International Association of Credit Portfolio Managers **IACPM Research 2021** Principles and Practices in Credit Portfolio Management Leadership and Resilience in the Credit Crisis

Credit Portfolio Management resilience during the crisis clearly indicates that building blocks are in place for continued development to meet the needs and opportunities of the rapidly evolving risk environment.





Executive Summary

The International Association of Credit Portfolio Managers (IACPM) recently completed its *2021 Principles* and *Practices in CPM Survey*. Conducted every other year, the Survey focuses on five key areas of concern to members: the evolution of risk and credit portfolio management (CPM), organizational structures, mission and mandate, tools, and outlook for the future. The Survey's goal is to allow firms to benchmark their practices relative to those of other leading financial firms. Sixty-four member firms globally participated in the 2021 Survey. In addition, IACPM staff conducted interviews with a number of participating firms to help inform observations.

The Survey was conducted as the outlook was turning toward the path of recovery amid the credit crisis. CPM functions noted lessons from the extreme stresses of the early COVID period when there were unprecedented funding requests from clients amid the uncertain conditions, later mitigated by central bank intervention globally to provide large amounts of liquidity. Accordingly, priority considerations for CPM currently include the stage of the credit cycle, new and emerging credit risks in the wake of COVID, and evolving approaches to address an array of non-financial risks. Additionally, firms are focused on credit and market implications as central bank liquidity rolls off.

Against this backdrop, the Survey results continue to support the findings of prior surveys that there is no "one-size fits all" for CPM. The 2021 data demonstrates a range of CPM business models reflecting the nature of the portfolio, geographic location, organizational structure, and culture. Additionally, CPM is a senior function with 50% of respondents reporting within two levels of the CEO, and some 75% within three levels of the CEO.

CPM's seniority and its role within the firm increased during the crisis, according to many Survey participants. CPM functions demonstrated leadership and adaptability to fulfill new and urgent needs for timely credit data and analysis, and also served as a **hub for important and growing linkages within the firm** (risk, line of business, capital policy etc.). Individual firms' CPM business models continue to evolve over time reflecting their specific objectives as well as changing constraints and priorities.



Priorities for CPM

Concentration and limits frameworks, sector concerns and opportunities

The credit crisis has highlighted sector concerns including real estate, transportation, retail, tourism/hospitality, etc. It has also exposed vulnerabilities to supply chain risks and cyber risks among others. CPM functions are acutely focused on forward-looking risks and opportunities as government programs decline, as well as refining granularity for specific sectors in concentrations and limits frameworks and sector correlations that emerged during this crisis period.

CPM Tools

The relative importance of concentration and limits frameworks to guide exposure amounts (frontend tools) and loan sales/purchases (back-end tools) to manage banks' credit portfolios remain high globally. Single name CDS continue to be a core market tool, while others show varied levels of importance across different regions. Funded synthetic securitizations are of more importance for banks in EMEA, credit risk insurance is used more often in EMEA and APAC, while banks in APAC put higher emphasis on financial guarantees. In the coming months usage is expected to expand for credit risk insurance and unfunded synthetic securitization.

Data and Analytics

CPMs are working to develop new internal and external sources of data and assess their predictive values. These sources include additional market price and real time data, as well as macro factor and industry indicators. Alternative data sources such as Al are under review, but as yet are not in widespread usage for corporate and SME portfolios.

Climate Risk and ESG

Defining and measuring climate risk is a primary area of focus for many CPMs, including assessment of impacts on credit origination strategy as well as risk mitigation. Additionally, many CPMs are working to include the broader issues of social and governance into decision-making. Both qualitative and quantitative approaches are evolving quickly in these areas.

Capital efficiency and measurement

Efficient management of capital remains one of the top priorities for CPMs in all regions. In many cases, the focus is RWA reduction but also often includes the continuing use of economic capital and/ or stress capital for modeling scenario outcomes, and to address impacts of portfolio concentrations.

Supporting growth and balancing risk/return

Over 50% of respondents are expecting growth in their portfolios over the next 12 to 24 months during the recovery from the credit crisis, and they are focused on supporting prudent growth and balancing risk/return.

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Introduction

Credit Risk Measurement and Portfolio Management have proven highly resilient in the face of the COVID credit crisis. The crisis brought an array of new challenges for credit portfolio managers as banks confronted the economic shutdowns, specific industry sector issues, supply chain vulnerabilities and the enormous amounts of liquidity provided by central governments to bridge effects of the crisis. Health and workforce issues dominated attention initially, while financial services also worked to ensure client solvency during the onset of the COVID period. As the immediate crisis has abated, attention has now turned to the shape of the recovery and to the sectors that remain challenged. Developing new approaches for forward-looking views of risk – and incorporating non-financial risks such as ESG, cyber and digital – are now among the highest priorities.

Against this backdrop, the International Association of Credit Portfolio Managers (IACPM) launched its 2021 Principles and Practices in CPM Survey. This Survey, conducted every other year, looks at **the evolution of risk and credit portfolio management (CPM)**, organizational structures, mission and mandate, tools, and outlook. Additionally - for the first time - this survey includes questions on ESG and assessing credit risk and the role of CPM for this emerging area of focus.

The goal of the Survey is to allow firms to benchmark their practices versus those of other leading financial firms. Sixty-four member firms globally participated in the 2021 Survey.

Among the topics addressed are:

- Portfolio definition and coverage
- Organizational structure, reporting lines and governance
- CPM functions, objectives, and key performance indicators (KPIs)
- Tools and execution
- Environmental, social and governance (ESG) and climate
- Challenges and future path

Note on the survey demographics:

The IACPM 2021 Principles and Practices in CPM Survey results include responses from 64 firms globally consisting of: 54 banks, as well as eight development banks and export credit agencies, and two re-insurance firms. More than half of the participating banks have a total balance sheet size above USD 500 billion. **The observations on the survey results contained in this paper reflect responses for the 54 banks and two reinsurance companies.** For purposes of comparison and to examine trends, parts of the analysis look at different sizes of responding firms. For ease of reference, 'large banks' are defined as those with assets greater than USD 500 billion and 'small banks' as those with assets below USD 500 billion.

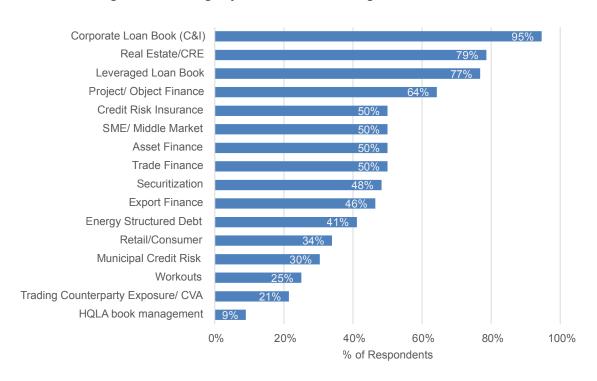


Portfolio Definition and Coverage

Portfolio definition and asset coverage are among the most important organizational items for risk and credit portfolio management. The definition, and the liquidity and nature of the assets, in many ways then determine the appropriate organizational structure as well as the mission and mandate of the CPM unit.

In 2021, almost all respondents have responsibility for the corporate loan book, and three quarters cover the leveraged loan book and real estate/ CRE as well. The next lower tier includes coverage of project/object finance, SME/middle market, securitization, and credit risk insurance portfolios (all at half to two-thirds coverage by responding firms).

Figure 1
Portfolio Management Coverage by Asset Class (including commitments and LCs)



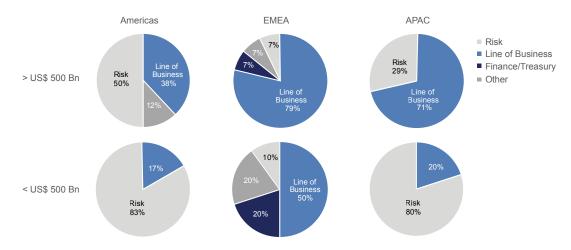
Organizational Structure, Reporting Lines and Seniority

CPM generally reports to one of three functional areas: Risk, Line of Business or Finance/Treasury. A few CPMs note that they have dual reporting to more than one functional area. The reporting lines differ according to both size of firm and geography, with Americas institutions tilted more toward Risk while EMEA tilts much more heavily toward Line of Business. APAC is split, with the majority of large banks reporting to Line of Business and smaller

banks reporting to Risk. These differences reflect the nature of the portfolio of the firm (e.g., smaller, more regional firms may have portfolios with fewer public, liquid names and align CPM with Risk while larger firms tend to have both origination policy tools and market risk mitigation tools available for the portfolio allowing them functionally to align more with the Line of Business.)

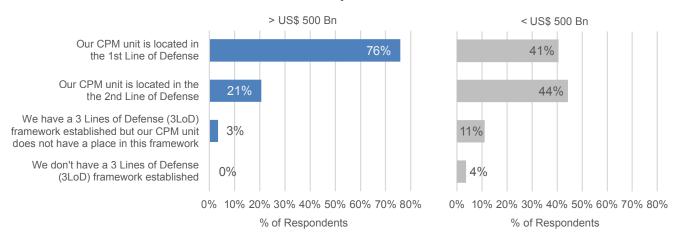


Figure 2
Credit Risk and Portfolio Management Reporting Line by Region of Domicile and Asset Size



Lines of defense approaches show differences according to bank size. Three quarters of the larger banks reported that CPM is in their first line of defense, while smaller banks have CPMs more evenly split between first and second line.

Figure 3
CPM Unit Location in 3 Lines of Defense Framework by Asset Size

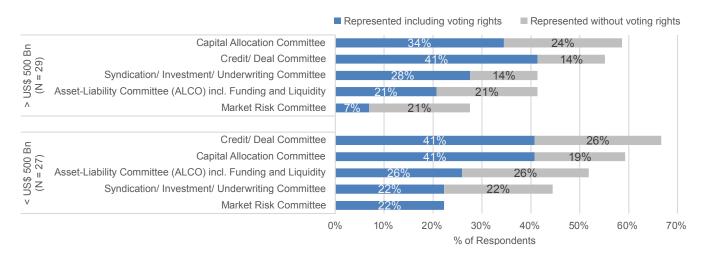


To fulfill their functions, CPM units sit on a range of **governing committees**. The top two include the Capital Allocation Committee and Credit/ Deal committee. More than half of large banks have either a voting or advisory role on these two

committees, while roughly two thirds of smaller banks are represented on these two governing committees. Other committees with CPM representation include Syndication/Underwriting, ALCO/Funding and, to a lesser extent, Market Risk.



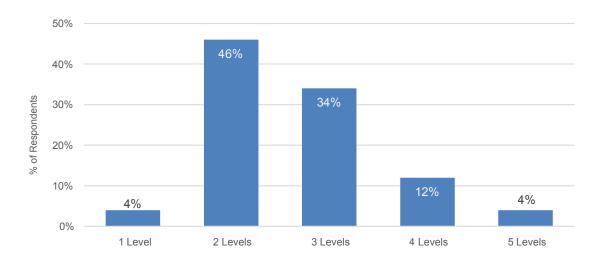
Figure 4
CPM's Committee Representation



CPM is a **senior function** for virtually all the participating firms, and the trend is toward the higher levels of seniority. Some 50% report within two levels of the CEO in 2021 vs 42% in 2019. Interviews with participants noted that the urgent need for new approaches on data and analysis, as

well as for forward-looking views of risk during the stresses of the COVID crisis, elevated and expanded CPM's role and responsibilities. Some CPMs added additional portfolio asset coverage as well, leading to higher levels of seniority for the group within the firm's management structure.

Figure 5
Reporting Levels between Head of CPM and CEO





CPM Functions, Priorities, and Key Performance Indicators

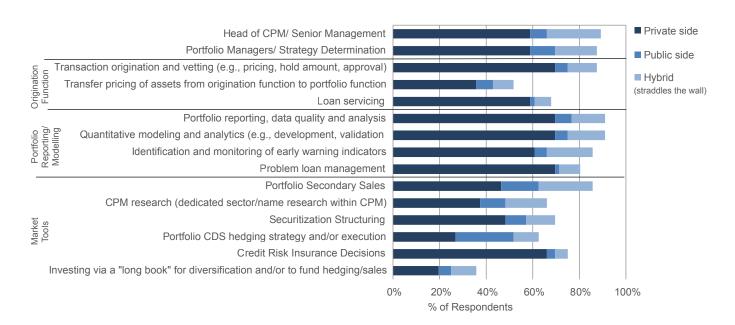
Responses demonstrate that CPM's functional responsibilities encompass a wide range of areas, reflecting the nature of the firm and CPM's mandate. Among the key areas are: Origination Decisions and Advisory; Portfolio Modeling and Analytics; and Risk Mitigation execution. Highest areas of responsibility include Advisory on transaction origination and vetting of pricing and hold amount; Reporting, modeling, and analytics; and Execution of Risk Mitigation Strategies for the portfolio. Reporting, Modeling and Analytics have been areas of intense focus during the current period as the credit crisis necessitated additional data and forward-looking views and analysis of risk.

"The biggest evolution has been the appetite and need for data."

Survey Respondent

CPM models vary on **private vs. public** side organizational approaches, reflecting the nature of the firm and its lines of business and assets. Some CPM functions are housed organizationally on the public side while others operate on the private side or in a hybrid structure. For example, some larger firms have CPM functions that operate wholly on the public side. As such, they have no linkage to credit origination and include public side portfolio research and have a focus on market risk mitigation functions. Other firms operate fully on the private side or have hybrid structures. For these, CPM may actively advise on the origination of assets and may have more limited back-end risk mitigation functions, and/or operate under a hybrid approach for market functions.

Figure 6
CPM Functions on the Public/Private Side





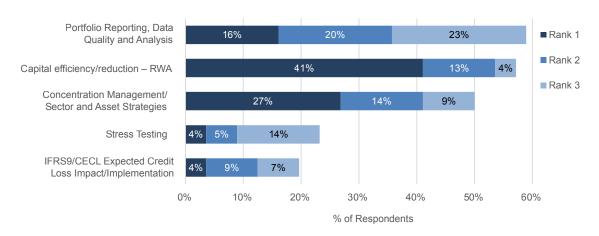
CPM top priorities currently are focused on Portfolio Reporting, Data and Analysis, Capital efficiency/RWA, and Concentration Management. While these three have been consistently at the top of the priority list over time, Reporting, Data and Analysis – not surprisingly - moved to the number one objective during this time period.

The credit crisis has highlighted sector concerns including real estate, transportation, retail, tourism/hospitality, etc. and has also exposed serious

vulnerabilities to supply chain risks and cyber risks among others. CPM functions are acutely focused on forward-looking risks and opportunities as government programs roll off, as well as refining granularity for specific sectors in concentrations and limits frameworks.

Other priorities include Basel 3 implementation, CPM's role as catalyst for growth, Economic Capital efficiency, and the integration of climate risk into CPM decision making.

Figure 7
Credit Risk and Portfolio Management Top Priorities



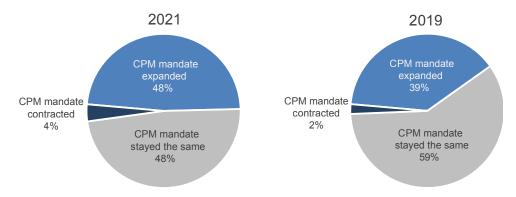
It is important to note that close to half of the responding banks indicated that their **CPM function and mandate are expanding**, an increase from two years ago. Examples of CPM's expansion cited by participants include: COVID 19 specific impacts and analysis, incorporating ESG and climate risks, review/refinement of concentrations and correlations during this COVID period, and inclusion of additional asset classes in CPM's remit.

"CPM led the assessment and response to the COVID-19 crisis, and was responsible for identifying portfolio vulnerabilities, as well as ECL and RWA impact."

Survey Respondent



Figure 8
CPM Mandate Expanding or Contracting

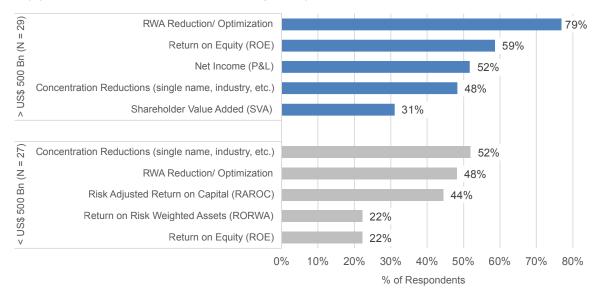


Key performance indicators (KPIs) for CPM show variance by size of firm and the nature of assets. Many firms commented that KPIs include both quantitative and qualitative measures given CPM's linkages across many areas of the firm. Quantitatively, for the larger firms, RWA reduction/optimization is by far the top KPI (about 80%) and others include return on equity and net income measures as well as concentration reductions. For smaller firms, concentration reductions are the top KPI for just over half of

respondents, with RWA and RAROC measures ranking second and third. It is worth noting that, during this changing time period of the credit crisis, one third of the smaller banks indicated that performance assessment is being (re)defined/developed.

Additional KPIs cited by CPMs included focus on overall support for business and risk management, mark-to-market management, and leverage and limits management at the enterprise level.

Figure 9
Key performance indicators for assessing CPM performance



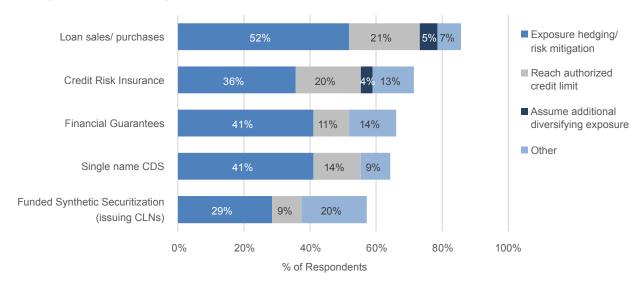


Tools and Execution

CPM units use a range of front-end tools at origination (limits policies, etc.) and post-origination back-end market tools (loan sales, etc.) to achieve portfolio objectives. The primary goals for use of risk mitigation tools include exposure

hedging/risk mitigation, reaching an authorized credit limit, and to a lesser extent, to take on diversifying exposure through CPM actions. Additional goals at some firms include balance sheet management, RWA relief and systemic/sector hedging.

Figure 10
Primary Goals when Using Market Tools



The **relative importance** of front-end origination tools increased for all reported measures between 2019 and 2021, with concentration limits ranking highest.

"Client selection is absolutely critical."

Survey Respondent

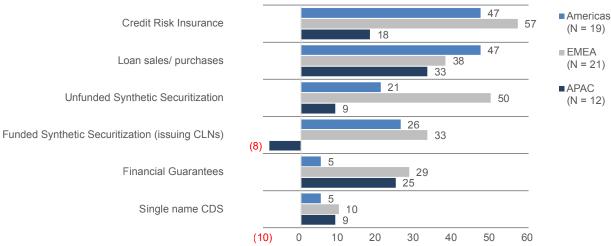
Use of market tools (back-end tools) remained stable or increased slightly between 2019 and 2021, with Loan Sales/Purchases ranking highest. Market tools show varied levels of importance across different regions. Core tools include Single Name CDS (all geographies), Funded Synthetic securitization (especially in EMEA), Credit Risk Insurance (EMEA and APAC) and financial guarantees (APAC). Looking forward, increased usage is expected for credit risk insurance and unfunded synthetic securitization.



Figure 11
Relative importance of CPM tools 2021 vs. 2019



Figure 12
Relative Importance of Market Tools over the next 12-24 Months



Diffusion Index (higher numbers indicate an expected relative higher importance of the market tool over the next 12-24 Months; negative numbers indicate less importance)



Environmental, Social and Governance (ESG) and Climate

ESG and climate are priority areas of focus for all firms at the enterprise level, and CPM is taking action to incorporate considerations related to both risks and opportunities into portfolio frameworks, analytics, and decision-making. Defining and measuring climate risk is a key goal for many CPMs, including assessment of impacts on credit origination strategy as well as risk mitigation. Additionally, many CPMs are working to include the broader issues of social and governance into decision-making.

"Climate risk assessment is a top area of focus."

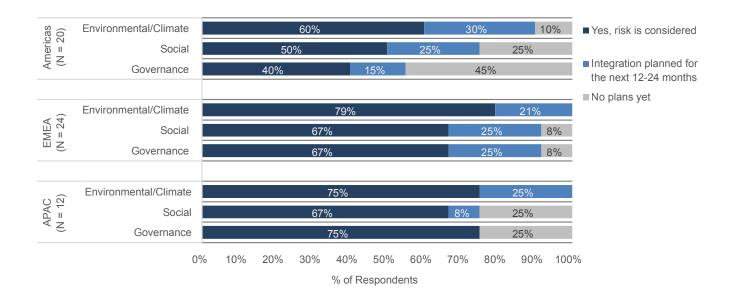
Survey Respondent

Not surprisingly, there are differences in implementation. Large banks in all geographies show higher inclusion of ESG risk factors in credit risk assessment vs smaller banks. Additionally, EMEA is leading in integration of environment and climate risk factors in the credit risk assessment process. Qualitative and quantitative approaches are evolving quickly in all of these areas.

"Social and governance objectives are high priorities: workforce, diversity, social shared values."

Survey Respondent

Figure 13
ESG Risk Factors Considered in Credit Risk Assessment





Challenges and the Path Forward

The COVID time period and its enormous demands on financial institutions have fundamentally changed the landscape for CPM. A wide array of new challenges and opportunities is evident looking forward. More than half of respondents expect growth in the portfolio as recovery occur leading to new demands for capital and risk/return constraints. Accordingly, business priorities for the enterprise over the next 12-24 months are topped by focus on revenue generation and meeting capital targets. From a regulatory perspective, IFRS 9 and CECL continue to be a focus, and the final implementation of Basel III is also expected to bring to fruition a number of changes in capital and liquidity requirements.

For CPM, the path forward includes a number of significant challenges and opportunities:

- Supporting growth while guiding risk/return for the portfolio to achieve corporate objectives
- Refining capital approaches as Basel III becomes effective to balance regulatory, economic and stress capital measures
- Developing measurement and metrics related to ESG and climate which may also mean expanding CPM's linkages within the firm as well as additional asset class coverage
- Enhancing data and analytics to address sectors of concern and opportunity, based both on stresses and correlations experienced during the COVID period and to implement ESG frameworks

CPMs must continue to adapt approaches for the discipline, as appropriate at their firms (no "one size fits all"), to meet the new challenges and opportunities confronting the industry. CPM's resilience during the crisis clearly indicates that building blocks are in place for continued development to meet the needs and opportunities of the rapidly evolving risk environment.

Demographics

Figure 12
Survey Participants by Approximate Total Balance
Sheet Assets

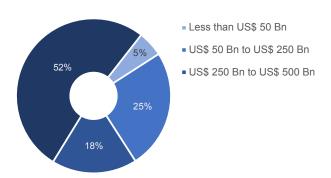
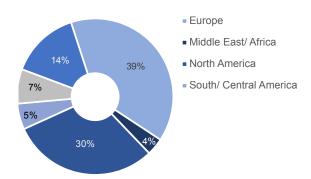


Figure 13
Survey Participants by Region of Domicile





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About the IACPM

The Association represents its members before regulators around the world, holds bi-annual conferences and regional meetings, conducts research on the credit portfolio management field, and works with other organizations on issues of mutual interest relating to the measurement and management of portfolio risk.

There are more than 125 financial institutions worldwide that are members of the IACPM. These institutions are based in 26 countries and include many of the world's largest commercial wholesale banks, investment banks and insurance companies, as well as a number of asset managers.

Today credit market conditions, and new regulations, are shaping the financial services industry. The discipline of credit portfolio management is evolving within firms to include the measurement and management of credit risk at the enterprise level, in addition to execution of risk mitigation strategies in credit markets.

CPM has increasing linkages with: front-end credit originators; the setting of risk appetite and limit structures; funding and liquidity for the firm; and management of counterparty risk. CPM is also expanding coverage of credit assets beyond investment grade and leveraged to include middle market and retail, as well as in some cases bonds and other credit-sensitive instruments.

The IACPM recognizes the unique and evolving role of credit portfolio managers in today's financial environment, and offers an excellent forum through which these issues can be identified, understood and addressed.

This paper and the associated questionnaire were prepared by the International Association of Credit Portfolio Managers (IACPM) and are the sole and exclusive property of the IACPM. The information contained in the paper is based solely on responses to the questionnaire and interviews with the surveyed institutions. While the IACPM exercised reasonable care in collecting, processing, analyzing and reporting the information furnished by surveyed institutions, their responses were not independently verified, validated, or audited to further establish the accuracy and completeness of the information provided. IACPM makes no warranty as to the accuracy and completeness of any of the information set out in the paper and shall not be liable for any reliance on its contents.

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