Experience Study:

Creating a Central Subledger
for Finance Transformation

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About the Author

The relentless innovation of information technology never ceases to amaze me. After more than a decade working in this field, I find it particularly inspiring how technology transforms financial organizations. Together with regulatory changes and generational shifts in the workplace, technology solutions are the main drivers for improving finance operations.

One challenge caught my attention from the beginning — how financial data combined with modern technology can impact business decisions. Specifically, I have worked with insurance companies to position and implement the financial subledger as a backbone for managing financial data and providing analytical insights for effective decision-making.

My career in consulting allowed me to bring together my greatest passions and help people be successful by providing software solutions that create opportunities for growth. If you are interested in learning more about how financial subledger can benefit your business, do not hesitate to contact me.

Ana Mitic, Sr. Consultant

msg global solutions, USA
Ana.Mitic@msg-global.com

www.msg-global.com

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Executive Summary

Are you really ready for change?

The challenges financial institutions face today are beyond the scope of any single software solution. Even the role of the finance organization itself is changing – from a reporting factory to the core business unit that generates, preserves, and delivers enterprise-wide strategic value. The need for analytical insights and compliance with ever-changing regulatory standards drives the modernization of finance organizations, in which the integration, consistency, transparency, and real-time access to financial data are fundaments[1].

The desired end state entails a high-performing and scalable infrastructure with a self-service platform for financial professionals and decision-makers. However, companies are challenged to understand how to enable such technology while integrating the business processes and aligning interests of various stakeholders[2]. Moreover, they find it difficult to simply champion the importance of the data and its long-term value.

This study is based on the experience of implementing a financial subledger as a core component of the financial transformation of a large insurance company. The goal of the transformation was to establish a harmonized, "thin" general ledger, and to integrate disparate accounting applications into a single platform for financial reporting. However, establishing common, enterprise-wide finance-data definitions, while harmonizing data sources, soon proved to be the most challenging task.

Regardless of which goal is imperative for — enabling analytical insights or ensuring compliance with regulatory requirements — setting up a centralized financial subledger can be the crucial starting point. A financial subledger as a data gatekeeper for business-critical processes will accelerate the financial close cycles, relieve the immediate pain points, and enable a staggered approach to its further utilization.

The business and IT should collaborate to prioritize future initiatives based on the financial benefits and operational improvements gained with the financial subledger. Promoting the adoption of the financial subledger's capabilities while minimizing operational disruptions will maximize its value. By gradually moving the focus from the basic business-essential capabilities to the ones with greater, strategic financial impact, the financial subledger can become the driving force behind the finance modernization and transformation initiatives of insurance companies.

What is a financial subledger?

A repository of detailed transactions for the general ledger.

A centralized repository of accounting rules.

A means of detailed drill-through for reporting and analytics.

One source of truth for accounting, actuaries, and financial reporting.

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The Data Challenge
The Tangled Web We Weave

01

The financial services sector is being continuously disrupted by technological innovations. Advanced Analytics, Intelligent Enterprise, and Machine Learning are a few of the latest technology trends affecting traditional financial practices. Moreover, data has become a highly valuable asset for decision-making and gaining competitive advantage.

Data has taken a central role in providing real-time insights, compelling user experiences, and enabling the (r)evolution of business models. The larger a company grows, the greater its need for accurate, real-time data. To remain competitively relevant, financial institutions must adopt these technology trends, leveraging data to maximize profit and ensure regulatory compliance.

As these institutions become more data-fluent, the role of finance evolves from back-end transactional processing and historical reporting to the key supporter of growth. That evolution is leading many companies to hire Chief Data Officers[3] (CDO). Though there is no mandate or profile for the CDO[4] yet, the responsibilities of the position will likely include integrating and harmonizing[5] data across the enterprise, while partnering with other executives to champion the value and potential of data in planning, forecasting, and reporting.

For decades, financial-services companies and insurers successfully conducted their finance functions with the data that was available. But legacy technology couldn't process massive volumes of data, and data silos and manual workarounds became accepted norms. Today, we are facing a generational shift[6] iin managing data, in which integration is the next paradigm and homegrown applications its main bottlenecks.

Integration is unavoidable for enabling analytical insights or real-time reporting capabilities, but its complexity is almost always underestimated. It requires a deep understanding of data flows, including data sources and purposes. That's often lost in knowledge transfer from one generation of financial specialists to the next, or undocumented due to lack of governance. Larger financial institutions commonly underestimate the amount of manual workarounds and independent data silos that have developed over the years and that have become integral to daily finance functions.

What does data integration entail?

Establishing common data definitions throughout the organization.

Bringing data to a common central platform and establishing one source of truth.

Ensuring data is available, reliable, consistent, timely, and secure.

Improving data flow throughout the company by retiring or modernizing legacy applications.

01. The Data Challenge

Figure 1 below depicts the application landscape of a typical, larger life insurance company, with finance-related applications grouped into four areas: Insurance, Enterprise, Actuarial, and Investment Management. Each area assumes a set of intertwined business processes that produce financial results. All these applications can be considered subledgers, since they hold financial records, apply specific accounting rules to sets of financial events, and serve as sources of information to be booked to the General Ledger.
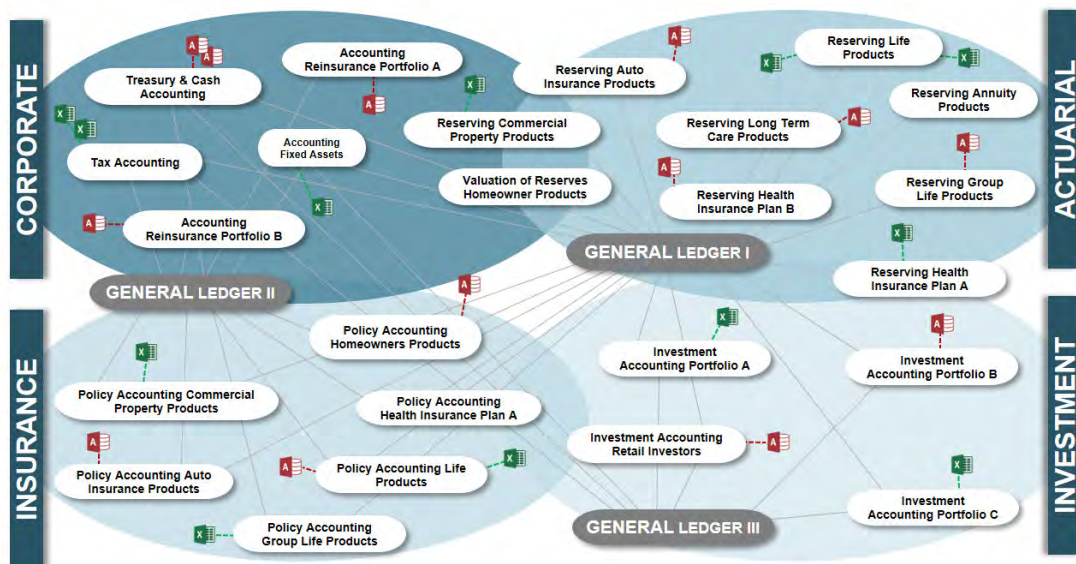

Figure 1. Complexity of the Finance Landscape

The more diversified the business, the greater the number of individual subledgers in the landscape. For example, accounting for actuarial valuations is done with different applications, depending on the product line: annuities, life, or group membership products. But the number of applications increases the costs of financial analytics, given the number of one-off spreadsheets and databases needed to assemble the information from different sources. Since most of these applications were created and maintained by several generations of finance professionals, understanding their interdependencies and data lineages represents another challenge.

Senior-management pressure to enable self-service reporting and analytical capabilities frequently overlooks the fact that the data isn't integrated. To illustrate, the effort of normalizing policy level financial details (approximately 200–300 data elements) could easily be a nine- to twelve-month project for each product line because COBOL scripts calculate the Remitted Fund amount by subtracting the Dividend Overpayment and Dividend Withdrawn amounts if the Transaction Code equals X and the 'CSO code' equals YZ — and that needs to be multiplied by 1.13 in an Excel spreadsheet prior to looking up a profit center value, zipping the document, and emailing it to the accounting group to post it to the general ledger.

This tangled web can only be resolved with a system that replaces and automates all these steps.

Financial Subledger and the Data
Data Integration

02

Effectively complete data integration requires one platform that makes the data unified, accurate, and accessible. For financial data, a single Financial Subledger — directly integrated with the general ledger(s) and serving as a gatekeeper for accounting documents — fulfills this data-integration requirement. Its data model encompasses all lines of businesses, while providing traceable and auditable financial indicators and measures.

Companies with fairly simple system landscapes, in which the number of administrative and subledger systems is limited but still supported by incompatible technologies, may choose to leverage the Financial Subledger to:

► Aggregate and consolidate detailed financial results to maintain a "thin" general ledger
► Centralize maintenance of organizational dimensions such as Charts of Accounts, Profit Center hierarchies, and other financially relevant master data
► Centralize accounting and data transformation rules across lines of businesses
► Automate data processing from administrative and valuation systems through the general ledger
► Enhance financial analytics.

The vast majority of financial institutions, however, have complex system landscapes supporting highly diverse technological and business requirements. Those companies should consider taking a phased approach (described below) in establishing the Financial Subledger and leveraging its capabilities. By taking the phased approach, business users and subject-matter experts in various areas are able to gradually adapt, learn, and experience the advantages of new technologies, specifically Financial Subledger and a complementary Business Analytics toolset.

As their manual processes are being automated and reconciliation efforts minimized, business experts will have more time to analyze and interpret financial data that drive business decisions. And once they understand the full impact of the competencies empowered by such a toolset, they can become transformation agents and ambassadors for continued modernization and digitalization.

Financial Subledger — A Phased Approach

1. Identify

Identify lines of businesses that do not yet have an automated path to the general ledger.

Establish a centralized, fully integrated Financial Subledger to automate accounting processes and minimize the number of manual journal entries required for financial close.

Identify high sustainability and key person dependency risk subledgers in the landscape.

Since supporting legacy applications is increasingly expensive and difficult, replace them with the Financial Subledger, unless there is an alternative successor for each application. Examples are replacement of a legacy COBOL-based policy accounting system with the Financial Subledger or replacement of Excel based actuarial calculations with a market-leading actuarial-modelling solution.

2. Optimize
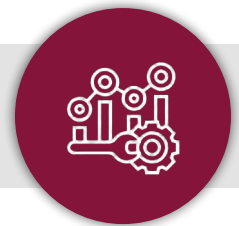
Optimize healthy subledgers in the landscape.

Understand and document the purpose and the nature of data in the existing subledgers. Try to integrate them with the central Financial Subledger to eliminate manual interventions, minimize reconciliation and aggregation needs, and streamline the path to the general ledger. For example, an investment accounting subledger would send code-block-agnostic accounting details to the Financial Subledger which would aggregate, validate, enrich those and post them to the general ledger.

3. Integrate

Establish an analytical platform with comprehensive, harmonized financial data model by leveraging the Financial Subledger infrastructure.

Define a data model that includes elements of the greatest value for analytical insights. Use it as a foundation to enable the platform to integrate all financial subledgers, enable drill-through capabilities, and connect with various reporting and analytical tools.

The Business Process Challenge
Disruptive Innovation

03 Many studies have attempted to determine the expectations of insurance company executives, their concerns, and the areas in which they perceive opportunities for growth. One conducted by PWC in 2017[7] indicates insurance CEOs feel exposed to the disruptive aspects of over-regulation, the speed of technological evolution, and the changes in customer behavior more than executives in other industries. They find it difficult to determine the ROI and to develop a roadmap for accommodating these challenges.

Most regulatory updates affecting insurance companies — IFRS 17 and 9, US-GAAP ASU 2018-12, etc. — standardize and add transparency to the common business processes that manage financial results: recognition, measurement, and disclosure of the profitability of insurance contracts and financial instruments. These standards aim to ensure the data used to produce financial statements is a relevant, comprehensive, credible, and comparable representation of insurer's business activities. But the implications of these requirements affect all levels of organizational structure.

To comply with IFRS17, for example, insurance companies will need to make changes to many operational processes[8]:

► Update calculation engines for amortizing and adjusting expected profitability of insurance contracts (the contractual service margin)
► Update methodologies for risk adjustments, discount curves, and assumption setting
► Design and build new modelling capabilities
► Update charts of accounts and account mappings to cover new disclosures
► Change the contents and structures of data from business units by assessing current data availability against new data requirements for inputs and outputs
► Enhance scrutiny of data quality, storage, and archiving processes
► Enhance data reconciliation based on new data needs
► Enhance the auditability of reported figures
► Analyze closing and reporting processes
► Engage with taxation authorities to discuss implications and transition approaches if taxable income calculations are based on current IFRS treatments.

03. The Business Process Challege

Each of these operational processes is tied to a particular business capability. If we define a business capability as an expression of what a company does or can do, we can evaluate each of them in the context of the value they generate and the impact they have on overall financial performance.

The categorization of typical business capabilities of one insurance company can result in a model similar to the one in Figure 2:

Figure 2. Insurance Business Capability Heirarchy

03. The Business Process Challege

If we look at the accounting and reporting processes that need to be evaluated for IFRS 17, we notice those belong to the capabilities deemed necessary and foundational to the organization. However, if we look further up the hierarchy, we find the functions actuaries perform to continuously manage risk, maximize profit, and support strategic planning. It is no surprise, then, that they are key users of financial data — requiring analytical insights to understand how pricing, underwriting, rating, customer experience, and financials come together.

Providing actuaries with the infrastructure and the data today would help insurance companies secure competitive advantage and leading market position in the future. The regulatory changes will affect these business capabilities only at a later stage, and some of the considerations will be in the contexts of:

► **Analyzing** current management reporting, key performance indicators, and incentive frameworks for ongoing applicability, margins, and volatility
► **Updating** volatility and asset-liability management frameworks for measurement changes for Insurance contracts and investments
► **Reviewing** investment policies and asset–liability-management strategies based on the impacts of the new measurement models for insurance contracts and financial instruments.

However, limited budgets and experts' availability continue to position business necessity and essential processes as the main catalysts for financial transformation initiatives in general. The need to restructure and streamline charts of accounts, to standardize financial reporting, and to establish one centralized measurement and valuation model for all lines of products are examples of key drivers of financial transformations. Once the minimum requirements are met, the business benefits will accrue as strategic and advantage capabilities are further developed.

Financial Subledger & Business Processes
Moving Beyond Technology

04 The effective date of IFRS17 has been deferred to January 1, 2023. ASU 2018-12 targets improvements to US GAAP will have an equally strong impact on insurance companies managing long-duration contracts. Both standards require changes to actuarial, accounting, risk-management, and disclosure processes. It is becoming apparent that to ease and accelerate the implementation of regulatory requirements while reaping their benefits, insurance companies should recognize effective adaptation means more than accurate numbers on a fancy dashboard.

Standard-specific, out-of-the-box calculation engines or home-grown applications will continue to be attractive to smaller insurers that aim to please auditors and minimize business disruption. The investment in a full Financial Subledger is higher than simply complying with regulatory requirements.

Even companies that decide to make such investments might be reluctant to expand the scope beyond what's necessary, treating a Financial Subledger primarily as an accounting rules engine with a pre-formatted set of disclosures. But its underlying data model, its controls around data quality, its governance of transformation and calculation rules, and its drill-backs to the details of financial events will be crucial to the overall success of the compliance initiative.

Large insurance companies, on the other hand, shouldn't miss an opportunity to gain valuable strategic advantage by establishing a full Financial Subledger earlier in the game. Instead of focusing solely on calculation engines and customizing them to fit the needs of every product line, those companies should revisit their product portfolios and standardize the actuarial, accounting and administrative processes surrounding them. Understanding the data lineage, governance, and transparency is key to the efficient implementation of any accounting standard change. In this context, the Financial Subledger provides a consolidated data model and a variety of integration options to streamline data flows from various sources into a centralized repository. Additionally, its underlying infrastructure is sustainable and scalable enough to support automation, simulation, and orchestration of many concurrent finance, actuarial and risk management processes.

Regardless of the size and scope of the project, the Financial Subledger vision and strategy should be defined and adopted by the stakeholders in the organization early on. Full engagement and commitment from business experts and executives can be achieved only when they embrace the art of the possible — addressing the many conflicting requirements to simultaneously ensure:

► Full compliance with the latest regulatory requirements.
► Customer satisfaction (most notably within actuarial, risk, and tax units) through enhanced reporting and analytics.
► A modern, intelligent data platform to support enterprise wide process and data integration.

msg global solutions
A Trusted Advisor

msg global solutions is recognized as a preferred SAP partner with an outstanding record of contributions to customer success. As part of the msg group founded in 1980, we have more than 40 years of experience in the financial service industry — and 20 years partnering with SAP to develop and implement software solutions. msg also is a leading provider of consulting and integration services for insurance companies across the globe. Due to our proven track record and deep understanding of industry challenges, we have provided services to some of the world's largest insurers.

In collaboration with a multi-national reinsurance company based in Zurich, SAP and msg co-developed the S/4 HANA Financial Products Subledger (SAP FPSL) specifically for multi-valuation insurance accounting requirements, including regulatory changes driven by IFRS 17. The product was launched in 2018 and has been sold to more than 30 customers globally through 2020. SAP FPSL is the backbone that helps insurance companies streamline their operations, transform their finance and accounting processes, and comply with ever-changing regulatory standards.

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SAP Pinnacle Awards 2020 Winner

SAP Pinnacle Awards 2019 Winner

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