**A BPM Partners White Paper**

# How Banks can Select, Deploy, and Leverage Performance Management to Improve Profitability

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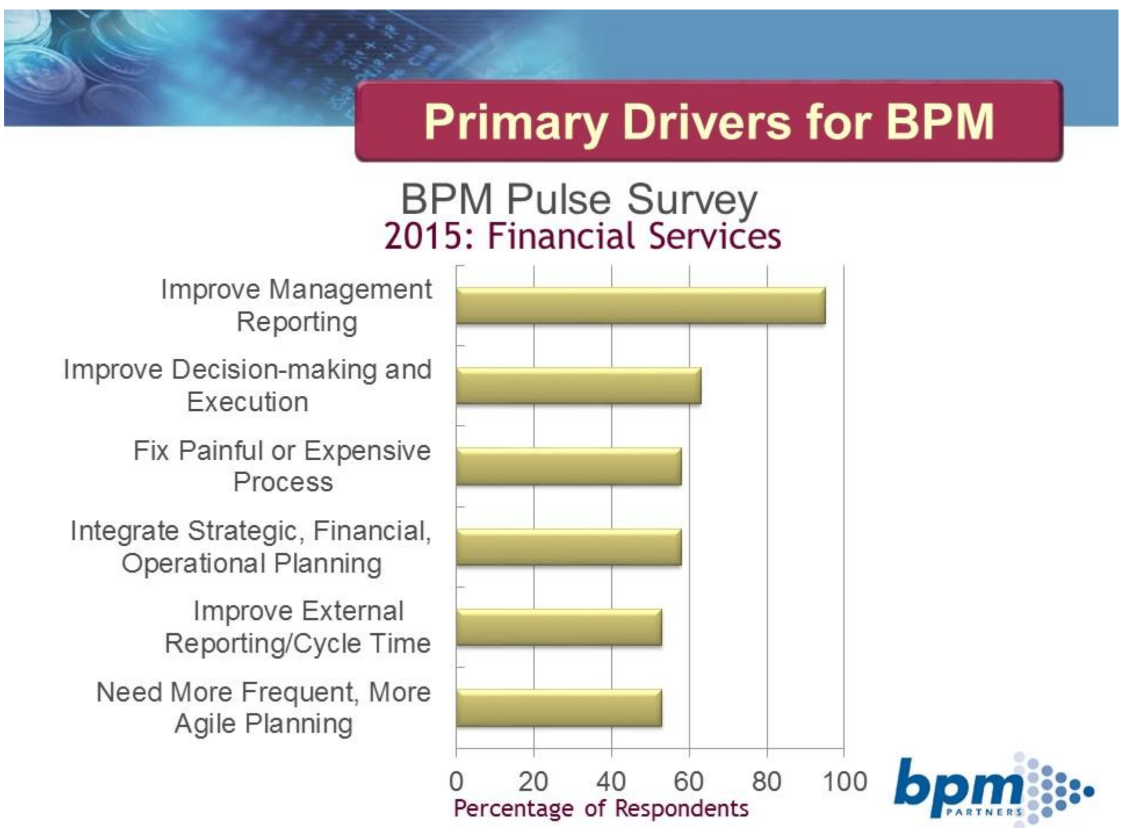
# Table of Contents

# Executive Summary

Financial institutions are under pressure to ensure profitability and gain share in markets made more competitive by digital transformation, while meeting multiple regulatory standards. Many are expanding their use of technology for compliance, budgeting, planning, forecasting, analytics, and broader performance management needs.

Many banks have already implemented CPM (corporate performance management) at least for budgeting or consolidation, and use it daily. Some have customized one or more point solutions to intertwine deeply in a particular business process, but these have specific and limited scope or cannot address multiple business processes, including some which are interdependent.

Driven by balance sheet productivity rather than income statements, banks must also focus on compliance, new customer acquisition costs, and scrutiny of assets for underperformance. They have a growing need for integrated sensitivity / what-if analysis, stress testing of loan portfolios, integrated business planning, and portfolio planning that integrates with the treasury area, for capital adequacy analysis.



The most frequently cited performance management issue, for banks, is the lack of integrated planning, reporting, and analytics processes and systems. Banks need systems that connect the steps from modeling and analysis to forecasting, consolidation, disclosure, and mandated reporting. C-level and line of business managers need both high-level and granular views of business activities to understand their impact on profitability. The most recent BPM Partners Pulse Survey shows that by a wide margin, improved management reporting is the most frequently cited driver for new CPM initiatives.

Carrying scenarios forward to view and compare integrated financial statements, then make decisions based on those results to optimize performance, is the ultimate goal of the CPM initiative.

This white paper examines CPM solutions and their deployment in financial services institutions, with recommendations for implementations to increase profitability. This document is targeted to executives or managers responsible for asset-liability planning and technology selection for banking business units.

# Introduction

Many banks emerged from the industry challenges of 2007 to 2011 stronger than before and while they have looked to CPM solutions for help in ensuring compliance, they also focus intensively on analysis, modeling, and forecasting. These CPM capabilities—especially when unified and consistent—can help managers boost profitability and competitiveness. In particular, they help banks identify and fine-tune revenue opportunities, and detect and fix operational problems early, before they worsen and have bottom-line consequences.

### Interconnected Business Processes

Banking decision-makers need CPM solutions that can support and improve complex and interdependent performance planning, reporting, and analysis processes in order to improve overall profitability and predictability.

Given the increased regulatory oversight and compliance requirements, along with competition from more, and stronger rivals, banks now look to CPM solutions for integrated, faster, and regulation-compliant:

- Integrated balance sheet and detailed P&L planning
- Profitability planning and analysis
- Planning for the major cost centers, such as HR planning and benefits and facilities / real estate
- Multiple contingency and scenario modeling and analysis, covering both the profitability of investments by a mother company into its banking subsidiaries and the projected results of a bank's equity and balance sheet
- Regulatory Capital Ratio modeling to ensure they stay in compliance as they grow

## *CPM Definition and Terminology*

CPM solutions enable an organization to define strategic goals, and then plan, measure and manage performance against goals including modeling, reporting and analysis. CPM requires a set of integrated, closed-loop management and analytic processes, supported by technology, that address financial as well as operational activities.

BPM (business performance management), CPM (corporate performance management), and EPM (enterprise performance management) all refer to the same set of processes, metrics, and analyses. This white paper makes no distinction between CPM, BPM, and EPM, and uses them interchangeably.

# Foundation Elements of CPM for Regional, National, and Global Banking

Most industries focus on the income statement, but banks focus on managing their balance sheet first and foremost, because their net interest income depends on creating the optimal balance sheet for prevailing conditions. A bank's profitability, liquidity, and sustainability derive from the strength of its balance sheet and on the bank's ability to maximize their net interest margins—and fees—from their deposit, loan and investment portfolios. Banks need to model projected changes to their balance sheets, taking into account changing interest rates, and then closely monitor the actual changes.


When banks evaluate a CPM solution, they are usually concerned with its ability to manage:

- Driver-based interest and non-interest income, with the ability to model multiple interest rates, margins, fees, and transaction volumes
- Non-interest operating expenses, such as workforce, compensation, and facilities costs
- Capital expenditure plans for investments related to items such as core banking and other IT systems and corporate office and branch location expansion plans
- Analysis and forecasts for investments by holding companies into banking and other subsidiaries

- Forecasting the resulting regulatory capital requirements based on their growth plans

Integrated financial statement planning and modeling enable decision-makers to evaluate and compare many combinations, and to zero in on the most profitable scenarios. It's also valuable for identifying the most important drivers and the sensitivity of outcomes to changes in those drivers. Knowing what really matters, versus what has relatively low impact on a particular unit's results, goes far in helping managers find the path to higher profitability.

Some CPM application suites are purpose-built to support the integrated financial modeling requirements of banks. Others require varying degrees of configuration and customization. In both cases, core capabilities for CPM solutions targeted to financial services include:

## *Portfolio Modeling Built for Expected and Unexpected Conditions*

Banks have unique requirements for modeling profitability, because they focus on the institution's portfolio of deposits, loans, and investments. They put emphasis on modeling and managing the loan portfolio, as the key to managing the balance sheet.

Performance planning within financial institutions requires the ability to model multiple key drivers that directly impact a bank's balance sheet and overall profitability. These drivers can include:

- Fixed and variable rate loan interest rates
- Loan amortization runoff projection
- Re-pricing schedules
- Prepayment assumptions
- Time-based investment and deposit balances, interest rates, and reinvestment assumptions

In times of volatility, some of these drivers have become extremely erratic. When delinquencies began to spike in the recession beginning in 2007, for example, they went so far and so swiftly out of range that many banks did not react quickly or properly. Those who could adjust the fastest and model it as the start of a once-in-a-lifetime trend, with the force of a 9.0 Richter earthquake, were in a better position to manage their exposure. Others were not, and suffered accordingly.

CPM applications that can provide purpose-built driver-based models for the financial service market make it straightforward to model and compare different time periods, as well as different balance-sheet and interest-rate scenarios.

## Flexible Analysis and Driver-Based Scenarios

Flexibility to analyze and compare across several dimensions is essential in financial services. The query and report dimensions that banks require include net interest income and margin at the portfolio, product, LOB, region, branch, customer, and instrument levels. Banks' legacy systems hold the granular data needed for this analysis, but they lack the ability to slice, dice and sort on different criteria. CPM offers that capability, once the implementation and integration work is done.

CPM applications that provide purpose-built driver-based models for the financial services market make it straightforward to move a capex investment or marketing campaign through time, and to test different balance-sheet scenarios against a set of varied interest rate forecasts. An effective application will allow users to save models with scenario variants and compare them according to results on any desired criteria.

## Capital Expenditure Planning

To carry scenario results of capital expenditure investments through to financial statements, it is preferable for banks that capital expenditure modeling occurs within the same CPM application as its portfolio modeling. A unified application ensures that CAPEX models draw on the same data as other aspects of planning and forecasting, and any interest rate-sensitive items can be modeled using the same interest rate scenarios.

The CPM suites best suited to financial services provide functionality to handle integrated capital expenditure planning. Factors to consider include whether the models can cover not only the initial expenditures, but also the ongoing operating expenses. Another is whether the CPM solution can place the expenditure at different points in time. For example, if the opening of a new branch is pushed forward or backward—how does this impact the period-end bottom line?

## Funds Transfer Pricing (FTP) and Scenario Comparisons

Banks strive to maximize future profitability within ALCO risk guidelines but most A/LM systems only provide a top-of-the-house view of interest rate risk. Banks need to model, measure, and monitor profitability using historical and anticipated interest and FTP rates assigned at the portfolio, individual customer relationship, and/or instrument level. Runoff volumes—and new loan originations and terms—need to be validated frequently with reforecasts to assess their impact on profitability. The 2007-2010 mortgage securities crisis, consequent recession, delinquencies and continued economic volatility drove home the importance of having such capabilities readily available.

### Analysis at Product, LOB, Region, and Branch Levels

CPM solutions should be able to address limitations of legacy asset liability management (ALM) systems and processes that currently can assign FTP rates to existing portfolios to support profitability modeling and reporting. The CPM system selected should provide modeling and analytics flexible enough to allow line of business, regional, or branch managers to view their net interest margins at the product, line of business (LOB), region or branch profit center level.

For a bank to derive full value from a CPM system, it needs to address two key functions:

- **Data integration** - The purpose-built CPM system must integrate data on aggregated loans, investments, deposit balances, and FTP rates from FTP systems and/or ALM data sources.
- **Bank balance sheet modeling -** Performance planning and analytic reporting models must be developed, or migrated up from spreadsheets.

Banks require modeling capability to be built in, with the ability to continually adjust the model for risk factors such as liquidity, interest rate changes, and credit issues.

## *Workforce Planning and Compensation and Benefit Expense Planning and Analysis*

The greatest expense for banks, other than interest expenses, is typically labor, which includes salaries, wages, incentive compensation, employee benefits, and payroll taxes. The compensation, benefits, and tax expenses that accompany the projected workforce makeup are key to enterprise performance planning and forecasting.

Banks require varying levels of detail in these plans. Some plan by named individual rather than by position. They might build in planned promotions, transfers, or staffing level

changes. Benefits and taxes might be at a granular level or simply as a percentage of overall direct compensation expenses. Compensation expense planning and analysis should be part of an integrated model that leverages the same planning assumptions, not handled under a separate application.

### Privacy Requirements

Security and privacy of workforce and compensation planning data must be protected. Role-based access is usually the solution, restricting data and detailed analysis to designated personnel managers or Human Resources team members. Human Resource Information Systems not specifically designed to support workforce and compensation expense planning, or the use of multiple internally-created Excel spreadsheets or other outdated solutions, present significant risks to the accessibility and accuracy of these critical data elements. All these methods generally require significant investments of time and personnel to support the integration of workforce and compensation expense data within financial and operational plans and performance analyses.

CPM solutions can be expected to deliver robust models that support detailed workforce and compensation expense planning at any level of the bank's business. These workforce and compensation models are fully integrated within the CPM solution to ensure data integration and provide security, as well as workflow and process management controls.

## *Financial Consolidation and Reporting*

The periodic financial consolidation and reporting process has grown more complex and carries more risk. Financial consolidation solutions must often meet different reporting standards. There is also more potential liability associated with external disclosure requirements, XBRL, and—depending on the jurisdiction—IFRS. Banks also need to report how they will continue to meet the required regulatory capital ratios based on their business plans. A key part of reducing this potential liability—by meeting requirements—is to reduce manual workflow, data translation, and interfaces between separate applications—a strong argument in favor of a unified multi-function solution that encompasses all aspects of consolidation from data collection, to reconciliation and consolidation, to presentation and output.

Banks may have relatively complex closing and consolidation needs and may have to consolidate and report in different ways to fit country variations. CPM solutions need to improve the periodic close process by automating it to the extent that is feasible for rapid, error-free reporting that addresses all of these needs.

They also need to contain—within a single application and database—the data and workflow from planning and modeling to forecast financial reports. In other words, CPM software needs to produce the full set of ripple-through profit and loss and integrated financial statements (as scenario forecast results) reflecting each change to interest rates, spreads, growth, payroll, and non-interest income.

### From Rate-Volume Analysis to RVA Reports

Banks need reporting for both internal and external constituents, including yield reporting and rate-volume analysis (RVA) which measures and reports how changes to interest rates affect the bank's results. We mention RVA here, under reporting, because it illustrates that it is crucial for CPM software to connect and unify the steps from modeling to reporting.

Analysis and reporting of RVA is needed at the consolidated and line of business or business unit level. This requires that banks have the ability to analyze and report changes in yields and costs (rate variance), fluctuations in volume of earning assets and interest-bearing liabilities (volume variance), and the mix of assets and liabilities "mix variance" within their portfolio.

## *Regulatory Reporting and Mandatory Disclosure*

Software solutions need to handle month-end and period-end closing in a complete, end-to-end manner. In other words, a CPM application for banking needs to unify and address the steps of data collection, consolidation, collaboration and workflow for commentary and other disclosures, and presentation. We emphasize the importance of providing a mechanism for collaboration that tracks inputs and comments by the many individuals who may be contributing.

Banks are required to comply with a wider range of international, federal, and state regulatory reporting and disclosure requirements than in the past. The CPM software must take into account that some requirements vary by size of the reporting entity. This includes national and international agency reporting requirements such as:

- DFAST (the Dodd-Frank Act Stress Testing)
- FINREP (the standardized Financial Reporting framework issued by the European Banking Authority)
- COREP (the standardized Common Reporting framework issued by the European Banking Authority)
- CCAR (Comprehensive Capital Analysis and Review)

In the United States, it also includes the 10-K and 10-Q reports that all public companies must file as mandated by the Securities Exchange Commission. Banks must also file periodic call reports required by the Federal Financial Institutions Examination Council (FFIEC) and multiple state banking regulatory agencies. Banks operating internationally also must meet the requirements imposed by Basel II and its successor, Basel III.

It is still uncommon for banks to have fully integrated systems and adequate process controls to ensure the accurate collection and analysis of essential financial data and disclosures required on these regulatory reports. Data accuracy and timeliness of submissions for these reports are put at risk by the labor intensive and often manual processes that many banks have developed to meet external reporting requirements.

With a well-designed CPM system, banks can streamline the financial close and consolidation process, provide workflow and process control capabilities to enhance collaborative development, review, and approval of management analyses and disclosures, and improve the transparency and auditability of financial and operational data within these regulatory reports.

## XBRL Reporting

The XBRL (extensible business reporting language) regulatory standard requires understanding of proper tagging schemas and rules. XBRL tagging and reporting can be outsourced, but there are several advantages to handling XBRL in-house, such as control, and speed. A CPM application suite that streamlines and/or automates XBRL tagging can save the bank time and money, when compared to third-party service bureaus and standalone XBRL add-ons; tagging can be done once in the CPM suite, stored, and replicated in future reports.

## IFRS

Depending on the jurisdictions where a financial institution operates, it may be mandatory to report simultaneously in accordance with different parallel standards. For example, a bank may need to report in both a national GAAP (US, UK, Japan, or other] and IFRS (International Financial Reporting Standard) formats.

IFRS is more than a different set of reports; it is a parallel system to GAAP. The CPM suite's ability to project forecasts through to IFRS as well as GAAP integrated financial statements, and handle consolidation of actuals for both standards, can be a crucial software selection criteria for banks.

# How Banks Benefit with CPM

The most recent BPM Pulse Survey investigated the benefits that financial institutions derive from the ability of unified CPM applications to deliver a single, authoritative version of financial truth to use in plans, budgets, forecasts, consolidation and reports.  Working from a single, verified set of base data for financial modeling and planning brings consistency and simplifies collaboration for planning purposes.

Banks cited easier access to information most frequently as a benefit received, followed closely by shorter planning and forecasting cycles. Error reduction, more useful budgets, improved forecast accuracy, and hard cost savings were all cited by more than 60 percent of responding financial institutions.

Certain CPM benefits are of particular importance to banks.  Support for integrated balance sheet planning, and portfolio scenario models and analysis, can be a particular benefit for the Office of the CFO, especially if the resulting models seamlessly integrate actual asset-liability data and key business drivers.

Banks can leverage the detailed view into profitability and profitability drivers that a unified CPM suite provides, along with full financial-statement planning and line of business, regional, and branch level modeling. Banks, of course, tend to derive greater benefit if the CPM solution lets them analyze and model at whatever level of granularity is appropriate:

- Enterprise-wide
- Regional
- Branch
- Line of business
- Customer
- Instrument

This enables evaluation of local and corporate marketing/sales campaigns to target existing and potential customers with new product or bundled offerings that align with the bank's long-term balance sheet strategy.

Another key CPM solution benefit: banks are able to reduce risk, increase transparency and auditability, and lower costs associated with regulatory reporting compliance requirements. As just one example, the ability to tag statements for multiple XBRL taxonomies in different jurisdiction improves ease of compliance with less risk and lower cost.

**Multidimensional Analysis for Different Types of Users**

Multidimensional analysis, particularly with vertical market intelligence (aka banking best practices) built in, is also useful to help model clearer paths to profitability and then track progress toward those results. For example, this flexible analysis makes it easier to pick out profitable versus unprofitable products, customers, business units, and marketing programs. A line of business, branch, or even relationship manager can model changes to loan interest rate, prepayment, re-pricing, or new business volume assumptions to see the effect on total profitability.

## Advantage of Pre-Built Models for Banking

CPM software solutions for financial institutions should come with built-in industry specific capabilities and intelligence, and purpose-built models for integrated balance sheet planning. These tools enable the bank to accurately model the impact of changes in key interest rates, portfolio balances, and the effect of different balance sheet portfolio mixes upon net interest margin.

A concrete example: A cash flow calculation engine with the ability to calculate the anticipated cash flows from the existing portfolio including pre-payment assumptions.

Another example: The ability to compare rising and decreasing rate scenarios on the same report.

Additionally, the ability to not only model scenarios and project them forward through financial statements, but also to name, save and compare scenario results helps make for better strategic choices and better performance results.

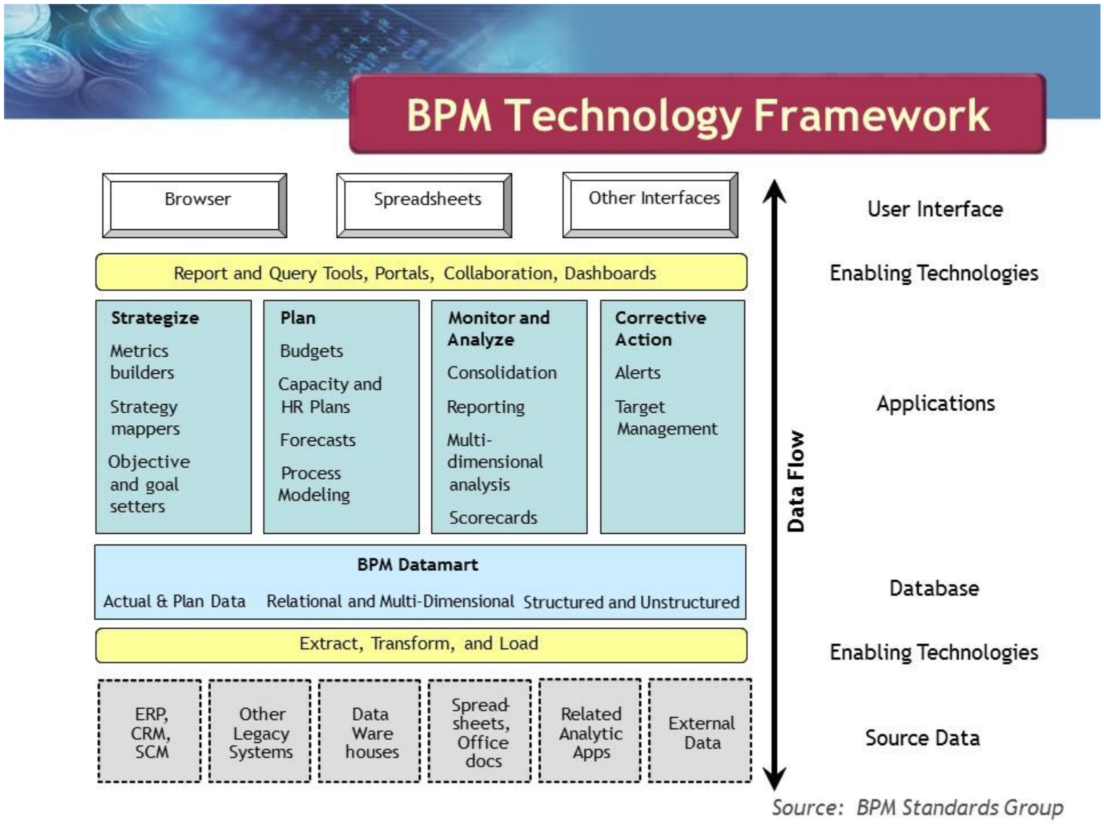
## Software Selection Criteria

All enterprise software selection initiatives should start with careful requirements definition, and finding the right CPM solution for a bank follows this approach

Architectural and technology considerations also come into play, among them:

- Does the vendor offer the architecture you need, such as cloud versus on-premises?
- Is the anticipated deployment rapid enough to meet your deadlines?
- Does the technology scale for the size and volume of your models and data?
- Is the underlying technology—such as in-memory processing—fast enough, and scalable enough, and does it fit with your company's overall IT strategy?
- How open and flexible is the CPM application; will integration of third-party data be straightforward?
- Does the CPM application integrate easily with the standards and platforms your company uses?
- Is the solution extensible to serve the needs of users in other departments, to promote modeling and analysis based on verified data that Finance uses?

The follow diagram illustrates the key components of the technology framework that supports virtually every BPM solution within the financial services sector.




The following, more specific capabilities should also be on a bank's feature list in most cases:

- Modeling and sensitivity analysis for interest rate scenarios, spreads, growth rates, and payroll assumptions.
- Complete product/branch/regional profitability calculations, using allocations and FTP rates and report on variances in rates, volumes, yield and mix.
- A single model capable of handling complex variability in product mix, interest rates, portfolio behavior, etc. to provide realistic scenarios.
- M&A modeling and goal seeking at the legal entity, region, and branch and portfolio level with detailed cash flow analysis.
- Allocation and FTP logic to enable construction of budgets to measure profitability at various product, regional, and organizational levels.
- HR salary and benefit planning and analysis down to granular—individual employee—levels.

### Configurability and Flexibility

How the vendor customizes or configures the software is often more important than whether a vendor's solution is an immediate out-of-the-box fit with your company's needs.

In the selection phase, the shortlisted vendors should demonstrate how they implement or configure the system to meet typical requirement scenarios for your size and type of financial institution.

By watching the actual steps they take to adapt their software application to your requirements—whether they check options on a dropdown menu, or start coding, is revealing—you will get a clearer sense about the application's ability to change over time with your organization, as well as what you can expect during implementation.

## *Importance of Built-in Industry Intelligence and Vendor Knowledge*

Banks have specific planning needs; they must accurately model and plan interest income by product, portfolio, and customer segment, for example. As noted in the previous section, a bank should not have to build these models from scratch. Translation: the software vendor's understanding of banking, regulations, and best practices is very important.

# Implementing CPM in Banks

The bank should not overlook scale and performance needs when defining requirements and selecting a CPM application. Specifying the scope, level of detail, and complexity of performance planning models allows Finance to correctly project the volume of data the application will need to process.

## From Quick Wins to Control over Profitability

It is increasingly popular for Finance groups to launch a CPM implementation with fairly rapid-benefit projects that meet a pressing and conspicuous need—profitability modeling for business units, or FFIEC reports—to quickly build credibility and faith in the initiative.

However, the CPM team should also estimate the ROI that a full-fledged implementation will deliver—when it includes comprehensive portfolio modeling, modeling and delivery of mandated reports, and planning. At the same time, managers should keep in mind that the most innovative and ultimately most useful applications of a new technology may defy ROI calculation. Ultimately, the bank aims to forecast, understand and control its own profitability—that is the real measure of success for corporate performance management in financial services.

# Conclusions

The Office of the CFO at a bank probably emphasizes management reporting first and foremost, when it comes to looking to a CPM solution.  For boosting profitability in sustained fashion, however, the financial services industry tends to realize the most impact from the CPM application's ability to:

- Provide a comprehensive, single version of financial status and facts
- Model complex scenarios that ripple through from the balance sheet to integrated financial statements
- Model every aspect of the portfolio at the instrument portfolio, customer segment, branch and business unit level
- Conform to all the applicable reporting requirements, such as GAAP, SEC, FFIEC, XBRL, and IFRS if necessary
- Integrate summarized transactional level information from multiple source data systems

## Achievable Near-Term Success, then Repeat

Plan the CPM implementation with initial steps that have a high probability of on-time completion and low risk, to build support for a long-term gradual extension.

Confirmation of the benefits of implementing CPM in banks is found in the satisfaction they express. The most recent Pulse survey indicated that over 80 percent of financial services firms were satisfied with their CPM implementation.

When defining their software requirements, banks should assess technology considerations with care—among them, cloud versus on-premises deployment, underlying technology adherence to standards, and whether the CPM solution connects and unifies the multiple complex steps from modeling and planning, to analysis, data input and collaboration, and ultimately disclosure and reporting.  Working with multiple databases and applications in different CPM point solutions inevitably brings integration and update costs that do not go away.  With a unified application suite, nearly all planning can be based on the same set of base numbers, eliminating integration issues, and reducing the training burden.

Ultimately, CPM must be judged on whether it fulfills compliance mandates and contributes to improved profitability. That is the real test of corporate performance management in financial services.

# About BPM Partners

BPM Partners is the leading independent authority on business performance management (BPM) and related business intelligence solutions. The company helps organizations address their budgeting, planning, financial reporting, regulatory compliance, profitability optimization, key performance indicator (KPI) development, and operational performance challenges with vendor-neutral experts who can guide companies through their BPM initiatives from start to finish while both reducing risk and minimizing costs. For further details, go to https://www.bpmpartners.com. Follow BPM Partners on Twitter @BPMTeam.

To ensure you get the right solution, at the best price, with minimal risk and maximum success take advantage of our vendor selection services.

# Appendix: Real-World User Examples

The following are specific examples of financial services organizations that have successfully deployed performance management initiatives:

**Case study 1: US Division of $978 billion Global Banking Group** with over $12 billion in assets and more than 700 business units., delivering banking, trust and investment solutions and services.

- Business issues/challenges addressed with CPM applications:
- Regulatory reporting for US GAAP, FDIC, IFRS, local and Dutch regulations
- A single, central system for all reporting and planning data
- Full control, transparency and accountability
- Regulatory reporting for US GAAP, FDIC, IFRS, local and Dutch regulations
- Driver-based budgeting
- Centralized allocations
- Built-in controls and validations

CPM implementation and benefits:

- A “single source of truth” and a single point of control for data
- **35% reduction** in planning cycle time
- **50% reduction of hiring in Finance**
- **2 days per month saved close** process
- **More accurate** prediction of loan renewals and originations
- Confidence and scale to meet future organic and acquisitive growth

**Case study 2. North American financial services firm with $5 billion in assets.**

- Business issues/challenges addressed with CPM system:
- A replacement for a legacy Planning system no longer supported
- A robust Reporting solution for Management and Board Reports
- Single point of support within the Accounting department which caused bottle-necks during critical processes
- Robust solution to enable improvements Budgeting & Forecasting processes
- End-user access to final budget with self-service reporting
- Intuitive Management Reporting

Benefits from CPM implementation:

- Eliminated bottleneck of support within the Accounting department
- Clarity for users throughout the year into their budget numbers.
- Self-service reporting environment where Accounting no longer creates and pushes monthly reports to users.
- Monthly actual/budget variance reporting
- Raised the level of support and engagement between Accounting & line of business leaders