

Review

Money Laundering and Anti-Money-Laundering Governance in the United States and European Union: A Comparative Integrative Review

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Abstract

Money laundering remains a persistent challenge to financial integrity and effective economic and institutional governance, while its concealed nature and heterogeneous measurement methods limit precise estimates of its scale. This study examines money laundering and anti-money-laundering (AML) governance through a structured integrative review and comparative policy analysis of the United States and the European Union. The review synthesizes peer-reviewed research, legal and regulatory materials, official statistics, institutional assessments, enforcement evidence, and selected specialist evidence, prioritizing official and peer-reviewed sources for quantitative and institutional claims. The comparison distinguishes formal regulatory development from operational effectiveness and applies six common analytical dimensions: supervision and regulatory implementation, financial-intelligence capacity and use, investigation and enforcement, confiscation and asset recovery, beneficial-ownership transparency, and domestic and cross-border institutional coordination. The findings show substantial overlap in the principal laundering vulnerabilities affecting both systems, including financial intermediation, beneficial-ownership opacity, trade-based money laundering, real estate, professional facilitation, and virtual assets. The principal comparative difference lies in governance architecture: the United States operates through a predominantly federal AML system, whereas the European Union combines supranational rules and institutions with national supervisory, financial-intelligence, law-enforcement, and judicial authorities, creating an additional multi-level coordination challenge. Available indicators do not support a simple quantitative ranking of the two systems because reporting, enforcement, and asset-recovery measures differ in definition, institutional meaning, and comparability. Instead, the evidence identifies a recurrent divergence between the extensive development of formal AML frameworks and the more uneven evidence available concerning operational outcomes. The study concludes that AML effectiveness should be assessed through the capacity to translate regulation, ownership information, and financial intelligence into coordinated supervision, investigation, enforcement, and asset-recovery outcomes. Priority areas are beneficial-ownership transparency and information quality, the intelligence-to-enforcement and asset-recovery chain, and cross-border and cross-sector institutional coordination.



Academic Editor: Thanasis Stengos

Received: 20 August 2026

Revised: 17 September 2026

Accepted: 25 September 2026

Published: 28 September 2026

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Keywords: money laundering; anti-money-laundering (AML) governance; beneficial ownership; trade-based money laundering; asset recovery; AML enforcement; United States; European Union

1. Introduction

Money laundering (ML) constitutes a persistent threat to the integrity of financial systems and to effective economic and institutional governance. By enabling proceeds derived from criminal activity to be concealed, transferred, transformed, and ultimately used within the legitimate economy, money laundering supports the continuation of predicate criminal activity and can facilitate corruption, organized crime, fraud, and other profit-generating offences. Its implications therefore extend beyond criminal justice and financial-sector compliance to market integrity, fiscal capacity, capital allocation, institutional credibility, and public confidence in financial and economic systems.

The global scale of money laundering remains inherently difficult to quantify because the underlying activity is deliberately concealed and because available estimates rely on heterogeneous definitions, assumptions, data sources, and estimation methods. The frequently cited estimate that money laundering represents approximately 2–5% of global GDP originated as a broad international benchmark in the late 1990s (Camdessus, 1998) and should not be interpreted as a current or directly observed measure of global laundering activity. Subsequent research has demonstrated substantial uncertainty in estimating both criminal proceeds and the proportion of such proceeds that is ultimately laundered (Unger et al., 2006; Levi et al., 2018; Ferwerda et al., 2020). Accordingly, the present study treats aggregate estimates of money laundering as indicative measures of potential scale rather than as precise or directly comparable observations. The same caution applies to estimates of confiscated or recovered criminal assets, since differences in definitions and denominators limit direct comparisons between estimated illicit proceeds and observed enforcement outcomes.

The persistence of money laundering despite several decades of expanding anti-money-laundering (AML) regulation raises a more specific analytical question concerning the relationship between regulatory development and operational effectiveness. Existing scholarship has generated substantial knowledge across economics, law, criminology, financial regulation, and governance. Economic and empirical research has examined the scale and consequences of illicit financial activity; legal scholarship has addressed predicate offences, regulatory obligations, and enforcement; criminological research has examined laundering techniques, facilitators, and criminal networks; and institutional studies have focused on financial intelligence, supervision, enforcement, and international cooperation. Recent review studies have also contributed to the consolidation of this literature. Ab Majid et al. (2024), for example, review the development and major themes of money-laundering research and identify directions for future scholarship, while Khelil et al. (2024) synthesize empirical evidence concerning the economic consequences of money laundering at the country, firm, and banking levels.

The research gap addressed in this study is therefore not an absence of integrative or review-based research on money laundering. Rather, it concerns the more specific need to connect laundering vulnerabilities, institutional architecture, and observable dimensions of AML implementation and enforcement within a common cross-jurisdictional comparative framework. Existing reviews provide general overviews of the development, themes, and economic effects of money-laundering research. In contrast, other studies highlight specific laundering techniques, regulatory standards, or enforcement challenges. Nonetheless, a gap remains in comprehensive cross-jurisdictional analysis that examines how common laundering vulnerabilities align with different AML governance structures and practical measures of operational success. The present study addresses this gap through a structured comparison of the United States and the European Union, focusing on the relationship between exposure to major laundering channels, the institutional arrangements designed

to address those risks, and the operational outcomes through which AML effectiveness can be assessed.

The scope of the study is deliberately bounded. It does not seek to provide an exhaustive treatment of the economic, legal, criminological, technological, and international dimensions of money laundering. Instead, evidence from these literatures is incorporated selectively where it informs the central comparative problem of how major laundering vulnerabilities interact with AML governance and enforcement arrangements in the United States and the European Union. The substantive comparison concentrates on financial intermediation, beneficial-ownership opacity, trade-based money laundering, real estate, professional facilitation, and virtual assets. These channels are examined in relation to supervision and regulatory implementation, financial intelligence, investigation and enforcement, confiscation and asset recovery, transparency of beneficial ownership, and domestic and cross-border institutional coordination. Broader economic and criminological consequences are considered where necessary to contextualize these dimensions rather than as independent objects of comprehensive analysis.

The United States and the European Union provide a particularly useful comparison because they combine substantial economic and financial importance with extensive AML frameworks while differing significantly in institutional organization. The comparison, however, is explicitly institutional rather than a direct state-to-state comparison. The United States is a federal state in which important AML regulatory, financial-intelligence, investigative, and enforcement responsibilities operate at the federal level alongside state-level competencies. The European Union, by contrast, constitutes a multi-level governance system in which EU legislation and institutions interact with national competent authorities, financial intelligence units, law-enforcement bodies, supervisors, and judicial systems across Member States. The unit of comparison in this study is therefore the AML governance system operating within each jurisdictional framework rather than the sovereign state as such. EU-level evidence is used where harmonized or aggregate information is available, while Member-State-specific evidence is identified as such and used where necessary to characterize differences in implementation and enforcement. This institutional asymmetry is not treated merely as a methodological limitation; differences in centralization, supervisory organization, implementation, and cross-border coordination constitute substantive dimensions of the comparison itself.

Within this comparative framework, AML effectiveness is distinguished from the formal existence or breadth of AML legislation. Regulatory development and technical compliance establish the legal and institutional architecture of an AML system, but they do not by themselves demonstrate that the system produces effective operational outcomes. Consistent with this distinction, the present study defines operational AML effectiveness as the extent to which the institutional framework produces observable outcomes in six interrelated dimensions: (1) supervision and regulatory implementation; (2) financial-intelligence capacity and use; (3) money-laundering investigation and enforcement; (4) confiscation and asset recovery; (5) beneficial-ownership transparency; and (6) domestic and cross-border institutional coordination. These dimensions provide the common analytical criteria for the U.S.–EU comparison. Where directly comparable quantitative indicators are unavailable, institutional assessments and documented enforcement evidence are used, with explicit attention to differences in definitions, reporting systems, and data availability. Reporting volumes, such as suspicious activity reports or registered cases, are therefore treated as indicators of institutional activity rather than direct measures of the prevalence of money laundering or of AML effectiveness.

Accordingly, the study addresses two research questions:

RQ1: How do the United States and the European Union differ in their institutional architecture and operational responses to common money-laundering vulnerabilities?

RQ2: What do observable differences in supervision, financial intelligence, enforcement, asset recovery, beneficial-ownership transparency, and cross-border coordination indicate about the operational effectiveness of the two AML governance systems?

By addressing these questions, the paper moves beyond a descriptive comparison of AML rules and laundering techniques toward a structured assessment of how regulatory and institutional arrangements interact with operational outcomes. The analytical premise is not that continued money laundering necessarily demonstrates regulatory failure, nor that the expansion of AML legislation automatically produces greater effectiveness. Rather, regulatory development and operational effectiveness are treated as analytically distinct. This makes it possible to examine whether differences in institutional coordination, implementation capacity, financial-intelligence use, enforcement, transparency, and cross-border cooperation help explain variation in the capacity of AML systems to identify, disrupt, and recover illicit assets. The comparative findings subsequently provide the evidentiary basis for identifying policy priorities, rather than treating policy recommendations as a separate or predetermined research question.

The remainder of the paper is structured as follows. Section 2 reviews the conceptual and empirical literature relevant to the comparative analysis, clarifies the boundaries of money laundering in relation to related concepts, and examines the principal laundering mechanisms and vulnerabilities considered in the study. Section 3 presents the review methodology, source-selection procedures, operational definitions, and comparative analytical framework. Section 4 presents the comparative evidence for the United States and the European Union across the predefined dimensions of laundering exposure, institutional architecture, and operational effectiveness. Section 5 discusses the findings in relation to the research questions and existing literature and develops prioritized policy implications. Section 6 concludes by summarizing the answers to the research questions, specifying the study's contribution, and identifying the principal implications for AML governance and enforcement.

2. Literature Review and Conceptual Background

2.1. Conceptualising and Defining Money Laundering

Money laundering is generally understood as the handling of proceeds derived from criminal activity in ways intended to conceal or disguise their illicit origin, ownership, movement, or destination and to facilitate their retention, transfer, or use. It is therefore analytically connected to, but distinct from, the predicate offences that generate criminal proceeds. Drug trafficking, corruption, fraud, cybercrime, human trafficking, and tax-related offences may generate proceeds that subsequently become the object of laundering activity; they do not, by themselves, constitute money laundering (FATF, 2012; Gerbrands et al., 2022). As Levi and Soudijn (2020, p. 3) emphasize, laundering should be understood in relation to the crimes generating the underlying proceeds, particularly where the volume or form of criminal profits makes their direct possession or use difficult or exposes offenders to detection.

This distinction is important because money laundering overlaps conceptually with, but should not be treated as synonymous with, illicit financial flows (IFFs), tax evasion, or the broader concealment of criminal proceeds. In this study, money laundering refers specifically to processes involving criminally derived property and actions intended to conceal, disguise, transfer, convert, retain, or facilitate the use of that property. Illicit financial flows are treated as a broader analytical category referring to cross-border financial movements associated with illicit origin, transfer, or use and may therefore encompass

activities that are not analytically identical to money laundering. Tax evasion, similarly, may constitute or generate an underlying illicit activity, but it is not automatically treated as money laundering unless the relevant proceeds are subsequently subject to conduct falling within the laundering process. Finally, concealment of criminal proceeds is an important component of money laundering but does not exhaust the concept, which may also involve conversion, transfer, possession, use, or other forms of dealing with criminally derived property. Maintaining these distinctions is particularly important when interpreting empirical estimates, enforcement statistics, and asset-recovery data, since measures referring to IFFs or predicate offences cannot automatically be treated as measures of money laundering.

Institutional, legal, and academic approaches nevertheless share a core concern with the relationship between criminally derived property and conduct that obscures, transforms, transfers, or facilitates its subsequent use. The FATF framework emphasizes the laundering of proceeds generated by criminal activity and the legal and institutional measures required to prevent, detect, investigate, and sanction such conduct (FATF, 2012). Academic approaches similarly emphasize the separation of criminal proceeds from their underlying source and the processes through which such assets can subsequently be retained, circulated, transferred, or invested (Lippert & Walker, 1997; Unger et al., 2006; Levi & Soudijn, 2020). This common conceptual core should not, however, be interpreted as evidence that institutional and national legal definitions are identical. Legal definitions vary according to jurisdiction, predicate-offence regimes, required mental elements, and the range of conduct criminalized. The present study therefore relies on this common functional core for comparative purposes without assuming complete legal convergence between the United States, the European Union, or other institutional frameworks.

For the purposes of the present study, money laundering is consequently defined as the handling of criminally derived assets through concealment, disguise, transfer, conversion, retention, or use in ways that reduce the traceability of those assets to their predicate offences or facilitate their movement or utilization within financial, commercial, or other legitimate economic structures. This functional definition provides a common conceptual basis for the comparative analysis while preserving the distinction between money laundering, the predicate offences that generate criminal proceeds, and broader categories such as illicit financial flows.

For the subsequent U.S.–EU comparison, three additional concepts require explicit operational definition. Beneficial-ownership transparency refers to the extent to which the natural persons who ultimately own or control legal entities or arrangements can be identified through available ownership information and the institutional mechanisms governing its collection, accessibility, and use. Institutional vulnerability refers to weaknesses in the allocation, coordination, implementation, or enforcement of AML responsibilities that can reduce the capacity of relevant authorities to prevent, detect, investigate, or disrupt laundering activity. Technological adaptation refers to the capacity of both laundering actors and AML institutions to use or respond to changes in financial technologies, transaction mechanisms, and virtual-asset environments. In the comparative analysis, these concepts are not treated as abstract characteristics but are examined through observable institutional features, documented vulnerabilities, regulatory responses, and enforcement evidence.

For the purposes of this study, virtual assets refer to digital representations of value that can be digitally traded or transferred and used for payment or investment purposes (FATF, 2023). The term is used here to encompass relevant cryptocurrency and related digital-asset activities examined in the AML context, while distinguishing virtual assets from fiat currency and from digital representations of traditional financial assets.

2.2. The Money-Laundering Process: From the Three-Stage Model to Contemporary Typologies

The conventional conceptual model divides money laundering into three stages: placement, layering, and integration. Placement describes the introduction of criminal proceeds into financial or commercial channels; layering refers to transactions or arrangements intended to increase the distance between assets and their criminal origin; and integration describes the subsequent use or investment of those assets with an appearance of legitimacy. The model remains useful as a basic heuristic because it illustrates the progressive separation of criminal assets from evidence of their unlawful source (Schott, 2003; Dean et al., 2010; Levi & Soudijn, 2020).

Typical mechanisms associated with these functions include cash deposits and cash-intensive businesses at the placement stage; transfers between accounts or jurisdictions, corporate structures, nominee arrangements, fictitious transactions, and conversion between asset forms during layering; and investment in businesses, real estate, securities, luxury goods, or other assets during integration. Structuring or “smurfing,” in which transactions are divided into smaller amounts, represents one mechanism through which the movement of funds may be made less conspicuous (OECD, 2019; Schmidt, 2024).

The analytical value of the three-stage model should nevertheless not be confused with an assumption that actual laundering schemes necessarily follow a fixed chronological sequence. The literature recognizes that placement, layering, and integration may overlap, recur, occur simultaneously, or be absent as distinct stages in particular laundering arrangements (van Duyne, 2003; Levi & Soudijn, 2020; de Koker, 2025). Money-laundering offences also do not generally depend on demonstrating that all three stages have occurred. The model is therefore used in this study as a descriptive heuristic for identifying laundering functions rather than as a universal empirical sequence.

Technological change further reinforces the need for this non-linear interpretation. Virtual assets can provide additional mechanisms for transferring or converting value and can interact with conventional financial channels at different points in a laundering process (OECD, 2019; Schmidt, 2024). Rather than assuming that cryptocurrencies or pseudonymous transactions inherently prevent financial tracing, the present study treats virtual assets as an evolving laundering and AML-governance environment whose relevance depends on the transaction structure, intermediaries involved, applicable regulatory requirements, and available investigative capabilities. References to virtual assets in the subsequent analysis are therefore used to identify specific forms of technological adaptation and regulatory response rather than to imply that digital assets constitute a uniformly anonymous or intrinsically untraceable laundering mechanism.

Accordingly, the subsequent comparative analysis does not classify observed vulnerabilities according to a rigid placement–layering–integration sequence. It focuses instead on the channels and institutional conditions through which illicit value can be concealed, transferred, converted, or used, including financial intermediation, beneficial-ownership structures, trade-based mechanisms, real estate, professional facilitation, and virtual assets. This approach provides a more appropriate conceptual basis for comparing how the U.S. and EU AML systems respond to both conventional and technologically evolving laundering vulnerabilities.

Taken together, the literature supports several relatively well-established propositions while leaving important analytical questions unresolved. It is well established that money laundering involves the handling of criminally derived assets, that laundering can operate through multiple financial and non-financial channels, and that the placement–layering–integration model remains useful as a heuristic rather than a universal sequence. Greater uncertainty concerns the empirical scale of laundering, the relative importance of particular channels across jurisdictions, the effects of technological adaptation, and the extent to

which increasingly extensive AML frameworks translate into observable operational outcomes. The gap addressed in this study lies at the intersection of these issues: rather than reviewing laundering mechanisms or regulatory rules separately, the analysis examines how common laundering vulnerabilities interact with different governance architectures and with observable dimensions of AML implementation and enforcement in the United States and European Union.

Recent peer-reviewed research further develops these debates. [Castelao-López et al. \(2025\)](#), reviewing AML studies published between 2017 and 2024, identify a marked shift toward machine-learning and network-analysis approaches while emphasizing continuing challenges involving cryptocurrencies, data sharing, model interpretability, scalability, and context-specific effectiveness. Recent institutional scholarship also places greater emphasis on governance and coordination. [Hock \(2026\)](#), for example, analyses the European Anti-Money Laundering Authority (AMLA) as a response to collective-action problems arising from uneven implementation, supervision, and cross-border coordination within the EU AML system. These studies reinforce the relevance of examining technological adaptation and institutional architecture together with observable operational outcomes rather than treating regulatory expansion alone as evidence of AML effectiveness.

3. Methodology

This study adopts a structured integrative review and comparative policy-analysis approach to examine money laundering (ML) and anti-money-laundering (AML) governance, with particular emphasis on the United States and the European Union. An integrative design was selected because the research question requires the synthesis of heterogeneous forms of evidence, including peer-reviewed academic research, legal and regulatory materials, official statistics, institutional assessments, enforcement information, and specialist evidence concerning evolving laundering mechanisms. The study does not claim to constitute a systematic review or meta-analysis, since the underlying evidence base includes legal, institutional, regulatory, and policy materials that cannot be evaluated through a single homogeneous study-selection or effect-size framework.

The evidence base was developed from the broader literature assembled for the underlying research project and was subsequently restricted to sources directly relevant to the research questions of the present study. The review incorporates peer-reviewed research together with legal and regulatory documents, official statistics, and reports produced by relevant national and international institutions. Particular emphasis is placed on evidence from the FATF, IMF, UNODC, OECD, FinCEN, the U.S. Department of the Treasury and Department of Justice, Europol, Eurojust, and the European Commission. Sources available up to 2026 were considered for the literature update and comparative review, while earlier studies were retained where they provide foundational definitions, theoretical models, historical benchmarks, or established estimation methodologies.

Source selection followed a structured relevance and evidence-quality procedure. Searches and source identification were organized around combinations of the terms “money laundering,” “illicit financial flows,” “anti-money laundering,” “AML enforcement,” “asset recovery,” “beneficial ownership,” “trade-based money laundering,” “virtual assets,” “United States,” and “European Union.” Sources were included when they contributed directly to at least one of four analytical purposes: (1) defining or conceptualizing money laundering and its principal mechanisms; (2) providing quantitative or institutional evidence concerning laundering exposure or vulnerabilities; (3) documenting AML legal, supervisory, financial-intelligence, enforcement, or asset-recovery arrangements in the United States or European Union; or (4) providing evidence relevant to the comparative dimensions defined below. Sources were excluded from the core comparative evidence

when their geographical or substantive relevance could not be established, when quantitative claims could not be traced to an identifiable methodology or underlying source, or when they duplicated stronger evidence already available from primary institutional or peer-reviewed sources.

Evidence was evaluated hierarchically rather than treated as methodologically equivalent. For legal and regulatory developments, primary legislation and official institutional documentation were prioritized. For enforcement, supervision, financial intelligence, and asset recovery, official statistics and institutional assessments were given priority. Peer-reviewed research was used primarily for conceptual interpretation, empirical findings, estimation methods, and critical evaluation of AML effectiveness. Specialist and commercial sources were used selectively where they addressed rapidly evolving areas—particularly virtual assets—for which conventional official statistics may be incomplete or published with a delay. Such sources were not treated as equivalent to official statistics or peer-reviewed empirical research and were used only where sufficient information was available to interpret the scope and meaning of the reported evidence. Quantitative claims derived from specialist sources were interpreted as source-specific estimates rather than as independently verified measures of the overall scale of money laundering.

The review proceeded in three analytical stages. First, the conceptual literature was synthesized to establish the boundaries of money laundering relative to predicate offences and broader categories such as illicit financial flows, and to identify the principal laundering mechanisms relevant to the analysis. This stage also drew on the broader research project's structured comparison of institutional, legal, and academic definitions of money laundering. Second, quantitative and institutional evidence was examined to identify major laundering vulnerabilities and the principal regulatory and enforcement arrangements through which they are addressed. Because money laundering is a concealed activity and the underlying estimates differ substantially in definitions, periods, geographical coverage, and estimation methods, quantitative estimates were not treated as directly interchangeable measures of prevalence. Third, the United States and European Union were compared through a common functional framework linking laundering vulnerabilities to AML governance arrangements and observable operational outcomes.

The comparison is institutional rather than a direct comparison of constitutionally equivalent political units. The United States is treated as a federal AML governance system, while the European Union is treated as a multi-level AML governance system in which EU-level legislation and institutions interact with Member-State authorities. EU-level evidence is used where harmonized or aggregate information is available; Member-State-specific evidence is identified as such and is used to assess implementation variation rather than being automatically generalized to the European Union as a whole.

To operationalize the comparative analysis, AML effectiveness is distinguished from formal regulatory or technical compliance. The study evaluates the two AML systems across six common dimensions: (1) supervision and regulatory implementation; (2) financial-intelligence capacity and use; (3) money-laundering investigation and enforcement; (4) confiscation and asset recovery; (5) beneficial-ownership transparency; and (6) domestic and cross-border institutional coordination. Evidence within each dimension is assessed through observable institutional arrangements, documented implementation outcomes, enforcement activity, and available quantitative indicators. Suspicious-activity reports, registered cases, investigations, prosecutions, sanctions, and confiscation data are treated according to the institutional process they represent and are not assumed to measure the prevalence of money laundering directly. The comparative tables systematically use these predefined dimensions for both jurisdictions, indicating the institutional or empirical evidence backing each comparison and specifying the relevant source period.

To operationalize these dimensions further, the analysis utilizes observable indicators and institutional assessments related to different stages of the AML process, where available and comparable. These include supervisory implementation and sanctions, the production, dissemination, and operational use of financial intelligence, money-laundering investigations, prosecutions, enforcement activities, confiscation and asset recovery results, the availability and usability of beneficial ownership information, and evidence of domestic and cross-border institutional cooperation. The framework is based on the FATF effectiveness methodology, especially Immediate Outcomes 3–8, which cover supervision, preventive measures, transparency of beneficial ownership, financial intelligence, money laundering investigations, prosecutions, and confiscation (FATF, 2025a). FATF effectiveness assessments serve as external benchmarks where applicable, not as a strict numerical index. This is important because the U.S. is assessed as a single jurisdiction, whereas the European Union's Member States are evaluated individually at different times without an overall EU rating. Therefore, Member State assessments are viewed as indicators of internal implementation patterns and variation, rather than an aggregated EU effectiveness score.

Three additional concepts used in the comparison are operationalized consistently with the conceptual framework. Beneficial-ownership transparency is assessed through the availability, identification, accessibility, and institutional use of information concerning the natural persons who ultimately own or control legal entities or arrangements. Institutional vulnerability is assessed through documented weaknesses in the allocation, coordination, implementation, or enforcement of AML responsibilities. Technological adaptation is assessed through the regulatory coverage of evolving financial technologies and virtual assets, the institutional capacity to identify and respond to associated risks, and documented changes in laundering mechanisms or enforcement responses.

Asset-recovery outcomes are interpreted separately from estimates of the overall volume of money laundering or illicit financial flows. Where confiscation or recovery figures are available, they are reported as enforcement outputs or outcomes for the relevant jurisdiction and period rather than automatically expressed as a percentage of estimated global laundering activity. Similarly, reporting volumes and case numbers are interpreted as indicators of institutional activity and enforcement exposure; increases in these indicators are not treated, by themselves, as evidence of increased money-laundering prevalence or improved AML effectiveness.

This methodological framework provides a reproducible structure for organizing heterogeneous evidence while recognizing the limitations of cross-jurisdictional AML data. It allows the analysis to distinguish between the existence of regulatory rules, their institutional implementation, and observable operational outcomes, while avoiding direct comparisons between indicators that differ materially in definition, period, geographical coverage, or institutional meaning.

The resulting analytical framework therefore follows a four-part sequence: laundering channels and vulnerabilities → institutional and governance arrangements → operational AML capacity and outcomes → policy implications. Laundering channels identify where and how illicit value may be concealed, transferred, converted, or used; institutional arrangements identify the authorities and governance structures responsible for addressing those vulnerabilities; the six operational dimensions assess how those arrangements function in practice; and the policy analysis identifies reforms directed at the weaknesses revealed by the comparison. This framework replaces reliance on the placement-layering-integration model as the principal structure of the comparative analysis while retaining that model as a limited descriptive heuristic.

4. Comparative Evidence on Money-Laundering Vulnerabilities and AML Governance

4.1. Global Scale: Measurement Evidence and Uncertainty

Estimating the magnitude of money laundering remains one of the most persistent empirical challenges in the literature. Unlike recorded economic activity, laundering is deliberately concealed and cannot be measured directly through conventional national accounting or financial statistics. Estimates of its scale therefore depend on indirect methodologies, assumptions concerning criminal proceeds, and the definitions adopted by individual studies. As a result, estimates produced in different periods or through different methodologies should not be interpreted as directly comparable measurements of the same underlying phenomenon.

The frequently cited estimate that money laundering represents approximately 2–5% of global GDP originates from international assessments developed in the late 1990s and is best understood as a historical benchmark rather than as a contemporary measurement of the global volume of laundering (Camdessus, 1998). Subsequent studies produced estimates within and outside this range. Baker (2005), for example, estimated laundering at approximately 2.4–3.6% of global GDP, while Barone and Masciandaro (2011) reported approximately 2.7% and Schneider and Windischbauer (2008) approximately 3.4%. Walker's (1999) global model estimated that about USD 2.85 trillion is laundered each year, resulting in a much higher figure. However, this estimate relies heavily on assumptions, parameters, and data inputs, making it highly sensitive to these factors. Consequently, it should be approached with caution and not directly compared to estimates from other methods or institutional reports (Reuter & Truman, 2004; Arnone & Borlini, 2010).

These differences reflect substantial methodological heterogeneity rather than straightforward variation in the underlying level of money laundering. Walker (1999) combined national economic indicators and crime statistics to estimate international illicit flows, while subsequent research developed alternative approaches drawing on shadow-economy indicators, criminal proceeds, and model-based estimates (Unger et al., 2006; Argentiero et al., 2008; Medina & Schneider, 2018). United Nations Office on Drugs and Crime (United Nations Office on Drugs and Crime [UNODC], 2011), using a criminal-revenue approach, estimated total criminal proceeds at approximately 3.6% of global GDP and the proportion subsequently laundered at approximately 2.7%, equivalent at the time to approximately USD 1.6 trillion annually. Other studies have reported annual laundering estimates ranging from approximately USD 800 billion to USD 3 trillion (Barone & Masciandaro, 2011; Ferwerda, 2013; Ardizzi et al., 2014).

Accordingly, the estimates reviewed here are used to illustrate the development and methodological diversity of money-laundering measurement rather than to identify a single current global figure.

Table 1 illustrates that the principal empirical conclusion is not convergence on a definitive numerical estimate but persistent uncertainty concerning the scale of money laundering. The clandestine nature of the activity, differences in definitions, variation in predicate offences, and differences in estimation techniques make both the absolute level and changes over time difficult to establish with precision. The historical 2–5% benchmark should therefore not be interpreted as a current point estimate.

A related measurement problem concerns asset recovery. Previous international evidence indicates that only a limited proportion of illicit assets is ultimately frozen, confiscated, or recovered (Levi et al., 2018; United Nations Office on Drugs and Crime [UNODC], 2018). However, estimates referring to illicit financial flows, criminal proceeds, money laundering, frozen assets, and confiscated assets do not necessarily employ equivalent concepts or denominators. Consequently, the present analysis does not interpret reported

recovery percentages as a global money-laundering recovery rate. Asset-recovery evidence is instead assessed as an enforcement outcome for the relevant jurisdiction, definition, and period.

Table 1. Selected approaches to estimating the global scale of money laundering.

Study/Institution	Estimate Reported	Reference Year/Period	Estimation Approach	Principal Comparability Limitation
IMF/Camdessus (1998)	2–5% of global GDP	Consensus range reported in 1998; underlying base year not specified	Historical institutional benchmark	Broad historical estimate; not a directly observed or contemporary measure
United Nations Office on Drugs and Crime (United Nations Office on Drugs and Crime [UNODC], 2011)	2.7% of global GDP; approximately USD 1.6 trillion	2009	Criminal-revenue estimation	Refers to a specific reference period and modelling framework
Schneider and Windischbauer (2008)	Approximately 3.4% of global GDP	No single reference year was identified for this estimate	Model-based estimation using shadow-economy and related indicators	Method and reference period differ from other estimates
Walker (1999)	Approximately USD 2.85 trillion annually	Prototype estimate developed in the mid-1990s and reported in 1999	Global illicit-flow model	Sensitive to modelling assumptions and subsequently subject to methodological criticism

Note: Estimates refer to different periods, definitions, datasets, and estimation methods. When the original source does not specify a single reference year, this is explicitly stated rather than assumed. Estimates are therefore presented as evidence of methodological approaches and orders of magnitude rather than as directly comparable contemporaneous measurements.

The composition of laundering activity is similarly difficult to reduce to a single numerical measure. Traditional financial institutions continue to constitute important channels for illicit financial activity alongside trade-based money laundering, real estate, cash-intensive businesses, professional intermediaries, gambling, and high-value assets (FATF, 2012; Ferwerda et al., 2020; OECD, 2024b). Virtual assets have added further mechanisms through which value can be transferred, converted, and moved between financial environments (FATF, 2023). Specialist commercial evidence, including Chainalysis (2024) and Sanction Scanner (2024), also provides information on rapidly evolving virtual-asset and financial-crime activity. Such evidence is treated here as additional and source-specific rather than as methodologically equivalent to official statistics or independently verified estimates of the overall scale of money laundering.

The principal implication is therefore that contemporary money laundering should not be understood as activity confined to a single financial channel. Banking, international trade, property, corporate structures, professional services, and digital assets can interact within the same laundering arrangements. The following analysis consequently focuses on documented vulnerabilities and institutional responses rather than attempting to derive a single aggregate estimate of laundering prevalence.

4.2. Comparative Money-Laundering Vulnerabilities in the United States and European Union

The United States and the European Union share several major money-laundering vulnerabilities, although these vulnerabilities operate within different financial, legal, and institutional environments. The United States combines large and liquid financial markets, the international role of the U.S. dollar, extensive correspondent-banking relationships, substantial real-estate and investment markets, and significant international trade. The European Union combines an integrated single market, extensive cross-border capital movement, interconnected national financial systems, and a multi-jurisdictional regulatory structure. These characteristics create different institutional settings through which many of the same laundering mechanisms can operate.

Banking and financial intermediation remain central to the AML environment in both jurisdictions. In the United States, Suspicious Activity Reports (SARs) are an important component of the financial-intelligence architecture through which potentially suspicious transactions are reported to FinCEN ([Financial Crimes Enforcement Network \[FinCEN\], 2023](#)). SAR volumes are not interpreted in this study as direct measures of money-laundering prevalence or confirmed criminal activity. They measure reporting activity and may also be affected by reporting obligations, institutional capacity, risk awareness, transaction volumes, and changes in reporting behaviour. U.S. evidence identifies structuring, cash-intensive businesses, multiple transfers, correspondent banking, and corporate vehicles that may obscure beneficial ownership among the relevant vulnerabilities ([Financial Crimes Enforcement Network \[FinCEN\], 2021](#)).

The European financial system faces a related banking vulnerability, but its institutional context differs because financial activity can cross national borders and interact with national supervisory systems that differ in capacity and implementation. The interconnectedness of EU financial markets facilitates legitimate capital mobility while also creating a cross-border dimension for the identification and investigation of suspicious transactions. In both systems, banking vulnerability therefore interacts with corporate ownership, international transactions, and other laundering channels rather than operating independently.

Real estate constitutes another common vulnerability. In the United States, high-value property transactions can involve legal entities, trusts, intermediaries, and nominee ownership structures that create distance between an asset and the natural person who ultimately owns or controls it. Existing evidence identifies major metropolitan property markets as particularly relevant to these concerns ([FATF–Egmont Group, 2018](#); [FATF, 2022](#); [Financial Crimes Enforcement Network \[FinCEN\], 2025b](#)). Rather than relying on a single aggregate estimate of the amount laundered through U.S. real estate, the present analysis treats the sector as a documented vulnerability associated with ownership opacity and high-value asset acquisition.

A similar vulnerability exists in the European Union. High-value property markets can facilitate the conversion and storage of illicit wealth, particularly where ownership involves corporate vehicles, offshore structures, trusts, nominees, or cross-border legal arrangements ([European Parliament, 2019](#); [FATF, 2012](#)). The underlying economic function of the vulnerability is therefore broadly comparable across the United States and European Union even though the relevant legal and supervisory arrangements differ.

Trade-based money laundering also constitutes an important vulnerability in both systems. In the United States, false invoicing, deliberate misstatement of prices or quantities, phantom shipments, and misclassification of goods can facilitate the transfer of value through apparently legitimate commercial transactions ([OECD, 2021b](#); [FATF–Egmont Group, 2020](#)). In the European Union, similar trade-manipulation mechanisms interact with intra-EU and international commerce, while VAT-related and Missing Trader Intra-Community schemes add a distinctive European dimension ([European Commission, 2024](#);

FATF, 2012). Trade-based laundering therefore illustrates a common underlying mechanism whose practical form is affected by the institutional and commercial structure of each jurisdiction.

Professional intermediaries constitute a further cross-system vulnerability. Lawyers, accountants, corporate-service providers, and other professionals can facilitate company formation, asset acquisition, trusts, ownership arrangements, and complex transactions. In the United States, such professional involvement can contribute to the construction of legal or corporate structures around the ownership and movement of assets (OECD, 2021a; FATF, 2023). Within the European Union, lawyers, accountants, notaries, and corporate-service providers may play comparable roles, particularly in transactions involving multiple legal entities or jurisdictions (OECD, 2024a; Europol, 2023).

Virtual assets represent an evolving vulnerability rather than a replacement for conventional laundering channels. U.S. evidence indicates that cryptocurrency, decentralized finance, and related services can interact with traditional financial activity and provide additional mechanisms for transferring or converting value (Chainalysis, 2024). Within the European Union, virtual assets similarly introduce a cross-border technological dimension through cryptocurrency transactions, VASP activity, and interaction with decentralized platforms (FATF, 2023; Europol, 2023). Their significance should not be interpreted as evidence that virtual assets are uniformly anonymous or inherently untraceable. Rather, they illustrate technological adaptation within a broader laundering environment in which conventional and emerging mechanisms coexist.

The comparative evidence therefore points to substantial overlap in underlying laundering functions. Both systems are exposed to value transfer through financial institutions, ownership concealment through legal structures, trade manipulation, investment in high-value property, professional facilitation, and technologically enabled movement of assets. The principal differences lie less in the fundamental laundering techniques than in the institutional structures through which these risks are supervised, detected, investigated, and coordinated. Table 2 summarizes the principal money-laundering vulnerabilities identified across the United States and the European Union.

Table 2. Principal money-laundering vulnerabilities in the United States and European Union.

Vulnerability	United States	European Union	Comparative Interpretation
Banking and financial intermediation	Large banking system, correspondent relationships, SAR-based reporting architecture (Financial Crimes Enforcement Network [FinCEN], 2023; U.S. Department of the Treasury, 2024a)	Interconnected national banking systems operating within the single market (European Commission, 2022; Europol, 2023)	Core vulnerability in both; institutional organization differs
Cash-based activity and structuring	Structuring and cash-intensive businesses remain relevant (U.S. Department of the Treasury, 2024a)	Exposure varies across Member States and economic sectors (European Commission, 2022)	Similar laundering function, but different national contexts

Table 2. Cont.

Vulnerability	United States	European Union	Comparative Interpretation
Corporate structures and beneficial ownership	Companies, trusts, nominees, and ownership structures may increase opacity (Financial Crimes Enforcement Network [FinCEN], 2021 ; FATF-Egmont Group, 2018)	Multi-jurisdictional corporate and ownership chains may complicate identification (Europol, 2023 ; FATF-Egmont Group, 2018)	Beneficial-ownership opacity is a shared vulnerability
Trade-based money laundering	False invoicing, misclassification, phantom shipments and trade manipulation (FATF-Egmont Group, 2020 ; OECD, 2021b)	Trade manipulation combined with intra-EU trade and VAT/MTIC-related mechanisms (FATF, 2012 ; European Commission, 2024)	Common channel with jurisdiction-specific institutional features
Real estate	High-value property and ownership through legal entities or nominees (FATF-Egmont Group, 2018 ; FATF, 2022 ; Financial Crimes Enforcement Network [FinCEN], 2025b)	High-value property markets combined with cross-border ownership structures (FATF, 2012 ; European Parliament, 2019)	Important asset-based vulnerability in both systems
Professional intermediaries	Lawyers, accountants and corporate-service providers (OECD, 2021a ; FATF, 2023)	Lawyers, accountants, notaries and corporate-service providers (OECD, 2024a ; Europol, 2023)	Professional facilitation is relevant in both jurisdictions
Gambling and high-value assets	Casinos and other high-value or cash-related activities (U.S. Department of the Treasury, 2024a)	Gambling, art, antiquities and other high-value sectors (European Commission, 2022)	Sector-specific exposure varies, but opacity and valuation remain common concerns
Virtual assets	Cryptocurrency, DeFi and related services interact with conventional channels (Chainalysis, 2024)	Cryptocurrency and cross-border VASP activity interact with the EU financial environment (FATF, 2023 ; Europol, 2023)	Evolving technological vulnerability in both systems

Note: Principal sources and publication or assessment periods are provided by vulnerability to enhance traceability. The table summarizes documented vulnerabilities and does not indicate their prevalence or severity relative to other jurisdictions.

4.3. Comparative AML Governance and Operational Outcomes

The similarity of laundering vulnerabilities does not imply similarity in AML governance. The comparative framework therefore distinguishes exposure to laundering channels from the institutional capacity to supervise, detect, investigate, disrupt, and recover criminal assets. Consistent with the methodology developed in Section 3, operational AML effectiveness is examined across six common dimensions: supervision and regulatory implementation; financial-intelligence capacity and use; investigation and enforcement; confiscation and asset recovery; beneficial-ownership transparency; and domestic and cross-border institutional coordination.

The FATF effectiveness framework offers an additional benchmark for understanding these dimensions. In the 2016 Mutual Evaluation of the United States, ratings varied: Moderate for supervision (IO3) and preventive measures (IO4), Low for transparency and beneficial ownership (IO5), Substantial for financial intelligence (IO6) and money-laundering investigation and prosecution (IO7), and High for confiscation (IO8). These ratings serve as a structured assessment of different AML performance stages rather than an overall effectiveness score. An EU-wide comparable rating is unavailable because FATF/MONEYVAL assessments are conducted at the Member-State level and during different periods. Consequently, Member-State assessments are used to observe implementation differences within the EU, rather than to establish a direct numerical comparison with the United States.

4.3.1. Supervision and Regulatory Implementation

The principal structural difference between the two systems concerns the organization of AML supervision. In the United States, AML responsibilities operate predominantly through a federal architecture involving FinCEN, the Department of the Treasury, the Department of Justice, and other federal authorities, alongside sector-specific and state-level responsibilities. This creates a comparatively centralized federal framework, although responsibilities remain distributed among multiple agencies.

The European Union functions through a layered governance system where EU laws and institutions coordinate with national authorities and supervisors. The 2024 AML package signifies a key institutional advancement but consists of three separate legal tools, each serving different roles. Regulation (EU) 2024/1624 creates a directly applicable AML/CFT unified rulebook for obliged entities; Directive (EU) 2024/1640 sets out the mechanisms for Member States, including national supervisory bodies, financial intelligence units, and beneficial ownership procedures; and Regulation (EU) 2024/1620 establishes the AMLA, the Authority for Anti-Money Laundering and Countering the Financing of Terrorism ([European Union, 2024a, 2024b, 2024c](#)). These reforms should be viewed as a gradual institutional shift rather than proof that supervisory fragmentation has been fully addressed. AMLA began operating in 2025, with direct supervision of certain high-risk financial institutions expected to start in 2028.

The relevant comparative finding is therefore not that one system possesses AML regulation while the other does not, but that regulatory implementation occurs through different institutional architectures. The United States relies more heavily on federal institutional coordination, whereas EU implementation combines supranational rules with national supervisory and enforcement structures.

4.3.2. Financial-Intelligence Capacity and Use

Financial intelligence constitutes a second common dimension. In the United States, FinCEN occupies a central role within the reporting architecture, including the receipt and use of SAR-related information ([Financial Crimes Enforcement Network \[FinCEN\], 2023](#)). Reporting volumes are interpreted as evidence of activity within the financial-intelligence system rather than as a direct proxy for money-laundering prevalence or enforcement success.

The European Union relies on national Financial Intelligence Units operating within a broader EU coordination environment. The multi-state character of the system means that the effectiveness of financial intelligence depends not only on the production of national intelligence but also on information exchange and the ability to connect activity occurring across Member States.

The comparison therefore highlights an institutional distinction between a predominantly centralized federal financial-intelligence structure and a network of national FIUs requiring cross-jurisdictional coordination. Available reporting measures should not be used to rank the two systems directly where definitions, reporting obligations, and institutional processes differ.

4.3.3. Investigation and Enforcement

Investigation and enforcement indicators require particular caution because reported cases, investigations, prosecutions, convictions, and sanctions measure different stages of the enforcement process. They should therefore not be treated as interchangeable indicators of either prevalence or effectiveness.

In the United States, enforcement operates through federal investigative and prosecutorial institutions alongside regulatory and supervisory authorities. The reviewed evidence demonstrates an established institutional capacity for identifying suspicious financial behaviour and pursuing laundering-related conduct, but differences in reporting systems and enforcement measures limit direct numerical comparison with the European Union.

In the EU context, Eurojust provides observable evidence concerning the judicial-cooperation dimension of money-laundering enforcement. Between 2016 and 2021, the number of money-laundering cases registered at Eurojust increased from 315 to 649, with Italy, France, Spain, Germany, and the Netherlands among the Member States frequently involved (Eurojust, 2022).

Figure 1 presents the Eurojust money-laundering casework evidence discussed above and illustrates the cross-border judicial-coordination dimension of EU enforcement.

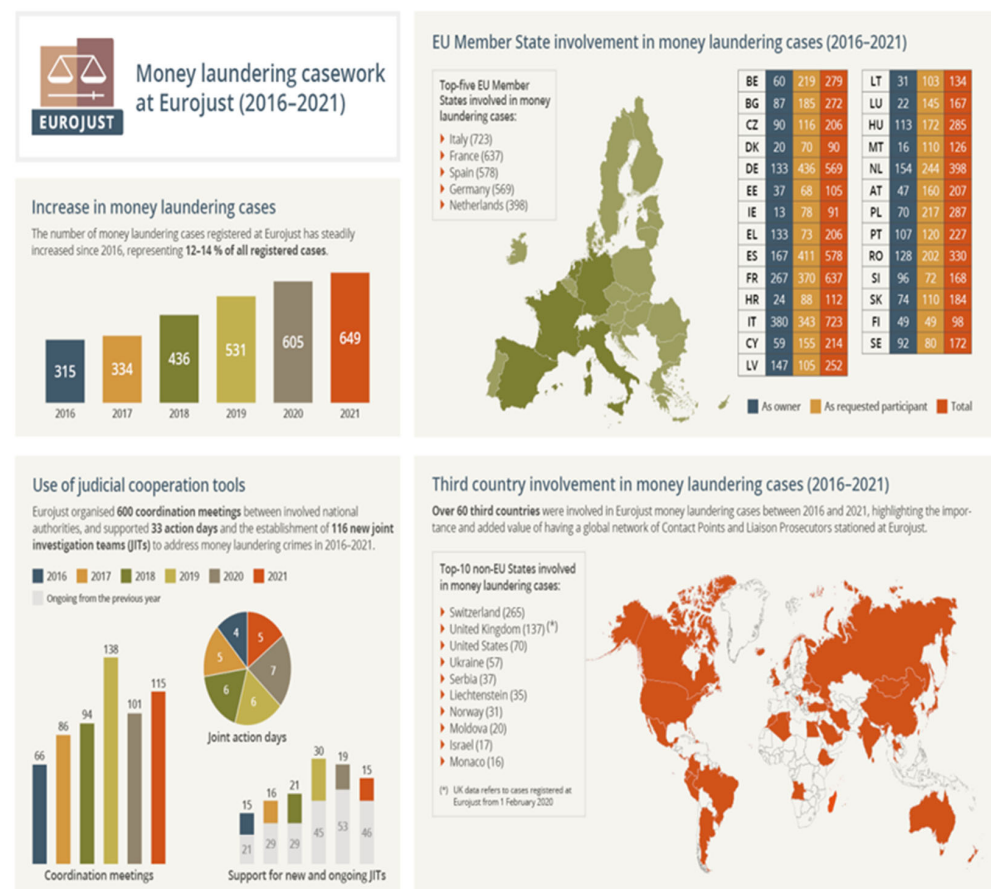


Figure 1. Eurojust money-laundering casework and Member State involvement, 2016–2021. Source: Eurojust (2022), Annual Report 2022, Economic Crime.

These figures measure Eurojust casework rather than the underlying prevalence of money laundering in the European Union. The increase may reflect greater use of Eurojust, changes in referrals, detection activity, reporting practices, or stronger cross-border judicial cooperation. It should therefore be interpreted as evidence of increasing demand for transnational judicial coordination rather than as proof that the volume of money laundering itself increased during the period.

4.3.4. Confiscation and Asset Recovery

Confiscation and asset recovery provide a more outcome-oriented dimension of AML enforcement, but their interpretation is constrained by differences in definitions, reporting periods, and denominators. International evidence has repeatedly emphasized that confiscated and recovered assets represent only a limited component of estimated illicit financial activity (Levi et al., 2018; United Nations Office on Drugs and Crime [UNODC], 2018). However, these sources should not be converted into a uniform global recovery ratio because estimates of illicit financial flows, criminal proceeds, laundering volumes, freezing, confiscation, and recovery do not necessarily refer to the same underlying population of assets.

For this reason, the present comparison treats confiscation and recovery evidence as jurisdiction- and period-specific enforcement outcomes. It does not infer operational effectiveness by dividing confiscated assets by unrelated global estimates of money laundering. The relevant analytical question is instead whether institutional arrangements are capable of converting detection and investigation into the identification, restraint, confiscation, and recovery of criminal assets.

The available evidence therefore supports a cautious conclusion: asset recovery remains an important test of operational AML performance in both systems, but differences in measurement prevent the construction of a directly comparable U.S.–EU recovery rate from the evidence reviewed.

Recent EU scholarship also highlights the institutional dimension of asset recovery. Pavlidis (2025) examines the strengthened role of Asset Recovery Offices under Directive (EU) 2024/1260 and emphasizes harmonized powers, cross-border cooperation, and improved access to information as important components of the EU asset-recovery framework. This development supports the present study's treatment of asset recovery as an institutional and operational outcome rather than as a simple ratio derived from incompatible estimates of illicit financial activity.

4.3.5. Beneficial-Ownership Transparency

Beneficial-ownership transparency is a key institutional effort to address the use of companies, trusts, nominees, and other legal structures for hiding control over assets. In the U.S., the Corporate Transparency Act initially mandated federal reporting of beneficial ownership information to improve access to details about individuals who own or control legal entities. However, this framework was significantly narrowed in March 2025. FinCEN's interim final rule adjusted the definition of a "reporting company," now applying only to certain foreign-formed entities registered in the U.S., while U.S.-created entities and their beneficial owners were exempted from BOI reporting. U.S. persons were also excluded from having their beneficial-ownership details reported (Financial Crimes Enforcement Network [FinCEN], 2025a).

The European Union took a different path with its regulation. The 2024 AML package established a more unified framework via Regulation (EU) 2024/1624 and Directive (EU) 2024/1640, covering areas like beneficial-ownership identification, information sharing, and national mechanisms. These updates aim to minimize variation in implementation among

Member States, although their effectiveness relies on phased rollouts and the capacity of both national and EU institutions (European Union, 2024a, 2024c).

The comparison shows different regulatory paths rather than a unified increase in beneficial-ownership disclosure. By 2025, the EU moved toward more harmonized laws, while the US significantly limited its federal BOI reporting scope. This difference emphasizes the gap identified in the analysis between the formal rules and their effective operation: transparency relies not just on legal mandates but also on their scope, stability, enforcement, availability, verification, and institutional integration.

4.3.6. Domestic and Cross-Border Institutional Coordination

Coordination represents one of the clearest areas of institutional divergence. U.S. AML governance is organized within a federal system in which several national authorities perform financial-intelligence, supervisory, investigative, and prosecutorial functions. The international role of the U.S. financial system nevertheless creates substantial cross-border challenges, particularly through correspondent banking, international trade, corporate ownership, and dollar-denominated financial transactions.

The European Union faces an additional internal coordination challenge because laundering investigations may involve several Member States operating under a common EU framework but through distinct national supervisory, financial-intelligence, law-enforcement, and judicial institutions. Eurojust casework illustrates the practical importance of this cross-border dimension (Eurojust, 2022), while the development of AMLA reflects an institutional effort to strengthen coordination and reduce fragmentation; recent analysis similarly interprets AMLA as a response to collective-action problems associated with uneven implementation, supervision, and cross-border coordination (Hock, 2026).

Accordingly, institutional asymmetry forms part of the substantive comparative finding. The United States faces coordination primarily across multiple federal authorities, domestic levels of government, and international financial networks, whereas the European Union must coordinate both vertically between EU and national institutions and horizontally across Member States.

The institutional asymmetry between the two systems also determines how the evidence in the following comparison should be interpreted. U.S. reporting and enforcement indicators generally arise within a predominantly federal architecture, whereas EU evidence may originate from EU-level institutions, national authorities, or mechanisms of cross-border judicial and financial-intelligence cooperation. Consequently, differences in reporting volumes, investigations, prosecutions, sanctions, confiscations, or recoveries cannot be attributed automatically to differences in AML effectiveness. They may also reflect differences in institutional mandates, reporting obligations, case-registration practices, aggregation levels, and national implementation. Table 3 therefore compares the two systems through common functional dimensions rather than treating heterogeneous raw counts as directly equivalent measures.

The table does not assign numerical effectiveness scores because the underlying indicators are heterogeneous and are not consistently available on a directly comparable basis across both systems. Instead, it applies identical analytical dimensions to each jurisdiction and interprets available evidence according to the institutional process that each indicator represents. Principal sources and relevant publication or assessment periods are included within the jurisdiction-specific evidence, where available, to enhance traceability of the evidence.

Table 3. Comparative framework of AML governance and operational outcomes.

Dimension	Evidence/Indicator Considered	United States	European Union	Comparative Interpretation
Supervision and regulatory implementation	Organization of supervisory responsibilities; implementation architecture	Predominantly federal framework involving multiple competent authorities (Internal Revenue Service [IRS] , 2025)	Multi-level framework under the 2024 EU AML package; AMLA entered the operational phase in 2025, with direct supervision of some high-risk financial institutions starting in 2028 (European Union , 2024b)	Different institutional structures rather than directly comparable levels of formal regulation
Financial-intelligence capacity and use	Reporting architecture; institutional role of FIUs; use of financial intelligence	FinCEN-centered federal reporting architecture; SARs treated as activity indicators (Financial Crimes Enforcement Network [FinCEN] , 2023)	National FIUs operating within an EU coordination framework (European Union , 2024a)	Centralized versus networked financial-intelligence structure
Investigation and enforcement	Investigative, prosecutorial and judicial activity	Federal investigative and prosecutorial architecture (Federal Bureau of Investigation [FBI] , 2018)	National enforcement combined with EU judicial cooperation; Eurojust casework provides cross-border activity evidence (Eurojust , 2022)	Enforcement indicators require stage-specific interpretation and cannot be compared through raw counts alone
Confiscation and asset recovery	Freezing, confiscation and recovery outcomes	Relevant operational outcome, but available evidence does not support a standardized recovery ratio	Relevant operational outcome, with similar comparability constraints	Asset recovery should be evaluated independently from incompatible global estimates (Levi et al. , 2018; United Nations Office on Drugs and Crime [UNODC] , 2018)
Beneficial-ownership transparency	Availability, accessibility and institutional use of ownership information	CTA-based BOI framework substantially narrowed by FinCEN in March 2025; U.S.-created entities and U.S. persons are exempt from federal BOI reporting requirements (Financial Crimes Enforcement Network [FinCEN] , 2025a)	Greater harmonization under Regulation (EU) 2024/1624 and Directive (EU) 2024/1640, with implementation phased beyond the 2025 study cut-off (European Union , 2024a, 2024c)	Divergent regulatory trajectories at the 2025 cut-off: EU harmonization versus a substantial narrowing of U.S. domestic BOI reporting
Domestic and cross-border coordination	Information exchange; institutional coordination; cross-border casework	Coordination among federal authorities and with international partners (U.S. Department of the Treasury , 2024b)	Coordination among EU institutions, national authorities, FIUs and Member-State judicial systems (European Union , 2024a; Eurojust , 2022)	EU governance faces an additional multi-state coordination dimension

4.4. Comparative Synthesis

The comparative evidence produces three principal findings. First, the United States and European Union exhibit substantial convergence in the economic functions exploited for laundering. Financial intermediation, corporate and beneficial-ownership opacity, trade manipulation, real estate, professional facilitation, gambling and high-value assets, and virtual assets create overlapping mechanisms through which illicit value can be transferred, concealed, converted, or used.

Second, conventional and technologically evolving laundering mechanisms coexist. The evidence does not support the proposition that virtual assets or decentralized financial technologies have replaced banking, trade, real estate, corporate vehicles, or professional intermediaries. Instead, technological development expands the range of potential transaction pathways and can interact with established financial and non-financial channels. Money laundering is therefore characterized more appropriately by channel diversification and adaptation than by a linear transition from traditional to digital methods.

Third, the most important U.S.–EU distinction concerns institutional organization rather than the underlying laundering toolkit. The United States operates through a predominantly federal AML framework, whereas the European Union combines supranational regulation with national supervision, financial intelligence, investigation, enforcement, and judicial processes. The development and gradual implementation of AMLA, along with the wider 2024 EU AML package, aim to minimize coordination and implementation disparities within this multi-tiered framework; however, these reforms should not be seen as evidence that supervisory fragmentation was already fixed by the 2025 deadline.

These institutional differences are directly relevant to operational AML effectiveness. The existence of extensive AML legislation, reporting obligations, and supervisory structures does not by itself establish that an AML system is effective. Effectiveness must also be assessed through the capacity to implement supervision, generate and use financial intelligence, investigate and enforce money-laundering offences, identify and recover criminal assets, provide usable beneficial-ownership information, and coordinate effectively across institutions and jurisdictions.

The evidence reviewed does not support a simple quantitative ranking of the United States and European Union. Differences in reporting systems, jurisdictional structure, definitions, case registration, enforcement statistics, and asset-recovery measures make such a ranking methodologically inappropriate. Instead, the comparative evidence identifies a recurrent divergence between the continuing expansion of formal AML frameworks and the more uneven evidence available concerning their operational outcomes.

Accordingly, the central comparative result is one of similar laundering vulnerabilities but different governance architectures. Both systems confront banking, trade, property, corporate-opacity, professional-facilitation, and technological risks, while their capacity to address these vulnerabilities is shaped by different structures of supervision, financial intelligence, enforcement, transparency, and institutional coordination. This distinction provides the basis for Section 5, where the findings are evaluated in relation to the research questions and their implications for AML policy and institutional design.

5. Discussion

5.1. Interpretation of the Comparative Findings

The comparative findings provide two principal answers to the research questions. With respect to RQ1, the United States and the European Union are exposed to broadly similar money-laundering vulnerabilities but address them through different institutional architectures. Banking and financial intermediation, opaque corporate and beneficial-ownership structures, trade-based money laundering, real estate, professional facilitation,

high-value assets, and virtual assets occur across both environments. The principal difference therefore lies less in the underlying economic functions exploited by laundering actors than in the governance systems responsible for supervising, detecting, investigating, and disrupting these activities. The United States operates through a predominantly federal AML architecture, whereas the European Union combines supranational rules and institutions with national supervisory, financial-intelligence, law-enforcement, and judicial authorities.

This distinction is particularly important because similar laundering risks can create different implementation and coordination problems depending on institutional structure. In the United States, the concentration of important AML responsibilities at the federal level facilitates a relatively centralized financial-intelligence and enforcement architecture, but responsibilities nevertheless remain distributed among multiple regulatory, investigative, prosecutorial, and supervisory authorities. The European Union faces an additional multi-level coordination challenge because common EU rules operate through Member-State institutions with different administrative structures and capacities. Consequently, institutional coordination is not simply an auxiliary component of AML governance but a substantive dimension through which the practical operation of the two systems differs.

With respect to RQ2, the evidence indicates that operational AML effectiveness cannot be inferred from the existence, breadth, or continued expansion of formal regulation alone. The two jurisdictions have developed extensive AML frameworks, but the reviewed evidence concerning operational outcomes is considerably more heterogeneous. Supervision and regulatory implementation, financial-intelligence capacity and use, investigation and enforcement, confiscation and asset recovery, beneficial-ownership transparency, and institutional coordination must therefore be examined separately. The central finding is not that regulatory expansion has been demonstrated to fail, but that stronger and more visible development of formal AML architecture has not been accompanied by equally consistent and directly comparable evidence of operational outcomes across all six dimensions.

This interpretation qualifies the concept of an “enforcement gap.” The available evidence does not support a simple causal proposition according to which additional AML rules necessarily fail to improve enforcement. Nor does the persistence of money laundering demonstrate, by itself, regulatory ineffectiveness. Rather, the evidence identifies a recurrent divergence between extensive formal regulatory development and the more uneven observable evidence concerning implementation, enforcement, coordination, and asset-recovery outcomes. This distinction is important because regulatory outputs and operational outcomes represent different stages of the AML process.

Recent scholarship provides further support for treating regulatory development and operational effectiveness as analytically distinct. [Nazzari and Reuter \(2025\)](#) emphasize the continuing difficulty of establishing whether the expansion of money-laundering controls has materially reduced laundering activity or increased the costs and risks faced by laundering actors. Their analysis reinforces the need to evaluate AML systems through observable implementation and enforcement outcomes rather than infer effectiveness from the breadth of the formal regulatory framework alone.

The findings also extend the existing literature by connecting laundering vulnerabilities with institutional organization and operational outcomes within a common comparative framework. Previous scholarship has examined the economic consequences of money laundering, its regulatory and criminological characteristics, and the development of the AML literature more broadly. [Ab Majid et al. \(2024\)](#), for example, synthesize major themes in money-laundering research, while [Khelil et al. \(2024\)](#) review evidence concerning its economic consequences at country, firm, and banking levels. The present comparison complements these strands of literature by focusing specifically on how common laundering

vulnerabilities interact with different AML governance architectures in the United States and European Union.

The broader economic literature remains important for understanding why these institutional differences matter. Illicit financial activity has been associated with distortions in investment, savings, trade, capital allocation, tax revenues, and institutional quality (Unger et al., 2006; Barone et al., 2017; Asllani & Schneider, 2025; Khelil et al., 2024). At the firm level, the literature reports associations between money laundering, weaker transparency, audit-related risks, corporate-governance outcomes, and firm value (Khelil et al., 2024). These findings indicate that the consequences of laundering potentially extend beyond individual criminal transactions to the functioning of legitimate economic and financial institutions.

Similar caution, however, is required when interpreting evidence concerning banking outcomes. Existing empirical studies report relationships between money-laundering exposure, AML-related institutional conditions, and outcomes including loan quality, profitability, stability, and other dimensions of bank performance (Jayasekara, 2021; Ofoeda, 2022; Amara et al., 2023; Ofoeda et al., 2023; Ab Majid et al., 2024; Gueddari et al., 2024; Nazar et al., 2024). These associations should not be interpreted uniformly as evidence of direct causation. Banking liquidity, solvency, profitability, and stability are also influenced by macroeconomic conditions, institutional quality, regulatory environments, risk composition, and bank-specific characteristics. Earlier research identifying potential financial-system effects should therefore be interpreted as evidence of possible relationships and risk channels rather than as establishing a single causal effect of money laundering on bank performance (Unger et al., 2006; Ferwerda, 2013; Ferwerda et al., 2020).

A further implication concerns the adaptive and cross-sectoral character of money laundering. The comparative evidence shows that conventional and technologically evolving mechanisms coexist rather than follow a simple process of substitution. Corporate opacity, professional intermediaries, property transactions, international trade, conventional financial institutions, and virtual assets can form interconnected components of laundering arrangements. This supports the use of the placement-layering-integration model as a heuristic rather than as a fixed empirical sequence and reinforces the need for AML governance to identify relationships among transactions, entities, ownership structures, and jurisdictions.

Taken together, the results suggest that the central analytical problem is not simply the quantity of AML regulation. It is the relationship between regulatory architecture and the institutional processes required to transform rules and information into supervision, usable financial intelligence, investigation, enforcement, confiscation, and cross-border cooperation. This interpretation provides the basis for a more focused set of policy priorities.

5.2. Policy Priorities and Implementation Considerations

The comparative findings support three policy priorities. These priorities are ordered according to the extent to which they address vulnerabilities identified across several laundering channels and operational dimensions simultaneously. They should not be interpreted as independent policy measures: beneficial-ownership transparency, financial-intelligence use, enforcement, asset recovery, professional supervision, technological capacity, and cross-border coordination are mutually reinforcing components of the AML system.

In implementation terms, improvements in information quality and verification, the operational use of financial intelligence, and routine information exchange can be pursued within existing institutional arrangements in the shorter term. By contrast, deeper data interoperability, cross-institutional integration, harmonization of implementation practices, and sustained cross-border coordination constitute longer-term reforms because they re-

quire greater legal, technological, organizational, and resource adjustment. The distinction is not absolute, since several measures can proceed in parallel, but it provides a practical sequencing framework for the priorities discussed below.

5.2.1. Priority 1: Beneficial-Ownership Transparency and Information Quality

The first priority is to improve the quality and operational usability of beneficial-ownership information. Shell companies, front companies, nominee arrangements, trusts, and multilayered legal structures can separate formal ownership from the natural persons who ultimately control assets. This vulnerability cuts across several of the channels identified in the comparative analysis, including corporate structures, real estate, professional facilitation, and cross-border transactions.

The United States and European Union have taken different paths regarding beneficial-ownership transparency. In the EU, the 2024 AML package enhanced the legal framework for beneficial-ownership details through Regulation (EU) 2024/1624 and Directive (EU) 2024/1640. Conversely, in the US, the Corporate Transparency Act initially mandated federal beneficial-ownership reporting but was significantly narrowed in March 2025 by FinCEN, which exempted U.S.-created entities and U.S. persons from BOI reporting requirements (European Union, 2024a, 2024c; Financial Crimes Enforcement Network [FinCEN], 2025a). This difference highlights that formal regulations do not guarantee stable or effective implementation. The key operational issue is whether beneficial-ownership data are comprehensive, accurate, verified, accessible, up to date, and usable by authorities. Improving interoperability across beneficial-ownership, financial, tax, and trade systems could better reveal hidden relationships that are hard to detect when information is stored separately.

Implementation, however, involves practical costs and institutional trade-offs. Verification requires administrative and technological capacity, while greater interoperability creates requirements concerning data standards, system compatibility, access controls, data protection, and institutional responsibilities. Compliance obligations can also impose additional administrative costs on reporting entities and authorities. Policy effectiveness should therefore be assessed not primarily through the number of entities registered, but through indicators such as the completeness and verification of ownership information, the timeliness with which competent authorities can access it, and its documented use in financial-intelligence, investigative, supervisory, or enforcement processes.

Recent research further supports this emphasis on information quality and verification. Gilmour et al. (2025) examine the limitations of beneficial-ownership registers in relation to information reliability, verification, trust, and privacy, while considering the potential of blockchain-based infrastructures to strengthen the integrity of ownership information. Their analysis reinforces the broader point that beneficial-ownership transparency depends not simply on the existence of a register, but on the accuracy, verifiability, accessibility, and operational usability of the information it contains.

Professional intermediaries form an important component of this priority. Lawyers, accountants, real-estate professionals, corporate-service providers, and related professions may participate in company formation, asset acquisition, ownership structuring, and complex transactions. Consistent risk-based supervision and appropriate accountability mechanisms for these sectors are therefore necessary complements to beneficial-ownership requirements (FATF, 2012; OECD, 2021a).

5.2.2. Priority 2: Strengthening the Intelligence-to-Enforcement and Asset-Recovery Chain

The second priority is to improve the conversion of financial information into operational outcomes. Modern AML systems generate substantial volumes of reporting

and financial intelligence, but reporting activity should not be treated as an end in itself. The relevant operational question is whether information can be prioritized, analysed, disseminated, and converted into appropriate investigative, supervisory, prosecutorial, or asset-recovery action.

Virtual assets reinforce the importance of this approach. Cryptocurrencies and decentralized financial services can provide additional mechanisms for transferring value across financial and jurisdictional boundaries. Consistent application of AML requirements to relevant virtual-asset activities, supervision of virtual asset service providers, implementation of applicable international standards such as the FATF Travel Rule, and institutional capacity for digital-asset analysis and recovery remain relevant components of the wider enforcement process (FATF, 2025b). These measures should not be based on an assumption that virtual assets are inherently untraceable; rather, they should strengthen institutional capacity to respond to technologically evolving transaction environments.

The principal implementation barriers include large reporting and alert volumes, differences in data quality, fragmented information systems, analytical capacity, specialist staffing requirements, and the resources necessary for complex financial investigations and asset tracing. Technology may reduce some analytical costs but can also generate new expenditure for infrastructure, expertise, validation, oversight, and system maintenance.

Success should therefore be evaluated through process and outcome indicators that reflect successive stages of the AML chain. Relevant measures may include the use and dissemination of financial intelligence, investigations initiated or supported by financial intelligence, enforcement actions, the timeliness of case development, and confiscation or recovery outcomes. These indicators should be interpreted separately rather than collapsed into a single effectiveness measure, since each captures a different stage of institutional activity.

5.2.3. Priority 3: Cross-Border and Cross-Sector Institutional Coordination

The third priority is stronger coordination across institutions, sectors, and jurisdictions. This follows directly from the comparative finding that laundering mechanisms are highly transferable across jurisdictional boundaries while AML responsibilities remain institutionally differentiated.

The coordination challenge takes different forms in the two systems. In the United States, relevant information and enforcement responsibilities are distributed among financial-intelligence, regulatory, supervisory, investigative, prosecutorial, tax, customs, and other authorities, while the international role of the U.S. financial system creates substantial exposure to cross-border transactions. In the European Union, these coordination requirements are supplemented by the need for information and cases to move effectively between national authorities and EU-level institutions.

International and regional mechanisms involving FATF, the Egmont Group, Europol, Eurojust, and other cooperative structures contribute to this process, but differences in institutional mandates, access to information, enforcement capacity, and national implementation can continue to limit coordination. Greater operational integration among FIUs, law-enforcement agencies, tax authorities, customs bodies, supervisors, and judicial authorities is therefore particularly important for laundering arrangements that combine corporate structures, trade, property, professional intermediaries, and cross-border financial activity.

Closer integration with fiscal and trade enforcement is also relevant because money laundering interacts with tax evasion, capital flight, corruption, illicit trade, and the shadow economy (Unger et al., 2006; Medina & Schneider, 2018). The objective is not to collapse these analytically distinct concepts into money laundering, but to ensure that relevant

information held by different authorities can contribute to the identification of related criminal proceeds and laundering arrangements.

The principal barriers to deeper coordination include incompatible information systems, legal and procedural restrictions on information sharing, differences in institutional mandates, data-protection requirements, resource constraints, and uneven institutional capacities. In the EU context, variation among Member States creates an additional implementation challenge. Coordination reforms therefore involve both technological costs and institutional costs associated with common procedures, training, staffing, governance, and information-sharing arrangements.

Policy success can be assessed through observable indicators such as the timeliness of information exchange, the use of shared intelligence in investigations, joint or coordinated investigations, cross-border asset-tracing activity, coordinated supervisory or enforcement actions, and the ability to progress cases involving several competent authorities. As elsewhere in the comparative framework, higher raw case numbers should not automatically be interpreted as greater effectiveness; the indicator must be interpreted according to the institutional process it represents. Table 4 summarizes the prioritized AML policy implications and implementation considerations derived from the comparative findings.

Table 4. Prioritized AML policy implications and implementation considerations.

Priority	Main Objective	Principal Responsible Institutions	Main Implementation Barriers and Costs	Indicative Success Measures
1. Beneficial-ownership transparency and information quality	Improve the accuracy, accessibility, verification, and operational use of beneficial-ownership information	Relevant beneficial-ownership authorities and registries, supervisors, FIUs, law-enforcement and other competent authorities	Verification costs; data quality; interoperability; access rules; data protection; administrative and compliance burden	Completeness and verification of ownership information; timeliness of authorized access; documented investigative or supervisory use
2. Intelligence-to-enforcement and asset-recovery capacity	Improve the conversion of reporting and financial intelligence into investigation, enforcement, confiscation, and recovery	FIUs, law-enforcement agencies, prosecutors, judicial authorities, supervisors and relevant asset-recovery bodies	High alert volumes; fragmented data; analytical and specialist capacity; technology and infrastructure costs; investigative resources	Financial-intelligence dissemination and use; investigations supported by intelligence; enforcement actions; processing times; confiscation and recovery outcomes
3. Cross-border and cross-sector institutional coordination	Reduce fragmentation between authorities, sectors, and jurisdictions	FIUs, supervisors, law-enforcement agencies, prosecutors, judicial authorities, tax and customs bodies, and relevant international or EU-level institutions	Legal and procedural restrictions; incompatible systems; different mandates; uneven capacity; information-sharing and coordination costs	Timeliness of information exchange; joint or coordinated investigations; cross-border asset tracing; coordinated supervisory or enforcement actions

These priorities imply that the principal policy challenge is not simply the creation of additional AML obligations. Both jurisdictions already possess extensive formal frame-

works. The more significant task is to improve the quality of information available to competent authorities, strengthen the progression from intelligence to operational action, and reduce institutional fragmentation across sectors and jurisdictions. Policy evaluation should consequently focus on observable implementation and enforcement processes rather than on regulatory expansion alone.

5.3. Practical and Managerial Implications

The comparative findings also have direct practical and managerial implications for regulated entities and the institutions responsible for AML implementation. For compliance managers, money-laundering reporting officers, financial institutions, virtual-asset service providers, and professional-service firms, the results support a risk-based allocation of staff, monitoring capacity, and technological resources toward the vulnerabilities identified in the analysis, particularly beneficial-ownership opacity, complex cross-border transactions, professional facilitation, and interactions between conventional and virtual-asset channels. Operational management should place particular emphasis on the quality and verification of customer and beneficial-ownership information, the timely escalation and use of financial intelligence, effective information sharing across compliance, legal, audit, and investigative functions, and clear procedures for engagement with FIUs, supervisors, and law-enforcement authorities. Performance assessment should therefore extend beyond the volume of reports submitted or controls adopted and include indicators of information quality, timeliness of escalation, supervisory remediation, intelligence use, case progression, and asset-recovery support. At the institutional level, managers should align technology investment, staff training, and inter-agency coordination with these operational objectives so that formal AML obligations are translated into measurable implementation outcomes.

5.4. Limitations

Several limitations should be considered when interpreting the findings. The first arises from the underlying nature of money laundering itself. Successful laundering is intentionally concealed, meaning that its true prevalence cannot be observed directly. Estimates of global or regional magnitude rely on different methodologies, assumptions, datasets, definitions, and reference periods. For this reason, the quantitative estimates considered in this study are interpreted as approximations or historical methodological benchmarks rather than precise and directly comparable measures.

A second limitation concerns the review design. The study employs a structured integrative review and comparative policy-analysis approach in order to synthesize heterogeneous forms of evidence, including peer-reviewed research, legal and regulatory materials, official statistics, institutional assessments, enforcement information, and specialist evidence. This approach provides breadth across different forms of evidence but does not provide the exhaustive retrieval and screening properties associated with a formal systematic review. Source selection was guided by relevance to the predefined analytical dimensions and by the hierarchy of evidence described in the Methodology. As with any integrative synthesis, this creates the possibility that the composition of the evidence base influences the relative visibility of particular vulnerabilities, institutions, or outcomes.

A third limitation concerns reliance on official and institutional sources. Institutional reports provide authoritative information concerning legislation, regulatory arrangements, recorded cases, reporting systems, enforcement activity, and institutional structures. At the same time, such evidence reflects the reporting categories, institutional mandates, data-collection practices, and operational priorities of the organizations producing it. Differences in institutional reporting should therefore not automatically be interpreted as substantive

differences in the underlying prevalence of money laundering or the effectiveness of AML systems.

Specialist commercial evidence introduces a related limitation. In rapidly evolving areas, particularly virtual assets and decentralized finance, specialist sources may provide more timely evidence than conventional academic or official datasets. However, proprietary data, classification procedures, coverage decisions, and commercial interests can constrain independent evaluation and comparability. Commercial estimates are consequently treated in this study as additional and source-specific evidence rather than as equivalent to official statistics or independently verified estimates of overall money-laundering prevalence.

A further limitation arises from the institutional asymmetry of the U.S.–EU comparison. The United States is a federal state, whereas the European Union is a multi-level governance system composed of Member States with distinct national supervisory, financial-intelligence, law-enforcement, and judicial institutions. EU-level aggregate evidence is not available consistently for all analytical dimensions. Where Member-State evidence is used, it can illustrate implementation patterns or institutional variation but cannot automatically be generalized to the European Union as a whole.

Direct quantitative comparison is further constrained by differences in definitions, reporting obligations, enforcement processes, and data availability. Suspicious activity reports, registered cases, investigations, prosecutions, sanctions, confiscations, and asset-recovery figures represent different stages of AML activity and are not methodologically interchangeable. Increases in reporting or casework may reflect changes in criminal activity, detection, regulatory obligations, institutional capacity, referral practices, cooperation, or combinations of these factors. The revised analysis therefore prioritizes common analytical dimensions over artificial numerical symmetry.

Finally, evidence availability remains uneven across laundering channels and operational outcomes. Emerging areas such as virtual assets and decentralized finance can develop more rapidly than official datasets and peer-reviewed research, while asset-recovery and enforcement information is not reported uniformly across jurisdictions or institutions. These limitations constrain the extent to which the present study can produce a single quantitative ranking of U.S. and EU AML effectiveness. They do not prevent structured comparison, but they require the findings to be interpreted as a comparative assessment of documented institutional arrangements and observable outcomes rather than as a definitive causal or numerical evaluation of overall AML performance.

6. Conclusions

This study contributes to the money-laundering literature by integrating laundering vulnerabilities, AML governance architecture, and observable operational outcomes within a common comparative framework for the United States and the European Union. Rather than treating the existence or expansion of AML regulation as equivalent to effectiveness, the analysis distinguishes formal regulatory development from the institutional processes through which AML systems operate. Its principal contribution is therefore to show how broadly similar laundering vulnerabilities interact with different governance architectures and how operational effectiveness can be assessed across six common dimensions: supervision and regulatory implementation, financial-intelligence capacity and use, investigation and enforcement, confiscation and asset recovery, beneficial-ownership transparency, and domestic and cross-border institutional coordination.

Regarding RQ1, the findings show that the United States and the European Union face broadly similar underlying money-laundering vulnerabilities but differ substantially in the institutional structures through which those vulnerabilities are addressed. Financial intermediation, opaque corporate and beneficial-ownership structures, trade-based

money laundering, real estate, professional facilitation, and virtual assets are relevant in both jurisdictions. The principal difference lies in governance architecture. The United States operates through a predominantly federal AML system in which important financial-intelligence, supervisory, investigative, and enforcement responsibilities are distributed among federal and other competent authorities. The European Union operates through a multi-level system in which EU-level legislation and institutions interact with national supervisors, Financial Intelligence Units, law-enforcement bodies, and judicial authorities. Consequently, the EU framework incorporates an additional vertical and horizontal coordination dimension across EU institutions and Member States, whereas the U.S. system combines federal inter-agency coordination with substantial exposure to international financial and cross-border networks.

Regarding RQ2, the evidence does not support a simple overall ranking of U.S. and EU AML effectiveness. Operational effectiveness varies across the six dimensions examined and cannot be inferred from the breadth of legislation, the volume of suspicious-activity reporting, or individual enforcement indicators alone. Suspicious Activity Reports, registered cases, investigations, prosecutions, sanctions, confiscations, and asset-recovery figures represent different stages of AML activity and are not methodologically interchangeable. The comparative evidence therefore supports a multidimensional assessment in which formal regulatory architecture is distinguished from the capacity to implement supervision, generate and use financial intelligence, investigate and enforce money-laundering offences, identify and recover criminal assets, provide usable beneficial-ownership information, and coordinate effectively across institutions and jurisdictions.

Within this framework, the study identifies a recurrent divergence between the extensive development of formal AML frameworks and the more uneven and less directly comparable evidence available concerning operational outcomes. This finding should not be interpreted as demonstrating that regulatory expansion has causally failed to improve AML performance, nor does the continued existence of money laundering itself establish regulatory ineffectiveness. Its scope is limited to the evidence reviewed and to the six operational dimensions applied in the comparative analysis. The more defensible conclusion is that formal regulatory development is more readily documented than consistent improvements in implementation, enforcement, coordination, and asset-recovery outcomes. This distinction reinforces the need to evaluate AML systems through observable institutional processes and outcomes rather than regulatory density alone.

The policy implications follow directly from these findings and are prioritized accordingly. The first priority is beneficial-ownership transparency and information quality, particularly the accuracy, verification, accessibility, interoperability, and operational use of ownership information. The second is strengthening the intelligence-to-enforcement and asset-recovery chain, so that financial intelligence can be translated more effectively into investigation, enforcement, confiscation, and recovery. The third is improving cross-border and cross-sector institutional coordination, particularly where laundering arrangements involve multiple authorities, jurisdictions, financial and non-financial sectors, or technologically evolving transaction mechanisms. Technology should support these priorities as an enabling capacity rather than being treated as an independent solution to institutional or enforcement weaknesses.

Implementation responsibility consequently extends across Financial Intelligence Units, supervisors, law-enforcement and prosecutorial authorities, judicial bodies, beneficial-ownership authorities and registries, tax and customs authorities, and relevant EU and international coordination mechanisms. Progress should be assessed through indicators that correspond to the institutional process being evaluated, including the completeness and verification of beneficial-ownership information, the timeliness and operational use of finan-

cial intelligence, investigation and enforcement outcomes, confiscation and asset-recovery outcomes, and the timeliness and effectiveness of cross-border information exchange. Such indicators provide a more meaningful basis for assessing implementation than increases in reporting volumes or regulatory requirements alone.

Overall, the central implication of the study is that AML effectiveness should be evaluated not by regulatory expansion alone, but by the capacity of institutions to convert rules, ownership information, and financial intelligence into coordinated supervision, investigation, enforcement, and asset-recovery outcomes. The U.S.–EU comparison demonstrates that similar laundering vulnerabilities can operate through substantially different governance environments and that these institutional differences shape the coordination and implementation challenges confronting each system. By connecting common laundering vulnerabilities with governance architecture and operational outcomes, the study provides a structured basis for evaluating where AML frameworks move beyond formal compliance toward practical institutional effectiveness.

Author Contributions: Conceptualization, E.K.Z. and E.A.; methodology, E.K.Z. and E.A.; formal analysis, E.K.Z., A.G.C. and E.A.; investigation, E.K.Z. and A.G.C.; resources, E.A.; data curation, E.K.Z. and E.A.; writing—original draft preparation, E.K.Z., A.G.C. and E.A.; writing—review and editing, E.K.Z. and E.A.; visualization, E.K.Z.; supervision, E.K.Z.; project administration, A.G.C.; funding acquisition, E.K.Z. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: No new data were created or analyzed in this study. Data sharing is not applicable to this article.

Conflicts of Interest: The authors declare no conflicts of interest.

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