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Optimizing treasury management in a high-inflation environment: A strategic framework for U.S. Financial Institutions

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Abstract

There has been a considerable innovative rise in the United States' financial institutions achievable through numerous implementations including treasury management optimization irrespective of the high inflation rate. Treasury management tends to be an important technique viable in managing risks in this world of increasing cyberattacks on financial institutions. To effectively counter this threat, financial institutions must implement a comprehensive risk management technique, among which is the Repo risk management technique. This article, through an extensive literature review, aims to analyze possible means of improving risk management in US financial institutions during high inflation through treasury management optimization strategies. The roles of treasury management were effectively analyzed, and the effects of high inflation in optimizing cash flows through liquidity risk management.

Keywords: Treasury management; Inflation; Liquidity risk; Cash flow optimization; Economic stability

1. Introduction

Treasury management is critical in maximizing cash flows and liquidity while reducing risks, particularly during periods of elevated inflation. However, treasury managers must handle certain unique issues related to excessive inflation so that an organization's finances are not destroyed. Over time, the responsibilities of treasury management have increased. Treasury-related activity in the 1960s consisted only of regular chores in an auxiliary role as a central cash management unit connected to administrative duties. Treasury management was still limited to obtaining funding, managing payments and collections, and maintaining bank balance positions [1]. To interact with numerous external banks and manage transactions across several locations and time zones, treasury managers in many multinational organizations presently confront enormous obstacles. Getting and monitoring timely and accurate cash flow statistics becomes more challenging the larger a company's geographic reach [2]. Treasury management's goal is to ensure that the business has enough cash on hand when money is being transferred out. Additionally, it helps to ensure that money is used as efficiently as possible and that none is held in the company for an extended period without being used [3].

An increasing body of theoretical framework explains the mechanisms via which even expected increases in inflation interfere with the financial sector's ability to allocate resources most effectively. More precisely, current theories highlight the significance of informational asymmetries in credit markets and show how rising inflation rates negatively impact credit market frictions, which hurts the financial sector's performance and, ultimately, long-term economic growth [4].

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1.1. Treasury Management

Treasury management is the process of arranging, planning, and managing the company’s cash and working capital to minimize risk and maximize returns on investment while preserving liquidity and operational and financial risk. The collecting, disbursement, concentration, investment, and finding functions of a company are all included in Treasury Management. Financial risk management could also be a part of it in larger businesses [3].

1.2. Roles of Treasury Management

Treasury management has several roles which include Cash management is one of the major role of Treasury Management. Determining the ideal cash balance is one of its primary duties to facilitate payments as needed for the smooth running of the business. It helps businesses to close any treasury gaps and continue with regular transactions that come up throughout business operations [1]. A few other goals of cash management are to: prevent losses in the days leading up to settlement, the enterprise’s bank receipts and payments, boost the effectiveness of collecting company claims without compromising customer policy and enterprise liabilities have a balanced and relaxed staggered maturity [5].

Risk management is considered as the second roles of Treasury Management. Treasury risk is the word used to describe the risk associated with how an institution organizes its holdings, which can range from money market instruments to stock trading. To minimize possible losses and increase company value, risk management is seen as a distinct managerial job [6]. Availability of capital is another role of Treasury Management. The organization’s finances must be available in sufficient quantity that is neither more nor less for the treasury management to meet the daily cash needs necessary for the business to run smoothly. Additionally, prompt funding availability streamlines business operations and gives investors’ confidence about the company’s cash flow at any moment [1].

The launch and execution of real-time access to an Integrated Financial Management Information System (IFMIS) with sufficient interfaces is provided by the treasury management system. Every day, updated government cash balances are accessible [7].

Distribution of assets is a Treasury management role that is crucial to guarantee both the government’s ability to execute payments and the lowest possible costs of such liquidity. Treasury management is commonly used to combine government money. These funds can be managed by the treasury, but in many nations, the central bank, a different asset/liability management organization, or private financial institutions handle the management [9].

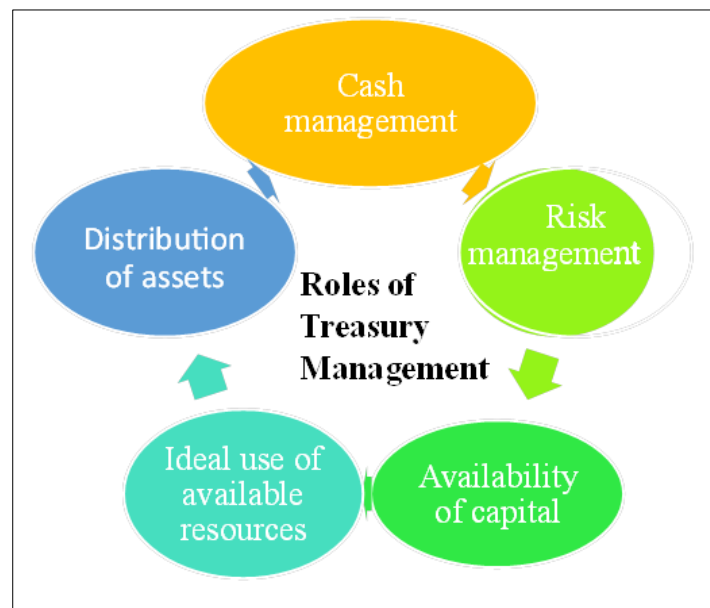


Figure 1 Roles of Treasury Management [7]



Figure 2 Chart showing Dealers' share of corporate and Treasury bonds in the U.S. [7]

1.3. High Inflation in U.S. Financial Institutions

Pandemic-driven inflation-most notably from 2019 into 2022-was caused by disruptions in global supply chains, changes in consumer behavior, and the implementation of "just-in-time inventory management" strategies. These factors combined to create inflationary stresses that were very unlike the largely stable inflationary environment of the previous twenty years. Conventional economic theories cannot explain this inflationary period because it was so influenced by extraordinary world health and economic challenges.

Inflation is a persistent increase in the overall level of prices or, conversely, a persistent decrease in the purchasing power of money are two ways to characterize inflation [11]. Although general inflation rates in many nations have exhibited rather benign behavior over the past 20 years, there is a possibility that price stability will decline due to developments that occurred after the 2008 financial crisis. On the other hand, the possibility of a deflationary period brought up by a recession is genuine, and the fear of this happening has prompted the US Federal Reserve and other central banks to employ both conventional and novel policy measures to keep deflation from spreading [13].

The US dollar gained monetary policy independence and was no longer constrained by its gold reserves with the collapse of the Bretton Woods regime. Stated differently, the United States of America started producing money at an infinite rate. The pandemic and "instant inventory management" implementation have decreased consumer demand for goods and services between 2019 and 2022. This has negatively impacted the US supply chain and caused an imbalance in the process industry [14].

Based on the initial analysis by Boyd et al. [10], inflation and the growth of the banking and equity markets are negatively correlated. It seems possible that the relationships are not linear as well. Only because both are associated with fiscal policy can there be a negative correlation between inflation and financial development.

As long as the inflation rate is high and the indexed adjustments are not continuous, the difference between anticipated and unanticipated inflation is meaningless in this economy. Real expenses may then arise. Assume, however, that everyone properly predicted the inflation and that the indexed adjustments are continuous for analytical reasons [11]. According to Emmara [12], numerous empirical studies established the relationship between inflation and Economic growth has been thoroughly examined. While most economists agree that inflation has a statistically significant negative effect on Economic growth, as demonstrated in various studies.

1.4. Consequences of Inflation

There are many different effects of inflation fluctuations. It significantly affects the domestic market as well as the worldwide economy, especially when it comes to US inflation, which serves as a global leader.

The Consumer demand may rise faster than the total available supply. Given consumers' confidence in the labor market as a result of the economic expansion, this extra demand pushes prices higher when they part with wages. Demand-pull inflation results from the increased demand for goods and services brought about by increased workers' wages [13].

Another effect of high inflation in US financial institutions extends to a high pace of money expansion which actively contributes to inflation and can be caused by the Federal Reserve's own mishandled policies or by their submission to the federal government's budgetary demands, which leads to the production of new money to cover budget shortfalls [11].

Inflation in the United States increased significantly in the first quarter of 2022. This rise outpaced the average amount reported by the Organization for Economic Co-operation and Development simultaneously, shattering all prior records. Furthermore, the inflation rate is expected to be high for a considerable amount of time [14].

Drechsler et al. [15] hypothesized that it is widely accepted that a change in the way monetary policy was implemented was the primary cause of the rise and decrease of US inflation. This perspective's central thesis is that inflation expectations depend on commitment.

2. Optimizing cash flows

Treasury managers need to make sure that inflows and outflows are synced effectively to prevent cash shortages or surplus liquidity sitting idle during high inflation when buying power declines and expenses increase.

The quantity of cash that a business entity possesses and uses to maintain its solvency, liquidity, efficiency, and reputation is known as cash flow. Ensuring financial balance guarantees that the organization has the ideal level of cash flow [16]. In addition to increasing employment and fostering healthy competition, entrepreneurship also opens up new avenues for the development and use of inventions. Any organization, regardless of size, must manage cash flows as one of its financial activity areas because the company's overall stability and solvency depend on its capacity to operate in a balanced manner [16].

Based on a proxy for financial constraints, groups of enterprises should be sorted such that the empirical sensitivity of investment to cash flows may be compared, allowing one to investigate the impact of finance frictions on corporate investment [17]. Financially constrained enterprises will demonstrate a systematic effort to preserve cash out of current period cash flows, as a result of the significance of liquidity to these firms. This line of investigation also holds important implications. The idea that businesses will put money aside now to take advantage of potential investment opportunities later on is supported by this notion [18].

Taking into account the cash flow that occurs between the only source of funding for a Supply Chain (SC), its customers, and other Supply Chain members (i.e., retailers, distributors, suppliers), a smooth cash flow within an SC allows its members to meet their operational expenses and invest excess cash for a return [19]. One way to gauge changes in the permanent component of the stock price is through cash-flow news. The stock return and cash-flow news are always equivalent if projected returns remain constant. However, expected return news may coincide with a change in the company's long-term value, which may intensify or lessen the short-term impact of cash-flow news on the stock price [20].

2.1. Managing Liquidity

All financial institutions are subject to the broader risk management framework of the financial services sector, which includes liquidity management. Increases in finance costs, interest rates, and operating expenses put pressure on cash when inflation is high. Maintaining operational continuity without overly depending on costly external borrowing is made possible by the treasury department's responsibility for controlling liquidity. The capacity of an investor to purchase or sell a valuable quantity of an item without significantly altering the price is often regarded as a sign of a liquid market [26].

Keynes contended that there is a fundamental relationship between financing constraints and liquidity management: firms' liquidity decisions would be meaningless if financial markets performed as well as we usually assume they do. Like most corporate financial decisions, the interesting part of liquidity decisions comes from the presence of friction in the financial markets [21]. Several methods, such as open market operations and direct credit extension through standing lending facilities, are used by central banks to supply liquidity. The selection of instruments during a crisis is contingent upon the particular conditions and distinct institutional elements [22].

Bloxham et al. [23] explained that financial institutions that completely insure themselves against liquidity issues brought on by market disruption and the inability to sell assets on reasonable terms are likely to incur significant social costs. While the broad design of new liquidity standards in US banks will achieve the goals intended by policymakers,

there is a possibility that they may have some unintended consequences as banks adopt the latest standards, they may alter their role as providers of credit and liquidity in ways that could have far-reaching implications for the functioning of the financial system and the real economy [24].

A tool for managing liquidity is known as Repo, which simply means a repurchase agreement. In a Repo transaction, one party sells securities (typically government bonds) to another party with an agreement to repurchase them at a later date, usually at a slightly higher price. Frepos (Floating Rate Repo) (also called "Floating Rate Repurchase Agreement") are mostly employed by institutions to manage changes in short-term liquidity rather than to support a general balance sheet. Institutions may, nevertheless, utilize the facility to finance the taking of leveraged positions in a range of assets [25]. If intermediaries and potential buyers are given balanced information about the asset's value, liquidity is likely to be improved [26].

The presence or absence of an intermediary on the trading venue has an impact on immediacy, which is another aspect of liquidity and refers to the speed at which a buyer or seller may be found [26]. Stability restoration back to the system requires, the central bank liquidity, oversight, and regulation to play crucial roles.

2.2. Mitigating Financial Risks

The capacity to efficiently manage risk is critical to maintaining the financial stability and sustainability of institutions in the ever-changing world of financial operations. Financial institutions are discovering that real-time risk monitoring technologies are essential tools for improving their risk management procedures [27]. Implementing loss reduction strategies is one technique for a company to lower the likelihood of going bankrupt. It should be able to prevent far greater losses in the future from a catastrophic occurrence by paying an upfront fee now. To put it simply, the mitigation strategies cause the Exceedance Probability (EP) curve to slope downward, reflecting the decreased likelihood of losses compared to the situation without these loss-reduction measures [28].

According to Carey, threats that pose a danger to a financial institution's goals typically span a wide spectrum, from extremely function-specific threats to broad, strategic concerns [29]. There is a chance a lone trader operating without internal controls could incur large losses. Although this risk is specific to one aspect of the bank's operations, it should not be undervalued due to its potential for broad consequences. A common risk management technique is stress testing, which assesses the possible effects of a severe occurrence on a financial company or industry.

Usually, the stress testing exercise consists of two main parts. The first phase involves using an economic model to investigate the dynamic relationships that exist between the underlying driving forces, also known as latent factors or macro-financial variables, and the asset quality. The model is fed with stress testing scenarios based on excessive movements of the driving forces to evaluate the financial sector's resilience [30].

Advanced risk management solutions are utilized by financial institutions and businesses to reduce financial risk. These solutions successfully assess, manage, and mitigate credit risk by utilizing advanced analytics, models, and technology [31]. Firms now have more tools at their disposal to take on and manage risks because of developments in the capital markets, particularly the expansion of the derivative markets. These changes also significantly reduced the relevance of traditional accounting data, which executives and regulators used to evaluate financial organizations and estimate exposure to different risks [32].

Analysis also showed that, in 2016, the financial industry was the target of the most coordinated attacks and multi-channel threats. The largest new threat to financial institutions is the rise in both attacks, which grew by ten times in the final three months of 2015 compared to the same period in 2014. In the worst-case situation, a big bank or other financial organization would be rendered incapacitated for days, potentially losing billions of dollars in revenue [33].

Since the financial sector's introduction of innovation is indicative of its current evolution, using it carries certain inherent dangers. As the economy grows more and more digitalized, innovation risk management becomes increasingly important. More advanced risk management solutions are especially required for new digital businesses [34].

To date, research has examined the significance of operational risk in financial markets and found that exposure is high. Corporate-level risk has historically been distributed top-down inside financial institutions. After correcting for scale considerations, a survey conducted by the Basel Committee on Banking Supervision (BCBS) revealed that, on average, banks had set aside about 15% of their capital on operational risk [35].

The macroeconomic data from the System of National Accounts (SNA) during the years preceding the US financial crisis revealed significant increases in household-sector leverage caused by sharp rises in mortgage debt and financing that were primarily financed with money from outside the US [36].

Barua & Barua [37] revealed that there was a customer satisfaction increase in the integration of data analytics and information systems by 15% in Bank of America.

The financial services industry has experienced a revolutionary influence due to the integration of data analytics and information systems, as demonstrated by the conclusions from the case studies of JPMorgan Chase, Allstate Insurance, BlackRock, and Bank of America.

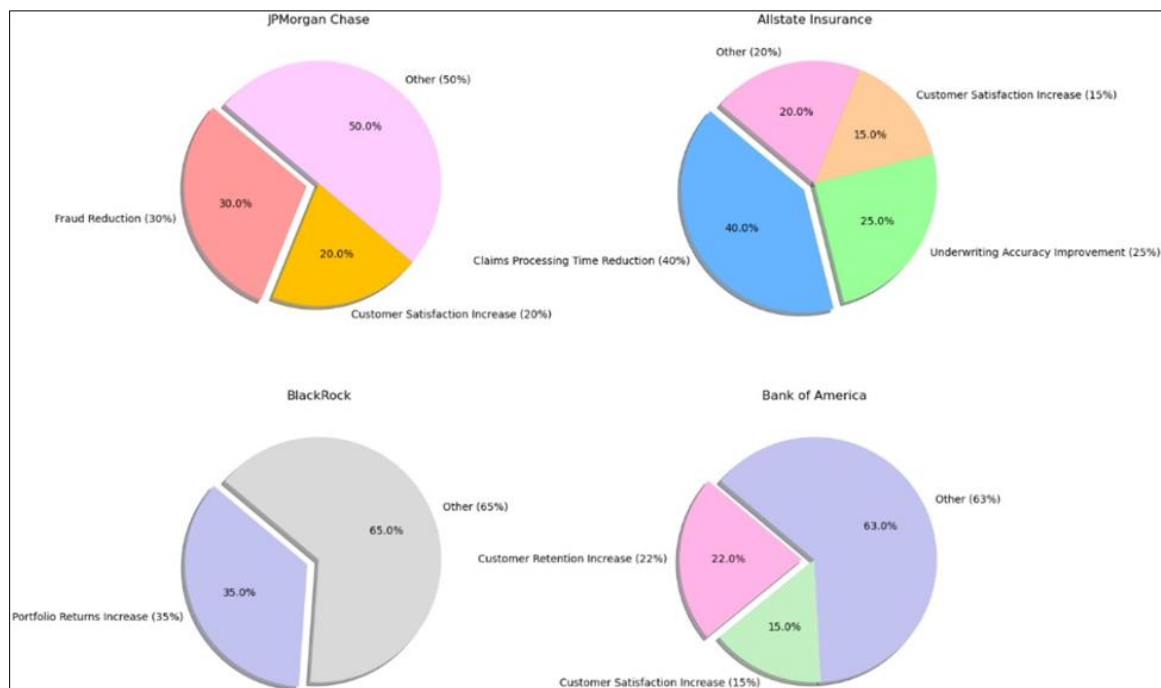


Figure 3 Conclusions drawn from the case studies of Bank of America, JPMorgan Chase, All state Insurance, and BlackRock [37]

3. Strategic Planning and Policy Adjustments

Strategic planning techniques including financial analysis and implementation management were linked to more funding, according to research on religious organizations in a state in the American Southwest, but stakeholder analysis lowers external income. Fundamentally, strategic planning is a methodical approach to making decisions [38]. If strategic planning took better advantage of the numerous insights into the real processes of the urbanization process and the positions held by the various financial institutions in the United States and considered what role they could play in this process, it would undoubtedly gain more depth and refinement. Planners must still steer the urbanization process, but they also need to be more aware of their role and respond more to what has already happened or what is likely to happen in the future rather than acting as a declaration of the will of the people [39].

In addition to forecasting future events, competitive strategic planning also influences them and redoubles efforts to allocate resources. An organization's future orientation and place in the market are not determined by the demands of the present, but rather by decisions and actions that are integrated into a vision of the organization's desired future state through the evolutionary process [40]. Organizations can be more proactive in influencing the future through strategic planning (SP) as opposed to implementing proactive measures. It uses more methodical, logical and rational techniques to identify strategic options, which aids organizations in developing more effective plans [41].

In practice, strategic planning encompasses concepts, actions, and group dynamics that are influenced by institutional and structural factors as well as the free will of the individual. People and groups that are a part of social structures that are shaped and reproduced by the actions of both individuals and groups make strategic decisions [42]. Thus, the British

government developed its policy response by leveraging the US experience. The impact of US policy is a reflection of the country's long history of community investment as well as the way US-influenced concepts are promoted by the "quick policy" transfer of "off the shelf" solutions founded on US knowledge [43].

The US economy experienced a dramatic shift with considerably more turbulence after two postwar decades of comparatively constant economic development, low rates of inflation, low interest rates, set foreign exchange rates, an environment of mild volatility, and seemingly minimal risks. Interest rates increased and were more erratic in the late 1960s and the first fifteen years of the next decade. Since 1971, foreign exchange rates have largely varied and were not fixed [44].

4. Conclusion

The process of risk management in financial institutions is outlined to provide appropriate operational stability and continuous execution of vital operations. The problem of solving liquidity in US financial institutions comes into place and it is proposed that there should be a close relationship between the Bank of America and the Central Bank. Various instruments have been proposed to solve this discrepancy. Repo strategy has been proposed, a technique utilized by Central Banks for monetary policy and as a source of data regarding market expectations since they are fully collateralized transactions that central banks utilize to manage liquidity, they entail low credit risk. It is another useful tool that central banks employ to convey their stance on monetary policy.

In conclusion, adopting risk management techniques is essential in the optimization of treasury management in a high-inflation environment. Financial organizations can enhance their capacity to recognize, evaluate, and effectively manage liquidity risk by implementing sophisticated risk management techniques.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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