

Assessing the Impact of Preventive Measures and Regulatory Guidelines on Investment Banking Operations

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Abstract: This paper assesses the impact of preventive measures and regulatory guidelines on investment banking operations by examining how enforcement actions, compliance burdens, and governance expectations influence the financial and strategic performance of major investment banks. The study focuses on five leading institutions Morgan Stanley, Goldman Sachs, JPMorgan Chase, Bank of America, and Citigroup and analyses regulatory outcomes through fines, net income, net loss, legal costs and contingencies, and OFAC enforcement actions and civil settlements. Using a quantitative, descriptive, comparative, and longitudinal methodology based on secondary documentary data, the study covers the period 2020–2024, with OFAC analysis extended to 2026. The findings show that regulatory impacts are highly event-driven rather than evenly distributed over time. Fines and sanctions-related settlements exert direct pressure on profitability, increase legal and remediation costs, weaken investor confidence, and intensify supervisory scrutiny. At the same time, these measures serve a corrective function by compelling investment banks to strengthen compliance systems, improve governance, adopt tighter monitoring controls, and reinforce risk-management frameworks. The study further finds that the burden of enforcement is uneven across institutions, with some banks facing significantly higher financial and compliance exposure than others. Net income trends reveal notable differences in profitability strength and resilience, while legal costs and OFAC settlements highlight the long-term operational consequences of weak preventive controls. Overall, the paper concludes that preventive measures and regulatory guidelines influence investment banking operations in both restrictive and constructive ways: they increase costs and compliance pressure, but they also promote accountability, operational discipline, institutional resilience, and long-term stability across the investment banking sector.

Keywords: Investment Banking, Preventive Measures, Regulatory Guidelines, Compliance Risk, OFAC Enforcement, Financial Performance.

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I. Introduction

Objectives

- To Study the Impact of Anti-Money Laundering (AML) standards on Morgan Stanley.
- To Study the Impact of Countering Financing of Terrorism (CFT) measures on Morgan Stanley.

- To Study the Impact of Know Your Customer (KYC) norms on Morgan Stanley.
- To study the Impact of Economic and Trade sanctions on Morgan Stanley.
- To Study the Impact of these regulations on Other investment banks.

Organization

This research paper is organized into seven sections:

- Section I, Introduction – presents the background of preventive measures and regulatory guidelines in investment banking and explains the need for assessing their operational impact.
- Section II, Related Work – reviews existing studies on compliance, AML, KYC, sanctions, governance, and regulatory enforcement in banking.
- Section III, Methodology – explains the research design, data sources, and analytical approach used to examine fines, earnings, legal costs, and enforcement actions.
- Section IV, Data Analysis and Interpretation – provides a detailed analysis of the collected data and interprets the operational, financial, and compliance-related effects on investment banks.
- Section V, Findings and Discussion – summarizes the major results and discusses their implications for profitability, governance, risk management, and compliance culture.
- Section VI, Conclusions – presents the final conclusions of the study.
- Section VII, Future Scope – suggests directions for further research, including broader datasets, comparative studies, and deeper evaluation of regulatory effectiveness.

II. Related Work

Research on the impact of preventive measures and regulatory guidelines on investment banking operations has expanded to include AML/KYC controls, sanctions compliance, broker-dealer market conduct controls, and operational resilience (Obeng et al., 2024). A common finding in this literature is that regulation no longer affects only legal departments or compliance teams; it increasingly shapes banks' operating models by influencing capital allocation, client onboarding, surveillance, governance, data systems, and business continuity.

Another important area in the literature is anti-money laundering and counterterrorist financing compliance. The FATF's recommendations and guidance for the banking sector place a risk-based approach at the centre of effective AML/CFT implementation. Banks are therefore expected to identify, assess, and understand the money-laundering and terrorist-financing risks they face, and then apply controls proportionate to those risks (Hoffman et al., 2024). This framework explains why investment banks must conduct customer due diligence, beneficial-ownership verification, ongoing monitoring, and recordkeeping even when their clients are sophisticated corporate or institutional entities. AML/CFT obligations are operationally significant because they affect client acceptance, documentation standards, monitoring intensity, escalation practices, and internal accountability structures (De Koker, 2006).

A closely related stream of work examines KYC and customer due diligence as preventive measures. Although KYC is often discussed in broad banking terms, the literature increasingly recognizes its importance for investment banking and securities operations, where corporate structures, cross-border counterparties, private funds, intermediate vehicles, and complex beneficial-ownership arrangements are common (Dempere et al., 2024). Studies and official guidance emphasize that customer identification and beneficial-ownership

transparency are not merely formalities; they are core preventive tools that affect onboarding speed, legal review, transaction approval, and the ability of institutions to detect unusual or inconsistent activities. This body of work supports the idea that KYC requirements increase operational friction in the short term but strengthen institutional transparency and reduce future exposure to enforcement and reputational harm (Liang, 2024).

Another strong body of related work comes from the securities and broker-dealer regulatory space, which is especially relevant for investment banking operations. The SEC's AML source tool for broker-dealers compiles the laws, rules, orders, and guidance applicable to broker-dealer AML programs, clarifying that securities firms are subject to multiple AML obligations. FINRA's AML materials similarly emphasize AML systems, reporting expectations, and training requirements for broker-dealers (Balani, 2019). This literature is important because investment banking operations are often embedded in or closely connected to securities-firm functions such as underwriting, securities distribution, advisory services, and trading. Consequently, preventive compliance in investment banking must be understood not only through banking regulation but also through securities-market regulation and self-regulatory expectations (Obeng et al., 2024).

Another major area of related work concerns market integrity, conduct risk, and the misuse of information controls. Although this literature is often treated separately from AML, it fits within the larger framework of preventive regulation because it is designed to prevent misconduct before it harms markets or investors. Research and enforcement-oriented writing in this area examine surveillance systems, information barriers, employee trading controls, restricted lists, wall-crossing procedures, and conflict management (Sushka & Saunders, 1995). These controls are operationally important for investment banks because they shape how advisory teams, traders, compliance personnel, and research staff interact. The literature generally argues that these preventive frameworks increase administrative burden and may slow internal communication. However, they also protect market integrity and reduce enforcement exposure related to insider trading or the misuse of confidential information (Kacperczyk & Pagnotta, 2023).

Another important point in related work is the shift from viewing regulation as an external pressure to understanding it as an operational design force. FATF risk-based frameworks, SEC broker-dealer AML obligations, and resilience principles imply that institutions must embed preventive controls into daily workflows rather than treat them as separate back-office checks (Al-Tawil, 2022). This perspective is particularly important for investment banking, where business relies on speed, complex judgment, confidential information, and cross-functional coordination. The literature increasingly suggests that the most effective institutions are not those that minimize compliance involvement, but those that integrate compliance, risk, technology, and front-office activity into a coordinated operating model (Sekhar Oleti, 2024).

Overall, the literature shows a clear shift in thinking. Earlier approaches often framed regulation as a constraint on profitability and market activity. Recent work and official frameworks recognize that preventive measures and regulatory guidelines affect investment banking operations more deeply: they influence who can be onboarded, how transactions are monitored, how information is shared, how systems are built, and how banks prepare for disruptions. This study builds on this literature by combining these areas and assessing their combined effect on investment banking operations through the lenses of compliance burden, governance, profitability, risk control, and institutional discipline (Ajayi et al., 2024).

III. Methodology

The methodology of this study provides a systematic, objective, and evidence-based assessment of the impact of preventive measures and regulatory guidelines on investment banking operations. It follows a quantitative, descriptive, comparative, and longitudinal approach based entirely on secondary documentary data. This design is appropriate because the research focuses on measurable institutional outcomes such as fines, settlements, legal expenses, contingencies, and profitability indicators rather than personal opinions or experimental results.

Quantitative Orientation The study adopts a quantitative orientation, which is suitable because it deals with numerical and comparable indicators drawn from official disclosures and regulatory records. Instead of relying on interviews or survey responses, the study uses measurable outcomes such as annual fines, legal costs, OFAC enforcement totals, net income, and settlement amounts. This makes the analysis more objective, allows clear comparison across institutions and years, and helps identify the scale of regulatory impact, the timing of major enforcement events, and the institutions most affected.

Descriptive Design The research employs a descriptive design. The purpose of descriptive research is not to manipulate variables experimentally but to document, organize, and interpret real-world patterns. In this study, the descriptive approach explains how regulatory costs and compliance-related events appear across selected investment banks. It captures annual and cumulative values of key indicators and transforms raw financial and enforcement data into meaningful findings. For example, the methodology identifies spike-year behaviour, concentration of enforcement costs, and periods of profitability decline or recovery. In this way, the descriptive framework builds a structured narrative linking regulatory pressures to institutional performance.

Comparative Design The study applies a comparative design because the impact of preventive measures and regulatory guidelines is not uniform across banks. By examining multiple institutions side by side using the same variables and time frame, the methodology highlights differences in regulatory burden, profitability resilience, legal exposure, and compliance effectiveness. The comparative method makes it possible to determine which banks faced the highest enforcement costs, which institutions maintained more stable profitability, and whether certain banks showed signs of remediation after regulatory spikes. This strengthens the research by showing that compliance risk is unevenly distributed across the investment banking sector.

Longitudinal Structure The methodology incorporates a longitudinal or time-based structure, tracking key indicators over multiple years, mainly from 2020 to 2024 and beyond where relevant. This multi-year perspective is important because regulatory enforcement does not occur evenly every year. Instead, it often appears in delayed, episodic, and event-driven patterns, especially when investigations are concluded or settlements are reached. A longitudinal view captures enforcement peaks, low-activity periods, and post-spike recovery. It also allows observation of whether institutions become more resilient after major enforcement costs or whether vulnerabilities persist over time.

Data Sources The study relies entirely on secondary data sources, including official banking websites, annual reports, regulatory disclosures, and published enforcement records. Secondary data is appropriate because it is reliable, audited, standardized, and publicly relevant. It avoids the difficulty of accessing confidential internal banking data while still providing credible evidence for academic analysis. The main institutions covered include Morgan Stanley, Goldman Sachs, JPMorgan Chase, Bank of America, and Citigroup.

Analytical Techniques Finally, the methodology uses descriptive statistical analysis and visual representation. Key techniques include year-by-year comparison, cumulative summaries, ranking, concentration analysis, and trend detection. These are supported by tables and bar charts to make the results clear and interpretable. Overall, the methodology provides a transparent and structured framework for understanding how preventive measures and regulatory guidelines affect the financial and operational performance of major investment banks.

IV. Data Analysis and their Interpretation

A Fines

Fines imposed by regulators and exchanges serve as key enforcement tools, signaling compliance failures and underscoring regulatory priorities. They serve multiple functions: government fines uphold laws and protect national interests; financial regulators emphasize market integrity and consumer protection; and exchanges promote fair trading practices. Understanding these fines requires familiarity with the issuing authority, the

regulatory objectives behind them, and their implications for risk management and governance across jurisdictions.

Table 1: Fines Imposed by the USA Regulator/Authority: (USD in Millions)

SN	Financial Institutions	2020	2021	2022	2023	2024	Total
01	Morgan Stanley and Subsidiaries	USD 634.56	Nil	USD 236.51	USD 12.82	USD 350.83	USD 1234.72
02	The Goldman Sachs Group, Inc. and Subsidiaries	USD 550	USD 1.3	USD 83.16	USD 57.08	USD 46.057	USD 737.64
03	JPMorgan Chase & Co. and Subsidiaries	USD 686.43	USD 200	USD 0.85	USD 15.65	USD 811.17	USD 1714.1
04	Bank of America Corporation and Subsidiaries	Nil	Nil	USD 353.88	USD 246.4	USD 10.19	USD 610.47
05	Citigroup Inc. and Subsidiaries	USD 405.87	USD 1.5	USD 200.1	USD 42.51	USD 137.26	USD 787.24
Total Fines Imposed by U.S. Regulators/Authorities on All Five Financial Institutions (2020–2024)							5,082.17

Table 1 presents year-wise monetary amounts (USD) for five major financial institutions from 2020 to 2024, where “Nil” indicates no fines or penalties in a given year. The “Total” column aggregates the annual figures for each institution. These amounts represent regulatory exposure, including fines, penalties, settlements, and enforcement-related payouts, and they highlight both the financial consequences of compliance failures and the effectiveness or shortcomings of preventive controls.

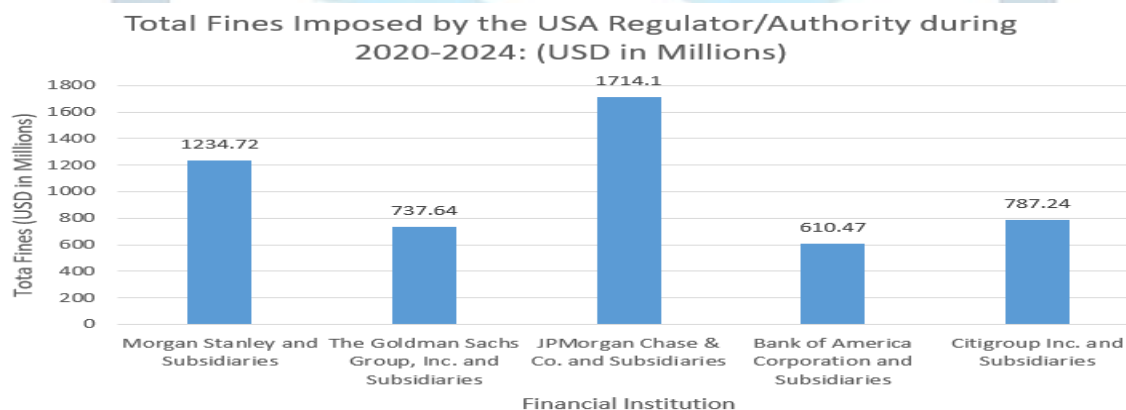


Figure 1: Bar chart distribution for total fines imposed by the USA Regulator/Authority during 2020-2024: (USD in Millions)

Figure 1 shows U.S. regulatory fines (in millions of USD) imposed on five major banks from 2020 to 2024. JPMorgan Chase recorded the highest total at 1,714.10, followed by Morgan Stanley at 1,234.72. Citigroup came next with 787.24, while Goldman Sachs reported 737.64. Bank of America had the lowest fines at 610.47. Overall, the chart illustrates that JPMorgan and Morgan Stanley faced the largest penalties, indicating greater regulatory exposure during this period.

Table 2: Fines Imposed by the International Regulator/Authority: (USD in Millions)

SN	Financial Institutions	2020	2021	2022	2023	2024	Total
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01	Morgan Stanley and Subsidiaries	Nil	Nil	Nil	USD 7.37	USD 0.328	USD 7.698
02	The Goldman Sachs Group, Inc. and Subsidiaries	USD 478.58	Nil	Nil	USD 7.23	Nil	USD 485.80
03	JPMorgan Chase & Co. and Subsidiaries	Nil	USD 2.17	Nil	Nil	USD 1.76	USD 3.93
04	Bank of America Corporation and Subsidiaries	Nil	USD 15	Nil	Nil	Nil	USD 15
05	Citigroup Inc. and Subsidiaries	Nil	Nil	USD 61.72	Nil	USD 153.93	USD 215.65
Total Fines Imposed by the International Regulator/Authority on All Five Financial Institutions (2020–2024)							728.078

Table 2 reports fines imposed by international regulators and authorities (USD in millions) on five major financial institutions from 2020 to 2024. “Nil” indicates that no fine was recorded for a bank in a given year, and the “Total” column sums the fines across the five years for each institution.

Total Fines Imposed by International Regulator/Authority during 2020-2024: (USD in Millions)

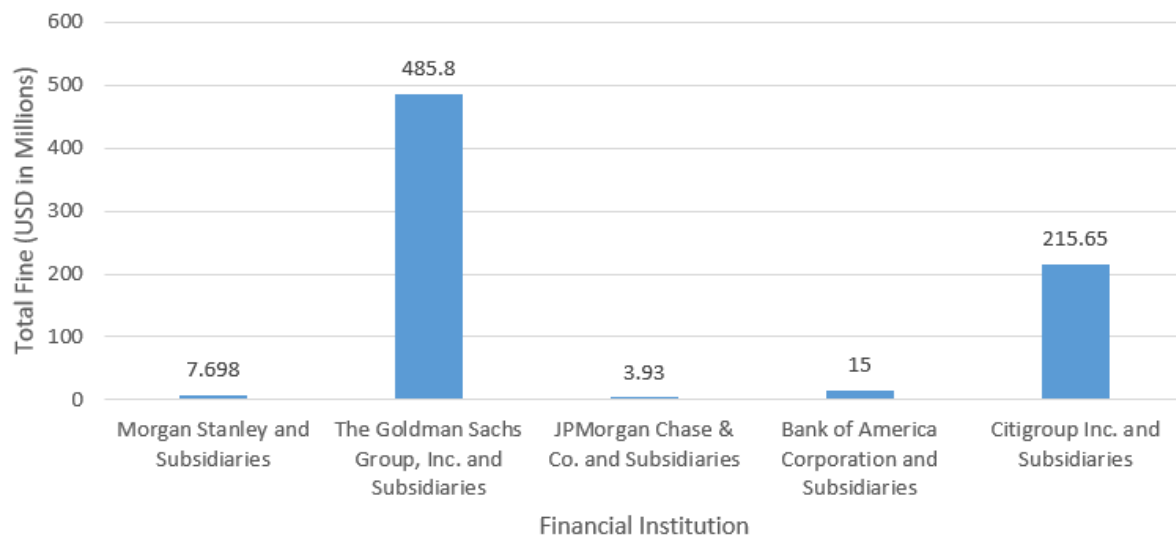


Figure 2: Bar chart distribution for total fines imposed by International Regulator/Authority during 2020-2024: (USD in Millions)

Figure 2 shows international fines (USD millions) imposed on five major banks between 2020 and 2024. The fines are unevenly distributed. Goldman Sachs incurred the largest total at USD 485.8 million, primarily due to a substantial fine in 2020. Citigroup ranked second with USD 215.65 million, driven by penalties in 2022 and a sharp increase in 2024. Bank of America recorded USD 15 million (all in 2021), Morgan Stanley USD 7.7 million (mostly in 2023), and JPMorgan Chase the lowest at USD 3.93 million. Overall fines across all banks totaled USD 728.08 million. The chart illustrates that enforcement was concentrated in a few banks and specific years particularly Goldman Sachs in 2020 and Citigroup in 2024 rather than being evenly distributed over time.

Table 3: Fines Imposed by the USA and International Regulator/Authority (USD in Millions)

SN	Financial Institutions	Period	Fines Imposed by the USA Regulator/Authority	Fines Imposed by the International Regulator/Authority	Total
01	Morgan Stanley and Subsidiaries	2020 – 2024	USD 1234.72	USD 7.698	USD 1242.41
02	The Goldman Sachs Group, Inc. and Subsidiaries	2020 – 2024	USD 737.64	USD 485.80	USD 1223.44
03	JPMorgan Chase & Co. and Subsidiaries	2020 – 2024	USD 1714.1	USD 3.93	USD 1718.03
04	Bank of America Corporation and Subsidiaries	2020 – 2024	USD 610.47	USD 15	USD 625.47
05	Citigroup Inc. and Subsidiaries	2020 – 2024	USD 787.24	USD 215.65	USD 1002.89
Total Fines Imposed by the USA and International Regulator/Authority on All Five Financial Institutions (2020–2024)					5,812.24

Table 3 summarizes the total fines (USD millions) imposed on five major investment banks by U.S. regulators and authorities as well as international regulators and authorities over the period 2020–2024, and then combines both to show the overall fine burden for each institution. In other words, it provides a side-by-side comparison of domestic (U.S.) versus international enforcement costs and indicates how much each bank paid in total across the five-year period.

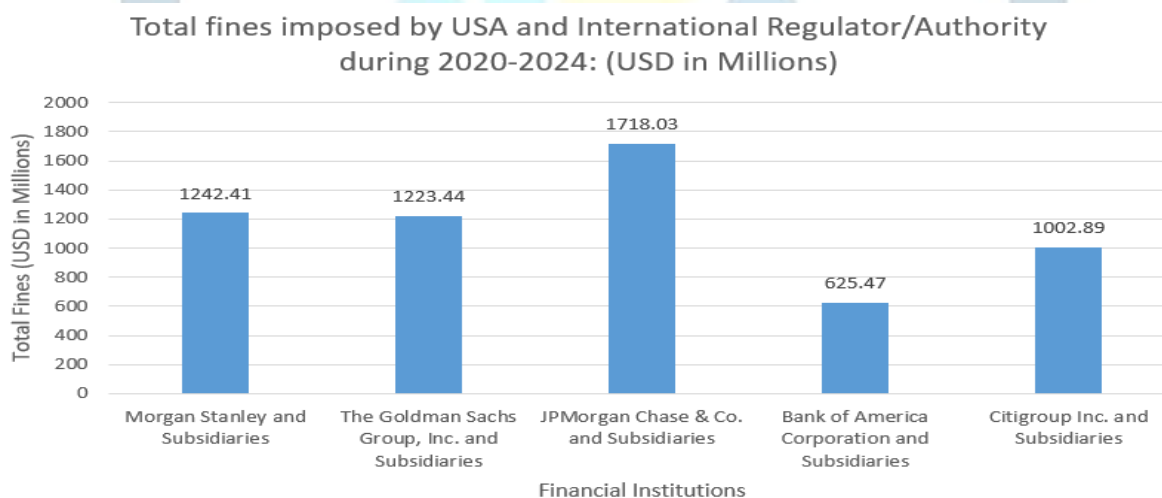


Figure 3: Bar chart distribution for total fines imposed by USA and International Regulator/Authority during 2020-2024: (USD in Millions)

Figure 3 shows the total fines (in millions of USD) imposed by U.S. and international regulators on five major investment banks between 2020 and 2024. JPMorgan Chase incurred the highest fines at 1,718.03 million, making it the most penalized bank. Morgan Stanley followed with 1,242.41 million, closely trailed by Goldman Sachs at 1,223.44 million. Citigroup faced 1,002.89 million in fines, while Bank of America recorded the lowest at 625.47 million. Overall, the chart highlights significant differences among banks, with JPMorgan carrying the heaviest burden and Morgan Stanley and Goldman Sachs also facing substantial penalties. These disparities suggest that compliance practices, risk levels, and enforcement actions strongly influence how much banks pay in fines over time.

Table 4: Impact of Fines

Impact Area	Explanation
Deterrence of misconduct	Fines are imposed to discourage misconduct and force investment banks to improve their practices.
Reduction in profitability	Fines create direct cash outflows and reduce net income in the reporting period, especially in high-fine years.
Earnings volatility	Fines are often concentrated in “spike years” rather than spread evenly, causing unstable financial performance.
Higher legal costs	Regulatory actions usually lead to investigation expenses, legal representation, settlement costs, and contingency provisions.
Increased compliance costs	After fines, banks spend more on compliance departments, audits, staff training, monitoring systems, and governance reforms.
Remediation spending	Banks often need to strengthen internal controls, improve reporting systems, and upgrade transaction monitoring after enforcement actions.
Reputational damage	Repeated fines weaken the public image of a bank and may make customers, investors, and the market see it as unreliable or poorly managed.
Loss of customer confidence	Frequent penalties can make customers doubt the fairness, safety, and transparency of banking services.
Decline in investor confidence	Investors may interpret repeated fines as a sign of weak governance, high risk, and poor compliance culture, affecting market perception.
Increased regulatory scrutiny	Banks with repeated fines are more likely to face stricter supervision, frequent inspections, and tighter reporting requirements.
Weak governance signal	Repeated penalties often indicate poor corporate governance, weak internal controls, and ineffective risk management.
Operational disruption	Corrective action after fines may require restructuring, policy changes, system upgrades, and management attention, affecting efficiency.
Strategic burden on specific banks	The file shows that the burden of fines is uneven, with some banks carrying a much larger share of total penalties than others.
Cross-border compliance pressure	International fines show that multinational investment banks face complex regulatory exposure across multiple jurisdictions.
Constraint on business growth	Repeated fines can reduce management focus on innovation and expansion because attention shifts toward regulatory problem-solving.
Need for stronger risk culture	The repeated pattern of fines highlights the need for better compliance culture, employee accountability, and stronger risk management systems.
Competitive disadvantage	Institutions with frequent fines may lose business opportunities as customers and investors prefer banks with cleaner regulatory records.
Long-term sustainability concerns	If fines continue over time, they may threaten long-term stability by creating recurring financial, operational, legal, and reputational pressure.

Fines affect investment banks financially, legally, operationally, and reputationally. They reduce profits, increase compliance and legal costs, erode trust, and compel stronger governance and risk-management systems.

B. Net Income (Earnings)

Net income represents the bottom-line measure of profitability after accounting for operating costs, taxes, and extraordinary items. This study examines net income trends for Morgan Stanley, Goldman Sachs, JPMorgan Chase, Bank of America, and Citigroup from 2020 to 2024, highlighting the impact of regulatory costs on earnings. The five-year horizon captures both volatility and normalization, providing a clear view of comparative earnings strength across leading investment banks.

Table 5: Net Income/earnings (USD in Millions)

SN	Financial Institution	2020	2021	2022	2023	2024	Total
01	Morgan Stanley and Subsidiaries	11,179	15,120	11,179	9,230	13,529	60,237
02	The Goldman Sachs Group, Inc. and Subsidiaries	9,459	21,635	11,261	8,516	14,276	65,147
03	JPMorgan Chase & Co. and Subsidiaries	29,131	48,334	37,676	49,552	58,471	223,168
04	Bank of America Corporation and Subsidiaries	17,894	31,978	27,528	26,515	27,132	131,047
05	Citigroup Inc. and Subsidiaries	11,047	21,952	14,845	9,228	12,682	69,754

Table 5 presents a comparative overview of net income/earnings (USD in millions) for five major financial institutions Morgan Stanley, Goldman Sachs, JPMorgan Chase, Bank of America, and Citigroup across the five-year period from 2020 to 2024, along with the cumulative total for each bank. The table enables observation not only of which banks generate the highest overall earnings, but also of how stable or volatile their profitability is from year to year.

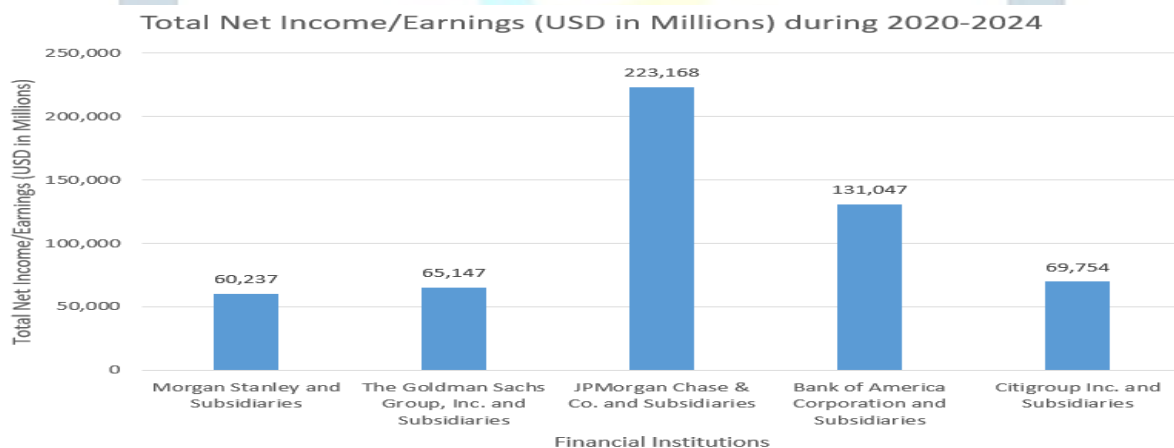


Figure 4: Bar chart distribution for total Net Income/Earnings (USD in Millions) during 2020-2024.

In Figure 4, the chart summarizes total net income/earnings (USD in millions) for five major financial institutions over the period 2020–2024. JPMorgan Chase & Co. leads with the highest cumulative earnings of USD 223,168 million, reflecting the strongest profitability across the five-year span. Bank of America ranks second with USD 131,047 million, demonstrating solid and relatively consistent performance. The remaining institutions report notably lower totals: Citigroup at USD 69,754 million, Goldman Sachs at USD 65,147 million, and Morgan Stanley at the lowest with USD 60,237 million. Overall, the chart underscores a clear profitability gap between JPMorgan and its peers during 2020–2024.

Table 6: Impact of Net Income (Earnings)

Impact Area	Explanation
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Financial stability and resilience	Higher net income strengthens the ability of financial institutions to absorb shocks such as market downturns, credit losses, and unexpected regulatory expenses. Strong and consistent earnings improve overall resilience.
Capital strength	Net income adds to retained earnings, which helps increase capital buffers and strengthens the financial base of banks.
Regulatory ratios	Higher earnings support compliance with capital adequacy and other regulatory requirements, reducing the need to raise external capital.
Dividend capacity	Institutions with strong net income can distribute more dividends to shareholders, improving investor satisfaction.
Share buybacks	Higher profits also support share repurchase programs, which can enhance shareholder value and confidence.
Business growth	Strong earnings provide funds for expansion into new markets, business lines, and strategic opportunities.
Technology investment	Higher net income allows banks to invest in digital banking, automation, cybersecurity, and other technological improvements.
Product innovation	Profitable banks have greater ability to develop new products and services to remain competitive.
Acquisitions and expansion	Stable earnings give institutions more flexibility to pursue mergers, acquisitions, and market expansion strategies.
Compliance and risk management	Strong earnings provide resources for upgrading compliance systems, strengthening internal controls, and improving risk management frameworks.
Risk-taking capacity	Financial institutions with higher earnings can take calculated risks more confidently, including expanding lending, underwriting, or investment activity.
Credit support	When earnings are strong, banks are better able to support lending and maintain exposure to clients and markets.
Conservative strategy during weak earnings	When net income declines, banks often reduce risk-taking, tighten credit standards, and become more cautious in operations.
Reputation and market image	Consistent profitability enhances the reputation of a bank and signals financial soundness to the market.
Investor confidence	Strong and stable earnings improve investor confidence, while sharp declines may raise concerns about future performance.
Credit ratings and funding costs	Better earnings can strengthen credit ratings and reduce funding costs, while volatile earnings may have the opposite effect.
Earnings volatility	Fluctuations in net income create uncertainty and put pressure on management to improve efficiency and diversify revenue sources.
Strategic pressure	Years of weaker earnings force management to rethink operational strategy, cost control, governance, and long-term planning.
Long-term sustainability	Sustained high earnings support long-term business stability, whereas declining or volatile earnings may weaken future growth prospects.
Overall institutional strength	Net income is a key indicator of a bank's profitability, growth capacity, shareholder returns, regulatory stability, and ability to handle compliance or enforcement costs.

Net income directly influences a financial institution's resilience, capital strength, shareholder returns, growth opportunities, compliance capacity, market confidence, and long-term stability. Consequently, earnings trends serve as a key indicator of both operational and financial health.

C. Net Income (Loss)

If a company spends more than it earns after covering taxes, fees, interest, and depreciation, it incurs a net loss. This outcome can arise for many reasons: sales may decline, competitors might capture market share, marketing efforts could fall short, or the cost of goods may increase.

Table 7: Net Income (Loss) (USD in Millions) during 2020-2024

SN	Financial Institution	2020	2021	2022	2023	2024	Total
01	Morgan Stanley and Subsidiaries	NR*	NR	NR	NR	NR	Nil
02	The Goldman Sachs Group, Inc. and Subsidiaries	NR	NR	NR	NR	NR	Nil
03	JPMorgan Chase & Co. and Subsidiaries	NR	NR	NR	NR	NR	Nil
04	Bank of America Corporation and Subsidiaries	NR	NR	NR	NR	NR	Nil
05	Citigroup Inc. and Subsidiaries	NR	NR	NR	1800**	NR	1800

*NR = Not Reported, ** Fourth Quarter as per company website page

Table 7 provides a year-by-year summary (2020–2024) for five financial institutions. Instead of showing numeric values for most entries, it uses “NR” (and one “NR**”) to indicate that the value was Not Reported, Not Recorded, or Not Available for that year in the dataset. The *Total* column displays the cumulative amount across the five years.

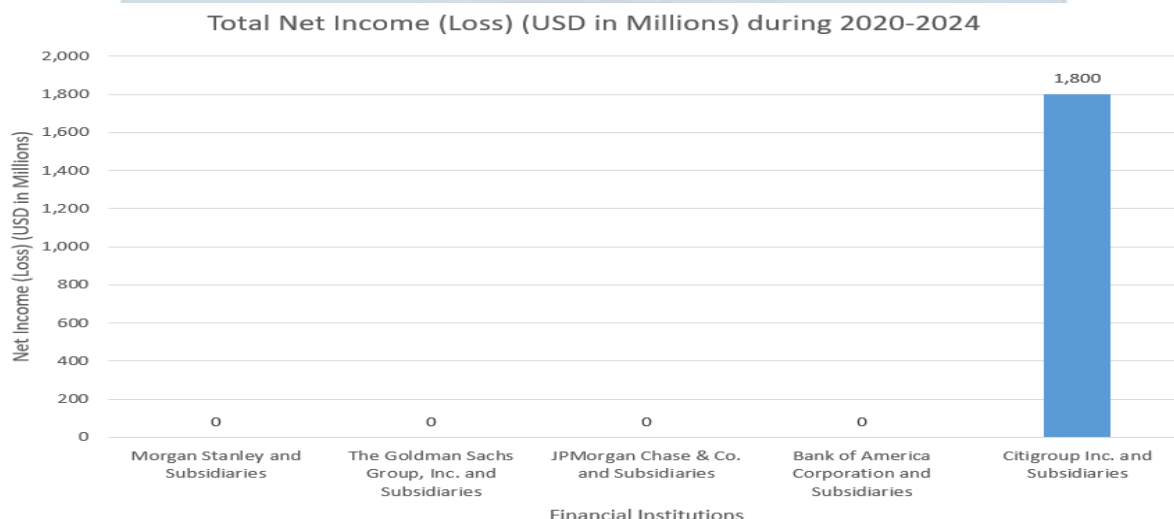


Figure 5: Bar chart distribution for total Net Income (Loss) (USD in Millions) during 2020-2024.

In Figure 5, the chart titled “*Total Net Income (Loss) (USD in Millions) during 2020–2024*” compares the cumulative net income (loss) for five financial institutions over the five-year period. It shows that Citigroup Inc. and Subsidiaries is the only bank with a recorded total loss, amounting to USD 1,800 million. In contrast, Morgan Stanley, Goldman Sachs, JPMorgan Chase, and Bank of America each display a total value of 0, indicating that no net loss was reported for these institutions in the dataset during 2020–2024.

Table 8: Impact of Net Income (Loss)

Impact Area	Explanation
Direct reduction in profitability	A net income loss directly reduces the profitability of a financial institution for that year and may lead to negative bottom-line performance.
Earnings shock	A recorded loss indicates a significant one-year earnings shock, showing that the institution faced serious financial pressure during that period.
Pressure on retained earnings	Losses reduce retained earnings, which weakens the internal financial base of the institution.

Capital buffer weakness	Since retained earnings support capital strength, a net loss can reduce capital buffers and weaken the institution’s resilience.
Effect on regulatory capital ratios	Large losses may negatively affect capital adequacy and other regulatory ratios, creating pressure on financial institutions to protect compliance levels.
Need for capital planning	A loss event may force the institution to strengthen capital planning to maintain financial stability and regulatory compliance.
Investor confidence risk	Reported losses often reduce investor confidence because they raise concerns about profitability, stability, and management effectiveness.
Negative market perception	A one-year loss can increase market concerns regarding the institution’s business model, operational performance, and risk exposure.
Higher earnings volatility	A loss is a sign of earnings volatility, which can make the financial institution appear less stable and more vulnerable to shocks.
Closer scrutiny of management	Losses often lead to stronger scrutiny of management decisions, strategic planning, and the effectiveness of internal controls.
Operational adjustment	Financial institutions may respond to losses by reducing expenses, reviewing operations, and improving efficiency.
Strategic restructuring	Losses may push institutions toward restructuring, reorganization, or a shift in business strategy.
Reduced risk-taking	When losses occur, banks may become more cautious by lowering exposure to risky activities and tightening business decisions.
Governance strengthening	Losses often highlight the need for stronger governance, better supervision, and improved decision-making systems.
Constraint on future investment	Institutions experiencing losses may reduce spending on expansion, innovation, or long-term strategic projects.
Limited cross-bank comparability	When most institutions report “NR” or no available loss values, comparison across banks becomes difficult and the analysis depends on a small number of recorded cases.
Concentrated impact	If only one or very few banks report losses, the observed effect is concentrated rather than spread across the entire sector.
Signal of financial vulnerability	A reported net loss acts as a warning sign of vulnerability and may indicate deeper operational, strategic, or market-related weaknesses.
Need for cost control	Loss periods usually force management to adopt tighter cost control and efficiency measures.
Long-term strategic importance	Even if losses are limited to a single year, they can influence long-term planning, risk management, and financial decision-making.

Net income losses have a significant impact on profitability, retained earnings, capital strength, investor confidence, and strategic decision-making. Even a single recorded loss can carry serious consequences for financial stability and management policy.

D. Legal Costs & Contingencies

This section reviews the legal expenses and contingency provisions reported by Morgan Stanley, Goldman Sachs, JPMorgan Chase, Bank of America, and Citigroup from 2020 to 2024. Legal costs include litigation, regulatory investigations, and settlements, while contingencies reflect potential future liabilities. Evaluating these disclosures over time offers insight into the evolving legal environment and its implications for financial stability and risk oversight.

Table 9: Legal Costs & Contingencies (USD in Millions)

SN	Financial Institution	2020	2021	2022	2023	2024	Total
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01	Morgan Stanley and Subsidiaries	336	157	443	488	106	1530
02	The Goldman Sachs Group, Inc. and Subsidiaries	900	2000	2300	2100	1700	9000
03	JPMorgan Chase & Co. and Subsidiaries	1500	1500	1200	1300	1300	6800
04	Bank of America Corporation and Subsidiaries	823	164	1200	519	266	2972
05	Citigroup Inc. and Subsidiaries	1400	1500	1200	1300	1300	6,700

Table 9 presents the legal costs and contingencies (USD in millions) for five major financial institutions Morgan Stanley, Goldman Sachs, JPMorgan Chase, Bank of America, and Citigroup for each year from 2020 to 2024, along with a five-year total. These figures represent amounts spent or provisioned for litigation, regulatory investigations, settlements, and potential legal exposures, illustrating how legal and compliance risks translate into measurable financial costs.

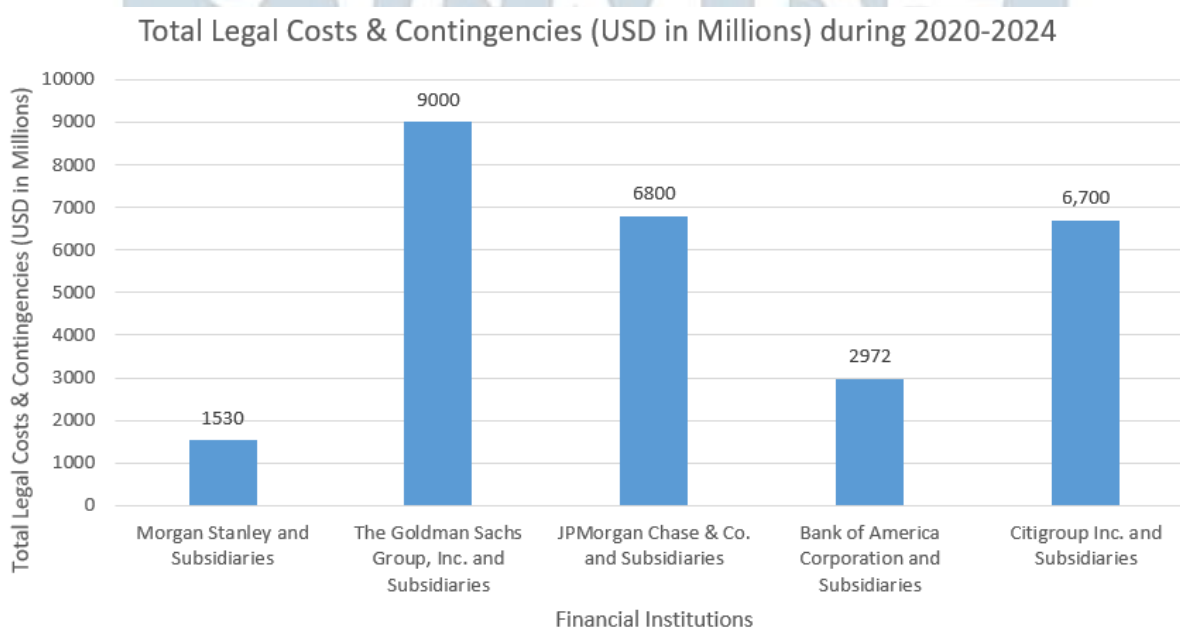


Figure 6: Bar chart distribution for total Legal Costs & Contingencies (USD in Millions) during 2020-2024.

Figure 6 illustrates the uneven distribution of legal costs among five major financial institutions from 2020 to 2024. Goldman Sachs leads with USD 9,000 million, far outpacing its peers. JPMorgan Chase (USD 6,800 million) and Citigroup (USD 6,700 million) also face substantial burdens, while Bank of America (USD 2,972 million) and Morgan Stanley (USD 1,530 million) remain comparatively insulated. The chart underscores concentrated regulatory pressures on the top three banks.

Table 10: Impact of Legal Costs & Contingencies

Impact Area	Explanation
Direct reduction in net income	Legal costs such as litigation fees, investigations, and settlements are recognized as expenses, which directly reduce annual net income and profitability.
Profitability pressure	Higher legal and contingency totals place a cumulative burden on earnings over multiple years, weakening overall financial performance.
Earnings volatility	Legal expenses often rise sharply in particular years when major cases progress or settlements occur, creating sudden fluctuations in earnings rather than steady annual costs.

Spike-year shock	Years with unusually high legal expenses produce one-time earnings pressure, which can disturb profitability trends and create financial instability in the short term.
Higher provisions	When banks increase legal provisions, it means they expect possible future losses, which affects reported earnings and financial planning.
Balance-sheet risk signaling	Large contingency amounts act as signals of higher legal and regulatory exposure, making the institution appear riskier to investors and analysts.
Pressure on retained earnings	Since legal costs reduce profits, they may also limit retained earnings and weaken the institution's internal financial strength.
Investor confidence impact	Persistent legal expenses and contingencies may reduce investor confidence because they suggest weak controls, ongoing disputes, or unresolved compliance problems.
Credit rating concerns	Higher legal-risk exposure can influence credit ratings and increase market concerns about financial stability and future obligations.
Increase in compliance spending	High legal and contingency costs often force banks to spend more on preventive compliance systems, governance structures, and internal control improvements.
Remediation costs	Beyond reported legal expenses, institutions often incur indirect costs such as system upgrades, policy changes, internal audits, and corrective action programs.
Internal control strengthening	Legal-risk events usually encourage financial institutions to improve monitoring, reporting, and internal control systems to avoid repeat failures.
Governance upgrades	High legal costs often result in stronger governance measures, including stricter oversight, revised policies, and enhanced accountability.
Training and awareness costs	Banks may invest more in staff training and compliance education after legal problems, increasing the broader operational cost burden.
Strategic resource constraint	Persistent legal costs can divert resources away from growth, expansion, innovation, and shareholder returns.
Reduced investment flexibility	Institutions facing high legal expenses may have less freedom to invest in new products, technology, acquisitions, or market expansion.
Competitive disadvantage	Banks with consistently high legal and contingency costs may be at a disadvantage compared to peers with lower legal-risk burdens.
Operational uncertainty	Contingencies create uncertainty because they represent possible future losses, making planning and forecasting more difficult.
Need for preventive systems	Higher legal burdens highlight the need for stronger preventive compliance, monitoring, and risk-management systems.
Overall institutional risk	Legal costs and contingencies indicate that legal and regulatory exposure is a major operational and financial risk factor for large financial institutions.

Legal costs and contingencies reduce profits, increase earnings volatility, weaken investor confidence, and create pressure for stronger compliance, governance, and internal control systems. Elevated levels also constrain strategic growth and heighten uncertainty about future losses.

E. OFAC Enforcement Actions and Civil Settlements

Between 2020 and 2026, OFAC pursued enforcement actions against major U.S. banks Morgan Stanley, Goldman Sachs, JPMorgan Chase, Bank of America, and Citigroup for lapses in sanctions compliance. These cases highlight the financial and reputational costs of weak screening, monitoring, and internal controls. Civil settlements underscore regulators' expectations: robust compliance programs, timely escalation, and effective remediation. Tracking these actions reveals patterns in sanctions-risk exposure and signals how governance reforms can mitigate future penalties.

Table 11: OFAC Enforcement Actions and Civil Settlements (2020–2026) (USD in Millions)

Enforcement and Civil Penalties (Year)	Total Penalties and Settlements
----------------------------------------	---------------------------------

2020	23,565,657
2021	20,896,739.22
2022	20,896,739.22
2023	42,664,006.65
2024	1,541,380,594.08
2025	265,746,819
2026	5,497,000 (Total As on 25/02/2026)
Total Seven years Penalties and Settlements	1,92,06,47,555.17 (USD 1.92 billion)

Table 11 summarizes the year-by-year total value of OFAC enforcement actions and civil settlements for the period 2020 to 2026. For each year, it reports the aggregate penalties and settlement amounts (i.e., the combined value of OFAC-related enforcement outcomes recorded in that year) and concludes with a seven-year cumulative total.

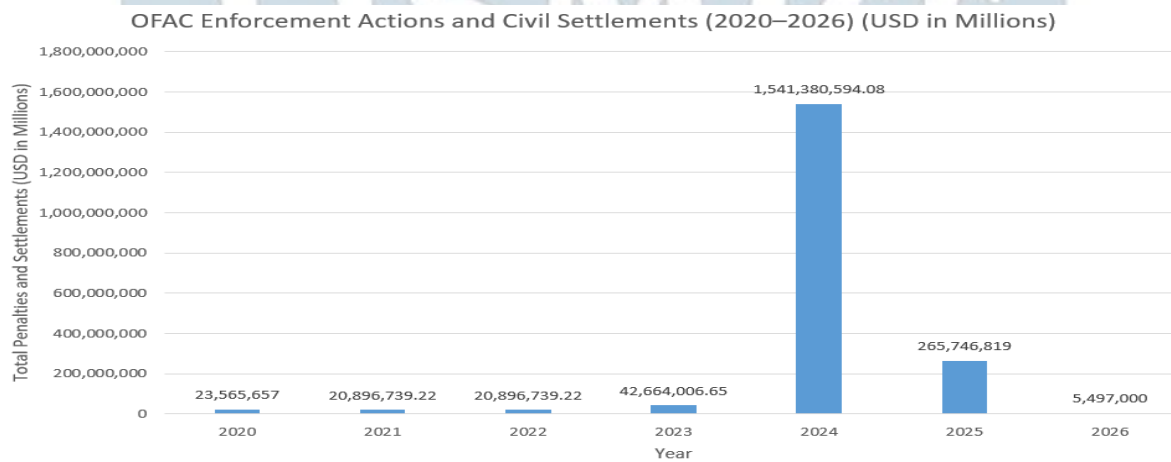


Figure 7 presents the bar chart distribution of total penalties and settlements (USD in millions) in OFAC enforcement actions and civil settlements from 2020 to 2026. From 2020 to 2022, OFAC penalties remained modest at roughly USD 20–24 million annually. Enforcement impact rose in 2023 to USD 42.66 million, followed by an extraordinary spike in 2024 to USD 1.541 billion, which dwarfs all other years. The subsequent decline to USD 265.75 million in 2025 and a partial-year figure of USD 5.497 million in 2026 underscores the event-driven nature of sanctions costs: most years remain manageable, but occasional large-scale actions reshape the risk landscape.

Table 12: Impact of OFAC Enforcement Actions and Civil Settlements

Impact Area	Explanation
Direct profitability impact	OFAC penalties and civil settlements create immediate cash outflows, directly reducing annual profitability and net income.
Net income compression	Large settlement years can significantly compress earnings, weaken return on equity, and reduce overall financial performance indicators.
One-year earnings shock	Event-driven enforcement years, especially very high-penalty years, can produce major one-time earnings shocks.
Distortion of annual results	Even if penalties are non-recurring, their large size can distort yearly financial results and make performance comparisons difficult.
Earnings volatility	OFAC-related costs are highly uneven across years, creating sharp fluctuations in reported profits instead of stable annual expense patterns.
Forecasting uncertainty	Because sanctions-enforcement costs are episodic and unpredictable, they make budgeting, financial planning, and earnings forecasting more difficult.

Need for larger buffers	Banks may need stronger capital and earnings buffers to manage the possibility of future high-impact enforcement years.
Spillover into legal costs	OFAC actions usually involve more than the penalty amount itself, including legal fees, investigations, forensic reviews, and settlement negotiation expenses.
Higher contingencies and provisions	When losses become probable, banks may create contingency provisions before final settlement, which reduces profitability even before the case is resolved.
Understatement of true cost	The reported penalty amount often understates the total economic burden because indirect investigation and remediation costs are additional.
Mandatory remediation costs	Large OFAC settlements typically require institutions to upgrade sanctions screening, transaction monitoring, and compliance systems, increasing long-term operating costs.
Compliance technology investment	Enforcement actions often force banks to spend more on compliance software, monitoring tools, reporting systems, and data controls.
Staffing and training burden	Institutions may need to hire more compliance staff, improve governance structures, and conduct extensive employee training after enforcement actions.
Stronger governance requirements	OFAC settlements often push institutions toward tighter governance, stronger oversight, and more formal escalation and reporting procedures.
Reputational damage	Sanctions violations can harm the public image of a bank and weaken trust among regulators, clients, investors, and correspondent institutions.
Increased supervisory scrutiny	After major OFAC actions, financial institutions may face stricter examinations, more frequent reviews, and higher compliance expectations from regulators.
Cross-border business impact	Since OFAC is linked to sanctions and international transactions, enforcement actions can directly affect the way banks manage cross-border operations.
Strategic adjustment in risk appetite	Banks may reduce exposure to high-risk countries, clients, sectors, or payment routes after major sanctions penalties.
Constraint on operational flexibility	Stronger sanctions controls and supervisory expectations can slow international transactions, raise compliance friction, and reduce business flexibility.
Long-term strategic significance	OFAC enforcement shows that sanctions compliance failures can move quickly from manageable costs to major disruptive events, making preventive sanctions control essential for long-term institutional stability.

OFAC enforcement actions and civil settlements can significantly reduce profits, increase earnings volatility, raise legal and remediation costs, damage reputation, heighten regulatory scrutiny, and alter cross-border strategy. Their impact underscores the critical importance of strong sanctions compliance and governance systems.

V. Finding and Discussion

The findings highlight that preventive measures and regulatory frameworks significantly influence investment banks' financial performance. Insufficient controls often result in spike-year penalties, elevated legal contingencies, and pressure on net income. Conversely, effective compliance and remediation strategies help mitigate future costs. Enforcement actions remain concentrated and event-driven, reinforcing the need for strong preventive systems.

Fines

Fines demonstrate the direct financial impact of weak preventive controls and regulatory breaches in investment banks. The findings indicate that penalty exposure is highly event-driven, characterized by spike-year behavior rather than smooth annual trends. U.S. regulators account for the largest share of fines, while international penalties are concentrated mainly in a few banks. The results also reveal uneven exposure across institutions, with some banks facing much higher compliance-risk costs than others. Repeated penalties highlight governance weaknesses, whereas post-remediation declines suggest that stronger compliance systems can reduce future enforcement costs.

Net Income (Earnings)

Net income findings show that profitability strength varies clearly across the selected banks. JPMorgan Chase emerges as the strongest and most consistent earnings leader, while Bank of America demonstrates relatively stable profit performance. The year 2021 stands out as a peak earnings period for several institutions, whereas 2023 reflects broad earnings decline for Morgan Stanley, Goldman Sachs, and Citigroup, followed by recovery in 2024. The findings also reveal that Morgan Stanley and Goldman Sachs exhibit comparatively higher earnings volatility, suggesting greater sensitivity to market cycles and investment banking conditions.

Net Income (Loss)

The main finding from net income (loss) is that the dataset is dominated by data unavailability, with NR values reported for most banks and years. Only one actual loss event is recorded Citigroup's loss in 2023. This means the loss impact in the dataset is fully concentrated in a single institution and year, while no meaningful cross-bank trend can be established for the others. As a result, this section serves more as an indicator of data gaps and limited loss exposure than as a broad comparative performance table.

Legal Costs & Contingencies (Major Finding)

Legal costs and contingencies represent a major recurring burden for large financial institutions, though the distribution is uneven. Goldman Sachs carries the highest cumulative legal-cost exposure, while JPMorgan and Citigroup exhibit stable recurring patterns, suggesting ongoing legal and regulatory matters. Bank of America shows a spike-year pattern, indicating event-driven legal expenses, whereas Morgan Stanley records the lowest overall exposure and a notable decline by 2024. Across the sample, 2022 stands out as a high-cost year, demonstrating that legal-risk pressure can intensify sector-wide during certain periods.

OFAC Enforcement Actions and Civil Settlements

OFAC enforcement findings show that sanctions-related costs are strongly event-driven and can shift suddenly from modest levels to major financial shocks. The year 2024 dominates the dataset, contributing the vast majority of total penalties and settlements, creating a strong concentration-of-impact effect. Although costs decline after 2024, they remain above earlier years, indicating continued sanctions-related compliance pressure. The 2026 amount reflects only partial-year data and cannot be treated as a full trend indicator. Overall, the findings underscore that OFAC compliance is a high-impact regulatory risk requiring strong preventive sanctions controls, governance, monitoring, and remediation systems.

The results also show that fines, earnings changes, losses, legal costs, and OFAC settlements have a major impact on investment banks. These effects are often event-driven, uneven across institutions, and closely linked to the strength or weakness of preventive controls, compliance systems, and governance frameworks.

VI. Conclusions

AML standards significantly affected Morgan Stanley from 2020 to 2024 by increasing regulatory scrutiny, exposing the bank to repeated fines, and pressuring it to strengthen compliance, governance, and risk controls. While penalties raised costs and reduced profitability, AML requirements also acted as corrective mechanisms, improving accountability, surveillance, and long-term operational discipline.

OFAC enforcement actions and civil settlements significantly affect financial institutions by reducing profitability, increasing earnings volatility, raising legal and remediation costs, damaging reputation, and intensifying regulatory scrutiny. They also influence cross-border strategy, risk appetite, and compliance investment, making strong sanctions controls essential for long-term stability and regulatory accountability.

KYC norms substantially impacted Morgan Stanley during 2020 to 2024 by increasing regulatory scrutiny, compliance obligations, and governance pressure. Repeated fines signalled weaknesses in customer due diligence and monitoring, raising financial and reputational risks. At the same time, KYC requirements drove corrective improvements in technology, training, controls, and operational discipline.

Economic and trade sanctions significantly affected Morgan Stanley by increasing regulatory scrutiny, compliance costs, and enforcement risk during 2020 to 2024. They required stricter screening, monitoring, governance, and staff training. While sanctions raised financial, legal, and reputational pressures, they also pushed the bank to strengthen controls, compliance culture, and strategic discipline.

These regulations also significantly affected Citigroup, JPMorgan Chase, Goldman Sachs, and Bank of America by increasing fines, legal exposure, and compliance pressure during 2020 to 2024. While they imposed financial and operational burdens, they also encouraged stronger governance, tighter controls, improved risk management, and a more disciplined compliance culture across the investment banking sector.

VII. Future Scope

Future recommendations for investment banks should prioritize strengthening preventive measures to reduce regulatory losses and stabilize profitability. Banks should invest in advanced compliance technology, including real-time transaction monitoring, AI-driven sanctions and AML screening, and automated recordkeeping controls to minimize operational errors. Governance must be reinforced through clear accountability, independent compliance testing, and board-level oversight of regulatory risk.

Regular scenario-based stress tests should be conducted for enforcement shocks, linking potential fines, legal contingencies, and remediation costs to capital planning. Institutions should also enhance employee training with role-specific modules and continuous certification, ensuring frontline teams understand evolving regulatory expectations.

Cross-border operations require harmonized global compliance standards, with centralized reporting and consistent escalation protocols to manage multi-jurisdictional risk. Finally, banks should adopt proactive engagement with regulators, including transparent remediation roadmaps and timely self-disclosure when issues arise, as this can reduce penalty severity and demonstrate a strong compliance culture.

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