts after transfer of the amount to the insurer)

1	Forecast of losses based on the pre-OPE25 risk management practices calculation model or on a relative VaR or AMA, limited to unexpected losses (UL) = 15% of the average turnover of the last three years (“N” + “N + 1” + “N + 2”/3 × 15%)	8,702,740
2	Maximum amount that can be covered by insurance: “The recognition of the coverage of operational risk losses by insurance cannot exceed 20% before considering the economic capital accounts” (BCBS, October 2010): =20% of the line above	1,740,548
3	Losses remaining to be covered by equity after insurance if OPE25 is not implemented	6,962,192

(*) This approach is no longer in effect as of December 31, 2022, with the implementation from January 1, 2023, of the Revised operational risk framework of Basel III announced on March 27, 2020.

- Estimated Absolute VaR (EL + UL) = \$3,807,817,626
- Potentially Recoverable Losses (PRL) = Absolute VaR – Risk Appetite Threshold calibrated at 0.5% for a 95.5% PRL (Alignment with the insurer’s ORSA) = \$3,636,465,833
- Current contribution per employee to the average net income (Group share) for an average net income (group share) of –\$1,080,800,000 = \$20,937
- Economic Capital expected on plan of 3 years for 67% of the PRLs = \$2,436,432,108

Incentivized Pay Leverage Effect (IPLE):

Gross economic capital per employee at the new risk appetite threshold over a 3-year plan supplementing the financial statements. This financial performance per employee is progressive as follows over 3 years, considering the period of adaptation, by learning by doing and deepening:

- In year N it will provide a result equal to 30% of PRLs = \$5910
- In year N + 1 it will provide a result equal to 60% of PRLs = \$11,821
- In year N + 2 it will provide a result equal to 100% of the PRLs = \$19,701

Cost of HR competitive advantage in economic capital expected from the Organizational Dynamics of Human Capital: Cost to pay (Total variable salary on a 3-year plan programmed on 33% of PRL) for internal financial performance mitigating operational risk losses = \$1,200,033,725

Fixed Salaries Financial Performance:

These EC accounts supplement the financial statements which will relate to the future financial performance of fixed salaries as part of the governance report. Given the dysfunctions, habits and skills constituting the corporate culture and group phenomena, the financial performance of fixed salaries will be established around the average of the last five years = \$61,200,806,200

Instead of stagnating as in the history of the last five years, this average will change every 3 years on the spillover effect of Incentivized Pay, modifying the collective standards of tolerance of dysfunctions given the Risk Appetite Threshold.

(c) Summary table of internal financial performance accounts, including Economic Capital and SOX ratio, provided separately from the income statement (An industrial company with 157,909 employees)

Below in **Table 10** (Industrial Sector) is the operational risk loss mitigation cost/benefit account summary table showing how the client's TPRM business model is translated into the components of the deposit account for Collateralized Transaction Agreement covering credit risk or potential credit risk.

- From now on, the gains, losses, income and expenses of covered elements and hedging instruments which are subject to compensation are recognized in net income during the same period or several periods on a 3-year plan.

Table 10. Case of the industrial company client of the pool bank 1-Summary compliance table to be provided separately from the income statement: - Industries sector - Summary compliance table to be provided separately from the income statement: - Accounts generated by FinTech SAF V1 of Senior Management (CEO) on <http://www.hcm-accounting.com/> prerequisite to comply with the "General criteria on loss data identification, collection and treatment", *Basel Committee on Banking Supervision, 2019*).

Regulations already in place for this:

- "The remuneration policy shall contribute to the company's business strategy and long-term interests and sustainability and shall explain how it does so" (*European Directive Article 9a, of the May 17, 2017*).
- "Companies are permitted to present non-GAAP performance measures on a per-share basis, such as adjusted EPS (Adjusted earnings per share), but they are prohibited from presenting non-GAAP measures of liquidity or cash flow, such as free cash flow, on a "per-share basis" (*SEC non-GAAP Financial Measures of April 4, 2018*)".

1	Current average workforce	(a)	184,580
2	Current average net income (group share) (b)	(b)	\$3,864,499,200
3	Current contribution per employee to average net income (Group share)	(b)/(a)	\$20,937
4	Estimated Absolute VaR (EL + UL) = Gross loss = loss before recoveries (BCBS, Dec. 2017)		\$3,807,817,626
5	Potentially Recoverable Losses (PRL) or recovery = Absolute VaR - Risk Appetite Threshold (Net loss) calibrated at 0.02% for 99.98% PRL		\$3,636,465,833
	3-year plan to recover historical absolute VaR losses (UL + EL) of the last five years based on the risk appetite threshold		
		N: 30%	N + 2: 100
6		\$5910	\$11,821
7	Economic Capital or Net Cash Surplus of its loss control system on a 3-year plan for 67% of PRL		\$2,436,432,108
8	Variable salaries or Incentivized Pay (Earnings bonus for employees mobilized by the cross-cutting dynamics of the organization on a 3-year plan for 33% of PRLs)		\$1,200,033,725
9	SOX ratio of the capital structure (Economic Capital/Variable Salary or Incentivized Pay) securing investments and the predictability of variable salaries over a 3-year plan		2.03
10	Fixed salary future financial performance measurement data for salary negotiations in year N or 1st year of the plan [Average of the last five years in millions in accordance with the logical historical basis of the new standardized approach to operational risk (BCBS, Dec. 2017)].		\$61,200,806,200

5.2.3. Before and after OPE25 Accounts of a Services Company with 319,565 Employees

As for the bank, these are the following accounts:

- Historical data disclosed over the last 5 years.
- Risk covered for the last 5 years and losses remaining to be covered in charges and debts after amount transferred to the insurer.
- Measurement of the impact of the transition to OPE25 in costs and benefits.
- Summary table of internal financial performance accounts, including Economic Capital and SOX ratio, provided separately from the income statement.

Below in **Table 11(a)** and **Table 11(b)** (Various Sectors) is the operational risk loss mitigation cost/benefit account summary table showing how the client's TPRM business model is translated into the components of the deposit account for Collateralized Transaction Agreement covering credit risk or potential credit risk. Additionally, **Table 13** provides for the risk covered for the last 5 years and losses remaining to be covered in charges and debts after amount transferred to the insurer.

(d) Measurement of the impact of the transition to OPE25 in costs and benefits (A services company with 319,565 employees):

Table 11. (a): Case of the services company, client of the pool bank 1 - History of income statements for the last five years (Boursorama Sources: <https://www.boursorama.com/cours/societe/chiffres-cles/1rPACA/>). (b): Case of the services company, client of the pool bank 1. -Hedge accounting Gaps before OPE25 aggravating the risk of bankruptcy: Risk covered and losses remaining to be covered in charges and debts after transfer of the amount to the insurer.

(a) Historical data disclosed over the last 5 years					
Data published in thousands of \$	N – 1	N – 2	N – 3	N – 4	N – 5
Turnover	72,105,000	69,967,000	71,651,000	75,261,000	74,261,000
Net profit	1,301,000	831,000	1,311,000	-344,000	-334,000
Net Income (Group share)	1,072,000	641,000	1,129,000	-561,000	-551,000
Work force at the end of year	319,565	322,164	321,383	363,862	378,923
(b) Services company, client of the pool bank1: Gaps in hedge accounting before OPE25 aggravating the risk of bankruptcy (Risk covered and losses remaining to be covered in charges and debts after transfer of the amount to the insurer)					
1	Forecast of losses based on the pre-OPE25 risk management practices calculation model or on a relative VaR or AMA, limited to unexpected losses (UL) = 15% of the average turnover of the last three years ("N" + "N + 1" + "N + 2")/3 × 15%]				10,686,150
2	Maximum amount that can be covered by insurance: "The recognition of the coverage of operational risk losses by insurance cannot exceed 20% before considering the economic capital accounts" (BCBS, October 2010): =20% of the line above				2,137,230
3	Losses remaining to be covered by equity after insurance if OPE25 is not implemented				8,548,920

(*) This approach is no longer in effect as of December 31, 2022, with the implementation from January 1, 2023, of the Revised operational risk framework of Basel III announced on March 27, 2020.

- Estimated Absolute VaR (EL + UL) = \$7,705,990,410
- PRL = Absolute VaR - Risk Appetite Threshold calibrated at 4.5% for a 95.5% PRL = \$7,359,220,842
- Current contribution per employee to the average net income (Group share) for an average net income of \$346,000,000 = \$1014
- EC expected on plan of 3 years for 67% of the PRLs = \$4,930,677,964

Incentivized Pay Leverage Effect (IPLE)

Gross EC per employee at the new risk appetite threshold over a 3-year plan supplementing the financial statements. This financial performance per employee is progressive as follows over 3 years, considering the period of adaptation, by learning by doing and deepening:

- In year N it will provide a result equal to 30% of PRLs = \$6471
- In year N + 1 it will provide a result equal to 60% of PRLs = \$12,942
- In year N + 2 it will provide a result equal to 100% of the PRLs = \$21,570

Cost of HR competitive advantage in economic capital expected from the Organizational Dynamics of Human Capital: Cost to pay (Total variable salary on a 3-year plan programmed on 33% of PRL) for internal financial performance mitigating operational risk losses = \$2,428,542,878

Fixed Salaries Financial Performance

These EC accounts supplement the financial statements which will relate to the future financial performance of fixed salaries as part of the governance report. Given the dysfunctions, habits and skills constituting the corporate culture and group phenomena, the financial performance of fixed salaries will be established around the average of the last five years = \$72,649,000,000.

Instead of stagnating as in the history of the last five years, this average will change every 3 years on the spillover effect of Incentivized Pay, modifying the collective standards of tolerance of dysfunctions given the Risk Appetite Threshold.

SOX ratio of the capital structure (Economic Capital/Variable Salary or Incentivized Pay) securing investments and the predictability of variable salaries over a 3-year plan = 2.03.

See: “The SOX ratio is the financial instrument for internal audit, solvency monitoring by the investor and banking supervision for OPE—Calculation of RWA for operational risk” (Koeplin & Lélé, 2023).

(c) Summary table of internal financial performance accounts, including Economic Capital and SOX ratio, provided separately from the income statement (A services company with 319,565 employees):

Below in **Table 12** (Service Sector) is the operational risk loss mitigation cost/benefit account summary table showing how the client’s TPRM business model is translated into the components of the deposit account for Collateralized Transaction Agreement covering credit risk or potential credit risk.

From now on, the gains, losses, income and expenses of covered elements and hedging instruments which are subject to compensation are recognized in net income during the same period or several periods on a 3-year plan.

Table 12. Services company, client of the pool bank 1 - Summary compliance table to be provided separately from the income statement: - Accounts generated by FinTech SAF V1 of Senior Management (CEO) on <http://www.hcm-accounting.com/> prior decision to comply with the “General criteria on loss data identification, collection and treatment”, BCBS, Dec 2017).

Regulations already in place for this:			
	<ul style="list-style-type: none"> • “The remuneration policy shall contribute to the company’s business strategy and long-term interests and sustainability and shall explain how it does so” (European Directive Article 9a, of the May 17, 2017). • “Companies are permitted to present non-GAAP performance measures on a per-share basis, such as adjusted EPS (Adjusted earnings per share), but they are prohibited from presenting non-GAAP measures of liquidity or cash flow, such as free cash flow, on a “per-share basis” (SEC non-GAAP Financial Measures of April 4, 2018)”. 		
1	Current average workforce	(a)	341,179
2	Current average net income (group share)	(b)	\$346,000,000
3	Current contribution per employee to average net income (Group share)	(b)/(a)	\$1014
4	Estimated Absolute VaR (EL + UL)		\$7,705,990,410
5	Potentially Recoverable Losses (PRL) = Absolute VaR - Risk Appetite Threshold Calibrated at 4.5% (Standard Threshold) for a PRL at 95.5%: the application can be custom-calibrated to 99.5%		\$7,359,220,842
	3-year plan to recover historical absolute VaR losses (UL + EL) of the last five years based on the risk appetite threshold	N: 30% N + 1: 60% N + 2: 100%	
6		\$6471 \$12,942 \$21,570	
7	Cash surplus planned on 67% of PRLs (E)		\$4,930,677,964
8	Employee incentive bonus planned on 33% of PRLs		\$2,428,542,878
9	SOX ratio of the capital structure (Economic Capital/Variable Salary or Incentivized Pay) securing investments and the predictability of variable salaries over a 3-year plan		2.03
10	Fixed salary future financial performance measurement data for salary negotiations in year N or 1st year of the plan [Average of the last five years in millions in accordance with the logical historical basis of the new standardized approach to operational risk (Basel Committee on Banking Supervision, 2019)].		\$72,649,000,000

5.2.4. Before and after OPE25 Accounts of a Local Authority with 309,859 Employees

As for the bank, these are the following accounts:

- Historical data disclosed over the last 5 years.
- Risk covered for the last 5 years and losses remaining to be covered in charges and debts after amount transferred to the insurer.
- Measurement of the impact of the transition to OPE25 in costs and benefits.
- Summary table of internal financial performance accounts, including Economic Capital and SOX ratio, provided separately from the income statement.

Below in **Table 13(a)** and **Table 13(b)** (Public Sector) is the operational risk loss mitigation cost/benefit account summary table showing how the client’s TPRM business model is translated into the components of the deposit account for Collateralized Transaction Agreement covering credit risk or potential credit risk. Additionally, **Table 16** provides for the risk covered for the last 5 years and losses remaining to be covered in charges and debts after amount transferred to the insurer.

Table 13. (a) Local Authority client of the pool bank 1 - History of income statements for the last five year (Stock Analysis Sources: <https://stockanalysis.com/stocks/nyc/financials/>). (b): The Local Authority client of the pool bank 1 - Hedge accounting Gaps Before OPE25 aggravating the risk of bankruptcy: Risk covered and losses remaining to be covered in charges and debts after transfer of the amount to the insurer.

(a) Historical data disclosed over the last 5 years					
Data published in thousands of \$	N – 1	N – 2	N – 3	N – 4	N – 5
Operating budget	95,297,000	94,030,000	91,293,000	88,666,000	874,400,000
Accounting result (Deficit or budget surplus)	-2,900,000	-2,776,000	-23,000,000	-3,000,000	-26,600,000
Work force at the end of year	309,859	332,511	333,859	326,739	346,251

(b) The Local Authority client of the pool bank 1 - Hedge accounting Gaps Before OPE25 aggravating the risk of bankruptcy (Risk covered and losses remaining to be covered in charges and debts after transfer of the amount to the insurer).	
Forecast of losses based on the pre-OPE25 risk management practices calculation model or on a relative VaR or AMA, limited to unexpected losses (UL) = 15% of the average turnover of the last three years (“N” + “N + 1” + “N + 2”/3 × 15%)	14,036,000
Maximum amount that can be covered by insurance: “The recognition of the coverage of operational risk losses by insurance cannot exceed 20% before considering the economic capital accounts” (BCBS, October 2010): = 20% of the line above	2,807,200
Losses remaining to be covered by equity after insurance if OPE25 is not implemented	11,228,800

(*) This approach is no longer in effect as of December 31, 2022, with the implementation from January 1, 2023, of the Revised operational risk framework of Basel III announced on March 27, 2020.

(c) Measurement of the impact of the transition to OPE25 in costs and benefits (A Local Authority with 309,859 employees):

- Estimated Absolute VaR (EL + UL) = \$7,471,939,926
- PRL = Absolute VaR – Risk Appetite Threshold calibrated at 4.5% for a 95.5% PRL (alignment with the insurer’s ORSA) = \$7,135,702,629
- Current contribution per employee to the average net income (Group share) for an average net income of -\$11,655,200,000 = -\$35,336
- EC expected on plan of 3 years for 67% of the PRLs = \$4,780,920,762

Incentivized Pay Leverage Effect (IPLE)

- Gross EC per employee at the new risk appetite threshold over a 3-year plan supplementing the financial statements. This financial performance per employee is progressive as follows over 3 years, considering the period of adaptation, by learning by doing and deepening:
 - In year N it will provide a result equal to 30% of PRLs = \$6490
 - In year N + 1 it will provide a result equal to 60% of PRLs = \$12,980
 - In year N + 2 it will provide a result equal to 100% of the PRLs = \$21,634

Cost of HR competitive advantage in economic capital expected from the Organizational Dynamics of Human Capital: Cost to pay (Total variable salary on a 3-year plan programmed on 33% of PRL) for internal financial performance mitigating operational risk losses = \$2,354,781,868

Fixed Salaries Financial Performance

These EC accounts supplement the financial statements which will relate to

the future financial performance of fixed salaries as part of the governance report. Given the dysfunctions, habits and skills constituting the corporate culture and group phenomena, the financial performance of fixed salaries will be established around the average of the last five years = $-\$11,655,200,000$

Instead of stagnating as in the history of the last five years, this average will change every 3 years on the spillover effect of Incentivized Pay, modifying the collective standards of tolerance of dysfunctions given the Risk Appetite Threshold.

SOX ratio of the capital structure (Economic Capital/Variable Salary or Incentivized Pay) securing investments and the predictability of variable salaries over a 3-year plan = 2.03.

See: “The SOX ratio is the financial instrument for internal audit, solvency monitoring by the investor and banking supervision for OPE—Calculation of RWA for operational risk” (Koeplin & Lélé, 2023).

(d) Summary table of internal financial performance accounts, including Economic Capital and SOX ratio, provided separately from the income statement (A Local Authority with 309,859 employees)

Below in **Table 14** is the operational risk loss mitigation cost/benefit account summary table showing how the client’s TPRM business model is translated into the components of the deposit account for Collateralized Transaction Agreement covering credit risk or potential credit risk.

From now on, the gains, losses, income and expenses of covered elements and hedging instruments which are subject to compensation are recognized in net income during the same period or several periods on a 3-year plan.

5.3. Summary Accounts to Measure the Impact on the Financial Solidity of the Banks and Clients of the 3 Pools before/after OPE25 on a 3-Year Plan

It is with the new FinTech that considering the added value of the total paid workforce, that, for the first time considering the incentive of the OPE25 standard, banks and Clients or Counterparties Credit Risk (CCR) have the technical means to turn their losses into gains through credit risk mitigation interaction. So far, Banks has used several techniques to mitigate the credit risks to which they are exposed. BCBS says that for example, exposures may be collateralized by first-priority claims, in whole or in part with cash or securities, a loan exposure may be guaranteed by a third party, or a bank may buy a credit derivative to offset various forms of credit risk. Additional banks may agree to net loans owed to them against deposits from the same counterparty (https://www.bis.org/basel_framework/chapter/CRE/22.htm).

- There is sufficient software available for this type of non-quantitative approach which does not rely on any programming of hedge accounting reporting accounts to be provided to the bank or financial department, and which therefore cannot be considered as guarantees of credit risk.

Table 14. Case of the Local Authority client of the pool bank 1 - Summary compliance table to be provided separately from the income statement: - Accounts generated by FinTech SAF V1 of Senior Management (CEO) on <http://www.hcm-accounting.com/> (Advance decision-making calculation to comply with the “General criteria on loss data identification, collection and treatment”, Basel Committee on Banking Supervision, 2019).

Regulations already in place for this:			
•	“The remuneration policy shall contribute to the company’s business strategy and long-term interests and sustainability and shall explain how it does so” (European Directive Article 9a, of the May 17, 2017).		
•	“Companies are permitted to present non-GAAP performance measures on a per-share basis, such as adjusted EPS (Adjusted earnings per share), but they are prohibited from presenting non-GAAP measures of liquidity or cash flow, such as free cash flow, on a “per-share basis” (SEC non-GAAP Financial Measures of April 4, 2018)”.		
1.	Current average workforce	(a)	329,844
2.	Accounting result (Deficit or budget surplus) in millions	(b)	–\$11,655,200,000
3.	Current contribution per employee to the accounting result (Deficit or budget surplus)	(b)/(a)	–\$35,336
4.	Estimated Absolute VaR (EL + UL)		\$7,471,939,926
5.	Potentially Recoverable Losses (PRL) = Absolute VaR - Risk appetite threshold aligned with the insurer, thus calibrated to 4.5% for a 95.5% PRL		\$7,135,702,629
	3-year plan to recover historical absolute VaR losses (UL + EL) of the last five years based on the risk appetite threshold	N: 30% N + 1: 60% N + 2: 100%	
6.	Free Gross Cash Flow per employee at the new risk appetite threshold on a 3-year plan	\$6490	\$12,980 \$21,634
7.	Cash surplus planned on 67% of PRLs (E)		\$4,780,920,762
8.	Employee incentive bonus planned on 33% of PRLs		\$2,354,781,868
9.	SOX ratio of the capital structure (Economic Capital/Variable Salary or Incentivized Pay) securing investments and the predictability of variable salaries over a 3-year plan		2.03
10.	Fixed salary future financial performance measurement data for salary negotiations in year N or 1st year of the plan [Average of the last five years in millions in accordance with the logical historical basis of the new standardized approach to operational risk (Basel Committee on Banking Supervision, 2019)].		–\$11,655,200,000

The new FinTech strengthens considerably given the risk appetite threshold of the sectors of activity; the issue of deposit accounts known for a long time. It is said that “deposits make credits.” The deposits collected by banks are liquid in the short term, while the loans they grant are longer term. Improving solvency means increasing equity capital in relation to third-party funds. The TPRM increases both equity and third-party funds.

5.3.1. Cost/Benefit Accounts’ Summary Tables Reinforcing the Bank’s HQLA without Debt

The solvency ratio is based on a requirement for High-Quality Liquid Assets (HQLA), i.e., assets that banks and other financial institutions hold to meet their short-term liquidity needs in times of financial stress.

- A liquid asset such as the economic capital generated by operational risk loss mitigation can be included in the stock of HQLA if it is unencum-

bered, meets minimum liquidity criteria and its operational factors demonstrate that it can be disposed of to generate liquidity when needed.

To exemplify the importance of this, listed below is **Table 15** regarding the effects of risk loss mitigation gains of the banks as well as **Table 16** regarding the losses remaining to be covered by Equity.

Banks should disclose their ORMFs in a manner that allows stakeholders to determine whether the banks identify, assess, monitor, and control/mitigate operational risk effectively: Principle 12 of BCBS’s PSMOR of March 2021.

5.3.2. Client Deposit Accounts as Part of Operational Risk Loss Mitigation Reducing Exposure to Credit Risk in Interaction with the Bank’s Overall Credit Risk Profile

The structure of a bank’s balance sheet is made up of assets and liabilities.

- Class 1 assets and liabilities correspond to interbank transactions that the bank carries out with other financial institutions, as part of its cash management. When its operations allow it to generate cash surpluses, the bank is in the position of a net lender on the interbank market. In the opposite case, the bank must resort to the market to ensure its refinancing.

Table 15. Synthetic accounts before/after of HQLA in operational risk loss mitigation gains of the banks of the 3 pools.

Bank HQLA accounts in operational risk loss mitigation gains		
Banking pools	Before OPE25	After OPE25
Pool bank 1 HQLA from loss mitigation (Bank’s EC on 3-year plan)	0	\$1,034,255,971
Pool bank 2 HQLA from loss mitigation (Bank’s EC on 3-year plan)	0	\$4,012,425,757
Pool bank 3 HQLA from loss mitigation (Bank’s EC on 3-year plan)	0	\$2,964,345,282

Table 16. Synthetic accounts of Losses remaining to be covered by equity (charges and debts for provisions) before/after OPE25 of the banks of the 3 pools.

Losses remaining to be covered by equity (charges and debts for provisions) after insurance		
Banking pools compliance with BCBS, “Recognizing the risk-mitigating impact of insurance in operational risk modelling”, October 2010:	Before OPE25	After OPE25
Bank of Pool 1’s losses remaining to be covered by equity (charges and debts for provisions) after insurance	\$2,678,320	0
Bank of Pool 2’s losses remaining to be covered by equity (charges and debts for provisions) after insurance	\$4,580,714	0
Bank of Pool 3’s losses remaining to be covered by equity (charges and debts for provisions) after insurance	\$5,984,970	0

- Class 2 assets and liabilities correspond to customer transactions. On the assets side, the credits granted, on the liabilities side, the deposits collected broken down according to their degree of repayment, their form (account, voucher, certificate) and their nature about banking regulations (special regime savings account, ordinary accounts).

Listed below are **Tables 17-19**. **Table 17** lists the three-year deposit accounts of Bank Pool 1 before and after OPE25; **Table 18** lists the three-year deposit accounts of Bank Pool 2 before and after OPE25; and **Table 19** lists the three-year deposit accounts of Bank Pool 3.

Table 17. Three-year deposit accounts of Bank Pool 1 customers for TPRM.

Accounts of the three-year deposit plan of pool 1 bank customers	Before OPE25	After OPE25
Insurance company Deposit accounts (Cash surplus planned on 67% of PRLs)	0	\$1,441,554,831
Industry company Deposit accounts (Cash surplus planned on 67% of PRLs)	0	\$2,436,432,108
Services company Deposit accounts (Cash surplus planned on 67% of PRLs)	0	\$2,428,542,878
Local Authority Deposit accounts (Cash surplus planned on 67% of PRLs)	0	\$4,780,920,762

Table 18. Three-year deposit accounts of Bank Pool 2 customers for TPRM.

Accounts of the three-year deposit plan of pool 2 bank customers	Before OPE25	After OPE25
Insurance company Deposit accounts (Cash surplus planned on 67% of PRLs)	0	\$331,496,153
Industry company Deposit accounts (Cash surplus planned on 67% of PRLs)	0	\$57,613,166
Services company Deposit accounts (Cash surplus planned on 67% of PRLs)	0	\$189,780,918
Local Authority Deposit accounts (Cash surplus planned on 67% of PRLs)	0	\$3,712,269,043

Table 19. Three-year deposit accounts of Bank Pool 3 customers for TPR5.

(a) Accounts of the three-year deposit plan of pool 3 bank customers	Before OPE25	After OPE25
Insurance company Deposit accounts (Cash surplus planned on 67% of PRLs)	0	\$2,078,006,568
Industry company Deposit accounts (Cash surplus planned on 67% of PRLs)	0	\$2,854,428
Services company Deposit accounts (Cash surplus planned on 67% of PRLs)	0	\$549,546,906
Local Authority Deposit accounts (Cash surplus planned on 67% of PRLs)	0	\$2,907,736,816

- (a) Three-year deposit accounts of Bank Pool 1 customers for TPRM
- (b) Three-year deposit accounts of Bank Pool 2 customers for TPRM

5.3.3. Total Banking Resources Resulting from TPRM Accounting within OPE25

The deposits collected by banks are liquid in the short term, while the loans they grant are longer term. Deposit accounts for operational risk loss mitigation gains within the framework of a Collateralized Transaction Agreement covering credit risk or potential credit risk can therefore meet the conditions of High-Quality Liquid Assets (HQLA) and reinforce HQLA under bank/client contractual conditions.

Listed below is **Table 20** which list the cumulative total resources of unencumbered cash generated by bank’s loss mitigation.

5.3.4. Summary of Costs/Benefits of Collateralized Transaction Agreement Covering Credit Risk with FinTech Supporting Sound Practices Based on Interaction

1) Banks’ costs/benefits accounts

Below is **Tables 21-23** which refers to the cost/benefit of pool banks 1, 2, and 3.

2) Cost/Benefit of clients of the 3 banking pools before/after OPE25

Below is **Table 24** which groups together below as an example of data to see, the accounts of customers of Banking pool 1. Additionally, **Table 25** refers to the cost benefit of pool bank 1. **Table 26** refers to the Cost/Benefit of the Local Authority of banking pool 1/.

a) Note on expected billing of products and services:

- FinTech base, Incentivized Pay e-bulletins or e-sheets (variable salaries) and certification.

Table 20. Cumulative total bank resources of unencumbered cash and cash equivalents generated by bank’s loss mitigation and TPRM ensuring financial stability and avoiding bankruptcies.

Total Unencumbered Cash and Cash Equivalents	Before OPE25	After OPE25
Total unencumbered cash of Pool 1 bank (Bank EC + Customer EC)	0	\$9,685,274,442
Total unencumbered cash of Pool 2 bank (Bank EC + Customer EC)	0	\$8,303,585,037
Total unencumbered cash of Pool 3 bank (Bank EC + Customer EC)	0	\$8,499,635,572

Unencumbered Cash and Cash Equivalents means, as of any date of determination, the sum of all Cash and Cash Equivalents of Borrower which are not subject to any pledge, security interest, mortgage, hypothecation, restriction, or other encumbrance (other than in favor of Agent and other than normal and customary rights of setoff upon deposits of cash in favor of banks or other depository institutions)

Table 21. Cost/Benefit of pool bank 2.

(a) Cost/Benefit of pool bank 1	Before OPE25		After OPE25	
	Cost	EC	Cost	EC
Variable salaries or Incentivized Pay on a 3-year loss mitigation plan	0	0	\$509,409,657	
Cost of technology (products and services)	\$2550 (Approximately per user of an ERP)	0	FinTech base: first 3 months free excluding training and self-financing by approximately 1% of the Economic Capital (EC) spread over 3 years (1)	\$1,034,255,971

Table 22. Cost/Benefit of pool bank 2.

(b) Cost/Benefit of pool bank 2	Before OPE25		After OPE25	
	Cost	EC	Cost	EC
Variable salaries or Incentivized Pay on a 3-year loss mitigation plan	0	0	\$1,976,269,403	
Cost of technology (products and services)	\$2550 (Approximately per user of an ERP)	0	FinTech base: first 3 months free excluding training and self-financing by approximately 1% of the Economic Capital (EC) spread over 3 years (1)	\$4,012,425,757

Table 23. Cost/Benefit of pool bank 3.

(c) Cost/Benefit of pool bank 3	Before OPE25		After OPE25	
	Cost	EC	Cost	EC
Variable salaries or Incentivized Pay on a 3-year loss mitigation plan	0	0	\$1,460,050,661	
Cost of technology (products and services)	\$2550 (Approximately per user of an ERP)	0	FinTech base: first 3 months free excluding training and self-financing by approximately 1% of the Economic Capital (EC) spread over 3 years (1)	\$2,964,345,282

i) Standard price of the FinTech base (The price is the same regardless of the total paid workforce of the company): \$120,000 per year per company corresponding to 1% of the simulated economic capital. Payment can be done through the FinTech SAF base by monthly bank withdrawals for 12 months or by year in one go.

Table 24. Cost/Benefit of the insurance company of banking pool 1.

(a) Cost/Benefit of the insurance company of banking pool 1	Before OPE25		After OPE25	
	Cost	EC	Cost	EC
Variable salaries or Incentivized Pay on a 3-year loss mitigation plan	0	0	\$710,019,544	
Cost of technology (products and services)	\$2550 (Approximately per user of an ERP)	0	FinTech base: first 3 months free excluding training and self-financing by approximately 1% of the Economic Capital (EC) spread over 3 years (1)	\$1,441,554,831

Table 25. Cost/Benefit of the industry company of banking pool 1.

(b) Cost/Benefit of the industry company of banking pool 1	Before OPE25		After OPE25	
	Cost	EC	Cost	EC
Variable salaries or Incentivized Pay on a 3-year loss mitigation plan	0	0	\$1,200,033,725	
Cost of technology (products and services)	\$2550 (Approximately per user of an ERP)	0	FinTech base: first 3 months free excluding training and self-financing by approximately 1% of the Economic Capital (EC) spread over 3 years (1)	\$2,436,432,108

Table 26. Cost/Benefit of the local authority of banking pool 1.

(c) Cost/Benefit of the services company of banking pool 1	Before OPE25		After OPE25	
	Cost	EC	Cost	EC
Variable salaries or Incentivized Pay on a 3-year loss mitigation plan	0	0	\$2,428,542,878	
Cost of technology (products and services)	\$2550 (Approximately per user of an ERP)	0	FinTech base: first 3 months free excluding training and self-financing by approximately 1% of the Economic Capital (EC) spread over 3 years (1)	\$4,930,677,964

(d) Cost/Benefit of the Local Authority of banking pool 1	Before OPE25		After OPE25	
	Cost	EC	Cost	EC
Variable salaries or Incentivized Pay on a 3-year loss mitigation plan	0	0	\$2,354,781,868	
Cost of technology (products and services)	\$2550 (Approximately per user of an ERP)	0	FinTech base: first 3 months free excluding training and self-financing by approximately 1% of the Economic Capital (EC) spread over 3 years (1)	\$4,780,920,762

- The use of the FinTech V1 base is free.
- The use of the FinTech V2 base is free during the certification period (Firms pay for one quarter, so until the first economic capital report, only certification fees and Incentivized Pay E-sheets).

ii) Incentivized Pay E-sheets: this is the instrument for measuring the financial performance linked to the variable salary under the regulations in force, in particular EU Directive of May 17, 2017, and SEC guidance of April 14, 2018: Cost is \$6.06 per month per employee.

iii) Cross-Cutting Interaction Skills Certification Cost:

The certification is an In-house training.

- Number of managers (Loss Executives) to be expected (around 11: CEO, CFO, HRM and max 8 OM) = \$900 per person.
- Number of team leaders or cash-generating units (1 per 20 employees) = \$900 per person.

This meets the regulatory requirement of business line mapping for internal control and SOX audit: “Any banking or non-banking activity which cannot be readily mapped into the business line framework, but which represents an ancillary function to an activity included in the framework, must be allocated to the business line it supports. If more than one business line is supported through the ancillary activity, an objective mapping criterion must be used” (Basel Committee on Banking Supervision, 2023).

The measurement system must “be able to support an allocation of economic capital for operational risk between business lines in such a way as to create incentives to improve the operational risk management of the business lines” (Basel Committee on Banking Supervision, 2023).

6. FinTech Corporate Accounting Modules of Banks & Clients Workstations for Credit Risk Mitigation Techniques Considering the Impact of Operational Losses Both on Credit Impairment and Impairment Loss on an Income Statement

Impaired credit refers to a deterioration in the creditworthiness of an individual, a business, or another entity. Impaired credit will be reflected in a lower credit score for individuals or a lower credit rating for companies, governments, and other entities. An impairment loss on an income statement represents a permanent loss of value on a company’s or business’s assets. This value decline can apply to both intangible and fixed assets.

Corporate Accounting FinTech is the IT through which banks and Clients have CRM technical tools to interact. These are internal financial performance tools for workstations accessible in SaaS mode to carry out, in conjunction with the CEO and the Board of Directors, the TPRM plan based on the real-time interaction of the managers in charge of mitigation of operational risk losses (CFO, HR, OM). And managers of cash generating units, CGUs, or operational

units).

6.1. Overview of Its Correspondence with the Pyramid Shape of the Organization Chart

The technological advancement of FinTech automating Credit risk mitigation (CRM) technics of workstations is based on interaction mobilizing the total paid workforce and articulating the execution tasks of the missions of operational departments or business units based on the risk appetite threshold of the sector of activity in the meaning of the organization chart. An entity's business DRM (dynamic risk management) accounting model, considering the need to combine the efforts of individuals to achieve supra-ordinate objectives of mitigating scheduled operational risk losses is determined at a level that reflects how operational groups of internal financial performance are motivated and managed AS AN ORGANIZATIONAL WHOLE.

Therefore, profitability prospects should be determined at the highest level of aggregation in accordance with the pyramidal or vertical configuration of the organization chart regardless of the size of the company and its national and international locations. Supra-ordinate objectives are objectives that cannot be achieved by a single employee, a single group or a single cash generating unit (CGU).

The schematic overview below (**Diagram 1**) shows this cross-cutting orientation allowing any entity to have the technical capacity to mobilize in real time its human capital or total paid workforce providing, in return for the incentive pay, the added value in economic capital expected from the mitigation of operational risk losses based on the business sector risk appetite threshold.



Diagram 1. The architecture of cross-cutting interaction FinTech tools: all rights reserved.

6.2. Overview of the Functional Model of a Company Like the Coca-Cola Group

The organization chart of banks and CCRs of all business sectors automated in the pyramid sense of managerial orchestration by FinTech SAF in SaaS mode to manage the company as an organizational team through cross-functional interaction complementing business unit software for OPE25 is like this diagram from Coca Cola (see below **Diagram 2**).

It is the structural condition to operate all the workstations in the direction of the real-time organization chart based on risk appetite threshold as an organizational team. The articulation of Corporate Accounting FinTech skills of all internal team workstations is essential to meet the “general criteria for identifying, collecting and processing loss data for the OPE - calculation of RWA for risk” (OPE25 - Standardized operational approach).

The Basel Committee on Banking Supervision obliges firms to do so by specifying that:

“Any banking or non-banking activity that cannot be easily mapped in the business repository, but which represents an ancillary function to an activity included in the repository, must be attributed to the business line it supports. If more than one business line is supported by the ancillary activity, an objective mapping criterion must be used” (Basel Committee on Banking Supervision, 2020a).

The BCBS adds that the measurement system must “be able to support an allocation of economic capital for operational risk between the businesses so as to create incentives to improve the operational risk management of the businesses” (Basel Committee on Banking Supervision, 2023).

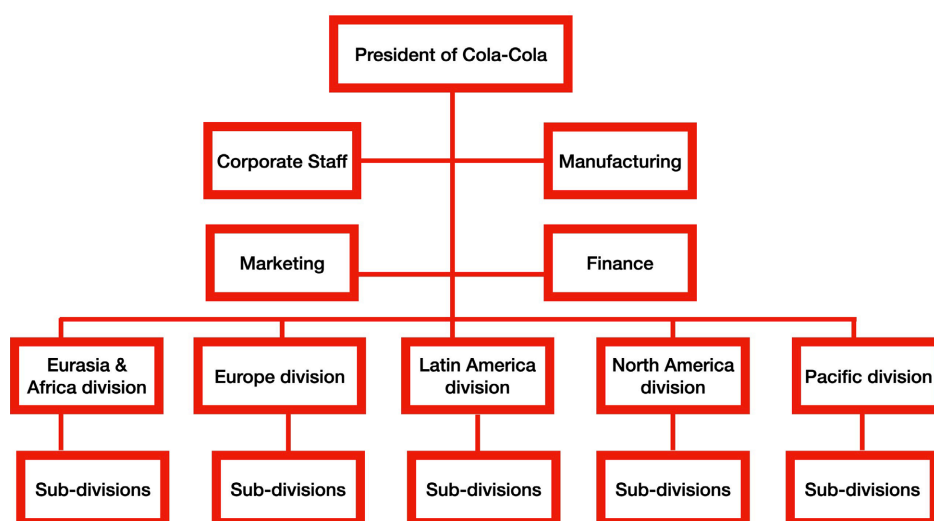


Diagram 2. Organization chart template automated by FinTech SAF or SOX to manage any company as an organizational team for OPE25 (Source:

<https://www.google.com/search?client=firefox-b-d&q=image+of+CocaCola%27s+organization+chart#imgrc=2LotDQUpYVc4yM>

The standardized operational risk approach impacting counterparty credit risk relates on now well-known corporate accounting procedures to connect operating units or cash-generating units (CGUs) to the board’s internal financial performance plan, an administration coordinated by the CEO in conjunction with the CFO:

Any discrepancy must be linked to a simple and transparent socio-economic indicator available to all employees to act to mitigate the losses of the factors or causes of operational risk losses impacting the key ESG metrics.

For banks in particular, the socio-economic indicators come under the heading “Other operating expenses” of the “Service” activity indicator, the typical sub-item “Losses incurred at the series of operational loss events that have not been provisioned/reserved in previous years” (Basel Committee on Banking Supervision, 2019).

For insurance companies and therefore for policyholders, the consideration of insurance and other risk transfer mechanisms should not exceed 20% of the operational risk capital required before the recognition of the economic capital generated by risk mitigation techniques (Basel Committee on Banking Supervision, 2010).

The business line mapping requirement would be ineffective without FinTech structuring corporate collective action and empowering corporate business lines and the local and international Total Paid Workforce to act in real time as a driving force of EC based on the risk appetite threshold: “The measurement system must be able to support an allocation of economic capital for operational risk between business lines in such a way as to create incentives to improve the operational risk management of the business lines” (Basel Committee on Banking Supervision, 2001).

Without these transversal modules of the FinTech architecture of corporate accounting, each business unit may go in a direction that has nothing to do with what others are doing. The result obtained by the CEO then depends solely on “market chance” or on the strategic flair of the CEO as in games of chance: We are far away from the collective organizational process run by the board which is to create value or wealth for its stakeholders, first and foremost, and then it’s customers, shareholders, employees, and taxes. This cross-cutting tool for driving companies as an organizational team that was missing until the OPE25 requirement is represented below by **Diagram 3** of access to FinTech V1 and V2 platforms.

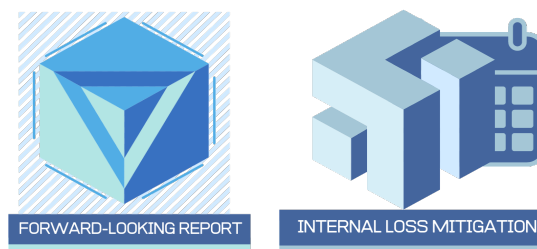


Diagram 3. FinTech SAF V1 & V2 - Platforms for driving cross-cutting interactions for the use of the CEO and CFO. [Click to access CEO V1 and CFO V2.](#)

6.3. FinTech SAF Platform of the CEO or Senior Management

The Forward-Looking Management decision-making system of the board of directors based on the SOX ratio is represented in the FinTech SAF model by the figure 3 below. This figure is associated with **Table 12** of cross-cutting tasks to be performed for the holistic functioning of the company in the sense of the organizational chart driven by the CEO and the Board. They are reproduced with permission from HCM Accounting ACADEMY.

Board decision making system (Diagram 4)

- For Board forward-looking management decision-making based on the SOX Ratio (Starting point technology) - Images are used with permission from the publisher.


<p style="text-align: center;">Board decision making system</p> 	1- Current average net income (group share)
	2- Current contribution per employee to average net profit (Group share)
	3- Absolute VaR estimate (EL + UL) = Gross loss = Loss before recoveries (BCCB, Dec 2017)
	4- Current Potentially Recoverable Losses (Absolute VaR - Risk Appetite Threshold or Net Loss calibrated to the % of the business sector's risk appetite threshold)
	5- Gross Free Cash Flow (Economic Capital) per employee at the new risk appetite threshold on a 3-year plan
	6- Economic capital or net cash surplus of the loss control system over a 3-year plan for 67% of the PRL (Not for distribution: SEC, April 2018)
	7- Variable remuneration or Incentivized Pay (Bonus for employees mobilized by the transversal dynamic of the organization on a 3-year plan for 33% of PRLs)
	8- SOX ratio of the capital structure (Economic Capital/Variable Salary or Incentivized Pay) securing investments and the predictability of variable salaries over a 3-year plan
	9- Data for measuring the future financial performance of the fixed salary, basis for calculating the differences to be considered for the fixed salary evolution grid.



Diagram 4. CEO holistic interactions guidance tasks for the board.

Regulatory requirements to do this:

For EU, article 9a, of the May 17, 2017, European Directive (“Shareholder Rights II”): *“The remuneration policy shall contribute to the company’s business strategy and long-term interests and sustainability and shall explain how it does so. Where a company awards variable remuneration, the remuneration policy shall set clear, comprehensive, and varied criteria for the award of the variable remuneration. It shall indicate the financial and non-financial performance criteria, including, where appropriate, criteria relating to corporate social responsibility, and explain how they contribute to the objectives set out in the first scope, and the methods to be applied to determine to which extent the performance criteria have been fulfilled. It shall specify information on any deferral periods and on the possibility for the company to reclaim variable remuneration.”*

For USA, SEC Non-GAAP Financial Measures of April 4, 2018: *Companies are permitted to present non-GAAP performance measures on a per-share basis, such as adjusted EPS (Adjusted earnings per share), but they are prohibited from presenting non-GAAP measures of liquidity or cash flow, such as free cash flow, on a “per-share basis”.*

6.4. CFO’s SAF FinTech Platform

CFO’s FinTech SAF (Internal Loss Mitigation) (Diagram 5)

FinTech V2-1 is the CFO’s FinTech module to coordinate and drive internal financial performance in real time to meet working capital requirements (WCR) and investment profitability.

With V2-1, the CFO calculates the sum of Potentially Recoverable Losses (absolute VaR - risk appetite threshold), plans, distributes the expected economic capital of services and workstations according to their consumption of resources or their budget, monitors, and generates a periodic report PDF for feedback and adjustment of internal financial performance gaps or correction of malfunctions in real time.

This SOX requirement dates back a long time:



Diagram 5. CFO’s FinTech SAF platform V2-1.

- The US Senate vote creating “The Human Capital Assessment and Accountability Framework (HCAAF)” was passed in 2002, i.e., the same year as SOX Act whose Section 902 (Corporate Responsibility for Financial Report) was to be considered with Sections 404 (Operational Risk Control), 302 (Financial Reports and Internal Controls), 409 (Feedback in Real Time) and 802 (Criminal Requirements for Falsification of Documents).

6.5. HRD’s SAF FinTech Platforms

6.5.1. HRD FinTech SAF (Employee Engagement Surveys Module) (Diagram 6)

HRD’s internal financial performance mission (BCBS Principles 4 and 5 and 6, Sep 2008) requires two FinTech modules (V2-2a and V2-2b).

With V2-2a, the HR function:

- 1) Conducts surveys to anticipate the deterioration of the social situation to provide data on the motivation and mobilization of the total paid workforce.
- 2) Ensures integration of corporate learning to manage turnover and have data on knowledge gaps to identify hiring needs.
- 3) Uses the internal dashboard to monitor and support the improvement of the financial performance and purchasing power of employees indexed on five socio-economic indicators which are levers on which each employee can act in real time.
- 4) Uses the internal dashboard to take immediate and effective action to address risks based on six key areas of socio-economic improvement:
 - Labor conditions
 - Work organization
 - Consultation, communication, coordination (3C)
 - Integrated training
 - Management of working time and
 - Strategic implementation.



Diagram 6. HRD’s FinTech SAF platform V2-2a for periodic Employee engagement surveys.

6.5.2. HRD FinTech SAF (Psychosocial Risks Module) (Diagram 7)

With V2-2b, the HR function carries out the periodic survey to provide alert data on the HR dashboard according to six areas recommended in 2012 Report of the International College of Expertise on the monitoring of psychosocial risks:

- 1) Work requirements
- 2) Emotional requirements
- 3) Autonomy
- 4) Margins of maneuver
- 5) Social and labor relations
- 6) Different value conflicts.

See Measuring psychosocial risk factors at work to master them (Mesurer les facteurs psychosociaux de risque au travail pour les maîtriser):

https://travail-emploi.gouv.fr/IMG/pdf/rapport_SRPST_definitif_rectifie_11_05_10.pdf

6.6. OM's SAF FinTech Platforms

6.6.1. FinTech SAF of the OM Function (Workstations Loss Treatment Module) (Diagram 8)

Operational Managers' internal financial performance mission for "General criteria on loss data identification, collection and treatment" as required for OPE25-Calculation of RWA for operational risk (version effective from 01 Jan 2023) requires two FinTech modules (V2-3a and V2-3b) to drive and provide non-GAAP reporting of real time internal financial performance feedback measuring the economic capital value added of the total paid workforce.

With V2-3a, the OM function accompanies with heads of operational units, weekly procedures and processes documented by daily record sheets for the identification, collection and treatment of internal loss data caused by:

- Absenteeism,
- Work accident,
- Quality defects,
- Direct productivity gaps (overtime and overconsumption of materials) and
- Know-how gaps (including lack of versatility).



Diagram 7. HRD's platform V2-2b for periodic.



Diagram 8. OM’s FinTech SAF Platform V2-3a for Real-Time Workstations Loss Treatment (Compliant with “General criteria on loss data identification, collection and treatment”, *Basel Committee on Banking Supervision, 2019*).

Operating structurally, these socio-economic indicators are taken together in the weighting system provided by the HRM. This FinTech module avoids the mistake of focusing excessive attention on the socioeconomic indicator of greatest concern without realizing that its costs are transferred to the other indicators.

6.6.2. FinTech SAF of the OM Function (Employee Incentivized Pay Module) (Diagram 9)

These are the interaction tasks crosscutting to be performed by the OM function and the heads of operational units involving each employee by socio-economic indicators allowing each employee to measure his (her) contribution to the daily, weekly, and monthly economic capital.

- Through the automatically generated variable salary e-report, OM’s FinTech V2-3b gives each employee the means to measure in real time the gain associated with their performance, to improve it and to know in a transparent way the incisive remuneration associated with the five socio-economic indicators measuring its contribution to the collective result.

The lack of FinTech V2-3b resulting in the unpredictability of variable salaries is the main cause of the deficits of banks and CCRs:

- FinTech V2-3b is essential to measure the Incentive Pay Leverage Effect (IPLE) of the financial performance of variable remuneration distinct from that of fixed remuneration as now required by country regulations [see SEC Non-GAAP financial measures, April 4, 2018, or European Directive (EU) of May 17, 2017].

FinTech V2-3b avoids the inefficiency of distributing random amounts or the same reward amounts as the 13th month or exceptional bonus to all employees. This module allows employees to manage 33% of Potentially Recoverable Losses



Diagram 9. OM's FinTech Platform V2-3b - real-time internal financial performance measurement for employee incentivized pay at the reach of all employees.

(PRL) measured by the Incentivized Pay Leverage Effect (IPLE) or the added value of human capital required to calculate the SOX Ratio. The OM function thus avoids the dupe game translated by this well-known Russian joke under the USSR: "As long as the bosses pretend to pay us, we will pretend to work" (*The Guardian*, 2017).

6.7. CRM Techniques within the Reach of Each Employee to Act at Their Workstation

The incentive compensation module provides features allowing each employee to mitigate operational risk losses through an action whose effect is measured both on socio-economic indicators and on key factors for improving working conditions. Each socio-economic indicator is linked to a key area for improving working conditions. Hence the two-way action schematized below **Diagram 10**.

7. How Do Banks Reposition Mathematical or Decision-Making Tools to Limit Their Margin of Error?

The transition from OPE30-Advanced Measurement Approaches to OPE25-OPE - Calculation of RWA for operational risk (Standardized approach) could lead us to believe that the mathematical approach (statistics and probabilities) is being abandoned. It is not so. It's just a matter of avoiding putting the cart before the horse. This involves placing mathematical tools downstream of corporate accounting tools so that they are fed with real internal financial performance data from banks and CCRs instead of running with data collected randomly on the web

It's just a matter of avoiding putting the cart before the horse. This involves placing mathematical tools downstream of corporate accounting tools so that they are fed with real internal financial performance data from banks and CCRs instead of running with data collected randomly on the web.

The diagram below (**Diagram 11**) illustrates the articulation of Corporate Accounting FinTech machines reducing the margin of error and the uncertainty of stochastic calculations that can lead to disasters such as that of the subprime crisis.

This diagram first published in ISACA Journal, Vol. 6., USA, Dec. 2013, comes in response to the BIS Web page which attracts the attention of central banks and stakeholders to cross the threshold of OPE25 to finalize the Basel III reforms by emphasizing that:

Key areas of socioeconomic improvement		Opérationnel Risk Indicators Within the reach of each Employee to mitigate losses in real time and improve working conditions	Weighting rate calculated on the medium position	
1	Working Conditions (Physical conditions of work)	← Work accident →	Priority level score	%
2	Work organization	← Quality defects →	Priority level score	%
3	Consultation, Communication and Coordination (3Cs)	← Know-How gaps or Skill gaps (Including lack of versatility) →	Priority level score	%
4	Integrated Training		Priority level score	%
5	Working Time Management	← Absenteeism →	Priority level score	%
6	Strategic Implementation	← Direct Productivity gaps (overtime and overconsumption of materials) →	Priority level score	%

Diagram 10. Features allowing each employee to plan and manage their variable salary indexed to socio-economic indicators within everyone’s reach.

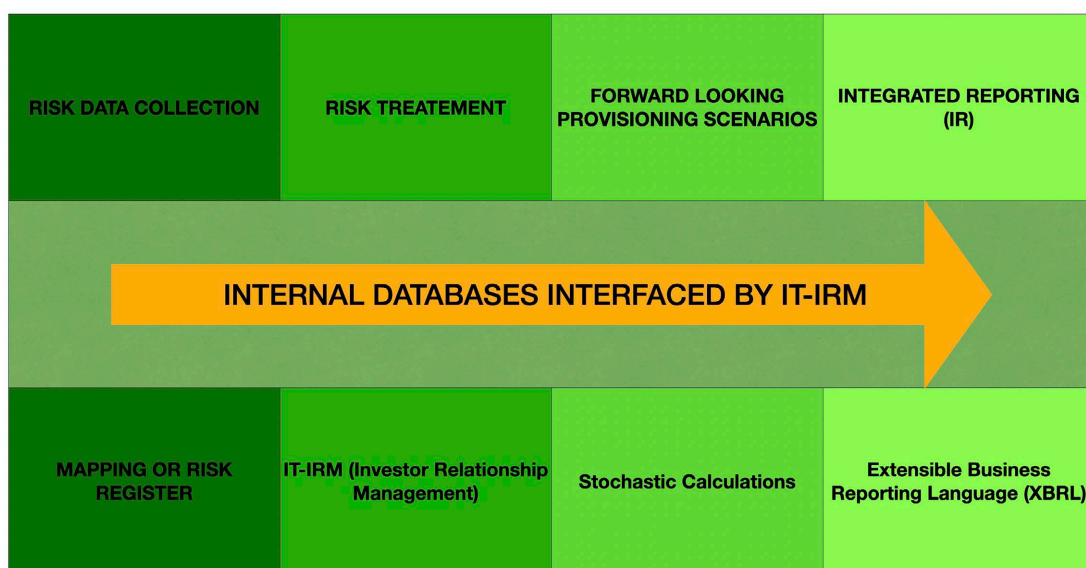


Diagram 11. Corporate Accounting FinTech process feeding stochastic computing machines with real customer data (Sources: Screenshot from our article “Strengthening Value and Risk Culture Using a Real-time Logical Tool” (ISACA Journal, 2016).

- “The future of central banking is inextricably linked to innovation. FinTech refers to technology-enabled innovation in financial services. This technological sea change is transforming the financial sector and the wider economy, affecting all aspects of our work - from payments to monetary policy to financial regulation” (<https://www.bis.org/topic/fintech.htm>).

The diagram highlights the work of the international network of Corporate Accounting FinTech whose peer-reviewed publications have anticipated the evolution of internal control as well as the innovation needs of stakeholders with the entry into force of OPE 25 to provide the complement that was missing from the Research and Innovation Hubs of the BIS and the central banking community. As indicated by BIS, their research centers are focused on Suptech and Regtech, Next Generation Financial Market Infrastructures (MFIs), Central Bank Digital Currencies (CBDCs), Open Finance, Cybersecurity and Green Finance.

The screenshot shows the BIS website's navigation and content structure. At the top, there is a search bar and a navigation menu with categories like 'Home', 'About', 'Research & publications', 'Innovation', 'Committees & associations', 'Central bank hub', 'Statistics', 'Banking', and 'Media & speeches'. Below the navigation, a breadcrumb trail reads 'Home / Innovation / BIS Innovation Hub - About the BIS Innovation Hub'. The main content area is titled 'About the BIS Innovation Hub' and features a large banner image with the BIS Innovation Hub logo. A sidebar on the left contains a navigation menu with options: 'Innovation', 'BIS Innovation Hub', 'About the BIS Innovation Hub', 'Hub Centres', 'Themes', and 'Projects'. The main text describes the BIS Innovation Hub's mission: 'The BIS Innovation Hub develops public goods in the technology space to support central banks and improve the functioning of the financial system. We have centres around the world and a global network of central bank experts on innovation.'

Hence the relevance of the FED directive of June 7, 2023:

“The concepts discussed in the guidance are relevant for all third-party relationships and are provided to banking organizations to assist in the tailoring and implementation of risk management practices commensurate with each banking organization’s size, complexity, risk profile, and the nature of its third-party relationships” (FED SR 23-4, 2023).

8. Discussion

- How can we estimate the limit of this guide, in particular the probability of

occurrence of events transforming losses into profits or cash flow gains?

- What is the impact of human resources?
- Why a distribution of the PRLs at 33%/67%?

8.1. How Can We Estimate the Limit of This Guide, in Particular the Probability of Occurrence of Events Transforming Losses into Profits or Cash Flow Gains?

Immediately, from the 1st quarter of the implementation of the FinTech loss processing interaction system. Banks and clients are starting from a situation where they only recorded losses and debt hedging. The BCBS prescription is as follows: “When the bank first moves to the standardized approach, a five-year observation period is acceptable on an exceptional basis when good-quality data are unavailable for more than five years”.

Internal loss data are most relevant when clearly linked to a bank’s current business activities, technological processes, and risk management procedures. Therefore, a bank must have documented procedures and processes for the identification, collection, and treatment of internal loss data (...). A bank’s internal loss data must be comprehensive and capture all material activities and exposures from all appropriate subsystems and geographic locations. (Basel Committee on Bank Supervision, 2020b).

The basis for programming the economic capital to be forecast based on the risk appetite threshold revealing your potentially recoverable losses (PRLs) is the absolute VaR that you know by adding the expected losses (EL) that are known at each date of reporting by analyzing variances in income statements with unexpected losses generated by events or malfunctions (see for example the Basel operational risk incident repository: QIS 2 - Operational Risk Loss Data – 4 May 2001).

This guide makes operational the fact that the basis for programming the economic capital to be forecast based on the risk appetite threshold revealing potentially recoverable losses (PRLs) is the absolute VaR that managers know by adding the expected losses (EL) that are known at each date of reporting by analyzing variances in income statements with unexpected losses generated by events or malfunctions (see for example the Basel operational risk incident repository: QIS 2 - Operational Risk Loss Data – 4 May 2001).

The cost/benefit accounts provided in reporting result from the operation based on the maximum motivation of the total paid workforce by a transparent and controllable distribution by the parties of the gains at 33/67% resulting from the source of known internal financial performance since a long time.

8.2. What Is the Impact of Human Resources?

The Basel Committee defines the operational risk as the “risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.” In terms of management accounting, losses related to operational risk are overloads of management accounts and non-products (unrealized in-

come). The operational risk losses have a clear impact on product cost, capital, competitiveness, income statement and counterparty risk.

Human Resources (HR) have a dominant effect on operational risks. Therefore, operational risks affect the risks of each entity.

1) For the insurer, operational risks have an impact on the counterparty risk, market risk, the risk of life underwriting risk, non-life underwriting risk, health underwriting, etc.

2) For the bank, operational risks have an impact on market risk, credit risk or counterparty risk, liquidity risk, interest rate risk, country risk, etc.

3) For the industry and services, operational risks have an impact on the market risk, credit risk or counterparty risk, liquidity risk, interest rate risk, currency risk, etc.

Since the end of the nineteenth century, we have known from the 80/20 Rule of Pareto that the margin of progression of motivated employees, especially through the profit-sharing bonus, can be particularly important since 80% of the results are obtained by 20% of the workforce (Tracy, 2016). In addition, operating losses or operational risks are estimated at 89% of the wage bill of the industry and services (local authorities included), and 45% of the payroll of banks and insurers (sector data collected by 40 years of hidden cost analysis confirmed by Basel Committee survey of 89 banks) ([Basel Committee on Banking Supervision, 2023](#)).

VaR estimation base (EL + UL) for a simulation when we do not have access to the risk register for UL data of operational risk incidents:

- Industry and services (including utilities), 89% of payroll, that is, €21,285 per person per year.
- Banks and insurance, 45% of payroll per person, or €18,000 per year.

8.3. Why a Distribution of the PRLs at 33%/67%?

The distribution of the PRLs at 33%/67% is based on social psychology work on “Cognitive dissonance and attitude change.” Cognitive dissonance is an influence which manifests itself not on behavior but on attitudes (thoughts): it is located on an intra-individual level. The individual is influenced by themselves. Attitude is the mental structure which refers to our position, our evaluation, about any object and which predisposes us to act in a certain way in relation to the object in question. For example, the pressure exerted by the promise of a variable salary (bonus or reward) must be sufficient to change behavior, but weak enough for the individual to feel that he has a freedom of choice.

Cognition plays a fundamental role. We owe to Festinger (1957) the expression “cognitive dissonance”: a state we experience when there is a gap between our ideas and our actions. The individual in the presence of cognitions (“knowledge, opinions or beliefs on the environment, on oneself or on one’s own behavior”) incompatible with each other, experiences a state of unpleasant tension: it is the state of “cognitive dissonance”.

Therefore, this individual will implement unconscious strategies aimed at restoring cognitive balance. These strategies are called “ways to reduce cognitive dissonance”. One of the strategies to reduce cognitive dissonance is to modify one’s beliefs, attitudes, and knowledge to match them with the new cognition; it is called “rationalization process”.

There will be an effect in aligning everyone in the organization to work for the same goal. Experiences in social psychology labs about the reward promised for a change of attitude and opinion, including the commitment of individuals to financial performance goals are more likely to succeed:

- First, when the beneficiary has a total perception of how the reward is deducted (Cognition fundamental role: hence the transparency and disclosure of PRLs calculations).
- Second, if the motivation is based on a threshold of at least 25% of the total earnings generated by the additional effort requested. (Recall: the pressure exerted by the promise of a variable salary (bonus or reward) must be sufficient to change behavior, but weak enough for the individual to feel that he has a freedom of choice).

Laboratory experiments have also shown that the high reward probability, for example at 50/50, creates doubt. The employee who doubts that the supervisor will honor their commitment will not commit or will pretend to exert the necessary effort. This results in stagnant results and the failure of the motivation system. This distribution creates doubt because it does not leave enough room for maneuver to the cognitive dissonance which triggers the change in attitude and the total commitment of the employee to act on the socio-economic indicators, factors or causes of loss of operational risk within its area of power.

It should also be noted that the distribution of the same amount of the reward to all employees cancels the expected effect. The bonus is seen as a supplement to the fixed salary: a random complement that the employer pays to the employee when he/she is satisfied with the net result. This is the case for all premiums paid when the achievement of collective performance objectives of organizations, including turnover, results in the payment of the same amount of the premium to employees. This is the case when the company pays a thirteenth month’s salary. The employee has no means within his/her reach to act on this performance. Similarly, the company has no means of programming and driving this performance. The premium that is not transparent, predictable, and controllable by a single protagonist (the supervisor) creates the fool’s game situation translated by this well-known Russian political joke: “So long as the bosses pretend to pay us, we will pretend to work” ([The Guardian, 2017](#)).

The Corporate Accounting Fintech (FinTech SAF) approach to cognitive dissonance processing to automate the distribution of mitigation gains from operational risk losses is like the “SAGE Model,” a synthetic approach of psychosocial research, in which qualitative methods are added to quantitative methods ([Séamus et al., 2018](#)).

9. Conclusions

All derivatives are measured at fair value. This means that at each balance sheet date, including for not-for-profit organizations, the asset or liability is re-measured to fair value and any movement in that fair value is taken directly to the income statement. This also means that DRM for this objective is impossible without the technical capacity of the Total Paid Workforce to execute the tasks of interaction to generate the data for corporate risk management and investor risk management based on the following well-known principles of cost accounting:

- A gap that is difficult to identify is hardly usable.
- Employees and persons in charge must be motivated to reduce their costs.
- Employees must have the means to act to reduce the amount that is imputed to them.
- Any gap must relate to a socioeconomic indicator—the lever on which every employee can act (Bezzina et al., 2013).

For service sector accounts, including local authorities, see author's other publications or go to <http://www.hcm-accounting.com/>

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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